

# **CONTROL DATA® 8047-B DISK DRIVE CONTROLLER**

DIAGRAMS &  
CIRCUIT DESCRIPTION  
MAINTENANCE  
PARTS LIST  
CARD PLACEMENT  
EQUATION SUMMARY  
WIRE LISTS



## CONTENTS

<u>Part 1. Diagrams and Circuit Description</u>	<u>Part 2. Maintenance</u>
Symbol Index	1-i Introduction 2-1
Key to Logic Symbols	1-vi Manuals 2-1
Key to Special Symbols	1-ix Logic 2-1
Functional Block Diagram	1-1 Installation 2-1
Block Diagram, Disk Pack Controller	1-3 Power Distribution 2-1
Channel Interface, Select Control	1-5 Scheduled Maintenance 2-1
Function Register Translation and Control	1-7
Main Timing, Master Clear, and Function Reply	1-9
Status and Interrupt Active	1-11
Seek and Address Control	1-13
Read/Write Control, Character Counter	1-15
Transfer Control	1-17
Transfer Register	1-19
Address Register, Stages 0 through 8	1-21
Address Register, Stages 9 through 16	1-23
Decrement Register	1-25
Bit Counter; Shift Register	1-27
Compare Network and Control	1-29
Disk Pack Interface and Controller Indicators	1-31
Power Distribution	1-33
Cabling Diagram	1-35

<u>Part 3. Parts List</u>	
Introduction	3-1
Parts List Breakdown	3-2

<u>Part 4. Card Placement</u>	
<u>Part 5. Equation Summary</u>	

<u>Part 6. Wire Lists</u>	
Cross Tabs	6-1

### FIGURES

1-1 Typical Logic Count Sequence 1-14

### TABLES

2-1 Scheduled Maintenance 2-2

## INTRODUCTION

The CONTROL DATA\* 8047-B Disk Drive Controller operates in a medium access time, nonvolatile, mass-storage disk pack subsystem. The subsystem provides large volume data storage with random access and interchangeable storage pack capabilities.

This manual is arranged in six parts covering diagrams and circuit descriptions, maintenance, parts list, card placement, equation summary and wire lists.

The text assumes a familiarity on the part of the engineer with the Control Data computer logic, instructions, and procedures. No attempt is made to describe these in this manual.

Following the Symbol Index is a Key to Logic Symbols which explains the common and special logic symbols used throughout the diagrams.

---

\* Registered trademark of Control Data Corporation

**PART 1**

**DIAGRAMS AND CIRCUIT DESCRIPTION**

SYMBOL INDEX

A000	1-21	A126	1-21	A602*	1-23	C214	1-27	C605	1-9
A001	1-21	A127	1-21	A604	1-21	C215	1-27	C606	1-9
A002	1-21	A200	1-21	A604*	1-23	C216	1-27	C607	1-9
A003	1-21	A200*	1-23	A605	1-21	C217	1-27	C608	1-9
A004	1-21	A201	1-21	A605*	1-23	C218	1-27	C610	1-9
A005	1-21	A201*	1-23	A606	1-21	C219	1-27	C611	1-9
A006	1-21	A202	1-21	A606*	1-23	C220	1-27	C612	1-9
A007	1-21	A202*	1-23	A607	1-21	C221	1-27	C613	1-9
A008	1-21	A203	1-21	A607*	1-23	C222	1-27	C614	1-9
A009	1-21	A203*	1-23	A608	1-21	C223	1-27	C615	1-9
A010	1-21	A204	1-21	A608*	1-23	C224	1-27	C616	1-9
A011	1-21	A204*	1-23	A609	1-21	C225	1-27	C640	1-9
A012	1-21	A205	1-21	A610*	1-23	C226	1-27	C641	1-9
A013	1-21	A205*	1-23	A611	1-21	C227	1-27	C642	1-9
A014	1-21	A210	1-21	A611*	1-23	C228	1-27	C650	1-9
A015	1-21	A210*	1-23	A620	1-21	C229	1-27	C652	1-9
A016	1-21	A211	1-21	A620*	1-23	C230	1-27	C653	1-9
A017	1-21	A211*	1-23	A621	1-21	C231	1-27	C655	1-9
A018	1-21	A212	1-21	A621*	1-23	C232	1-27	C660	1-9
A019	1-21	A212*	1-23	A630	1-21	C233	1-27	C662	1-9
A020	1-21	A213	1-21	A630*	1-23	C234	1-27	C663	1-9
A021	1-21	A213*	1-23	A631	1-21	C235	1-27	C700	1-27
A022	1-21	A214	1-21	A631*	1-23	C303	1-27	C701	1-27
A023	1-21	A214*	1-23	A632	1-21	C313	1-27	C702	1-27
A024	1-21	A215	1-21	A632*	1-23	C315	1-27	C703	1-27
A025	1-21	A218	1-21	A633	1-21	C323	1-27	C704	1-27
A026	1-21	A218*	1-23	A633*	1-23	C333	1-27	C705	1-27
A027	1-21	A220	1-21	A640	1-21	C334	1-27	C706	1-27
A028	1-21	A221	1-21	A640*	1-23	C335	1-27	C707	1-27
A029	1-21	A222	1-21	A641	1-21	C400	1-15	C708	1-27
A030	1-21	A223	1-21	A641*	1-23	C401	1-15	C709	1-27
A031	1-21	A224	1-21	A642*	1-23	C402	1-15	C710	1-27
A032	1-21	A225	1-21	A642	1-21	C403	1-15	C711	1-27
A033	1-21	A225*	1-23	C000	1-9	C404	1-15	C720	1-27
A034	1-21	A226	1-21	C001	1-9	C405	1-15	C721	1-27
A035	1-21	A227	1-21	C002	1-9	C406	1-15	C722	1-27
A036	1-23	A228	1-21	C003	1-9	C407	1-15	C800	1-15
A037	1-23	A230	1-21	C004	1-9	C408	1-15	C802	1-15
A038	1-23	A231	1-21	C041	1-9	C409	1-15	C803	1-15
A039	1-23	A232	1-21	C042	1-9	C410	1-15	C804	1-15
A040	1-23	A233	1-21	C043	1-9	C411	1-15	C805	1-15
A041	1-23	A234	1-21	C200	1-27	C500	1-15	C806	1-15
A042	1-23	A235	1-21	C201	1-27	C501	1-15	C807	1-15
A043	1-23	A235*	1-23	C202	1-27	C510	1-15	C808	1-15
A044	1-23	A236	1-21	C203	1-27	C520	1-15	C809	1-15
A045	1-23	A237	1-21	C204	1-27	C521	1-15	C810	1-15
A046	1-23	A245	1-21	C205	1-27	C524	1-15	C811	1-15
A047	1-23	A245*	1-23	C206	1-27	C525	1-15	C814	1-15
A048	1-23	A255	1-21	C207	1-27	C528	1-15	C815	1-15
A049	1-23	A255*	1-23	C208	1-27	C529	1-15	C820	1-15
A050	1-23	A600	1-21	C209	1-27	C600	1-9	C821	1-15
A051	1-23	A600*	1-23	C210	1-27	C601	1-9	C822	1-15
A127	1-21	A601	1-21	C211	1-27	C602	1-9	C823	1-15
A128	1-21	A601*	1-23	C212	1-27	C603	1-9	C831	1-15
		A602	1-21	C213	1-27	C604	1-9	C833	1-15

SYMBOL INDEX

D830	1_15	D611	1_25	E620	1_29	F090	1_7	J437	1_9
D835	1_15	D620	1_25	E700	1_29	F091	1_7	J438	1_9
D800	1_25	D621	1_25	E701	1_29	F092	1_7	J439	1_9
D001	1_25	D622	1_25	E702	1_29	F104	1_7	J440	1_17
D002	1_25	D623	1_25	E800	1_29	F106	1_7	J441	1_17
D003	1_25	D624	1_25	E801	1_29	F131	1_7	J442	1_17
D004	1_25	D630	1_25	E802	1_29	F600	1_7	J443	1_17
D005	1_25	D631	1_25	E803	1_29	F700	1_7	J444	1_17
D006	1_25	D650	1_25	E804	1_29	F701	1_7	J445	1_17
D007	1_25	D651	1_25	F000	1_7	F702	1_7	J449	1_17
D008	1_25	D652	1_25	F001	1_7	F703	1_7	J450	1_17
D009	1_25	D653	1_25	F002	1_7	F704	1_7	J452	1_17
D010	1_25	D654	1_25	F003	1_7	F705	1_7	J454	1_11
D011	1_25	D655	1_25	F004	1_7	F706	1_7	J455	1_11
D012	1_25	D656	1_25	F005	1_7	F707	1_7	J456	1_11
D013	1_25	D657	1_25	F006	1_7	F720	1_7	J457	1_11
D014	1_25	D660	1_25	F007	1_7	F721	1_7	J460	1_13
D015	1_25	D661	1_25	F008	1_7	F722	1_7	J461	1_13
D016	1_25	D662	1_25	F009	1_7	F723	1_7	J462	1_13
D017	1_25	D663	1_25	F010	1_7	J000	1_7	J463	1_13
D018	1_25	D664	1_25	F011	1_7	J001	1_7	J470	1_11
D019	1_25	D665	1_25	F012	1_7	J002	1_7	J471	1_11
D020	1_25	D666	1_25	F013	1_7	J003	1_7	J472	1_11
D021	1_25	D667	1_25	F014	1_7	J004	1_7	J473	1_11
D022	1_25	D669	1_25	F015	1_7	J005	1_7	J474	1_11
D023	1_25	D700	1_25	F016	1_7	J008	1_7	J475	1_11
D024	1_25	D701	1_25	F017	1_7	J010	1_5	J476	1_11
D025	1_25	D702	1_25	F022	1_7	J011	1_5	J477	1_11
D026	1_25	D703	1_25	F023	1_7	J012	1_5	J479	1_11
D027	1_25	D704	1_25	F024	1_7	J020	1_5	J480	1_11
D028	1_25	D705	1_25	F025	1_7	J021	1_5	J482	1_11
D029	1_25	D710	1_25	F030	1_7	J022	1_5	J483	1_11
D030	1_25	D711	1_25	F031	1_7	J023	1_5	J485	1_11
D031	1_25	D720	1_25	F032	1_7	J024	1_5	J486	1_11
D032	1_25	D721	1_25	F033	1_7	J025	1_5	J487	1_11
D033	1_25	E600	1_29	F034	1_7	J026	1_5	J488	1_11
D034	1_25	E601	1_29	F035	1_7	J027	1_5	J489	1_11
D035	1_25	E602	1_29	F036	1_7	J028	1_5	J490	1_11
D102	1_25	E603	1_29	F037	1_7	J029	1_5	J492	1_11
D106	1_25	E604	1_29	F040	1_7	J030	1_5	J493	1_11
D110	1_25	E605	1_29	F050	1_7	J031	1_5	J494	1_11
D118	1_25	E606	1_29	F051	1_7	J032	1_5	J571	1_13
D122	1_25	E607	1_29	F052	1_7	J040	1_5	J572	1_13
D126	1_25	E608	1_29	F060	1_7	J041	1_5	J574	1_13
D600	1_25	F609	1_29	F061	1_7	J042	1_5	J600	1_17
D601	1_25	F610	1_29	F062	1_7	J043	1_5	J601	1_17
D602	1_25	E611	1_29	F063	1_7	J050	1_5	J602	1_17
D603	1_25	E620	1_29	F064	1_7	J420	1_9	J603	1_17
D604	1_25	E621	1_29	F065	1_7	J421	1_9	J604	1_17
D605	1_25	E622	1_29	F070	1_7	J430	1_9	J605	1_17
D606	1_25	E623	1_29	F071	1_7	J431	1_9	J605	1_17
D607	1_25	E624	1_29	F072	1_7	J432	1_9	J606	1_17
D608	1_25	E625	1_29	F073	1_7	J433	1_9	J620	1_13
D609	1_25	E626	1_29	F080	1_7	J434	1_9	J621	1_13
D610	1_25	E627	1_29	F081	1_7	J436	1_9	J622	1_13

SYMBOL INDEX

J623	1-13	K304	1-7	K625	1-13	M000	1-5	S018	1-27
J624	1-13	K005	1-7	K630	1-13	M001	1-5	S019	1-27
J625	1-13	K103	1-7	K631	1-13	M002	1-5	S020	1-27
J626	1-13	K410	1-5	K632	1-13	M003	1-5	S021	1-27
J627	1-13	K411	1-5	K633	1-13	M004	1-5	S022	1-27
J629	1-13	K412	1-5	K640	1-15	M005	1-5	S202	1-27
J630	1-13	K413	1-5	K641	1-15	M006	1-5	S201	1-27
J631	1-13	K414	1-5	K642	1-15	M007	1-5	S200	1-27
J632	1-13	K415	1-5	K643	1-15	M008	1-5	S023	1-27
J633	1-13	K440	1-17	K644	1-15	M009	1-5	S203	1-27
J641	1-15	K441	1-17	K645	1-15	M010	1-5	S204	1-27
J642	1-15	K442	1-17	K648	1-15	M011	1-5	S205	1-27
J643	1-15	K443	1-17	K649	1-15	M100	1-5	S206	1-27
J644	1-15	K462	1-13	K650	1-15	M101	1-5	S207	1-27
J645	1-15	K463	1-13	K651	1-15	M102	1-5	S208	1-27
J646	1-15	K470	1-11	K652	1-15	M103	1-5	S209	1-27
J647	1-15	K471	1-11	K653	1-15	P400	1-27	S210	1-27
J650	1-15	K472	1-11	K654	1-13	P401	1-27	S211	1-27
J651	1-15	K473	1-11	K655	1-13	P402	1-27	S600	1-27
J652	1-15	K474	1-11	K670	1-29	P403	1-27	S601	1-27
J653	1-15	K475	1-11	K671	1-29	P810	1-19	S605	1-27
J654	1-15	K476	1-11	K672	1-29	P811	1-19	S604	1-27
J660	1-15	K477	1-11	K673	1-29	P812	1-19	S603	1-27
J661	1-15	K478	1-11	K700	1-17	P813	1-19	S602	1-27
J662	1-15	K479	1-11	K701	1-17	P814	1-19	S606	1-27
J663	1-15	K480	1-11	K704	1-17	P815	1-19	S607	1-27
J664	1-15	K481	1-11	K705	1-17	P900	1-27	S610	1-27
J665	1-15	K482	1-11	K740	1-15	P902	1-27	S620	1-27
J666	1-15	K483	1-11	K741	1-15	P903	1-27	T400	1-31
J670	1-29	K485	1-11	K744	1-15	R400	1-9	S703	1-15
J671	1-29	K486	1-11	K749	1-15	R410	1-31	S630	1-27
J672	1-29	K488	1-11	K750	1-15	R411	1-13	T401	1-31
J673	1-29	K489	1-11	K751	1-15	R412	1-13	T402	1-31
J700	1-15	K492	1-11	K753	1-15	R420	1-13	T403	1-31
J701	1-15	K493	1-11	K771	1-29	R430	1-11	T404	1-31
J702	1-15	K494	1-11	L000	1-5	R431	1-11	T410	1-31
J703	1-15	K495	1-11	L001	1-5	R500	1-13	T411	1-31
J720	1-31	K496	1-11	L002	1-5	S000	1-27	T411*	1-15
J721	1-31	K497	1-11	L003	1-5	S001	1-27	T412	1-31
J722	1-31	K541	1-17	L004	1-5	S002	1-27	T412*	1-15
J723	1-31	K543	1-17	L005	1-5	S003	1-27	T413	1-31
J724	1-31	K571	1-11	L006	1-5	S004	1-27	T413*	1-15
J730	1-31	K572	1-11	L007	1-5	S005	1-27	T414	1-31
J731	1-31	K595	1-11	L008	1-5	S006	1-27	T414*	1-15
J732	1-31	K600	1-17	L009	1-5	S007	1-27	T415	1-15
J733	1-31	K601	1-17	L010	1-5	S008	1-27	T420	1-31
J760	1-31	K602	1-17	L011	1-5	S009	1-27	T420*	1-13
J761	1-31	K603	1-17	L100	1-5	S010	1-27	T421	1-31
J762	1-31	K604	1-17	L101	1-5	S011	1-27	T421*	1-13
J770	1-31	K605	1-17	L102	1-5	S012	1-27	T422	1-31
J771	1-31	K620	1-13	L103	1-5	S013	1-27	T422*	1-13
K000	1-7	K621	1-13	L104	1-5	S014	1-27	T450	1-31
K001	1-7	K622	1-13	L200	1-31	S015	1-27	T451	1-31
K002	1-7	K623	1-13	L201	1-31	S016	1-27	T452	1-31
K003	1-7	K624	1-13	L202	1-31	S017	1-27	T453	1-31



SYMBOL INDEX

T454	1-31	X013	1-19	X710	1-17	Y200	1-31
T455	1-31	X014	1-19	X711	1-17	Y201	1-31
T456	1-31	X015	1-19	X712	1-17	Y202	1-31
T457	1-31	X016	1-19	X713	1-17	Y203	1-31
T458	1-31	X017	1-19	X720	1-17	Y204	1-31
T459	1-31	X018	1-19	X721	1-17	Y210	1-31
T500	1-31	X019	1-19	X730	1-19	Y211	1-31
T501	1-31	X020	1-19	X740	1-19		
T502	1-31	X021	1-19	X742	1-19		
T503	1-31	X022	1-19	X750	1-17		
T504	1-31	X023	1-19	X751	1-17		
T505	1-31	X101	1-19	Y000	1-5		
T508	1-31	X103	1-19	Y001	1-5		
T507	1-31	X105	1-19	Y002	1-5		
T506	1-31	X107	1-19	Y003	1-5		
T509	1-31	X109	1-19	Y004	1-5		
T600	1-31	X111	1-19	Y010	1-7		
T900	1-9	X113	1-19	Y020	1-7		
T901	1-11	X115	1-19	Y100	1-9		
T902	1-11	X117	1-19	Y101	1-9		
T903	1-31	X119	1-19	Y102	1-9		
T904	1-13	X120	1-19	Y103	1-9		
T905	1-13	X121	1-19	Y120	1-9		
T906	1-13	X122	1-19	Y121	1-9		
U000	1-5	X123	1-19	Y122	1-9		
U001	1-5	X600	1-19	Y123	1-9		
U002	1-5	X601	1-19	Y130	1-9		
U003	1-5	X602	1-19	Y1C1	1-9		
U004	1-5	X603	1-19	Y140	1-11		
U004	1-5	X604	1-19	Y141	1-11		
U005	1-5	X610	1-19	Y142	1-11		
U006	1-5	X611	1-19	Y144	1-11		
U007	1-5	X612	1-19	Y145	1-11		
U008	1-5	X620	1-19	Y146	1-17		
U009	1-5	X621	1-19	Y150	1-17		
U010	1-5	X622	1-19	Y151	1-17		
U011	1-5	X623	1-19	Y160	1-21		
U012	1-5	X624	1-19	Y160	1-23		
U013	1-5	X625	1-19	Y161	1-21		
U014	1-5	X630	1-19	Y161	1-23		
U015	1-5	X631	1-19	Y162	1-21		
V020	1-15	X632	1-19	Y162	1-23		
X000	1-19	X640	1-19	Y176	1-13		
X001	1-19	X641	1-19	Y171	1-13		
X002	1-19	X642	1-19	Y172	1-13		
X003	1-19	X650	1-19	Y173	1-13		
X004	1-19	X651	1-19	Y174	1-13		
X005	1-19	X660	1-19	Y177	1-13		
X006	1-19	X661	1-19	Y180	1-15		
X007	1-19	X662	1-19	Y181	1-15		
X008	1-19	X663	1-19	Y182	1-15		
X009	1-19	X664	1-19	Y183	1-15		
X010	1-19	X700	1-17	Y184	1-15		
X011	1-19	X701	1-17	Y190	1-31		
X012	1-19	X702	1-17	Y191	1-27		

Logic diagrams represent a symbolic approach to electronic schematics. By using symbols to represent building block circuits, the schematic becomes easy to read if the reader understands the function of the symbols. In CONTROL DATA® Corporation logic, two signals, a logical "0" and a logical "1", are the possible input or output conditions of a circuit. A circuit with an output of "1" is "up" and a circuit with an output of "0" is "down". Detailed descriptions of logic symbols and their associated building block circuit cards are contained in the Printed Circuit Manual (Pub. No. 60042900, Vols. 1 and 2).

### STANDARD LOGIC SYMBOLS

Standard logic diagram symbols for Control Data equipment using 1604- or 3600-type cards are inverters, flip-flops, control delays, and capacitive and inductive delays.

#### Inverters

An inverter is a logic element which provides an output that is an inversion of its input. When more than one input is provided to an inverter, "1's" take precedence over "0's" and drive the output of the inverter to "0". Because any "1" input of several inputs drives the output to a "0", an inverter may be considered an inverting OR (or NOR) gate when more than one input is present.

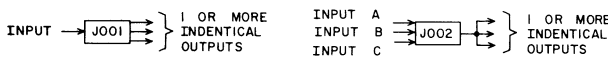


Figure 1. Inverter Symbols

Acceptable conventions for showing multiple OR inputs are given in Figure 2.



Figure 2. OR Circuit Conventions

#### Flip-Flops (FF)

The flip-flop (FF) is a storage device with two stable states - designated as Set and Clear - and is composed of two or more inverters. The logic symbols (Figure 3) are formed by the combination of inverter symbols. By convention, Set inputs and outputs are shown in the upper part of the symbol and Clear inputs and outputs are shown in the lower part of the symbol.

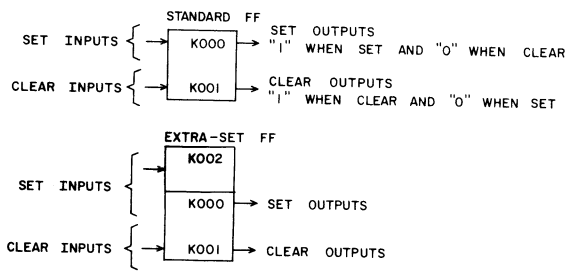


Figure 3. Flip-Flop Symbols

## KEY TO LOGIC SYMBOLS

(STANDARD 1604 OR 3600 CARD TYPES)

Figure 4 illustrates the interconnection of inverter symbols to form a flip-flop symbol. The term numbers assigned to each flip-flop are the term numbers of the internal inverters as seen by comparing the terms in Figure 3 with those in Figure 4. Notice that the Set output is the output of inverter K001, and the Clear output is the output of inverters K000 and K002.

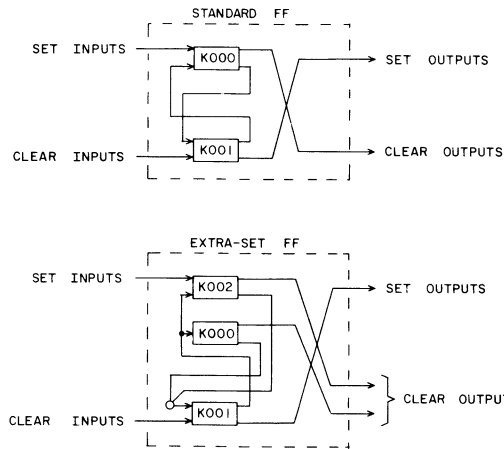


Figure 4. Internal Inverter Connections for a Flip-Flop

#### AND Gate

An AND gate requires that all its inputs be "1's" in order that its output be a "1". If one or more of the inputs to an AND gate are "0", the output is a "0". Figure 5 illustrates conventions for showing AND gates feeding an inverter.

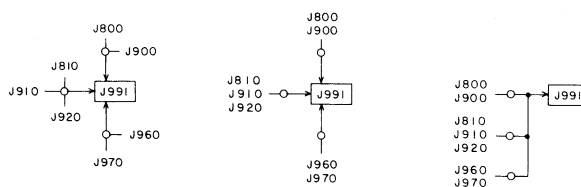


Figure 5. AND Circuit Conventions

#### Control Delay

A control delay is a timing device consisting of an H term which receives the input and one or more V, Y, or N terms to provide the outputs. The H term is essentially a flip-flop with controlled feedback and occupies an entire printed circuit card. The output term(s) are inverter(s) located elsewhere on the logic chassis. The "1" outputs from a control delay are clocked pulses which are delayed one phase time from the "1" inputs. Clock inputs are not shown on the logic diagrams for any H, V, Y, or N terms; these terms, which control the start and duration of the delayed output pulses, may be found in the Equation Summary. Figure 6 illustrates two representative forms of the control delay symbol, with possible inputs and outputs labelled. Figure 7 shows the electrical connections for the two forms.

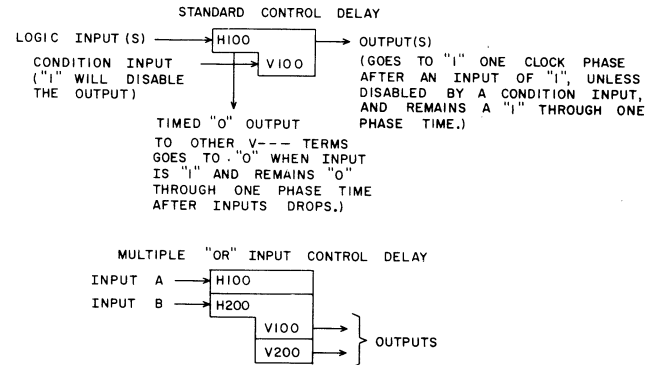


Figure 6. Control Delay Symbols

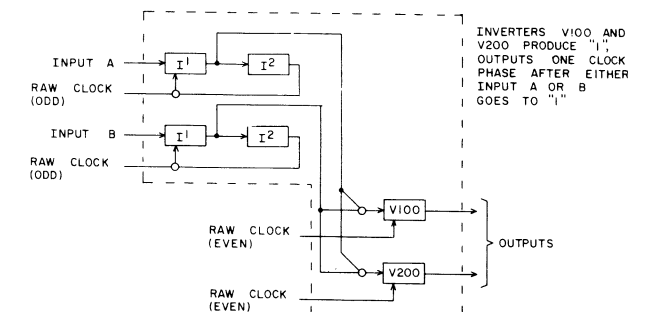
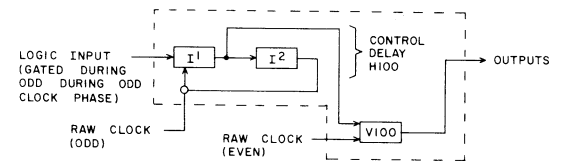


Figure 7. Electrical Connections for Control Delay

Control delays may have multiple inputs and/or multiple outputs. When a control delay has multiple output terms (i. e., more than one V, Y, or N term) each output term may have a separate conditioning input.

#### Capacitive Delays

A capacitive delay is used to delay the input to a logic element. Capacitive delays may be active or passive, depending upon whether or not transistors are used as part of the delaying circuit. Delay periods are checked by using a dual-trace scope connected to the input and output of the delay producing element. The actual connection points for the scope and probes vary for different cards and should be determined by referring to the Printed Circuit Manual, Pub. No. 60042900 (Volume 2).

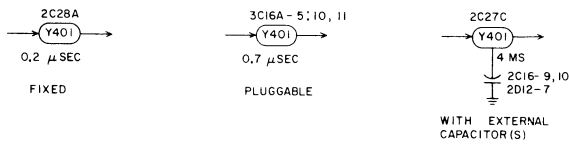


Figure 8. Active Capacitive Delays

Active delays may be recognized by the circuit letter always present as part of the card location. Pin numbers are also shown when external wiring is needed to connect the proper capacitance. In Figure 8, the pluggable delay uses this wiring to connect to capacitors on the same card. In the third example, this wiring connects to capacitors located on two separate capacitor cards.



Figure 9. Passive Capacitive Delays

All passive capacitive delays (Figure 9) are formed by wiring grounded capacitors, located on one or more capacitor cards, as an AND input to the affected logic element. For this reason, all passive delays show pin numbers to provide this external wiring data.



Figure 10. Adjustable Capacitive Delays

Capacitive delays may be adjustable or nonadjustable, depending on the card type and/or the external wiring connections on the card. When it is necessary to adjust the delay period in order to obtain specified circuit operation (usually done by varying a potentiometer in the RC network), a diagonal arrow is added to the delay symbol as shown in Figure 10.

#### Inductive Delays

An inductive delay is used to delay the input to a logic element or as a tapped delay line for timing of operations. The symbol for this delay is an elongated oval with a double vertical line just within the input end of the oval. When used as a tapped delay line, the inductive delay is terminated in its characteristic impedance. Inductive delays are identified in the same manner as capacitive delays (except for the vertical lines) unless they are used as delay lines. On multi-section cards where no identifying circuit letters are present, pin numbers are shown adjacent to the input and output arrows. Figure 11 shows both kinds of inductive delays.

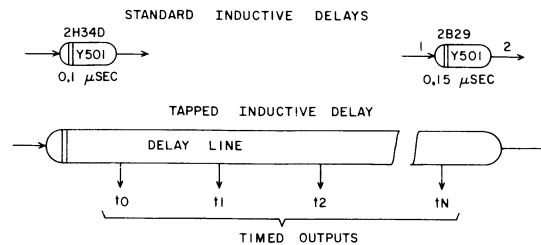


Figure 11. Inductive Delays

#### Line Drivers/Receivers

Voltage levels used to represent "1's" and "0's" on cables are different from those used for internal logic. The level shift to and from internal logic is made by line drivers and line receivers. These cards may be considered as inverting the signal electrically, but not logically. The letters commonly associated with these cards are L & M (1604) and R & T (3000 Series).

A 3000 Series Receiver may also be used to perform a logical inversion by swapping the twisted pair wires. This usage is indicated by a circle on the input side of the symbol. In Figure 12, "1's" and "0's" have been added to clarify the logic states; they are not part of the symbol.

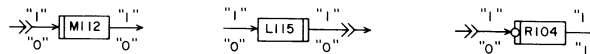


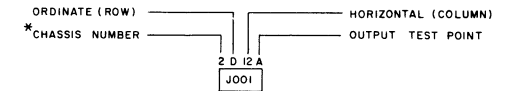
Figure 12. Typical Line Driver/Receiver Symbols

#### NON-LOGIC CONVENTION

The use of the double vertical bar, as shown in Figure 12, denotes a shift in signal voltage level from that used in internal logic. The double bar appears on the input or output side of the symbol, depending on which side connects to the non-logic-level signal. No particular voltage level is implied by the double bar - only that it is non-logic.

#### JACK ASSIGNMENTS

Each numbered term in the logic diagrams contains a jack assignment showing the physical location of that hardware element and the test point (circuit section) associated with it. For some card types, the test point letter is replaced by a pin number. For these cases, a card extender must be used in order to test that section of the card. Also, some symbols show no test point. This is because the entire card is used for one purpose (e. g. a single inverter, FF, or control delay). Figure 13 illustrates the inverter J001, with 2D12A representing its jack assignment.

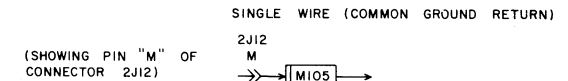


\*When most or all jack assignments are located on one chassis, the chassis numbers for that chassis are omitted. All multi-chassis devices include a chassis number as part of each jack assignment.

Figure 13. Jack Assignment Scheme

#### CABLE IDENTIFICATION

Cable connections are represented by the MIL-STD-15 symbol and identified as to connector location and pins used, as shown in Figure 14.



(SHOWING PIN "M" OF CONNECTOR 2J12)

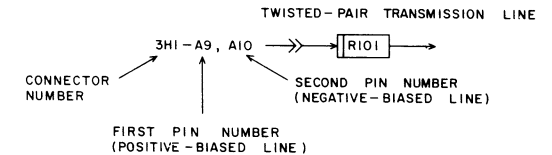




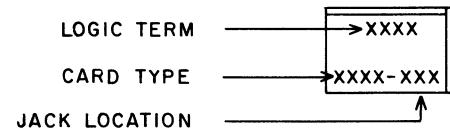
Figure 14. Cable Connections

## KEY TO SPECIAL SYMBOLS

The following special symbols are used on the diagrams.

The T and R elements connected by two input lines (   ) indicate a standard line transmitter card (type P14) used to terminate the lines from the disk drive unit(s).

Two special card types (6 AMH and 6ALH) are used in a special power loss detection circuit and are denoted as follows:



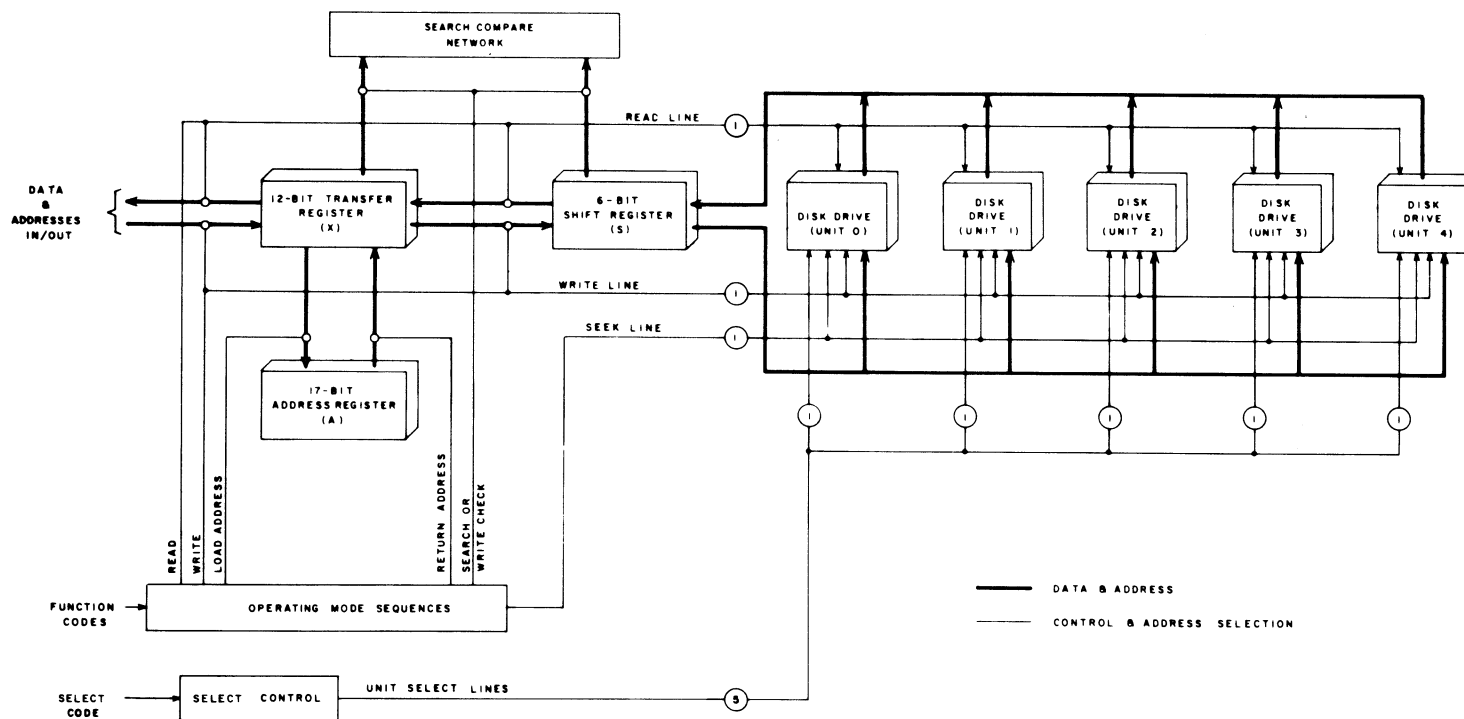
## BLOCK DIAGRAMS

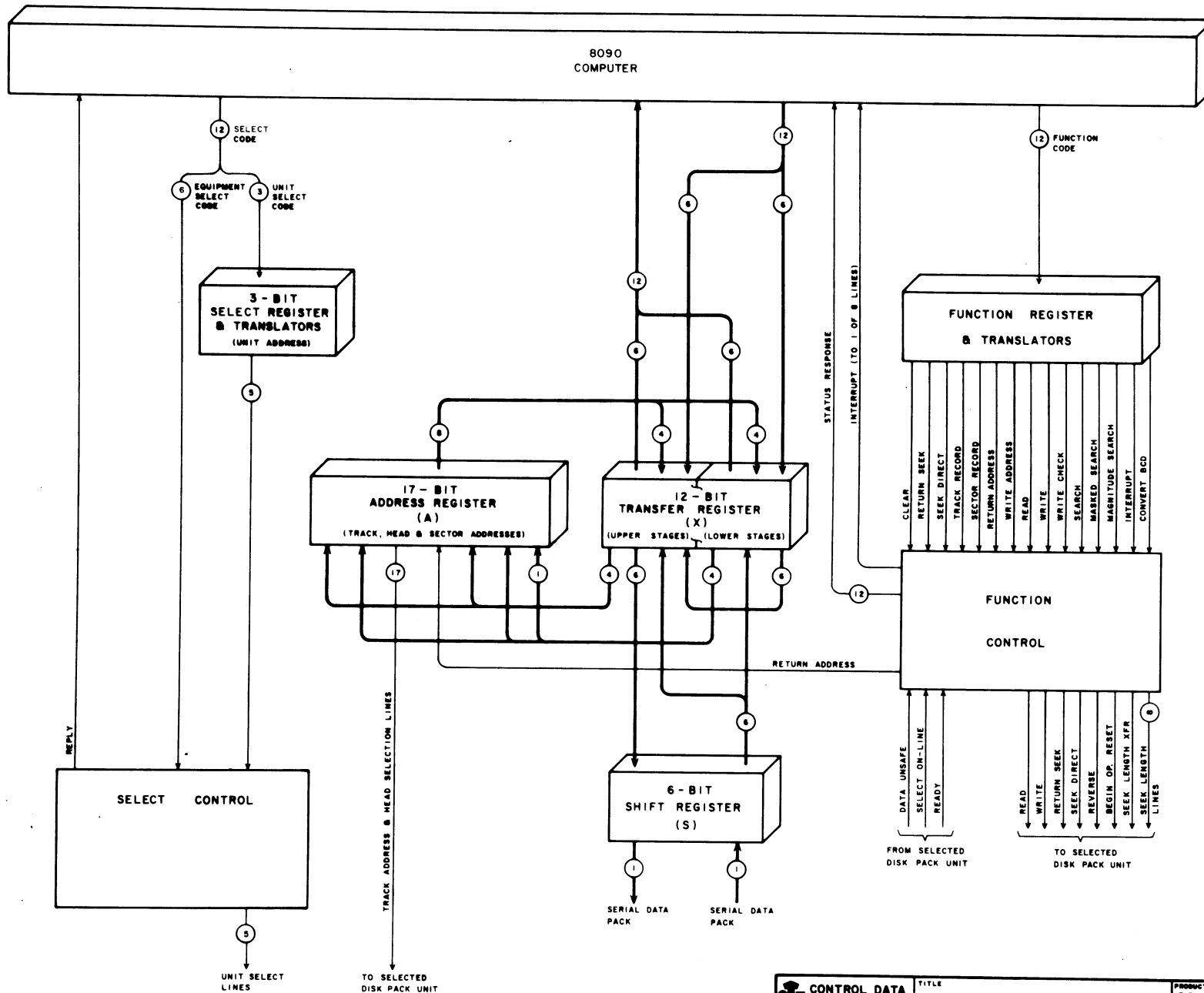
The controller contains the logic necessary to interface the computer and the disk drive units, provide selection control, address storage, function translation, Read/Write (R/W) control, and data transfer facilities.

Note that while 12-bit bytes are transferred in parallel between the controller and computer, 6-bit bytes (characters) are transferred serially to and from the controller and disk pack. All transfers and operations (counters, etc.) are based upon these character transfers. All transfer between the data channel and the controller is via the Transfer (x) register.

The functional block diagram (page 1-1) indicates the relationship between the major elements of the subsystem (controller and disk drive units) and the data, address, and control lines.

The block diagram (page 1-3) indicates the relationship between the major elements of the controller and the data, address, and control lines.





— DATA OR ADDRESS  
 — CONTROL

<b>CONTROL DATA CORPORATION</b> COMPUTER DIVISION	TITLE	PRODUCT
	<b>BLOCK DIAGRAM</b>	<b>8047-B</b>
	<b>DISK DRIVE CONTROLLER</b>	SIZE DRAWING NO. <b>C 60159400</b> SHEET <b>1-3</b>

## CHANNEL INTERFACE AND SELECT CONTROL

Terms not in alphanumeric order

**TERM** LOCATION PAGE

<b>C602</b>	J16A	1-9
<b>F008</b>	I30A	1-7
<b>F009</b>	I30B	1-7
<b>J008</b>	K21C	1-7
<b>J431</b>	I27C	1-9
<b>J456</b>	G27H	1-11
<b>J473</b>	G26A	1-11
<b>K003</b>	L31B	1-7
<b>K103</b>	L30B	1-7
<b>K471</b>	G23H	1-11
<b>K475</b>	G18H	1-11
<b>K477</b>	G17D	1-11
<b>K481</b>	G16D	1-11
<b>K483</b>	G35D	1-11
<b>K489</b>	G21B	1-11
<b>K492</b>	G15C	1-11
<b>K493</b>	G15D	1-11
<b>K495</b>	G15H	1-11
<b>K603</b>	E31D	1-17
<b>X001</b>	E09	1-19
<b>X003</b>	E12	1-19
<b>X005</b>	E15	1-19
<b>X007</b>	E20	1-19
<b>X009</b>	E22B	1-19
<b>X011</b>	E23B	1-19
<b>X015</b>	F01	1-19
<b>X017</b>	F03	1-19
<b>X019</b>	F07	1-19
<b>X021</b>	F08B	1-19
<b>X023</b>	F12B	1-19
<b>X013</b>	E40	1-19

### CHANNEL INTERFACE

The interface receivers (M cards) accept the data, function, and Select codes and the following control signals:

- Master Clear (MC)
- Input Request
- Function Ready
- Information Ready

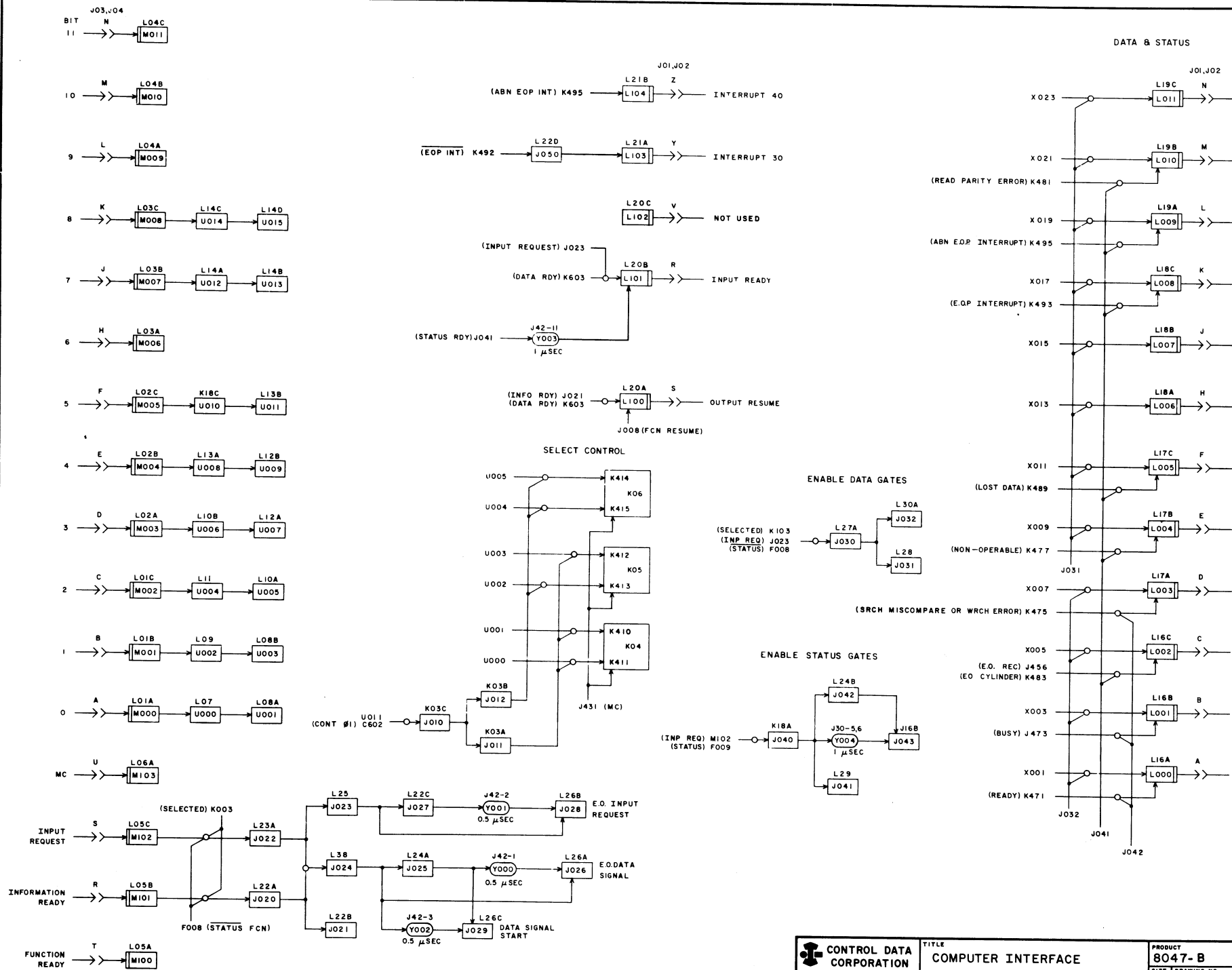
The interface transmitters (L cards) return the data, status, and control signals to the computer. The control signals returned are:

- Interrupt 30
- Interrupt 40
- Input Ready
- Output Resume

### SELECT CONTROL

The Select Control FFs provide for decoding the Unit Select code. Output of the FFs is to the disk pack interface (page 1-31).





<b>CONTROL DATA CORPORATION</b> COMPUTER DIVISION	<b>TITLE</b> COMPUTER INTERFACE SELECT CONTROL	<b>PRODUCT</b> 8047-B
	<b>SIZE</b> C	<b>DRAWING NO.</b> 60159400
<b>SHEET</b> 2		<b>PAGE</b> 1-5

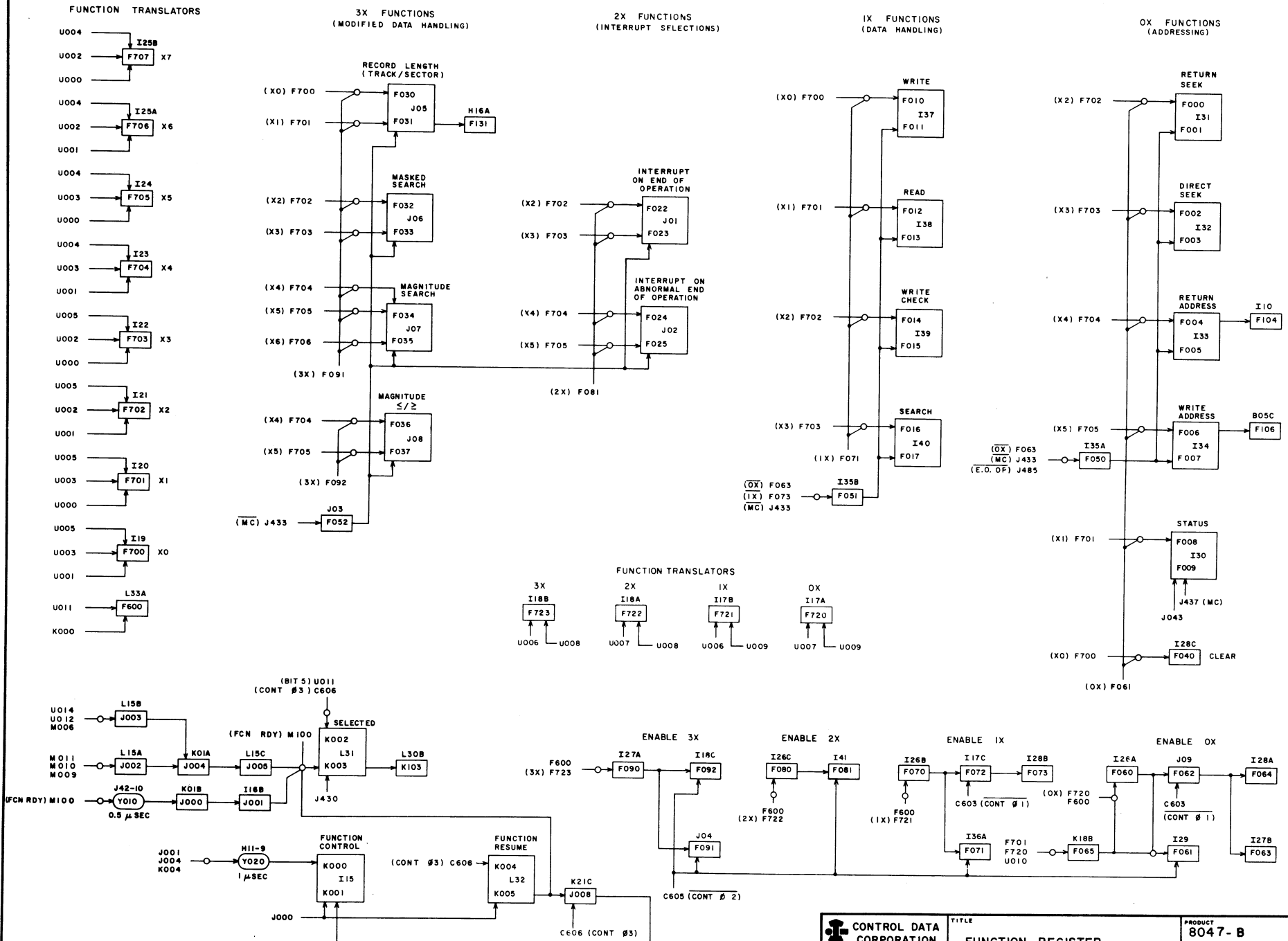
## FUNCTION REGISTER, TRANSLATION, AND CONTROL

TERM	LOCATION	PAGE
E003	K12D	1-9
E005	J17A	1-9
E006	J15	1-9
J043	J16B	1-5
J430	G39B	1-9
J433	H13A	1-9
J437	H15B	1-9
J485	G29	1-11
M006	L03A	1-5
M009	L04A	1-5
M010	L04B	1-5
M011	L04C	1-5
M100	L05A	1-5
U000	L07	1-5
U001	L08A	1-5
U002	L09	1-5
U003	L08B	1-5
U004	L25B	1-5
U005	L10A	1-5
U006	L10B	1-5
U007	L12A	1-5
U008	L13A	1-5
U009	L12B	1-5
U010	K18C	1-5
U011	L13B	1-5
U012	L14A	1-5
U014	L14C	1-5

The function translators translate the function code from the computer into the eight codes, X0 through X7, and the four codes, 0X through 3X. The outputs of the translators are then ANDed to set or clear the appropriate register stages.

The Selected FF is set by the Select code master bit (bit 5) and remains set as long as each subsequent function code equipment designation (71<sub>g</sub>) is for the controller.

# FUNCTION REGISTER



MAIN TIMING, MASTER CLEAR, AND FUNCTION REPLY

TERM	LOCATION	PAGE
F040	I28C	1-7
F060	I26A	1-7
F064	I28A	1-7
F065	K18B	1-7
F080	I26C	1-7
F722	I17B	1-7
F723	I18B	1-7
J441	G33A	1-17
J442	G33B	1-17
J443	G33D	1-17
J479	E29C	1-11
J482	J38C	1-11
J483	G27A	1-11
J623	J24A	1-13
J632	J28C	1-13
M000	I15A	1-7
K472	G19A	1-11
K572	G22C	1-11
M303	L06A	1-5
U010	K18C	1-5
U011	L13B	1-5

MAIN TIMING

Two main timing circuits exist in the controller. One circuit provides timing for control (Connect, function, and Seek operations); the other provides timing for data transfer.

Control word transfers and control phases are synchronized by the channel response. Data transfer is synchronized by the phase A pulses from the disk drive.

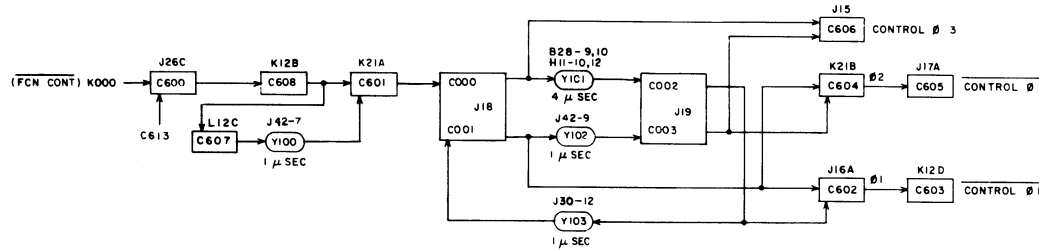
MASTER CLEAR

The Master Clear (MC) circuits generate a signal whenever power is applied to the controller, the connected channel performs a MC, or a Clear Function code is issued.

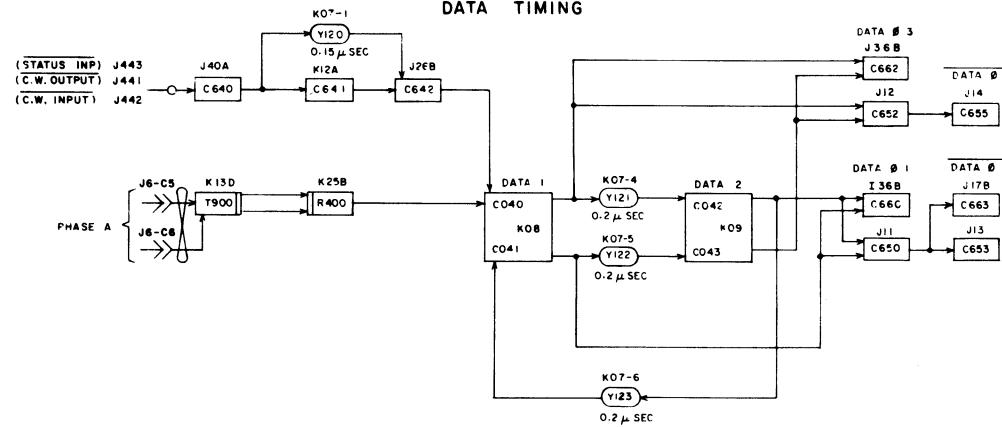
FUNCTION REPLY

The function reply circuits cause C613 to go to a zero for the various function codes which (in conjunction with K000) initiate the Control Timing Chain.

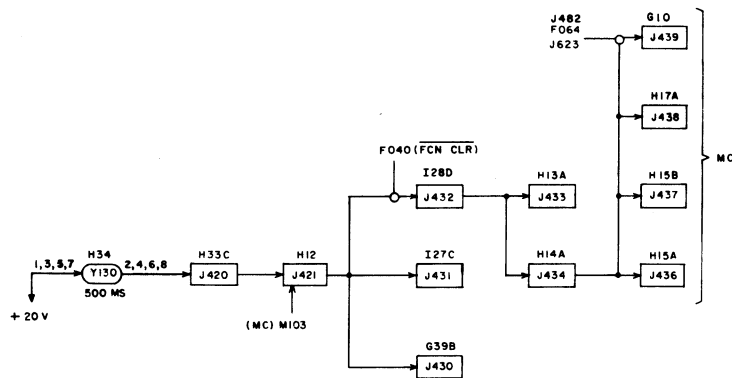
### CONTROL TIMING



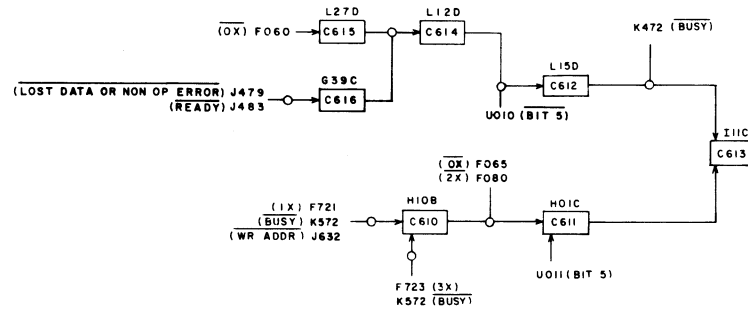
### DATA TIMING



### MASTER CLEAR



### FUNCTION REPLY



 CONTROL DATA CORPORATION COMPUTER DIVISION	TITLE MAIN TIMING, MASTER CLEAR, AND FUNCTION REPLY	PRODUCT 8047-B	REV A
		SIZE C	DRAWING NO. 60159400
		SHEET 4	PAGE 1-9

## STATUS AND INTERRUPT ACTIVE

TERM	LOCATION	PAGE
A213	B06A	1-21
A228	B37B	1-21
A236	C20E	1-21
A608	C24	1-21
C602	J16A	1-9
C809	H13B	1-15
F005	I33B	1-7
F007	I34B	1-7
F015	I39B	1-7
F017	I40B	1-7
F023	S01B	1-7
F025	S02B	1-7
F058	I35B	1-7
F722	I18A	1-7
Y024	L38	1-5
Y025	L24A	1-5
Y028	L26B	1-5
Y029	L26C	1-5
J433	H13A	1-9
J436	H15A	1-9
Y452	G32B	1-17
Y463	J40C	1-13
J572	J36A	1-13
J622	J21	1-13
J630	J28B	1-13
J638	J26A	1-13
J670	D01	1-29
K000	I15A	1-7
K001	I15B	1-7
M543	F09C	1-17
K602	E31C	1-17
K620	J25A	1-13
K624	J27A	1-13
K670	C42A	1-29
K700	E32A	1-17
K701	E32B	1-17
K748	J39A	1-15
M753	I01A	1-15
R903	D14B	1-27
R420	K24A	1-13
S610	D11	1-27
U011	L13B	1-5
X668	H06	1-19
X712	H03	1-17

### STATUS

The Status FFs indicate various conditions within the controller and the disk drive units. The outputs of the FFs are fed directly to the computer interface status transmitters on pages 1-5 and 1-7.

The Ready FF sets when the disk drive unit is Ready. Thereafter, the subsystem becomes Not Ready whenever the disk drive unit becomes "unsafe" or not On Line. (If the subsystem is unsafe(file fault), the controller becomes Not Ready.)

The Busy FF sets when the controller becomes Busy with a data transfer or a Write Address operation. Although a Busy status signal is sent to the data channel during a Seek operation, the Busy FF is not set. The controller becomes Not Busy at the completion of the operation (EOP) or on the occurrence of a Master Clear during the operation.

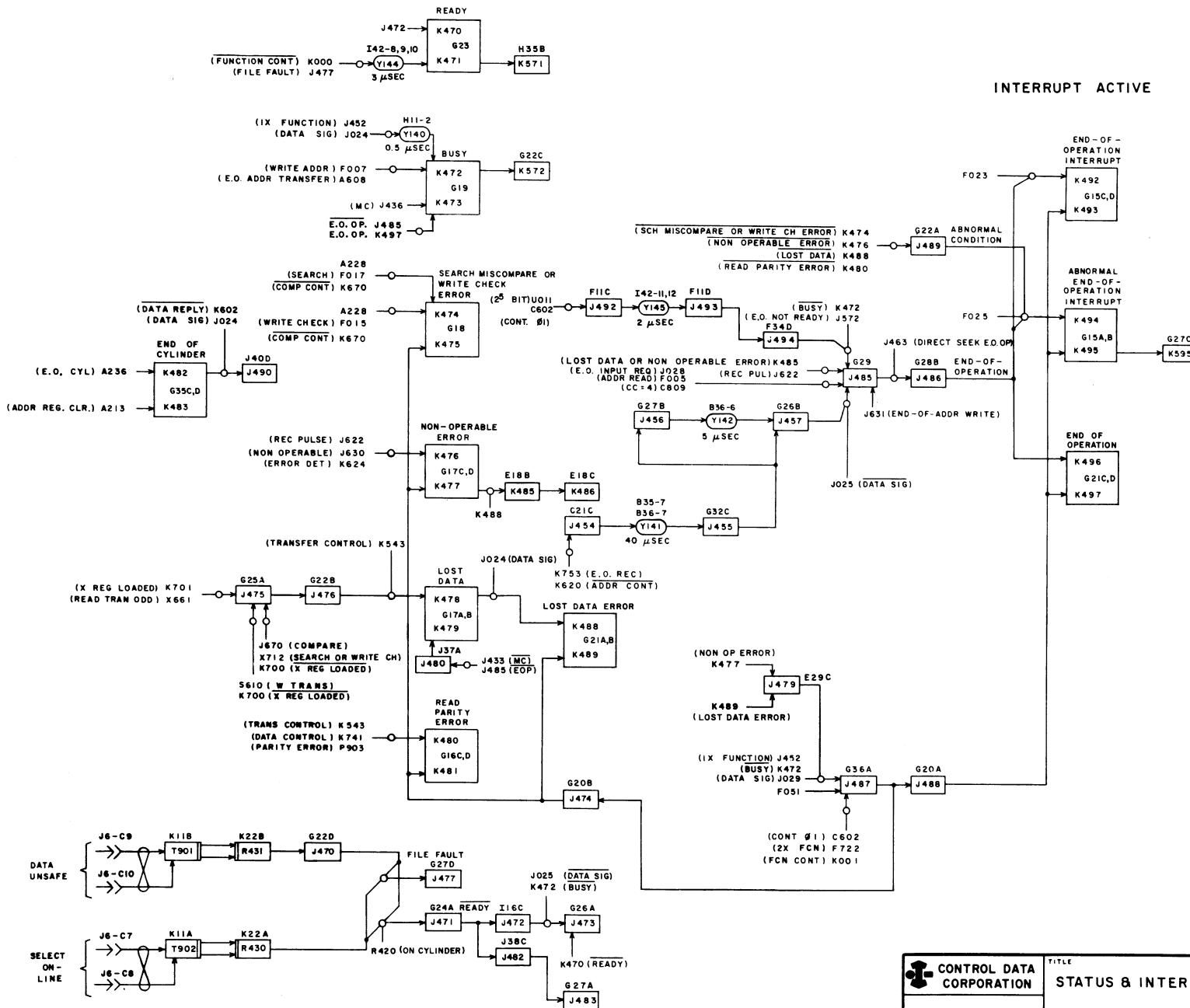
The other status FFs set when the associated condition occurs within the controller or disk drive unit. With the exception of the Ready and Busy FFs, the Status FFs clear only on receipt of an 0X, 1X, or 2X function code, or a Master Clear.

### INTERRUPT ACTIVE

The interrupt active circuits provide for selection of interrupting conditions and for transmitting an indication of the interrupt to the connected data channel. The interrupt selection FFs are shown with the Function register on page 1-11.

Active interrupt indications are sent only to the associated connected data channel. The Interrupt Active FFs clear only on receipt of an 0X, 1X, or 2X function code, or a Master Clear.

STATUS



<b>CONTROL DATA CORPORATION</b> COMPUTER DIVISION	TITLE	PRODUCT
	<b>STATUS &amp; INTERRUPT ACTIVE</b>	<b>8047-B</b>
	SIZE	DRAWING NO
	<b>C 60159400</b>	REV
		<b>A</b>
	SHEET	1-11
	5	

## SEEK AND ADDRESS CONTROL

### Terms not in alphanumeric order

TERM	LOCATION	PAGE
A226	B14B	1-21
A608	C24	1-21
D622	D34C	1-25
D701	D33B	1-25
F008	I31A	1-7
F003	I32B	1-7
F006	I34A	1-7
F007	I34B	1-7
F031	J05B	1-7
F062	J09	1-7
J421	H12	1-9
J438	H17A	1-9
J439	G10	1-9
J471	G24A	1-11
J473	G26A	1-11
J486	G28B	1-11
J642	I13	1-15
J645	H38	1-15
J646	H40A	1-15
K441	G35B	1-17
R430	K22A	1-11
X123	C37B	1-19
D702	D34D	1-25

The Ready signal indicates subsystem readiness. The Presector, Sector, and Track pulses from the disk pack are used to control address operations within the controller and the disk drive unit.

### SEEK

Initiation of any Seek operation causes the disk drive unit to become Not Ready (On Cylinder drops). A Seek is automatically initiated at the end of a Control word transfer to the controller (A608, page 1-21, 1-23, to seek transmitters). On completion of the Seek, the On Cylinder signal again sets the Ready FF on page 1-11.

### OVERLAP SEEK

The Overlap Seek feature permits multiple Seek operations to take place simultaneously without the normal necessity of waiting for completion of the Seek in one unit before initiating the Seek in another unit.

To perform the Seek operation using the Overlap Seek feature, observe the following procedure:

- 1) Connect desired unit.
- 2) Initiate Seek operation.
- 3) Connect next desired unit.
- 4) Initiate Seek operation, etc.

Note that each unit is connected and the Seek initiated prior to connecting to the next unit.

### ADDRESS CONTROL

The Presector and Sector pulses generate the Record and Index pulses. The Record pulse sets the Address Control FF.

In Sector Record format, the Presector pulses to inverter J622 are inhibited by the open AND gate (F031 = 0). Thus only Sector pulses control the Record pulses out of inverter J622.

In track format, both the Presector and Sector pulses come up simultaneously at Index time, allowing inverter J622 to issue a Record pulse. For the remainder of the record, the Sector and Presector pulses come up at different times such that one or the other always inhibits inverter J622. This ensures that only one Record pulse is issued for each revolution of the disk.

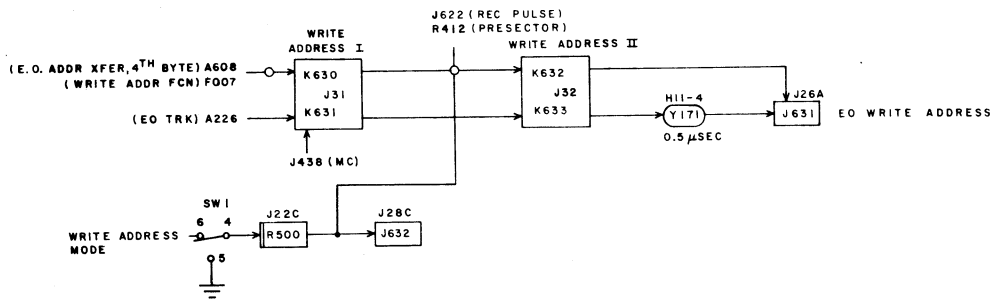
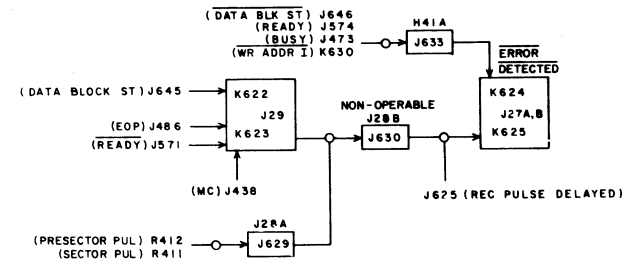
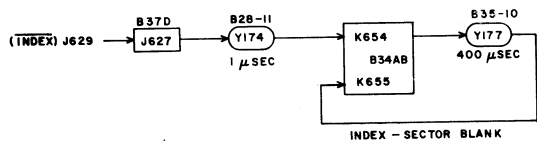
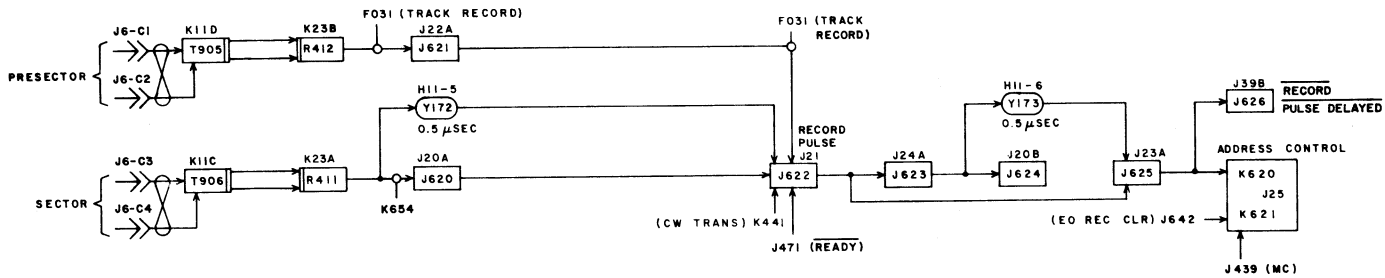
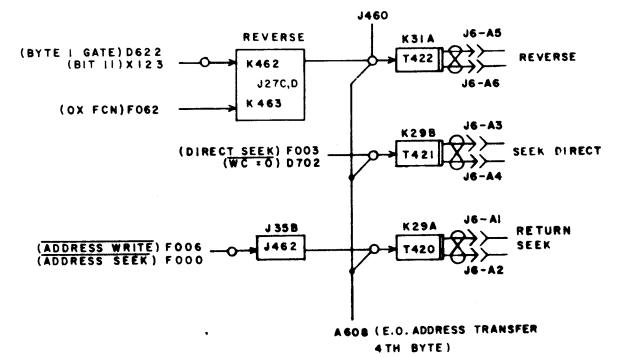
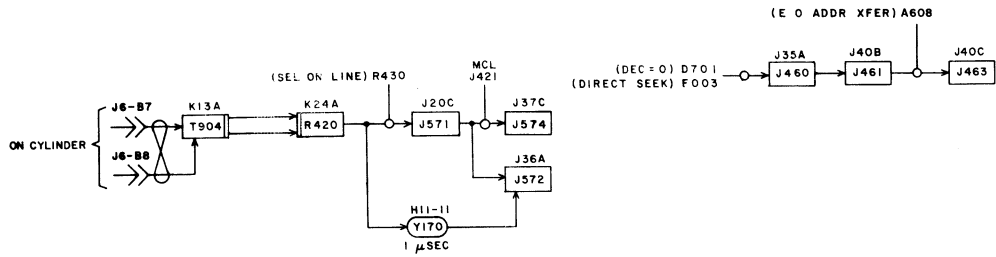
If the unit fails to issue an EOP before the next Record pulse is generated, an error is present and the Not Error Detected FF (K624/625) clears. Inverters J622 and J630 in conjunction with K624 set the Non-Operable FF (page 1-11).

### Write Address

The write address circuits cause the record address tags to be written upon the disks. (The tags written are specified by the content of the Address register.) The tags are automatically written upon completion of the seek operation. (Write Address function initiated and Write Address switch ON.)

Operation ceases automatically at the completion of the track. Note that a new Control word is necessary for each track to be written.





Terms not in alpha-numeric order

## READ/WRITE CONTROL, CHARACTER COUNTER

TERM	LOCATION	PAGE
C203	G13B	1-27
C211	G09B	1-27
C215	C04B	1-27
C216	G05C	1-27
C217	G05D	1-27
C219	G03B	1-27
C224	G02C	1-27
C231	F39B	1-27
C233	F37D	1-27
C234	F36A	1-27
C313	I04C	1-27
C333	F35A	1-27
C335	F33A	1-27
C650	J11	1-9
C653	J13	1-9
C655	J14	1-9
C662	J36B	1-9
D600	D33A	1-25
D605	D32B	1-25
D703	D28	1-25
D721	J24B	1-25
F010	I37A	1-7
F011	I37B	1-7
F030	J05A	1-7
F031	J05B	1-7
J024	L38	1-5
J050	L22D	1-5
J439	G10	1-9
J452	G32B	1-17
J457	G26B	1-11
J625	J23A	1-13
K440	G35A	1-17
K482	G35C	1-11
K595	G27C	1-11
K621	J25B	1-13
K631	J31B	1-13
K632	J32A	1-13
K633	J33A	1-13
K671	C42B	1-29
C041	K084	1-9
J438	H17A	1-9
J445	G39D	1-9
J622	J29	1-13
K571	H35B	1-11

### READ/WRITE CONTROL

These elements generate the signals and pulses necessary to control the signal gates to the disk drive units and to initiate and synchronize I/O operations.

The functions of the various FFs are discussed below.

#### Data Control

When data transfer is requested, this FF is set at the start of each data block or record (following successful Address Compare) and is cleared by any MC or Record pulse (start of a new sector, if in Sector mode).

#### AGC Disable and AGC Control.

These FFs are used to:

- 1) disable the AGC circuits to allow the disk drive unit AGC capacitors to discharge completely and establish a new AGC level for each record, and
- 2) enable the Clock, Write, and Signal gates to the disk drive unit at the start of each record.

#### Sync Control

This FF is used for sync gap detection. During a Write operation, the FF is set to define the gap (it is set at the end of the AGC bits). During a Read operation, it is set prior to the gap following a predetermined AGC count.

### Record Control and End of Record Control

These FFs define the record. Setting of the End of Record Control FF causes the Record Control FF to be cleared; 0.15 microseconds later, the End of Record Clear pulse from inverter J642 clears the End of Record Control FF.

### CHARACTER COUNTER (CC)

This counter is used to count characters (bit ring cycles) for data transfer operations or byte transfers during Control word or return address functions. The counter is cleared or preset according to the requirements of the operation.

The Character Counter may be considered as an additive extension of the Decrement (subtractive) register (page 1-29). The Character Counter plus the Decrement register are used for timing certain types of operations (e.g., setting of Sync Control FF). A typical logical count sequence is shown in Figure 1-1.

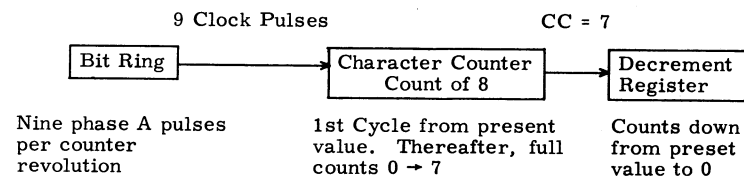
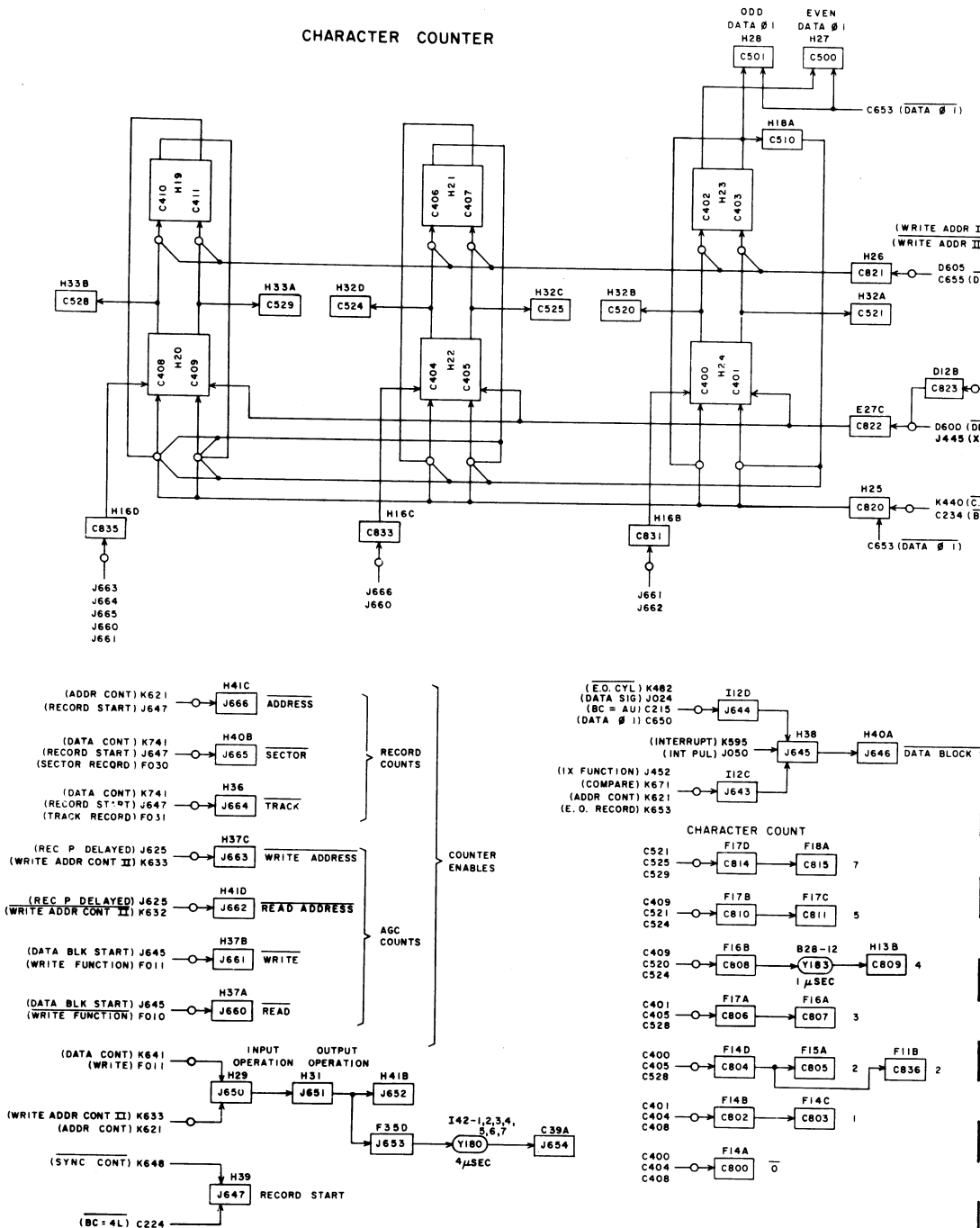


Figure 1-1. Typical Logic Count Sequence

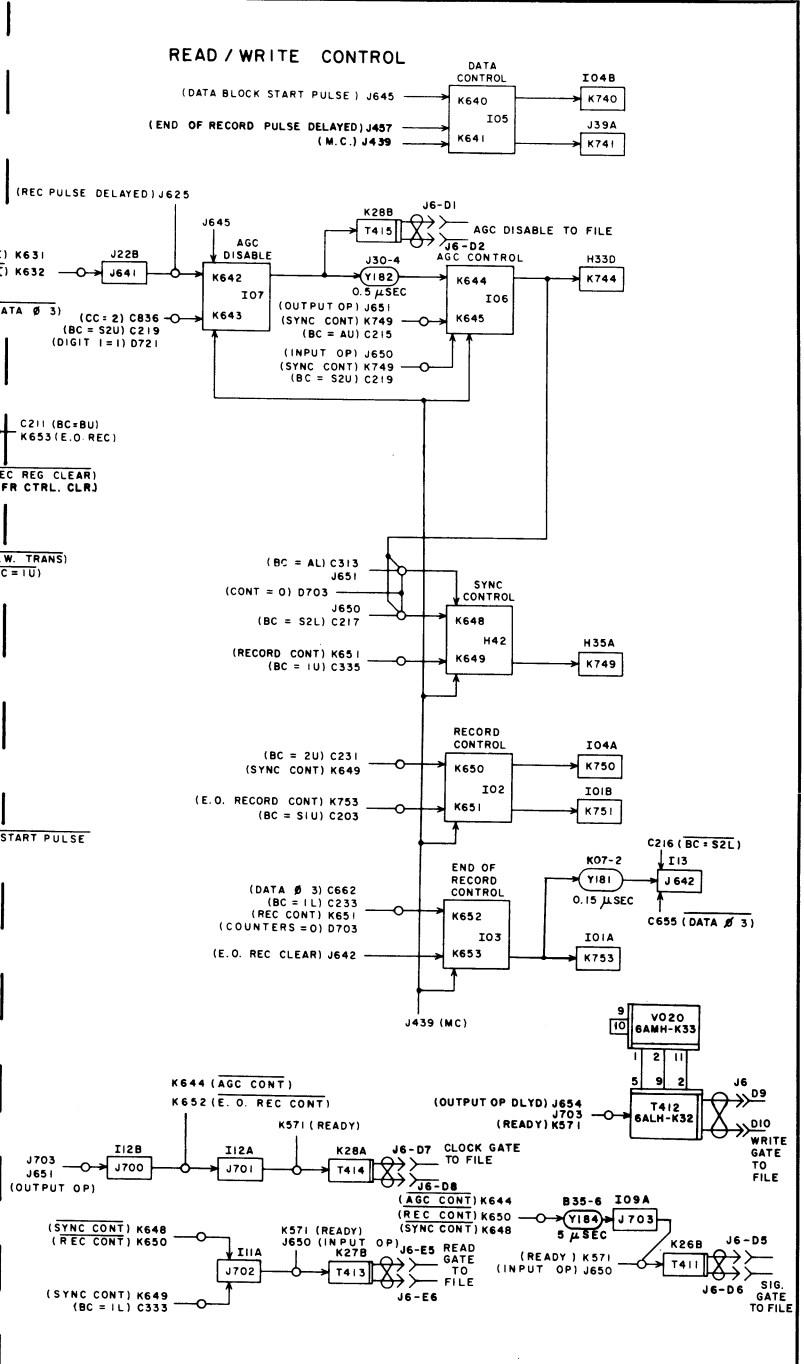
### POWER LOSS DETECTOR

A Power Loss Detector circuit consisting of two cards (a 6AMH card, V020, and a 6ALH card, T412) senses the logic voltage within the controller. Should this voltage decay suddenly an off voltage derived from storage capacitors on the 6AMH card is applied to the 6ALH card. The 6ALH card replaces the P14 write gate transmitter. Special circuits on the 6ALH card cause the transmitter to be held in an OFF condition for an RC time long enough for all controller activity to cease.

# CHARACTER COUNTER



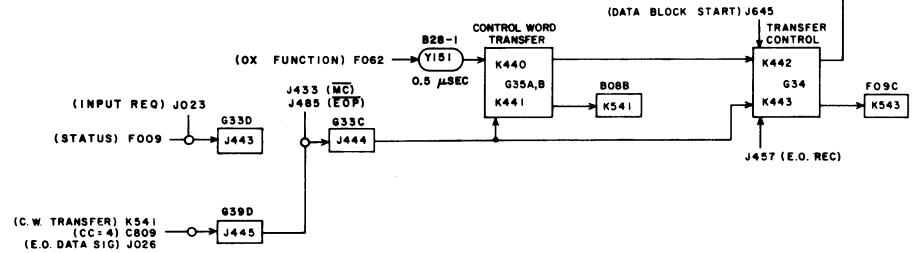
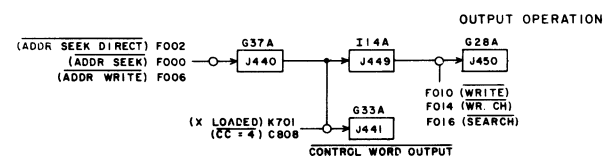
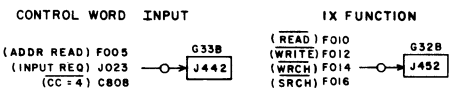
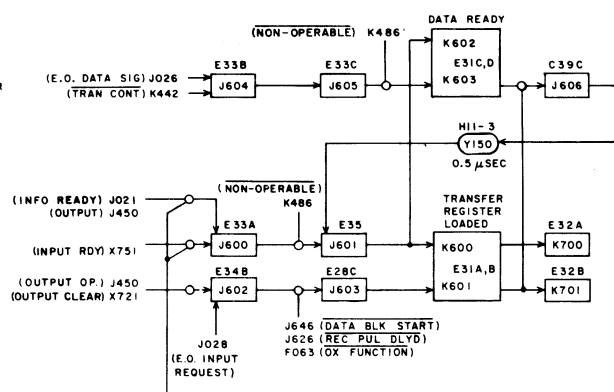
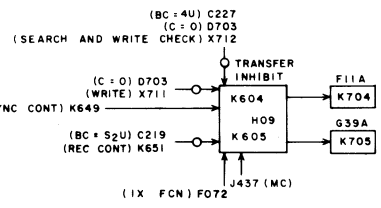
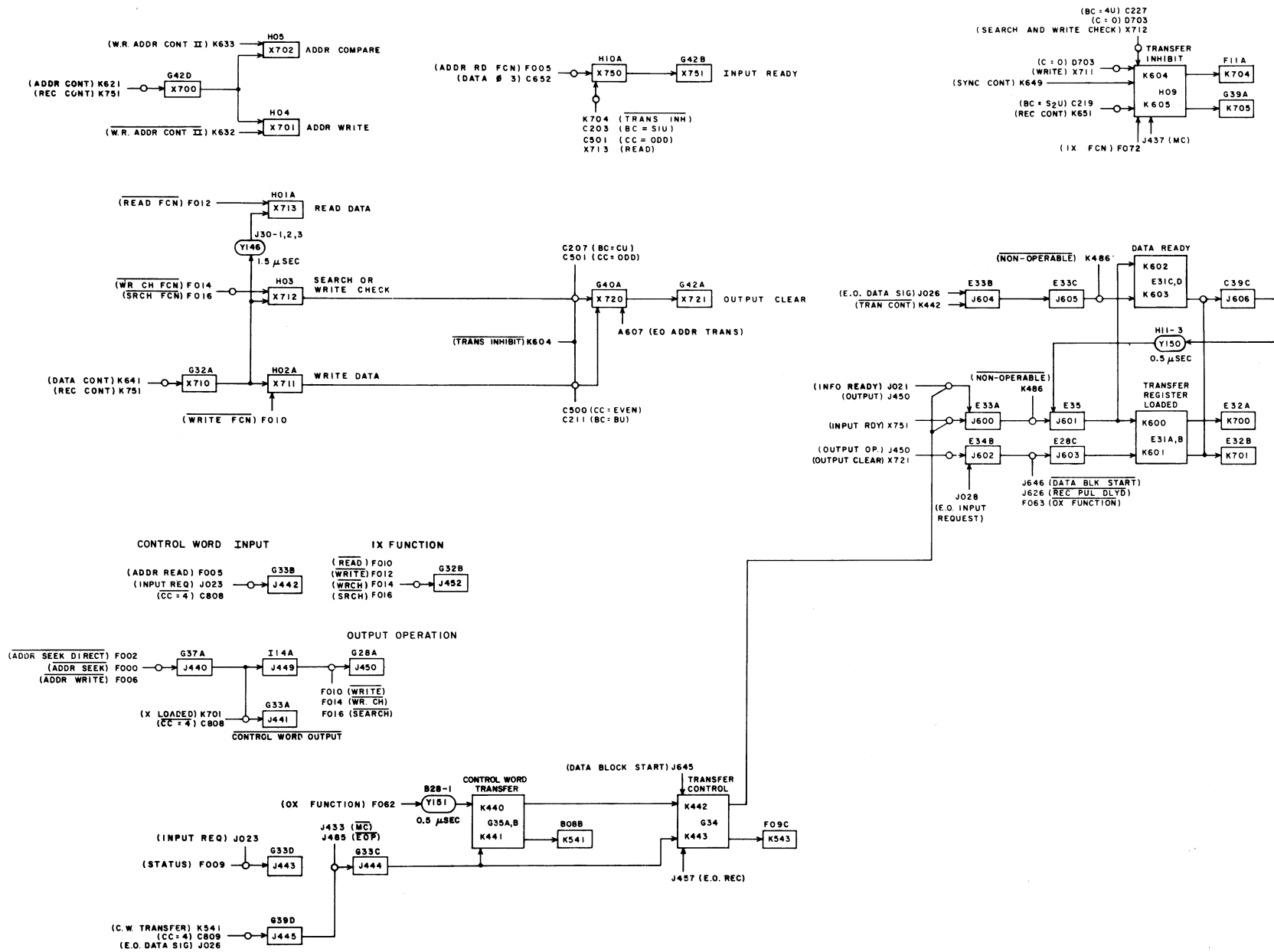
# READ / WRITE CONTROL



## TRANSFER CONTROL

TERM	LOCATION	PAGE
A607	C21A	1-21
G203	G13B	1-27
G207	G12B	1-27
G211	G09B	1-27
G219	G03B	1-27
G227	F39B	1-27
G500	H27	1-15
G502	H2A	1-15
G652	J12	1-9
G808	F16B	1-15
G809	H13B	1-15
D703	D2A	1-25
F000	I31A	1-7
F002	I32A	1-7
F005	I33B	1-7
F006	I34A	1-7
F009	I30B	1-7
F010	I37A	1-7
F012	I38A	1-7
F014	I39A	1-7
F016	I40A	1-7
F062	J09	1-7
F063	I27B	1-7
F072	I17C	1-7
H022	L22B	1-5
H023	L25	1-5
H026	L26A	1-5
H028	L26B	1-5
H433	H13A	1-9
H437	H15B	1-9
H457	G26B	1-11
H485	G29	1-11
H626	J39B	1-13
H645	H3B	1-15
H646	H40A	1-15
H686	E18C	1-11
K021	J25B	1-13
K632	J32A	1-13
K633	J33A	1-13
K641	I05B	1-15
K649	H42B	1-15
K651	I02B	1-15
K751	I01B	1-15

These circuits control the Address Control Word, Input, Output, and Data Reply operations.



CONTROL DATA CORPORATION COMPUTER DIVISION	TITLE	PRODUCT
	TRANSFER CONTROL (DATA READY)	8047 - B
	SIZE	DRAWING NO.
	C 60159400	A
	SHEET	
	6	1-17

TERM LOCATION PAGE

A002	C03A	1-21	M003	L02A	1-5
A006	C05A	1-21	M004	L02B	1-5
A010	C06A	1-21	M005	L02C	1-5
A014	C08A	1-21	M006	L03A	1-5
A018	C09A	1-21	M007	L03B	1-5
A022	C20A	1-21	M008	L03C	1-5
A026	C29A	1-21	M009	L04A	1-5
A030	C32A	1-21	M010	L04B	1-5
A034	C35A	1-21	M011	L04C	1-5
A036	R20A	1-23	S003	F29B	1-27
A038	R20C	1-23	S007	F37B	1-27
A040	R30A	1-23	S011	F35B	1-27
A042	R30C	1-23	S015	F23B	1-27
A044	R40A	1-23	S019	F21B	1-27
A046	R40C	1-23	S023	F19B	1-27
A048	R42A	1-23	S201	L35B	1-27
A050	R42D	1-23	S203	L35D	1-27
A025	C01C	1-21	S205	L37B	1-27
A035	C23A	1-21	S207	L36D	1-27
A045	R02A	1-21	S209	L37B	1-27
A059	R02B	1-21	S211	L37D	1-27
G042	K09A	1-9	X701	W04	1-17
G000	G14A	1-27	X702	W05	1-17
G220	G02A	1-27	X711	W02A	1-17
G235	F37B	1-27	X712	W03	1-17
G015	G06A	1-27	X713	W01A	1-17
G020	G06B	1-27			
G035	F33A	1-27			
G402	H23A	1-15			
G403	H23B	1-15			
G407	H21B	1-15			
G500	H27	1-15			
G502	H28	1-15			
G655	J14	1-9			
G660	I36B	1-9			
G805	F15A	1-15			
G807	F16A	1-15			
G809	H13B	1-15			
G811	F17C	1-15			
G819	F18A	1-15			
F004	I33A	1-7			
F005	I33B	1-7			
F104	I10	1-7			
J450	G28A	1-17			
Y602	E35	1-17			
Y603	F28C	1-17			
H605	W09B	1-17			
H000	L01A	1-5			
H002	L01B	1-5			
H002	L01C	1-5			

### TRANSFER REGISTER

The data Transfer register (X) is a 12-stage, single-rank register. During Write operations the register is loaded directly from the computer interface (M) receivers. During Read operations the register is loaded from the controller Shift (S) register.

Other inputs to the register provide for loading and transfer of addresses from the connected data channel to the Address register, and for transfer of the lower 6 stages to the upper 6 stages during Write operations. (During Write operations the upper 6 bits of the X register are transferred to the S register and written on the disk. Then the lower 6 bits of the X register are transferred to the upper 6 stages, and transferred to the S register.)



## ADDRESS REGISTER

TERM	LOCATION	PAGE
A030	B20A	1-23
A030	B20C	1-23
A040	B30A	1-23
A042	B30C	1-23
A044	B40A	1-23
A046	B40C	1-23
A048	B42A	1-23
B043	K09B	1-9
B007	G12B	1-27
C011	G09B	1-27
C006	J15	1-9
C650	J11	1-9
C662	J36B	1-9
C005	F15A	1-15
C007	F16A	1-15
C008	F16B	1-15
C009	H13B	1-15
F007	I34B	1-7
F030	J05A	1-7
F104	I10	1-7
F106	B05C	1-7
F132	H16A	1-7
J422	H12	1-9
J430	G39B	1-9
J440	G37A	1-17
K482	G35C	1-11
K542	B08B	1-17
K632	J32A	1-13
K740	I04B	1-15
K753	I01A	1-15
X001	E09	1-19
X003	F12	1-19
X005	E15	1-19
X007	E20	1-19
X013	E40	1-19
X015	F01	1-19
X017	F03	1-19
X019	F07	1-19
Y160	H11	1-23
Y161	H11	1-23
Y162	B20	1-23

The Address register is a 17-stage register. Stages 0-8 are double-rank configurations connected in a manner similar to a 5, 4, 2, 1 counter to permit automatic sequential advancing of the sector and head addresses during data transfer. During operation, the A<sup>1</sup> rank of the register is advanced at each End of Record and Data Phase 1 time, with the exception of End of Cylinder.

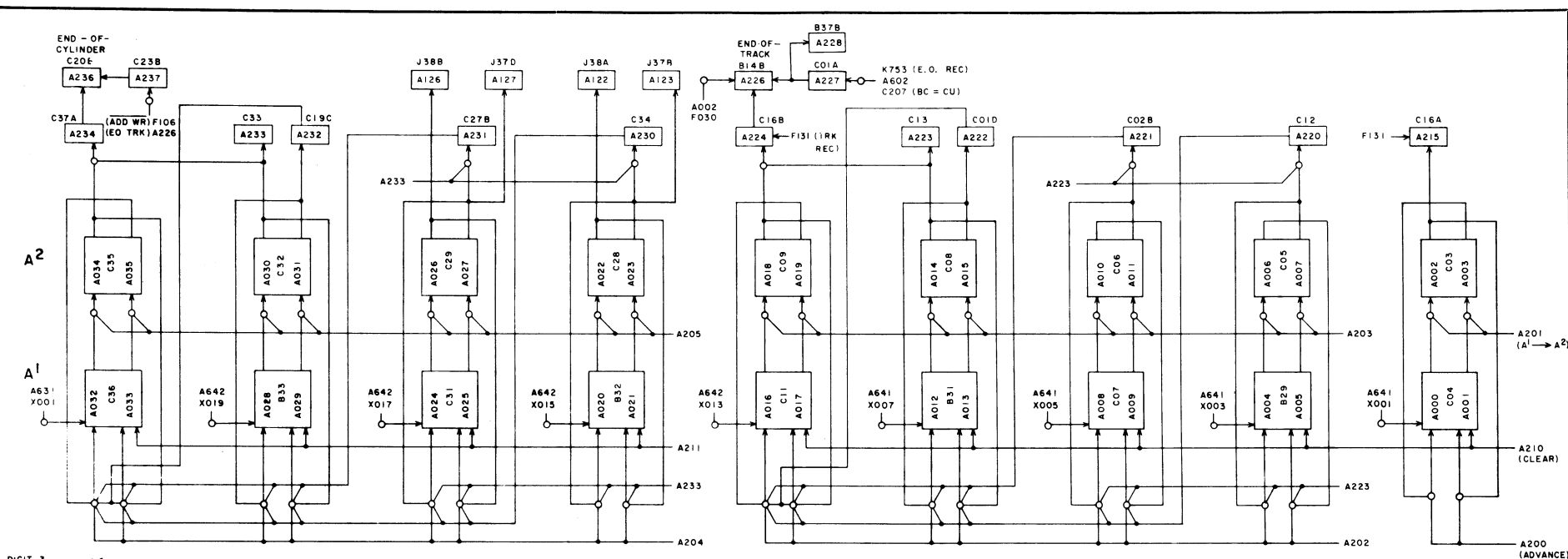
All information is taken from the A<sup>2</sup> rank of the register or from the slave inverters connected to the A<sup>2</sup> rank. Two of these slave inverters provide End of Track and End of Cylinder indications.

Stages 9-16 are single rank and provide storage for the track (cylinder) address.

### Load Address

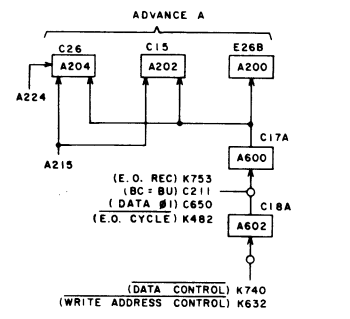
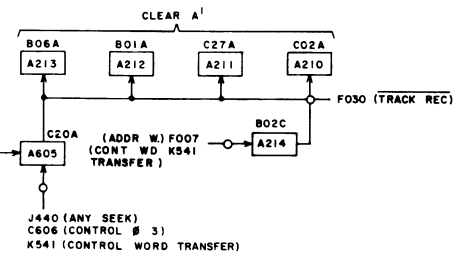
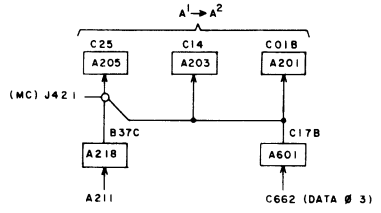
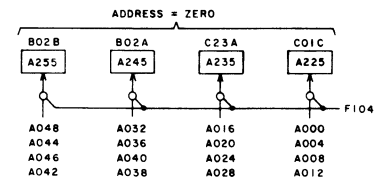
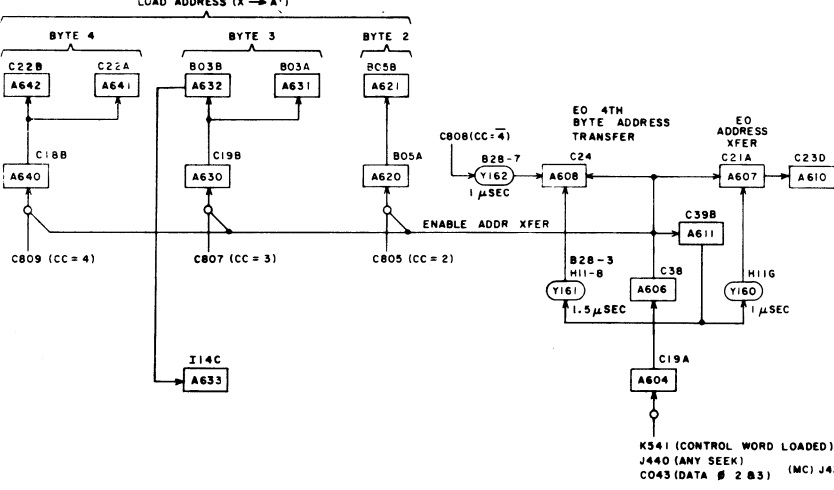
For the Load Address function, the address is loaded via the Transfer (X) register. The count is transferred from the A<sup>1</sup> rank to the A<sup>2</sup> rank at Data Phase 3 time. The address information contained in the X register, following each byte transfer of the Control word is disassembled and loaded into the appropriate stage of the A register.





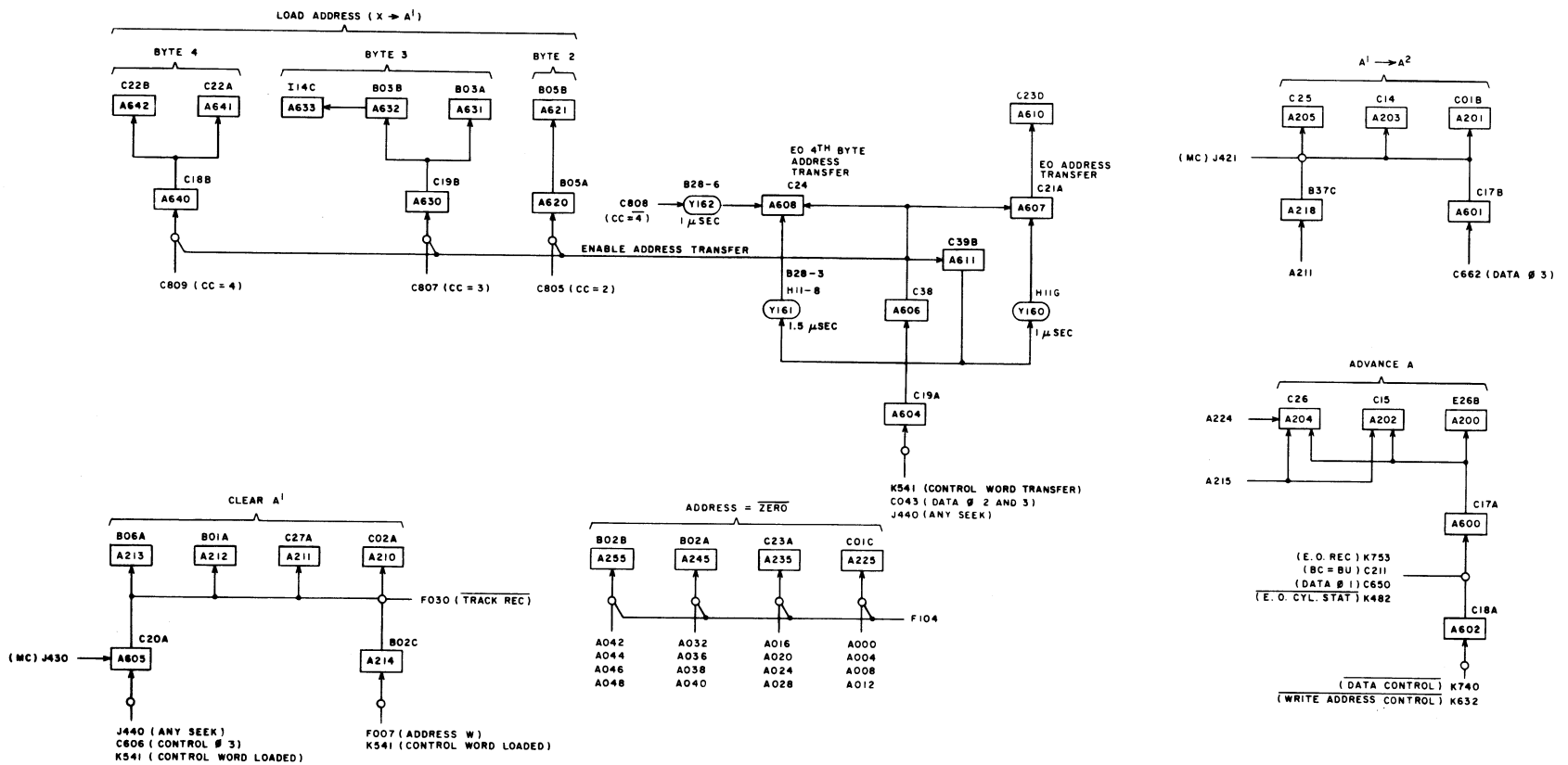
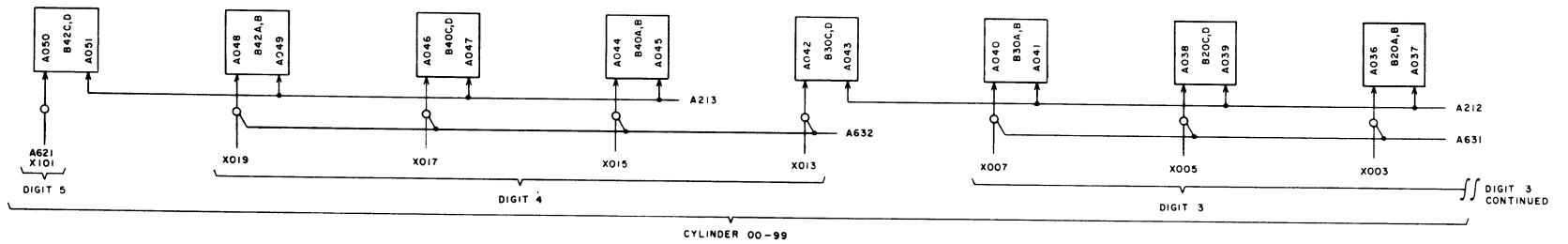
DIGIT 3 CONTINUED ON SHEET 12

HEAD (0-9) SECTOR (00-19)



NOTE:  
CONTROL CIRCUITS ARE COMMON TO ENTIRE ADDRESS REGISTER  
AND ARE ALSO SHOWN ON THE ADDRESS REGISTER STAGES  
9-16 (TRACK ADDRESS)

TERM	LOCATION	PAGE
A212	R01A	1-21
A213	B06A	1-21
A222	R05B	1-21
A232	B03A	1-21
A232	B03B	1-21
X003	F12	1-19
X005	E15	1-19
X007	E20	1-19
X013	E40	1-19
X015	F01	1-19
X017	F03	1-19
X019	F07	1-19
X102	E13A	1-19



NOTE:  
 CONTROL CIRCUITS ARE COMMON TO  
 ENTIRE ADDRESS REGISTER AND ARE  
 ALSO SHOWN ALONG WITH THEIR ASSOCIATED  
 INPUT TERM LIST ON THE ADDRESS REGISTER  
 STAGES 0-8 (HEAD AND SECTOR ADDRESS)  
 PAGE I-21.

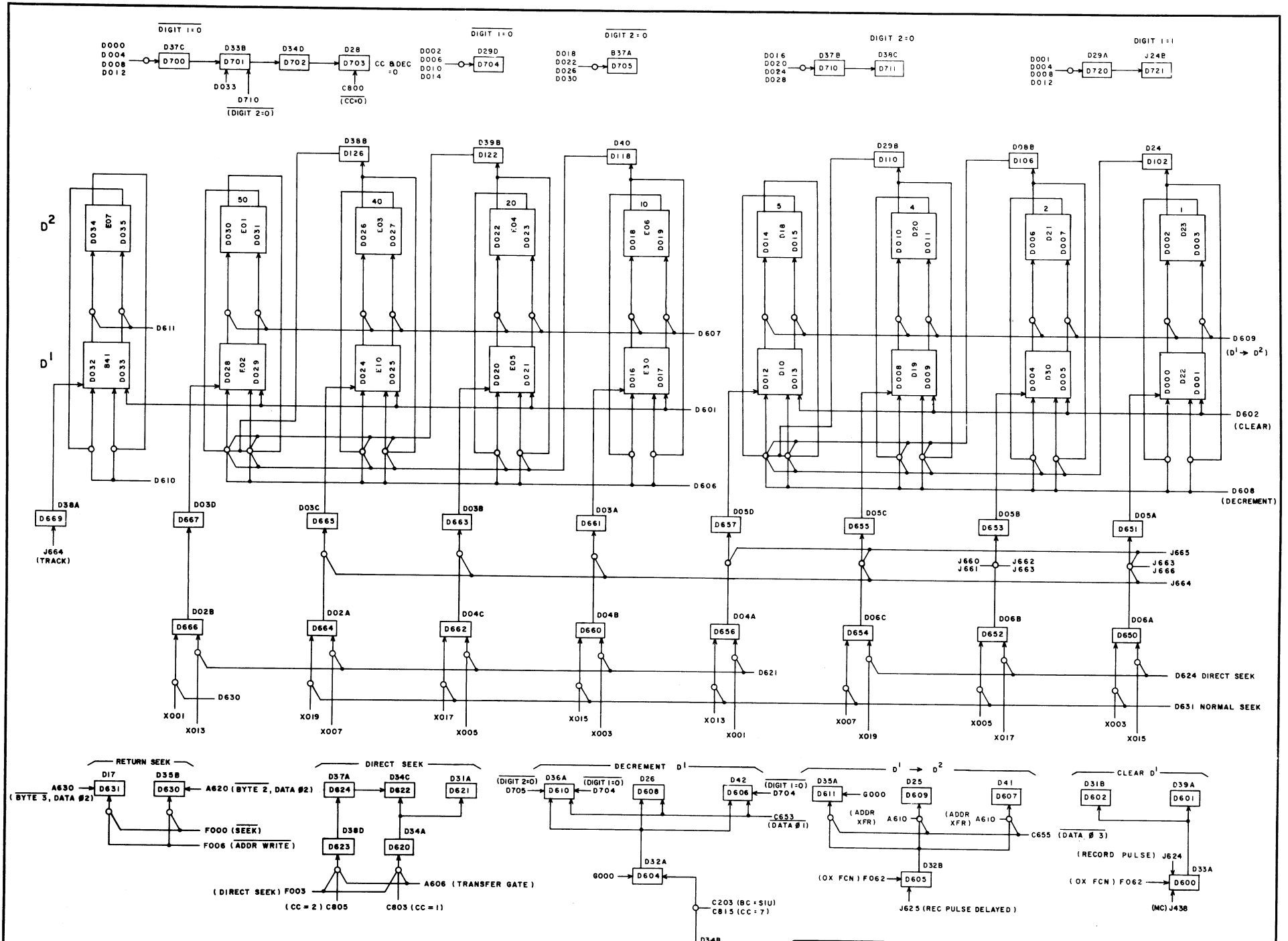
CONTROL DATA CORPORATION COMPUTER DIVISION	TITLE <b>ADDRESS REGISTER          STAGES 9 THROUGH 16          [ TRACK (CYLINDER) ADDRESS ]</b>	PRODUCT <b>8047-B</b>
	SIZE <b>C</b>	DRAWING NO. <b>60159400</b>
		SHEET 9 PAGE 1-23

## DECREMENT REGISTER

VERM	LOCATION	PAGE
A606	C38	1-21
A618	C23D	1-21
A628	B05A	1-21
A638	C19B	1-21
C203	G13B	1-27
C653	J13	1-9
C655	J14	1-9
C800	F14A	1-15
C803	F14C	1-15
C805	F15A	1-15
C815	F18A	1-15
F800	I31A	1-7
F803	I32B	1-7
F806	I34A	1-7
F862	J09	1-7
H438	H17A	1-9
H624	J20B	1-13
H625	J23A	1-13
J660	H37A	1-15
J661	H37B	1-15
J662	H41D	1-15
J663	H37C	1-15
J664	H36	1-15
J665	H40B	1-15
J666	H41C	1-15
M620	J25A	1-13
K748	I04B	1-15
X802	E09	1-19
X803	E12	1-19
X805	E15	1-19
X807	E20	1-19
X813	E40	1-19
X815	F01	1-19
X817	F03	1-19
X819	F07	1-19

The Decrement register provides temporary storage for seek length information. This register also functions to store the track address on Return Seek operations and track count on Direct Seek operations.

The register also counts characters during Read and Write operations to determine record lengths (see Character Counter, page 1-19).



 <b>CONTROL DATA CORPORATION</b> COMPUTER DIVISION	TITLE	PRODUCT
	DECREMENT REGISTER (5,4,2,1, BCD)	8047-B
	SIZE DRAWING NO. C 60159400	REV. A
	SHEET 14	1-25

## BIT COUNTER; SHIFT REGISTER

VERM	LOCATION	PAGE
8656	J11	1-9
8652	J12	1-9
8663	J17B	1-9
8628	J39B	1-13
8646	H40A	1-15
8647	H39	1-15
8650	H29	1-15
8658	H31	1-15
8652	H41B	1-15
8762	I09B	1-31
8762	I09C	1-31
K644	I06A	1-15
K649	H42B	1-15
K704	F11A	1-17
K744	H33D	1-15
K749	H39A	1-15
K750	I04A	1-15
K752	I01B	1-15
R815	E27B	1-19
R418	K29A	1-31
X813	E40	1-19
X815	F01	1-19
X817	F03	1-19
X819	F07	1-19
X822	F08B	1-19
X823	F12B	1-19
X822	F09B	1-19
X862	H07	1-19
X758	H10A	1-17

### BIT COUNTER

The Bit Counter is a 9-stage, double-rank counter connected in a closed loop configuration to provide end-around counts (left shift). Initially, the counter is pre-set to a "1" in the bit A stage and all other stages are cleared. The Advance and Transfer commands shift the bit through the counter. For each complete cycle, the Character Counter (page 19) is advanced by one. Thus each cycle of the Bit counter represents the transfer of one 6-bit character along with its associated parity and sync bits. The Advance command (shift  $C^2$  to  $C^1$ ) occurs at each Data Phase 1 time; the Transfer command ( $C^1$  to  $C^2$ ) occurs at each Data Phase 3 time.

### SHIFT REGISTER

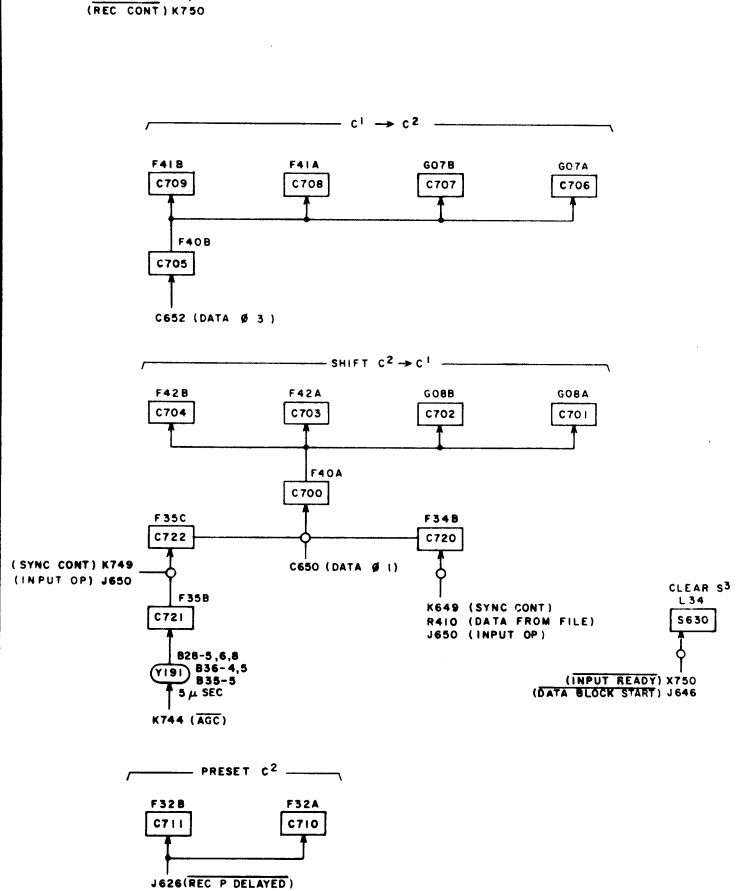
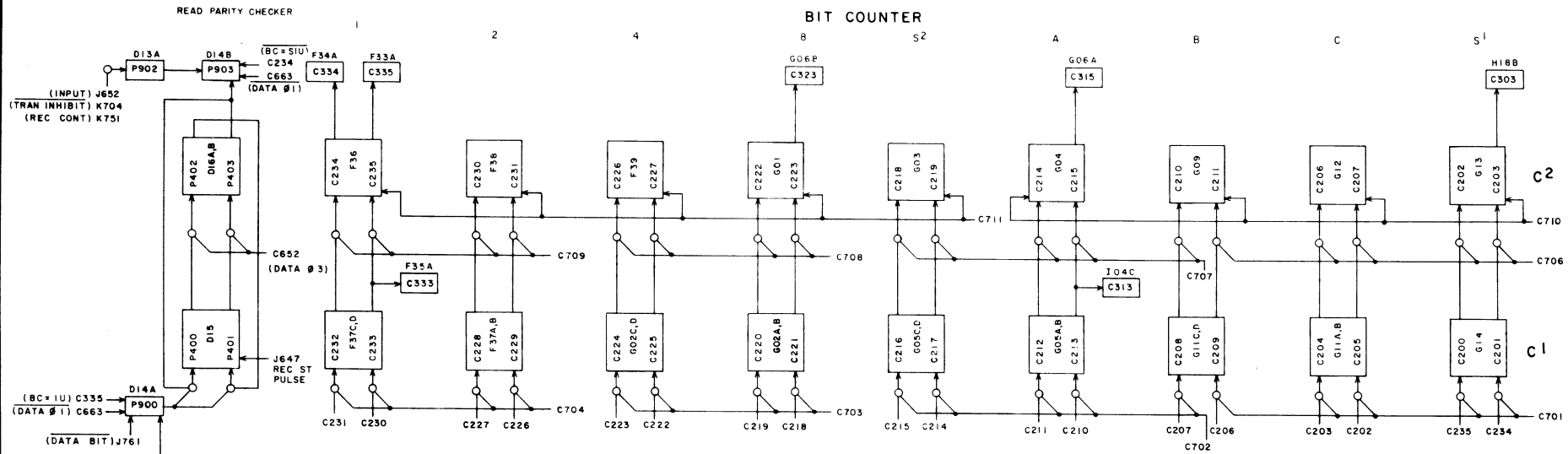
The Shift (S) register provides for accepting or transmitting data serially to and from the disk pack. The register loads and unloads each 6-bit character in parallel between the Shift register and the Transfer (X) register.

During Read operations, the  $S^2$  to  $S^1$  elements are disabled to block loading of the sync and parity bits into and through the register. During Write operations these bits are loaded directly into the upper stage of the register at the correct time for transfer to the disk pack (at the time the sync

and parity bits are to be loaded, the  $S^2$  to  $S^1$  elements are disabled to inhibit shifting of the register). The sync bits are loaded via inverter S620. Note that the  $S^1$  sync bit is written just prior to the parity bit so that the upper stage FFs are in a set state at the time the parity bit should be loaded. Therefore it is only necessary to clear the stage if the parity bit should be zero.

### READ PARITY CHECKER

The Read Parity Checker is initially cleared by the Record pulse. Thereafter as data enters the S register, the Not Data Bit pulse (J671) enables the setting and clearing of the Read Parity Checker FFs such that on completion of the character transfer into the S register, the FFs should be in a cleared state. This is accomplished in the following manner. All character bits are sampled by the checker with the exception of the  $S_1$  sync bit which is excluded from the checker. Since an odd number of "1's" is always written, exclusion of the  $S_1$  sync bit (which equals "1") results in even parity for the character entering the Read Parity Checker. Thus the FFs of the checker should shift (set and clear) an even number of times such that the FFs are in a cleared state on completion of the parity check. If they are set, a parity error has been detected and an error indication will be provided by inverter P903.



## COMPARE NETWORK

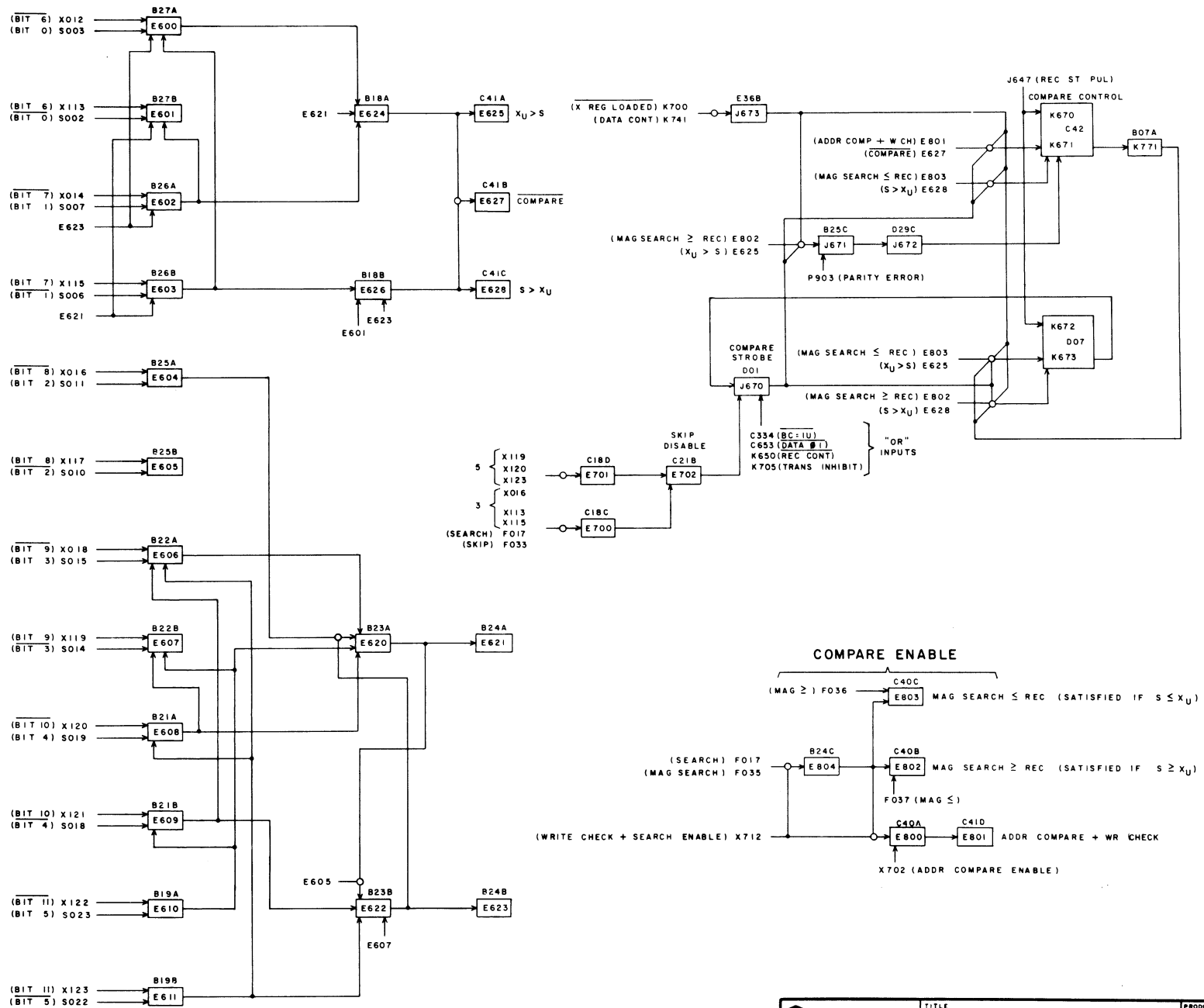
TERM	LOCATION	PAGE
8834	F34A	1-27
8853	J13	1-9
8817	I40B	1-7
8833	J06B	1-7
8835	J02B	1-7
8836	J08A	1-7
8837	J08B	1-7
J647	H39	1-15
K650	I02A	1-15
K708	F32A	1-17
K705	G39A	1-17
K741	J39A	1-15
8803	D14B	1-27
8802	F29A	1-27
8803	F29B	1-27
8806	F37A	1-27
8807	F37B	1-27
8810	F35A	1-27
8811	F35B	1-27
8814	F23A	1-27
8815	F23B	1-27
8818	F21A	1-27
8819	F21B	1-27
8822	F19A	1-27
8823	F19B	1-27
X812	F39	1-19
X814	F10	1-19
X816	F02	1-19
X818	F06	1-19
X813	E41A	1-19
X815	E41B	1-19
X817	F04A	1-19
X819	F04B	1-19
X820	F09A	1-19
X821	F13	1-19
X822	F09B	1-19
X823	G37B	1-19
X702	H05	1-17
X712	H03	1-17

The Compare Network is used during addressing, Write Check, and Search operations. The network compares the upper 6 bits of the Transfer register with the contents of the Shift register (this is a character to character comparison). Initially, the Compare FFs are set by the Record pulse. If the ensuing character comparison is not successful, the Compare Control FF is cleared; if successful, the FF remains set. If a Magnitude Search is satisfied, K672/673 is cleared, disabling any further compare strobes.

Note that during Search operations, the occurrence of a Skip code (53<sub>g</sub>) in the X register character causes Compare Strobe J670 to be disabled during that character comparison.

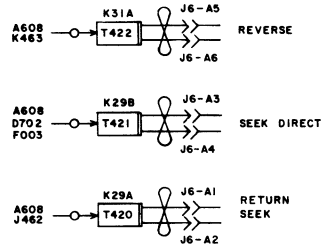


ADDRESS, WRITE CHECK, & SEARCH COMPARE NETWORK

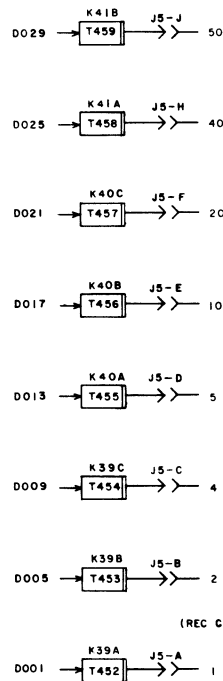


TERM	LOCATION	PAGE
A022	C28A	1-21
A026	C29A	1-21
A030	C32A	1-21
A034	C35A	1-21
A035	C35B	1-21
A122	J38A	1-21
A123	J37B	1-21
A126	J38B	1-21
A127	J37D	1-21
A232	C19C	1-21
A233	C33	1-21
A608	C24	1-21
A633	I14C	1-21
C653	J13	1-9
D001	D22H	1-25
D005	D30H	1-25
D009	D19H	1-25
D013	D10H	1-25
D017	E30H	1-25
D021	E05H	1-25
D025	E10H	1-25
D029	E02H	1-25
D702	D34D	1-25
F003	I32H	1-7
J421	H12	1-9
J455	G32C	1-11
J460	J35A	1-13
J462	J35B	1-13
J473	G26A	1-11
J650	H29	1-15
J654	C39A	1-15
J702	I11A	1-15
J703	I09A	1-15
K103	L30H	1-7
K410	K04A	1-5
K411	K04H	1-5
K412	K05A	1-5
K413	K05H	1-5
K414	K06A	1-5
K415	K06H	1-5
K463	J27D	1-13
K471	G23H	1-11
K541	B08B	1-17
K571	H35B	1-11
K751	I01B	1-15
S022	F19A	1-27

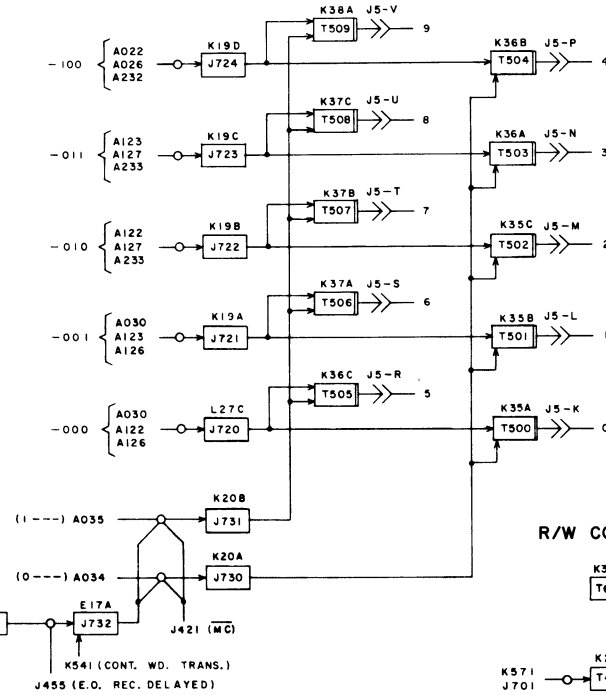
**POSITIONING CONTROL**



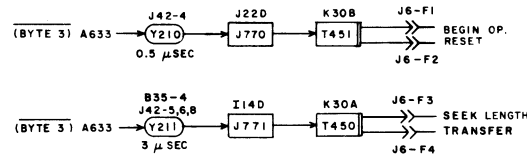
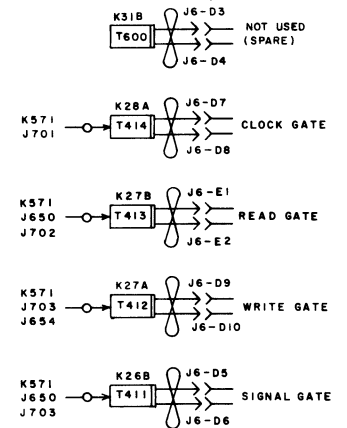
**SET TAR REGISTER**



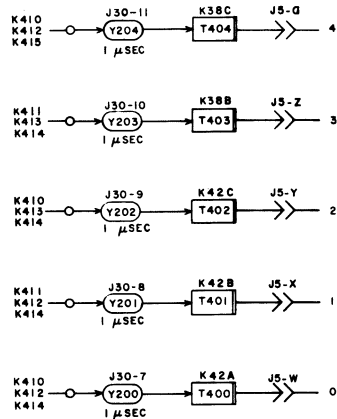
**HEAD SELECTION**



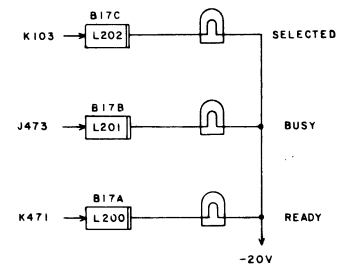
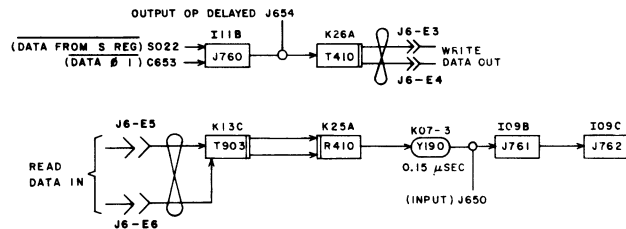
**R/W CONTROL**

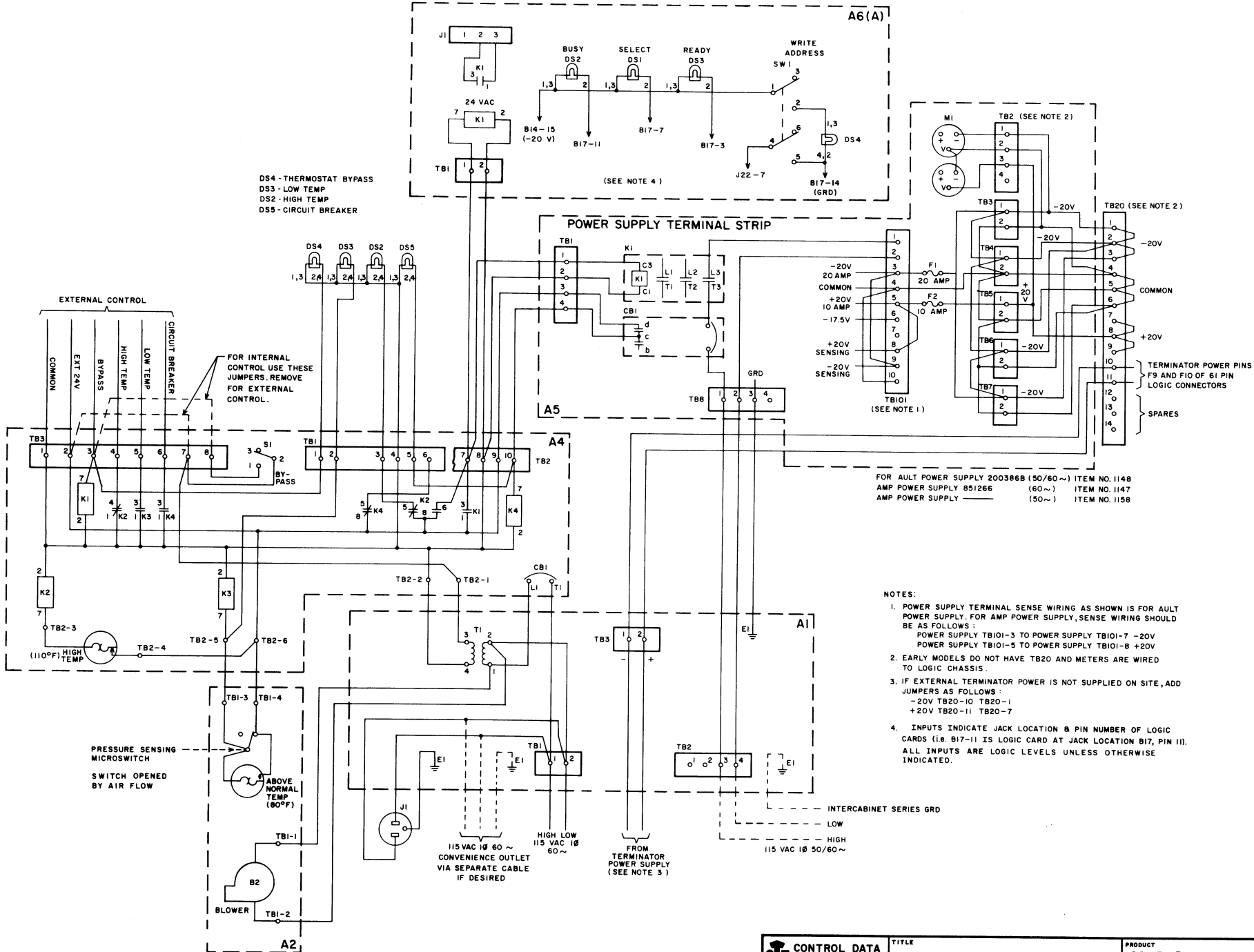


**UNIT SELECTION**



**DATA BIT I/O**





DS4 - THERMOSTAT BYPASS  
 DS3 - LOW TEMP  
 DS2 - HIGH TEMP  
 DS5 - CIRCUIT BREAKER

EXTERNAL CONTROL  
 COMMON  
 EXT 24V  
 BYPASS  
 HIGH TEMP  
 LOW TEMP  
 CIRCUIT BREAKER

FOR INTERNAL CONTROL USE THESE JUMPERS. REMOVE FOR EXTERNAL CONTROL.

(110°F) HIGH TEMP

PRESSURE SENSING MICROSWITCH  
 SWITCH OPENED BY AIR FLOW

ABOVE NORMAL TEMP (80°F)  
 BLOWER

115 VAC 1Ø 60 ~  
 CONVENIENCE OUTLET VIA SEPARATE CABLE IF DESIRED

HIGH LOW 115 VAC 1Ø 60 ~  
 FROM TERMINATOR POWER SUPPLY (SEE NOTE 3)

INTERCABINET SERIES GRD  
 LOW  
 HIGH  
 115 VAC 1Ø 50/60 ~

FOR AULT POWER SUPPLY 200386B (50/60 ~) ITEM NO. 1148  
 AMP POWER SUPPLY 851266 (60 ~) ITEM NO. 1147  
 AMP POWER SUPPLY (50 ~) ITEM NO. 1158

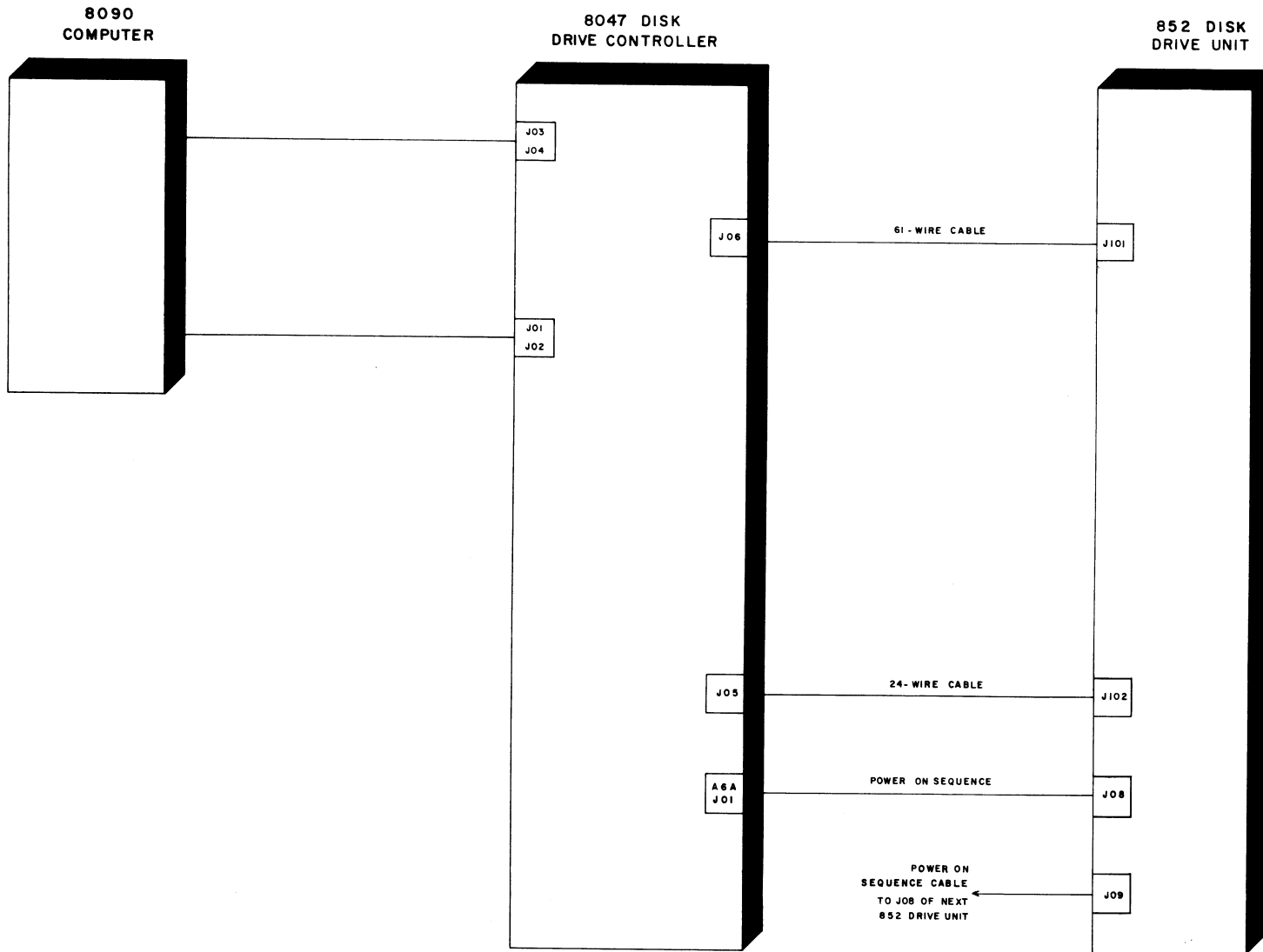
NOTES:

1. POWER SUPPLY TERMINAL SENSE WIRING AS SHOWN IS FOR AULT POWER SUPPLY. FOR AMP POWER SUPPLY, SENSE WIRING SHOULD BE AS FOLLOWS:  
 POWER SUPPLY TB101-3 TO POWER SUPPLY TB101-7 -20V  
 POWER SUPPLY TB101-5 TO POWER SUPPLY TB101-8 +20V
2. EARLY MODELS DO NOT HAVE TB20 AND METERS ARE WIRED TO LOGIC CHASSIS.
3. IF EXTERNAL TERMINATOR POWER IS NOT SUPPLIED ON SITE, ADD JUMPERS AS FOLLOWS:  
 -20V TB20-10 TB20-1  
 +20V TB20-11 TB20-7
4. INPUTS INDICATE JACK LOCATION & PIN NUMBER OF LOGIC CARDS (I.e. B17-11 IS LOGIC CARD AT JACK LOCATION B17, PIN 11). ALL INPUTS ARE LOGIC LEVELS UNLESS OTHERWISE INDICATED.

CONTROL DATA CORPORATION  
 COMPUTER DIVISION

TITLE  
 POWER DISTRIBUTION  
 115 VAC 50/60 ~

PRODUCT  
 8047-B  
 SIZE DRAWING NO.  
 C 60159400  
 REV  
 A  
 SHEET PAGE  
 16 1-33



**PART 2**

**MAINTENANCE**

PART 2  
MAINTENANCE  
INTRODUCTION

This section covers the general maintenance procedures for the disk drive controller. Specific information on the disk drive units will be found in their associated manuals. These units are maintained by the OEM Customer Engineer.

MANUALS

The manuals associated with the disk pack subsystem are:

- 8090 Computer Reference Manual, Pub. No. 60091500
- 8047 Disk Drive Controller Reference Manual, Pub. No. 60159300
- 852 Disk Drive Unit Service Manual, Pub. No. 40820000

LOGIC

No special tools are necessary for the maintenance of the controller. The controller uses standard 1604 series logic.

INSTALLATION

Refer to the Site Preparation and Installation Manual, Pub. No. 60110400.

POWER DISTRIBUTION

The general power distribution is shown on page 1-33 of the logic diagrams.

The controller requires 115-volt, single-phase, 50/60-cycle service. Power to the controller should be fused at the main junction box prior to entering the equipment power cable.

SCHEDULED MAINTENANCE

Table 2-1 indicates the type and frequency of routine maintenance.

TABLE 2-1. SCHEDULED MAINTENANCE

DAILY
<ol style="list-style-type: none"> <li>1) Check all power supply settings.</li> <li>2) Check temperature and humidity conditions.</li> <li>3) Check main power level.</li> </ol>
WEEKLY
<ol style="list-style-type: none"> <li>1) Inspect surfaces for damage to recording medium.</li> <li>2) Run test routines*.</li> </ol>
MONTHLY
<ol style="list-style-type: none"> <li>1) Clean all filters, air intakes, and louvers.</li> <li>2) Run diagnostic routines*.</li> </ol>

\* The System Maintenance Monitor (SMM) contains various diagnostic routines. A portion of the diagnostic routines should be run weekly so that all routines have been run at least once a month unless site usage suggests a more appropriate schedule.



PART 3

PARTS LIST

## PART 3

### PARTS LIST

The parts list provides the identification and ordering data necessary for the replacement of electrical and hardware parts for the 8047-B Disk Drive Controller.

The product designation, final assembly number, and product name appear at the top of each page.

The list is arranged in disassembly order, using a level of assembly to indicate the relationship of parts.

8047-B 18324400 K Mod 8047B Disk Drive Controller

L E V E L*	PART NO	REV	DESCRIPTION	EFFECTIVITY
1	18357600	C	CHAS SUBASSY 8047 B	
2	25153701	C	MEMBER FR CHAS BOT AND TOP	
3	30003700	B	ALUMINUM ALLOY SPECIAL SHAPED	IN 0/0/00
2	25153702	C	MEMBER FR CHAS BOT AND TOP	
3	30003700	B	ALUMINUM ALLOY SPECIAL SHAPED	IN 0/0/00

Refer to the Literature Distribution Center Catalog for related manuals on printed circuit card assemblies, peripheral cabinets, power supplies, and vendor parts lists necessary to complete a total breakdown of the equipment.

---

\* The level of assembly in relation to the final cabinet assembly (2 is the subassembly of level 1, 3 is the subassembly of level 2, etc).

\*\* The date of serial effectivity on which the part is either added (IN) or deleted (OUT) in the equipment.

8047-B 18324400 K MOD 8047B DISK DRIVE CONT

LEVEL	PARTNO	REV	EFFECTIVITY	
1	18357600	C	CHAS SUBASSY 8047 B	
2	25153701	C	MEMBER FR CHAS BOT AND TOP	
3	30003700	B	ALUMINUM ALLOY SPECIAL SHAPED	IN 0/ 0/00
2	25153702	C	MEMBER FR CHAS BOT AND TOP	
3	30003700	B	ALUMINUM ALLOY SPECIAL SHAPED	IN 0/ 0/00
2	25153800	G	MEMBER FRAME CHAS-RIGHT SIDE	
3	25153500	B	EXTRUSION CHASSIS	IN 0/ 0/00
2	25153900	G	MEMBER FRAME CHAS LEFT SIDE	
3	25153500	B	EXTRUSION CHASSIS	IN 0/ 0/00
2	30008700	C	BKT ANGLE CHASSIS FRAME	
2	25152900	A	MTG., BAR, CONNECTOR (01-42)	
2	11412600	B	STRIP, MARKER (01-21)	
2	11412700	B	STRIP, MARKER (22-42)	
2	25153100		STRIP MARKER NARROW (01-21)	
3	10057600	A	EXTRUSION NARROW MARKER STRIP	IN 0/ 0/00
2	25153200		STRIP MARKER NARROW (22-42)	
3	10057600	A	EXTRUSION NARROW MARKER STRIP	IN 0/ 0/00
2	30013802	B	SPACER	
2	10001800	P	RECEPTACLE 30 SOCKET	
2	30002201	F	CAP FXD ELECTROLYTIC	
2	24511440	F	LEAD FLECT 2.25 IN. SOLID BLK	
2	18324100	G	WL LOGIC 8047-B	
3	24511402	F	LEAD,ELECTRICAL, 2 INCH.	IN S 000025
3	24511403	F	LEAD,ELECTRICAL, 3 INCH.	IN S 000025
3	24511404	F	LEAD,ELECTRICAL, 4 INCH.	IN S 000011
3	24511405	F	LEAD,ELECTRICAL, 5 INCH.	
3	24511406	F	LEAD,ELECTRICAL, 6 INCH.	IN S 000011
3	24511407	F	LEAD,ELECTRICAL, 7 INCH.	IN S 000012
3	24511408	F	LEAD,ELECTRICAL, 8 INCH.	IN S 000002
3	24511409	F	LEAD,ELECTRICAL, 9 INCH.	IN S 000011
3	24511410	F	LEAD,ELECTRICAL,10 INCH.	IN S 000025
3	24511411	F	LEAD,ELECTRICAL,11 INCH.	IN S 000026
3	24511412	F	LEAD,ELECTRICAL,12 INCH.	IN S 000011
3	24511413	F	LEAD,ELECTRICAL,13 INCH.	IN S 000011
3	24511414	F	LEAD,ELECTRICAL,14 INCH.	IN S 000025
3	24511415	F	LEAD,ELECTRICAL,15 INCH.	IN S 000012
3	24511416	F	LEAD,ELECTRICAL,16 INCH.	
3	24511417	F	LEAD,ELECTRICAL,17 INCH.	IN S 000012
3	24511418	F	LEAD,ELECTRICAL,18 INCH.	
3	24511419	F	LEAD,ELECTRICAL,19 INCH.	IN S 000002
3	24511420	F	LEAD,ELECTRICAL,20 INCH.	
3	24511421	F	LEAD,ELECTRICAL,21 INCH.	
3	24511422	F	LEAD,ELECTRICAL,22 INCH.	
3	24511423	F	LEAD,ELECTRICAL,23 INCH.	
3	24511424	F	LEAD,ELECTRICAL,24 INCH.	IN S 000002
3	24511425	F	LEAD,ELECTRICAL,25 INCH.	
3	24511426	F	LEAD,ELECTRICAL,26 INCH.	
3	24511427	F	LEAD,ELECTRICAL,27 INCH.	
3	24511428	F	LEAD,ELECTRICAL,28 INCH.	
3	24511429	F	LEAD,ELECTRICAL,29 INCH.	
3	24511433	F	LEAD,ELECTRICAL,33 INCH.	
2	17711000	D	PLATE IDENT COMPUTER DEV DIV	

8047-B 18324400 K MOD 8047B DISK DRIVE CONT

LEVEL	PARTNO	REV	EFFECTIVITY
2	09005306	A	SCR MACH FH SLOT 1/4
2	09026009		NUT, HEXAGON
2	09027009		LOCKWASHER, INTERNAL TOOTH
2	09018634	B	SCR MACH PAN HD PHL NO. 10
2	09029102	C	SCREW, SEMS PHILLIPS ROUND HD
2	09029104	C	SCREW, SEMS PHILLIPS ROUND HD
2	25156700	B	PLATE, RETAINING, ELEC. CONN.-
2	30116600	B	BRACKET MOUNTING SHIELD
2	30104800	J	HINGE, I/O CONNECTOR PANEL
2	25156802	C	PL RETAINING ELEC. CONN
2	30094402		CONN RECEPT 10 CONTACT (RED)
2	30094406		CONN RECEPT 10 CONTACT (BLUE)
2	30094410		CONN RECEPT 10 CONTACT (BLACK)
2	30104600	C	SUPPORT CONN, ASSY
2	00857102	B	BRG SLV-FLG NYLON 1/4
2	25159700	A	LATCH, CONNECTOR PANEL
2	30103900	C	STUD, EXTENSION
2	00856604	C	THUMBSCREW
2	11819100	C	CHASSIS PWR AND GROUND WIRING
2	09026006		NUT, HEXAGON
2	25166212	F	SHIELD CONN RECP LETTERED
2	30116500		SHIELD CONN RECP ELEC-LONG
3	09027007		LOCKWASHER, INTERNAL TOOTH
2	24511441	F	LEAD ELECT 2.25 IN. SOLID RED
2	24511442	F	LEAD ELECT 2.25 IN. SOLID BLU
2	17743002	D	LEAD ELECT 18 GA 5 IN RED
2	17743003	D	LEAD ELECT 18 GA 5 IN BLUE
2	17743005	D	LEAD ELECT 18 GA 7 IN RED
2	17743006	D	LEAD ELECT 18 GA 7 IN BLUE
2	09027004		LOCKWASHER, INTERNAL TOOTH
2	09018505	A	SCR MACH PAN HD PHL NO. 8
2	09027006		LOCKWASHER, INTERNAL TOOTH
2	09026005		NUT, HEXAGON
2	09027005		LOCKWASHER, INTERNAL TOOTH
2	09018203		SCR. MACH PAN HD PHL NO. 4
2	09018401	C	SCR. MACH PAN HD PHL NO. 6
2	09027003		LOCKWASHER, INTERNAL TOOTH
2	09026003		NUT, HEXAGON
2	09018506	A	SCR MACH PAN HD PHL NO. 8
2	18065300	D	CABLE ASSY 24PIN DISK CONT J1
3	24512001	C	CONN RECEPT 4 HOLE PNL MTG 24
3	24500833	F	INSULATION SLEEVING ELECT
3	24500707	G	PIN TAPER
3	24548301	J	WIRE FLEC STRD INS. UL APPD
3	24548303	J	WIRE FLEC STRD INS. UL APPD
3	24548305	J	WIRE FLEC STRD INS. UL APPD
3	24548306	J	WIRE FLEC STRD INS. UL APPD
3	24548307	J	WIRE FLEC STRD INS. UL APPD
3	24548311	J	WIRE FLEC STRD INS. UL APPD
3	24548312	J	WIRE FLEC STRD INS. UL APPD
3	24548313	J	WIRE FLEC STRD INS. UL APPD
3	24548314	J	WIRE FLEC STRD INS. UL APPD

8047-B 18324400 K MOD 8047B DISK DRIVE CONT

L E V E L	PARTNO	REV	EFFECTIVITY
3	24548315	J WIRE ELFC STRD INS. UL APPD	
3	24548316	J WIRE ELEC STRD INS. UL APPD	
3	24548317	J WIRE ELFC STRD INS. UL APPD	
3	24548318	J WIRE ELFC STRD INS. UL APPD	
3	24548319	J WIRE ELFC STRD INS. UL APPD	
3	24548320	J WIRE ELFC STRD INS. UL APPD	
3	24548321	J WIRE ELFC STRD INS. UL APPD	
3	24548322	J WIRE ELFC STRD INS. UL APPD	
3	24548323	J WIRE ELFC STRD INS. UL APPD	
3	24548324	J WIRE ELEC STRD INS. UL APPD	
3	24548325	J WIRE ELFC STRD INS. UL APPD	
3	24548326	J WIRE ELEC STRD INS. UL APPD	
3	24548327	J WIRE ELEC STRD INS. UL APPD	
3	24548328	J WIRE ELFC STRD INS. UL APPD	
3	24548300	J WIRE, ELEC-STRD, INDULAPPD	
2	18065301	D CABLE ASSY 24PIN DISK CONT J2	IN 11/11/66
3	24512001	C CONN RECP. 4 HOLE PNL MTG 24	IN 8/ 3/66
3	24500833	F INSULATION SLEEVING ELECT	
3	24500707	G PIN TAPER	
3	24548301	J WIRE ELEC STRD INS. UL APPD	
3	24548303	J WIRE ELFC STRD INS. UL APPD	
3	24548305	J WIRE ELFC STRD INS. UL APPD	
3	24548306	J WIRE ELFC STRD INS. UL APPD	
3	24548307	J WIRE ELFC STRD INS. UL APPD	
3	24548311	J WIRE ELEC STRD INS. UL APPD	
3	24548312	J WIRE ELFC STRD INS. UL APPD	
3	24548313	J WIRE ELEC STRD INS. UL APPD	
3	24548314	J WIRE ELEC STRD INS. UL APPD	
3	24548315	J WIRE ELFC STRD INS. UL APPD	
3	24548316	J WIRE ELFC STRD INS. UL APPD	
3	24548317	J WIRE ELFC STRD INS. UL APPD	
3	24548319	J WIRE ELFC STRD INS. UL APPD	
3	24548320	J WIRE ELFC STRD INS. UL APPD	
3	24548323	J WIRE ELFC STRD INS. UL APPD	
3	24548300	J WIRE, ELEC-STRD, INDULAPPD	
2	18065302	D CABLE ASSY 24PIN DISK CONT J3	IN 11/11/66
3	24512001	C CONN RECP. 4 HOLE PNL MTG 24	IN 8/ 3/66
3	24500833	F INSULATION SLEEVING ELECT	
3	24500707	G PIN TAPER	
3	24548301	J WIRE ELFC STRD INS. UL APPD	
3	24548303	J WIRE ELFC STRD INS. UL APPD	
3	24548305	J WIRE ELFC STRD INS. UL APPD	
3	24548306	J WIRE ELFC STRD INS. UL APPD	
3	24548307	J WIRE ELFC STRD INS. UL APPD	
3	24548311	J WIRE ELFC STRD INS. UL APPD	
3	24548312	J WIRE ELFC STRD INS. UL APPD	
3	24548313	J WIRE ELFC STRD INS. UL APPD	
3	24548314	J WIRE ELEC STRD INS. UL APPD	
3	24548315	J WIRE ELFC STRD INS. UL APPD	
3	24548316	J WIRE ELFC STRD INS. UL APPD	
3	24548317	J WIRE ELFC STRD INS. UL APPD	
3	24548318	J WIRE ELFC STRD INS. UL APPD	

8047-R 18324400 K MOD 8047B DISK DRIVE CONT

L E V E L	PARTNO	REV	EFFECTIVITY
3	24548319	J WIRE FLEC STRD INS. UL APPD	
3	24548320	J WIRE FLEC STRD INS. UL APPD	
3	24548321	J WIRE FLEC STRD INS. UL APPD	
3	24548322	J WIRE FLEC STRD INS. UL APPD	
3	24548323	J WIRE FLEC STRD INS. UL APPD	
3	24548324	J WIRE FLEC STRD INS. UL APPD	
3	24548325	J WIRE FLEC STRD INS. UL APPD	
3	24548326	J WIRE FLEC STRD INS. UL APPD	
3	24548327	J WIRE FLEC STRD INS. UL APPD	
3	24548328	J WIRE FLEC STRD INS. UL APPD	
3	24548300	J WIRE, FLEC-STRD, INDULAPPD	
2	18065303	D CABLE ASSY 24PIN DISK CONT J4	IN 11/11/66
3	24512001	C CONN RECP. 4 HOLE PNL MTG 24	IN R/ 3/66
3	24500833	F INSULATION SLEEVING ELECT	
3	24500707	G PIN TAPER	
3	24548301	J WIRE ELEC STRD INS. UL APPD	
3	24548303	J WIRE ELEC STRD INS. UL APPD	
3	24548305	J WIRE FLEC STRD INS. UL APPD	
3	24548306	J WIRE FLEC STRD INS. UL APPD	
3	24548307	J WIRE FLEC STRD INS. UL APPD	
3	24548311	J WIRE FLEC STRD INS. UL APPD	
3	24548312	J WIRE FLEC STRD INS. UL APPD	
3	24548313	J WIRE FLEC STRD INS. UL APPD	
3	24548314	J WIRE ELEC STRD INS. UL APPD	
3	24548315	J WIRE ELEC STRD INS. UL APPD	
3	24548316	J WIRE FLEC STRD INS. UL APPD	
3	24548317	J WIRE FLEC STRD INS. UL APPD	
3	24548319	J WIRE FLEC STRD INS. UL APPD	
3	24548320	J WIRE FLEC STRD INS. UL APPD	
3	24548321	J WIRE FLEC STRD INS. UL APPD	
3	24548322	J WIRE FLEC STRD INS. UL APPD	
3	24548326	J WIRE FLEC STRD INS. UL APPD	
3	24548327	J WIRE FLEC STRD INS. UL APPD	
3	24548300	J WIRE, FLEC-STRD, INDULAPPD	
2	18065304	D CABLE ASSY 24PIN DISK CONT J5	IN 11/11/66
3	24512001	C CONN RECP. 4 HOLE PNL MTG 24	IN R/ 3/66
3	24500833	F INSULATION SLEEVING ELECT	
3	24500707	G PIN TAPER	
3	24548301	J WIRE ELEC STRD INS. UL APPD	
3	24548303	J WIRE ELEC STRD INS. UL APPD	
3	24548305	J WIRE FLEC STRD INS. UL APPD	
3	24548306	J WIRE FLEC STRD INS. UL APPD	
3	24548307	J WIRE FLEC STRD INS. UL APPD	
3	24548311	J WIRE FLEC STRD INS. UL APPD	
3	24548312	J WIRE FLEC STRD INS. UL APPD	
3	24548313	J WIRE ELEC STRD INS. UL APPD	
3	24548314	J WIRE FLEC STRD INS. UL APPD	
3	24548315	J WIRE ELEC STRD INS. UL APPD	
3	24548316	J WIRE ELEC STRD INS. UL APPD	
3	24548317	J WIRE ELEC STRD INS. UL APPD	
3	24548318	J WIRE FLEC STRD INS. UL APPD	
3	24548319	J WIRE FLEC STRD INS. UL APPD	

8047-R 18324400 K MOD 8047B DISK DRIVE CONT

LEVEL	PARTNO	REV		EFFECTIVITY
3	24548320	J	WIRE ELEC STRD INS. UL APPD	
3	24548321	J	WIRE ELEC STRD INS. UL APPD	
3	24548322	J	WIRE ELEC STRD INS. UL APPD	
3	24548323	J	WIRE ELEC STRD INS. UL APPD	
3	24548324	J	WIRE ELEC STRD INS. UL APPD	
3	24548325	J	WIRE ELEC STRD INS. UL APPD	
3	24548326	J	WIRE ELEC STRD INS. UL APPD	
3	24548327	J	WIRE ELEC STRD INS. UL APPD	
3	24548328	J	WIRE ELEC STRD INS. UL APPD	
3	24548300	J	WIRE, ELEC-STRD, INDULAPPD	
2	09018304		SCR MACH PAN HD PHL NO. 5	IN 11/11/66
2	09026004		NUT, HEXAGON	IN 11/11/66
2	18066600	C	CONNECTOR ASSY 61 PIN	IN 11/11/66
3	24500707	G	PIN TAPER	
3	24500810	F	INSULATION SLEEVING ELEC	
3	30000902	K	FEMALE CONTACT	
3	30000901	K	CONN. RECP ELEC 61 PIN CONT	
3	31000001	B	WIRE, 24GA TWIST, PR. BR-W/RD	
3	31000002	B	WIRE, 24GA TWIST, PR. BR-W/YE	
3	31000003	B	WIRE, 24GA TWIST, PR. BR-W/BL	
3	31000009	B	WIRE, 24GA TWIST, PR. RD-W/GY	
3	31000010	B	WIRE, 24GA TWIST, PR. RD-W/BL	
3	31000011	B	WIRE, 24GA TWIST, PR. OR-W/RD	
3	31000012	B	WIRE, 24GA TWIST, PR. OR-W/YE	
3	31000013	B	WIRE, 24GA TWIST, PR. OR-W/BL	
3	31000014	B	WIRE, 24GA TWIST, PR. OR-W/GY	
3	31000015	B	WIRE, 24GA TWIST, PR. OR-W/BL	
3	31000016	B	WIRE, 24GA TWIST, PR. YE-W/R	
3	31000017	B	WIRE, 24GA TWIST, PR. YE-W/YE	
3	31000018	B	WIRE, 24GA TWIST, PR. YE-W/BL	
3	31000019	B	WIRE, 24GA TWIST, PR. YE-W/GY	
3	31000020	B	WIRE, 24GA TWIST, PR. YE-W/BL	
3	31000021	B	WIRE, 24GA TWIST, PR. GR-W/RD	
3	31000022	B	WIRE, 24GA TWIST, PR. GR-W/YE	
3	31000023	B	WIRE, 24GA TWIST, PR. GR-W/BL	
3	31000024	B	WIRE, 24GA TWIST, PR. GR-W/GY	
3	31000025	B	WIRE, 24GA TWIST, PR. GR-W/BL	
3	31000026	B	WIRE, 24GA TWIST, PR. BLU-W/R	
3	31000027	B	WIRE, 24GA TWIST, PR. BLU-W/Y	
3	31000028	B	WIRE, 24GA TWIST, PR. BLU-W/B	
3	31000029	B	WIRE, 24GA TWIST, PR. BLU-W/B	
3	24548303	J	WIRE ELEC STRD INS. UL APPD	
3	24548307	J	WIRE ELEC STRD INS. UL APPD	
3	24548301	J	WIRE ELEC STRD INS. UL APPD	
3	00865004	G	GROM STR REL 0.468 ID	
2	09018633	B	SCR MACH PAN HD PHL NO. 10	IN 11/11/66
2	09027507		WASHER, PLAIN FLAT	IN 11/11/66
2	09018303		SCR MACH PAN HD PHL NO. 5	IN 11/11/66
2	18065700	E	CONTROL PANEL ASSEMBLY	IN 11/11/66
3	24501502	A	STRIP TERMINAL	IN 1/13/66
3	17915800	C	BRACKET RELAY	
3	17882000	B	PANEL CONTROL	

8047-R 18324400 K MOD 8047R DISK DRIVE CONT

LEVEL	PARTNO	REV		EFFECTIVITY
3	24511501	D	LAMP HOLDER PUSH-BUT.	IN 1/13/66
3	24543597	U	LENS INDICATOR LIGHT	
3	24515806	A	LAMP, INCANDESCENT	IN 1/13/66
3	24512306	G	LAMP INCANDESCENT	IN 10/28/66
3	24521300	D	SWITCH PUSH -ALTERNATE, 2 PDT	IN 1/13/66
3	24542700	A	INDICATOR LAMPHOLDER	
3	24547900		SOCKET, TUBE 8 CONTACT, OCTAL	IN 1/13/66
3	24550801	G	RELAY, OCTAL SOCKET	
3	93947003		CONNECTOR (SOCKET HOUSING)	IN 1/13/66
3	18065800	C	WIRE LIST CONTROL PANEL	
4	24500707	G	PIN TAPER	
4	93943001		CONTACT, SOCKET, SERIES .090	IN 8/25/67
4	24524806	J	TERMINAL, LUG CRIMP-INSULATED	
4	24548302	J	WIRE ELEC STRD INS. UL APPD	
4	24548307	J	WIRE ELEC STRD INS. UL APPD	
4	24548301	J	WIRE ELEC STRD INS. UL APPD	
4	24548305	J	WIRE ELEC STRD INS. UL APPD	
1	18065400	J	CARD PLACEMENT	
2	10201801	B	CARD ASSY 11A SINGLE INVERTER	IN 3/ 7/66
2	10201901	B	CARD ASSY 12A SINGLE INVERTER	IN 0/ 0/00
2	10202001	C	CARD ASSY 13A SINGLE INVERTER	IN 0/ 0/00
2	10202501	B	CARD ASSY 14A SINGLE INVERTER	
2	10202601	B	CARD ASSY 15A SINGLE INVERTER	
2	10202701	B	CARD ASSY 16A SINGLE INVERTER	
2	10232201	D	ASSY 20A QUADRUPLE INVERTER	
2	10202801	B	CARD ASSY 21A DOUBLE INVERTER	
2	10203401	B	CARD ASSY 22A DOUBLE INVERTER	
2	10203501	C	CARD ASSY 23A DOUBLE INVERTER	
2	10203601	B	CARD ASSY 24A DOUBLE INVERTER	
2	10232501	A	ASSY 28A TRIPLE INVERTER	IN 0/ 0/00
2	10232801	B	TRIPLE INVERTER TYPE 29B ASSY	
2	10334401	B	DOUBLE FLIP-FLOP TYPE 30A	
2	10203701	B	CARD ASSY 31A FLIP FLOP	IN 0/ 0/00
2	10203801	B	CARD ASSY 32A FLIP FLOP	IN 3/ 7/66
2	10203901	B	CARD ASSY 33A FLIP FLOP	
2	10336901	A	CARD ASSY 60A OUTPUT	
2	10206001	A	CARD ASSY 61 INPUT	IN 6/23/66
2	10005901	A	CARD ASSY 62 OUTPUT	
2	10335201		CARD ASSY 73A VARIABLE DELAY	
2	10211301	A	CARD ASSY 82 VARIABLE DELAY	
2	17678800	A	DLY F11 ASSY	
2	17683600	D	DLY P13A ASSY	IN 8/16/66
2	17683900	E	XMTR P14 ASSY	IN 6/23/66
2	17684200	A	XMSN LINE TERM P15 ASSY	
2	17684500	A	RCVR P16A ASSY	IN 8/16/66
2	18438000	A	POWER LOSS XMTR TYPE 6ALH	IN S 000025
2	18437900	A	POWER LOSS DET TYPE 6AMH ASSY	IN S 000025



8047-B 18324400 K MOD 8047B DISK DRIVE CONT

LEVEL	PARTNO	REV	EFFECTIVITY
1	31531201	B	SPACER ASSY CARD (01-42)
2	10035300	A	HAR CARD SPACER, NOTCHED
2	09018505	A	SCR MACH PAN HD PHL NO. 8
2	92074012	P	O-RING
2	31534402	C	HAR, COVER-CARD SPACER
2	09004905	B	SCR MACH FH SLOT NO. 6
1	31531301	B	SPACER ASSY CARD (01-42)
2	10035300	A	HAR CARD SPACER, NOTCHED
2	09018505	A	SCR MACH PAN HD PHL NO. 8
2	92074012	P	O-RING
2	31534401	C	HAR, COVER-CARD SPACER
2	09004905	B	SCR MACH FH SLOT NO. 6

**PART 4**

**CARD PLACEMENT**



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 2 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
B1	21	A212				8	B13	21	X621	X622			8
B2	20	A245	A255	A214		16	B14	23	X640	A226			10
B3	21	A631	A632			8	B15	21	X631	X632			8
B4							B16						
B5	20	A620	A621	F106		16	B17	62	L200	L201	L202		1
B6	21	A213				8	B18	23	E624	E626			10
B7	20	K771				16	B19	22	E610	E611			9
B8	21	X641	K541			8	B20	30	A036	A037	A038	A039	19
B9	22	X623	X624			9	B21	23	E608	E609			10
B10							B22	24	E606	E607			11
B11							B23	24	E620	E622			11
B12	23	X620	X630			10	B24	29	E621	E623	E804		18

4-1

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP** DOCUMENT NO. **18065400** REV. **A**

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 3 OF

4-2

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
B25	28	E604	E605	J671		17	B37	20	D705	A228	A218	J627	16
B26	23	E602	E603			10	B38						
B27	24	E600	E601			11	B39						
B28	E11	1Y151	2	3Y161	4	26	B40	30	A044	A045	A046	A047	19
		5Y191	6Y191	7Y162	8Y191		B41	32	D032	D033			13
		9Y101	10Y101	11Y174	12Y183		B42	30	A048	A049	A050	A051	19
B29	32	A004	A005			13							
B30	30	A040	A041	A042	A043	19							
B31	32	A012	A013			13							
B32	32	A020	A021			13							
B33	32	A028	A029			13							
B34	30	K654	K655										
B35	73A	Y211 <sub>4</sub>	Y191 <sub>5</sub>	Y184 <sub>6</sub>	Y141 <sub>7</sub>	27							
		8	9	Y177 <sub>10</sub>	11								
B36	73	Y191 <sub>4</sub>	Y191 <sub>5</sub>	Y142 <sub>6</sub>	Y141 <sub>7</sub>	27							
		8	9	10	11								



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 4 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
C1	20	A227	A201	A225	A222	16	C13	11	A223				2
C2	21	A210	A221			8	C14	11	A203				2
C3	31	A002	A003			12	C15	12	A202				3
C4	32	A000	A001			13	<b>C16</b>	22	A215	A224			9
C5	31	A006	A007			12	C17	21	A600	A601			8
C6	31	A010	A011			12	C18	20	A602	A640	E700	E701	16
C7	32	A008	A009			13	C19	29	A604	A630	A232		18
C8	31	A014	A015			12	C20	22	A605	A236			9
C9	31	A018	A019			12	C21	<b>28</b>	A607	E702	J454		17
C10							C22	21	A641	A642			8
C11	32	A016	A017			13	C23	20	A235	A237	A609	A610	16
C12	11	A220				2	C24	13	A608				4

4-3

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

C

**COMPUTER DIVISION**

CHASSIS: 804

SHEET 5 OF

4-4

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
C25	11	A205				2	C37	21	A234	X123			8
C26	13	A204				4	C38	11	A606				2
C27	21	A211	A231			8	C39	20	J654	Rb11	J606	J733	16
C28	31	A022	A023			12	C40	28	E800	E802	E803		17
C29	31	A026	A027			12	C41	20	E625	E627	E628	E801	16
C30							C42	33	K670	K671			14
C31	32	A024	A025			13							
C32	31	A030	A031			12							
C33	11	A233				2							
C34	11	A230				2							
C35	31	A034	A035			12							
C36	32	A032	A033			13							



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

COMPUTER DIVISION

CHASSIS: 8047

SHEET 6 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
D1	16	J670				7	D13	20	P902				16
D2	28	D664	D666	D612		17	D14	24	P900	P903			11
D3	20	D661	D663	D665	D667	16	D15	32	P400	P401			13
D4	28	D656	D660	D662		17	D16	30	P402	P403	—	—	19
D5	20	D651	D653	D655	D657	16	D17	12	D631				3
D6	28	D650	D652	D654		17	D18	31	D014	D015			12
D7	32	K672	K673			13	D19	32	D008	D009			13
D8	21	S603	D106			8	D20	31	D010	D011			12
D9	21	S601	S602			8	D21	31	D006	D007			13
D10	32	D012	D013			13	D22	32	D000	D001			13
D11	14	S610				5	D23	31	D002	D003			13
D12	28	S620	C823			17	D24	11	D102				2

4-5

REV A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.  
**18065400**

REV.

**A**

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 7 OF

4-6

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
D25	11	D609				2	D37	29	D624	D710	D700		18
D26	12	D608				3	D38	20	D669	D126	D711	D623	16
D27	—	—				—	D39	21	D601	D122			8
D28	12	D703				3	D40	11	D118				2
D29	20	D720	D110	J672	D704	16	D41	11	D607				2
D30	32	D004	D005			13	D42	13	D606				4
D31	21	D621	D602			8							
D32	22	D604	D605			9							
D33	23	D600	D701			10							
D34	20	D620	D603	D622	D702	16							
D35	28	D611	D630	S607		17							
D36	24	D610				11							





**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 8 OF 8

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
E1	31	D030	D031			12	E13	29	X101	X103	X105		18
E2	32	D028	D029			13	E14	14	X004				5
E3	31	D026	D027			12	E15	14	X005				5
E4	31	D022	D023			13	E16						
E5	32	D020	D021			13	E17	28	J732	—			17
E6	31	D018	D019			13	E18	20	X604	K485	K486		16*
E7	31	D034	D035			12	E19	15	X006				6
E8	15	X000				6	E20	14	X007				5
E9	14	X001				5	E21	21	X109	X111			8
E10	32	D024	D025			13	E22	32	X008	X009			13
E11	15	X002				6	E23	32	X010	X011			13
E12	14	X003				5	E24	11	X600				2

4-7

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 804

SHEET 9 OF

4-8

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
E25	11	X611				2	E37	11	X601				2
E26	21	X602	A200			8	E38	11	X612				2
E27	29	X107	P815	C822		18	E39	15	X012				6
E28	20	P811	P813	J603	X610	16	E40	14	X013				5
E29	28	P814	—	J479		17	E41	21	X113	X115			8
E30	32	D016	D017			13	E42						
E31	30	K600	K601	K602	K603	19							
E32	29	K700	K701			18							
E33	28	J600	J604	J605		17							
E34	22	X625	J602			9							
E35	12	J601				3							
E36	21	X603	J673			8							



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 10 OF 11

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
F1	14	X015				5	F13	11	X121				2
F2	15	X016				6	F14	20	C800	C802	C803	C804	16
F3	14	X017				5	F15	29	C805	S600			18
F4	21	X117	X119			8	F16	21	C807	C808			8
F5	24	P810	P812			11	F17	20	C806	C810	C811	C814	16
F6	16	X018				7	F18	21	C815	S605			8
F7	14	X019				5	F19	31	S022	S023			12
F8	33	X020	X021			14	F20	33	S020	S021			14
F9	29	X120	X122	K543		18	F21	31	S018	S019			12
F10	16	X014				7	F22	32	S016	S017			13
F11	20	K704	C836	J492	J493	16	F23	31	S014	S015			12
F12	33	X022	X023			14	F24	32	S012	S013			13

4-9

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.  
18065400

REV.  
C

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 11 OF 22

4-10

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
F25	31	S010	S011			12	F37	30	C228	C229	C232	C233	19
F26	32	S008	S009			13	F38	32	C230	C231			13
F27	31	S006	S007			13	F39	32	C226	C227			13
F28	32	S004	S005			13	F40	21	C700	C705			8
F29	31	S002	S003			12	F41	21	C708	C709			8
F30							F42	21	C703	C704			8
F31	32	S000	S001			13							
F32	21	C710	C711			8							
F33	21	C335	S606			8							
F34	20	C334	C720	S604	J494	16							
F35	20	C333	C721	C722	J653	16							
F36	32	C234	C235			13							



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

B

COMPUTER DIVISION

CHASSIS: 8047

SHEET 12 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
G1	32	C222	C223			13	G13	32	C202	C203			13
G2	30	C220	C221	C224	C225	19	G14	31	C200	C201			12
G3	32	C218	C219			13	G15	30	K494	K495	K492	K493	19
G4	32	C214	C215			13	G16	30	—	—	K480	K481	19
G5	30	C212	C213	C216	C217	19	G17	30	K478	K479	K476	K477	19
G6	21	C315	C323			8	G18	32	K474	K475			13
G7	21	C706	C707			8	G19	32	K472	K473			13
G8	21	C701	C702			8	G20	21	J488	J474			8
G9	32	C210	C211			13	G21	30	K488	K489	K496	K497	19
G10	11	J439				2	G22	20	J489	J476	K572	J470	16
G11	30	C204	C205	C208	C209	19	G23	31	K470	K471			12
G12	32	C206	C207			13	G24	21	J471				8

4-11

Rev A

Rev A



CARD PLACEMENT

DOCUMENT NO. 18065400  
 REV. A  
 CP

COMPUTER DIVISION

CHASSIS: 8047

SHEET 13 OF

4-12

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
G25	24	J475				11	G37	21	J440	—			8
G26	22	J473	J457			9	G38						
G27	20	J483	J456	K595	J477	16	G39	20	K705	J430	G616	J445	16
G28	21	J450	J486			8	G40	24	X720	X730			11
G29	16	J485				7	G41	24	X740	X650			11
G30	11	X664				2	G42	20	X721	X751	X660	X700	16
G31													
G32	29	X710	J452	J443		18							
G33	20	J441	J442	J444	J445	16							
G34	32	K442	K443			14							
G35	30	K440	K441	K482	K483	19							
G36	23	J487	—			10							



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

J

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 14 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
H1	28	X713	X642	C611		17	H13	21	J433	C809			8
H2	22	X711				9	H14	21	J434	J435			8
H3	12	X712				3	H15	21	J436	J437			8
H4	12	X701				3	H16	20	F131	C831	C833	C835	16
H5	12	X702				3	H17	21	J438				8
H6	13	X661				4	H18	21	C510	C303			8
H7	12	X662				3	H19	31	C410	C411			12
H8	11	X651				2	H20	32	C408	C409			13
H9	33	K604	K605			14	H21	31	C406	C407			12
H10	23	X750	C610			10	H22	32	C404	C405			13
H11	E11	1	2Y140	3Y150	4Y171	26	H23	31	C402	C403			12
		5Y172	6Y173	7Y160	8Y161		H24	32	C400	C401			13
		9Y020	10Y101	11Y170	12Y101								
H12	12	J421				3							

4-13

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 15 OF

4-14

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
H25	12	C820				3	H37	29	J660	J661	J663		18
H26	11	C821				2	H38	14	J645				5
H27	12	C500				3	H39	12	J647				3
H28	12	C501				3	H40	21	J646	J665			8
H29	12	J650				3	H41	20	J633	J652	J666	J662	16
H30							H42	32	K648	K649			13
H31	11	J651				2							
H32	20	C521	C520	C525	C524	16							
H33	20	C529	C528	J420	K744	16							
H34	82	Y130				15							
H35	21	K749	K571			8							
H36	11	J664				2							





**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

B

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 16 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
I1	21	K753	K751			8	I13	14	J642				5
I2	32	K650	K651			13	I14	20	J449	X663	A633	J771	16
I3	32	K652	K653			13	I15	32	K000	K001			12
I4	20	K750	K740	C313		16	I16	29	X742	J001	J472		18
I5	32	K640	K641			13	I17	28	F720	F721	F072		17
I6	33	K644	K645			14	I18	28	F722	F723	F092		17
I7							I19	13	F700				4
I8	32	K646	K647			13	I20	13	F701				4
I9	29	J703	J761	J762		18	I21	13	F702				4
I10	11	F104				2	I22	13	F703				4
I11	28	J702	J760	C613		17	I23	13	F704				4
I12	20	J701	J700	J643	J644	16	I24	13	F705				4

4-15

Rev A

REV A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

C

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 17 OF

4-16

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
I25	23	F706	F707			10	I37	31	F010	F011			12
I26	29	F060	F070	F080		18	I38	31	F012	F013			12
I27	29	F090	F063	J431		18	I39	31	F014	F015			12
I28	20	F064	F073	F040	J432	16	I40	31	F016	F017			12
I29	12	F061				3	I41	12	F081				3
I30	32	F008	F009			13	<del>    </del>	<del>    </del>	<del>    </del>	<del>    </del>			<del>    </del>
I31	31	F000	F001			12	I42	E11	Y180 <sub>1</sub>	Y180 <sub>2</sub>	Y180 <sub>3</sub>	Y180 <sub>4</sub>	26
I32	31	F002	F003			12			Y180 <sub>5</sub>	Y180 <sub>6</sub>	Y180 <sub>7</sub>	Y144 <sub>8</sub>	
I33	31	F004	F005			12			Y144 <sub>9</sub>	Y144 <sub>10</sub>	Y145 <sub>11</sub>	Y145 <sub>12</sub>	
I34	31	F006	F007			12							
I35	21	F050	F051			8							
I36	22	F071	C660			9							



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 18 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
J1	32	F022	F023			13	J13	11	C653				2
J2	32	F024	F025			13	J14	11	C655				2
J3	11	F052				2	J15	12	C606				3
J4	12	F091				3	J16	22	C602	J043			9
J5	32	F030	F031			13	J17	21	C605	C663			8
J6	32	F032	F033			13	J18	31	C000	C001			12
J7	32	F034	F035			13	J19	31	C002	C003			12
J8	32	F036	F037			13	J20	29	J620	J624	J571		18
J9	12	F062				3	J21	16	J622				7
J10							J22	20	J621	J641	R500	J770	16
J11	12	C650				3	J23	12	J625				3
J12	12	C652				3	J24	21	J623	D721			8

4-17

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.  
18065400

REV.  
J

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 19 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
J25	32	K620	K621			13	J37	20	<u>J480</u>	A123	J574	A127	16
J26	28	J631	C642	C600		17	J38	29	A122	A126	J482		18
J27	30	<u>K624</u>	K625	K462	K463	19	J39	21	K741	J626			8
J28	20	J629	J630	J632	—	16	J40	20	C640	J461	J463	J490	16
J29	33	K622	K623			14	J41						
J30	E11	<sub>1</sub> Y146	<sub>2</sub> Y146	<sub>3</sub> Y146	<sub>4</sub> Y182	26	J42	E11	<sub>1</sub> Y000	<sub>2</sub> Y001	<sub>3</sub> Y002	<sub>4</sub> Y210	26
		<sub>5</sub> Y004	<sub>6</sub> Y004	<sub>7</sub> Y200	<sub>8</sub> Y201				<sub>5</sub> Y211	<sub>6</sub> Y211	<sub>7</sub> Y100	<sub>8</sub> Y211	
		<sub>9</sub> Y202	<sub>10</sub> Y203	<sub>11</sub> Y204	<sub>12</sub> Y103				<sub>9</sub> Y102	<sub>10</sub> Y010	<sub>11</sub> Y003	<sub>12</sub> —	
J31	32	K630	K631			13							
J32	31	K632	K633			12							
J33	—	—	—			—							
J34													
J35	20	J460	J462	J015		16							
J36	22	<u>J572</u>	C662			9							

4-18



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP** DOCUMENT NO. **18065400** REV. **A**

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 20 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
K1	22	J004	J000			9	K13	P15	T904	—	T903	T900	24
K2									E	F			
K3	29	J011	J012	J010		18	K14						
K4	32	K410	K411			13	K15	—	—	—			—
K5	32	K412	K413			13	K16						
K6	32	K414	K415			13	K17						
K7	P13	1Y120	2Y181	3Y190	4Y121		K18	29	J040	F065	U010		18
		5Y122	6Y123				K19	20	J721	J722	J723	J724	16
K8	32	C040	C041			13	K20	21	J730	J731			8
K9	31	C042	C043			12	K21	28	C601	C604	J008		17
K10							K22	P16	R430	R431			23
K11	P15	T902 <sup>A</sup>	T901 <sup>B</sup>	T906 <sup>C</sup>	T905 <sup>D</sup>	24	K23	P16	R411	R412			23
		E	F				K24	P16	R420				23
K12	20	C641	C608	—	C603	16							

4-19

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

H

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 21

4-20

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
K25	P16	R410	R400			23	K37	60	T506	T507	T508		20
K26	P14	T410	T411			22	K38	60	T509	T403	T404		20
K27	P14		T413			22	K39	60	T452	T453	T454		20
K28	P14	T414	T415			22	K40	60	T455	T456	T457		20
K29	P14	T420	T421			22	K41	60	T458	T459			20
K30	P14	T450	T451			22	K42	60	T400	T401	T402		20
K31	P14	T422	T600			22							
K32	6ALH	T412				30							
K33	6AMH	V020				29							
K34													
K35	60	T500	T501	T502		20							
K36	60	T503	T504	T505		20							



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.  
18065400

REV.  
A

COMPUTER DIVISION

CHASSIS: 8047

SHEET 22 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
L1	61	M000	M001	M002		28	L13	21	U008	U011			8
L2	61	M003	M004	M005		28	L14	20	U012	U013	U014	U015	16
L3	61	M006	M007	M008		28	L15	20	J002	J003	J005	C612	20
L4	61	M009	M010	M011		28	L16	60	L000	L001	L002		20
L5	61	M100	M101	M102		28	L17	60	L003	L004	L005		20
L6	61	M103				28	L18	60	L006	L007	L008		20
L7	11	U000				2	L19	60	L009	L010	L011		20
L8	21	U001	U003			8	L20	60	L100	L101	L102		20
L9	11	U002				2	L21	60	L103	L104			20
L10	21	U005	U006			8	L22	20	J020	J021	J027	J050	16
L11	11	U004				2	L23	21	J022				8
L12	20	U007	U009	<del>C607</del>	C614	16	L24	21	J025	J042			8

4-21

Rev A

Rev A



**CONTROL DATA**  
CORPORATION

**CARD PLACEMENT**

**CP**

DOCUMENT NO.

18065400

REV.

A

**COMPUTER DIVISION**

CHASSIS: 8047

SHEET 23 OF

LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.	LOCATION	LOGIC CARD TYPE	A	B	C	D	FIND NO.
L25	11	J023				2	L37	30	S208	S209	S210	S211	19
L26	28	J026	J028	J029		17	L38	11	J024				2
L27	20	J030	<del>    </del>	J720	C615	16	L39						
L28	11	J031				2	L40						
L29	11	J041				2	L41						
L30	21	J032	K103			8	L42						
L31	32	K002	K003			13							
L32	31	K004	K005			12							
L33	22	F600				9							
L34	11	S630				2							
L35	30	S200	S201	S202	S203	19							
L36	30	S204	S205	S206	S207	19							

4-22



**PART 5**

**EQUATION SUMMARY**

A000 = A001 + A641 X001 + A200 A002  
1C004A / 32 \* A001 \* A003 \* A225

A001 = A000 + A210 + A200 A003  
1C004B / 32 \* A000 \* A002

A002 = A003 + A201 A001  
1C003A / 31 \* A000 \* A003 \* A226 \* X001

A003 = A002 + A201 A000  
1C003B / 31 \* A001 \* A002 \* A215

A004 = A005 + A641 X003 + A202 A006 A223  
1B029A / 32 \* A005 \* A007 \* A225

A005 = A004 + A210 + A202 A223 A007  
1B029B / 32 \* A004 \* A006

A006 = A007 + A203 A005  
1C005A / 31 \* A004 \* A007 \* A220 \* X003

A007 = A006 + A203 A004  
1C005B / 31 \* A005 \* A006

A008 = A009 + A641 X005 + A202 A220 A223 A010  
1C007A / 32 \* A009 \* A011 \* A225

A009 = A008 + A210 + A202 A220 A011 A223  
1C007B / 32 \* A008 \* A010

A010 = A011 + A203 A009  
1C006A / 31 \* A008 \* A011 \* A221 \* X005

A011 = A010 + A203 A008  
1C006B / 31 \* A009 \* A010

A012 = A013 + A641 X007 + A202 A220 A014 A221  
1B031A / 32 \* A013 \* A015 \* A225

A013 = A012 + A210 + A202 A220 A015 A221  
1B031B / 32 \* A012 \* A014

A014 = A015 + A203 A013  
1C008A / 31 \* A012 \* A015 \* A222 \* X007

A015 = A014 + A203 A012  
1C008B / 31 \* A013 \* A014 \* A223 \* A224

A016 = A017 + A642 X013 + A018 A202 A220 A222 A221  
1C011A / 32 \* A017 \* A019 \* A235

A017 = A016 + A210 + A222 A202 A220 A019 A221  
1C011B / 32 \* A016 \* A018

A018 = A019 + A203 A017  
1C009A / 31 \* A016 \* A019 \* X013

A019 = A018 + A203 A016  
1C009B / 31 \* A017 \* A018 \* A224

A020 = A021 + A642 X015 + A022 A204 A233  
 1B032A / 32 \* A021 \* A023 \* A235

A021 = A020 + A211 + A204 A023 A233  
 1B032B / 32 \* A020 \* A022

A022 = A023 + A205 A021  
 1C028A / 31 \* A020 \* A023 \* A123 \* A230 \* J724 \* X015

A023 = A022 + A205 A020  
 1C028B / 31 \* A021 \* A022 \* A122

A024 = A025 + A642 X017 + A204 A230 A233 A026  
 1C031A / 32 \* A025 \* A027 \* A235

A025 = A024 + A211 + A204 A230 A027 A233  
 1C031B / 32 \* A024 \* A026

A026 = A027 + A205 A025  
 1C029A / 31 \* A024 \* A027 \* A127 \* A231 \* J724 \* X017

A027 = A026 + A205 A024  
 1C029B / 31 \* A025 \* A026 \* A126

A028 = A029 + A642 X019 + A030 A204 A230 A231  
 1B033A / 32 \* A029 \* A031 \* A235

A029 = A028 + A211 + A204 A230 A031 A231  
 1B033B / 32 \* A028 \* A030

A030 = A031 + A205 A029  
 1C032A / 31 \* A028 \* A031 \* A232 \* J720 \* J721 \* X019

A031 = A030 + A205 A028  
 1C032B / 31 \* A029 \* A030 \* A233 \* A234

A032 = A033 + A631 X001 + A034 A204 A230 A232 A231  
 1C036A / 32 \* A033 \* A035 \* A245

A033 = A032 + A211 + A232 A204 A230 A035 A231  
 1C036B / 32 \* A032 \* A034

A034 = A035 + A205 A033  
 1C035A / 31 \* A032 \* A035 \* J730 \* X001

A035 = A034 + A205 A032  
 1C035B / 31 \* A033 \* A034 \* A234 \* J731

A036 = A037 + X003 A631  
 1B020A / 30 \* A037 \* A245 \* X003

A037 = A036 + A212  
 1B020B / 30 \* A036

A038 = A039 + X005 A631  
 1B020C / 30 \* A039 \* A245 \* X005

A039 = A038 + A212  
 1B020D / 30 \* A038

A040 = A041 + X007 A631

1B030A / 30      \* A041 \* A245 \* X007  
 A041 = A040 + A212  
 1B030B / 30      \* A040  
 A042 = A043 + X013 A632  
 1B030C / 30      \* A043 \* A255 \* X013  
 A043 = A042 + A212  
 1B030D / 30      \* A042  
 A044 = A045 + X015 A632  
 1B040A / 30      \* A045 \* A255 \* X015  
 A045 = A044 + A213  
 1B040B / 30      \* A044  
 A046 = A047 + X017 A632  
 1B040C / 30      \* A047 \* A255 \* X017  
 A047 = A046 + A213  
 1B040D / 30      \* A046  
 A048 = A049 + X019 A632  
 1B042A / 30      \* A049 \* A255 \* X019  
 A049 = A048 + A213  
 1B042B / 30      \* A048  
 A050 = A051 + A621 X101  
 1B042C / 30      \* A051  
 A051 = A050 + A213  
 1B042D / 30      \* A050 \* X000 \* X642  
 A122 = A023  
 1J038A / 29      \* J720 \* J722  
 A123 = A022  
 1J037B / 20      \* J721 \* J723  
 A126 = A027  
 1J038B / 29      \* J720 \* J721  
 A127 = A026  
 1J037D / 20      \* J722 \* J723  
 A200 = A600  
 1E026B / 21      \* A000 \* A001  
 A201 = A601  
 1C001B / 20      \* A002 \* A003  
 A202 = A215 + A600  
 1C015A / 12      \* A004 \* A005 \* A008 \* A009 \* A012 \* A013 \* A014  
                          \* A017  
 A203 = A601  
 1C014A / 11      \* A006 \* A007 \* A010 \* A011 \* A014 \* A015 \* A018  
                          \* A019  
 A204 = A224 + A215 + A600

1C026A / 13      \* A020 \* A021 \* A024 \* A025 \* A028 \* A029 \* A032  
                          \* A033

A205 = J421 A218 A601  
 1C025A / 11      \* A022 \* A023 \* A026 \* A027 \* A030 \* A031 \* A034  
                          \* A035

A210 = A605 F030 A214  
 1C002A / 21      \* A001 \* A005 \* A009 \* A013 \* A017

A211 = A605  
 1C027A / 21      \* A021 \* A025 \* A029 \* A033 \* A218

A212 = A605  
 1B001A / 21      \* A037 \* A039 \* A041 \* A043

A213 = A605  
 1B006A / 21      \* A045 \* A047 \* A049 \* A051 \* K483

A214 = F007 K541  
 1B002C / 20      \* A210

A215 = F131 \* A003  
 1C016A / 22      \* A202 \* A204

A218 = A211  
 1B037C / 20      \* A205

A220 = A223 A006  
 1C012A / 11      \* A008 \* A009 \* A012 \* A013 \* A016 \* A017

A221 = A223 A010  
 1C002B / 21      \* A012 \* A013 \* A016 \* A017

A222 = A014  
 1C001D / 20      \* A016 \* A017

A223 = A015  
 1C013A / 11      \* A004 \* A005 \* A008 \* A009 \* A220 \* A221

A224 = A015 A019 \* F131  
 1C016B / 22      \* A204 \* A226

A225 = F104 A012 A008 A004 A000  
 1C001C / 20      \* X003 \* X007

A226 = A002 F030 \* A224 \* A227  
 1B014B / 23      \* A237 \* K631

A227 = K753 A602 C207  
 1C001A / 20      \* A226 \* A228

A228 = A227  
 1B037B / 20      \* K474 \* K474

A230 = A233 A022  
 1C034A / 11      \* A024 \* A025 \* A028 \* A029 \* A032 \* A033

A231 = A233 A026  
 1C027B / 21      \* A028 \* A029 \* A032 \* A033

A232 = A030

1C019C / 29      \* A032 \* A033 \* J724  
 A233 = A031  
 1C033A / 11      \* A020 \* A021 \* A024 \* A025 \* A230 \* A231 \* J722  
                  \* J723  
 A234 = A035 A031  
 1C037A / 21      \* A236  
 A235 = F104 A028 A024 A020 A016  
 1C023A / 20      \* X015 \* X019  
 A236 = A234 + A237  
 1C020B / 22      \* K482  
 A237 = F106 A226  
 1C023B / 20      \* A236  
 A245 = F104 A040 A038 A036 A032  
 1B002A / 20      \* X003 \* X007  
 A255 = F104 A048 A046 A044 A042  
 1B002B / 20      \* X015 \* X019  
 A600 = K753 C211 C650 K482 A602  
 1C017A / 21      \* A200 \* A202 \* A204  
 A601 = C662  
 1C017B / 21      \* A201 \* A203 \* A205  
 A602 = K740 K632  
 1C018A / 20      \* A227 \* A600  
 A604 = K541 J440 C043  
 1C019A / 29      \* A606  
 A605 = J430 + J440 C606 K541  
 1C020A / 22      \* A210 \* A211 \* A212 \* A213  
 A606 = A604  
 1C038A / 11      \* A607 \* A608 \* A611 \* A620 \* A630 \* A640 \* D620  
                  \* D623  
 A607 = A606 + A611 Y160  
 1C021A / 28      \* A610 \* X720  
 A608 = A606 + A611 Y161 + C808 Y162  
 1C024A / 13      \* J463 \* K472 \* K630 \* T420 \* T421 \* T422  
 A610 = A607  
 1C023D / 20      \* D607 \* D609  
 A611 = A606  
 1C039B / 20      \* A607 \* A608  
 A620 = C805 A606  
 1B005A / 20      \* A621 \* D630  
 A621 = A620  
 1B005B / 20      \* A050  
 A630 = C807 A606

1C019B / 29      \* A631 \* A632 \* D631  
 A631 = A630  
 1B003A / 21      \* A032 \* A036 \* A038 \* A040  
 A632 = A630  
 1B003B / 21      \* A042 \* A044 \* A046 \* A048 \* A633  
 A633 = A632  
 1J014C / 20      \* J770 \* J771  
 A640 = A606 C809  
 1C018B / 20      \* A641 \* A642  
 A641 = A640  
 1C022A / 21      \* A000 \* A004 \* A008 \* A012  
 A642 = A640  
 1C022B / 21      \* A016 \* A020 \* A024 \* A028  
 C000 = C001 + C601  
 1J018A / 31      \* C001 \* C003 \* C602 \* C604  
 C001 = C000 + C003 Y103  
 1J018B / 31      \* C000 \* C002 \* C606  
 C002 = C003 + C001 Y101  
 1J019A / 31      \* C003 \* C604 \* C606  
 C003 = C002 + C000 Y102  
 1J019B / 31      \* C001 \* C002 \* C602  
 C040 = C041 + R400 + C642  
 1K008A / 32      \* C041 \* C650 \* C660 \* Y122  
 C041 = C040 + Y123 + GND  
 1K008B / 32      \* C040 \* C652 \* C662 \* Y121  
 C042 = C043 + Y121  
 1K009A / 31      \* C043 \* C652 \* C662 \* X623  
 C043 = C042 + Y122  
 1K009B / 31      \* A604 \* C042 \* C650 \* C660 \* Y123  
 C200 = C201 + C701 C235  
 1G014A / 31      \* C201 \* C203 \* X625  
 C201 = C200 + C701 C234  
 1G014B / 31      \* C200 \* C202  
 C202 = C203 + C706 C201 + GND  
 1G013A / 32      \* C203 \* C205 \* C303 \* P903 \* S600  
 C203 = C202 + C710 + C706 C200  
 1G013B / 32      \* C202 \* C204 \* D604 \* K651 \* X750  
 C204 = C205 + C701 C203  
 1G011A / 30      \* C205 \* C207  
 C205 = C204 + C701 C202  
 1G011B / 30      \* C204 \* C206

C206 = C207 + C706 C205 + GND  
1G012A / 32 \* C207 \* C209 \* S610

C207 = C206 + C710 + C706 C204  
1G012B / 32 \* A227 \* C206 \* C208 \* S607 \* X720

C208 = C209 + C702 C207  
1G011C / 30 \* C209 \* C211

C209 = C208 + C701 C206  
1G011D / 30 \* C208 \* C210

C210 = C211 + C707 C209 + GND  
1G009A / 32 \* C211 \* C213

C211 = C210 + C710 + C706 C208  
1G009B / 32 \* A600 \* C210 \* C212 \* C823 \* X720

C212 = C213 + C702 C211  
1G005A / 30 \* C213 \* C215 \* C313

C213 = C212 + C702 C210  
1G005B / 30 \* C212 \* C214

C214 = C215 + C710 + C707 C213  
1G004A / 32 \* C215 \* C217 \* C315 \* S600 \* S620

C215 = C214 + C707 C212 + GND  
1G004B / 32 \* C214 \* C216 \* J644 \* K645

C216 = C217 + C702 C215  
1G005C / 30 \* C217 \* C219 \* J642

C217 = C216 + C702 C214  
1G005D / 30 \* C216 \* C218 \* K648

C218 = C219 + C707 C217 + GND  
1G003A / 32 \* C219 \* C221

C219 = C218 + C711 + C707 C216  
1G003B / 32 \* C218 \* C220 \* K605 \* K643 \* K645

C220 = C221 + C703 C219  
1G002A / 30 \* C221 \* C223 \* X624

C221 = C220 + C703 C218  
1G002B / 30 \* C220 \* C222

C222 = C223 + C708 C221 + GND  
1G001A / 32 \* C223 \* C225 \* C323

C223 = C222 + C711 + C708 C220  
1G001B / 32 \* C222 \* C224

C224 = C225 + C703 C223  
1G002C / 30 \* C225 \* C227 \* J647

C225 = C224 + C703 C222  
1G002D / 30 \* C224 \* C226

C226 = C227 + C708 C225 + GND  
1F039A / 32 \* C227 \* C229



C227 = C226 + C711 + C708 C224  
 1F039B / 32 \* C226 \* C228 \* K604

C228 = C229 + C704 C227  
 1F037A / 30 \* C229 \* C231

C229 = C228 + C704 C226  
 1F037B / 30 \* C228 \* C230

C230 = C231 + C709 C229 + GND  
 1F038A / 32 \* C231 \* C233

C231 = C230 + C711 + C709 C228  
 1F038B / 32 \* C230 \* C232 \* K650

C232 = C233 + C704 C231  
 1F037C / 30 \* C233 \* C235 \* C333

C233 = C232 + C704 C230  
 1F037D / 30 \* C232 \* C234 \* K652

C234 = C235 + C709 C233 + GND  
 1F036A / 32 \* C201 \* C235 \* C335 \* C820

C235 = C234 + C711 + C709 C232  
 1F036B / 32 \* C200 \* C234 \* C334 \* X740

C303 = C202  
 1H018B / 21 \* S021

C313 = C212  
 1J004C / 20 \* K648

C315 = C214  
 1G006A / 21 \* X730 \* X730 \* X730 \* X730 \* X740

C323 = C222  
 1G006B / 21 \* X650 \* X650 \* X650 \* X650

C333 = C232  
 1F035A / 20 \* J702

C334 = C235  
 1F034A / 20 \* J670 \* S620

C335 = C234  
 1F033A / 21 \* K649 \* P900 \* S607 \* X660

C400 = C401 + C831 + C820 C402  
 1H024A / 32 \* C401 \* C403 \* C521 \* C800 \* C804

C401 = C400 + C822 + C820 C510  
 1H024B / 32 \* C400 \* C402 \* C520 \* C802 \* C806

C402 = C403 + C821 C401  
 1H023A / 31 \* C400 \* C403 \* C501 \* C510 \* X662

C403 = C402 + C821 C400  
 1H023B / 31 \* C402 \* C500 \* X661

C404 = C405 + C833 + C406 C820 C510

1H022A / 32 \* C405 \* C407 \* C525 \* C800 \* C802  
 C405 = C404 + C510 C820 C407 + C822  
 1H022B / 32 \* C404 \* C406 \* C524 \* C804 \* C806  
 C406 = C407 + C821 C405  
 1H021A / 31 \* C404 \* C407  
 C407 = C406 + C821 C404  
 1H021B / 31 \* C405 \* C406 \* C408 \* C409 \* X740  
 C408 = C409 + C835 + C410 C820 C510 C407  
 1H020A / 32 \* C409 \* C411 \* C529 \* C800 \* C802  
 C409 = C408 + C822 + C820 C510 C407 C411  
 1H020B / 32 \* C408 \* C410 \* C528 \* C808 \* C810  
 C410 = C411 + C821 C409  
 1H019A / 31 \* C408 \* C411  
 C411 = C410 + C821 C408  
 1H019B / 31 \* C409 \* C410  
 C500 = C653 + C403  
 1H027A / 12 \* X650 \* X650 \* X720 \* X730 \* X730 \* X740  
 C501 = C653 + C402  
 1H028A / 12 \* X650 \* X650 \* X720 \* X730 \* X730 \* X740 \* X750  
 C510 = C402  
 1H018A / 21 \* C401 \* C404 \* C405 \* C408 \* C409  
 C520 = C401  
 1H032B / 20 \* C808  
 C521 = C400  
 1H032A / 20 \* C810 \* C814  
 C524 = C405  
 1H032D / 20 \* C808 \* C810  
 C525 = C404  
 1H032C / 20 \* C814  
 C528 = C409  
 1H033B / 20 \* C804 \* C806  
 C529 = C408  
 1H033A / 20 \* C814  
 C600 = C613 + K000  
 1J026C / 28 \* C608  
 C601 = C608 + C607 Y100  
 1K021A / 28 \* C000  
 C602 = C000 + C003  
 1J016A / 22 \* C603 \* J010 \* J487 \* J492  
 C603 = C602  
 1K012D / 20 \* F062 \* F072

C604 = C000 + C002  
1K021B / 28 \* C605

C605 = C604  
1J017A / 21 \* F061 \* F071 \* F081 \* F091 \* F092

C606 = C002 + C001  
1J015A / 12 \* A605 \* J008 \* K002 \* K004

C607 = C608  
1L012C / 20 \* C601

C608 = C600  
1K012B / 20 \* C601 \* C607

C610 = F721 K572 J632 + F723 K572 + GND  
1H010B / 23 \* C611

C611 = U011 + F065 F080 C610  
1H001C / 28 \* C613

C612 = C614 U010  
1L015D / 20 \* C613

C613 = C612 K472 + C611  
1I011C / 28 \* C600

C614 = C616 C615  
1L012D / 20 \* C612

C615 = F060  
1L027D / 20 \* C614

C616 = J479 J483  
1G039C / 20 \* C614

C640 = J443 J441 J442  
1J040A / 20 \* C641 \* Y120

C641 = C640  
1K012A / 20 \* C642

C642 = C641 + Y120  
1J026B / 28 \* C040

C650 = C043 + C040  
1J011A / 12 \* A600 \* C653 \* C663 \* C700 \* J644 \* S021 \* S600

C652 = C041 + C042  
1J012A / 12 \* C655 \* C705 \* P402 \* P403 \* S604 \* X750

C653 = C650  
1J013A / 11 \* C500 \* C501 \* C820 \* D606 \* D608 \* D610 \* J670  
\* J760

C655 = C652  
1J014A / 11 \* C821 \* D607 \* D609 \* D611 \* J642 \* X624 \* X625

C660 = C043 + C040  
1I036B / 22 \* X660 \* X740

C662 = C041 + C042

1J036B / 22      \* A601 \* K652  
 C663 = C650  
 1J017B / 21      \* P900 \* P903 \* S610  
 C700 = C722 C720 C650  
 1F040A / 21      \* C701 \* C702 \* C703 \* C704  
 C701 = C700  
 1G008A / 21      \* C200 \* C201 \* C204 \* C205 \* C209  
 C702 = C700  
 1G008B / 21      \* C208 \* C212 \* C213 \* C216 \* C217  
 C703 = C700  
 1F042A / 21      \* C220 \* C221 \* C224 \* C225  
 C704 = C700  
 1F042B / 21      \* C228 \* C229 \* C232 \* C233  
 C705 = C652  
 1F040B / 21      \* C706 \* C707 \* C708 \* C709 \* S020  
 C706 = C705  
 1G007A / 21      \* C202 \* C203 \* C206 \* C207 \* C211  
 C707 = C705  
 1G007B / 21      \* C210 \* C214 \* C215 \* C218 \* C219  
 C708 = C705  
 1F041A / 21      \* C222 \* C223 \* C226 \* C227 \* S023  
 C709 = C705  
 1F041B / 21      \* C230 \* C231 \* C234 \* C235 \* S022  
 C710 = J626  
 1F032A / 21      \* C203 \* C207 \* C211 \* C214  
 C711 = J626  
 1F032B / 21      \* C219 \* C223 \* C227 \* C231 \* C235  
 C720 = K649 R410 J650  
 1F034B / 20      \* C700  
 C721 = K744 Y191  
 1F035B / 20      \* C722  
 C722 = K749 J650 C721  
 1F035C / 20      \* C700  
 C800 = C400 C404 C408  
 1F014A / 20      \* D703  
 C802 = C401 C404 C408  
 1F014B / 20      \* C803  
 C803 = C802  
 1F014C / 20      \* D620  
 C804 = C400 C405 C528  
 1F014D / 20      \* C805 \* C836

C805 = C804  
 1F015A / 29        \* A620 \* D623 \* X640

C806 = C401 C405 C528  
 1F017A / 20        \* C807

C807 = C806  
 1F016A / 21        \* A630 \* X630 \* X640 \* X640

C808 = C409 C520 C524  
 1F016B / 21        \* A608 \* C809 \* J441 \* J442

C809 = C808 Y183  
 1H013B / 21        \* A640 \* J445 \* J485 \* X620

C810 = C409 C521 C524  
 1F017B / 20        \* C811

C811 = C810  
 1F017C / 20        \* X630 \* X630

C814 = C521 C525 C529  
 1F017D / 20        \* C815

C815 = C814  
 1F018A / 21        \* D604 \* X620 \* X620

C820 = C653 + K440 C234  
 1H025A / 12        \* C400 \* C401 \* C404 \* C405 \* C408 \* C409

C821 = D605 C655  
 1H026A / 11        \* C402 \* C403 \* C406 \* C407 \* C410 \* C411

C822 = D600 C823  
 1E027C / 29        \* C401 \* C405 \* C409

C823 = C211 K653 + GND  
 1D012B / 28        \* C822

C831 = J661 J662  
 1H016B / 20        \* C400

C833 = J666 J660  
 1H016C / 20        \* C404

C835 = J663 J664 J665 J660 J661  
 1H016D / 20        \* C408

C836 = C804  
 1F011B / 20        \* K643

D000 = D001 + D651 + D608 D002  
 1D022A / 32        \* D001 \* D003 \* D700

D001 = D000 + D602 + D608 D003  
 1D022B / 32        \* D000 \* D002 \* D720 \* T452

D002 = D003 + D609 D001  
 1D023A / 31        \* D000 \* D003 \* D704

D003 = D002 + D609 D000  
 1D023B / 31        \* D001 \* D002 \* D102

D004 = D005 + D653 + D006 D608 D102  
1D030A / 32 \* D005 \* D007 \* D700 \* D720

D005 = D004 + D602 + D608 D102 D007  
1D030B / 32 \* D004 \* D006 \* T453

D006 = D007 + D609 D005  
1D021A / 31 \* D004 \* D007 \* D704

D007 = D006 + D609 D004  
1D021B / 31 \* D005 \* D006 \* D106

D008 = D009 + D655 + D010 D608 D102 D106  
1D019A / 32 \* D009 \* D011 \* D700 \* D720

D009 = D008 + D602 + D608 D102 D011 D106  
1D019B / 32 \* D008 \* D010 \* T454

D010 = D011 + D609 D009  
1D020A / 31 \* D008 \* D011 \* D704

D011 = D010 + D609 D008  
1D020B / 31 \* D009 \* D010 \* D110

D012 = D013 + D657 + D014 D608 D102 D110 D106  
1D010A / 32 \* D013 \* D015 \* D700 \* D720

D013 = D012 + D602 + D110 D608 D102 D015 D106  
1D010B / 32 \* D012 \* D014 \* T455

D014 = D015 + D609 D013  
1D018A / 31 \* D012 \* D015 \* D704

D015 = D014 + D609 D012  
1D018B / 31 \* D013 \* D014

D016 = D017 + D661 + D018 D606  
1E030A / 32 \* D017 \* D019 \* D710

D017 = D016 + D601 + D606 D019  
1E030B / 32 \* D016 \* D018 \* T456

D018 = D019 + D607 D017  
1E006A / 31 \* D016 \* D019 \* D705

D019 = D018 + D607 D016  
1E006B / 31 \* D017 \* D018 \* D118

D020 = D021 + D663 + D022 D606 D118  
1E005A / 32 \* D021 \* D023 \* D710

D021 = D020 + D601 + D606 D118 D023  
1E005B / 32 \* D020 \* D022 \* T457

D022 = D023 + D607 D021  
1E004A / 31 \* D020 \* D023 \* D705

D023 = D022 + D607 D020  
1E004B / 31 \* D021 \* D022 \* D122

D024 = D025 + D665 + D026 D606 D118 D122

1E010A / 32      \* D025 \* D027 \* D710  
 D025 = D024 + D601 + D606 D118 D027 D122  
 1E010B / 32      \* D024 \* D026 \* T45A  
 D026 = D027 + D607 D025  
 1E003A / 31      \* D024 \* D027 \* D705  
 D027 = D026 + D607 D024  
 1E003B / 31      \* D025 \* D026 \* D126  
 D028 = D029 + D030 D606 D118 D126 D122 + D667  
 1E002A / 32      \* D029 \* D031 \* D710  
 D029 = D028 + D601 + D126 D606 D118 D031 D122  
 1E002B / 32      \* D028 \* D030 \* T45A  
 D030 = D031 + D607 D029  
 1E001A / 31      \* D028 \* D031 \* D705  
 D031 = D030 + D607 D028  
 1E001B / 31      \* D029 \* D030  
 D032 = D033 + D669 + D034 D610  
 1B041A / 32      \* D033 \* D035  
 D033 = D032 + D601 + D035 D610  
 1B041B / 32      \* D032 \* D034 \* D701  
 D034 = D035 + D611 D033  
 1E007A / 31      \* D032 \* D035  
 D035 = D034 + D611 D032  
 1E007B / 31      \* D033 \* D034  
 D102 = D003  
 1D024A / 11      \* D004 \* D005 \* D008 \* D009 \* D012 \* D013  
 D106 = D007  
 1D008B / 21      \* D008 \* D009 \* D012 \* D013  
 D110 = D011  
 1D029B / 20      \* D012 \* D013  
 D118 = D019  
 1D040A / 11      \* D020 \* D021 \* D024 \* D025 \* D028 \* D029  
 D122 = D023  
 1D039B / 21      \* D024 \* D025 \* D028 \* D029  
 D126 = D027  
 1D038B / 20      \* D028 \* D029  
 D600 = F062 + J438 + J624  
 1D033A / 23      \* C822 \* D601 \* D602  
 D601 = D600  
 1D039A / 21      \* D017 \* D021 \* D025 \* D029 \* D033  
 D602 = D600  
 1D031B / 21      \* D001 \* D005 \* D009 \* D013

D603 = K740 K620  
1D034B / 20 \* D604

D604 = C203 C815 D603 + GND  
1D032A / 22 \* D606 \* D608 \* D610

D605 = F062 + J625  
1D032B / 22 \* C821 \* D607 \* D609 \* D611

D606 = D704 + D604 + C653  
1D042A / 13 \* D016 \* D017 \* D020 \* D021 \* D024 \* D025 \* D028  
\* D029

D607 = A610 C655 D605  
1D041A / 11 \* D018 \* D019 \* D022 \* D023 \* D026 \* D027 \* D030  
\* D031

D608 = C653 + D604  
1D026A / 12 \* D000 \* D001 \* D004 \* D005 \* D008 \* D009 \* D012  
\* D013

D609 = A610 C655 D605  
1D025A / 11 \* D002 \* D003 \* D006 \* D007 \* D010 \* D011 \* D014  
\* D015

D610 = D705 + D704 + D604 + C653  
1D036A / 24 \* D032 \* D033

D611 = D605 C655 + GND  
1D035A / 28 \* D034 \* D035

D620 = F003 A606 C803  
1D034A / 20 \* D621 \* D622

D621 = D620  
1D031A / 21 \* D656 \* D660 \* D662 \* D664 \* D666

D622 = D620  
1D034C / 20 \* K462

D623 = C805 F003 A606  
1D038D / 20 \* D624

D624 = D623  
1D037A / 29 \* D650 \* D652 \* D654

D630 = A620 + F000 F006  
1D035B / 28 \* D666

D631 = A630 + F000 F006  
1D017A / 12 \* D650 \* D652 \* D654 \* D656 \* D660 \* D662 \* D664

D650 = D631 X003 + D624 X015  
1D006A / 28 \* D651

D651 = J665 J663 J666 J664 D650  
1D005A / 20 \* D000

D652 = D631 X005 + D624 X017  
1D006B / 28 \* D653

D653 = J660 J661 J662 J663 D652



1D005B / 20      \* D004  
 D654 = D631 X007 + D624 X019  
     1D006C / 28      \* D655  
 D655 = J665 J664 D654  
     1D005C / 20      \* D008  
 D656 = D631 X013 + D621 X001  
     1D004A / 28      \* D657  
 D657 = J665 D656  
     1D005D / 20      \* D012  
 D660 = D631 X015 + D621 X003  
     1D004B / 28      \* D661  
 D661 = D660 J664  
     1D003A / 20      \* D016  
 D662 = D631 X017 + D621 X005  
     1D004C / 28      \* D663  
 D663 = D662 J664  
     1D003B / 20      \* D020  
 D664 = D631 X019 + D621 X007  
     1D002A / 28      \* D665  
 D665 = D664 J664  
     1D003C / 20      \* D024  
 D666 = D630 X001 + D621 X013  
     1D002B / 28      \* D667  
 D667 = D666  
     1D003D / 20      \* D028  
 D669 = J664  
     1D038A / 20      \* D032  
 D700 = D000 D004 D008 D012  
     1D037C / 29      \* D701  
 D701 = D700 + D033 + D710  
     1D033B / 23      \* D702 \* J460  
 D702 = D701  
     1D034D / 20      \* D703 \* T421  
 D703 = D702 + C800  
     1D028A / 12      \* K604 \* K604 \* K648 \* K648 \* K652  
 D704 = D002 D006 D010 D014  
     1D029D / 20      \* D606 \* D610  
 D705 = D018 D022 D026 D030  
     1B037A / 20      \* D610  
 D710 = D016 D020 D024 D028  
     1D037B / 29      \* D701 \* D711

D711 = D710  
1D038C / 20

D720 = D001 D004 D008 D012  
1D029A / 20 \* D721

D721 = D720  
1J0248 / 21 \* K643

E600 = X012 + S003 + E623 + E603  
1B027A / 24 \* E624

E601 = X113 + S002 + E621 + E602  
1B027B / 24 \* E626

E602 = X014 + S007 + E623  
1B026A / 23 \* E601 \* E624

E603 = X115 + S006 + E621  
1B026B / 23 \* E600 \* E626

E604 = X016 + S011  
1B025A / 28 \* E620

E605 = X117 + S010  
1B025B / 28 \* E622

E606 = X018 + S015 + E609 + F611  
1B022A / 24 \* E620

E607 = X119 + S014 + E608 + E611  
1B022B / 24 \* E622

E608 = X120 + S019 + E611  
1B021A / 23 \* E607 \* E620

E609 = X121 + S018 + E610  
1B021B / 23 \* E606 \* E622

E610 = X122 + S023  
1B019A / 22 \* E609 \* E620

E611 = X123 + S022  
1B019B / 22 \* E606 \* E607 \* E608 \* E622

E620 = E606 + E604 E622 + E610 + E608  
1B023A / 24 \* E621 \* E622

E621 = E620  
1B024A / 29 \* E601 \* E603 \* E624

E622 = E607 + E611 + E609 + E605 E620  
1B023B / 24 \* E620 \* E623

E623 = E622  
1B024B / 29 \* E600 \* E602 \* E626

E624 = E600 + E621 + E602  
1B018A / 23 \* E625 \* E627

E625 = E624  
1C041A / 20 \* J671 \* K673

E626 = E623 + E601 + E603  
 1B018B / 23 \* E627 \* E628

E627 = E624 E626  
 1C041B / 20 \* K671

E628 = E626  
 1C041C / 20 \* K671 \* K673

E700 = X113 X115 F017 F033  
 1C018C / 20 \* E702

E701 = X119 X120 X123 X016  
 1C018D / 20 \* E702

E702 = E700 + E701  
 1C021B / 28 \* J670

E800 = X702 + E804 X712  
 1C040A / 28 \* E801

E801 = E800  
 1C041D / 20 \* K671

E802 = F037 + E804  
 1C040B / 28 \* J671 \* K673

E803 = F036 + E804  
 1C040C / 28 \* K671 \* K673

E804 = F017 F035 X712  
 1B024C / 29 \* E800 \* E802 \* E803

F000 = F001 + F702 F061  
 1I031A / 31 \* D630 \* D631 \* F001 \* J440 \* J462

F001 = F000 + F050  
 1I031B / 31 \* F000

F002 = F003 + F703 F061  
 1I032A / 31 \* F003 \* J440

F003 = F002 + F050  
 1I032B / 31 \* D620 \* D623 \* F002 \* J460 \* T421

F004 = F005 + F704 F061  
 1I033A / 31 \* F005 \* X623

F005 = F004 + F050  
 1I033B / 31 \* F004 \* F104 \* J442 \* J485 \* X740 \* X750

F006 = F007 + F705 F061  
 1I034A / 31 \* D630 \* D631 \* F007 \* J440 \* J462

F007 = F006 + F050  
 1I034B / 31 \* A214 \* F006 \* F106 \* K472 \* K630

F008 = F009 + F701 F061 + GND  
 1I030A / 32 \* F009 \* J020 \* J022 \* J030

F009 = F008 + J043 + J437

1I030B / 32      \* F008 \* J040 \* J443  
 F010 = F011 + F700 F071  
 1I037A / 31      \* F011 \* J450 \* J452 \* J660 \* X711  
 F011 = F010 + F051  
 1I037B / 31      \* F010 \* J650 \* J661  
 F012 = F013 + F701 F071  
 1I038A / 31      \* F013 \* J452 \* X713  
 F013 = F012 + F051  
 1I038B / 31      \* F012  
 F014 = F015 + F702 F071  
 1I039A / 31      \* F015 \* J450 \* J452 \* X712  
 F015 = F014 + F051  
 1I039B / 31      \* F014 \* K474  
 F016 = F017 + F703 F071  
 1I040A / 31      \* F017 \* J450 \* J452 \* X712  
 F017 = F016 + F051  
 1I040B / 31      \* E700 \* E804 \* F016 \* K474  
 F022 = F023 + F702 F081 + GND  
 1J001A / 32      \* F023  
 F023 = F022 + F703 F081 + F052  
 1J001B / 32      \* F022 \* K492  
 F024 = F025 + F704 F081 + GND  
 1J002A / 32      \* F025  
 F025 = F024 + F705 F081 + F052  
 1J002B / 32      \* F024 \* K494  
 F030 = F031 + F700 F091 + GND  
 1J005A / 32      \* A210 \* A226 \* F031 \* F131 \* J665  
 F031 = F030 + F701 F091 + F052  
 1J005B / 32      \* F030 \* J621 \* J622 \* J664  
 F032 = F033 + F702 F091 + GND  
 1J006A / 32      \* F033  
 F033 = F032 + F703 F091 + F052  
 1J006B / 32      \* E700 \* F032  
 F034 = F035 + F704 F091 + F705 F091  
 1J007A / 32      \* F035  
 F035 = F034 + F706 F091 + F052  
 1J007B / 32      \* E804 \* F034  
 F036 = F037 + F704 F092 + GND  
 1J008A / 32      \* E803 \* F037  
 F037 = F036 + F705 F092 + F052  
 1J008B / 32      \* E802 \* F036

F040 = F700 F061  
 1I028C / 20 \* J432

F050 = F063 J433 J485  
 1I035A / 21 \* F001 \* F003 \* F005 \* F007

F051 = F063 F073 J433  
 1I035B / 21 \* F011 \* F013 \* F015 \* F017 \* J487

F052 = J433  
 1J003A / 11 \* F023 \* F025 \* F031 \* F033 \* F035 \* F037

F060 = F720 F600 F065  
 1I026A / 29 \* C615 \* F061 \* F062

F061 = C605 + F060 F065  
 1I029A / 12 \* F000 \* F002 \* F004 \* F006 \* F008 \* F040

F062 = C603 + F060  
 1J009A / 12 \* D600 \* D605 \* F063 \* F064 \* K440 \* K463

F063 = F062  
 1I027B / 29 \* F050 \* F051 \* J603

F064 = F062  
 1I028A / 20 \* J439

F065 = F701 F720 U010  
 1K018B / 29 \* C611 \* F060 \* F061

F070 = F600 F721  
 1I026B / 29 \* F071 \* F072

F071 = C605 + F070  
 1I036A / 22 \* F010 \* F012 \* F014 \* F016

F072 = F070 + C603  
 1I017C / 28 \* F073 \* K605

F073 = F072  
 1I028B / 20 \* F051

F080 = F600 F722  
 1I026C / 29 \* C611 \* F081

F081 = F080 + C605  
 1I041A / 12 \* F022 \* F023 \* F024 \* F025

F090 = F600 F723  
 1I027A / 29 \* F091 \* F092

F091 = F090 + C605  
 1J004A / 12 \* F030 \* F031 \* F032 \* F033 \* F034 \* F034 \* F035

F092 = F090 + C605  
 1I018C / 28 \* F036 \* F037

F104 = F005  
 1I010A / 11 \* A225 \* A235 \* A245 \* A255 \* X002 \* X006 \* X014  
 \* X018

F106 = F007  
 Rev. A

1B005C / 20      \* A237  
 F131 = F030  
 1H016A / 20      \* A215 \* A224  
 F600 = K000 + U011  
 1L033A / 22      \* F060 \* F070 \* F080 \* F090  
 F700 = U001 + U003 + U005  
 1I019A / 13      \* F010 \* F030 \* F040  
 F701 = U000 + U003 + U005  
 1I020A / 13      \* F008 \* F012 \* F031 \* F065  
 F702 = U001 + U002 + U005  
 1I021A / 13      \* F000 \* F014 \* F022 \* F032  
 F703 = U000 + U002 + U005  
 1I022A / 13      \* F002 \* F016 \* F023 \* F033  
 F704 = U001 + U003 + U004  
 1I023A / 13      \* F004 \* F024 \* F034 \* F036  
 F705 = U000 + U003 + U004  
 1I024A / 13      \* F006 \* F025 \* F034 \* F037  
 F706 = U001 + U002 + U004  
 1I025A / 23      \* F035  
 F707 = U000 + U002 + U004  
 1I025B / 23  
 F720 = U007 + U009  
 1I017A / 28      \* F060 \* F065  
 F721 = U006 + U009  
 1I017B / 28      \* C610 \* F070  
 F722 = U007 + U008  
 1I018A / 28      \* F080 \* J487  
 F723 = U006 + U008  
 1I018B / 28      \* C610 \* F090

0

GND =  
 NO JACK      \* C041 \* C202 \* C206 \* C210 \* C215 \* C218 \* C222  
                  \* C226 \* C230 \* C234 \* C610 \* C823 \* D604 \* D611  
                  \* F008 \* F022 \* F024 \* F030 \* F032 \* F036 \* J000  
                  \* J454 \* J475 \* J485 \* J605 \* J622 \* J642 \* J645  
                  \* K000 \* K002 \* K410 \* K412 \* K414 \* K475 \* K620  
                  \* K622 \* K622 \* K630 \* K640 \* K644 \* K644 \* K650  
                  \* K652 \* K670 \* K670 \* K672 \* L000 \* L001 \* L002  
                  \* L003 \* L004 \* L005 \* L006 \* L006 \* L007 \* L007  
                  \* L008 \* L009 \* L010 \* L011 \* L011 \* L100 \* L101  
                  \* L102 \* L102 \* L102 \* L103 \* L103 \* L104 \* L104  
                  \* P400 \* S001 \* S005 \* S009 \* S013 \* S017 \* T400  
                  \* T400 \* T401 \* T401 \* T402 \* T402 \* T403 \* T403  
                  \* T404 \* T404 \* T452 \* T452 \* T453 \* T453 \* T454  
                  \* T454 \* T455 \* T455 \* T456 \* T456 \* T457 \* T457  
                  \* T458 \* T458 \* T459 \* T459 \* T500 \* T501 \* T502  
                  \* T503 \* T504 \* T505 \* T506 \* T507 \* T508 \* T509  
                  \* X009 \* X011 \* X021 \* X021 \* X023 \* X023 \* X720

\* X740 \* X750

J000 = M100 Y010 + GND  
1K001B / 22 \* J001 \* K001 \* K005

J001 = J000  
1I016B / 29 \* K000 \* K003

J002 = M011 M010 M009  
1L015A / 20 \* J004

J003 = U014 U012 M006  
1L015B / 20 \* J004

J004 = J002 + J003  
1K001A / 22 \* J005 \* K000

J005 = J004  
1L015C / 20 \* K003

J008 = C606 + K004  
1K021C / 28 \* K001 \* L100

J010 = U011 C602  
1K003C / 29 \* J011 \* J012

J011 = J010  
1K003A / 29 \* K410 \* K411 \* K412

J012 = J010  
1K003B / 29 \* K413 \* K414 \* K415

J020 = F008 M101 K003  
1L022A / 20 \* J021 \* J024

J021 = J020  
1L022B / 20 \* J600 \* L100

J022 = F008 M102 K003  
1L023A / 21 \* J023 \* J024

J023 = J022  
1L025A / 11 \* J027 \* J028 \* J030 \* J442 \* J443 \* L101

J024 = J022 J020  
1L038A / 11 \* J025 \* J026 \* J029 \* J490 \* J644 \* K472 \* K48A

J025 = J024  
1L024A / 21 \* J026 \* J029 \* J473 \* J485

J026 = J024 + J025 Y000  
1L026A / 28 \* J445 \* J604

J027 = J023  
1L022C / 20 \* J028

J028 = J023 + J027 Y001  
1L026B / 28 \* J485 \* J602

J029 = J025 + J024 Y002  
1L026C / 28 \* J487

J030 = K103 J023 F008  
 1L027A / 20 \* J031 \* J032

J031 = J030  
 1L028A / 11 \* L004 \* L005 \* L006 \* L007 \* L008 \* L009 \* L010  
 \* L011

J032 = J030  
 1L030A / 21 \* L000 \* L001 \* L002 \* L003

J040 = M102 F009  
 1K018A / 29 \* J041 \* J042 \* J043

J041 = J040  
 1L029A / 11 \* L002 \* L004 \* L005 \* L008 \* L009 \* L010 \* L101

J042 = J040  
 1L024B / 21 \* J043 \* L000 \* L001 \* L003

J043 = J042 + J040 Y004  
 1J016B / 22 \* F009

J050 = K492  
 1L022D / 20 \* J645 \* L103

J420 = OPEN  
 1H033C / 20 \* J421

J421 = J420 + M103  
 1H012A / 12 \* A205 \* J430 \* J431 \* J432 \* J574 \* J730 \* J731

J430 = J421  
 1G039B / 20 \* A605 \* K003

J431 = J421  
 1I027C / 29 \* K411 \* K413 \* K415

J432 = F040 J421  
 1I028D / 20 \* J433 \* J434

J433 = J432  
 1H013A / 21 \* F050 \* F051 \* F052 \* J444 \* J480

J434 = J432  
 1H014A / 21 \* J436 \* J437 \* J438 \* J439

J436 = J434  
 1H015A / 21 \* K473

J437 = J434  
 1H015B / 21 \* F009 \* K605

J438 = J434  
 1H017A / 21 \* D600 \* K623 \* K631

J439 = J482 F064 J623 J434  
 1G010A / 11 \* K621 \* K641 \* K643 \* K645 \* K649 \* K651 \* K653

J440 = F002 F000 F006  
 1G037A / 21 \* A604 \* A605 \* J441 \* J449

J441 = J440 K701 C808



1G033A / 20        \* C640  
 J442 = F005 J023 C808  
      1G033B / 20        \* C640  
 J443 = F009 J023  
      1G033D / 20        \* C640  
 J444 = J445 J485 J433  
      1G033C / 20        \* K441 \* K443  
 J445 = K541 C809 J026  
      1G039D / 20        \* J444  
 J449 = J440  
      1I014A / 20        \* J450  
 J450 = J449 F010 F014 F016  
      1G028A / 21        \* J600 \* J602 \* X610  
 J452 = F010 F012 F014 F016  
      1G032B / 29        \* J487 \* J643 \* K472  
 J454 = K753 K620 + GND  
      1C021C / 28        \* J455  
 J455 = J454 Y141  
      1G032C / 29        \* J456 \* J457 \* J732  
 J456 = J455  
      1G027B / 20        \* J457 \* L002  
 J457 = J455 + J456 Y142  
      1G026B / 22        \* J485 \* K443 \* K641  
 J460 = D701 F003  
      1J035A / 20        \* J461 \* T422  
 J461 = J460  
      1J040B / 20        \* J463  
 J462 = F000 F006  
      1J035B / 20        \* T420  
 J463 = A608 J461  
      1J040C / 20        \* J486  
 J470 = R431  
      1G022D / 20        \* J471 \* J477  
 J471 = R420 R430 J470  
      1G024A / 21        \* J472 \* J482 \* J622  
 J472 = J471  
      1I016C / 29        \* J473 \* K470  
 J473 = J025 K472 J472 + K470  
      1G026A / 22        \* J633 \* L001 \* L201  
 J474 = J487  
      1G020B / 21        \* K475 \* K477 \* K481 \* K489

J475 = K701 X661 + S610 K700 + J670 X712 K700 + GND  
 1G025A / 24 \* J476

J476 = J475  
 1G022B / 20 \* K478

J477 = R430 J470  
 1G027D / 20 \* K471

J479 = K477 + K489  
 1E029C / 28 \* C616 \* J487

J480 = J485 J433  
 1J037A / 20 \* K479

J482 = J471  
 1J038C / 29 \* J439 \* J483

J483 = J482  
 1G027A / 20 \* C616

J485 = K472 J572 J494 + K485 J622 + J028 F005 C809 + J457 J025 +  
 J631 + GND  
 1G029A / 16 \* F050 \* J444 \* J480 \* J486 \* K473

J486 = J463 J485  
 1G028B / 21 \* K492 \* K494 \* K496 \* K623

J487 = F051 + J029 K472 J452 J479 + C602 F722 K001  
 1G036A / 23 \* J474 \* J488

J488 = J487  
 1G020A / 21 \* K493 \* K495 \* K497

J489 = K474 K476 K488 K480  
 1G022A / 20 \* K494

J490 = K602 J024 K483  
 1J040D / 20 \* J491

J492 = U011 C602  
 1F011C / 20 \* J493

J493 = J492 Y145  
 1F011D / 20 \* J494

J494 = J493  
 1F034D / 20 \* J485

J571 = R430 R420  
 1J020C / 29 \* J572 \* J574 \* K623

J572 = J571 + R420 Y170  
 1J036A / 22 \* J485

J574 = J421 J571  
 1J037C / 20 \* J633

J600 = J021 J450 K443 + X751 K443

1E033A / 28      \* J601  
 J601 = K486 J600 + J606 Y150  
 1E035A / 12      \* K600 \* K602 \* X610  
 J602 = J450 X721 + J028  
 1E034B / 22      \* J603  
 J603 = J602 J646 J626 F063  
 1E028C / 20      \* K601 \* X604  
 J604 = J026 + K442  
 1E033B / 28      \* J605  
 J605 = J604 + GND  
 1E033C / 28      \* K603  
 J606 = K602 K600  
 1C039C / 20      \* J601  
 J620 = K654 R411  
 1J020A / 29      \* J622  
 J621 = F031 R412  
 1J022A / 20      \* J622  
 J622 = J471 + K441 + J620 + F031 J621 + R411 Y172 + GND  
 1J021A / 16      \* J485 \* J623 \* J625 \* K476 \* K632  
 J623 = J622  
 1J024A / 21      \* J439 \* J624 \* J625  
 J624 = J623  
 1J020B / 29      \* D600  
 J625 = J622 + J623 Y173  
 1J023A / 12      \* D605 \* J626 \* J662 \* J663 \* K620 \* K625 \* K642  
 J626 = J625  
 1J039B / 21      \* C710 \* C711 \* J603  
 J627 = J629  
 1B037D / 20      \* K654  
 J629 = R412 R411  
 1J028A / 20      \* J627 \* J630  
 J630 = J629 K622  
 1J028B / 20      \* K476 \* K625  
 J631 = K633 + K632 Y171  
 1J026A / 28      \* J485  
 J632 = R500  
 1J028C / 20      \* C610  
 J633 = J646 J574 J473 K630  
 1H041A / 20      \* K624  
 J641 = K631 K632  
 1J022B / 20      \* K642

J642 = Y181 + C216 + C655 + GND  
 1I013A / 14 \* K621 \* K653

J643 = J452 K671 K621 K653  
 1I012C / 20 \* J645

J644 = K482 J024 C215 C650  
 1I012D / 20 \* J645

J645 = J644 + K595 J050 + J643 + GND  
 1H038A / 14 \* J646 \* J660 \* J661 \* K442 \* K622 \* K640 \* K642

J646 = J645  
 1H040A / 21 \* J603 \* J633 \* S630

J647 = K648 + C224  
 1H039A / 12 \* J664 \* J665 \* J666 \* K670 \* K672 \* P401

J650 = K641 F011 + K633 K621  
 1H029A / 12 \* C720 \* C722 \* J651 \* J761 \* K645 \* K648 \* T411  
 \* T413

J651 = J650  
 1H031A / 11 \* J652 \* J653 \* J700 \* K645 \* K648 \* S607

J652 = J651  
 1H041B / 20 \* P902 \* S610

J653 = J651  
 1F035D / 20 \* J654

J654 = J653 Y180  
 1C039A / 20 \* T410 \* T412

J660 = J645 F010  
 1H037A / 29 \* C833 \* C835 \* D653

J661 = J645 F011  
 1H037B / 29 \* C831 \* C835 \* D653

J662 = J625 K632  
 1H041D / 20 \* C831 \* D653

J663 = J625 K633  
 1H037C / 29 \* C835 \* D651 \* D653

J664 = K741 J647 F031  
 1H036A / 11 \* C835 \* D651 \* D655 \* D661 \* D663 \* D665 \* D669

J665 = K741 J647 F030  
 1H040B / 21 \* C835 \* D651 \* D655 \* D657

J666 = K621 J647  
 1H041C / 20 \* C833 \* D651

J670 = C334 + C653 + K650 + K705 + E702 + K672  
 1D001A / 16 \* J475 \* J671 \* K671 \* K671 \* K673 \* K673

J671 = P903 + J670 E802 E625 J673  
 1B025C / 28 \* J672

J672 = J671

1D029C / 20 \* K671  
 J673 = K700 K741  
 1E036B / 21 \* J671 \* K671 \* K671 \* K673 \* K673  
 J700 = J703 J651  
 1I012B / 20 \* J701  
 J701 = J700 K644 K652  
 1I012A / 20 \* T414  
 J702 = K648 K650 + K649 C333  
 1I011A / 28 \* T413  
 J703 = K644 K650 K648 Y184  
 1I009A / 29 \* J700 \* T411 \* T412  
 J720 = A030 A122 A126  
 1L027C / 20 \* T500 \* T505  
 J721 = A030 A123 A126  
 1K019A / 20 \* T501 \* T506  
 J722 = A122 A127 A233  
 1K019B / 20 \* T502 \* T507  
 J723 = A123 A127 A233  
 1K019C / 20 \* T503 \* T508  
 J724 = A022 A026 A232  
 1K019D / 20 \* T504 \* T509  
 J730 = A034 J732 J421  
 1K020A / 21 \* T500 \* T501 \* T502 \* T503 \* T504  
 J731 = A035 J732 J421  
 1K020B / 21 \* T505 \* T506 \* T507 \* T508 \* T509  
 J732 = K541 + J455 J733  
 1E017A / 28 \* J730 \* J731  
 J733 = K751  
 1C039D / 20 \* J732  
 J760 = S022 + C653  
 1I011B / 28 \* T410  
 J761 = J650 Y190  
 1I009B / 29 \* J762 \* P900 \* S001  
 J762 = J761  
 1I009C / 29 \* S000  
 J770 = A633 Y210  
 1J022D / 20 \* T451  
 J771 = A633 Y211  
 1I014D / 20 \* T450  
 K000 = K001 + K004 J004 J001 Y020 + GND  
 1I015A / 32 \* C600 \* F600 \* K001 \* K471

K001 = K000 + J000 + J008  
 1I015B / 32 \* J487 \* K000

K002 = K003 + U011 C606 + GND  
 1L031A / 32 \* K003 \* K103

K003 = K002 + M100 J005 J001 K004 + J430  
 1L031B / 32 \* J020 \* J022 \* K002

K004 = K005 + C606  
 1L032A / 31 \* J008 \* K000 \* K003 \* K005

K005 = K004 + J000  
 1L032B / 31 \* K004

K103 = K002  
 1L030B / 21 \* J030 \* J040 \* L202

K410 = K411 + U001 J011 + GND  
 1K004A / 32 \* K411 \* T400 \* T402 \* T404

K411 = K410 + U000 J011 + J431  
 1K004B / 32 \* K410 \* T401 \* T403

K412 = K413 + U003 J011 + GND  
 1K005A / 32 \* K413 \* T400 \* T401 \* T404

K413 = K412 + U002 J012 + J431  
 1K005B / 32 \* K412 \* T402 \* T403

K414 = K415 + U005 J012 + GND  
 1K006A / 32 \* K415 \* T400 \* T401 \* T402 \* T403

K415 = K414 + U004 J012 + J431  
 1K006B / 32 \* K414 \* T404

K440 = K441 + F062 Y151  
 1G035A / 30 \* C820 \* K441 \* K541

K441 = K440 + J444  
 1G035B / 30 \* J622 \* K440 \* K442

K442 = K443 + J645 + K441  
 1G034A / 32 \* J604 \* K443 \* K543

K443 = K442 + J457 + J444  
 1G034B / 32 \* J600 \* J600 \* K442

K462 = K463 + D622 X123  
 1J027C / 30 \* K463

K463 = K462 + F062  
 1J027D / 30 \* K462 \* T422

K470 = K471 + J472  
 1G023A / 31 \* J473 \* K471 \* K571

K471 = K470 + K000 J477 Y144  
 1G023B / 31 \* K470 \* L000 \* L200

K472 = K473 + F007 A608 + J452 J024 Y140  
 1G019A / 32 \* C613 \* J473 \* J485 \* J487 \* K473

K473 = K472 + J436 + J485 K497  
 1G019B / 32 \* K472 \* K572

K474 = K475 + A228 F017 K670 + A228 F015 K670  
 1G018A / 32 \* J489 \* K475

K475 = K474 + J474 + GND  
 1G018B / 32 \* K474 \* L003

K476 = K477 + J622 J630 K624  
 1G017C / 30 \* J489 \* K477 \* K485

K477 = K476 + J474  
 1G017D / 30 \* J479 \* K476 \* L004

K478 = K479 + K543 J476  
 1G017A / 30 \* K479

K479 = K478 + J480  
 1G017B / 30 \* K478 \* K488

K480 = K481 + K543 K741 P903  
 1G016C / 30 \* J489 \* K481

K481 = K480 + J474  
 1G016D / 30 \* K480 \* L010

K482 = K483 + A236  
 1G035C / 30 \* A600 \* J644 \* K483

K483 = K482 + A213  
 1G035D / 30 \* J490 \* K482 \* L002

K485 = K476 K488  
 1E018B / 20 \* J485 \* K486

K486 = K485  
 1E018C / 20 \* J601 \* K603

K488 = K489 + J024 K479  
 1G021A / 30 \* J489 \* K485 \* K489

K489 = K488 + J474  
 1G021B / 30 \* J479 \* K488 \* L005

K492 = K493 + F023 J486  
 1G015C / 30 \* J050 \* K493

K493 = K492 + J488  
 1G015D / 30 \* K492 \* L008

K494 = K495 + F025 J489 J486  
 1G015A / 30 \* K495 \* K595

K495 = K494 + J488  
 1G015B / 30 \* K494 \* L009 \* L104

K496 = K497 + J486  
 1G021C / 30 \* K497

K497 = K496 + J488

1G021D / 30 \* K473 \* K496  
 K541 = K440  
 1B008B / 21 \* A214 \* A604 \* A605 \* J445 \* J732  
 K543 = K442  
 1F009C / 29 \* K478 \* K480  
 K571 = K470  
 1H035B / 21 \* T411 \* T412 \* T413 \* T414  
 K572 = K473  
 1G022C / 20 \* C610 \* C610  
 K595 = K494  
 1G027C / 20 \* J645  
 K600 = K601 + J601  
 1E031A / 30 \* J606 \* K601 \* K701  
 K601 = K600 + J603  
 1E031B / 30 \* K600 \* K700  
 K602 = K603 + J601  
 1E031C / 30 \* J490 \* J606 \* K603  
 K603 = K602 + K486 J605  
 1E031D / 30 \* K602 \* L100 \* L101  
 K604 = K605 + C227 D703 X712 + D703 X711 + K649  
 1H009A / 33 \* K605 \* K705 \* X720 \* X720  
 K605 = K604 + C219 K651 + F072 + J437  
 1H009B / 33 \* K604 \* K704 \* X661 \* X742  
 K620 = K621 + J625 + GND  
 1J025A / 32 \* D603 \* J454 \* K621  
 K621 = K620 + J439 + J642  
 1J025B / 32 \* J643 \* J650 \* J666 \* K620 \* X700  
 K622 = K623 + J645 + GND + GND  
 1J029A / 33 \* J630 \* K623  
 K623 = K622 + J486 + J571 + J438  
 1J029B / 33 \* K622  
 K624 = K625 + J633  
 1J027A / 30 \* K476 \* K625  
 K625 = K624 + J625 J630  
 1J027B / 30 \* K624  
 K630 = K631 + A608 F007 + GND  
 1J031A / 32 \* J633 \* K631 \* K633  
 K631 = K630 + A226 + J438  
 1J031B / 32 \* J641 \* K630 \* K632  
 K632 = K633 + J622 R412 K631 R500  
 1J032A / 31 \* A602 \* J631 \* J641 \* J662 \* K633 \* X701



K633 = K632 + K630  
 1J032B / 31 \* J631 \* J650 \* J663 \* K632 \* X702

K640 = K641 J645 + GND  
 1I005A / 32 \* K641 \* K741

K641 = K640 J457 + J439  
 1I005B / 32 \* J650 \* K640 \* K740 \* X710

K642 = K643 + J645 + J625 J641  
 1I007A / 32 \* K643

K643 = K642 + C836 C219 D721 + J439  
 1I007B / 32 \* K642 \* K644 \* T415

K644 = K645 + K643 Y182 + GND + GND  
 1I006A / 33 \* J701 \* J703 \* K645 \* S620

K645 = K644 + J651 K749 C215 + J650 K749 C219 + J439  
 1I006B / 33 \* K644 \* K648 \* K648 \* K744

K648 = K649 + K645 C313 J651 D703 + K645 D703 J650 C217  
 1H042A / 32 \* J647 \* J702 \* J703 \* K649 \* K749

K649 = K648 + J439 + K651 C335  
 1H042B / 32 \* C720 \* J702 \* K604 \* K648 \* K650

K650 = K651 + C231 K649 + GND  
 1I002A / 32 \* J670 \* J702 \* J703 \* K651 \* K751

K651 = K650 + J439 + K753 C203  
 1I002B / 32 \* K605 \* K649 \* K650 \* K652 \* K750

K652 = K653 + C662 C233 K651 D703 + GND  
 1I003A / 32 \* J701 \* K653 \* K753 \* Y181

K653 = K652 + J439 + J642  
 1I003B / 32 \* C823 \* J643 \* K652

K654 = K655 + J627 Y174  
 1B034A / 30 \* J620 \* K655

K655 = K654 + K655 Y177  
 1B034B / 30 \* K654 \* K655

K670 = K671 + J647 + GND + GND  
 1C042A / 33 \* K474 \* K474 \* K671 \* K771

K671 = K670 + J673 E801 E627 J670 + J673 E803 E628 J670 + J672  
 1C042B / 33 \* J643 \* K670

K672 = K673 + J647 + GND  
 1D007A / 32 \* J670 \* K673

K673 = K672 + J673 E803 E625 K771 J670 + J673 J670 E802 E628 K771  
 1D007B / 32 \* K672

K700 = K601  
 1E032A / 29 \* J475 \* J475 \* J673

K701 = K600  
 1E032B / 29 \* J441 \* J475

K704 = K605  
 1F011A / 20      \* P902 \* X750  
  
 K705 = K604  
 1G039A / 20      \* J670  
  
 K740 = K641  
 1I004B / 20      \* A602 \* D603  
  
 K741 = K640  
 1J039A / 21      \* J664 \* J665 \* J673 \* K480  
  
 K744 = K645  
 1H033D / 20      \* C721  
  
 K749 = K648  
 1H035A / 21      \* C722 \* K645 \* K645 \* S620  
  
 K750 = K651  
 1I004A / 20      \* P900 \* S610  
  
 K751 = K650  
 1I001B / 21      \* J733 \* P902 \* X700 \* X710  
  
 K753 = K652  
 1I001A / 21      \* A227 \* A600 \* J454 \* K651  
  
 K771 = K670  
 1B007A / 20      \* K673 \* K673  
  
 L000 = J042 K471 + J032 X001 + GND  
 1L016A / 60  
  
 L001 = J042 J473 + J032 X003 + GND  
 1L016B / 60  
  
 L002 = J041 J456 K483 + J032 X005 + GND  
 1L016C / 60  
  
 L003 = J042 K475 + J032 X007 + GND  
 1L017A / 60  
  
 L004 = J041 K477 + J031 X009 + GND  
 1L017B / 60  
  
 L005 = J041 K489 + J031 X011 + GND  
 1L017C / 60  
  
 L006 = J031 X013 + GND + GND  
 1L018A / 60  
  
 L007 = X015 J031 + GND + GND  
 1L018B / 60  
  
 L008 = J041 K493 + J031 X017 + GND  
 1L018C / 60  
  
 L009 = J041 K495 + J031 X019 + GND  
 1L019A / 60  
  
 L010 = J041 K481 + J031 X021 + GND

1L019B / 60  
 L011 = J031 X023 + GND + GND  
 1L019C / 60  
 L100 = J008 + J021 K603 + GND  
 1L020A / 60  
 L101 = K603 J023 + J041 Y003 + GND  
 1L020B / 60  
 L102 = GND + GND + GND  
 1L020C / 60  
 L103 = J050 + GND + GND  
 1L021A / 60  
 L104 = K495 + GND + GND  
 1L021B / 60  
 L200 = K471  
 1B017A / 62  
 L201 = J473  
 1B017B / 62  
 L202 = K103  
 1B017C / 62  
 M000 = OPEN  
 1L001A / 61      \* U000 \* X000  
 M001 = OPEN  
 1L001B / 61      \* U002 \* X002  
 M002 = OPEN  
 1L001C / 61      \* U004 \* X004  
 M003 = OPEN  
 1L002A / 61      \* U006 \* X006  
 M004 = OPEN  
 1L002B / 61      \* U008 \* X008  
 M005 = OPEN  
 1L002C / 61      \* U010 \* X010  
 M006 = OPEN  
 1L003A / 61      \* J003 \* X012  
 M007 = OPEN  
 1L003B / 61      \* U012 \* X014  
 M008 = OPEN  
 1L003C / 61      \* U014 \* X016  
 M009 = OPEN  
 1L004A / 61      \* J002 \* X018  
 M010 = OPEN  
 1L004B / 61      \* J002 \* X020

M011 = OPEN  
1L004C / 61 \* J002 \* X022

M100 = OPEN  
1L005A / 61 \* J000 \* K003

M101 = OPEN  
1L005B / 61 \* J020

M102 = OPEN  
1L005C / 61 \* J022 \* J040

M103 = OPEN  
1L006A / 61 \* J421

O OPEN =  
NO JACK \* J420 \* M000 \* M001 \* M002 \* M003 \* M004 \* M005  
\* M006 \* M007 \* M008 \* M009 \* M010 \* M011 \* M100  
\* M101 \* M102 \* M103 \* R400 \* R400 \* R410 \* R410  
\* R411 \* R411 \* R412 \* R412 \* R420 \* R420 \* R430  
\* R430 \* R431 \* R431 \* R500

P400 = P401 + P900 P402 + GND  
1D015A / 32 \* P401 \* P403

P401 = P400 + J647 + P900 P403  
1D015B / 32 \* P400 \* P402

P402 = P403 + C652 P401  
1D016A / 30 \* P400 \* P403 \* P903

P403 = P402 + C652 P400  
1D016B / 30 \* P401 \* P402

P810 = X016 X014 X113 + X012 X016 X115 + X012 X014 X117 + X113  
X115 X117  
1F005A / 24 \* P811 \* P814

P811 = P810  
1E028A / 20 \* P814

P812 = X022 X020 X119 + X022 X018 X121 + X018 X020 X123 + X121  
X123 X119  
1F005B / 24 \* P813 \* P814

P813 = P812  
1E028B / 20 \* P814

P814 = P813 P810 + P811 P812  
1E029A / 28 \* P815

P815 = P814  
1E027B / 29 \* S021

P900 = C335 + C663 + J761 + K750  
1D014A / 24 \* P400 \* P401

P902 = J652 K704 K751  
1D013A / 20 \* P903

P903 = P902 + P402 + C234 + C663  
1D014B / 24 \* J671 \* K480

R400 = OPEN + OPEN  
1K025B / P16 \* C040

R410 = OPEN + OPEN  
1K025A / P16 \* C720 \* Y190

R411 = OPEN + OPEN  
1K023A / P16 \* J620 \* J622 \* J629

R412 = OPEN + OPEN  
1K023B / P16 \* J621 \* J629 \* K632

R420 = OPEN + OPEN  
1K024A / P16 \* J471 \* J571 \* J572

R430 = OPEN + OPEN  
1K022A / P16 \* J471 \* J477 \* J571

R431 = OPEN + OPEN  
1K022B / P16 \* J470

R500 = OPEN  
1J022C / 20 \* J632 \* K632

S000 = S001 + X013 S610 + J762 S601  
1F031A / 32 \* S001 \* S003

S001 = S000 + J761 S601 + GND  
1F031B / 32 \* S000 \* S002

S002 = S003 + S605 S001  
1F029A / 31 \* E601 \* S003 \* S005

S003 = S002 + S605 S000  
1F029B / 31 \* E600 \* S002 \* S004 \* S200 \* X000

S004 = S005 + X015 S610 + S003 S601  
1F028A / 32 \* S005 \* S007

S005 = S004 + S002 S601 + GND  
1F028B / 32 \* S004 \* S006

S006 = S007 + S605 S005  
1F027A / 31 \* E603 \* S007 \* S009

S007 = S006 + S605 S004  
1F027B / 31 \* E602 \* S006 \* S008 \* S202 \* X002

S008 = S009 + X017 S610 + S007 S602  
1F026A / 32 \* S009 \* S011

S009 = S008 + S006 S602 + GND  
1F026B / 32 \* S008 \* S010

S010 = S011 + S606 S009  
1F025A / 31 \* E605 \* S011 \* S013

S011 = S010 + S605 S008  
1F025B / 31 \* E604 \* S010 \* S012 \* S204 \* X004

S012 = S013 + X019 S610 + S011 S602

1F024A / 32        \* S013 \* S015  
 S013 = S012 + S010 S602 + GND  
     1F024B / 32        \* S012 \* S014  
 S014 = S015 + S606 S013  
     1F023A / 31        \* E607 \* S015 \* S017  
 S015 = S014 + S606 S012  
     1F023B / 31        \* E606 \* S014 \* S016 \* S206 \* X006  
 S016 = S017 + X021 S610 + S015 S603  
     1F022A / 32        \* S017 \* S019  
 S017 = S016 + S014 S603 + GND  
     1F022B / 32        \* S016 \* S018  
 S018 = S019 + S606 S017  
     1F021A / 31        \* E609 \* S019 \* S021  
 S019 = S018 + S606 S016  
     1F021B / 31        \* E608 \* S018 \* S020 \* S208 \* X008  
 S020 = S021 + X023 S610 + S019 S603 + S620 C705  
     1F020A / 33        \* S021 \* S023  
 S021 = S020 + C650 C303 P815 + S018 S603 + X122 S610  
     1F020B / 33        \* S020 \* S022  
 S022 = S023 + C709 S021  
     1F019A / 31        \* E611 \* J760 \* S023  
 S023 = S022 + C708 S020  
     1F019B / 31        \* E610 \* S022 \* S210 \* X010  
 S200 = S201 + S003 X662  
     1L035A / 30        \* S201  
 S201 = S200 + S630  
     1L035B / 30        \* S200 \* X012  
 S202 = S203 + S007 X662  
     1L035C / 30        \* S203  
 S203 = S202 + S630  
     1L035D / 30        \* S202 \* X014  
 S204 = S205 + S011 X662  
     1L036A / 30        \* S205  
 S205 = S204 + S630  
     1L036B / 30        \* S204 \* X016  
 S206 = S207 + S015 X662  
     1L036C / 30        \* S207  
 S207 = S206 + S630  
     1L036D / 30        \* S206 \* X018  
 S208 = S209 + S019 X662  
     1L037A / 30        \* S209

S209 = S208 + S630  
 1L037B / 30 \* S208 \* X020

S210 = S211 + S023 X662  
 1L037C / 30 \* S211

S211 = S210 + S630  
 1L037D / 30 \* S210 \* X022

S600 = S607 C202 C214 C650  
 1F015B / 29 \* S601 \* S602 \* S603

S601 = S600  
 1D009A / 21 \* S000 \* S001 \* S004 \* S005

S602 = S600  
 1D009B / 21 \* S008 \* S009 \* S012 \* S013

S603 = S600  
 1D008A / 21 \* S016 \* S017 \* S020 \* S021

S604 = C652  
 1F034C / 20 \* S605 \* S606

S605 = S604  
 1F018B / 21 \* S002 \* S003 \* S006 \* S007 \* S011

S606 = S604  
 1F033B / 21 \* S010 \* S014 \* S015 \* S018 \* S019

S607 = C335 + C207 J651  
 1D035C / 28 \* S600

S610 = J652 + K750 + C663 + C206  
 1D011A / 14 \* J475 \* S000 \* S004 \* S008 \* S012 \* S016 \* S020  
 \* S021

S620 = K749 + K644 C334 C214  
 1D012A / 28 \* S020

S630 = X750 J646  
 1L034A / 11 \* S201 \* S203 \* S205 \* S207 \* S209 \* S211

T400 = K410 K412 K414 Y200 + GND + GND  
 1K042A / 60

T401 = K411 K412 K414 Y201 + GND + GND  
 1K042B / 60

T402 = K410 K413 K414 Y202 + GND + GND  
 1K042C / 60

T403 = K411 K413 K414 Y203 + GND + GND  
 1K038B / 60

T404 = K410 K412 K415 Y204 + GND + GND  
 1K038C / 60

T410 = J760 J654  
 1K026A / P14

T411 = K571 J650 J703

1K026B / P14  
T412 = K571 J703 J654  
1K032A / P14  
T413 = K571 J650 J702  
1K027B / P14  
T414 = K571 J701  
1K028A / P14  
T415 = K643  
1K028B / P14  
T420 = A608 J462  
1K029A / P14  
T421 = A608 D702 F003  
1K029B / P14  
T422 = K463 A608 J460  
1K031A / P14  
T450 = J771  
1K030A / P14  
T451 = J770  
1K030B / P14  
T452 = D001 + GND + GND  
1K039A / 60  
T453 = D005 + GND + GND  
1K039B / 60  
T454 = D009 + GND + GND  
1K039C / 60  
T455 = D013 + GND + GND  
1K040A / 60  
T456 = D017 + GND + GND  
1K040B / 60  
T457 = D021 + GND + GND  
1K040C / 60  
T458 = D025 + GND + GND  
1K041A / 60  
T459 = D029 + GND + GND  
1K041B / 60  
T500 = J720 + J730 + GND  
1K035A / 60  
T501 = J721 + J730 + GND  
1K035B / 60  
T502 = J722 + J730 + GND  
1K035C / 60



T503 = J723 + J730 + GND  
 1K036A / 60

T504 = J724 + J730 + GND  
 1K036B / 60

T505 = J720 + J731 + GND  
 1K036C / 60

T506 = J721 + J731 + GND  
 1K037A / 60

T507 = J722 + J731 + GND  
 1K037B / 60

T508 = J723 + J731 + GND  
 1K037C / 60

T509 = J724 + J731 + GND  
 1K038A / 60

U000 = M000  
 1L007A / 11           \* F701 \* F703 \* F705 \* F707 \* K411 \* U001

U001 = U000  
 1L008A / 21           \* F700 \* F702 \* F704 \* F706 \* K410

U002 = M001  
 1L009A / 11           \* F702 \* F703 \* F706 \* F707 \* K413 \* U003

U003 = U002  
 1L008B / 21           \* F700 \* F701 \* F704 \* F705 \* K412

U004 = M002  
 1L011A / 11           \* F704 \* F705 \* F706 \* F707 \* K415 \* U005

U005 = U004  
 1L010A / 21           \* F700 \* F701 \* F702 \* F703 \* K414

U006 = M003  
 1L010B / 21           \* F721 \* F723 \* U007

U007 = U006  
 1L012A / 20           \* F720 \* F722

U008 = M004  
 1L013A / 21           \* F722 \* F723 \* U009

U009 = U008  
 1L012B / 20           \* F720 \* F721

U010 = M005  
 1K018C / 29           \* C612 \* F065 \* U011

U011 = U010  
 1L013B / 21           \* C611 \* F600 \* J010 \* J492 \* K002

U012 = M007  
 1L014A / 20           \* J003 \* U013

U013 = U012  
 1L014B / 20

U014 = M008  
 1L014C / 20 \* J003 \* U015

U015 = U014  
 1L014D / 20

X000 = X001 + A051 X641 + M000 X611 + X602 + S003 X661  
 1E008A / 15 \* X001 \* X101

X001 = X000 + A034 X631 + X600 + A002 X621  
 1E009A / 14 \* A000 \* A032 \* D656 \* D666 \* L000 \* X000 \* X012

X002 = X003 + F104 X642 + M001 X611 + X602 + S007 X661  
 1E011A / 15 \* X003 \* X103

X003 = X002 + A036 A245 X631 + X600 + A006 A225 X621  
 1E012A / 14 \* A004 \* A036 \* D650 \* D660 \* L001 \* X002 \* X014

X004 = X005 + M002 X611 + X602 + S011 X661  
 1E014A / 14 \* X005 \* X105

X005 = X004 + A038 X631 + X600 + A010 X621  
 1E015A / 14 \* A008 \* A038 \* D652 \* D662 \* L002 \* X004 \* X016

X006 = X007 + F104 X642 + M003 X611 + X602 + S015 X661  
 1E019A / 15 \* X007 \* X107

X007 = X006 + A040 A245 X631 + X600 + A014 A225 X621  
 1E020A / 14 \* A012 \* A040 \* D654 \* D664 \* L003 \* X006 \* X018

X008 = X009 + M004 X611 + S019 X661  
 1E022A / 32 \* X009 \* X109

X009 = X008 + X600 + GND  
 1E022B / 32 \* L004 \* X008 \* X020

X010 = X011 + M005 X611 + S023 X661  
 1E023A / 32 \* X011 \* X111

X011 = X010 + X600 + GND  
 1E023B / 32 \* L005 \* X010 \* X022

X012 = X013 + X001 X651 + M006 X612 + X603 + S201 X664  
 1E039A / 15 \* E600 \* P810 \* P810 \* X013 \* X113

X013 = X012 + A042 X632 + X601 + A018 X622  
 1E040A / 14 \* A016 \* A042 \* D656 \* D666 \* L006 \* S000 \* X012

X014 = X015 + F104 X641 + X003 X651 + M007 X612 + X603 + S203  
 X664  
 1F010A / 16 \* E602 \* P810 \* P810 \* X015 \* X115

X015 = X014 + A044 A255 X632 + X601 + A022 A235 X622  
 1F001A / 14 \* A020 \* A044 \* D650 \* D660 \* L007 \* S004 \* X014

X016 = X017 + X005 X651 + M008 X612 + X603 + S205 X664  
 1F002A / 15 \* E604 \* E701 \* P810 \* P810 \* X017 \* X117

X017 = X016 + A046 X632 + X601 + A026 X622  
 1F003A / 14 \* A024 \* A046 \* D652 \* D662 \* L008 \* S008 \* X016

X018 = X019 + F104 X641 + X007 X651 + M009 X612 + X603 + S207  
X664  
1F006A / 16 \* E606 \* P812 \* P812 \* X019 \* X119  
  
X019 = X018 + A048 A255 X632 + X601 + A030 A235 X622  
1F007A / 14 \* A028 \* A048 \* D654 \* D664 \* L009 \* S012 \* X018  
  
X020 = X021 + X009 X651 + M010 X612 + S209 X664  
1F008A / 33 \* P812 \* P812 \* X021 \* X121  
  
X021 = X020 + X601 + GND + GND  
1F008B / 33 \* L010 \* S016 \* X020 \* X120  
  
X022 = X023 + X011 X651 + M011 X612 + S211 X664  
1F012A / 33 \* P812 \* P812 \* X023 \* X123  
  
X023 = X022 + X601 + GND + GND  
1F012B / 33 \* L011 \* S020 \* X022 \* X122  
  
X101 = X000  
1E013A / 29 \* A050  
  
X103 = X002  
1E013B / 29  
  
X105 = X004  
1E013C / 29  
  
X107 = X006  
1E027A / 29  
  
X109 = X008  
1E021A / 21  
  
X111 = X010  
1E021B / 21  
  
X113 = X012  
1E041A / 21 \* E601 \* E700 \* P810 \* P810  
  
X115 = X014  
1E041B / 21 \* E603 \* E700 \* P810 \* P810  
  
X117 = X016  
1F004A / 21 \* E605 \* P810 \* P810  
  
X119 = X018  
1F004B / 21 \* E607 \* E701 \* P812 \* P812  
  
X120 = X021  
1F009A / 29 \* E608 \* E701  
  
X121 = X020  
1F013A / 11 \* E609 \* P812 \* P812  
  
X122 = X023  
1F009B / 29 \* E610 \* S021  
  
X123 = X022  
1C037B / 21 \* E611 \* E701 \* K462 \* P812 \* P812  
  
X600 = X604

1E024A / 11 \* X001 \* X003 \* X005 \* X007 \* X009 \* X011  
 X601 = X730 X604  
 1E037A / 11 \* X013 \* X015 \* X017 \* X019 \* X021 \* X023  
 X602 = X740  
 1E026A / 21 \* X000 \* X002 \* X004 \* X006  
 X603 = X740  
 1E036A / 21 \* X012 \* X014 \* X016 \* X018  
 X604 = J603  
 1E018A / 20 \* X600 \* X601  
 X610 = J450 J601  
 1E028D / 20 \* X611 \* X612  
 X611 = X610  
 1E025A / 11 \* X000 \* X002 \* X004 \* X006 \* X008 \* X010  
 X612 = X610  
 1E038A / 11 \* X012 \* X014 \* X016 \* X018 \* X020 \* X022  
 X620 = C809 X623 + X702 C815 X624 + X701 C815 X625  
 1B012A / 23 \* X621 \* X622  
 X621 = X620  
 1B013A / 21 \* X001 \* X003 \* X005 \* X007  
 X622 = X620  
 1B013B / 21 \* X013 \* X015 \* X017 \* X019  
 X623 = C042 + F004  
 1B009A / 22 \* X620 \* X630 \* X640  
 X624 = C220 + C655  
 1B009B / 22 \* X620 \* X630 \* X640  
 X625 = C200 + C655  
 1E034A / 22 \* X620 \* X630 \* X640  
 X630 = C807 X623 + X702 C811 X624 + X701 C811 X625  
 1B012B / 23 \* X631 \* X632  
 X631 = X630  
 1B015A / 21 \* X001 \* X003 \* X005 \* X007  
 X632 = X630  
 1B015B / 21 \* X013 \* X015 \* X017 \* X019  
 X640 = C805 X623 + X702 C807 X624 + X701 C807 X625  
 1B014A / 23 \* X641 \* X642  
 X641 = X640  
 1B008A / 21 \* X000 \* X014 \* X018  
 X642 = A051 + X640  
 1H001B / 28 \* X002 \* X006  
 X650 = X702 C500 C323 + C323 C500 X712 + C323 X711 C501 + X701  
 C501 C323  
 1G041B / 24 \* X651

X651 = X650  
 1H008A / 11      \* X012 \* X014 \* X016 \* X018 \* X020 \* X022

X660 = X713 C335 C660  
 1G042C / 20      \* X661 \* X662

X661 = C403 + K605 + X660  
 1H006A / 13      \* J475 \* X000 \* X002 \* X004 \* X006 \* X008 \* X010  
                   \* X663

X662 = X660 + C402  
 1H007A / 12      \* S200 \* S202 \* S204 \* S206 \* S208 \* S210

X663 = X661  
 1I014B / 20      \* X664

X664 = X663  
 1G030A / 11      \* X012 \* X014 \* X016 \* X018 \* X020 \* X022

X700 = K621 K751  
 1G042D / 20      \* X701 \* X702

X701 = K632 + X700  
 1H004A / 12      \* X620 \* X630 \* X640 \* X650 \* X730 \* X740

X702 = K633 + X700  
 1H005A / 12      \* E800 \* X620 \* X630 \* X640 \* X650 \* X730 \* X740

X710 = K641 K751  
 1G032A / 29      \* X711 \* X712 \* X713

X711 = X710 + F010  
 1H002A / 22      \* K604 \* X650 \* X720 \* X730

X712 = F014 F016 + X710  
 1H003A / 12      \* E800 \* E804 \* J475 \* K604 \* X650 \* X720 \* X730

X713 = F012 + X710 Y145  
 1H001A / 28      \* X660 \* X750

X720 = C207 C501 X712 K604 + K604 X711 C500 C211 + A607 + GND  
 1G040A / 24      \* X721

X721 = X720  
 1G042A / 20      \* J602

X730 = C500 X702 C315 + C500 X712 C315 + C501 X701 C315 + C501  
 X711 C315  
 1G040B / 24      \* X601

X740 = X742 C315 C501 X702 + X742 X701 C500 C235 + F005 C660 C407 +  
 GND  
 1G041A / 24      \* X602 \* X603

X742 = K605  
 1I016A / 29      \* X740 \* X740

X750 = F005 C652 + K704 C203 C501 X713 + GND  
 1H010A / 23      \* S630 \* X751

X751 = X750

	1G042B / 20	* J600
0	Y000 =	
	NO JACK	* J026
0	Y001 =	
	NO JACK	* J028
0	Y002 =	
	NO JACK	* J029
0	Y003 =	
	NO JACK	* L101
0	Y004 =	
	NO JACK	* J043
0	Y010 =	
	NO JACK	* J000
0	Y020 =	
	NO JACK	* K000
0	Y100 =	
	NO JACK	* C601
0	Y101 =	
	NO JACK	* C002
0	Y102 =	
	NO JACK	* C003
0	Y103 =	
	NO JACK	* C001
	Y120 = C640	
	1K007A / P13	* C642
	Y121 = C041	
	1K007D / P13	* C042
	Y122 = C040	
	1K007E / P13	* C043
	Y123 = C043	
	1K007F / P13	* C041
0	Y140 =	
	NO JACK	* K472
0	Y141 =	
	NO JACK	* J455
0	Y142 =	
	NO JACK	* J457

0	Y144 =	NO JACK	* K471	
0	Y145 =	NO JACK	* J493 * X713	
				Y146 =
0	Y150 =	NO JACK	* J601	NO JACK * X713
0	Y151 =	NO JACK	* K440	
0	Y160 =	NO JACK	* A607	
0	Y161 =	NO JACK	* A608	
0	Y162 =	NO JACK	* A608	
0	Y170 =	NO JACK	* J572	
0	Y171 =	NO JACK	* J631	
0	Y172 =	NO JACK	* J622	
0	Y173 =	NO JACK	* J625	
0	Y174 =	NO JACK	* K654	
0	Y177 =	NO JACK	* K655	
0	Y180 =	NO JACK	* J654	
	Y181 =	K652		
		1K007B / P13	* J642	
0	Y182 =	NO JACK	* K644	
0	Y183 =	NO JACK	* C809	
0	Y184 =	NO JACK	* J703	
	Y190 =	R410		
		1K007C / P13	* J761	
0	Y191 =	NO JACK	* C721	
0	Y200 =	NO JACK	* T400	

0	Y201 =	NO JACK	★ T401
0	Y202 =	NO JACK	★ T402
0	Y203 =	NO JACK	★ T403
0	Y204 =	NO JACK	★ T404
0	Y210 =	NO JACK	★ J770
0	Y211 =	NO JACK	★ J771



**PART 6**

**WIRE LISTS**

GND	1K008	08	*	18324100	8047	B03
GND	1G013	02	*	18324100	8047	B03
GND	1G012	02	*	18324100	8047	B03
GND	1G009	02	*	18324100	8047	B03
GND	1G004	08	*	18324100	8047	B03
GND	1G003	02	*	18324100	8047	B03
GND	1G001	02	*	18324100	8047	B03
GND	1F039	02	*	18324100	8047	B03
GND	1F038	02	*	18324100	8047	B03
GND	1F036	02	*	18324100	8047	B03
GND	1H010	09	*	18324100	8047	B03
GND	1D012	06	*	18324100	8047	B03
GND	1D032	02	*	18324100	8047	B03
GND	1D035	02	*	18324100	8047	B03
GND	1I030	02	*	18324100	8047	B03
GND	1J001	02	*	18324100	8047	B03
GND	1J002	02	*	18324100	8047	B03
GND	1J005	02	*	18324100	8047	B03
GND	1J006	02	*	18324100	8047	B03
GND	1J008	02	*	18324100	8047	B03
GND	1K001	08	*	18324100	8047	B03
GND	1C021	10	*	18324100	8047	B03
GND	1G025	04	*	18324100	8047	B03
GND	1G029	06	*	18324100	8047	B03
GND	1E033	10	*	18324100	8047	B03
GND	1J021	06	*	18324100	8047	B03
GND	1I013	04	*	18324100	8047	B03
GND	1H038	04	*	18324100	8047	B03
GND	1I015	02	*	18324100	8047	B03
GND	1L031	02	*	18324100	8047	B03
GND	1K004	02	*	18324100	8047	B03
GND	1K005	02	*	18324100	8047	B03
GND	1K006	02	*	18324100	8047	B03
GND	1G018	08	*	18324100	8047	B03
GND	1J025	02	*	18324100	8047	B03
GND	1J029	02	*	18324100	8047	B03
GND	1J029	03	*	18324100	8047	B03
GND	1J031	02	*	18324100	8047	B03
GND	1I005	02	*	18324100	8047	B03
GND	1I006	02	*	18324100	8047	B03
GND	1I006	03	*	18324100	8047	B03
GND	1I002	02	*	18324100	8047	B03
GND	1I003	02	*	18324100	8047	B03
GND	1C042	02	*	18324100	8047	B03
GND	1C042	03	*	18324100	8047	B03
GND	1D007	02	*	18324100	8047	B03
GND	1L016	03	*	18324100	8047	B03
GND	1L016	07	*	18324100	8047	B03
GND	1L016	11	*	18324100	8047	B03
GND	1L017	03	*	18324100	8047	B03
GND	1L017	07	*	18324100	8047	B03
GND	1L017	11	*	18324100	8047	B03
GND	1L018	02	*	18324100	8047	B03
GND	1L018	03	*	18324100	8047	B03
GND	1L018	06	*	18324100	8047	B03
GND	1L018	07	*	18324100	8047	B03
GND	1L018	11	*	18324100	8047	B03
GND	1L019	03	*	18324100	8047	B03
GND	1L019	07	*	18324100	8047	B03
GND	1L019	10	*	18324100	8047	B03

GND	1L019	11	*	18324100	8047	R03
GND	1L020	03	*	18324100	8047	R03
GND	1L020	07	*	18324100	8047	R03
GND	1L020	09	*	18324100	8047	R03
GND	1L020	10	*	18324100	8047	R03
GND	1L020	11	*	18324100	8047	R03
GND	1L021	02	*	18324100	8047	R03
GND	1L021	03	*	18324100	8047	R03
GND	1L021	06	*	18324100	8047	R03
GND	1L021	07	*	18324100	8047	R03
GND	1D015	02	*	18324100	8047	R03
GND	1F031	08	*	18324100	8047	R03
GND	1F028	08	*	18324100	8047	R03
GND	1F026	08	*	18324100	8047	R03
GND	1F024	08	*	18324100	8047	R03
GND	1F022	08	*	18324100	8047	R03
GND	1K042	02	*	18324100	8047	R03
GND	1K042	03	*	18324100	8047	R03
GND	1K042	06	*	18324100	8047	R03
GND	1K042	07	*	18324100	8047	R03
GND	1K042	10	*	18324100	8047	R03
GND	1K042	11	*	18324100	8047	R03
GND	1K038	06	*	18324100	8047	R03
GND	1K038	07	*	18324100	8047	R03
GND	1K038	10	*	18324100	8047	R03
GND	1K038	11	*	18324100	8047	R03
GND	1K039	02	*	18324100	8047	R03
GND	1K039	03	*	18324100	8047	R03
GND	1K039	06	*	18324100	8047	R03
GND	1K039	07	*	18324100	8047	R03
GND	1K039	10	*	18324100	8047	R03
GND	1K039	11	*	18324100	8047	R03
GND	1K040	02	*	18324100	8047	R03
GND	1K040	03	*	18324100	8047	R03
GND	1K040	06	*	18324100	8047	R03
GND	1K040	07	*	18324100	8047	R03
GND	1K040	10	*	18324100	8047	R03
GND	1K040	11	*	18324100	8047	R03
GND	1K041	02	*	18324100	8047	R03
GND	1K041	03	*	18324100	8047	R03
GND	1K041	06	*	18324100	8047	R03
GND	1K041	07	*	18324100	8047	R03
GND	1K035	03	*	18324100	8047	R03
GND	1K035	07	*	18324100	8047	R03
GND	1K035	11	*	18324100	8047	R03
GND	1K036	03	*	18324100	8047	R03
GND	1K036	07	*	18324100	8047	R03
GND	1K036	11	*	18324100	8047	R03
GND	1K037	03	*	18324100	8047	R03
GND	1K037	07	*	18324100	8047	R03
GND	1K037	11	*	18324100	8047	R03
GND	1K038	03	*	18324100	8047	R03
GND	1E022	08	*	18324100	8047	R03
GND	1E023	08	*	18324100	8047	R03
GND	1F008	08	*	18324100	8047	R03
GND	1F008	09	*	18324100	8047	R03
GND	1F012	08	*	18324100	8047	R03
GND	1F012	09	*	18324100	8047	R03
GND	1G040	04	*	18324100	8047	R03
GND	1G041	04	*	18324100	8047	R03
GND	1H010	03	*	18324100	8047	R03
10 18001 01	1C020	04	*	18324100	8047	R03

14	18001	03	18030	10	18324100	8047	R03
14	18001	04	18030	04	18324100	8047	R03
10	18001	05	18020	10	18324100	8047	R03
10	18001	06	18020	04	18324100	8047	R03
09	18002	01	18020	03 *	18324100	8047	R03
07	18002	02	18015	03	18324100	8047	R03
09	18002	03	18020	02 *	18324100	8047	R03
24	18002	04	11010	09 *	18324100	8047	R03
13	18002	04	18030	09	18324100	8047	R03
07	18002	05	18015	09 *	18324100	8047	R03
14	18002	05	1F007	02	18324100	8047	R03
07	18002	06	18015	11 *	18324100	8047	R03
13	18002	06	1F001	02	18324100	8047	R03
05	18002	07	18008	12 *	18324100	8047	R03
10	18002	09	1C020	06	18324100	8047	R03
04	18002	09	1C002	01 *	18324100	8047	R03
10	18003	01	1C019	08 *	18324100	8047	R03
13	18003	03	18030	01	18324100	8047	R03
09	18003	04	18020	07 *	18324100	8047	R03
09	18003	05	18020	01 *	18324100	8047	R03
12	18003	06	1E009	11	18324100	8047	R03
15	18003	06	1C036	01 *	18324100	8047	R03
09	18003	07	1C019	07 *	18324100	8047	R03
23	18003	08	11014	07	18324100	8047	R03
14	18003	09	1F007	11	18324100	8047	R03
18	18003	09	18042	01 *	18324100	8047	R03
14	18003	10	1F003	11	18324100	8047	R03
17	18003	10	18040	07 *	18324100	8047	R03
14	18003	11	1F001	11	18324100	8047	R03
17	18003	11	18040	01 *	18324100	8047	R03
13	18003	12	18030	07	18324100	8047	R03
15	18005	01	1F015	04	18324100	8047	R03
16	18005	02	1D035	05	18324100	8047	R03
02	18005	03	18005	04	18324100	8047	R03
02	18005	04	18005	03 *	18324100	8047	R03
11	18005	06	1E013	04 *	18324100	8047	R03
27	18005	07	11034	11 *	18324100	8047	R03
06	18005	09	18014	12	18324100	8047	R03
09	18006	01	1C020	03 *	18324100	8047	R03
22	18006	02	1G035	10	18324100	8047	R03
16	18006	03	18042	10	18324100	8047	R03
16	18006	04	18042	04	18324100	8047	R03
16	18006	05	18040	10	18324100	8047	R03
16	18006	06	18040	04	18324100	8047	R03
16	18007	01	1C042	04 *	18324100	8047	R03
16	18007	02	1C040	07	18324100	8047	R03
09	18007	02	1D007	08 *	18324100	8047	R03
16	18007	03	1C040	11	18324100	8047	R03
09	18007	03	1D007	07 *	18324100	8047	R03
05	18008	01	18014	06 *	18324100	8047	R03
14	18008	04	1F006	02	18324100	8047	R03
14	18008	05	1F010	02	18324100	8047	R03
10	18008	06	1E008	02	18324100	8047	R03
16	18008	06	18042	12 *	18324100	8047	R03
20	18008	07	1G035	02 *	18324100	8047	R03
11	18008	08	1E017	01	18324100	8047	R03
20	18008	09	1H013	11	18324100	8047	R03
07	18008	10	1C020	02 *	18324100	8047	R03
07	18008	11	1C019	01 *	18324100	8047	R03
05	18008	12	18002	07	18324100	8047	R03
25	18008	12	11034	12 *	18324100	8047	R03
29	18009	01	1K009	04 *	18324100	8047	R03

26	18009	02	11033	06	*	18324100	8047	R03
04	18009	04	18014	01	*	18324100	8047	R03
03	18009	05	18012	07	*	18324100	8047	R03
03	18009	06	18012	01	*	18324100	8047	R03
16	18009	07	1G002	02	*	18324100	8047	R03
26	18009	08	1J014	07	*	18324100	8047	R03
04	18009	10	18014	02		18324100	8047	R03
13	18009	10	1F016	04	*	18324100	8047	R03
03	18009	11	18012	08	*	18324100	8047	R03
04	18009	12	18012	02		18324100	8047	R03
13	18009	12	1F018	05	*	18324100	8047	R03
21	18012	01	1H013	09	*	18324100	8047	R03
03	18012	01	18009	06		18324100	8047	R03
04	18012	02	18009	12	*	18324100	8047	R03
15	18012	03	1E034	06	*	18324100	8047	R03
03	18012	05	18013	07		18324100	8047	R03
03	18012	06	18013	01		18324100	8047	R03
14	18012	07	1F016	05	*	18324100	8047	R03
03	18012	07	18009	05		18324100	8047	R03
14	18012	08	1F017	09	*	18324100	8047	R03
03	18012	08	18009	11		18324100	8047	R03
14	18012	09	1E034	05	*	18324100	8047	R03
03	18012	11	18015	07		18324100	8047	R03
04	18012	12	18015	01		18324100	8047	R03
03	18013	01	18012	06	*	18324100	8047	R03
08	18013	03	1C001	08	*	18324100	8047	R03
06	18013	04	1C006	04	*	18324100	8047	R03
08	18013	05	1C001	09	*	18324100	8047	R03
07	18013	06	1C003	04	*	18324100	8047	R03
03	18013	07	18012	05	*	18324100	8047	R03
10	18013	09	1C032	02	*	18324100	8047	R03
09	18013	10	1C029	02		18324100	8047	R03
14	18013	10	1F003	04	*	18324100	8047	R03
06	18013	11	1C023	03		18324100	8047	R03
14	18013	11	1F001	04	*	18324100	8047	R03
04	18013	12	1C009	05		18324100	8047	R03
15	18013	12	1E040	04	*	18324100	8047	R03
14	18014	01	1F015	02	*	18324100	8047	R03
04	18014	01	18009	04		18324100	8047	R03
04	18014	02	18009	10	*	18324100	8047	R03
14	18014	03	1E034	04	*	18324100	8047	R03
21	18014	05	1H001	06		18324100	8047	R03
05	18014	06	18008	01		18324100	8047	R03
07	18014	07	1C003	05	*	18324100	8047	R03
06	18014	08	1C016	11	*	18324100	8047	R03
08	18014	09	1C001	03	*	18324100	8047	R03
26	18014	11	1J031	07		18324100	8047	R03
06	18014	12	1C023	04		18324100	8047	R03
06	18014	12	18005	09	*	18324100	8047	R03
04	18015	01	18012	12	*	18324100	8047	R03
08	18015	03	18030	02		18324100	8047	R03
07	18015	03	18002	02	*	18324100	8047	R03
04	18015	04	18020	08	*	18324100	8047	R03
04	18015	05	18020	02		18324100	8047	R03
11	18015	05	1E012	02	*	18324100	8047	R03
10	18015	06	1C035	04		18324100	8047	R03
11	18015	06	1E009	02	*	18324100	8047	R03
03	18015	07	18012	11	*	18324100	8047	R03
07	18015	09	18002	05		18324100	8047	R03
13	18015	09	18042	02	*	18324100	8047	R03
12	18015	10	18040	08		18324100	8047	R03
14	18015	10	1F003	02	*	18324100	8047	R03

07	18015	11	18002	06	18324100	8047	R03
12	18015	11	18040	02	* 18324100	8047	R03
08	18015	12	18030	08	* 18324100	8047	R03
19	18017	01	1G023	11	* 18324100	8047	R03
17	18017	05	1G026	04	* 18324100	8047	R03
33	18017	09	1L030	10	* 18324100	8047	R03
06	18018	01	18027	06	* 18324100	8047	R03
04	18018	02	18024	02	* 18324100	8047	R03
05	18018	03	18026	05	* 18324100	8047	R03
03	18018	05	18018	12	* 18324100	8047	R03
11	18018	06	1C041	01	18324100	8047	R03
04	18018	07	18024	06	* 18324100	8047	R03
06	18018	08	18027	12	* 18324100	8047	R03
05	18018	09	18026	11	* 18324100	8047	R03
11	18018	11	1C041	07	18324100	8047	R03
03	18018	12	18018	05	18324100	8047	R03
11	18018	12	1C041	04	* 18324100	8047	R03
16	18019	01	1F009	08	* 18324100	8047	R03
16	18019	02	1F019	12	* 18324100	8047	R03
04	18019	05	18023	03	18324100	8047	R03
03	18019	06	18021	09	18324100	8047	R03
10	18019	07	1C037	12	* 18324100	8047	R03
14	18019	08	1F019	06	* 18324100	8047	R03
04	18019	09	18023	08	18324100	8047	R03
03	18019	10	18021	03	18324100	8047	R03
03	18019	11	18022	10	18324100	8047	R03
04	18019	12	18022	04	18324100	8047	R03
13	18020	01	1E012	11	* 18324100	8047	R03
09	18020	01	18003	05	18324100	8047	R03
04	18020	02	18015	05	* 18324100	8047	R03
09	18020	02	18002	03	18324100	8047	R03
09	18020	03	18002	01	18324100	8047	R03
03	18020	03	18020	09	* 18324100	8047	R03
10	18020	04	18001	06	* 18324100	8047	R03
12	18020	07	1E015	11	* 18324100	8047	R03
09	18020	07	18003	04	18324100	8047	R03
04	18020	08	18015	04	18324100	8047	R03
10	18020	08	1E015	02	* 18324100	8047	R03
03	18020	09	18020	03	18324100	8047	R03
06	18020	09	18030	03	* 18324100	8047	R03
10	18020	10	18001	05	* 18324100	8047	R03
15	18021	01	1F009	04	* 18324100	8047	R03
16	18021	02	1F021	12	* 18324100	8047	R03
03	18021	03	18019	10	* 18324100	8047	R03
03	18021	05	18023	04	18324100	8047	R03
03	18021	06	18022	09	18324100	8047	R03
15	18021	07	1F013	12	* 18324100	8047	R03
14	18021	08	1F021	06	* 18324100	8047	R03
03	18021	09	18019	06	* 18324100	8047	R03
03	18021	11	18023	09	18324100	8047	R03
03	18021	12	18022	03	18324100	8047	R03
17	18022	01	1F006	12	* 18324100	8047	R03
16	18022	02	1F023	12	* 18324100	8047	R03
03	18022	03	18021	12	* 18324100	8047	R03
04	18022	04	18019	12	* 18324100	8047	R03
03	18022	06	18023	01	18324100	8047	R03
17	18022	07	1F004	12	* 18324100	8047	R03
14	18022	08	1F023	06	* 18324100	8047	R03
03	18022	09	18021	06	* 18324100	8047	R03
03	18022	10	18019	11	* 18324100	8047	R03
03	18022	12	18023	07	18324100	8047	R03
03	18023	01	18022	06	* 18324100	8047	R03

04	18023	02	18023	12	*	18324100	8047	803
03	18023	02	18025	04		18324100	8047	803
04	18023	03	18019	05	*	18324100	8047	803
03	18023	04	18021	05	*	18324100	8047	803
03	18023	05	18023	10		18324100	8047	803
03	18023	06	18024	01		18324100	8047	803
03	18023	07	18022	12	*	18324100	8047	803
04	18023	08	18019	09	*	18324100	8047	803
03	18023	09	18021	11	*	18324100	8047	803
03	18023	10	18023	05	*	18324100	8047	803
03	18023	10	18025	08		18324100	8047	803
03	18023	11	18024	05		18324100	8047	803
04	18023	12	18023	02		18324100	8047	803
03	18024	01	18023	06	*	18324100	8047	803
04	18024	02	18018	02		18324100	8047	803
03	18024	03	18026	09		18324100	8047	803
03	18024	04	18027	09		18324100	8047	803
03	18024	05	18023	11	*	18324100	8047	803
04	18024	06	18018	07		18324100	8047	803
03	18024	07	18026	03		18324100	8047	803
03	18024	08	18027	03		18324100	8047	803
22	18024	09	18003	11		18324100	8047	803
09	18024	10	18040	10		18324100	8047	803
09	18024	11	18040	06		18324100	8047	803
22	18024	12	18003	12	*	18324100	8047	803
09	18024	12	18040	02		18324100	8047	803
19	18025	01	18002	12	*	18324100	8047	803
16	18025	02	18025	12	*	18324100	8047	803
03	18025	04	18023	02	*	18324100	8047	803
17	18025	05	18004	06	*	18324100	8047	803
14	18025	06	18025	06	*	18324100	8047	803
03	18025	08	18023	10	*	18324100	8047	803
10	18025	09	18014	12	*	18324100	8047	803
13	18025	10	18001	11	*	18324100	8047	803
09	18025	10	18040	08		18324100	8047	803
07	18025	12	18029	07		18324100	8047	803
17	18026	01	18010	12	*	18324100	8047	803
16	18026	02	18027	12	*	18324100	8047	803
03	18026	03	18024	07	*	18324100	8047	803
05	18026	05	18018	03		18324100	8047	803
03	18026	06	18027	10		18324100	8047	803
13	18026	07	18041	12	*	18324100	8047	803
14	18026	08	18027	06	*	18324100	8047	803
03	18026	09	18024	03	*	18324100	8047	803
05	18026	11	18018	09		18324100	8047	803
03	18026	12	18027	04		18324100	8047	803
14	18027	01	18039	12	*	18324100	8047	803
16	18027	02	18029	12	*	18324100	8047	803
03	18027	03	18024	08	*	18324100	8047	803
03	18027	04	18026	12	*	18324100	8047	803
06	18027	06	18018	01		18324100	8047	803
12	18027	07	18041	06	*	18324100	8047	803
14	18027	08	18029	06	*	18324100	8047	803
03	18027	09	18024	04	*	18324100	8047	803
03	18027	10	18026	06	*	18324100	8047	803
06	18027	12	18018	08		18324100	8047	803
17	18028	01	18035	01		18324100	8047	803
08	18028	03	18039	05		18324100	8047	803
05	18028	03	18024	02	*	18324100	8047	803
02	18028	05	18028	06		18324100	8047	803
14	18028	05	18035	04	*	18324100	8047	803
02	18028	06	18028	08		18324100	8047	803

02	18028	06	18028	05	*	18324100	8047	803
05	18028	07	1C024	03	*	18324100	8047	803
05	18028	08	18035	05		18324100	8047	803
02	18028	08	18028	06	*	18324100	8047	803
02	18028	09	18028	10		18324100	8047	803
21	18028	09	18011	10	*	18324100	8047	803
02	18028	10	18028	09	*	18324100	8047	803
05	18028	11	18034	01		18324100	8047	803
15	18028	12	1F016	11		18324100	8047	803
07	18029	01	1C022	05	*	18324100	8047	803
09	18029	02	1C015	12		18324100	8047	803
03	18029	05	18031	05		18324100	8047	803
11	18029	05	1C007	05	*	18324100	8047	803
09	18029	06	1C014	11		18324100	8047	803
13	18029	07	1C002	05	*	18324100	8047	803
09	18029	08	1C015	11		18324100	8047	803
09	18029	12	1C014	12		18324100	8047	803
13	18030	01	18003	03	*	18324100	8047	803
13	18030	01	1E020	11		18324100	8047	803
08	18030	02	18015	03	*	18324100	8047	803
12	18030	02	1E020	02		18324100	8047	803
06	18030	03	1C036	05	*	18324100	8047	803
06	18030	03	18020	09		18324100	8047	803
14	18030	04	18001	04	*	18324100	8047	803
13	18030	07	18003	12	*	18324100	8047	803
12	18030	07	1E040	11		18324100	8047	803
08	18030	08	18015	12		18324100	8047	803
11	18030	08	1E040	02	*	18324100	8047	803
06	18030	09	18040	09		18324100	8047	803
13	18030	09	18002	04	*	18324100	8047	803
14	18030	10	18001	03	*	18324100	8047	803
07	18031	01	1C022	03	*	18324100	8047	803
10	18031	02	1C015	08		18324100	8047	803
03	18031	05	18029	05	*	18324100	8047	803
09	18031	06	1C014	07		18324100	8047	803
14	18031	07	1C002	03	*	18324100	8047	803
09	18031	08	1C015	07		18324100	8047	803
09	18031	12	1C014	08		18324100	8047	803
08	18032	01	1C022	11	*	18324100	8047	803
06	18032	02	1C028	06		18324100	8047	803
02	18032	05	18033	05	*	18324100	8047	803
06	18032	06	1C028	07		18324100	8047	803
05	18032	07	1C027	06	*	18324100	8047	803
06	18032	08	1C026	11		18324100	8047	803
04	18032	12	1C028	01		18324100	8047	803
08	18033	01	1C022	09	*	18324100	8047	803
06	18033	02	1C032	06		18324100	8047	803
05	18033	05	1C031	05	*	18324100	8047	803
02	18033	05	18032	05		18324100	8047	803
05	18033	06	1C032	07		18324100	8047	803
05	18033	07	1C027	04	*	18324100	8047	803
05	18033	08	1C034	09		18324100	8047	803
03	18033	12	1C032	01	*	18324100	8047	803
05	18034	01	18028	11	*	18324100	8047	803
04	18034	01	18037	12		18324100	8047	803
26	18034	03	1J020	01		18324100	8047	803
03	18034	04	18035	10	*	18324100	8047	803
02	18034	04	18034	06		18324100	8047	803
02	18034	06	18034	04	*	18324100	8047	803
25	18035	04	1I014	08		18324100	8047	803
02	18035	05	18036	04		18324100	8047	803
05	18035	05	18028	08	*	18324100	8047	803



20	18035	06	18042	04	18324100	8047	803
02	18035	07	18036	07	18324100	8047	803
09	18035	07	1C021	12 *	18324100	8047	803
03	18035	10	18034	04	18324100	8047	803
02	18036	04	18036	05	18324100	8047	803
02	18036	04	18035	05 *	18324100	8047	803
02	18036	05	18036	04 *	18324100	8047	803
17	18036	06	1G027	06	18324100	8047	803
02	18036	07	18035	07 *	18324100	8047	803
18	18037	01	1E006	05	18324100	8047	803
08	18037	03	1D036	01	18324100	8047	803
17	18037	04	1C001	02 *	18324100	8047	803
06	18037	05	1C042	05 *	18324100	8047	803
06	18037	06	1C042	06 *	18324100	8047	803
07	18037	07	1C027	02 *	18324100	8047	803
07	18037	09	1C025	01 *	18324100	8047	803
25	18037	10	1J028	03 *	18324100	8047	803
04	18037	12	18034	01 *	18324100	8047	803
17	18040	01	18003	11	18324100	8047	803
12	18040	02	18015	11	18324100	8047	803
03	18040	03	18042	03 *	18324100	8047	803
16	18040	04	18006	06 *	18324100	8047	803
17	18040	07	18003	10	18324100	8047	803
12	18040	08	18015	10 *	18324100	8047	803
06	18040	09	18030	09 *	18324100	8047	803
03	18040	09	18042	03	18324100	8047	803
16	18040	10	18006	05 *	18324100	8047	803
08	18041	01	1D038	03 *	18324100	8047	803
09	18041	02	1D036	06 *	18324100	8047	803
08	18041	06	1D035	03 *	18324100	8047	803
07	18041	07	1D039	02 *	18324100	8047	803
08	18041	08	1D036	05 *	18324100	8047	803
08	18041	11	1D033	08	18324100	8047	803
07	18041	12	1D035	04 *	18324100	8047	803
18	18042	01	18003	09	18324100	8047	803
13	18042	02	18015	09	18324100	8047	803
03	18042	03	18040	09 *	18324100	8047	803
03	18042	03	18040	03	18324100	8047	803
16	18042	04	18006	04 *	18324100	8047	803
16	18042	07	1E013	04	18324100	8047	803
16	18042	10	18006	03 *	18324100	8047	803
26	18042	11	1H001	05	18324100	8047	803
16	18042	12	18008	06	18324100	8047	803
16	1C001	01	1G012	12 *	18324100	8047	803
09	1C001	01	1C018	03	18324100	8047	803
17	1C001	02	18037	04	18324100	8047	803
08	1C001	03	18014	09	18324100	8047	803
09	1C001	04	1C017	12 *	18324100	8047	803
03	1C001	05	1C003	07	18324100	8047	803
03	1C001	06	1C003	01 *	18324100	8047	803
21	1C001	07	1I010	12 *	18324100	8047	803
03	1C001	07	1C004	05	18324100	8047	803
08	1C001	08	18013	03	18324100	8047	803
05	1C001	08	1C008	04 *	18324100	8047	803
08	1C001	09	18013	05	18324100	8047	803
04	1C001	09	1C005	04 *	18324100	8047	803
05	1C001	10	1C008	05 *	18324100	8047	803
05	1C001	11	1C009	12 *	18324100	8047	803
03	1C001	11	1C002	09	18324100	8047	803
03	1C001	12	1C002	10	18324100	8047	803
05	1C001	12	1C009	06 *	18324100	8047	803
24	1C002	01	1J005	06 *	18324100	8047	803

04	1C002	01	1B002	09	18324100	8047	R03
06	1C002	02	1C011	07	18324100	8047	R03
14	1C002	03	1B031	07	18324100	8047	R03
04	1C002	04	1C007	07	18324100	8047	R03
13	1C002	05	1B029	07	18324100	8047	R03
03	1C002	06	1C004	07	18324100	8047	R03
04	1C002	07	1C006	05 *	18324100	8047	R03
03	1C002	09	1C001	11 *	18324100	8047	R03
03	1C002	10	1C001	12 *	18324100	8047	R03
04	1C002	11	1C008	12 *	18324100	8047	R03
05	1C002	12	1C008	06 *	18324100	8047	R03
04	1C003	01	1C004	12 *	18324100	8047	R03
03	1C003	01	1C001	06	18324100	8047	R03
07	1C003	04	1B013	06	18324100	8047	R03
08	1C003	04	1E009	04 *	18324100	8047	R03
23	1C003	05	1J005	05 *	18324100	8047	R03
07	1C003	05	1B014	07	18324100	8047	R03
03	1C003	06	1C004	02 *	18324100	8047	R03
03	1C003	07	1C001	05 *	18324100	8047	R03
02	1C003	07	1C004	06	18324100	8047	R03
07	1C003	11	1C016	02	18324100	8047	R03
03	1C003	12	1C004	08 *	18324100	8047	R03
10	1C004	01	1E009	12 *	18324100	8047	R03
09	1C004	01	1C022	06	18324100	8047	R03
14	1C004	02	1E026	12 *	18324100	8047	R03
03	1C004	02	1C003	06	18324100	8047	R03
03	1C004	05	1C007	05	18324100	8047	R03
03	1C004	05	1C001	07 *	18324100	8047	R03
02	1C004	06	1C003	07 *	18324100	8047	R03
03	1C004	07	1C002	06 *	18324100	8047	R03
13	1C004	08	1E026	11 *	18324100	8047	R03
03	1C004	08	1C003	12	18324100	8047	R03
04	1C004	12	1C003	01	18324100	8047	R03
06	1C005	01	1C014	12 *	18324100	8047	R03
04	1C005	04	1C001	09	18324100	8047	R03
09	1C005	04	1E012	04 *	18324100	8047	R03
05	1C005	05	1C012	01	18324100	8047	R03
05	1C005	06	1C013	12 *	18324100	8047	R03
06	1C005	07	1C014	11 *	18324100	8047	R03
05	1C005	12	1C013	11 *	18324100	8047	R03
04	1C006	01	1C007	12 *	18324100	8047	R03
06	1C006	04	1B013	04	18324100	8047	R03
09	1C006	04	1E015	04 *	18324100	8047	R03
04	1C006	05	1C002	07	18324100	8047	R03
05	1C006	05	1C013	07 *	18324100	8047	R03
03	1C006	06	1C007	02	18324100	8047	R03
05	1C006	07	1C014	09 *	18324100	8047	R03
02	1C006	07	1C007	06	18324100	8047	R03
03	1C006	12	1C007	08	18324100	8047	R03
10	1C007	01	1E015	12 *	18324100	8047	R03
08	1C007	01	1C022	04	18324100	8047	R03
03	1C007	02	1C006	06 *	18324100	8047	R03
05	1C007	02	1C015	10	18324100	8047	R03
03	1C007	05	1C004	05 *	18324100	8047	R03
11	1C007	05	1B029	05	18324100	8047	R03
02	1C007	06	1C006	07 *	18324100	8047	R03
04	1C007	07	1C002	04 *	18324100	8047	R03
03	1C007	08	1C006	12 *	18324100	8047	R03
04	1C007	08	1C012	11	18324100	8047	R03
04	1C007	12	1C006	01	18324100	8047	R03
05	1C007	12	1C014	10 *	18324100	8047	R03
05	1C008	01	1C014	08 *	18324100	8047	R03

05	1C008	04	1C001	08	18324100	8047	B03
10	1C008	04	1E020	04 *	18324100	8047	B03
05	1C008	05	1C001	10	18324100	8047	B03
05	1C008	06	1C002	12	18324100	8047	B03
04	1C008	06	1C012	10 *	18324100	8047	B03
04	1C008	07	1C014	07 *	18324100	8047	B03
02	1C008	10	1C009	11	18324100	8047	B03
05	1C008	10	1C016	07 *	18324100	8047	B03
05	1C008	11	1C013	01	18324100	8047	B03
04	1C008	12	1C002	11	18324100	8047	B03
04	1C008	12	1C012	09 *	18324100	8047	B03
04	1C009	01	1C011	12 *	18324100	8047	B03
04	1C009	01	1C014	06	18324100	8047	B03
04	1C009	05	1B013	12 *	18324100	8047	B03
05	1C009	06	1C001	12	18324100	8047	B03
03	1C009	06	1C011	02 *	18324100	8047	B03
03	1C009	07	1C011	06 *	18324100	8047	B03
02	1C009	11	1C008	10 *	18324100	8047	B03
05	1C009	12	1C001	11	18324100	8047	B03
03	1C009	12	1C011	08 *	18324100	8047	B03
07	1C011	01	1C022	12 *	18324100	8047	B03
03	1C011	02	1C012	08 *	18324100	8047	B03
03	1C011	02	1C009	06	18324100	8047	B03
07	1C011	05	1C023	01	18324100	8047	B03
21	1C011	05	1I010	11 *	18324100	8047	B03
03	1C011	06	1C009	07	18324100	8047	B03
03	1C011	06	1C014	05 *	18324100	8047	B03
06	1C011	07	1C002	02 *	18324100	8047	B03
02	1C011	08	1C012	07 *	18324100	8047	B03
03	1C011	08	1C009	12	18324100	8047	B03
04	1C011	12	1C009	01	18324100	8047	B03
05	1C012	01	1C005	05 *	18324100	8047	B03
03	1C012	01	1C013	08	18324100	8047	B03
02	1C012	07	1C011	08	18324100	8047	B03
03	1C012	07	1C015	05 *	18324100	8047	B03
03	1C012	08	1C011	02	18324100	8047	B03
03	1C012	08	1C015	06 *	18324100	8047	B03
04	1C012	09	1C008	12	18324100	8047	B03
03	1C012	09	1C015	07 *	18324100	8047	B03
04	1C012	10	1C008	06	18324100	8047	B03
03	1C012	10	1C015	08 *	18324100	8047	B03
03	1C012	11	1C015	09	18324100	8047	B03
04	1C012	11	1C007	08 *	18324100	8047	B03
03	1C012	12	1C013	10	18324100	8047	B03
03	1C012	12	1C015	10 *	18324100	8047	B03
05	1C013	01	1C008	11 *	18324100	8047	B03
05	1C013	07	1C006	05	18324100	8047	B03
03	1C013	08	1C012	01 *	18324100	8047	B03
03	1C013	09	1C015	09 *	18324100	8047	B03
03	1C013	10	1C012	12 *	18324100	8047	B03
05	1C013	11	1C005	12	18324100	8047	B03
03	1C013	11	1C015	11 *	18324100	8047	B03
05	1C013	12	1C005	06	18324100	8047	B03
03	1C013	12	1C015	12 *	18324100	8047	B03
04	1C014	01	1C017	11 *	18324100	8047	B03
03	1C014	05	1C011	06	18324100	8047	B03
04	1C014	06	1C009	01 *	18324100	8047	B03
09	1C014	07	1B031	06 *	18324100	8047	B03
04	1C014	07	1C008	07	18324100	8047	B03
09	1C014	08	1B031	12 *	18324100	8047	B03
05	1C014	08	1C008	01	18324100	8047	B03
05	1C014	09	1C006	07	18324100	8047	B03

05	1C014	10	1C007	12	18324100	8047	B03
09	1C014	11	1B029	06 *	18324100	8047	B03
06	1C014	11	1C005	07	18324100	8047	B03
09	1C014	12	1B029	12 *	18324100	8047	B03
06	1C014	12	1C005	01	18324100	8047	B03
03	1C015	01	1C016	06 *	18324100	8047	B03
03	1C015	02	1C017	05 *	18324100	8047	B03
03	1C015	05	1C012	07	18324100	8047	B03
03	1C015	06	1C012	08	18324100	8047	B03
03	1C015	07	1C012	09	18324100	8047	B03
09	1C015	07	1B031	08 *	18324100	8047	B03
03	1C015	08	1C012	10	18324100	8047	B03
10	1C015	08	1B031	02 *	18324100	8047	B03
03	1C015	09	1C012	11 *	18324100	8047	B03
03	1C015	09	1C013	09	18324100	8047	B03
03	1C015	10	1C012	12	18324100	8047	B03
05	1C015	10	1C007	02 *	18324100	8047	B03
03	1C015	11	1C013	11	18324100	8047	B03
09	1C015	11	1B029	08 *	18324100	8047	B03
03	1C015	12	1C013	12	18324100	8047	B03
09	1C015	12	1B029	02 *	18324100	8047	B03
17	1C016	01	1H016	03 *	18324100	8047	B03
07	1C016	02	1C003	11 *	18324100	8047	B03
06	1C016	05	1C026	02	18324100	8047	B03
03	1C016	06	1C015	01	18324100	8047	B03
05	1C016	07	1C008	10	18324100	8047	B03
16	1C016	08	1H016	02 *	18324100	8047	B03
06	1C016	11	1B014	08	18324100	8047	B03
06	1C016	12	1C026	01	18324100	8047	B03
17	1C017	01	1G035	09 *	18324100	8047	B03
02	1C017	01	1C018	02	18324100	8047	B03
06	1C017	04	1C026	03	18324100	8047	B03
03	1C017	05	1C015	02	18324100	8047	B03
09	1C017	06	1E026	07	18324100	8047	B03
25	1C017	07	1J036	12 *	18324100	8047	B03
06	1C017	10	1C025	01	18324100	8047	B03
17	1C017	10	1H012	12 *	18324100	8047	B03
04	1C017	11	1C014	01	18324100	8047	B03
09	1C017	12	1C001	04	18324100	8047	B03
22	1C018	01	1I004	06	18324100	8047	B03
02	1C018	02	1C017	01 *	18324100	8047	B03
09	1C018	03	1C001	01 *	18324100	8047	B03
18	1C018	04	1H013	12 *	18324100	8047	B03
10	1C018	04	1C038	07	18324100	8047	B03
04	1C018	05	1C022	07	18324100	8047	B03
04	1C018	06	1C022	01	18324100	8047	B03
13	1C018	07	1E041	05 *	18324100	8047	B03
03	1C018	09	1C021	05	18324100	8047	B03
10	1C018	10	1C037	11 *	18324100	8047	B03
11	1C018	10	1F009	03	18324100	8047	B03
04	1C018	12	1C021	06	18324100	8047	B03
17	1C019	01	1G037	06 *	18324100	8047	B03
07	1C019	01	1B008	11	18324100	8047	B03
10	1C019	04	1C038	01	18324100	8047	B03
11	1C019	05	1F016	06 *	18324100	8047	B03
10	1C019	05	1C038	08	18324100	8047	B03
04	1C019	06	1D017	01	18324100	8047	B03
09	1C019	07	1B003	07	18324100	8047	B03
10	1C019	08	1B003	01	18324100	8047	B03
07	1C019	09	1C032	05 *	18324100	8047	B03
06	1C019	10	1C028	03	18324100	8047	B03
26	1C019	10	1K019	10 *	18324100	8047	B03

05	1C019	11	1C026	05	18324100	8047	R03
05	1C019	12	1C026	06	18324100	8047	R03
17	1C020	01	1G039	06 *	18324100	8047	R03
16	1C020	02	1G037	05 *	18324100	8047	R03
07	1C020	02	1B008	10	18324100	8047	R03
09	1C020	03	1B006	01	18324100	8047	R03
10	1C020	04	1B001	01	18324100	8047	R03
05	1C020	05	1C027	01	18324100	8047	R03
10	1C020	06	1B002	09 *	18324100	8047	R03
09	1C020	07	1C037	06 *	18324100	8047	R03
03	1C020	08	1C023	06 *	18324100	8047	R03
15	1C020	12	1G035	07	18324100	8047	R03
09	1C021	01	1C038	12 *	18324100	8047	R03
18	1C021	02	1W011	07 *	18324100	8047	R03
09	1C021	02	1C039	06	18324100	8047	R03
16	1C021	03	1G040	03	18324100	8047	R03
03	1C021	04	1C023	10	18324100	8047	R03
03	1C021	05	1C018	09 *	18324100	8047	R03
04	1C021	06	1C018	12 *	18324100	8047	R03
10	1C021	08	1D001	05	18324100	8047	R03
21	1C021	09	1I001	04	18324100	8047	R03
	1C021	10	GND		18324100	8047	R03
09	1C021	12	1B035	07	18324100	8047	R03
14	1C021	12	1G032	09 *	18324100	8047	R03
04	1C022	01	1C018	06 *	18324100	8047	R03
09	1C022	03	1E020	12 *	18324100	8047	R03
07	1C022	03	1B031	01	18324100	8047	R03
08	1C022	04	1C007	01 *	18324100	8047	R03
10	1C022	05	1E012	12 *	18324100	8047	R03
07	1C022	05	1B029	01	18324100	8047	R03
09	1C022	06	1C004	01 *	18324100	8047	R03
04	1C022	07	1C018	05 *	18324100	8047	R03
13	1C022	09	1F007	12 *	18324100	8047	R03
08	1C022	09	1B033	01	18324100	8047	R03
14	1C022	10	1F003	12 *	18324100	8047	R03
06	1C022	10	1C031	01	18324100	8047	R03
14	1C022	11	1F001	12 *	18324100	8047	R03
08	1C022	11	1B032	01	18324100	8047	R03
11	1C022	12	1E040	12 *	18324100	8047	R03
07	1C022	12	1C011	01	18324100	8047	R03
07	1C023	01	1C011	05 *	18324100	8047	R03
05	1C023	01	1C031	05	18324100	8047	R03
06	1C023	02	1C032	02	18324100	8047	R03
13	1C023	02	1F007	04 *	18324100	8047	R03
06	1C023	03	1B013	11 *	18324100	8047	R03
04	1C023	03	1C028	02	18324100	8047	R03
06	1C023	04	1B014	12 *	18324100	8047	R03
03	1C023	06	1C020	08	18324100	8047	R03
03	1C023	10	1C021	04 *	18324100	8047	R03
04	1C023	11	1D025	01 *	18324100	8047	R03
09	1C023	12	1D041	01 *	18324100	8047	R03
08	1C024	01	1C038	11 *	18324100	8047	R03
19	1C024	02	1W011	08 *	18324100	8047	R03
05	1C024	02	1B028	03	18324100	8047	R03
13	1C024	03	1F016	12 *	18324100	8047	R03
05	1C024	03	1B028	07	18324100	8047	R03
23	1C024	07	1J035	02	18324100	8047	R03
07	1C024	08	1D034	11 *	18324100	8047	R03
23	1C024	09	1J035	06	18324100	8047	R03
20	1C024	10	1I034	09	18324100	8047	R03
13	1C024	11	1G019	01	18324100	8047	R03
23	1C024	12	1J040	07	18324100	8047	R03

06	1C025	01	1C017	10	*	18324100	8047	B03
07	1C025	01	1B037	09		18324100	8047	B03
06	1C025	05	1C035	07		18324100	8047	B03
06	1C025	06	1C035	01		18324100	8047	B03
05	1C025	07	1C032	07	*	18324100	8047	B03
05	1C025	08	1C032	01		18324100	8047	B03
04	1C025	09	1C029	07		18324100	8047	B03
04	1C025	10	1C029	01	*	18324100	8047	B03
03	1C025	11	1C028	07	*	18324100	8047	B03
04	1C025	12	1C028	01	*	18324100	8047	B03
06	1C026	01	1C016	12	*	18324100	8047	B03
06	1C026	02	1C016	05	*	18324100	8047	B03
06	1C026	03	1C017	04	*	18324100	8047	B03
03	1C026	05	1C027	09		18324100	8047	B03
05	1C026	05	1C019	11	*	18324100	8047	B03
05	1C026	06	1C019	12	*	18324100	8047	B03
03	1C026	06	1C027	10		18324100	8047	B03
03	1C026	07	1C027	11	*	18324100	8047	B03
05	1C026	08	1C034	10	*	18324100	8047	B03
03	1C026	08	1C027	12		18324100	8047	B03
03	1C026	09	1C029	12		18324100	8047	B03
03	1C026	10	1C029	06		18324100	8047	B03
03	1C026	11	1C028	12		18324100	8047	B03
06	1C026	11	1B032	08	*	18324100	8047	B03
05	1C026	12	1C033	12		18324100	8047	B03
03	1C026	12	1C028	06	*	18324100	8047	B03
05	1C027	01	1C020	05	*	18324100	8047	B03
07	1C027	02	1B037	07		18324100	8047	B03
06	1C027	03	1C036	07		18324100	8047	B03
05	1C027	04	1B033	07		18324100	8047	B03
04	1C027	05	1C031	07		18324100	8047	B03
05	1C027	06	1B032	07		18324100	8047	B03
04	1C027	07	1C033	07	*	18324100	8047	B03
03	1C027	07	1C029	04		18324100	8047	B03
05	1C027	09	1C034	07		18324100	8047	B03
03	1C027	09	1C026	05	*	18324100	8047	B03
05	1C027	10	1C035	06		18324100	8047	B03
03	1C027	10	1C026	06	*	18324100	8047	B03
03	1C027	11	1C026	07		18324100	8047	B03
04	1C027	11	1C032	12	*	18324100	8047	B03
03	1C027	12	1C026	08	*	18324100	8047	B03
04	1C028	01	1B032	12	*	18324100	8047	B03
04	1C028	01	1C025	12		18324100	8047	B03
04	1C028	02	1C023	03	*	18324100	8047	B03
06	1C028	03	1C019	10	*	18324100	8047	B03
02	1C028	03	1C029	03		18324100	8047	B03
04	1C028	04	1C034	01		18324100	8047	B03
23	1C028	05	1J037	04		18324100	8047	B03
03	1C028	06	1C026	12		18324100	8047	B03
06	1C028	06	1B032	02	*	18324100	8047	B03
06	1C028	07	1B032	06	*	18324100	8047	B03
03	1C028	07	1C025	11		18324100	8047	B03
22	1C028	11	1J038	01		18324100	8047	B03
04	1C028	12	1C033	11		18324100	8047	B03
03	1C028	12	1C026	11	*	18324100	8047	B03
04	1C029	01	1C031	12	*	18324100	8047	B03
04	1C029	01	1C025	10		18324100	8047	B03
09	1C029	02	1B013	10	*	18324100	8047	B03
02	1C029	03	1C028	03	*	18324100	8047	B03
03	1C029	04	1C027	07	*	18324100	8047	B03
24	1C029	05	1J037	10		18324100	8047	B03
03	1C029	06	1C031	02		18324100	8047	B03

03	1C029	06	1C026	10	*	18324100	8047	B03
04	1C029	07	1C025	09	*	18324100	8047	B03
03	1C029	07	1C031	06		18324100	8047	B03
22	1C029	11	1J038	05		18324100	8047	B03
03	1C029	12	1C031	08		18324100	8047	B03
03	1C029	12	1C026	09	*	18324100	8047	B03
06	1C031	01	1C022	10	*	18324100	8047	B03
03	1C031	02	1C029	06	*	18324100	8047	B03
04	1C031	02	1C034	12		18324100	8047	B03
05	1C031	05	1B033	05		18324100	8047	B03
05	1C031	05	1C023	01	*	18324100	8047	B03
03	1C031	06	1C029	07	*	18324100	8047	B03
04	1C031	07	1C027	05	*	18324100	8047	B03
03	1C031	08	1C029	12	*	18324100	8047	B03
03	1C031	08	1C034	11		18324100	8047	B03
04	1C031	12	1C029	01		18324100	8047	B03
05	1C032	01	1C025	08	*	18324100	8047	B03
03	1C032	01	1B033	12		18324100	8047	B03
06	1C032	02	1C023	02	*	18324100	8047	B03
10	1C032	02	1B013	09		18324100	8047	B03
24	1C032	03	1J037	06		18324100	8047	B03
23	1C032	04	1J038	04		18324100	8047	B03
07	1C032	05	1C019	09		18324100	8047	B03
03	1C032	06	1C034	10		18324100	8047	B03
06	1C032	06	1B033	02	*	18324100	8047	B03
05	1C032	07	1B033	06	*	18324100	8047	B03
05	1C032	07	1C025	07		18324100	8047	B03
03	1C032	10	1C035	11	*	18324100	8047	B03
04	1C032	11	1C033	01		18324100	8047	B03
04	1C032	12	1C027	11		18324100	8047	B03
03	1C032	12	1C034	09	*	18324100	8047	B03
04	1C033	01	1C032	11	*	18324100	8047	B03
23	1C033	05	1J037	05		18324100	8047	B03
23	1C033	06	1J038	03		18324100	8047	B03
04	1C033	07	1C027	07		18324100	8047	B03
03	1C033	08	1C034	01	*	18324100	8047	B03
03	1C033	09	1C034	11	*	18324100	8047	B03
03	1C033	10	1C034	12	*	18324100	8047	B03
04	1C033	11	1C028	12	*	18324100	8047	B03
05	1C033	12	1C026	12	*	18324100	8047	B03
04	1C034	01	1C028	04	*	18324100	8047	B03
03	1C034	01	1C033	08		18324100	8047	B03
05	1C034	07	1C027	09	*	18324100	8047	B03
03	1C034	07	1C036	08		18324100	8047	B03
03	1C034	08	1C036	02	*	18324100	8047	B03
03	1C034	09	1C032	12		18324100	8047	B03
05	1C034	09	1B033	08	*	18324100	8047	B03
05	1C034	10	1C026	08		18324100	8047	B03
03	1C034	10	1C032	06	*	18324100	8047	B03
03	1C034	11	1C033	09		18324100	8047	B03
03	1C034	11	1C031	08	*	18324100	8047	B03
03	1C034	12	1C033	10		18324100	8047	B03
04	1C034	12	1C031	02	*	18324100	8047	B03
06	1C035	01	1C025	06	*	18324100	8047	B03
04	1C035	01	1C036	12		18324100	8047	B03
10	1C035	04	1B015	06	*	18324100	8047	B03
11	1C035	05	1E017	04		18324100	8047	B03
05	1C035	06	1C027	10	*	18324100	8047	B03
03	1C035	06	1C036	02		18324100	8047	B03
06	1C035	07	1C025	05	*	18324100	8047	B03
02	1C035	07	1C036	06		18324100	8047	B03
11	1C035	10	1E017	03	*	18324100	8047	B03

03	1C035	11	1C032	10	18324100	8047	B03
04	1C035	11	1C037	01 *	18324100	8047	B03
03	1C035	12	1C036	08 *	18324100	8047	B03
15	1C036	01	1B003	06	18324100	8047	B03
03	1C036	02	1C035	06 *	18324100	8047	B03
03	1C036	02	1C034	08	18324100	8047	B03
06	1C036	05	1B030	03	18324100	8047	B03
23	1C036	05	1I010	10 *	18324100	8047	B03
02	1C036	06	1C035	07 *	18324100	8047	B03
06	1C036	07	1C027	03 *	18324100	8047	B03
03	1C036	08	1C034	07 *	18324100	8047	B03
03	1C036	08	1C035	12	18324100	8047	B03
04	1C036	12	1C035	01 *	18324100	8047	B03
04	1C037	01	1C035	11	18324100	8047	B03
09	1C037	06	1C020	07	18324100	8047	B03
15	1C037	07	1F012	04 *	18324100	8047	B03
15	1C037	08	1F013	10	18324100	8047	B03
16	1C037	09	1F008	05	18324100	8047	B03
05	1C037	10	1D034	09 *	18324100	8047	B03
10	1C037	11	1C018	10	18324100	8047	B03
10	1C037	12	1B019	07	18324100	8047	B03
10	1C038	01	1C019	04 *	18324100	8047	B03
06	1C038	05	1D038	10 *	18324100	8047	B03
05	1C038	06	1D034	01 *	18324100	8047	B03
10	1C038	07	1C018	04 *	18324100	8047	B03
10	1C038	08	1C019	05 *	18324100	8047	B03
14	1C038	09	1F015	04 *	18324100	8047	B03
03	1C038	10	1C039	04	18324100	8047	B03
08	1C038	11	1C024	01	18324100	8047	B03
09	1C038	12	1C021	01	18324100	8047	B03
13	1C039	01	1F035	12	18324100	8047	B03
19	1C039	02	1H035	11	18324100	8047	B03
24	1C039	03	1I011	08	18324100	8047	B03
03	1C039	04	1C038	10 *	18324100	8047	B03
08	1C039	05	1B028	03 *	18324100	8047	B03
09	1C039	06	1C021	02 *	18324100	8047	B03
08	1C039	07	1E031	03	18324100	8047	B03
07	1C039	09	1E035	02 *	18324100	8047	B03
26	1C039	10	1I001	12 *	18324100	8047	B03
12	1C039	12	1E017	02	18324100	8047	B03
24	1C040	01	1H005	12 *	18324100	8047	B03
09	1C040	02	1B024	12 *	18324100	8047	B03
03	1C040	04	1C041	10	18324100	8047	B03
28	1C040	05	1J008	12 *	18324100	8047	B03
09	1C040	06	1B024	11 *	18324100	8047	B03
16	1C040	07	1B007	02 *	18324100	8047	B03
02	1C040	07	1C041	08	18324100	8047	B03
03	1C040	08	1C041	03	18324100	8047	B03
09	1C040	08	1B025	10 *	18324100	8047	B03
26	1C040	09	1J008	06 *	18324100	8047	B03
09	1C040	10	1B024	10 *	18324100	8047	B03
16	1C040	11	1B007	03 *	18324100	8047	B03
03	1C040	11	1C041	02	18324100	8047	B03
03	1C040	12	1C042	08	18324100	8047	B03
08	1C040	12	1E036	10 *	18324100	8047	B03
11	1C041	01	1B018	06 *	18324100	8047	B03
09	1C041	02	1E036	09	18324100	8047	B03
03	1C041	02	1C040	11 *	18324100	8047	B03
10	1C041	03	1E036	12	18324100	8047	B03
03	1C041	03	1C040	08 *	18324100	8047	B03
11	1C041	04	1B018	12	18324100	8047	B03
02	1C041	06	1C042	07 *	18324100	8047	B03



11	1C041	07	18018	11	*	18324100	8047	R03
08	1C041	08	1E036	08		18324100	8047	R03
02	1C041	08	1C040	07	*	18324100	8047	R03
02	1C041	09	1C042	08	*	18324100	8047	R03
03	1C041	10	1C040	04	*	18324100	8047	R03
03	1C041	12	1C042	07		18324100	8047	R03
08	1C041	12	1E036	11	*	18324100	8047	R03
18	1C042	01	1H039	09	*	18324100	8047	R03
	1C042	02	GND			18324100	8047	R03
	1C042	03	GND			18324100	8047	R03
16	1C042	04	1B007	01		18324100	8047	R03
06	1C042	05	1B037	05		18324100	8047	R03
17	1C042	05	1G018	02	*	18324100	8047	R03
06	1C042	06	1B037	06		18324100	8047	R03
17	1C042	06	1G018	01	*	18324100	8047	R03
03	1C042	07	1C041	12	*	18324100	8047	R03
02	1C042	07	1C041	06		18324100	8047	R03
03	1C042	08	1C040	12	*	18324100	8047	R03
02	1C042	08	1C041	09		18324100	8047	R03
08	1C042	09	1D029	09	*	18324100	8047	R03
14	1C042	12	1G032	07		18324100	8047	R03
17	1D001	01	1F034	03	*	18324100	8047	R03
21	1D001	02	1J013	06	*	18324100	8047	R03
17	1D001	03	1I002	06	*	18324100	8047	R03
20	1D001	04	1G039	03	*	18324100	8047	R03
10	1D001	05	1C021	08	*	18324100	8047	R03
04	1D001	06	1D007	06	*	18324100	8047	R03
04	1D001	07	1D007	08		18324100	8047	R03
04	1D001	08	1D007	07		18324100	8047	R03
16	1D001	09	1E036	10		18324100	8047	R03
16	1D001	10	1E036	11		18324100	8047	R03
13	1D001	11	1B025	10		18324100	8047	R03
14	1D001	12	1H003	10	*	18324100	8047	R03
10	1D002	01	1F007	09	*	18324100	8047	R03
08	1D002	01	1D017	06		18324100	8047	R03
10	1D002	02	1E020	09		18324100	8047	R03
03	1D002	04	1D003	07	*	18324100	8047	R03
07	1D002	05	1E009	09	*	18324100	8047	R03
14	1D002	06	1D031	02		18324100	8047	R03
03	1D002	08	1D003	10		18324100	8047	R03
03	1D003	01	1D004	08	*	18324100	8047	R03
13	1D003	03	1E030	01		18324100	8047	R03
03	1D003	04	1D004	12	*	18324100	8047	R03
04	1D003	06	1E005	01		18324100	8047	R03
20	1D003	07	1H036	07	*	18324100	8047	R03
03	1D003	07	1D002	04		18324100	8047	R03
05	1D003	09	1E010	01		18324100	8047	R03
03	1D003	10	1D002	08	*	18324100	8047	R03
03	1D003	12	1E002	02		18324100	8047	R03
07	1D004	01	1D017	09	*	18324100	8047	R03
07	1D004	02	1E009	10	*	18324100	8047	R03
03	1D004	04	1D005	10	*	18324100	8047	R03
09	1D004	05	1F001	09	*	18324100	8047	R03
07	1D004	05	1D017	08		18324100	8047	R03
07	1D004	06	1E012	09	*	18324100	8047	R03
20	1D004	08	1H036	09	*	18324100	8047	R03
03	1D004	08	1D003	01		18324100	8047	R03
08	1D004	09	1F003	09	*	18324100	8047	R03
07	1D004	09	1D017	07		18324100	8047	R03
07	1D004	10	1E015	09	*	18324100	8047	R03
19	1D004	12	1H036	08	*	18324100	8047	R03
03	1D004	12	1D003	04		18324100	8047	R03

21	1D005	01	1H041	08	*	18324100	8047	R03
03	1D005	01	1D006	04		18324100	8047	R03
09	1D005	03	1D022	01		18324100	8047	R03
03	1D005	04	1D006	08	*	18324100	8047	R03
12	1D005	06	1D030	01		18324100	8047	R03
03	1D005	07	1D006	12	*	18324100	8047	R03
08	1D005	09	1D019	01		18324100	8047	R03
20	1D005	10	1H040	09	*	18324100	8047	R03
03	1D005	10	1D004	04		18324100	8047	R03
05	1D005	12	1D010	01		18324100	8047	R03
07	1D006	01	1D017	12		18324100	8047	R03
14	1D006	02	1D037	04	*	18324100	8047	R03
10	1D006	02	1F001	10		18324100	8047	R03
03	1D006	04	1D005	01	*	18324100	8047	R03
07	1D006	05	1D017	11		18324100	8047	R03
14	1D006	06	1D037	03	*	18324100	8047	R03
09	1D006	06	1F003	10		18324100	8047	R03
03	1D006	08	1D005	04		18324100	8047	R03
19	1D006	08	1H037	10	*	18324100	8047	R03
06	1D006	09	1D017	10		18324100	8047	R03
14	1D006	10	1D037	02	*	18324100	8047	R03
08	1D006	10	1F007	10		18324100	8047	R03
03	1D006	12	1D005	07		18324100	8047	R03
19	1D006	12	1H036	10	*	18324100	8047	R03
20	1D007	01	1H039	08	*	18324100	8047	R03
	1D007	02	GND			18324100	8047	R03
04	1D007	06	1D001	06		18324100	8047	R03
04	1D007	07	1D001	08	*	18324100	8047	R03
09	1D007	07	1H007	03		18324100	8047	R03
04	1D007	08	1D001	07	*	18324100	8047	R03
09	1D007	08	1H007	02		18324100	8047	R03
09	1D008	01	1F015	06	*	18324100	8047	R03
10	1D008	03	1F020	08		18324100	8047	R03
09	1D008	04	1F020	02		18324100	8047	R03
10	1D008	05	1F022	07		18324100	8047	R03
10	1D008	06	1F022	02		18324100	8047	R03
07	1D008	07	1D021	11	*	18324100	8047	R03
03	1D008	09	1D010	08	*	18324100	8047	R03
04	1D008	10	1D010	02	*	18324100	8047	R03
06	1D008	11	1D019	08		18324100	8047	R03
07	1D008	12	1D019	02		18324100	8047	R03
10	1D009	01	1F015	08	*	18324100	8047	R03
12	1D009	03	1F028	07		18324100	8047	R03
11	1D009	04	1F028	02		18324100	8047	R03
13	1D009	05	1F031	07	*	18324100	8047	R03
12	1D009	06	1F031	02	*	18324100	8047	R03
08	1D009	07	1F015	07	*	18324100	8047	R03
10	1D009	09	1F024	07		18324100	8047	R03
10	1D009	10	1F024	02		18324100	8047	R03
11	1D009	11	1F026	07		18324100	8047	R03
10	1D009	12	1F026	02		18324100	8047	R03
05	1D010	01	1D005	12	*	18324100	8047	R03
05	1D010	02	1D018	06	*	18324100	8047	R03
04	1D010	02	1D008	10		18324100	8047	R03
06	1D010	04	1D019	04		18324100	8047	R03
06	1D010	05	1D019	05		18324100	8047	R03
05	1D010	06	1D018	07		18324100	8047	R03
10	1D010	07	1D031	09	*	18324100	8047	R03
05	1D010	08	1D018	12	*	18324100	8047	R03
03	1D010	08	1D008	09		18324100	8047	R03
25	1D010	11	1K040	01		18324100	8047	R03
06	1D010	12	1D018	01		18324100	8047	R03

19	1D011	01	1H041	05 *	18324100	8047	R03
17	1D011	02	1I004	02 *	18324100	8047	R03
21	1D011	03	1J017	10 *	18324100	8047	R03
11	1D011	04	1G012	05 *	18324100	8047	R03
08	1D011	05	1F009	07	18324100	8047	R03
08	1D011	06	1F020	01	18324100	8047	R03
09	1D011	07	1F022	01	18324100	8047	R03
08	1D011	08	1F007	07 *	18324100	8047	R03
09	1D011	09	1F003	07	18324100	8047	R03
10	1D011	09	1F026	01 *	18324100	8047	R03
09	1D011	10	1F001	07	18324100	8047	R03
10	1D011	10	1F028	01 *	18324100	8047	R03
11	1D011	11	1F031	01	18324100	8047	R03
11	1D011	12	1G025	02	18324100	8047	R03
17	1D012	01	1H035	03 *	18324100	8047	R03
12	1D012	02	1G004	03 *	18324100	8047	R03
13	1D012	02	1F034	02	18324100	8047	R03
09	1D012	04	1F020	03 *	18324100	8047	R03
12	1D012	05	1G009	10	18324100	8047	R03
	1D012	06	GND		18324100	8047	R03
09	1D012	08	1E027	09	18324100	8047	R03
08	1D013	01	1F011	03	18324100	8047	R03
03	1D013	03	1D014	07	18324100	8047	R03
12	1D014	01	1F033	05 *	18324100	8047	R03
22	1D014	02	1J017	12 *	18324100	8047	R03
18	1D014	03	1I009	07 *	18324100	8047	R03
17	1D014	04	1I004	03 *	18324100	8047	R03
03	1D014	05	1D015	08 *	18324100	8047	R03
03	1D014	06	1D015	01 *	18324100	8047	R03
03	1D014	07	1D013	03 *	18324100	8047	R03
03	1D014	08	1D016	02 *	18324100	8047	R03
10	1D014	09	1G013	04 *	18324100	8047	R03
20	1D014	10	1J017	11 *	18324100	8047	R03
08	1D014	11	1F009	11 *	18324100	8047	R03
10	1D014	12	1B025	09	18324100	8047	R03
03	1D015	01	1D016	03 *	18324100	8047	R03
03	1D015	01	1D014	06	18324100	8047	R03
	1D015	02	GND		18324100	8047	R03
03	1D015	06	1D016	04 *	18324100	8047	R03
17	1D015	07	1H039	07 *	18324100	8047	R03
03	1D015	08	1D016	06 *	18324100	8047	R03
03	1D015	08	1D014	05	18324100	8047	R03
04	1D015	12	1D016	01	18324100	8047	R03
20	1D015	12	1J012	10 *	18324100	8047	R03
04	1D016	01	1D015	12 *	18324100	8047	R03
03	1D016	02	1D014	08	18324100	8047	R03
03	1D016	03	1D015	01	18324100	8047	R03
21	1D016	04	1J012	09 *	18324100	8047	R03
03	1D016	04	1D015	06	18324100	8047	R03
03	1D016	06	1D015	08	18324100	8047	R03
04	1D017	01	1C019	06 *	18324100	8047	R03
18	1D017	02	1I031	05	18324100	8047	R03
08	1D017	06	1D002	01 *	18324100	8047	R03
07	1D017	07	1D004	09 *	18324100	8047	R03
07	1D017	08	1D004	05 *	18324100	8047	R03
12	1D017	09	1E040	10 *	18324100	8047	R03
07	1D017	09	1D004	01	18324100	8047	R03
05	1D017	10	1E020	10	18324100	8047	R03
06	1D017	10	1D006	09 *	18324100	8047	R03
05	1D017	11	1E015	10	18324100	8047	R03
07	1D017	11	1D006	05 *	18324100	8047	R03
05	1D017	12	1E012	10	18324100	8047	R03

07	1D017	12	1D006	01	*	18324100	8047	B03
06	1D018	01	1D010	12	*	18324100	8047	B03
05	1D018	01	1D025	06		18324100	8047	B03
03	1D018	05	1D020	05	*	18324100	8047	B03
04	1D018	06	1D024	08	*	18324100	8047	B03
05	1D018	06	1D010	02		18324100	8047	B03
05	1D018	07	1D010	06	*	18324100	8047	B03
05	1D018	07	1D025	05		18324100	8047	B03
05	1D018	12	1D010	08		18324100	8047	B03
05	1D018	12	1D024	07	*	18324100	8047	B03
08	1D019	01	1D005	09	*	18324100	8047	B03
07	1D019	02	1D008	12	*	18324100	8047	B03
03	1D019	02	1D020	06		18324100	8047	B03
06	1D019	04	1D010	04	*	18324100	8047	B03
04	1D019	04	1D022	11		18324100	8047	B03
06	1D019	05	1D010	05	*	18324100	8047	B03
03	1D019	05	1D022	05		18324100	8047	B03
02	1D019	06	1D020	07	*	18324100	8047	B03
07	1D019	07	1D031	10	*	18324100	8047	B03
06	1D019	08	1D008	11	*	18324100	8047	B03
03	1D019	08	1D020	12		18324100	8047	B03
24	1D019	11	1K039	09		18324100	8047	B03
04	1D019	12	1D020	01		18324100	8047	B03
04	1D020	01	1D019	12	*	18324100	8047	B03
04	1D020	01	1D025	08		18324100	8047	B03
03	1D020	05	1D018	05		18324100	8047	B03
02	1D020	05	1D021	05	*	18324100	8047	B03
04	1D020	06	1D026	08		18324100	8047	B03
03	1D020	06	1D019	02	*	18324100	8047	B03
04	1D020	07	1D025	07	*	18324100	8047	B03
02	1D020	07	1D019	06		18324100	8047	B03
06	1D020	11	1D029	04		18324100	8047	B03
04	1D020	12	1D024	09		18324100	8047	B03
03	1D020	12	1D019	08	*	18324100	8047	B03
04	1D021	01	1D025	10	*	18324100	8047	B03
02	1D021	05	1D020	05		18324100	8047	B03
03	1D021	05	1D023	05	*	18324100	8047	B03
04	1D021	06	1D024	12	*	18324100	8047	B03
04	1D021	07	1D025	09	*	18324100	8047	B03
07	1D021	11	1D008	07		18324100	8047	B03
03	1D021	12	1D024	11		18324100	8047	B03
09	1D022	01	1D005	03	*	18324100	8047	B03
04	1D022	02	1D026	12	*	18324100	8047	B03
03	1D022	02	1D023	06		18324100	8047	B03
03	1D022	05	1D019	05	*	18324100	8047	B03
05	1D022	05	1D030	05		18324100	8047	B03
02	1D022	06	1D023	07	*	18324100	8047	B03
06	1D022	07	1D031	12	*	18324100	8047	B03
03	1D022	08	1D023	12	*	18324100	8047	B03
23	1D022	10	1K039	01		18324100	8047	B03
04	1D022	11	1D019	04	*	18324100	8047	B03
05	1D022	11	1D029	01		18324100	8047	B03
03	1D022	12	1D025	12	*	18324100	8047	B03
04	1D023	01	1D025	12		18324100	8047	B03
03	1D023	05	1D021	05		18324100	8047	B03
05	1D023	05	1D029	10	*	18324100	8047	B03
03	1D023	06	1D022	02	*	18324100	8047	B03
03	1D023	07	1D025	11	*	18324100	8047	B03
02	1D023	07	1D022	06		18324100	8047	B03
04	1D023	11	1D024	01		18324100	8047	B03
03	1D023	12	1D022	08		18324100	8047	B03
03	1D023	12	1D026	11	*	18324100	8047	B03

04	1D024	01	1D023	11	*	18324100	8047	B03
05	1D024	07	1D018	12		18324100	8047	B03
03	1D024	07	1D026	05	*	18324100	8047	B03
04	1D024	08	1D018	06		18324100	8047	B03
03	1D024	08	1D026	06	*	18324100	8047	B03
04	1D024	09	1D020	12	*	18324100	8047	B03
03	1D024	09	1D026	07		18324100	8047	B03
03	1D024	10	1D026	08	*	18324100	8047	B03
03	1D024	11	1D021	12	*	18324100	8047	B03
03	1D024	11	1D026	09		18324100	8047	B03
04	1D024	12	1D021	06		18324100	8047	B03
03	1D024	12	1D026	10	*	18324100	8047	B03
05	1D025	01	1D032	10	*	18324100	8047	B03
04	1D025	01	1C023	11		18324100	8047	B03
05	1D025	05	1D018	07	*	18324100	8047	B03
05	1D025	06	1D018	01	*	18324100	8047	B03
04	1D025	07	1D020	07		18324100	8047	B03
04	1D025	08	1D020	01	*	18324100	8047	B03
04	1D025	09	1D030	06	*	18324100	8047	B03
04	1D025	09	1D021	07		18324100	8047	B03
04	1D025	10	1D030	12	*	18324100	8047	B03
04	1D025	10	1D021	01		18324100	8047	B03
03	1D025	11	1D023	07		18324100	8047	B03
03	1D025	12	1D022	12		18324100	8047	B03
04	1D025	12	1D023	01	*	18324100	8047	B03
22	1D026	01	1J013	08	*	18324100	8047	B03
04	1D026	02	1D032	05	*	18324100	8047	B03
03	1D026	05	1D024	07		18324100	8047	B03
03	1D026	05	1D029	05	*	18324100	8047	B03
03	1D026	06	1D029	06	*	18324100	8047	B03
03	1D026	06	1D024	08		18324100	8047	B03
03	1D026	07	1D024	09	*	18324100	8047	B03
03	1D026	08	1D024	10		18324100	8047	B03
04	1D026	08	1D020	06	*	18324100	8047	B03
03	1D026	09	1D024	11	*	18324100	8047	B03
04	1D026	09	1D030	08		18324100	8047	B03
03	1D026	10	1D024	12		18324100	8047	B03
04	1D026	10	1D030	02	*	18324100	8047	B03
03	1D026	11	1D023	12		18324100	8047	B03
04	1D026	12	1D022	02		18324100	8047	B03
05	1D028	01	1D034	12	*	18324100	8047	B03
10	1D028	02	1F014	03	*	18324100	8047	B03
09	1D028	08	1F037	11		18324100	8047	B03
14	1D028	09	1H042	02	*	18324100	8047	B03
14	1D028	10	1H042	01		18324100	8047	B03
15	1D028	11	1H009	02		18324100	8047	B03
09	1D028	12	1F039	11	*	18324100	8047	B03
05	1D029	01	1D022	11	*	18324100	8047	B03
03	1D029	01	1D030	04		18324100	8047	B03
21	1D029	03	1J024	07		18324100	8047	B03
06	1D029	04	1D020	11	*	18324100	8047	B03
03	1D029	05	1D026	05		18324100	8047	B03
03	1D029	06	1D026	06		18324100	8047	B03
07	1D029	07	1B025	12	*	18324100	8047	B03
08	1D029	09	1C042	09		18324100	8047	B03
05	1D029	10	1D023	05		18324100	8047	B03
05	1D029	11	1D036	02		18324100	8047	B03
07	1D029	12	1D042	01		18324100	8047	B03
12	1D030	01	1D005	06	*	18324100	8047	B03
04	1D030	02	1D026	10		18324100	8047	B03
03	1D030	04	1D029	01	*	18324100	8047	B03
05	1D030	05	1D037	09		18324100	8047	B03

05	1D030	05	1D022	05	*	18324100	8047	803
04	1D030	06	1D025	09		18324100	8047	803
03	1D030	07	1D031	11	*	18324100	8047	803
04	1D030	08	1D026	09	*	18324100	8047	803
22	1D030	11	1K039	05		18324100	8047	803
04	1D030	12	1D025	10		18324100	8047	803
03	1D031	01	1D034	03	*	18324100	8047	803
07	1D031	02	1E040	09		18324100	8047	803
14	1D031	02	1D002	06	*	18324100	8047	803
08	1D031	03	1E020	09	*	18324100	8047	803
09	1D031	04	1E015	09		18324100	8047	803
10	1D031	05	1E012	09		18324100	8047	803
12	1D031	06	1E009	10		18324100	8047	803
03	1D031	07	1D033	04	*	18324100	8047	803
10	1D031	09	1D010	07		18324100	8047	803
07	1D031	10	1D019	07		18324100	8047	803
03	1D031	11	1D030	07		18324100	8047	803
06	1D031	12	1D022	07		18324100	8047	803
11	1D032	01	1F018	06	*	18324100	8047	803
03	1D032	01	1D034	06		18324100	8047	803
	1D032	02	GND			18324100	8047	803
04	1D032	04	1D036	03		18324100	8047	803
04	1D032	05	1D026	02		18324100	8047	803
06	1D032	06	1D042	02		18324100	8047	803
23	1D032	07	1J009	11	*	18324100	8047	803
21	1D032	08	1J023	12	*	18324100	8047	803
21	1D032	09	1J014	09	*	18324100	8047	803
04	1D032	09	1D035	01		18324100	8047	803
05	1D032	10	1D025	01		18324100	8047	803
21	1D032	10	1J014	10	*	18324100	8047	803
06	1D032	11	1D041	01		18324100	8047	803
21	1D032	11	1J014	11	*	18324100	8047	803
13	1D032	12	1H026	01		18324100	8047	803
24	1D033	01	1J009	12	*	18324100	8047	803
16	1D033	02	1H017	06	*	18324100	8047	803
22	1D033	03	1J020	08	*	18324100	8047	803
03	1D033	04	1D031	07		18324100	8047	803
04	1D033	05	1D039	01		18324100	8047	803
06	1D033	06	1E027	09	*	18324100	8047	803
04	1D033	07	1D037	12	*	18324100	8047	803
08	1D033	08	1B041	11	*	18324100	8047	803
04	1D033	09	1D037	08	*	18324100	8047	803
17	1D033	11	1I032	10		18324100	8047	803
03	1D033	12	1D034	10		18324100	8047	803
13	1D034	01	1F014	09	*	18324100	8047	803
05	1D034	01	1C038	06		18324100	8047	803
03	1D034	02	1D034	07		18324100	8047	803
03	1D034	03	1D031	01		18324100	8047	803
21	1D034	04	1I004	05		18324100	8047	803
03	1D034	06	1D032	01	*	18324100	8047	803
03	1D034	07	1D034	02	*	18324100	8047	803
05	1D034	09	1C037	10		18324100	8047	803
20	1D034	09	1J027	07	*	18324100	8047	803
03	1D034	10	1D033	12	*	18324100	8047	803
17	1D034	11	1I032	09	*	18324100	8047	803
07	1D034	11	1C024	08		18324100	8047	803
05	1D034	12	1D028	01		18324100	8047	803
04	1D035	01	1D032	09	*	18324100	8047	803
	1D035	02	GND			18324100	8047	803
08	1D035	03	1B041	06		18324100	8047	803
14	1D035	03	1E007	07	*	18324100	8047	803
07	1D035	04	1B041	12		18324100	8047	803

13	1D035	04	1E007	01	*	18324100	8047	803
16	1D035	05	18005	02	*	18324100	8047	803
17	1D035	06	1I031	06		18324100	8047	803
13	1D035	08	1E009	09		18324100	8047	803
07	1D035	09	1F033	04	*	18324100	8047	803
14	1D035	10	1H031	07		18324100	8047	803
11	1D035	12	1F015	05		18324100	8047	803
08	1D036	01	18037	03	*	18324100	8047	803
05	1D036	02	1D029	11	*	18324100	8047	803
04	1D036	03	1D032	04	*	18324100	8047	803
23	1D036	04	1J013	07	*	18324100	8047	803
08	1D036	05	18041	08		18324100	8047	803
14	1D036	05	1E007	12	*	18324100	8047	803
09	1D036	06	18041	02		18324100	8047	803
14	1D036	06	1E007	06	*	18324100	8047	803
04	1D037	01	1D038	12	*	18324100	8047	803
14	1D037	02	1D006	10		18324100	8047	803
14	1D037	03	1D006	06		18324100	8047	803
14	1D037	04	1D006	02		18324100	8047	803
06	1D037	05	1E030	05		18324100	8047	803
02	1D037	07	1D038	07		18324100	8047	803
04	1D037	08	1D033	09		18324100	8047	803
05	1D037	09	1D030	05	*	18324100	8047	803
04	1D037	12	1D033	07		18324100	8047	803
15	1D038	01	1H036	06	*	18324100	8047	803
08	1D038	03	18041	01		18324100	8047	803
17	1D038	04	1E003	11	*	18324100	8047	803
03	1D038	05	1D040	07		18324100	8047	803
17	1D038	05	1E002	08	*	18324100	8047	803
03	1D038	06	1D039	10		18324100	8047	803
03	1D038	06	1D040	08	*	18324100	8047	803
02	1D038	07	1D037	07	*	18324100	8047	803
12	1D038	10	1F015	03	*	18324100	8047	803
06	1D038	10	1C038	05		18324100	8047	803
04	1D038	12	1D037	01		18324100	8047	803
04	1D039	01	1D033	05	*	18324100	8047	803
07	1D039	02	18041	07		18324100	8047	803
17	1D039	03	1E002	07		18324100	8047	803
14	1D039	04	1E010	07		18324100	8047	803
16	1D039	05	1E005	07		18324100	8047	803
07	1D039	06	1E030	07		18324100	8047	803
16	1D039	07	1E004	11	*	18324100	8047	803
03	1D039	09	1D042	05	*	18324100	8047	803
17	1D039	10	1E002	01		18324100	8047	803
03	1D039	10	1D038	06	*	18324100	8047	803
03	1D039	11	1D042	07	*	18324100	8047	803
03	1D039	12	1D042	08	*	18324100	8047	803
16	1D040	01	1E006	11	*	18324100	8047	803
03	1D040	07	1D042	05		18324100	8047	803
03	1D040	07	1D038	05	*	18324100	8047	803
03	1D040	08	1D038	06		18324100	8047	803
03	1D040	08	1D042	06	*	18324100	8047	803
03	1D040	09	1D042	07		18324100	8047	803
14	1D040	09	1E010	08	*	18324100	8047	803
03	1D040	10	1D042	08		18324100	8047	803
14	1D040	10	1E010	02	*	18324100	8047	803
03	1D040	11	1D042	09		18324100	8047	803
16	1D040	11	1E005	08	*	18324100	8047	803
03	1D040	12	1D042	10		18324100	8047	803
16	1D040	12	1E005	02	*	18324100	8047	803
06	1D041	01	1D032	11	*	18324100	8047	803
09	1D041	01	1C023	12		18324100	8047	803

18	1D041	05	1E001	07	18324100	8047	803
18	1D041	06	1E001	01	18324100	8047	803
15	1D041	07	1E010	06	18324100	8047	803
15	1D041	08	1E010	12	18324100	8047	803
17	1D041	09	1E004	07	18324100	8047	803
17	1D041	10	1E004	01	18324100	8047	803
07	1D041	11	1E030	06 *	18324100	8047	803
07	1D041	12	1E030	12 *	18324100	8047	803
07	1D042	01	1D029	12 *	18324100	8047	803
06	1D042	02	1D032	06 *	18324100	8047	803
24	1D042	03	1J013	09 *	18324100	8047	803
03	1D042	05	1D040	07 *	18324100	8047	803
03	1D042	05	1D039	09	18324100	8047	803
03	1D042	06	1D040	08	18324100	8047	803
03	1D042	07	1D040	09 *	18324100	8047	803
03	1D042	07	1D039	11	18324100	8047	803
03	1D042	08	1D040	10 *	18324100	8047	803
03	1D042	08	1D039	12	18324100	8047	803
03	1D042	09	1D040	11 *	18324100	8047	803
03	1D042	10	1D040	12 *	18324100	8047	803
07	1D042	11	1E030	08 *	18324100	8047	803
07	1D042	12	1E030	02 *	18324100	8047	803
18	1E001	01	1D041	06 *	18324100	8047	803
04	1E001	01	1E002	12	18324100	8047	803
03	1E001	05	1E003	05 *	18324100	8047	803
03	1E001	06	1E002	01 *	18324100	8047	803
18	1E001	07	1D041	05 *	18324100	8047	803
02	1E001	07	1E002	06	18324100	8047	803
03	1E001	12	1E002	08	18324100	8047	803
17	1E002	01	1D039	10 *	18324100	8047	803
03	1E002	01	1E001	06	18324100	8047	803
03	1E002	02	1D003	12 *	18324100	8047	803
03	1E002	05	1E005	05 *	18324100	8047	803
02	1E002	06	1E001	07 *	18324100	8047	803
17	1E002	07	1D039	03 *	18324100	8047	803
03	1E002	08	1E001	12 *	18324100	8047	803
17	1E002	08	1D038	05	18324100	8047	803
25	1E002	11	1K041	05	18324100	8047	803
04	1E002	12	1E001	01 *	18324100	8047	803
05	1E003	01	1E010	12 *	18324100	8047	803
03	1E003	05	1E001	05	18324100	8047	803
02	1E003	05	1E004	05 *	18324100	8047	803
05	1E003	06	1E010	02	18324100	8047	803
05	1E003	07	1E010	06 *	18324100	8047	803
17	1E003	11	1D038	04	18324100	8047	803
05	1E003	12	1E010	08	18324100	8047	803
17	1E004	01	1D041	10 *	18324100	8047	803
04	1E004	01	1E005	12	18324100	8047	803
02	1E004	05	1E003	05	18324100	8047	803
03	1E004	05	1E006	05 *	18324100	8047	803
03	1E004	06	1E005	02	18324100	8047	803
17	1E004	07	1D041	09 *	18324100	8047	803
02	1E004	07	1E005	06	18324100	8047	803
16	1E004	11	1D039	07	18324100	8047	803
03	1E004	12	1E005	08	18324100	8047	803
04	1E005	01	1D003	06 *	18324100	8047	803
03	1E005	02	1E004	06 *	18324100	8047	803
16	1E005	02	1D040	12	18324100	8047	803
04	1E005	05	1E010	05 *	18324100	8047	803
03	1E005	05	1E002	05	18324100	8047	803
02	1E005	06	1E004	07 *	18324100	8047	803
16	1E005	07	1D039	05 *	18324100	8047	803



03	1E005	08	1E004	12	*	18324100	8047	803
16	1E005	08	1D040	11		18324100	8047	803
25	1E005	11	1K040	09		18324100	8047	803
04	1E005	12	1E004	01	*	18324100	8047	803
12	1E006	01	1E030	12		18324100	8047	803
03	1E006	05	1E004	05		18324100	8047	803
18	1E006	05	1B037	01	*	18324100	8047	803
12	1E006	06	1E030	02		18324100	8047	803
12	1E006	07	1E030	06		18324100	8047	803
16	1E006	11	1D040	01		18324100	8047	803
12	1E006	12	1E030	08		18324100	8047	803
13	1E007	01	1D035	04		18324100	8047	803
14	1E007	06	1D036	06		18324100	8047	803
14	1E007	07	1D035	03		18324100	8047	803
14	1E007	12	1D036	05		18324100	8047	803
03	1E008	01	1E009	07	*	18324100	8047	803
10	1E008	02	1B008	06	*	18324100	8047	803
23	1E008	03	1L001	03	*	18324100	8047	803
09	1E008	03	1E025	12		18324100	8047	803
09	1E008	04	1E026	06	*	18324100	8047	803
12	1E008	05	1H006	11	*	18324100	8047	803
11	1E008	05	1F029	09		18324100	8047	803
05	1E008	11	1E013	01		18324100	8047	803
04	1E008	12	1E009	01		18324100	8047	803
04	1E009	01	1E008	12	*	18324100	8047	803
11	1E009	02	1B015	06		18324100	8047	803
08	1E009	03	1E024	12	*	18324100	8047	803
08	1E009	04	1C003	04		18324100	8047	803
12	1E009	06	1H008	12		18324100	8047	803
14	1E009	06	1E039	02	*	18324100	8047	803
03	1E009	07	1E008	01		18324100	8047	803
22	1E009	08	1L016	02		18324100	8047	803
07	1E009	09	1D002	05		18324100	8047	803
13	1E009	09	1D035	08	*	18324100	8047	803
07	1E009	10	1D004	02		18324100	8047	803
12	1E009	10	1D031	06	*	18324100	8047	803
12	1E009	11	1B003	06	*	18324100	8047	803
10	1E009	12	1C004	01		18324100	8047	803
05	1E010	01	1D003	09	*	18324100	8047	803
05	1E010	02	1E003	06	*	18324100	8047	803
14	1E010	02	1D040	10		18324100	8047	803
04	1E010	05	1E005	05		18324100	8047	803
10	1E010	05	1E030	05	*	18324100	8047	803
05	1E010	06	1E003	07		18324100	8047	803
15	1E010	06	1D041	07	*	18324100	8047	803
14	1E010	07	1D039	04	*	18324100	8047	803
05	1E010	08	1E003	12	*	18324100	8047	803
14	1E010	08	1D040	09		18324100	8047	803
23	1E010	11	1K041	01		18324100	8047	803
05	1E010	12	1E003	01		18324100	8047	803
15	1E010	12	1D041	08	*	18324100	8047	803
03	1E011	01	1E012	07	*	18324100	8047	803
13	1E011	02	1H001	08		18324100	8047	803
24	1E011	03	1L001	07	*	18324100	8047	803
08	1E011	03	1E025	11		18324100	8047	803
08	1E011	04	1E026	05	*	18324100	8047	803
12	1E011	05	1H006	10	*	18324100	8047	803
09	1E011	05	1F027	09		18324100	8047	803
03	1E011	11	1E013	05		18324100	8047	803
04	1E011	12	1E012	01		18324100	8047	803
04	1E012	01	1E011	12	*	18324100	8047	803
11	1E012	02	1B015	05		18324100	8047	803

07	1E012	03	1E024	11	*	18324100	8047	803
09	1E012	04	1C005	04		18324100	8047	803
05	1E012	06	1F010	03	*	18324100	8047	803
03	1E012	07	1E011	01		18324100	8047	803
23	1E012	08	1L016	06		18324100	8047	803
07	1E012	09	1D004	06		18324100	8047	803
10	1E012	09	1D031	05	*	18324100	8047	803
05	1E012	10	1D017	12	*	18324100	8047	803
13	1E012	11	1B020	01		18324100	8047	803
10	1E012	12	1C022	05		18324100	8047	803
05	1E013	01	1E008	11	*	18324100	8047	803
11	1E013	04	1B005	06		18324100	8047	803
16	1E013	04	1B042	07	*	18324100	8047	803
03	1E013	05	1E011	11	*	18324100	8047	803
03	1E013	09	1E014	11	*	18324100	8047	803
03	1E014	01	1E015	07	*	18324100	8047	803
25	1E014	02	1L001	11	*	18324100	8047	803
07	1E014	02	1E025	10		18324100	8047	803
07	1E014	03	1E026	04	*	18324100	8047	803
12	1E014	04	1H006	09	*	18324100	8047	803
08	1E014	04	1F025	09		18324100	8047	803
03	1E014	11	1E013	09		18324100	8047	803
04	1E014	12	1E015	01		18324100	8047	803
04	1E015	01	1E014	12	*	18324100	8047	803
10	1E015	02	1B020	08		18324100	8047	803
06	1E015	03	1E024	10	*	18324100	8047	803
09	1E015	04	1C006	04		18324100	8047	803
08	1E015	06	1F002	02	*	18324100	8047	803
03	1E015	07	1E014	01		18324100	8047	803
23	1E015	08	1L016	10		18324100	8047	803
07	1E015	09	1D004	10		18324100	8047	803
09	1E015	09	1D031	04	*	18324100	8047	803
05	1E015	10	1D017	11	*	18324100	8047	803
12	1E015	11	1B020	07		18324100	8047	803
10	1E015	12	1C007	01		18324100	8047	803
11	1E017	01	1B008	08	*	18324100	8047	803
12	1E017	02	1C039	12	*	18324100	8047	803
11	1E017	02	1G032	10		18324100	8047	803
12	1E017	03	1H012	06	*	18324100	8047	803
11	1E017	03	1C035	10		18324100	8047	803
12	1E017	04	1H012	07		18324100	8047	803
11	1E017	04	1C035	05	*	18324100	8047	803
06	1E018	01	1E028	08	*	18324100	8047	803
10	1E018	02	1E037	01		18324100	8047	803
04	1E018	03	1E024	01		18324100	8047	803
08	1E018	04	1G021	02		18324100	8047	803
02	1E018	05	1E018	07		18324100	8047	803
09	1E018	06	1G029	02	*	18324100	8047	803
02	1E018	07	1E018	05	*	18324100	8047	803
07	1E018	08	1E031	10		18324100	8047	803
08	1E018	09	1E033	04		18324100	8047	803
03	1E019	01	1E020	07	*	18324100	8047	803
14	1E019	02	1H001	07		18324100	8047	803
24	1E019	03	1L002	03	*	18324100	8047	803
05	1E019	03	1E025	09		18324100	8047	803
05	1E019	04	1E026	03	*	18324100	8047	803
06	1E019	05	1F023	09	*	18324100	8047	803
06	1E019	11	1E027	01		18324100	8047	803
04	1E019	12	1E020	01		18324100	8047	803
04	1E020	01	1E019	12	*	18324100	8047	803
12	1E020	02	1B030	02	*	18324100	8047	803
04	1E020	03	1E024	09	*	18324100	8047	803

10	1E020	04	1C008	04	18324100	8047	B03
08	1E020	06	1F006	03 *	18324100	8047	B03
03	1E020	07	1E019	01	18324100	8047	B03
22	1E020	08	1L017	02	18324100	8047	B03
08	1E020	09	1D031	03	18324100	8047	B03
10	1E020	09	1D002	02 *	18324100	8047	B03
05	1E020	10	1D017	10 *	18324100	8047	B03
13	1E020	11	1B030	01 *	18324100	8047	B03
09	1E020	12	1C022	03	18324100	8047	B03
03	1E021	01	1E022	06 *	18324100	8047	B03
03	1E021	07	1E023	06 *	18324100	8047	B03
25	1E022	01	1L002	07 *	18324100	8047	B03
04	1E022	01	1E025	08	18324100	8047	B03
06	1E022	02	1F021	09 *	18324100	8047	B03
03	1E022	06	1E021	01	18324100	8047	B03
03	1E022	07	1E024	08 *	18324100	8047	B03
	1E022	08	GND		18324100	8047	B03
08	1E022	11	1F008	01 *	18324100	8047	B03
22	1E022	12	1L017	06	18324100	8047	B03
26	1E023	01	1L002	11 *	18324100	8047	B03
03	1E023	01	1E025	07	18324100	8047	B03
07	1E023	02	1F019	10 *	18324100	8047	B03
03	1E023	06	1E021	07	18324100	8047	B03
02	1E023	07	1E024	07 *	18324100	8047	B03
	1E023	08	GND		18324100	8047	B03
07	1E023	11	1F012	01 *	18324100	8047	B03
23	1E023	12	1L017	10	18324100	8047	B03
04	1E024	01	1E018	03 *	18324100	8047	B03
02	1E024	07	1E023	07	18324100	8047	B03
03	1E024	08	1E022	07	18324100	8047	B03
04	1E024	09	1E020	03	18324100	8047	B03
06	1E024	10	1E015	03	18324100	8047	B03
07	1E024	11	1E012	03	18324100	8047	B03
08	1E024	12	1E009	03	18324100	8047	B03
04	1E025	01	1E028	12 *	18324100	8047	B03
03	1E025	07	1E023	01 *	18324100	8047	B03
04	1E025	08	1E022	01 *	18324100	8047	B03
05	1E025	09	1E019	03 *	18324100	8047	B03
07	1E025	10	1E014	02 *	18324100	8047	B03
08	1E025	11	1E011	03 *	18324100	8047	B03
09	1E025	12	1E008	03 *	18324100	8047	B03
11	1E026	01	1G041	06 *	18324100	8047	B03
05	1E026	03	1E019	04	18324100	8047	B03
07	1E026	04	1E014	03	18324100	8047	B03
08	1E026	05	1E011	04	18324100	8047	B03
09	1E026	06	1E008	04	18324100	8047	B03
09	1E026	07	1C017	06 *	18324100	8047	B03
13	1E026	11	1C004	08	18324100	8047	B03
14	1E026	12	1C004	02	18324100	8047	B03
06	1E027	01	1E019	11 *	18324100	8047	B03
03	1E027	05	1E029	04 *	18324100	8047	B03
06	1E027	08	1F020	07 *	18324100	8047	B03
09	1E027	09	1D012	08 *	18324100	8047	B03
06	1E027	09	1D033	06	18324100	8047	B03
11	1E027	10	1H020	07	18324100	8047	B03
11	1E027	11	1H022	08	18324100	8047	B03
10	1E027	12	1H024	07	18324100	8047	B03
12	1E028	01	1F005	06 *	18324100	8047	B03
12	1E028	03	1F005	11 *	18324100	8047	B03
02	1E028	03	1E029	02	18324100	8047	B03
12	1E028	04	1F005	12 *	18324100	8047	B03
03	1E028	06	1E029	01 *	18324100	8047	B03

05	1E028	07	1E034	12	*	18324100	8047	B03
06	1E028	08	1E018	01		18324100	8047	B03
03	1E028	09	1E031	04		18324100	8047	B03
07	1E028	10	1G028	04	*	18324100	8047	B03
05	1E028	10	1E035	10		18324100	8047	B03
06	1E028	11	1E038	01		18324100	8047	B03
04	1E028	12	1E025	01		18324100	8047	B03
12	1E029	01	1F005	05	*	18324100	8047	B03
03	1E029	01	1E028	06		18324100	8047	B03
02	1E029	02	1E028	03	*	18324100	8047	B03
03	1E029	04	1E027	05		18324100	8047	B03
10	1E029	09	1G017	12	*	18324100	8047	B03
08	1E029	10	1G021	06	*	18324100	8047	B03
08	1E029	11	1G019	03		18324100	8047	B03
07	1E029	11	1G036	02	*	18324100	8047	B03
07	1E029	12	1G027	03		18324100	8047	B03
13	1E030	01	1D003	03	*	18324100	8047	B03
12	1E030	02	1E006	06	*	18324100	8047	B03
07	1E030	02	1D042	12		18324100	8047	B03
10	1E030	05	1E010	05		18324100	8047	B03
06	1E030	05	1D037	05	*	18324100	8047	B03
07	1E030	06	1D041	11		18324100	8047	B03
12	1E030	06	1E006	07	*	18324100	8047	B03
07	1E030	07	1D039	06	*	18324100	8047	B03
12	1E030	08	1E006	12	*	18324100	8047	B03
07	1E030	08	1D042	11		18324100	8047	B03
20	1E030	11	1K040	05		18324100	8047	B03
07	1E030	12	1D041	12		18324100	8047	B03
12	1E030	12	1E006	01	*	18324100	8047	B03
04	1E031	01	1E035	12	*	18324100	8047	B03
03	1E031	02	1E032	05		18324100	8047	B03
03	1E031	03	1E031	08		18324100	8047	B03
08	1E031	03	1C039	07	*	18324100	8047	B03
03	1E031	04	1E028	09	*	18324100	8047	B03
03	1E031	06	1E032	01		18324100	8047	B03
04	1E031	07	1E035	11	*	18324100	8047	B03
03	1E031	08	1E031	03	*	18324100	8047	B03
09	1E031	09	1G035	12		18324100	8047	B03
07	1E031	10	1E018	08	*	18324100	8047	B03
03	1E031	10	1E033	12		18324100	8047	B03
23	1E031	11	1L020	05		18324100	8047	B03
22	1E031	12	1L020	02		18324100	8047	B03
03	1E032	01	1E031	06	*	18324100	8047	B03
04	1E032	02	1E036	07	*	18324100	8047	B03
09	1E032	03	1G025	03		18324100	8047	B03
08	1E032	04	1G025	02	*	18324100	8047	B03
03	1E032	05	1E031	02	*	18324100	8047	B03
08	1E032	07	1G025	01	*	18324100	8047	B03
08	1E032	08	1G037	04	*	18324100	8047	B03
10	1E033	01	1G034	12	*	18324100	8047	B03
09	1E033	02	1G034	11		18324100	8047	B03
03	1E033	04	1E035	01		18324100	8047	B03
08	1E033	04	1E018	09	*	18324100	8047	B03
23	1E033	05	1L026	03	*	18324100	8047	B03
08	1E033	06	1G034	06	*	18324100	8047	B03
02	1E033	08	1E033	09		18324100	8047	B03
02	1E033	09	1E033	08	*	18324100	8047	B03
	1E033	10	GND			18324100	8047	B03
03	1E033	12	1E031	10	*	18324100	8047	B03
12	1E034	01	1G014	05	*	18324100	8047	B03
20	1E034	02	1J014	06	*	18324100	8047	B03
14	1E034	04	1B014	03		18324100	8047	B03

10	1E034	04	1F016	03	*	18324100	8047	B03
14	1E034	05	1B012	09		18324100	8047	B03
10	1E034	05	1F017	08	*	18324100	8047	B03
15	1E034	06	1B012	03		18324100	8047	B03
09	1E034	06	1F018	04	*	18324100	8047	B03
08	1E034	07	1G042	03	*	18324100	8047	B03
08	1E034	07	1G028	05		18324100	8047	B03
23	1E034	08	1L026	07	*	18324100	8047	B03
10	1E034	12	1H040	06	*	18324100	8047	B03
05	1E034	12	1E028	07		18324100	8047	B03
03	1E035	01	1E033	04	*	18324100	8047	B03
15	1E035	02	1H011	03	*	18324100	8047	B03
07	1E035	02	1C039	09		18324100	8047	B03
05	1E035	10	1E028	10	*	18324100	8047	B03
04	1E035	11	1E031	07		18324100	8047	B03
04	1E035	12	1E031	01		18324100	8047	B03
09	1E036	01	1G041	05	*	18324100	8047	B03
14	1E036	03	1F006	05		18324100	8047	B03
16	1E036	04	1F002	04		18324100	8047	B03
13	1E036	05	1F010	05		18324100	8047	B03
03	1E036	06	1E039	04		18324100	8047	B03
17	1E036	07	1J039	04	*	18324100	8047	B03
04	1E036	07	1E032	02		18324100	8047	B03
08	1E036	08	1C041	08	*	18324100	8047	B03
09	1E036	09	1C041	02	*	18324100	8047	B03
16	1E036	10	1D001	09	*	18324100	8047	B03
08	1E036	10	1C040	12		18324100	8047	B03
16	1E036	11	1D001	10	*	18324100	8047	B03
08	1E036	11	1C041	12		18324100	8047	B03
10	1E036	12	1C041	03	*	18324100	8047	B03
10	1E037	01	1E018	02	*	18324100	8047	B03
10	1E037	01	1G040	12		18324100	8047	B03
12	1E037	07	1F012	07		18324100	8047	B03
14	1E037	08	1F008	07		18324100	8047	B03
14	1E037	09	1F007	03		18324100	8047	B03
16	1E037	10	1F003	03		18324100	8047	B03
17	1E037	11	1F001	03		18324100	8047	B03
04	1E037	12	1E040	03		18324100	8047	B03
06	1E038	01	1E028	11	*	18324100	8047	B03
13	1E038	07	1F012	02	*	18324100	8047	B03
14	1E038	08	1F008	02	*	18324100	8047	B03
15	1E038	09	1F006	04	*	18324100	8047	B03
17	1E038	10	1F002	03	*	18324100	8047	B03
13	1E038	11	1F010	04	*	18324100	8047	B03
03	1E038	12	1E039	03		18324100	8047	B03
26	1E038	12	1L003	03	*	18324100	8047	B03
03	1E039	01	1E040	06	*	18324100	8047	B03
14	1E039	02	1E009	06		18324100	8047	B03
03	1E039	03	1E038	12	*	18324100	8047	B03
03	1E039	04	1E036	06	*	18324100	8047	B03
10	1E039	05	1G030	12	*	18324100	8047	B03
03	1E039	08	1E041	01		18324100	8047	B03
03	1E039	09	1E040	01		18324100	8047	B03
14	1E039	10	1F010	10		18324100	8047	B03
03	1E039	11	1E041	10	*	18324100	8047	B03
16	1E039	11	1F005	02		18324100	8047	B03
14	1E039	12	1B027	01		18324100	8047	B03
03	1E040	01	1E039	09	*	18324100	8047	B03
11	1E040	02	1B030	08		18324100	8047	B03
04	1E040	03	1E037	12	*	18324100	8047	B03
15	1E040	04	1B013	12		18324100	8047	B03
03	1E040	06	1E039	01		18324100	8047	B03

06	1E040	07	1F031	01	*	18324100	8047	B03
24	1E040	08	1L018	01		18324100	8047	B03
07	1E040	09	1D031	02	*	18324100	8047	B03
12	1E040	10	1D017	09		18324100	8047	B03
12	1E040	11	1B030	07	*	18324100	8047	B03
11	1E040	12	1C022	12		18324100	8047	B03
03	1E041	01	1E039	08	*	18324100	8047	B03
03	1E041	03	1E041	09		18324100	8047	B03
17	1E041	03	1F005	04	*	18324100	8047	B03
15	1E041	04	1F010	11		18324100	8047	B03
03	1E041	05	1E041	11	*	18324100	8047	B03
13	1E041	05	1C018	07		18324100	8047	B03
12	1E041	06	1B027	07		18324100	8047	B03
15	1E041	07	1F010	08	*	18324100	8047	B03
03	1E041	09	1E041	03	*	18324100	8047	B03
03	1E041	10	1E039	11		18324100	8047	B03
14	1E041	11	1J040	12	*	18324100	8047	B03
03	1E041	11	1E041	05		18324100	8047	B03
13	1E041	12	1B026	07		18324100	8047	B03
06	1F001	01	1F010	09	*	18324100	8047	B03
13	1F001	02	1B002	06	*	18324100	8047	B03
17	1F001	03	1E037	11	*	18324100	8047	B03
14	1F001	04	1B013	11		18324100	8047	B03
06	1F001	06	1F010	01		18324100	8047	B03
09	1F001	07	1D011	10	*	18324100	8047	B03
21	1F001	08	1L018	05		18324100	8047	B03
09	1F001	09	1D004	05		18324100	8047	B03
10	1F001	10	1D006	02	*	18324100	8047	B03
14	1F001	11	1B003	11	*	18324100	8047	B03
14	1F001	12	1C022	11		18324100	8047	B03
03	1F002	01	1F003	06	*	18324100	8047	B03
10	1F002	02	1H008	10	*	18324100	8047	B03
08	1F002	02	1E015	06		18324100	8047	B03
21	1F002	03	1L003	11	*	18324100	8047	B03
17	1F002	03	1E038	10		18324100	8047	B03
16	1F002	04	1E036	04	*	18324100	8047	B03
14	1F002	05	1G030	10	*	18324100	8047	B03
03	1F002	07	1F004	01		18324100	8047	B03
03	1F002	08	1F003	01		18324100	8047	B03
04	1F002	09	1F005	02	*	18324100	8047	B03
04	1F002	10	1F005	01	*	18324100	8047	B03
03	1F002	11	1F004	11	*	18324100	8047	B03
19	1F002	12	1B025	01		18324100	8047	B03
03	1F003	01	1F002	08	*	18324100	8047	B03
14	1F003	02	1B015	10		18324100	8047	B03
16	1F003	03	1E037	10	*	18324100	8047	B03
14	1F003	04	1B013	10		18324100	8047	B03
03	1F003	06	1F002	01		18324100	8047	B03
09	1F003	07	1D011	09	*	18324100	8047	B03
21	1F003	08	1L018	10		18324100	8047	B03
08	1F003	09	1D004	09		18324100	8047	B03
09	1F003	10	1D006	06	*	18324100	8047	B03
14	1F003	11	1B003	10	*	18324100	8047	B03
14	1F003	12	1C022	10		18324100	8047	B03
03	1F004	01	1F002	07	*	18324100	8047	B03
02	1F004	04	1F005	04		18324100	8047	B03
03	1F004	05	1F005	03	*	18324100	8047	B03
17	1F004	06	1B025	05		18324100	8047	B03
03	1F004	07	1F006	08	*	18324100	8047	B03
02	1F004	09	1F005	10	*	18324100	8047	B03
03	1F004	10	1F005	07	*	18324100	8047	B03
04	1F004	11	1F009	03	*	18324100	8047	B03

03	1F004	11	1F002	11	18324100	8047	R03
17	1F004	12	1B022	07	18324100	8047	R03
05	1F005	01	1F010	11 *	18324100	8047	R03
04	1F005	01	1F002	10	18324100	8047	R03
16	1F005	02	1E039	11 *	18324100	8047	R03
04	1F005	02	1F002	09	18324100	8047	R03
04	1F005	03	1F010	10 *	18324100	8047	R03
03	1F005	03	1F004	05	18324100	8047	R03
02	1F005	04	1F004	04 *	18324100	8047	R03
17	1F005	04	1E041	03	18324100	8047	R03
12	1F005	05	1E029	01	18324100	8047	R03
12	1F005	06	1E028	01	18324100	8047	R03
03	1F005	07	1F008	06 *	18324100	8047	R03
03	1F005	07	1F004	10	18324100	8047	R03
05	1F005	08	1F012	05 *	18324100	8047	R03
03	1F005	08	1F006	11	18324100	8047	R03
03	1F005	09	1F008	05 *	18324100	8047	R03
02	1F005	09	1F006	10	18324100	8047	R03
05	1F005	10	1F013	10 *	18324100	8047	R03
02	1F005	10	1F004	09	18324100	8047	R03
12	1F005	11	1E028	03	18324100	8047	R03
12	1F005	12	1E028	04	18324100	8047	R03
03	1F006	01	1F007	06 *	18324100	8047	R03
14	1F006	02	1B008	04 *	18324100	8047	R03
12	1F006	02	1I010	05	18324100	8047	R03
09	1F006	03	1H008	09 *	18324100	8047	R03
08	1F006	03	1E020	06	18324100	8047	R03
20	1F006	04	1L004	03 *	18324100	8047	R03
15	1F006	04	1E038	09	18324100	8047	R03
14	1F006	05	1E036	03 *	18324100	8047	R03
12	1F006	06	1G030	09 *	18324100	8047	R03
03	1F006	08	1F004	07	18324100	8047	R03
03	1F006	09	1F007	01	18324100	8047	R03
02	1F006	10	1F005	09 *	18324100	8047	R03
03	1F006	11	1F005	08 *	18324100	8047	R03
17	1F006	12	1B022	01	18324100	8047	R03
03	1F007	01	1F006	09 *	18324100	8047	R03
14	1F007	02	1B002	05 *	18324100	8047	R03
14	1F007	03	1E037	09 *	18324100	8047	R03
13	1F007	04	1C023	02	18324100	8047	R03
03	1F007	06	1F006	01	18324100	8047	R03
08	1F007	07	1D011	08	18324100	8047	R03
09	1F007	07	1F024	01 *	18324100	8047	R03
20	1F007	08	1L019	02	18324100	8047	R03
10	1F007	09	1D002	01	18324100	8047	R03
08	1F007	10	1D006	10 *	18324100	8047	R03
14	1F007	11	1B003	09 *	18324100	8047	R03
13	1F007	12	1C022	09	18324100	8047	R03
09	1F008	01	1H008	08 *	18324100	8047	R03
08	1F008	01	1E022	11	18324100	8047	R03
21	1F008	02	1L004	07 *	18324100	8047	R03
14	1F008	02	1E038	08	18324100	8047	R03
12	1F008	03	1G030	08 *	18324100	8047	R03
04	1F008	04	1F013	01	18324100	8047	R03
16	1F008	05	1C037	09 *	18324100	8047	R03
03	1F008	05	1F005	09	18324100	8047	R03
03	1F008	06	1F005	07	18324100	8047	R03
04	1F008	06	1F012	06 *	18324100	8047	R03
14	1F008	07	1E037	08 *	18324100	8047	R03
	1F008	08	GND		18324100	8047	R03
	1F008	09	GND		18324100	8047	R03
03	1F008	10	1F009	01	18324100	8047	R03

08	1F008	11	1F022	01	*	18324100	8047	R03
20	1F008	12	1L019	06		18324100	8047	R03
03	1F009	01	1F008	10	*	18324100	8047	R03
04	1F009	03	1F004	11		18324100	8047	R03
11	1F009	03	1C018	10	*	18324100	8047	R03
15	1F009	04	1B021	01		18324100	8047	R03
03	1F009	05	1F012	10	*	18324100	8047	R03
08	1F009	07	1D011	05	*	18324100	8047	R03
06	1F009	07	1F020	09		18324100	8047	R03
16	1F009	08	1B019	01		18324100	8047	R03
12	1F009	09	1G034	05	*	18324100	8047	R03
08	1F009	11	1D014	11		18324100	8047	R03
06	1F009	11	1G016	07	*	18324100	8047	R03
05	1F009	12	1G017	01		18324100	8047	R03
06	1F010	01	1F001	06	*	18324100	8047	R03
14	1F010	02	1B008	05	*	18324100	8047	R03
12	1F010	02	1I010	06		18324100	8047	R03
09	1F010	03	1H008	11	*	18324100	8047	R03
05	1F010	03	1E012	06		18324100	8047	R03
21	1F010	04	1L003	07	*	18324100	8047	R03
13	1F010	04	1E038	11		18324100	8047	R03
13	1F010	05	1E036	05	*	18324100	8047	R03
11	1F010	06	1G030	11	*	18324100	8047	R03
15	1F010	08	1E041	07		18324100	8047	R03
06	1F010	09	1F001	01		18324100	8047	R03
04	1F010	10	1F005	03		18324100	8047	R03
14	1F010	10	1E039	10	*	18324100	8047	R03
15	1F010	11	1E041	04	*	18324100	8047	R03
05	1F010	11	1F005	01		18324100	8047	R03
17	1F010	12	1B026	01		18324100	8047	R03
10	1F011	01	1H009	12	*	18324100	8047	R03
06	1F011	02	1G013	09	*	18324100	8047	R03
09	1F011	02	1H001	03		18324100	8047	R03
13	1F011	03	1I001	11		18324100	8047	R03
08	1F011	03	1D013	01	*	18324100	8047	R03
04	1F011	04	1F014	11	*	18324100	8047	R03
07	1F011	06	1G003	10	*	18324100	8047	R03
14	1F011	07	1J016	03		18324100	8047	R03
02	1F011	09	1F011	10	*	18324100	8047	R03
17	1F011	10	1I042	11		18324100	8047	R03
						18324100	8047	R03
11	1F011	12	1F034	10		18324100	8047	R03
09	1F012	01	1H008	07	*	18324100	8047	R03
07	1F012	01	1E023	11		18324100	8047	R03
22	1F012	02	1L004	11	*	18324100	8047	R03
13	1F012	02	1E038	07		18324100	8047	R03
10	1F012	03	1G030	07	*	18324100	8047	R03
15	1F012	04	1C037	07		18324100	8047	R03
03	1F012	05	1F013	11	*	18324100	8047	R03
05	1F012	05	1F005	08		18324100	8047	R03
04	1F012	06	1F008	06		18324100	8047	R03
12	1F012	07	1E037	07	*	18324100	8047	R03
	1F012	08	GND			18324100	8047	R03
	1F012	09	GND			18324100	8047	R03
03	1F012	10	1F009	05		18324100	8047	R03
06	1F012	11	1F020	01	*	18324100	8047	R03
20	1F012	12	1L019	09		18324100	8047	R03
04	1F013	01	1F008	04	*	18324100	8047	R03
15	1F013	10	1C037	08	*	18324100	8047	R03
05	1F013	10	1F005	10		18324100	8047	R03
03	1F013	11	1F012	05		18324100	8047	R03
15	1F013	12	1B021	07		18324100	8047	R03



09	1F014	01	1H022	04	18324100	8047	B06
10	1F014	03	1D028	02	18324100	8047	B06
08	1F014	04	1H020	03	18324100	8047	B06
02	1F014	06	1F014	07	18324100	8047	B06
02	1F014	07	1F014	06 *	18324100	8047	B06
13	1F014	09	1D034	01	18324100	8047	B06
14	1F014	09	1I032	12 *	18324100	8047	B06
08	1F014	10	1H024	03	18324100	8047	B06
04	1F014	11	1F011	04	18324100	8047	B06
04	1F014	12	1F015	01	18324100	8047	B06
04	1F015	01	1F014	12 *	18324100	8047	B06
14	1F015	02	1B014	01	18324100	8047	B06
14	1F015	03	1I032	11 *	18324100	8047	B06
12	1F015	03	1D038	10	18324100	8047	B06
14	1F015	04	1C038	09	18324100	8047	B06
15	1F015	04	1H005	01 *	18324100	8047	B06
11	1F015	05	1D035	12 *	18324100	8047	B06
05	1F015	05	1G013	04	18324100	8047	B06
09	1F015	06	1D008	01	18324100	8047	B06
08	1F015	07	1D009	07	18324100	8047	B06
10	1F015	08	1D009	01	18324100	8047	B06
03	1F016	01	1F017	03 *	18324100	8047	B06
10	1F016	03	1E034	04	18324100	8047	B06
11	1F016	03	1H004	10 *	18324100	8047	B06
13	1F016	04	1B009	10	18324100	8047	B06
10	1F016	04	1H005	09 *	18324100	8047	B06
14	1F016	05	1B012	07	18324100	8047	B06
11	1F016	06	1C019	05	18324100	8047	B06
09	1F016	07	1H020	10	18324100	8047	B06
09	1F016	09	1G033	04 *	18324100	8047	B06
09	1F016	10	1G033	01	18324100	8047	B06
15	1F016	11	1B028	12 *	18324100	8047	B06
07	1F016	11	1H013	07	18324100	8047	B06
13	1F016	12	1C024	03	18324100	8047	B06
10	1F017	01	1H024	09	18324100	8047	B06
03	1F017	03	1F016	01	18324100	8047	B06
09	1F017	04	1H020	09	18324100	8047	B06
02	1F017	06	1F017	07	18324100	8047	B06
02	1F017	07	1F017	06 *	18324100	8047	B06
10	1F017	08	1E034	05	18324100	8047	B06
10	1F017	08	1H004	11 *	18324100	8047	B06
14	1F017	09	1B012	08	18324100	8047	B06
10	1F017	09	1H005	10 *	18324100	8047	B06
10	1F017	10	1H032	02	18324100	8047	B06
04	1F017	12	1F018	01	18324100	8047	B06
04	1F018	01	1F017	12 *	18324100	8047	B06
09	1F018	04	1E034	06	18324100	8047	B06
11	1F018	04	1H004	12 *	18324100	8047	B06
13	1F018	05	1B009	12	18324100	8047	B06
11	1F018	05	1H005	11 *	18324100	8047	B06
11	1F018	06	1D032	01	18324100	8047	B06
06	1F018	06	1G013	11 *	18324100	8047	B06
08	1F018	07	1F034	09 *	18324100	8047	B06
05	1F018	08	1F025	07	18324100	8047	B06
06	1F018	09	1F027	07	18324100	8047	B06
06	1F018	10	1F027	01	18324100	8047	B06
06	1F018	11	1F029	07	18324100	8047	B06
07	1F018	12	1F029	01	18324100	8047	B06
04	1F019	01	1F020	12 *	18324100	8047	B06
12	1F019	05	1I011	05	18324100	8047	B06
14	1F019	06	1B019	08	18324100	8047	B06
02	1F019	07	1F020	06 *	18324100	8047	B06

09	1F019	10	1H006	06	*	18324100	8047	B03
07	1F019	10	1E023	02		18324100	8047	B03
09	1F019	11	1H007	07	*	18324100	8047	B03
16	1F019	12	1B019	02		18324100	8047	B03
08	1F020	01	1D011	06	*	18324100	8047	B03
06	1F020	01	1F012	11		18324100	8047	B03
09	1F020	02	1D008	04	*	18324100	8047	B03
03	1F020	02	1F021	11		18324100	8047	B03
10	1F020	03	1F040	08	*	18324100	8047	B03
09	1F020	03	1D012	04		18324100	8047	B03
02	1F020	06	1F019	07		18324100	8047	B03
10	1F020	06	1F041	02	*	18324100	8047	B03
09	1F020	07	1H018	12	*	18324100	8047	B03
06	1F020	07	1E027	08		18324100	8047	B03
10	1F020	08	1D008	03	*	18324100	8047	B03
03	1F020	08	1F021	05		18324100	8047	B03
06	1F020	09	1F009	07	*	18324100	8047	B03
04	1F020	12	1F019	01		18324100	8047	B03
10	1F020	12	1F041	08	*	18324100	8047	B03
04	1F021	01	1F022	12	*	18324100	8047	B03
03	1F021	05	1F020	08	*	18324100	8047	B03
14	1F021	06	1B021	08		18324100	8047	B03
02	1F021	07	1F022	06	*	18324100	8047	B03
10	1F021	09	1H006	07	*	18324100	8047	B03
06	1F021	09	1E022	02		18324100	8047	B03
10	1F021	10	1H007	08	*	18324100	8047	B03
03	1F021	11	1F020	02	*	18324100	8047	B03
16	1F021	12	1B021	02		18324100	8047	B03
09	1F022	01	1D011	07	*	18324100	8047	B03
08	1F022	01	1F008	11		18324100	8047	B03
10	1F022	02	1D008	06	*	18324100	8047	B03
03	1F022	02	1F023	11		18324100	8047	B03
02	1F022	06	1F021	07		18324100	8047	B03
06	1F022	06	1F033	08	*	18324100	8047	B03
10	1F022	07	1D008	05	*	18324100	8047	B03
03	1F022	07	1F023	05		18324100	8047	B03
	1F022	08	GND			18324100	8047	B03
04	1F022	12	1F021	01		18324100	8047	B03
06	1F022	12	1F033	09	*	18324100	8047	B03
06	1F023	01	1F033	11	*	18324100	8047	B03
04	1F023	01	1F024	12		18324100	8047	B03
03	1F023	05	1F022	07	*	18324100	8047	B03
14	1F023	06	1B022	08		18324100	8047	B03
06	1F023	07	1F033	10	*	18324100	8047	B03
02	1F023	07	1F024	06		18324100	8047	B03
11	1F023	09	1H006	08	*	18324100	8047	B03
06	1F023	09	1E019	05		18324100	8047	B03
11	1F023	10	1H007	09	*	18324100	8047	B03
03	1F023	11	1F022	02	*	18324100	8047	B03
16	1F023	12	1B022	02		18324100	8047	B03
09	1F024	01	1F007	07		18324100	8047	B03
10	1F024	02	1D009	10	*	18324100	8047	B03
03	1F024	02	1F025	11		18324100	8047	B03
02	1F024	06	1F023	07	*	18324100	8047	B03
10	1F024	07	1D009	09	*	18324100	8047	B03
03	1F024	07	1F025	05		18324100	8047	B03
	1F024	08	GND			18324100	8047	B03
04	1F024	12	1F023	01	*	18324100	8047	B03
04	1F025	01	1F026	12	*	18324100	8047	B03
03	1F025	05	1F024	07	*	18324100	8047	B03
14	1F025	06	1B025	06		18324100	8047	B03
05	1F025	07	1F018	08	*	18324100	8047	B03

02	1F025	07	1F026	06	18324100	8047	R03
08	1F025	09	1E014	04 *	18324100	8047	R03
11	1F025	10	1W007	10 *	18324100	8047	R03
03	1F025	11	1F024	02 *	18324100	8047	R03
16	1F025	12	1B025	02	18324100	8047	R03
10	1F026	01	1D011	09	18324100	8047	R03
10	1F026	02	1D009	12 *	18324100	8047	R03
03	1F026	02	1F027	11	18324100	8047	R03
02	1F026	06	1F025	07 *	18324100	8047	R03
11	1F026	07	1D009	11 *	18324100	8047	R03
03	1F026	07	1F027	05	18324100	8047	R03
	1F026	08	GND		18324100	8047	R03
04	1F026	12	1F025	01	18324100	8047	R03
05	1F026	12	1F033	12 *	18324100	8047	R03
06	1F027	01	1F018	10 *	18324100	8047	R03
04	1F027	01	1F028	12	18324100	8047	R03
03	1F027	05	1F026	07 *	18324100	8047	R03
14	1F027	06	1B026	08	18324100	8047	R03
06	1F027	07	1F018	09 *	18324100	8047	R03
02	1F027	07	1F028	06	18324100	8047	R03
09	1F027	09	1E011	05 *	18324100	8047	R03
12	1F027	10	1W007	11 *	18324100	8047	R03
03	1F027	11	1F026	02 *	18324100	8047	R03
16	1F027	12	1B026	02	18324100	8047	R03
10	1F028	01	1D011	10	18324100	8047	R03
11	1F028	02	1D009	04 *	18324100	8047	R03
03	1F028	02	1F029	11	18324100	8047	R03
02	1F028	06	1F027	07 *	18324100	8047	R03
12	1F028	07	1D009	03 *	18324100	8047	R03
03	1F028	07	1F029	05	18324100	8047	R03
	1F028	08	GND		18324100	8047	R03
04	1F028	12	1F027	01 *	18324100	8047	R03
07	1F029	01	1F018	12 *	18324100	8047	R03
04	1F029	01	1F031	12	18324100	8047	R03
03	1F029	05	1F028	07 *	18324100	8047	R03
14	1F029	06	1B027	08	18324100	8047	R03
06	1F029	07	1F018	11 *	18324100	8047	R03
03	1F029	07	1F031	06	18324100	8047	R03
11	1F029	09	1E008	05 *	18324100	8047	R03
13	1F029	10	1W007	12 *	18324100	8047	R03
03	1F029	11	1F028	02 *	18324100	8047	R03
16	1F029	12	1B027	02	18324100	8047	R03
11	1F031	01	1D011	11 *	18324100	8047	R03
06	1F031	01	1E040	07	18324100	8047	R03
16	1F031	02	1I009	12 *	18324100	8047	R03
12	1F031	02	1D009	06	18324100	8047	R03
03	1F031	06	1F029	07 *	18324100	8047	R03
14	1F031	07	1I009	06 *	18324100	8047	R03
13	1F031	07	1D009	05	18324100	8047	R03
	1F031	08	GND		18324100	8047	R03
04	1F031	12	1F029	01 *	18324100	8047	R03
16	1F032	01	1J039	12 *	18324100	8047	R03
14	1F032	03	1G004	01	18324100	8047	R03
12	1F032	04	1G009	07	18324100	8047	R03
11	1F032	05	1G012	07	18324100	8047	R03
10	1F032	06	1G013	07	18324100	8047	R03
15	1F032	07	1J039	11 *	18324100	8047	R03
04	1F032	08	1F036	07	18324100	8047	R03
04	1F032	09	1F038	07	18324100	8047	R03
05	1F032	10	1F039	07	18324100	8047	R03
15	1F032	11	1G001	07	18324100	8047	R03
14	1F032	12	1G003	07	18324100	8047	R03

03	1F033	01	1F036	05	*	18324100	8047	R03
07	1F033	03	1G042	07		18324100	8047	R03
16	1F033	03	1H001	04	*	18324100	8047	R03
07	1F033	04	1D035	09		18324100	8047	R03
12	1F033	05	1D014	01		18324100	8047	R03
09	1F033	06	1H042	08	*	18324100	8047	R03
02	1F033	07	1F034	08	*	18324100	8047	R03
06	1F033	08	1F022	06		18324100	8047	R03
06	1F033	09	1F022	12		18324100	8047	R03
06	1F033	10	1F023	07		18324100	8047	R03
06	1F033	11	1F023	01		18324100	8047	R03
05	1F033	12	1F026	12		18324100	8047	R03
04	1F034	01	1F036	11	*	18324100	8047	R03
13	1F034	02	1D012	02	*	18324100	8047	R03
17	1F034	03	1D001	01		18324100	8047	R03
10	1F034	04	1H042	12	*	18324100	8047	R03
05	1F034	06	1F040	01		18324100	8047	R03
03	1F034	06	1F035	09	*	18324100	8047	R03
17	1F034	07	1J012	08	*	18324100	8047	R03
02	1F034	08	1F033	07		18324100	8047	R03
08	1F034	09	1F018	07		18324100	8047	R03
11	1F034	10	1F011	12	*	18324100	8047	R03
08	1F034	12	1G019	04		18324100	8047	R03
04	1F034	12	1G029	01	*	18324100	8047	R03
03	1F035	01	1F037	08	*	18324100	8047	R03
10	1F035	03	1H042	11	*	18324100	8047	R03
09	1F035	04	1H033	12	*	18324100	8047	R03
14	1F035	04	1B028	05		18324100	8047	R03
02	1F035	06	1F035	07	*	18324100	8047	R03
08	1F035	07	1H035	06	*	18324100	8047	R03
02	1F035	07	1F035	06		18324100	8047	R03
17	1F035	09	1J011	09	*	18324100	8047	R03
03	1F035	09	1F034	06		18324100	8047	R03
08	1F035	10	1H031	11	*	18324100	8047	R03
10	1F035	12	1I042	01		18324100	8047	R03
13	1F035	12	1C039	01	*	18324100	8047	R03
04	1F036	01	1F037	12	*	18324100	8047	R03
04	1F036	01	1F041	10		18324100	8047	R03
	1F036	02	GND			18324100	8047	R03
05	1F036	04	1G035	03	*	18324100	8047	R03
03	1F036	05	1F033	01		18324100	8047	R03
11	1F036	06	1G014	07		18324100	8047	R03
04	1F036	07	1F032	08	*	18324100	8047	R03
04	1F036	08	1F041	09	*	18324100	8047	R03
02	1F036	08	1F037	09		18324100	8047	R03
05	1F036	10	1G041	02	*	18324100	8047	R03
04	1F036	11	1F034	01		18324100	8047	R03
11	1F036	12	1G014	01		18324100	8047	R03
04	1F037	01	1F039	12		18324100	8047	R03
03	1F037	03	1F038	08		18324100	8047	R03
03	1F037	04	1F039	06	*	18324100	8047	R03
03	1F037	06	1F038	01	*	18324100	8047	R03
04	1F037	07	1F042	10	*	18324100	8047	R03
03	1F037	07	1F038	12		18324100	8047	R03
03	1F037	08	1F035	01		18324100	8047	R03
02	1F037	09	1F036	08	*	18324100	8047	R03
04	1F037	10	1F042	09	*	18324100	8047	R03
03	1F037	10	1F038	06		18324100	8047	R03
09	1F037	11	1D028	08	*	18324100	8047	R03
14	1F037	11	1J036	11		18324100	8047	R03
04	1F037	12	1F036	01		18324100	8047	R03
04	1F038	01	1F041	12	*	18324100	8047	R03

03	1F038	01	1F037	06	18324100	8047	R03
	1F038	02	GND		18324100	8047	R03
03	1F038	06	1F037	10 *	18324100	8047	R03
04	1F038	07	1F032	09 *	18324100	8047	R03
03	1F038	08	1F037	03 *	18324100	8047	R03
03	1F038	08	1F041	11	18324100	8047	R03
08	1F038	11	1H042	09	18324100	8047	R03
18	1F038	11	1I002	01 *	18324100	8047	R03
03	1F038	12	1F037	07 *	18324100	8047	R03
18	1F039	01	1G002	12 *	18324100	8047	R03
03	1F039	01	1F041	04	18324100	8047	R03
	1F039	02	GND		18324100	8047	R03
03	1F039	06	1F037	04	18324100	8047	R03
03	1F039	06	1F042	11 *	18324100	8047	R03
05	1F039	07	1F032	10 *	18324100	8047	R03
17	1F039	08	1G002	09 *	18324100	8047	R03
03	1F039	08	1F041	03	18324100	8047	R03
09	1F039	11	1D028	12	18324100	8047	R03
15	1F039	11	1H009	01 *	18324100	8047	R03
03	1F039	12	1F042	12	18324100	8047	R03
04	1F039	12	1F037	01 *	18324100	8047	R03
05	1F040	01	1F034	06 *	18324100	8047	R03
03	1F040	03	1F042	07	18324100	8047	R03
03	1F040	04	1F042	01	18324100	8047	R03
15	1F040	05	1G008	07	18324100	8047	R03
15	1F040	06	1G008	01	18324100	8047	R03
19	1F040	07	1J012	11 *	18324100	8047	R03
10	1F040	08	1F020	03	18324100	8047	R03
03	1F040	09	1F041	07	18324100	8047	R03
03	1F040	10	1F041	01	18324100	8047	R03
15	1F040	11	1G007	07	18324100	8047	R03
15	1F040	12	1G007	01	18324100	8047	R03
03	1F041	01	1F040	10 *	18324100	8047	R03
10	1F041	02	1F020	06	18324100	8047	R03
03	1F041	03	1F039	08 *	18324100	8047	R03
03	1F041	04	1F039	01 *	18324100	8047	R03
18	1F041	05	1G001	08	18324100	8047	R03
18	1F041	06	1G001	01	18324100	8047	R03
03	1F041	07	1F040	09 *	18324100	8047	R03
10	1F041	08	1F020	12	18324100	8047	R03
04	1F041	09	1F036	08	18324100	8047	R03
04	1F041	10	1F036	01 *	18324100	8047	R03
03	1F041	11	1F038	08 *	18324100	8047	R03
04	1F041	12	1F038	01	18324100	8047	R03
03	1F042	01	1F040	04 *	18324100	8047	R03
19	1F042	03	1G002	10	18324100	8047	R03
18	1F042	04	1G002	07	18324100	8047	R03
18	1F042	05	1G002	04	18324100	8047	R03
18	1F042	06	1G002	01	18324100	8047	R03
03	1F042	07	1F040	03 *	18324100	8047	R03
04	1F042	09	1F037	10	18324100	8047	R03
04	1F042	10	1F037	07	18324100	8047	R03
03	1F042	11	1F039	06	18324100	8047	R03
03	1F042	12	1F039	12 *	18324100	8047	R03
18	1G001	01	1F041	06 *	18324100	8047	R03
03	1G001	01	1G002	06	18324100	8047	R03
	1G001	02	GND		18324100	8047	R03
04	1G001	05	1G006	07	18324100	8047	R03
03	1G001	06	1G002	10 *	18324100	8047	R03
15	1G001	07	1F032	11 *	18324100	8047	R03
18	1G001	08	1F041	05 *	18324100	8047	R03
03	1G001	08	1G002	03	18324100	8047	R03

03	1G001	12	1G002	07	*	18324100	8047	R03
18	1G002	01	1F042	06	*	18324100	8047	R03
04	1G002	01	1G003	12		18324100	8047	R03
16	1G002	02	18009	07		18324100	8047	R03
03	1G002	03	1G001	08	*	18324100	8047	R03
18	1G002	04	1F042	05	*	18324100	8047	R03
03	1G002	04	1G003	06		18324100	8047	R03
03	1G002	06	1G001	01	*	18324100	8047	R03
18	1G002	07	1F042	04	*	18324100	8047	R03
03	1G002	07	1G001	12		18324100	8047	R03
17	1G002	08	1H039	02		18324100	8047	R03
17	1G002	09	1F039	08		18324100	8047	R03
19	1G002	10	1F042	03	*	18324100	8047	R03
03	1G002	10	1G001	06		18324100	8047	R03
18	1G002	12	1F039	01		18324100	8047	R03
04	1G003	01	1G007	09		18324100	8047	R03
	1G003	02	GND			18324100	8047	R03
03	1G003	06	1G002	04	*	18324100	8047	R03
14	1G003	07	1F032	12	*	18324100	8047	R03
03	1G003	08	1G005	09	*	18324100	8047	R03
08	1G003	09	1I006	08	*	18324100	8047	R03
07	1G003	10	1F011	06		18324100	8047	R03
08	1G003	10	1I007	07	*	18324100	8047	R03
05	1G003	11	1H009	07	*	18324100	8047	R03
04	1G003	12	1G002	01	*	18324100	8047	R03
14	1G004	01	1F032	03	*	18324100	8047	R03
03	1G004	02	1G005	06	*	18324100	8047	R03
12	1G004	03	1D012	02		18324100	8047	R03
08	1G004	03	1I006	04	*	18324100	8047	R03
12	1G004	04	1J011	06		18324100	8047	R03
06	1G004	04	1G013	03	*	18324100	8047	R03
03	1G004	05	1G006	01		18324100	8047	R03
03	1G004	06	1G005	10		18324100	8047	R03
03	1G004	07	1G005	03	*	18324100	8047	R03
03	1G004	07	1G007	10		18324100	8047	R03
	1G004	08	GND			18324100	8047	R03
08	1G004	10	1I006	07	*	18324100	8047	R03
14	1G004	11	1G035	08		18324100	8047	R03
09	1G004	11	1I012	10	*	18324100	8047	R03
03	1G004	12	1G005	07		18324100	8047	R03
04	1G005	01	1G008	11		18324100	8047	R03
09	1G005	02	1I004	07		18324100	8047	R03
03	1G005	03	1G004	07		18324100	8047	R03
04	1G005	04	1G008	10		18324100	8047	R03
03	1G005	06	1G004	02		18324100	8047	R03
03	1G005	06	1G007	11	*	18324100	8047	R03
03	1G005	07	1G004	12	*	18324100	8047	R03
03	1G005	07	1G008	09		18324100	8047	R03
08	1G005	08	1I013	02		18324100	8047	R03
03	1G005	09	1G003	08		18324100	8047	R03
03	1G005	09	1G007	08	*	18324100	8047	R03
03	1G005	10	1G004	06	*	18324100	8047	R03
03	1G005	10	1G008	08		18324100	8047	R03
12	1G005	11	1H029	07		18324100	8047	R03
08	1G005	11	1I006	11	*	18324100	8047	R03
03	1G005	12	1G007	09	*	18324100	8047	R03
03	1G006	01	1G004	05	*	18324100	8047	R03
06	1G006	02	1H005	06	*	18324100	8047	R03
05	1G006	03	1H002	03	*	18324100	8047	R03
06	1G006	04	1H004	08	*	18324100	8047	R03
05	1G006	05	1H003	06		18324100	8047	R03
11	1G006	05	1H027	08	*	18324100	8047	R03

05	1G006	06	1H005	07	*	18324100	8047	R03
04	1G006	07	1G001	05	*	18324100	8047	R03
05	1G006	09	1H004	09		18324100	8047	R03
11	1G006	09	1H028	11	*	18324100	8047	R03
11	1G006	10	1H028	12	*	18324100	8047	R03
05	1G006	10	1H002	05		18324100	8047	R03
11	1G006	11	1H027	11	*	18324100	8047	R03
05	1G006	11	1H003	08		18324100	8047	R03
04	1G006	12	1H005	08	*	18324100	8047	R03
15	1G007	01	1F040	12	*	18324100	8047	R03
03	1G007	02	1G009	08	*	18324100	8047	R03
04	1G007	03	1G012	08		18324100	8047	R03
04	1G007	04	1G012	01		18324100	8047	R03
04	1G007	05	1G013	08		18324100	8047	R03
05	1G007	06	1G013	01		18324100	8047	R03
15	1G007	07	1F040	11	*	18324100	8047	R03
03	1G007	08	1G005	09		18324100	8047	R03
03	1G007	09	1G005	12		18324100	8047	R03
04	1G007	09	1G003	01	*	18324100	8047	R03
03	1G007	10	1G004	07	*	18324100	8047	R03
03	1G007	11	1G005	06		18324100	8047	R03
04	1G007	12	1G009	01	*	18324100	8047	R03
15	1G008	01	1F040	06	*	18324100	8047	R03
04	1G008	02	1G011	10		18324100	8047	R03
03	1G008	03	1G011	04	*	18324100	8047	R03
03	1G008	04	1G011	01	*	18324100	8047	R03
04	1G008	05	1G014	07	*	18324100	8047	R03
05	1G008	06	1G014	01	*	18324100	8047	R03
15	1G008	07	1F040	05	*	18324100	8047	R03
03	1G008	08	1G005	10	*	18324100	8047	R03
03	1G008	09	1G005	07	*	18324100	8047	R03
03	1G008	10	1G009	06		18324100	8047	R03
04	1G008	10	1G005	04	*	18324100	8047	R03
02	1G008	11	1G009	11		18324100	8047	R03
04	1G008	11	1G005	01	*	18324100	8047	R03
03	1G008	12	1G011	07	*	18324100	8047	R03
04	1G009	01	1G011	12	*	18324100	8047	R03
04	1G009	01	1G007	12		18324100	8047	R03
	1G009	02	GND			18324100	8047	R03
03	1G009	06	1G008	10	*	18324100	8047	R03
12	1G009	07	1F032	04	*	18324100	8047	R03
03	1G009	08	1G011	09	*	18324100	8047	R03
03	1G009	08	1G007	02		18324100	8047	R03
06	1G009	09	1H002	04		18324100	8047	R03
04	1G009	09	1H009	04	*	18324100	8047	R03
09	1G009	10	1I003	12		18324100	8047	R03
12	1G009	10	1D012	05	*	18324100	8047	R03
02	1G009	11	1G008	11	*	18324100	8047	R03
12	1G009	12	1G035	09		18324100	8047	R03
08	1G009	12	1I001	05	*	18324100	8047	R03
06	1G010	01	1H014	03	*	18324100	8047	R03
09	1G010	06	1I003	07		18324100	8047	R03
09	1G010	07	1I002	07		18324100	8047	R03
15	1G010	08	1H042	07		18324100	8047	R03
08	1G010	09	1I006	09		18324100	8047	R03
08	1G010	10	1I007	08		18324100	8047	R03
08	1G010	11	1I005	08		18324100	8047	R03
12	1G010	12	1J025	07		18324100	8047	R03
04	1G011	01	1G013	12	*	18324100	8047	R03
03	1G011	01	1G008	04		18324100	8047	R03
03	1G011	03	1G012	08	*	18324100	8047	R03
03	1G011	04	1G013	06	*	18324100	8047	R03

03	1G011 04	1G008 03	18324100	8047 B06
03	1G011 06	1G012 01 *	18324100	8047 B06
03	1G011 07	1G012 11 *	18324100	8047 B06
03	1G011 07	1G008 12	18324100	8047 B06
03	1G011 09	1G009 08	18324100	8047 B06
04	1G011 10	1G008 02 *	18324100	8047 B06
03	1G011 10	1G012 06	18324100	8047 B06
04	1G011 12	1G009 01	18324100	8047 B06
04	1G012 01	1G007 04 *	18324100	8047 B06
03	1G012 01	1G011 06	18324100	8047 B06
	1G012 02	GND	18324100	8047 B06
11	1G012 05	1D011 04	18324100	8047 B06
03	1G012 06	1G011 10 *	18324100	8047 B06
11	1G012 07	1F032 05 *	18324100	8047 B06
04	1G012 08	1G007 03 *	18324100	8047 B06
03	1G012 08	1G011 03	18324100	8047 B06
09	1G012 09	1H028 10 *	18324100	8047 B06
05	1G012 09	1H009 05	18324100	8047 B06
10	1G012 10	1H031 07 *	18324100	8047 B06
03	1G012 11	1G011 07	18324100	8047 B06
16	1G012 12	1C001 01	18324100	8047 B06
09	1G012 12	11001 06 *	18324100	8047 B06
05	1G013 01	1G007 06 *	18324100	8047 B06
04	1G013 01	1G014 12	18324100	8047 B06
	1G013 02	GND	18324100	8047 B06
06	1G013 04	1G004 04	18324100	8047 B06
05	1G013 04	1F015 05 *	18324100	8047 B06
06	1G013 05	1H018 07	18324100	8047 B06
03	1G013 06	1G011 04	18324100	8047 B06
10	1G013 07	1F032 06 *	18324100	8047 B06
04	1G013 08	1G007 05 *	18324100	8047 B06
03	1G013 08	1G014 06	18324100	8047 B06
06	1G013 09	1F011 02	18324100	8047 B06
04	1G013 09	1H010 02 *	18324100	8047 B06
09	1G013 10	11002 08	18324100	8047 B06
06	1G013 11	1F018 06	18324100	8047 B06
04	1G013 12	1G011 01	18324100	8047 B06
11	1G014 01	1F036 12 *	18324100	8047 B06
05	1G014 01	1G008 06	18324100	8047 B06
12	1G014 05	1E034 01	18324100	8047 B06
03	1G014 06	1G013 08 *	18324100	8047 B06
11	1G014 07	1F036 06 *	18324100	8047 B06
04	1G014 07	1G008 05	18324100	8047 B06
04	1G014 12	1G013 01 *	18324100	8047 B06
14	1G015 01	1J002 12 *	18324100	8047 B06
05	1G015 01	1G022 03	18324100	8047 B06
07	1G015 03	1G027 07	18324100	8047 B06
04	1G015 04	1G020 05 *	18324100	8047 B06
17	1G015 05	1L021 05	18324100	8047 B06
16	1G015 06	1L019 01	18324100	8047 B06
13	1G015 07	1J001 12 *	18324100	8047 B06
07	1G015 07	1G028 12	18324100	8047 B06
17	1G015 09	1L022 10	18324100	8047 B06
04	1G015 10	1G020 06 *	18324100	8047 B06
17	1G015 12	1L018 09	18324100	8047 B06
14	1G016 07	1J039 03 *	18324100	8047 B06
06	1G016 07	1F009 11	18324100	8047 B06
02	1G016 09	1G017 09	18324100	8047 B06
04	1G016 10	1G020 10 *	18324100	8047 B06
16	1G016 12	1L019 05	18324100	8047 B06
05	1G017 01	1F009 12 *	18324100	8047 B06



04	1G017	01	1G022	06	18324100	8047	803
14	1G017	04	1J037	03 *	18324100	8047	803
04	1G017	06	1G021	01 *	18324100	8047	803
11	1G017	07	1J021	09	18324100	8047	803
04	1G017	08	1G021	02 *	18324100	8047	803
02	1G017	09	1G016	09 *	18324100	8047	803
03	1G017	09	1G018	06	18324100	8047	803
03	1G017	10	1G020	11 *	18324100	8047	803
16	1G017	11	1L017	05	18324100	8047	803
10	1G017	12	1E029	09	18324100	8047	803
14	1G018	01	1I040	10 *	18324100	8047	803
17	1G018	01	1C042	06	18324100	8047	803
13	1G018	02	1I039	12 *	18324100	8047	803
17	1G018	02	1C042	05	18324100	8047	803
03	1G018	06	1G017	09 *	18324100	8047	803
03	1G018	06	1G021	03	18324100	8047	803
03	1G018	07	1G020	12 *	18324100	8047	803
	1G018	08	GND		18324100	8047	803
15	1G018	12	1L017	01	18324100	8047	803
13	1G019	01	1C024	11 *	18324100	8047	803
12	1G019	01	1I034	10	18324100	8047	803
07	1G019	02	1G032	06 *	18324100	8047	803
06	1G019	02	1H011	02	18324100	8047	803
08	1G019	03	1E029	11 *	18324100	8047	803
08	1G019	04	1F034	12 *	18324100	8047	803
09	1G019	05	1I016	12 *	18324100	8047	803
05	1G019	05	1G026	01	18324100	8047	803
09	1G019	06	1I011	09 *	18324100	8047	803
05	1G019	07	1H015	06 *	18324100	8047	803
03	1G019	08	1G021	12 *	18324100	8047	803
03	1G019	12	1G022	07	18324100	8047	803
08	1G020	01	1G036	05 *	18324100	8047	803
03	1G020	04	1G021	10	18324100	8047	803
04	1G020	05	1G015	04	18324100	8047	803
04	1G020	06	1G015	10	18324100	8047	803
08	1G020	07	1G036	06 *	18324100	8047	803
03	1G020	09	1G021	04	18324100	8047	803
04	1G020	10	1G016	10	18324100	8047	803
03	1G020	11	1G017	10	18324100	8047	803
03	1G020	12	1G018	07	18324100	8047	803
19	1G021	01	1L038	06 *	18324100	8047	803
04	1G021	01	1G017	06	18324100	8047	803
04	1G021	02	1G017	08	18324100	8047	803
08	1G021	02	1E018	04 *	18324100	8047	803
03	1G021	03	1G022	01	18324100	8047	803
03	1G021	03	1G018	06 *	18324100	8047	803
03	1G021	04	1G020	09 *	18324100	8047	803
18	1G021	05	1L017	09	18324100	8047	803
08	1G021	06	1E029	10	18324100	8047	803
05	1G021	07	1G028	10 *	18324100	8047	803
03	1G021	10	1G020	04 *	18324100	8047	803
03	1G021	12	1G019	08	18324100	8047	803
05	1G021	12	1G029	08 *	18324100	8047	803
03	1G022	01	1G021	03 *	18324100	8047	803
05	1G022	03	1G028	11	18324100	8047	803
05	1G022	03	1G015	01 *	18324100	8047	803
03	1G022	04	1G025	06 *	18324100	8047	803
04	1G022	06	1G017	01 *	18324100	8047	803
03	1G022	07	1G019	12 *	18324100	8047	803
08	1G022	08	1H010	08	18324100	8047	803
07	1G022	09	1H010	07 *	18324100	8047	803
14	1G022	10	1K022	12 *	18324100	8047	803

04	1G022	11	1G027	10	*	18324100	8047	R03
13	1G022	12	1K024	06		18324100	8047	R03
04	1G022	12	1G024	01	*	18324100	8047	R03
10	1G023	01	1I016	11	*	18324100	8047	R03
08	1G023	05	1H035	07		18324100	8047	R03
03	1G023	06	1G026	02		18324100	8047	R03
08	1G023	07	1I015	04	*	18324100	8047	R03
04	1G023	07	1G027	12		18324100	8047	R03
19	1G023	11	1B017	01		18324100	8047	R03
16	1G023	12	1L016	01		18324100	8047	R03
04	1G024	01	1G022	12		18324100	8047	R03
11	1G024	04	1J021	01		18324100	8047	R03
13	1G024	05	1J038	09		18324100	8047	R03
09	1G024	06	1I016	09		18324100	8047	R03
11	1G025	01	1H006	12	*	18324100	8047	R03
08	1G025	01	1E032	07		18324100	8047	R03
11	1G025	02	1D011	12	*	18324100	8047	R03
08	1G025	02	1E032	04		18324100	8047	R03
09	1G025	03	1E032	03	*	18324100	8047	R03
12	1G025	03	1H003	10		18324100	8047	R03
	1G025	04	GND			18324100	8047	R03
03	1G025	06	1G022	04		18324100	8047	R03
05	1G026	01	1G019	05	*	18324100	8047	R03
03	1G026	02	1G023	06	*	18324100	8047	R03
17	1G026	04	1B017	05		18324100	8047	R03
18	1G026	05	1L016	05		18324100	8047	R03
08	1G026	06	1H041	01		18324100	8047	R03
04	1G026	07	1G032	11	*	18324100	8047	R03
03	1G026	08	1G027	06	*	18324100	8047	R03
12	1G026	10	1I005	07		18324100	8047	R03
05	1G026	11	1G034	07		18324100	8047	R03
16	1G026	12	1L024	03	*	18324100	8047	R03
04	1G026	12	1G029	04		18324100	8047	R03
13	1G027	01	1J038	11	*	18324100	8047	R03
07	1G027	03	1G039	07		18324100	8047	R03
07	1G027	03	1E029	12	*	18324100	8047	R03
04	1G027	04	1G032	12	*	18324100	8047	R03
05	1G027	05	1G035	11	*	18324100	8047	R03
17	1G027	06	1B036	06	*	18324100	8047	R03
03	1G027	06	1G026	08		18324100	8047	R03
07	1G027	07	1G015	03	*	18324100	8047	R03
07	1G027	09	1H038	02	*	18324100	8047	R03
13	1G027	10	1K022	05	*	18324100	8047	R03
04	1G027	10	1G022	11		18324100	8047	R03
10	1G027	12	1I042	08		18324100	8047	R03
04	1G027	12	1G023	07	*	18324100	8047	R03
10	1G028	01	1I014	03	*	18324100	8047	R03
10	1G028	01	1I037	06		18324100	8047	R03
07	1G028	04	1E028	10		18324100	8047	R03
08	1G028	05	1E034	07	*	18324100	8047	R03
05	1G028	06	1G034	12		18324100	8047	R03
17	1G028	06	1L022	06	*	18324100	8047	R03
12	1G028	07	1J040	09	*	18324100	8047	R03
03	1G028	07	1G029	09		18324100	8047	R03
11	1G028	09	1J029	07		18324100	8047	R03
05	1G028	10	1G021	07		18324100	8047	R03
05	1G028	11	1G022	03	*	18324100	8047	R03
07	1G028	12	1G015	07	*	18324100	8047	R03
12	1G029	01	1J036	06	*	18324100	8047	R03
04	1G029	01	1F034	12		18324100	8047	R03
13	1G029	02	1J021	12	*	18324100	8047	R03
09	1G029	02	1E018	06		18324100	8047	R03

09	1G029	03	1I033	10	*	18324100	8047	R03
10	1G029	03	1H013	10		18324100	8047	R03
04	1G029	04	1G026	12	*	18324100	8047	R03
11	1G029	05	1J026	04	*	18324100	8047	R03
	1G029	06	GND			18324100	8047	R03
05	1G029	08	1G021	12		18324100	8047	R03
03	1G029	09	1G028	07	*	18324100	8047	R03
09	1G029	10	1H013	02		18324100	8047	R03
10	1G029	10	1J037	01	*	18324100	8047	R03
09	1G029	11	1H013	03	*	18324100	8047	R03
04	1G029	11	1G033	07		18324100	8047	R03
07	1G029	12	1I035	01	*	18324100	8047	R03
11	1G030	01	1I014	06	*	18324100	8047	R03
10	1G030	07	1F012	03		18324100	8047	R03
18	1G030	07	1L037	12	*	18324100	8047	R03
12	1G030	08	1F008	03		18324100	8047	R03
17	1G030	08	1L037	06	*	18324100	8047	R03
12	1G030	09	1F006	06		18324100	8047	R03
18	1G030	09	1L036	12	*	18324100	8047	R03
14	1G030	10	1F002	05		18324100	8047	R03
17	1G030	10	1L036	06	*	18324100	8047	R03
11	1G030	11	1F010	06		18324100	8047	R03
17	1G030	11	1L035	12	*	18324100	8047	R03
10	1G030	12	1E039	05		18324100	8047	R03
16	1G030	12	1L035	06	*	18324100	8047	R03
15	1G032	01	1I005	10		18324100	8047	R03
11	1G032	2	1J030	1		18324100	8047	R03
						18324100	8047	R03
14	1G032	03	1H003	02		18324100	8047	R03
14	1G032	04	1H002	01		18324100	8047	R03
08	1G032	05	1I037	05		18324100	8047	R03
17	1G032	06	1L038	07	*	18324100	8047	R03
07	1G032	06	1G019	02		18324100	8047	R03
14	1G032	07	1C042	12	*	18324100	8047	R03
12	1G032	07	1I012	07		18324100	8047	R03
04	1G032	08	1G036	02		18324100	8047	R03
18	1G032	08	1L026	12	*	18324100	8047	R03
14	1G032	09	1C021	12		18324100	8047	R03
11	1G032	10	1E017	02	*	18324100	8047	R03
04	1G032	11	1G026	07		18324100	8047	R03
04	1G032	12	1G027	04		18324100	8047	R03
09	1G033	01	1F016	10	*	18324100	8047	R03
04	1G033	01	1G037	04		18324100	8047	R03
02	1G033	03	1G033	06		18324100	8047	R03
03	1G033	03	1G033	12	*	18324100	8047	R03
09	1G033	04	1J033	11	*	18324100	8047	R03
09	1G033	04	1F016	09		18324100	8047	R03
02	1G033	06	1G033	03	*	18324100	8047	R03
04	1G033	07	1G029	11	*	18324100	8047	R03
05	1G033	07	1G039	12		18324100	8047	R03
02	1G033	08	1G034	08		18324100	8047	R03
03	1G033	09	1G035	04		18324100	8047	R03
08	1G033	10	1I030	11	*	18324100	8047	R03
03	1G033	12	1G033	03		18324100	8047	R03
10	1G033	12	1J040	01	*	18324100	8047	R03
07	1G034	01	1H038	09	*	18324100	8047	R03
03	1G034	02	1G035	05	*	18324100	8047	R03
12	1G034	05	1F009	09		18324100	8047	R03
08	1G034	06	1E033	06		18324100	8047	R03
05	1G034	07	1G026	11	*	18324100	8047	R03
02	1G034	08	1G033	08	*	18324100	8047	R03
05	1G034	11	1G042	06		18324100	8047	R03

09	1G034	11	1E033	02	*	18324100	8047	R03
10	1G034	12	1E033	01		18324100	8047	R03
05	1G034	12	1G028	06	*	18324100	8047	R03
17	1G035	01	1B028	01	*	18324100	8047	R03
17	1G035	01	1J009	08		18324100	8047	R03
20	1G035	02	1B008	07		18324100	8047	R03
05	1G035	03	1F036	04		18324100	8047	R03
07	1G035	03	1H025	02	*	18324100	8047	R03
03	1G035	04	1G033	09	*	18324100	8047	R03
03	1G035	05	1G034	02		18324100	8047	R03
12	1G035	06	1J021	02		18324100	8047	R03
15	1G035	07	1C020	12	*	18324100	8047	R03
14	1G035	08	1G004	11	*	18324100	8047	R03
17	1G035	09	1C017	01		18324100	8047	R03
12	1G035	09	1G009	12	*	18324100	8047	R03
22	1G035	10	1B006	02	*	18324100	8047	R03
05	1G035	11	1G027	05		18324100	8047	R03
17	1G035	11	1L029	12	*	18324100	8047	R03
11	1G035	12	1J040	10		18324100	8047	R03
09	1G035	12	1E031	09	*	18324100	8047	R03
09	1G036	01	1J035	08	*	18324100	8047	R03
04	1G036	02	1G032	08	*	18324100	8047	R03
07	1G036	02	1E029	11		18324100	8047	R03
11	1G036	03	1J018	03		18324100	8047	R03
08	1G036	05	1G020	01		18324100	8047	R03
08	1G036	06	1G020	07		18324100	8047	R03
09	1G037	01	1J032	06		18324100	8047	R03
13	1G037	03	1J014	01		18324100	8047	R03
08	1G037	04	1E032	08		18324100	8047	R03
04	1G037	04	1G033	01	*	18324100	8047	R03
15	1G037	05	1J015	12	*	18324100	8047	R03
16	1G037	05	1C020	02		18324100	8047	R03
19	1G037	06	1K009	12	*	18324100	8047	R03
17	1G037	06	1C019	01		18324100	8047	R03
15	1G039	01	1H009	06	*	18324100	8047	R03
20	1G039	03	1D001	04		18324100	8047	R03
14	1G039	04	1H012	11	*	18324100	8047	R03
18	1G039	05	1L031	08		18324100	8047	R03
17	1G039	06	1C020	01		18324100	8047	R03
07	1G039	07	1G027	03	*	18324100	8047	R03
18	1G039	09	1L027	12		18324100	8047	R03
13	1G039	10	1H013	11	*	18324100	8047	R03
17	1G039	10	1L026	04		18324100	8047	R03
05	1G039	12	1G033	07	*	18324100	8047	R03
09	1G040	01	1H028	10		18324100	8047	R03
09	1G040	02	1H027	10		18324100	8047	R03
16	1G040	03	1C021	03	*	18324100	8047	R03
	1G040	04	GND			18324100	8047	R03
03	1G040	06	1G042	01		18324100	8047	R03
08	1G040	07	1H027	09		18324100	8047	R03
08	1G040	08	1H027	08		18324100	8047	R03
08	1G040	09	1H028	09		18324100	8047	R03
07	1G040	10	1H028	08		18324100	8047	R03
10	1G040	12	1E037	01	*	18324100	8047	R03
09	1G041	01	1H028	07		18324100	8047	R03
09	1G041	02	1H027	07	*	18324100	8047	R03
05	1G041	02	1F036	10		18324100	8047	R03
10	1G041	03	1J033	09		18324100	8047	R03
	1G041	04	GND			18324100	8047	R03
09	1G041	05	1E036	01		18324100	8047	R03
11	1G041	06	1E026	01		18324100	8047	R03
09	1G041	07	1H027	12		18324100	8047	R03

09	1G041	08	1H027	11	18324100	8047	R03
08	1G041	09	1H028	12	18324100	8047	R03
08	1G041	10	1H028	11	18324100	8047	R03
15	1G041	12	1H008	01	18324100	8047	R03
03	1G042	01	1G040	06 *	18324100	8047	R03
08	1G042	03	1E034	07	18324100	8047	R03
15	1G042	04	1H010	05 *	18324100	8047	R03
05	1G042	06	1G034	11 *	18324100	8047	R03
07	1G042	07	1F033	03 *	18324100	8047	R03
09	1G042	07	1I036	12	18324100	8047	R03
16	1G042	08	1H007	01	18324100	8047	R03
17	1G042	09	1H006	03	18324100	8047	R03
13	1G042	10	1J025	09	18324100	8047	R03
17	1G042	11	1H005	02	18324100	8047	R03
17	1G042	12	1H004	02	18324100	8047	R03
17	1H001	01	1I038	05 *	18324100	8047	R03
15	1H001	02	1G032	02	18324100	8047	R03
09	1H001	03	1F011	02 *	18324100	8047	R03
16	1H001	04	1F033	03	18324100	8047	R03
26	1H001	05	1B042	11 *	18324100	8047	R03
21	1H001	06	1B014	05 *	18324100	8047	R03
07	1H001	07	1I010	07	18324100	8047	R03
14	1H001	07	1E019	02 *	18324100	8047	R03
07	1H001	08	1I010	08	18324100	8047	R03
13	1H001	08	1E011	02 *	18324100	8047	R03
15	1H001	09	1L013	12 *	18324100	8047	R03
06	1H001	10	1H010	12	18324100	8047	R03
07	1H001	12	1I011	10	18324100	8047	R03
14	1H002	01	1G032	04 *	18324100	8047	R03
16	1H002	02	1I037	03 *	18324100	8047	R03
05	1H002	03	1G006	03	18324100	8047	R03
12	1H002	03	1H028	08 *	18324100	8047	R03
06	1H002	04	1G009	09 *	18324100	8047	R03
05	1H002	05	1G006	10 *	18324100	8047	R03
05	1H002	06	1H009	02 *	18324100	8047	R03
17	1H003	01	1I039	04	18324100	8047	R03
14	1H003	02	1G032	03 *	18324100	8047	R03
05	1H003	06	1G006	05 *	18324100	8047	R03
04	1H003	07	1H009	05 *	18324100	8047	R03
05	1H003	08	1G006	11 *	18324100	8047	R03
05	1H003	09	1H009	01	18324100	8047	R03
14	1H003	10	1D001	12	18324100	8047	R03
12	1H003	10	1G025	03 *	18324100	8047	R03
08	1H003	11	1J007	12	18324100	8047	R03
22	1H003	11	1B024	09 *	18324100	8047	R03
22	1H003	12	1B024	12	18324100	8047	R03
15	1H004	01	1J032	02 *	18324100	8047	R03
17	1H004	02	1G042	12 *	18324100	8047	R03
07	1H004	07	1I016	03	18324100	8047	R03
06	1H004	08	1G006	04	18324100	8047	R03
12	1H004	08	1H028	09 *	18324100	8047	R03
05	1H004	09	1G006	09 *	18324100	8047	R03
11	1H004	10	1F016	03	18324100	8047	R03
10	1H004	11	1F017	08	18324100	8047	R03
11	1H004	12	1F018	04	18324100	8047	R03
15	1H005	01	1J032	09 *	18324100	8047	R03
17	1H005	02	1G042	11 *	18324100	8047	R03
06	1H005	06	1G006	02	18324100	8047	R03
07	1H005	06	1I016	04 *	18324100	8047	R03
05	1H005	07	1G006	06	18324100	8047	R03
11	1H005	07	1H027	09 *	18324100	8047	R03
11	1H005	08	1H027	12 *	18324100	8047	R03

04	1H005	08	1G006	12	18324100	8047	R03	
10	1H005	09	1F016	04	18324100	8047	R03	
10	1H005	10	1F017	09	18324100	8047	R03	
11	1H005	11	1F018	05	18324100	8047	R03	
24	1H005	12	1C040	01	18324100	8047	R03	
09	1H006	01	1H023	11	★	18324100	8047	R03
04	1H006	02	1H009	11	★	18324100	8047	R03
17	1H006	03	1G042	09	★	18324100	8047	R03
06	1H006	05	1I014	04		18324100	8047	R03
09	1H006	06	1F019	10		18324100	8047	R03
10	1H006	07	1F021	09		18324100	8047	R03
11	1H006	08	1F023	09		18324100	8047	R03
12	1H006	09	1E014	04		18324100	8047	R03
12	1H006	10	1E011	05		18324100	8047	R03
12	1H006	11	1E008	05		18324100	8047	R03
11	1H006	12	1G025	01		18324100	8047	R03
16	1H007	01	1G042	08	★	18324100	8047	R03
08	1H007	02	1H023	03	★	18324100	8047	R03
09	1H007	07	1F019	11		18324100	8047	R03
19	1H007	07	1L037	07	★	18324100	8047	R03
10	1H007	08	1F021	10		18324100	8047	R03
18	1H007	08	1L037	01	★	18324100	8047	R03
11	1H007	09	1F023	10		18324100	8047	R03
18	1H007	09	1L036	07	★	18324100	8047	R03
11	1H007	10	1F025	10		18324100	8047	R03
18	1H007	10	1L036	01	★	18324100	8047	R03
12	1H007	11	1F027	10		18324100	8047	R03
18	1H007	11	1L035	07	★	18324100	8047	R03
13	1H007	12	1F029	10		18324100	8047	R03
17	1H007	12	1L035	01	★	18324100	8047	R03
15	1H008	01	1G041	12	★	18324100	8047	R03
09	1H008	07	1F012	01		18324100	8047	R03
09	1H008	08	1F008	01		18324100	8047	R03
09	1H008	09	1F006	03		18324100	8047	R03
10	1H008	10	1F002	02		18324100	8047	R03
09	1H008	11	1F010	03		18324100	8047	R03
12	1H008	12	1E009	06	★	18324100	8047	R03
05	1H009	01	1H003	09	★	18324100	8047	R03
15	1H009	01	1F039	11		18324100	8047	R03
15	1H009	02	1D028	11	★	18324100	8047	R03
05	1H009	02	1H002	06		18324100	8047	R03
15	1H009	03	1H042	10	★	18324100	8047	R03
09	1H009	04	1H027	10	★	18324100	8047	R03
04	1H009	04	1G009	09		18324100	8047	R03
04	1H009	05	1H003	07		18324100	8047	R03
05	1H009	05	1G012	09	★	18324100	8047	R03
15	1H009	06	1G039	01		18324100	8047	R03
07	1H009	07	1I002	12	★	18324100	8047	R03
05	1H009	07	1G003	11		18324100	8047	R03
07	1H009	08	1I017	11	★	18324100	8047	R03
04	1H009	09	1H015	11	★	18324100	8047	R03
05	1H009	10	1I016	01		18324100	8047	R03
04	1H009	11	1H006	02		18324100	8047	R03
10	1H009	12	1F011	01		18324100	8047	R03
09	1H010	01	1J012	07	★	18324100	8047	R03
09	1H010	02	1H028	06	★	18324100	8047	R03
04	1H010	02	1G013	09		18324100	8047	R03
	1H010	03	GND			18324100	8047	R03
15	1H010	05	1G042	04		18324100	8047	R03
14	1H010	06	1H040	04		18324100	8047	R03
06	1H010	07	1I017	08	★	18324100	8047	R03
07	1H010	07	1G022	09		18324100	8047	R03

08	1H010	08	1G022	08 *	18324100	8047	B06
06	1H010	08	1I018	08	18324100	8047	B06
	1H010	09	GND		18324100	8047	B06
09	1H010	12	1I026	12	18324100	8047	B06
06	1H010	12	1H001	10 *	18324100	8047	B06
06	1H011	02	1G019	02 *	18324100	8047	B06
15	1H011	03	1E035	02	18324100	8047	B06
10	1H011	04	1J026	02	18324100	8047	B06
09	1H011	05	1J021	05	18324100	8047	B06
09	1H011	06	1J023	02	18324100	8047	B06
18	1H011	07	1C021	02	18324100	8047	B06
19	1H011	08	1C024	02	18324100	8047	B06
11	1H011	09	1K001	05	18324100	8047	B06
04	1H011	09	1I015	01 *	18324100	8047	B06
02	1H011	10	1H011	12 *	18324100	8047	B06
21	1H011	10	1B028	09	18324100	8047	B06
11	1H011	11	1K024	04	18324100	8047	B06
02	1H011	12	1H011	10	18324100	8047	B06
07	1H011	12	1J019	01 *	18324100	8047	B06
10	1H012	01	1H033	09 *	18324100	8047	B06
15	1H012	02	1L006	04 *	18324100	8047	B06
12	1H012	06	1E017	03	18324100	8047	B06
12	1H012	06	1K020	07 *	18324100	8047	B06
11	1H012	07	1K020	01	18324100	8047	B06
12	1H012	07	1E017	04 *	18324100	8047	B06
09	1H012	08	1J020	11	18324100	8047	B06
09	1H012	09	1I028	10	18324100	8047	B06
09	1H012	10	1I027	09	18324100	8047	B06
14	1H012	11	1G039	04	18324100	8047	B06
17	1H012	12	1C017	10	18324100	8047	B06
10	1H013	01	1I028	12 *	18324100	8047	B06
09	1H013	02	1G029	10 *	18324100	8047	B06
09	1H013	03	1G029	11	18324100	8047	B06
09	1H013	04	1J003	01	18324100	8047	B06
09	1H013	05	1I027	07	18324100	8047	B06
09	1H013	06	1I027	08	18324100	8047	B06
07	1H013	07	1F016	11 *	18324100	8047	B06
21	1H013	09	1B012	01	18324100	8047	B06
10	1H013	10	1G029	03 *	18324100	8047	B06
13	1H013	11	1G039	10	18324100	8047	B06
20	1H013	11	1B008	09 *	18324100	8047	B06
18	1H013	12	1C018	04	18324100	8047	B06
09	1H014	01	1I028	11 *	18324100	8047	B06
06	1H014	03	1G010	01	18324100	8047	B06
10	1H014	03	1J024	06 *	18324100	8047	B06
03	1H014	04	1H017	01	18324100	8047	B06
03	1H014	05	1H015	07	18324100	8047	B06
03	1H014	06	1H015	01	18324100	8047	B06
03	1H015	01	1H014	06 *	18324100	8047	B06
05	1H015	06	1G019	07	18324100	8047	B06
03	1H015	07	1H014	05 *	18324100	8047	B06
04	1H015	11	1H009	09	18324100	8047	B06
08	1H015	12	1I030	08	18324100	8047	B06
10	1H016	01	1J005	04 *	18324100	8047	B06
16	1H016	02	1C016	08	18324100	8047	B06
17	1H016	03	1C016	01	18324100	8047	B06
10	1H016	04	1H037	08	18324100	8047	B06
05	1H016	06	1H024	01	18324100	8047	B06
10	1H016	07	1H037	04	18324100	8047	B06
05	1H016	09	1H022	01	18324100	8047	B06
10	1H016	10	1H037	12	18324100	8047	B06
04	1H016	12	1H020	01	18324100	8047	B06
03	1H017	01	1H014	04 *	18324100	8047	B06
11	1H017	04	1J031	08	18324100	8047	B06

10	1H017	05	1J029	09	18324100	8047	R03
16	1H017	06	1D033	02	18324100	8047	R03
04	1H018	01	1H023	04 *	18324100	8047	R03
04	1H018	02	1H021	10	18324100	8047	R03
03	1H018	02	1H020	08 *	18324100	8047	R03
03	1H018	03	1H020	02	18324100	8047	R03
04	1H018	04	1H021	12 *	18324100	8047	R03
03	1H018	05	1H021	06	18324100	8047	R03
04	1H018	06	1H024	08	18324100	8047	R03
06	1H018	07	1G013	05 *	18324100	8047	R03
09	1H018	12	1F020	07	18324100	8047	R03
08	1H018	12	1J011	07 *	18324100	8047	R03
04	1H019	01	1H020	12 *	18324100	8047	R03
03	1H019	06	1H021	11	18324100	8047	R03
03	1H019	06	1H020	02 *	18324100	8047	R03
02	1H019	07	1H020	06 *	18324100	8047	R03
03	1H019	12	1H021	10 *	18324100	8047	R03
04	1H020	01	1H016	12 *	18324100	8047	R03
03	1H020	02	1H018	03 *	18324100	8047	R03
03	1H020	02	1H019	06	18324100	8047	R03
03	1H020	03	1H022	03	18324100	8047	R03
08	1H020	03	1F014	04 *	18324100	8047	R03
04	1H020	04	1H024	04 *	18324100	8047	R03
07	1H020	05	1H033	01	18324100	8047	R03
02	1H020	06	1H019	07	18324100	8047	R03
04	1H020	06	1H026	07 *	18324100	8047	R03
11	1H020	07	1E027	10 *	18324100	8047	R03
04	1H020	08	1H025	07 *	18324100	8047	R03
03	1H020	08	1H018	02	18324100	8047	R03
07	1H020	09	1H032	03	18324100	8047	R03
09	1H020	09	1F017	04 *	18324100	8047	R03
07	1H020	10	1H032	06	18324100	8047	R03
09	1H020	10	1F016	07 *	18324100	8047	R03
07	1H020	11	1H033	04	18324100	8047	R03
04	1H020	12	1H019	01	18324100	8047	R03
04	1H020	12	1H026	08 *	18324100	8047	R03
04	1H021	01	1H022	12 *	18324100	8047	R03
04	1H021	01	1H026	10	18324100	8047	R03
03	1H021	06	1H018	05 *	18324100	8047	R03
03	1H021	06	1H022	02	18324100	8047	R03
04	1H021	07	1H026	09 *	18324100	8047	R03
02	1H021	07	1H022	06	18324100	8047	R03
09	1H021	09	1I036	11 *	18324100	8047	R03
03	1H021	10	1H019	12	18324100	8047	R03
04	1H021	10	1H018	02 *	18324100	8047	R03
04	1H021	11	1H025	08	18324100	8047	R03
03	1H021	11	1H019	06 *	18324100	8047	R03
04	1H021	12	1H018	04	18324100	8047	R03
03	1H021	12	1H022	07 *	18324100	8047	R03
05	1H022	01	1H016	09 *	18324100	8047	R03
03	1H022	02	1H021	06 *	18324100	8047	R03
04	1H022	02	1H025	10	18324100	8047	R03
03	1H022	03	1H020	03 *	18324100	8047	R03
03	1H022	03	1H024	10	18324100	8047	R03
03	1H022	04	1H024	04	18324100	8047	R03
09	1H022	04	1F014	01 *	18324100	8047	R03
06	1H022	05	1H032	07	18324100	8047	R03
02	1H022	06	1H021	07 *	18324100	8047	R03
03	1H022	07	1H025	09 *	18324100	8047	R03
03	1H022	07	1H021	12	18324100	8047	R03
11	1H022	08	1E027	11 *	18324100	8047	R03
06	1H022	09	1H033	05	18324100	8047	R03



03	1H022	09	1H024	09	*	18324100	8047	R03
06	1H022	10	1H033	06		18324100	8047	R03
03	1H022	10	1H024	03	*	18324100	8047	R03
06	1H022	11	1H032	10		18324100	8047	R03
04	1H022	12	1H021	01		18324100	8047	R03
04	1H023	01	1H026	12		18324100	8047	R03
08	1H023	03	1H007	02		18324100	8047	R03
04	1H023	04	1H018	01		18324100	8047	R03
04	1H023	05	1H028	02		18324100	8047	R03
03	1H023	06	1H024	02		18324100	8047	R03
03	1H023	06	1H025	12	*	18324100	8047	R03
03	1H023	07	1H026	11	*	18324100	8047	R03
02	1H023	07	1H024	06		18324100	8047	R03
09	1H023	11	1H006	01		18324100	8047	R03
04	1H023	12	1H027	02		18324100	8047	R03
05	1H024	01	1H016	06	*	18324100	8047	R03
03	1H024	02	1H023	06	*	18324100	8047	R03
03	1H024	03	1H022	10		18324100	8047	R03
08	1H024	03	1F014	10	*	18324100	8047	R03
03	1H024	04	1H022	04	*	18324100	8047	R03
04	1H024	04	1H020	04		18324100	8047	R03
05	1H024	05	1H032	01		18324100	8047	R03
02	1H024	06	1H023	07	*	18324100	8047	R03
10	1H024	07	1E027	12	*	18324100	8047	R03
04	1H024	08	1H018	06	*	18324100	8047	R03
03	1H024	08	1H025	11		18324100	8047	R03
03	1H024	09	1H022	09		18324100	8047	R03
10	1H024	09	1F017	01	*	18324100	8047	R03
03	1H024	10	1H022	03	*	18324100	8047	R03
05	1H024	11	1H032	04		18324100	8047	R03
03	1H024	12	1H026	12	*	18324100	8047	R03
11	1H025	01	1J013	10	*	18324100	8047	R03
07	1H025	02	1G035	03		18324100	8047	R03
04	1H025	07	1H020	08		18324100	8047	R03
04	1H025	08	1H021	11	*	18324100	8047	R03
03	1H025	09	1H022	07		18324100	8047	R03
04	1H025	10	1H022	02	*	18324100	8047	R03
03	1H025	11	1H024	08	*	18324100	8047	R03
03	1H025	12	1H023	06		18324100	8047	R03
13	1H026	01	1D032	12	*	18324100	8047	R03
11	1H026	01	1J014	12		18324100	8047	R03
04	1H026	07	1H020	06		18324100	8047	R03
04	1H026	08	1H020	12		18324100	8047	R03
04	1H026	09	1H021	07		18324100	8047	R03
04	1H026	10	1H021	01	*	18324100	8047	R03
03	1H026	11	1H023	07		18324100	8047	R03
03	1H026	12	1H024	12		18324100	8047	R03
04	1H026	12	1H023	01	*	18324100	8047	R03
12	1H027	01	1J013	12	*	18324100	8047	R03
04	1H027	02	1H023	12	*	18324100	8047	R03
09	1H027	07	1G041	02		18324100	8047	R03
07	1H027	07	1I016	03	*	18324100	8047	R03
11	1H027	08	1G006	05		18324100	8047	R03
08	1H027	08	1G040	08	*	18324100	8047	R03
11	1H027	09	1H005	07		18324100	8047	R03
08	1H027	09	1G040	07	*	18324100	8047	R03
09	1H027	10	1H009	04		18324100	8047	R03
09	1H027	10	1G040	02	*	18324100	8047	R03
11	1H027	11	1G006	11		18324100	8047	R03
09	1H027	11	1G041	08	*	18324100	8047	R03
11	1H027	12	1H005	08		18324100	8047	R03
09	1H027	12	1G041	07	*	18324100	8047	R03

12	1H028	01	1J013	11	*	18324100	8047	R03
04	1H028	02	1H023	05	*	18324100	8047	R03
09	1H028	06	1H010	02		18324100	8047	R03
07	1H028	07	1I016	04		18324100	8047	R03
09	1H028	07	1G041	01	*	18324100	8047	R03
12	1H028	08	1H002	03		18324100	8047	R03
07	1H028	08	1G040	10	*	18324100	8047	R03
12	1H028	09	1H004	08		18324100	8047	R03
08	1H028	09	1G040	09	*	18324100	8047	R03
09	1H028	10	1G012	09		18324100	8047	R03
09	1H028	10	1G040	01	*	18324100	8047	R03
11	1H028	11	1G006	09		18324100	8047	R03
08	1H028	11	1G041	10	*	18324100	8047	R03
11	1H028	12	1G006	10		18324100	8047	R03
08	1H028	12	1G041	09	*	18324100	8047	R03
13	1H029	01	1I005	12	*	18324100	8047	R03
08	1H029	01	1I037	12		18324100	8047	R03
10	1H029	02	1J032	11		18324100	8047	R03
10	1H029	05	1I011	04	*	18324100	8047	R03
05	1H029	05	1H035	10		18324100	8047	R03
10	1H029	06	1I009	03	*	18324100	8047	R03
05	1H029	06	1H035	12		18324100	8047	R03
12	1H029	07	1G005	11	*	18324100	8047	R03
07	1H029	07	1H042	02		18324100	8047	R03
04	1H029	08	1H035	04	*	18324100	8047	R03
12	1H029	08	1I006	08		18324100	8047	R03
10	1H029	09	1I009	05		18324100	8047	R03
04	1H029	10	1H031	01		18324100	8047	R03
05	1H029	11	1H035	06		18324100	8047	R03
07	1H029	12	1H042	12		18324100	8047	R03
10	1H029	12	1K025	06	*	18324100	8047	R03
04	1H031	01	1H029	10	*	18324100	8047	R03
10	1H031	07	1G012	10		18324100	8047	R03
14	1H031	07	1D035	10	*	18324100	8047	R03
13	1H031	08	1I006	12		18324100	8047	R03
07	1H031	08	1H042	01	*	18324100	8047	R03
04	1H031	09	1H035	05	*	18324100	8047	R03
12	1H031	09	1I006	07		18324100	8047	R03
10	1H031	10	1I012	04		18324100	8047	R03
08	1H031	11	1F035	10		18324100	8047	R03
06	1H031	12	1H041	04		18324100	8047	R03
05	1H032	01	1H024	05	*	18324100	8047	R03
02	1H032	02	1H033	03		18324100	8047	R03
10	1H032	02	1F017	10	*	18324100	8047	R03
03	1H032	03	1H032	11		18324100	8047	R03
07	1H032	03	1H020	09	*	18324100	8047	R03
05	1H032	04	1H024	11	*	18324100	8047	R03
03	1H032	06	1H032	12		18324100	8047	R03
07	1H032	06	1H020	10	*	18324100	8047	R03
06	1H032	07	1H022	05	*	18324100	8047	R03
03	1H032	09	1H033	03	*	18324100	8047	R03
06	1H032	10	1H022	11	*	18324100	8047	R03
03	1H032	11	1H032	03	*	18324100	8047	R03
03	1H032	12	1H032	06	*	18324100	8047	R03
07	1H033	01	1H020	05	*	18324100	8047	R03
03	1H033	03	1H032	09		18324100	8047	R03
02	1H033	03	1H032	02	*	18324100	8047	R03
07	1H033	04	1H020	11	*	18324100	8047	R03
06	1H033	05	1H022	09	*	18324100	8047	R03
06	1H033	06	1H022	10	*	18324100	8047	R03
03	1H033	07	1H034	02	*	18324100	8047	R03
10	1H033	09	1H012	01		18324100	8047	R03

13	1H033	10	1I006	10	*	18324100	8047	B06
09	1H033	12	1F035	04		18324100	8047	B06
02	1H034	01	1H034	03		18324100	8047	B06
03	1H034	02	1H033	07		18324100	8047	B06
02	1H034	02	1H034	04	*	18324100	8047	B06
02	1H034	03	1H034	05		18324100	8047	B06
02	1H034	03	1H034	01	*	18324100	8047	B06
02	1H034	04	1H034	02		18324100	8047	B06
02	1H034	04	1H034	06	*	18324100	8047	B06
02	1H034	05	1H034	07		18324100	8047	B06
02	1H034	05	1H034	03	*	18324100	8047	B06
02	1H034	06	1H034	04		18324100	8047	B06
02	1H034	06	1H034	08	*	18324100	8047	B06
03	1H034	07	1H034	15		18324100	8047	B06
02	1H034	07	1H034	05	*	18324100	8047	B06
02	1H034	08	1H034	06		18324100	8047	B06
03	1H034	15	1H034	07	*	18324100	8047	B06
05	1H035	01	1H042	03	*	18324100	8047	B06
17	1H035	03	1D012	01		18324100	8047	B06
04	1H035	04	1H029	08		18324100	8047	B06
04	1H035	05	1H031	09		18324100	8047	B06
05	1H035	06	1H029	11	*	18324100	8047	B06
08	1H035	06	1F035	07		18324100	8047	B06
08	1H035	07	1G023	05	*	18324100	8047	B06
10	1H035	09	1K028	01	*	18324100	8047	B06
05	1H035	10	1H029	05	*	18324100	8047	B06
11	1H035	10	1K027	07		18324100	8047	B06
19	1H035	11	1C039	02	*	18324100	8047	B06
11	1H035	11	1K032	10		18324100	8047	B06
05	1H035	12	1H029	06	*	18324100	8047	B06
11	1H035	12	1K026	07		18324100	8047	B06
16	1H036	01	1J005	10	*	18324100	8047	B06
04	1H036	01	1H039	12		18324100	8047	B06
15	1H036	06	1D038	01		18324100	8047	B06
20	1H036	07	1D003	07		18324100	8047	B06
19	1H036	08	1D004	12		18324100	8047	B06
20	1H036	09	1D004	08		18324100	8047	B06
19	1H036	10	1D006	12		18324100	8047	B06
04	1H036	10	1H040	10	*	18324100	8047	B06
04	1H036	11	1H041	08		18324100	8047	B06
02	1H036	11	1H037	11	*	18324100	8047	B06
03	1H036	12	1H037	03		18324100	8047	B06
02	1H036	12	1H037	12	*	18324100	8047	B06
04	1H037	01	1H038	11	*	18324100	8047	B06
04	1H037	02	1H041	11	*	18324100	8047	B06
03	1H037	02	1H037	06		18324100	8047	B06
03	1H037	03	1H037	07		18324100	8047	B06
03	1H037	03	1H036	12	*	18324100	8047	B06
04	1H037	04	1H041	09		18324100	8047	B06
10	1H037	04	1H016	07	*	18324100	8047	B06
03	1H037	05	1H038	10	*	18324100	8047	B06
03	1H037	06	1H037	10		18324100	8047	B06
03	1H037	06	1H037	02	*	18324100	8047	B06
03	1H037	07	1H040	12		18324100	8047	B06
03	1H037	07	1H037	03	*	18324100	8047	B06
04	1H037	08	1H041	12		18324100	8047	B06
10	1H037	08	1H016	04	*	18324100	8047	B06
08	1H037	09	1J032	10		18324100	8047	B06
19	1H037	10	1D006	08		18324100	8047	B06
03	1H037	10	1H037	06	*	18324100	8047	B06
02	1H037	11	1H036	11		18324100	8047	B06
03	1H037	11	1H040	11	*	18324100	8047	B06

02	1H037	12	1H036	12	18324100	8047	R03
10	1H037	12	1H016	10	* 18324100	8047	R03
13	1H038	01	1I012	12	* 18324100	8047	R03
17	1H038	02	1L022	12	* 18324100	8047	R03
07	1H038	02	1G027	09	18324100	8047	R03
13	1H038	03	1I012	09	* 18324100	8047	R03
	1H038	04	GND		18324100	8047	R03
15	1H038	06	1I007	01	18324100	8047	R03
15	1H038	07	1I005	01	18324100	8047	R03
08	1H038	08	1J029	01	18324100	8047	R03
07	1H038	09	1G034	01	18324100	8047	R03
05	1H038	10	1I037	11	* 18324100	8047	R03
03	1H038	10	1H037	05	18324100	8047	R03
04	1H038	11	1I037	04	* 18324100	8047	R03
04	1H038	11	1H037	01	18324100	8047	R03
04	1H038	12	1H040	01	18324100	8047	R03
03	1H039	01	1H042	06	* 18324100	8047	R03
17	1H039	02	1G002	08	* 18324100	8047	R03
17	1H039	07	1D015	07	18324100	8047	R03
20	1H039	08	1D007	01	18324100	8047	R03
18	1H039	09	1C042	01	18324100	8047	R03
03	1H039	10	1H041	07	18324100	8047	R03
10	1H039	10	1J025	10	* 18324100	8047	R03
03	1H039	11	1H040	07	18324100	8047	R03
07	1H039	11	1J039	05	* 18324100	8047	R03
07	1H039	12	1J039	06	18324100	8047	R03
04	1H039	12	1H036	01	* 18324100	8047	R03
04	1H040	01	1H038	12	* 18324100	8047	R03
14	1H040	04	1L034	01	18324100	8047	R03
14	1H040	04	1H010	06	* 18324100	8047	R03
09	1H040	05	1J037	09	18324100	8047	R03
03	1H040	05	1H041	01	* 18324100	8047	R03
08	1H040	06	1I027	06	* 18324100	8047	R03
10	1H040	06	1E034	12	18324100	8047	R03
03	1H040	07	1H039	11	* 18324100	8047	R03
20	1H040	09	1D005	10	18324100	8047	R03
04	1H040	10	1H036	10	18324100	8047	R03
03	1H040	11	1H037	11	18324100	8047	R03
03	1H040	12	1H037	07	* 18324100	8047	R03
08	1H041	01	1G026	06	* 18324100	8047	R03
03	1H041	01	1H040	05	18324100	8047	R03
10	1H041	03	1J027	01	18324100	8047	R03
06	1H041	04	1H031	12	* 18324100	8047	R03
19	1H041	05	1D011	01	18324100	8047	R03
18	1H041	06	1I001	11	* 18324100	8047	R03
03	1H041	07	1H039	10	* 18324100	8047	R03
04	1H041	08	1H036	11	* 18324100	8047	R03
21	1H041	08	1D005	01	18324100	8047	R03
04	1H041	09	1H037	04	* 18324100	8047	R03
08	1H041	10	1J032	03	18324100	8047	R03
04	1H041	11	1H037	02	18324100	8047	R03
04	1H041	12	1H037	08	* 18324100	8047	R03
14	1H042	01	1D028	10	* 18324100	8047	R03
07	1H042	01	1H031	08	18324100	8047	R03
07	1H042	02	1H029	07	* 18324100	8047	R03
14	1H042	02	1D028	09	18324100	8047	R03
05	1H042	03	1H035	01	18324100	8047	R03
20	1H042	04	1B035	06	* 18324100	8047	R03
15	1H042	04	1I009	01	18324100	8047	R03
15	1H042	05	1I011	01	18324100	8047	R03
03	1H042	06	1H039	01	18324100	8047	R03
15	1H042	07	1G010	08	* 18324100	8047	R03

18	1H042	08	1I002	11	*	18324100	8047	R03
09	1H042	08	1F033	06		18324100	8047	R03
08	1H042	09	1F038	11	*	18324100	8047	R03
15	1H042	10	1H009	03		18324100	8047	R03
10	1H042	11	1F035	03		18324100	8047	R03
14	1H042	11	1I011	02	*	18324100	8047	R03
07	1H042	12	1H029	12	*	18324100	8047	R03
10	1H042	12	1F034	04		18324100	8047	R03
03	1I001	01	1I003	05	*	18324100	8047	R03
03	1I001	03	1I002	08	*	18324100	8047	R03
12	1I001	04	1J025	05		18324100	8047	R03
21	1I001	04	1C021	09	*	18324100	8047	R03
08	1I001	05	1J011	12	*	18324100	8047	R03
08	1I001	05	1G009	12		18324100	8047	R03
09	1I001	06	1G012	12		18324100	8047	R03
03	1I001	07	1I002	03	*	18324100	8047	R03
04	1I001	09	1I005	10	*	18324100	8047	R03
12	1I001	10	1J025	09	*	18324100	8047	R03
18	1I001	11	1H041	06		18324100	8047	R03
13	1I001	11	1F011	03	*	18324100	8047	R03
26	1I001	12	1C039	10		18324100	8047	R03
18	1I002	01	1F038	11		18324100	8047	R03
	1I002	02	GND			18324100	8047	R03
03	1I002	03	1I001	07		18324100	8047	R03
04	1I002	04	1I006	05	*	18324100	8047	R03
06	1I002	05	1I011	01	*	18324100	8047	R03
17	1I002	06	1D001	03		18324100	8047	R03
09	1I002	07	1G010	07	*	18324100	8047	R03
09	1I002	08	1G013	10	*	18324100	8047	R03
03	1I002	08	1I001	03		18324100	8047	R03
04	1I002	09	1I004	01		18324100	8047	R03
03	1I002	10	1I003	01	*	18324100	8047	R03
18	1I002	11	1H042	08		18324100	8047	R03
07	1I002	12	1H009	07		18324100	8047	R03
16	1I003	01	1J036	11	*	18324100	8047	R03
03	1I003	01	1I002	10		18324100	8047	R03
	1I003	02	GND			18324100	8047	R03
08	1I003	04	1K007	03		18324100	8047	R03
03	1I003	05	1I001	01		18324100	8047	R03
03	1I003	06	1I006	06		18324100	8047	R03
09	1I003	07	1G010	06	*	18324100	8047	R03
06	1I003	08	1I013	11	*	18324100	8047	R03
11	1I003	11	1J025	12		18324100	8047	R03
06	1I003	11	1I012	07	*	18324100	8047	R03
09	1I003	12	1G009	10	*	18324100	8047	R03
04	1I004	01	1I002	09	*	18324100	8047	R03
17	1I004	02	1D011	02		18324100	8047	R03
17	1I004	03	1D014	04		18324100	8047	R03
03	1I004	04	1I005	11	*	18324100	8047	R03
11	1I004	05	1J025	06		18324100	8047	R03
21	1I004	05	1D034	04	*	18324100	8047	R03
14	1I004	06	1J032	06		18324100	8047	R03
22	1I004	06	1C018	01	*	18324100	8047	R03
09	1I004	07	1G005	02	*	18324100	8047	R03
03	1I004	09	1I006	12	*	18324100	8047	R03
15	1I005	01	1H038	07	*	18324100	8047	R03
	1I005	02	GND			18324100	8047	R03
16	1I005	06	1J039	01		18324100	8047	R03
12	1I005	07	1G026	10	*	18324100	8047	R03
08	1I005	08	1G010	11	*	18324100	8047	R03
04	1I005	10	1I001	09		18324100	8047	R03
15	1I005	10	1G032	01	*	18324100	8047	R03

03	1I005	11	1I004	04	18324100	8047	R03
13	1I005	12	1H029	01	18324100	8047	R03
04	1I006	01	1I007	12 *	18324100	8047	R03
	1I006	02	GND		18324100	8047	R03
	1I006	03	GND		18324100	8047	R03
08	1I006	04	1G004	03	18324100	8047	R03
04	1I006	05	1I002	04	18324100	8047	R03
03	1I006	05	1I009	01 *	18324100	8047	R03
03	1I006	06	1I003	06 *	18324100	8047	R03
04	1I006	06	1I012	06	18324100	8047	R03
12	1I006	07	1H031	09 *	18324100	8047	R03
08	1I006	07	1G004	10	18324100	8047	R03
12	1I006	08	1H029	08 *	18324100	8047	R03
08	1I006	08	1G003	09	18324100	8047	R03
08	1I006	09	1G010	09 *	18324100	8047	R03
13	1I006	10	1H033	10	18324100	8047	R03
08	1I006	11	1G005	11	18324100	8047	R03
13	1I006	12	1H031	08 *	18324100	8047	R03
03	1I006	12	1I004	09	18324100	8047	R03
15	1I007	01	1H038	06 *	18324100	8047	R03
09	1I007	02	1J023	06	18324100	8047	R03
10	1I007	07	1J024	12 *	18324100	8047	R03
08	1I007	07	1G003	10	18324100	8047	R03
08	1I007	08	1G010	10 *	18324100	8047	R03
12	1I007	11	1K028	07	18324100	8047	R03
11	1I007	12	1J030	04 *	18324100	8047	R03
04	1I007	12	1I006	01	18324100	8047	R03
15	1I009	01	1H042	04 *	18324100	8047	R03
03	1I009	01	1I006	05	18324100	8047	R03
14	1I009	02	1K032	10	18324100	8047	R03
10	1I009	03	1H029	06	18324100	8047	R03
03	1I009	04	1I012	04 *	18324100	8047	R03
10	1I009	05	1H029	09 *	18324100	8047	R03
08	1I009	05	1K007	06	18324100	8047	R03
14	1I009	06	1F031	07	18324100	8047	R03
18	1I009	07	1D014	03	18324100	8047	R03
02	1I009	08	1I009	09	18324100	8047	R03
02	1I009	09	1I009	08 *	18324100	8047	R03
16	1I009	12	1F031	02	18324100	8047	R03
11	1I010	01	1I033	12 *	18324100	8047	R03
12	1I010	05	1F006	02 *	18324100	8047	R03
12	1I010	06	1F010	02 *	18324100	8047	R03
07	1I010	07	1H001	07 *	18324100	8047	R03
07	1I010	08	1H001	08 *	18324100	8047	R03
24	1I010	09	1B002	04	18324100	8047	R03
23	1I010	10	1C036	05	18324100	8047	R03
21	1I010	11	1C011	05	18324100	8047	R03
21	1I010	12	1C001	07	18324100	8047	R03
15	1I011	01	1H042	05 *	18324100	8047	R03
06	1I011	01	1I002	05	18324100	8047	R03
14	1I011	02	1H042	11	18324100	8047	R03
10	1I011	04	1H029	05	18324100	8047	R03
12	1I011	05	1F019	05 *	18324100	8047	R03
05	1I011	06	1J013	05 *	18324100	8047	R03
24	1I011	08	1C039	03 *	18324100	8047	R03
10	1I011	08	1K026	01	18324100	8047	R03
12	1I011	09	1L015	12 *	18324100	8047	R03
09	1I011	09	1G019	06	18324100	8047	R03
07	1I011	10	1H001	12 *	18324100	8047	R03
09	1I011	12	1J026	09	18324100	8047	R03
03	1I012	01	1I012	06 *	18324100	8047	R03
11	1I012	03	1K028	01	18324100	8047	R03

10	1T012	04	1H031	10	*	18324100	8047	B06
03	1T012	04	1I009	04		18324100	8047	B06
04	1T012	06	1I006	06	*	18324100	8047	B06
03	1T012	06	1I012	01		18324100	8047	B06
12	1T012	07	1G032	07	*	18324100	8047	B06
06	1T012	07	1I003	11		18324100	8047	B06
13	1T012	09	1H038	03		18324100	8047	B06
05	1T012	10	1J011	08	*	18324100	8047	B06
09	1T012	10	1G004	11		18324100	8047	B06
13	1T012	12	1H038	01		18324100	8047	B06
09	1T013	01	1K007	04	*	18324100	8047	B06
08	1T013	02	1G005	08	*	18324100	8047	B06
06	1T013	03	1J014	08	*	18324100	8047	B06
	1T013	04	GND			18324100	8047	B06
06	1T013	11	1I003	08		18324100	8047	B06
07	1T013	12	1J025	08		18324100	8047	B06
13	1T014	01	1G037	03	*	18324100	8047	B06
10	1T014	03	1G028	01		18324100	8047	B06
06	1T014	04	1H006	05	*	18324100	8047	B06
11	1T014	06	1G030	01		18324100	8047	B06
23	1T014	07	1B003	08	*	18324100	8047	B06
25	1T014	08	1B035	04	*	18324100	8047	B06
02	1T014	08	1I014	10		18324100	8047	B06
06	1T014	09	1J022	10	*	18324100	8047	B06
02	1T014	10	1I014	08	*	18324100	8047	B06
13	1T014	10	1J042	05		18324100	8047	B06
10	1T014	12	1K030	01		18324100	8047	B06
03	1T015	01	1I016	08	*	18324100	8047	B06
04	1T015	01	1H011	09		18324100	8047	B06
	1T015	02	GND			18324100	8047	B06
08	1T015	04	1G023	07		18324100	8047	B06
13	1T015	05	1L033	01		18324100	8047	B06
08	1T015	06	1J026	10		18324100	8047	B06
11	1T015	07	1K001	11	*	18324100	8047	B06
09	1T015	08	1K021	12	*	18324100	8047	B06
04	1T015	12	1J016	04		18324100	8047	B06
04	1T015	12	1I018	03	*	18324100	8047	B06
05	1T016	01	1H009	10	*	18324100	8047	B06
07	1T016	03	1H004	07	*	18324100	8047	B06
07	1T016	03	1H027	07		18324100	8047	B06
07	1T016	04	1H028	07	*	18324100	8047	B06
07	1T016	04	1H005	06		18324100	8047	B06
11	1T016	05	1K001	12	*	18324100	8047	B06
11	1T016	07	1L005	03	*	18324100	8047	B06
03	1T016	08	1I015	01		18324100	8047	B06
13	1T016	08	1L032	05	*	18324100	8047	B06
09	1T016	09	1G024	06	*	18324100	8047	B06
10	1T016	11	1G023	01		18324100	8047	B06
09	1T016	12	1G019	05		18324100	8047	B06
10	1T016	12	1L024	04	*	18324100	8047	B06
12	1T017	01	1L012	03	*	18324100	8047	B06
12	1T017	02	1L012	06	*	18324100	8047	B06
04	1T017	03	1I020	09	*	18324100	8047	B06
08	1T017	04	1K018	07	*	18324100	8047	B06
06	1T017	04	1I026	01		18324100	8047	B06
13	1T017	05	1L010	12	*	18324100	8047	B06
11	1T017	06	1L012	05	*	18324100	8047	B06
06	1T017	07	1I026	05	*	18324100	8047	B06
07	1T017	08	1J028	09	*	18324100	8047	B06
06	1T017	08	1H010	07		18324100	8047	B06
06	1T017	09	1I026	07	*	18324100	8047	B06
08	1T017	10	1K012	11	*	18324100	8047	B06

07	1I017	11	1H009	08	18324100	8047	R03
07	1I017	12	1I028	04	18324100	8047	R03
11	1I018	01	1L012	02 *	18324100	8047	R03
12	1I018	02	1L013	06 *	18324100	8047	R03
04	1I018	03	1I015	12	18324100	8047	R03
11	1I018	03	1G036	03 *	18324100	8047	R03
05	1I018	04	1I026	09 *	18324100	8047	R03
12	1I018	05	1L010	11 *	18324100	8047	R03
11	1I018	06	1L013	05 *	18324100	8047	R03
06	1I018	07	1I027	01 *	18324100	8047	R03
06	1I018	08	1H010	08 *	18324100	8047	R03
06	1I018	09	1I027	03 *	18324100	8047	R03
04	1I018	10	1J017	02 *	18324100	8047	R03
04	1I018	11	1I024	09	18324100	8047	R03
07	1I018	11	1J008	07 *	18324100	8047	R03
04	1I018	12	1I023	09	18324100	8047	R03
06	1I018	12	1J008	01 *	18324100	8047	R03
13	1I019	01	1L008	06 *	18324100	8047	R03
13	1I019	02	1L008	12 *	18324100	8047	R03
12	1I019	03	1L010	06 *	18324100	8047	R03
06	1I019	10	1I028	07	18324100	8047	R03
08	1I019	11	1J005	01	18324100	8047	R03
09	1I019	12	1I037	01	18324100	8047	R03
14	1I020	01	1L007	12 *	18324100	8047	R03
13	1I020	02	1L008	11 *	18324100	8047	R03
12	1I020	03	1L010	05 *	18324100	8047	R03
04	1I020	09	1I017	03	18324100	8047	R03
07	1I020	09	1K018	05 *	18324100	8047	R03
09	1I020	10	1J005	07	18324100	8047	R03
08	1I020	11	1I036	05	18324100	8047	R03
06	1I020	12	1I030	01	18324100	8047	R03
13	1I021	01	1L008	05 *	18324100	8047	R03
14	1I021	02	1L009	12 *	18324100	8047	R03
12	1I021	03	1L010	04 *	18324100	8047	R03
08	1I021	09	1J006	01	18324100	8047	R03
10	1I021	10	1I041	12 *	18324100	8047	R03
10	1I021	10	1J001	01	18324100	8047	R03
08	1I021	11	1I036	04	18324100	8047	R03
05	1I021	12	1I029	12	18324100	8047	R03
14	1I022	01	1L007	11 *	18324100	8047	R03
14	1I022	02	1L009	11 *	18324100	8047	R03
12	1I022	03	1L010	03 *	18324100	8047	R03
09	1I022	09	1J006	07	18324100	8047	R03
10	1I022	10	1I041	11	18324100	8047	R03
11	1I022	10	1J001	07 *	18324100	8047	R03
08	1I022	11	1I036	03	18324100	8047	R03
05	1I022	12	1I029	11	18324100	8047	R03
13	1I023	01	1L008	04 *	18324100	8047	R03
14	1I023	02	1L008	10 *	18324100	8047	R03
13	1I023	03	1L011	12 *	18324100	8047	R03
04	1I023	09	1I018	12 *	18324100	8047	R03
09	1I023	10	1J007	01	18324100	8047	R03
09	1I023	11	1I041	10	18324100	8047	R03
11	1I023	11	1J002	01 *	18324100	8047	R03
04	1I023	12	1I029	10	18324100	8047	R03
14	1I024	01	1L007	10 *	18324100	8047	R03
14	1I024	02	1L008	09 *	18324100	8047	R03
14	1I024	03	1L011	11 *	18324100	8047	R03
04	1I024	09	1I018	11 *	18324100	8047	R03
09	1I024	10	1J007	02	18324100	8047	R03
09	1I024	11	1I041	09	18324100	8047	R03
11	1I024	11	1J002	07 *	18324100	8047	R03



04	11024	12	11029	09	18324100	8047	R03
14	11025	01	1L008	03 *	18324100	8047	R03
14	11025	02	1L009	10 *	18324100	8047	R03
14	11025	03	1L011	10 *	18324100	8047	R03
10	11025	06	1J007	07	18324100	8047	R03
14	11025	07	1L007	09 *	18324100	8047	R03
13	11025	08	1L009	09 *	18324100	8047	R03
13	11025	09	1L011	09 *	18324100	8047	R03
06	11026	01	1I017	04 *	18324100	8047	R03
09	11026	02	1J009	02	18324100	8047	R03
09	11026	03	1K018	06 *	18324100	8047	R03
03	11026	03	11029	02	18324100	8047	R03
12	11026	04	1L027	10	18324100	8047	R03
11	11026	05	1L033	05 *	18324100	8047	R03
06	11026	05	1I017	07	18324100	8047	R03
06	11026	07	1I017	09	18324100	8047	R03
06	11026	08	1I036	02	18324100	8047	R03
11	11026	09	1L033	04 *	18324100	8047	R03
05	11026	09	1I018	04	18324100	8047	R03
08	11026	11	1I041	01	18324100	8047	R03
09	11026	12	1W010	12 *	18324100	8047	R03
08	11026	12	1K018	08	18324100	8047	R03
12	11027	01	1L033	03 *	18324100	8047	R03
06	11027	01	1I018	07	18324100	8047	R03
06	11027	03	1I018	09	18324100	8047	R03
12	11027	04	1J004	01	18324100	8047	R03
10	11027	05	1J009	10 *	18324100	8047	R03
08	11027	06	1W040	06	18324100	8047	R03
08	11027	06	1J039	10 *	18324100	8047	R03
09	11027	07	1W013	05 *	18324100	8047	R03
02	11027	07	1I028	06	18324100	8047	R03
09	11027	08	1W013	06 *	18324100	8047	R03
05	11027	08	1I035	01	18324100	8047	R03
09	11027	09	1W012	10 *	18324100	8047	R03
12	11027	10	1K006	08	18324100	8047	R03
12	11027	11	1K005	08	18324100	8047	R03
13	11027	12	1K004	08	18324100	8047	R03
11	11028	01	1J009	09 *	18324100	8047	R03
06	11028	03	1J024	06	18324100	8047	R03
08	11028	03	1J038	12 *	18324100	8047	R03
07	11028	04	1I017	12 *	18324100	8047	R03
05	11028	06	1I035	07	18324100	8047	R03
02	11028	06	1I027	07 *	18324100	8047	R03
06	11028	07	1I019	10 *	18324100	8047	R03
02	11028	07	1I029	07	18324100	8047	R03
02	11028	09	1I028	10 *	18324100	8047	R03
09	11028	10	1W012	09 *	18324100	8047	R03
02	11028	10	1I028	09	18324100	8047	R03
09	11028	11	1W014	01	18324100	8047	R03
10	11028	12	1W013	01	18324100	8047	R03
08	11029	01	1J017	06 *	18324100	8047	R03
03	11029	02	1I026	03 *	18324100	8047	R03
02	11029	07	1I028	07 *	18324100	8047	R03
03	11029	08	1I030	01 *	18324100	8047	R03
04	11029	09	1I034	01	18324100	8047	R03
04	11029	09	1I024	12 *	18324100	8047	R03
04	11029	10	1I033	01	18324100	8047	R03
04	11029	10	1I023	12 *	18324100	8047	R03
04	11029	11	1I032	01	18324100	8047	R03
05	11029	11	1I022	12 *	18324100	8047	R03
04	11029	12	1I031	01	18324100	8047	R03
05	11029	12	1I021	12 *	18324100	8047	R03

06	1T030	01	11020	12	*	18324100	8047	B06
03	1T030	01	11029	08		18324100	8047	B06
	1T030	02	GND			18324100	8047	B06
11	1T030	04	1L027	01		18324100	8047	B06
12	1T030	05	1L031	11	*	18324100	8047	B06
12	1T030	06	1L031	12	*	18324100	8047	B06
09	1T030	07	1J016	12	*	18324100	8047	B06
08	1T030	08	1H015	12	*	18324100	8047	B06
11	1T030	11	1L025	08	*	18324100	8047	B06
08	1T030	11	1G033	10		18324100	8047	B06
08	1T030	12	1K018	01	*	18324100	8047	B06
04	1T031	01	11029	12	*	18324100	8047	B06
03	1T031	03	11034	03	*	18324100	8047	B06
03	1T031	04	11034	04		18324100	8047	B06
03	1T031	04	11032	06	*	18324100	8047	B06
03	1T031	05	11034	05		18324100	8047	B06
18	1T031	05	1D017	02	*	18324100	8047	B06
03	1T031	06	11034	06		18324100	8047	B06
17	1T031	06	1D035	06	*	18324100	8047	B06
04	1T031	07	11035	06	*	18324100	8047	B06
04	1T032	01	11029	11	*	18324100	8047	B06
03	1T032	06	11031	04		18324100	8047	B06
09	1T032	06	1G037	01	*	18324100	8047	B06
03	1T032	07	11035	05	*	18324100	8047	B06
17	1T032	09	1D034	11		18324100	8047	B06
08	1T032	09	1K029	07	*	18324100	8047	B06
04	1T032	10	1J035	01		18324100	8047	B06
17	1T032	10	1D033	11	*	18324100	8047	B06
14	1T032	11	1F015	03		18324100	8047	B06
14	1T032	12	1F014	09		18324100	8047	B06
04	1T033	01	11029	10	*	18324100	8047	B06
26	1T033	06	1B009	02		18324100	8047	B06
03	1T033	07	11035	04	*	18324100	8047	B06
11	1T033	08	1J012	07		18324100	8047	B06
03	1T033	09	11036	11		18324100	8047	B06
10	1T033	09	1G041	03	*	18324100	8047	B06
09	1T033	10	1G029	03		18324100	8047	B06
11	1T033	10	1L026	08	*	18324100	8047	B06
11	1T033	11	1L025	09	*	18324100	8047	B06
09	1T033	11	1G033	04		18324100	8047	B06
11	1T033	12	11010	01		18324100	8047	B06
04	1T034	01	11029	09	*	18324100	8047	B06
03	1T034	03	11031	03		18324100	8047	B06
05	1T034	03	1J035	04	*	18324100	8047	B06
03	1T034	04	11031	04	*	18324100	8047	B06
03	1T034	05	11031	05	*	18324100	8047	B06
03	1T034	06	11031	06	*	18324100	8047	B06
03	1T034	07	11035	03	*	18324100	8047	B06
04	1T034	09	1J031	01		18324100	8047	B06
20	1T034	09	1C024	10	*	18324100	8047	B06
12	1T034	10	1G019	01	*	18324100	8047	B06
27	1T034	11	1B005	07		18324100	8047	B06
25	1T034	12	1B008	12		18324100	8047	B06
05	1T035	01	11027	08	*	18324100	8047	B06
07	1T035	01	1G029	12		18324100	8047	B06
03	1T035	03	11034	07		18324100	8047	B06
03	1T035	04	11033	07		18324100	8047	B06
03	1T035	05	11032	07		18324100	8047	B06
04	1T035	06	11031	07		18324100	8047	B06
05	1T035	07	11028	06	*	18324100	8047	B06
09	1T035	08	1G036	01		18324100	8047	B06

04	11035	09	11040	07	18324100	8047	R03
04	11035	10	11039	07	18324100	8047	R03
03	11035	11	11038	07	18324100	8047	R03
03	11035	12	11037	07	18324100	8047	R03
10	11036	01	1J017	05 *	18324100	8047	R03
06	11036	02	11026	08 *	18324100	8047	R03
04	11036	03	11040	01	18324100	8047	R03
08	11036	03	11022	11 *	18324100	8047	R03
03	11036	04	11039	01	18324100	8047	R03
08	11036	04	11021	11 *	18324100	8047	R03
03	11036	05	11038	01	18324100	8047	R03
08	11036	05	11020	11 *	18324100	8047	R03
03	11036	06	11037	01 *	18324100	8047	R03
15	11036	07	1K009	10 *	18324100	8047	R03
14	11036	08	1K008	05 *	18324100	8047	R03
09	11036	11	1H021	09	18324100	8047	R03
03	11036	11	11033	09 *	18324100	8047	R03
09	11036	12	1G042	07 *	18324100	8047	R03
09	11037	01	11019	12 *	18324100	8047	R03
03	11037	01	11036	06	18324100	8047	R03
16	11037	03	1H002	02	18324100	8047	R03
04	11037	04	1H038	11	18324100	8047	R03
02	11037	05	11038	06	18324100	8047	R03
08	11037	05	1G032	05 *	18324100	8047	R03
03	11037	06	11039	06	18324100	8047	R03
10	11037	06	1G028	01 *	18324100	8047	R03
03	11037	07	11035	12 *	18324100	8047	R03
05	11037	11	1H038	10	18324100	8047	R03
08	11037	12	1H029	01 *	18324100	8047	R03
03	11038	01	11036	05 *	18324100	8047	R03
17	11038	05	1H001	01	18324100	8047	R03
02	11038	06	11039	05	18324100	8047	R03
02	11038	06	11037	05 *	18324100	8047	R03
03	11038	07	11035	11 *	18324100	8047	R03
03	11039	01	11036	04 *	18324100	8047	R03
02	11039	04	11040	04	18324100	8047	R03
17	11039	04	1H003	01 *	18324100	8047	R03
02	11039	05	11040	05	18324100	8047	R03
02	11039	05	11038	06 *	18324100	8047	R03
02	11039	06	11040	06	18324100	8047	R03
03	11039	06	11037	06 *	18324100	8047	R03
04	11039	07	11035	10 *	18324100	8047	R03
13	11039	12	1G018	02	18324100	8047	R03
04	11040	01	11036	03 *	18324100	8047	R03
02	11040	04	11039	04 *	18324100	8047	R03
02	11040	05	11039	05 *	18324100	8047	R03
02	11040	06	11039	06 *	18324100	8047	R03
04	11040	07	11035	09 *	18324100	8047	R03
14	11040	10	1G018	01	18324100	8047	R03
16	11040	11	1J007	12 *	18324100	8047	R03
16	11040	12	1J006	12 *	18324100	8047	R03
14	11040	12	1E041	11	18324100	8047	R03
08	11041	01	11026	11 *	18324100	8047	R03
12	11041	02	1J017	04 *	18324100	8047	R03
09	11041	09	11024	11 *	18324100	8047	R03
09	11041	10	11023	11 *	18324100	8047	R03
10	11041	11	11022	10 *	18324100	8047	R03
10	11041	12	11021	10	18324100	8047	R03
02	11042	01	11042	02	18324100	8047	R03
10	11042	01	1F035	12 *	18324100	8047	R03
02	11042	02	11042	03	18324100	8047	R03
02	11042	02	11042	01 *	18324100	8047	R03

02	1I042	03	1I042	04	18324100	8047	R03
02	1I042	03	1I042	02 *	18324100	8047	R03
02	1I042	04	1I042	05	18324100	8047	R03
02	1I042	04	1I042	03 *	18324100	8047	R03
02	1I042	05	1I042	06	18324100	8047	R03
02	1I042	05	1I042	04 *	18324100	8047	R03
02	1I042	06	1I042	07	18324100	8047	R03
02	1I042	06	1I042	05 *	18324100	8047	R03
02	1I042	07	1I042	06 *	18324100	8047	R03
02	1I042	08	1I042	09	18324100	8047	R03
10	1I042	08	1G027	12 *	18324100	8047	R03
02	1I042	09	1I042	10	18324100	8047	R03
02	1I042	09	1I042	08 *	18324100	8047	R03
02	1I042	10	1I042	09 *	18324100	8047	R03
02	1I042	11	1I042	12 *	18324100	8047	R03
					18324100	8047	R03
					18324100	8047	R03
				*	18324100	8047	R03
					18324100	8047	R03
					18324100	8047	R03
					18324100	8047	R03
					18324100	8047	R03
10	1J001	01	1I021	10 *	18324100	8047	R03
	1J001	02	GND		18324100	8047	R03
11	1J001	07	1I022	10	18324100	8047	R03
03	1J001	08	1J003	12 *	18324100	8047	R03
13	1J001	12	1G015	07	18324100	8047	R03
11	1J002	01	1I023	11	18324100	8047	R03
	1J002	02	GND		18324100	8047	R03
11	1J002	07	1I024	11	18324100	8047	R03
03	1J002	08	1J003	11 *	18324100	8047	R03
14	1J002	12	1G015	01	18324100	8047	R03
09	1J003	01	1H013	04 *	18324100	8047	R03
04	1J003	07	1J008	08	18324100	8047	R03
04	1J003	08	1J007	08	18324100	8047	R03
03	1J003	09	1J006	08	18324100	8047	R03
03	1J003	10	1J005	08	18324100	8047	R03
03	1J003	11	1J002	08	18324100	8047	R03
03	1J003	12	1J001	08	18324100	8047	R03
12	1J004	01	1I027	04 *	18324100	8047	R03
07	1J004	02	1J017	03 *	18324100	8047	R03
03	1J004	06	1J007	07 *	18324100	8047	R03
03	1J004	07	1J007	02 *	18324100	8047	R03
04	1J004	08	1J007	01 *	18324100	8047	R03
03	1J004	09	1J006	07 *	18324100	8047	R03
04	1J004	10	1J006	01 *	18324100	8047	R03
03	1J004	11	1J005	07 *	18324100	8047	R03
04	1J004	12	1J005	01 *	18324100	8047	R03
08	1J005	01	1I019	11 *	18324100	8047	R03
04	1J005	01	1J004	12	18324100	8047	R03
	1J005	02	GND		18324100	8047	R03
16	1J005	03	1J039	05	18324100	8047	R03
10	1J005	04	1H016	01	18324100	8047	R03
23	1J005	05	1C003	05	18324100	8047	R03
24	1J005	06	1C002	01	18324100	8047	R03
09	1J005	07	1I020	10 *	18324100	8047	R03
03	1J005	07	1J004	11	18324100	8047	R03
03	1J005	08	1J003	10 *	18324100	8047	R03
16	1J005	10	1H036	01	18324100	8047	R03
08	1J005	11	1J021	04	18324100	8047	R03
09	1J005	12	1J022	01	18324100	8047	R03
08	1J006	01	1I021	09 *	18324100	8047	R03
04	1J006	01	1J004	10	18324100	8047	R03

	1J006	02	GND		18324100	8047	R03
09	1J006	07	1I022	09 *	18324100	8047	R03
03	1J006	07	1J004	09	18324100	8047	R03
03	1J006	08	1J003	09 *	18324100	8047	R03
16	1J006	12	1I040	12	18324100	8047	R03
09	1J007	01	1I023	10 *	18324100	8047	R03
04	1J007	01	1J004	08	18324100	8047	R03
09	1J007	02	1I024	10 *	18324100	8047	R03
03	1J007	02	1J004	07	18324100	8047	R03
10	1J007	07	1I025	06 *	18324100	8047	R03
03	1J007	07	1J004	06	18324100	8047	R03
04	1J007	08	1J003	08 *	18324100	8047	R03
08	1J007	12	1H003	11 *	18324100	8047	R03
16	1J007	12	1I040	11	18324100	8047	R03
06	1J008	01	1I018	12	18324100	8047	R03
	1J008	02	GND		18324100	8047	R03
26	1J008	06	1C040	09	18324100	8047	R03
07	1J008	07	1I018	11	18324100	8047	R03
04	1J008	08	1J003	07 *	18324100	8047	R03
28	1J008	12	1C040	05	18324100	8047	R03
07	1J009	01	1K012	12 *	18324100	8047	R03
09	1J009	02	1I026	02 *	18324100	8047	R03
09	1J009	07	1J027	10	18324100	8047	R03
17	1J009	08	1G035	01 *	18324100	8047	R03
11	1J009	09	1I028	01	18324100	8047	R03
10	1J009	10	1I027	05	18324100	8047	R03
23	1J009	11	1D032	07	18324100	8047	R03
24	1J009	12	1D033	01	18324100	8047	R03
07	1J011	01	1K009	11 *	18324100	8047	R03
06	1J011	02	1K008	06 *	18324100	8047	R03
12	1J011	06	1G004	04 *	18324100	8047	R03
08	1J011	07	1H018	12	18324100	8047	R03
05	1J011	08	1I012	10	18324100	8047	R03
14	1J011	08	1L038	08 *	18324100	8047	R03
17	1J011	09	1F035	09	18324100	8047	R03
04	1J011	10	1J017	07	18324100	8047	R03
04	1J011	11	1J013	01	18324100	8047	R03
08	1J011	12	1I001	05	18324100	8047	R03
07	1J012	01	1K008	12 *	18324100	8047	R03
06	1J012	02	1K009	06 *	18324100	8047	R03
09	1J012	07	1H010	01	18324100	8047	R03
11	1J012	07	1I033	08 *	18324100	8047	R03
17	1J012	08	1F034	07	18324100	8047	R03
21	1J012	09	1D016	04	18324100	8047	R03
20	1J012	10	1D015	12	18324100	8047	R03
19	1J012	11	1F040	07	18324100	8047	R03
04	1J012	12	1J014	01	18324100	8047	R03
04	1J013	01	1J011	11 *	18324100	8047	R03
05	1J013	05	1I011	06	18324100	8047	R03
21	1J013	06	1D001	02	18324100	8047	R03
23	1J013	07	1D036	04	18324100	8047	R03
22	1J013	08	1D026	01	18324100	8047	R03
24	1J013	09	1D042	03	18324100	8047	R03
11	1J013	10	1H025	01	18324100	8047	R03
12	1J013	11	1H028	01	18324100	8047	R03
12	1J013	12	1H027	01	18324100	8047	R03
04	1J014	01	1J012	12 *	18324100	8047	R03
20	1J014	06	1E034	02	18324100	8047	R03
26	1J014	07	1B009	08	18324100	8047	R03
06	1J014	08	1I013	03	18324100	8047	R03
21	1J014	09	1D032	09	18324100	8047	R03
21	1J014	10	1D032	10	18324100	8047	R03

21	1J014	11	1D032	11	18324100	8047	R03
11	1J014	12	1H026	01 *	18324100	8047	R03
04	1J015	01	1J019	05 *	18324100	8047	R03
04	1J015	02	1J018	11 *	18324100	8047	R03
10	1J015	09	1L032	01	18324100	8047	R03
08	1J015	10	1L013	08 *	18324100	8047	R03
06	1J015	11	1K021	09	18324100	8047	R03
15	1J015	12	1G037	05	18324100	8047	R03
03	1J016	01	1J018	05 *	18324100	8047	R03
04	1J016	02	1J019	11 *	18324100	8047	R03
09	1J016	03	1L013	09	18324100	8047	R03
14	1J016	03	1F011	07 *	18324100	8047	R03
04	1J016	04	1I015	12 *	18324100	8047	R03
08	1J016	05	1K003	09	18324100	8047	R03
06	1J016	06	1K012	10	18324100	8047	R03
10	1J016	07	1L024	12 *	18324100	8047	R03
04	1J016	08	1K018	02	18324100	8047	R03
09	1J016	12	1I030	07	18324100	8047	R03
06	1J017	01	1K021	08 *	18324100	8047	R03
04	1J017	02	1I018	10	18324100	8047	R03
07	1J017	03	1J004	02	18324100	8047	R03
12	1J017	04	1I041	02	18324100	8047	R03
10	1J017	05	1I036	01	18324100	8047	R03
08	1J017	06	1I029	01	18324100	8047	R03
04	1J017	07	1J011	10 *	18324100	8047	R03
21	1J017	10	1D011	03	18324100	8047	R03
20	1J017	11	1D014	10	18324100	8047	R03
22	1J017	12	1D014	02	18324100	8047	R03
06	1J018	01	1K021	04 *	18324100	8047	R03
05	1J018	04	1K021	05	18324100	8047	R03
03	1J018	05	1J016	01	18324100	8047	R03
02	1J018	06	1J019	07 *	18324100	8047	R03
03	1J018	07	1J019	12 *	18324100	8047	R03
04	1J018	11	1J015	02	18324100	8047	R03
04	1J018	12	1J019	01	18324100	8047	R03
04	1J019	01	1J018	12 *	18324100	8047	R03
07	1J019	01	1H011	12	18324100	8047	R03
04	1J019	05	1J015	01	18324100	8047	R03
05	1J019	06	1K021	06	18324100	8047	R03
11	1J019	07	1J042	09 *	18324100	8047	R03
02	1J019	07	1J018	06	18324100	8047	R03
04	1J019	11	1J016	02	18324100	8047	R03
06	1J019	12	1J030	12 *	18324100	8047	R03
03	1J019	12	1J018	07	18324100	8047	R03
26	1J020	01	1B034	03 *	18324100	8047	R03
06	1J020	01	1K023	06	18324100	8047	R03
02	1J020	04	1J021	03	18324100	8047	R03
04	1J020	05	1J024	05 *	18324100	8047	R03
22	1J020	08	1D033	03	18324100	8047	R03
04	1J020	09	1K022	04	18324100	8047	R03
06	1J020	10	1J029	08	18324100	8047	R03
09	1J020	11	1J037	07	18324100	8047	R03
09	1J020	11	1H012	08 *	18324100	8047	R03
09	1J020	12	1J036	01	18324100	8047	R03
11	1J021	01	1G024	04 *	18324100	8047	R03
12	1J021	02	1G035	06 *	18324100	8047	R03
02	1J021	03	1J020	04 *	18324100	8047	R03
08	1J021	04	1J005	11 *	18324100	8047	R03
02	1J021	04	1J022	03	18324100	8047	R03
09	1J021	05	1H011	05 *	18324100	8047	R03
05	1J021	05	1K023	05	18324100	8047	R03
	1J021	06	GND		18324100	8047	R03

06	1J021	08	1J031	11	*	18324100	8047	A03
02	1J021	08	1J022	08		18324100	8047	A03
05	1J021	09	1J028	06		18324100	8047	A03
11	1J021	09	1G017	07	*	18324100	8047	A03
04	1J021	10	1J023	01		18324100	8047	A03
04	1J021	11	1J024	01		18324100	8047	A03
13	1J021	12	1G029	02		18324100	8047	A03
09	1J022	01	1J005	12	*	18324100	8047	A03
07	1J022	01	1K023	12	*	18324100	8047	A03
02	1J022	03	1J021	04	*	18324100	8047	A03
06	1J022	04	1J031	12		18324100	8047	A03
02	1J022	06	1J023	06	*	18324100	8047	A03
05	1J022	08	1K023	10		18324100	8047	A03
02	1J022	08	1J021	08	*	18324100	8047	A03
04	1J022	09	1J028	07		18324100	8047	A03
10	1J022	10	1J042	04	*	18324100	8047	A03
06	1J022	10	1I014	09		18324100	8047	A03
06	1J022	12	1K030	07		18324100	8047	A03
04	1J023	01	1J021	10	*	18324100	8047	A03
09	1J023	02	1H011	06	*	18324100	8047	A03
03	1J023	02	1J024	04		18324100	8047	A03
02	1J023	06	1J022	06		18324100	8047	A03
09	1J023	06	1I007	02	*	18324100	8047	A03
04	1J023	07	1J027	04		18324100	8047	A03
03	1J023	08	1J025	01		18324100	8047	A03
06	1J023	09	1J032	10	*	18324100	8047	A03
06	1J023	10	1J032	03	*	18324100	8047	A03
08	1J023	11	1J039	07		18324100	8047	A03
21	1J023	12	1D032	08		18324100	8047	A03
04	1J024	01	1J021	11	*	18324100	8047	A03
03	1J024	04	1J023	02	*	18324100	8047	A03
04	1J024	05	1J020	05		18324100	8047	A03
10	1J024	06	1H014	03		18324100	8047	A03
06	1J024	06	1I028	03	*	18324100	8047	A03
21	1J024	07	1D029	03	*	18324100	8047	A03
10	1J024	12	1I007	07		18324100	8047	A03
03	1J025	01	1J023	08	*	18324100	8047	A03
	1J025	02	GND			18324100	8047	A03
12	1J025	05	1I001	04	*	18324100	8047	A03
11	1J025	06	1I004	05	*	18324100	8047	A03
12	1J025	07	1G010	12	*	18324100	8047	A03
07	1J025	08	1I013	12	*	18324100	8047	A03
12	1J025	09	1I001	10		18324100	8047	A03
13	1J025	09	1G042	10	*	18324100	8047	A03
10	1J025	10	1H039	10		18324100	8047	A03
05	1J025	11	1J032	11	*	18324100	8047	A03
11	1J025	12	1I003	11	*	18324100	8047	A03
05	1J026	01	1J032	12	*	18324100	8047	A03
10	1J026	02	1H011	04	*	18324100	8047	A03
04	1J026	02	1J032	05		18324100	8047	A03
11	1J026	04	1G029	05		18324100	8047	A03
08	1J026	05	1K012	03	*	18324100	8047	A03
10	1J026	06	1K007	02	*	18324100	8047	A03
09	1J026	08	1K008	02		18324100	8047	A03
09	1J026	09	1I011	12	*	18324100	8047	A03
08	1J026	10	1I015	06	*	18324100	8047	A03
08	1J026	12	1K012	04		18324100	8047	A03
10	1J027	01	1H041	03	*	18324100	8047	A03
03	1J027	03	1J028	06	*	18324100	8047	A03
04	1J027	04	1J023	07	*	18324100	8047	A03
02	1J027	04	1J028	05		18324100	8047	A03
20	1J027	07	1D034	09		18324100	8047	A03





03	1J032	07	1J031	05	*	18324100	8047	R03
15	1J032	09	1H005	01		18324100	8047	R03
06	1J032	10	1J023	09		18324100	8047	R03
08	1J032	10	1H037	09	*	18324100	8047	R03
05	1J032	11	1J025	11		18324100	8047	R03
10	1J032	11	1H029	02	*	18324100	8047	R03
05	1J032	12	1J026	01		18324100	8047	R03
04	1J035	01	1I032	10	*	18324100	8047	R03
05	1J035	02	1K031	01		18324100	8047	R03
23	1J035	02	1C024	07	*	18324100	8047	R03
04	1J035	03	1J040	04		18324100	8047	R03
05	1J035	04	1I034	03		18324100	8047	R03
05	1J035	06	1K029	01		18324100	8047	R03
23	1J035	06	1C024	09	*	18324100	8047	R03
04	1J035	10	1J040	12	*	18324100	8047	R03
09	1J036	01	1J020	12	*	18324100	8047	R03
08	1J036	02	1K024	04	*	18324100	8047	R03
12	1J036	06	1G029	01		18324100	8047	R03
14	1J036	07	1K008	11	*	18324100	8047	R03
13	1J036	08	1K009	05	*	18324100	8047	R03
14	1J036	11	1F037	11	*	18324100	8047	R03
16	1J036	11	1I003	01		18324100	8047	R03
25	1J036	12	1C017	07		18324100	8047	R03
10	1J037	01	1G029	10		18324100	8047	R03
14	1J037	03	1G017	04		18324100	8047	R03
23	1J037	04	1C028	05	*	18324100	8047	R03
23	1J037	05	1C033	05	*	18324100	8047	R03
03	1J037	05	1J037	11		18324100	8047	R03
02	1J037	06	1J038	07		18324100	8047	R03
24	1J037	06	1C032	03	*	18324100	8047	R03
09	1J037	07	1J020	11	*	18324100	8047	R03
04	1J037	09	1J031	06		18324100	8047	R03
09	1J037	09	1H040	05	*	18324100	8047	R03
24	1J037	10	1C029	05	*	18324100	8047	R03
10	1J037	11	1K019	07		18324100	8047	R03
03	1J037	11	1J037	05	*	18324100	8047	R03
09	1J037	12	1K019	04		18324100	8047	R03
03	1J037	12	1J038	03	*	18324100	8047	R03
22	1J038	01	1C028	11	*	18324100	8047	R03
23	1J038	03	1C033	06	*	18324100	8047	R03
03	1J038	03	1J037	12		18324100	8047	R03
03	1J038	04	1J038	08		18324100	8047	R03
23	1J038	04	1C032	04	*	18324100	8047	R03
22	1J038	05	1C029	11	*	18324100	8047	R03
10	1J038	07	1K019	01		18324100	8047	R03
02	1J038	07	1J037	06	*	18324100	8047	R03
09	1J038	08	1L027	07		18324100	8047	R03
03	1J038	08	1J038	04	*	18324100	8047	R03
13	1J038	09	1G024	05	*	18324100	8047	R03
13	1J038	11	1G027	01		18324100	8047	R03
08	1J038	12	1I028	03		18324100	8047	R03
16	1J039	01	1I005	06	*	18324100	8047	R03
14	1J039	03	1G016	07		18324100	8047	R03
17	1J039	04	1E036	07		18324100	8047	R03
16	1J039	05	1J005	03	*	18324100	8047	R03
07	1J039	05	1H039	11		18324100	8047	R03
07	1J039	06	1H039	12	*	18324100	8047	R03
08	1J039	07	1J023	11	*	18324100	8047	R03
08	1J039	10	1I027	06		18324100	8047	R03
15	1J039	11	1F032	07		18324100	8047	R03
16	1J039	12	1F032	01		18324100	8047	R03
10	1J040	01	1G033	12		18324100	8047	R03

16	1J040	02	1K007	01	18324100	8047	B06
14	1J040	03	1K012	01	18324100	8047	B06
04	1J040	04	1J035	03 *	18324100	8047	B06
02	1J040	06	1J040	07 *	18324100	8047	B06
23	1J040	07	1C024	12 *	18324100	8047	B06
02	1J040	07	1J040	06	18324100	8047	B06
12	1J040	09	1G028	07	18324100	8047	B06
11	1J040	10	1G035	12 *	18324100	8047	B06
08	1J040	10	1L038	09	18324100	8047	B06
11	1J042	01	1L026	02	18324100	8047	B06
11	1J042	02	1L026	06	18324100	8047	B06
09	1J042	03	1L038	10	18324100	8047	B06
10	1J042	04	1J022	10	18324100	8047	B06
02	1J042	05	1J042	06	18324100	8047	B06
13	1J042	05	1I014	10 *	18324100	8047	B06
02	1J042	06	1J042	08	18324100	8047	B06
02	1J042	06	1J042	05 *	18324100	8047	B06
11	1J042	07	1K021	02	18324100	8047	B06
02	1J042	08	1J042	06 *	18324100	8047	B06
11	1J042	09	1J019	07	18324100	8047	B06
18	1J042	10	1L005	04	18324100	8047	B06
09	1J042	11	1L029	06	18324100	8047	B06
09	1K001	01	1L015	03 *	18324100	8047	B06
09	1K001	02	1L015	06 *	18324100	8047	B06
11	1K001	05	1H011	09 *	18324100	8047	B06
08	1K001	06	1L015	07	18324100	8047	B06
05	1K001	07	1L005	04 *	18324100	8047	B06
	1K001	08	GND		18324100	8047	B06
15	1K001	10	1L032	07	18324100	8047	B06
11	1K001	11	1I015	07	18324100	8047	B06
11	1K001	12	1I016	05	18324100	8047	B06
04	1K003	01	1K003	12 *	18324100	8047	B06
03	1K003	02	1K005	01 *	18324100	8047	B06
03	1K003	03	1K004	07 *	18324100	8047	B06
03	1K003	04	1K004	01	18324100	8047	B06
05	1K003	04	1L008	02 *	18324100	8047	B06
03	1K003	05	1K003	11 *	18324100	8047	B06
03	1K003	06	1K006	07 *	18324100	8047	B06
04	1K003	07	1K006	01 *	18324100	8047	B06
03	1K003	08	1K005	07 *	18324100	8047	B06
08	1K003	09	1J016	05 *	18324100	8047	B06
07	1K003	09	1L013	10	18324100	8047	B06
03	1K003	11	1K003	05	18324100	8047	B06
04	1K003	12	1K003	01	18324100	8047	B06
03	1K004	01	1K003	04 *	18324100	8047	B06
	1K004	02	GND		18324100	8047	B06
02	1K004	04	1K005	04 *	18324100	8047	B06
04	1K004	04	1K006	12	18324100	8047	B06
03	1K004	05	1K006	04 *	18324100	8047	B06
03	1K004	05	1K005	12	18324100	8047	B06
02	1K004	06	1K005	06 *	18324100	8047	B06
03	1K004	06	1K006	06	18324100	8047	B06
05	1K004	07	1L007	08 *	18324100	8047	B06
03	1K004	07	1K003	03	18324100	8047	B06
13	1K004	08	1I027	12 *	18324100	8047	B06
02	1K004	11	1K005	11 *	18324100	8047	B06
04	1K004	11	1K006	03	18324100	8047	B06
03	1K004	12	1K006	05 *	18324100	8047	B06
06	1K005	01	1L008	08 *	18324100	8047	B06
03	1K005	01	1K003	02	18324100	8047	B06
	1K005	02	GND		18324100	8047	B06

12	1K005	04	1J030	11	*	18324100	8047	B03
02	1K005	04	1K004	04		18324100	8047	B03
12	1K005	05	1J030	08	*	18324100	8047	B03
02	1K005	05	1K006	05		18324100	8047	B03
12	1K005	06	1J030	07	*	18324100	8047	B03
02	1K005	06	1K004	06		18324100	8047	B03
06	1K005	07	1L009	08	*	18324100	8047	B03
03	1K005	07	1K003	08		18324100	8047	B03
12	1K005	08	1I027	11	*	18324100	8047	B03
12	1K005	11	1J030	10	*	18324100	8047	B03
02	1K005	11	1K004	11		18324100	8047	B03
03	1K005	12	1K004	05	*	18324100	8047	B03
06	1K006	01	1L010	02	*	18324100	8047	B03
04	1K006	01	1K003	07		18324100	8047	B03
	1K006	02	GND			18324100	8047	B03
04	1K006	03	1K004	11	*	18324100	8047	B03
12	1K006	04	1J030	09	*	18324100	8047	B03
03	1K006	04	1K004	05		18324100	8047	B03
03	1K006	05	1K004	12		18324100	8047	B03
02	1K006	05	1K005	05	*	18324100	8047	B03
03	1K006	06	1K004	06	*	18324100	8047	B03
06	1K006	07	1L011	08	*	18324100	8047	B03
03	1K006	07	1K003	06		18324100	8047	B03
12	1K006	08	1I027	10	*	18324100	8047	B03
04	1K006	12	1K004	04	*	18324100	8047	B03
16	1K007	01	1J040	02	*	18324100	8047	B03
10	1K007	02	1J026	06		18324100	8047	B03
08	1K007	03	1I003	04	*	18324100	8047	B03
09	1K007	04	1I013	01		18324100	8047	B03
09	1K007	05	1K025	05	*	18324100	8047	B03
08	1K007	06	1I009	05	*	18324100	8047	B03
03	1K007	07	1K008	10	*	18324100	8047	B03
03	1K007	08	1K009	01		18324100	8047	B03
03	1K007	09	1K008	04	*	18324100	8047	B03
03	1K007	10	1K009	07		18324100	8047	B03
03	1K007	11	1K009	09	*	18324100	8047	B03
03	1K007	12	1K008	07		18324100	8047	B03
09	1K008	01	1K025	12	*	18324100	8047	B03
09	1K008	02	1J026	08	*	18324100	8047	B03
03	1K008	04	1K007	09		18324100	8047	B03
14	1K008	05	1I036	08		18324100	8047	B03
06	1K008	06	1J011	02		18324100	8047	B03
03	1K008	07	1K007	12	*	18324100	8047	B03
	1K008	08	GND			18324100	8047	B03
03	1K008	10	1K007	07		18324100	8047	B03
14	1K008	11	1J036	07		18324100	8047	B03
07	1K008	12	1J012	01		18324100	8047	B03
03	1K009	01	1K007	08	*	18324100	8047	B03
29	1K009	04	1B009	01		18324100	8047	B03
13	1K009	05	1J036	08		18324100	8047	B03
06	1K009	06	1J012	02		18324100	8047	B03
03	1K009	07	1K007	10	*	18324100	8047	B03
03	1K009	09	1K007	11		18324100	8047	B03
15	1K009	10	1I036	07		18324100	8047	B03
07	1K009	11	1J011	01		18324100	8047	B03
19	1K009	12	1G037	06		18324100	8047	B03
06	1K011	01	1K022	01		18324100	8047	B03
06	1K011	02	1K022	02		18324100	8047	B03
06	1K011	03	1K022	07		18324100	8047	B03
06	1K011	04	1K022	08		18324100	8047	B03
07	1K011	05	1K023	01		18324100	8047	B03
07	1K011	06	1K023	02		18324100	8047	B03

07	1K011	07	1K023	07	18324100	8047	B03
07	1K011	08	1K023	08	18324100	8047	B03
14	1K012	01	1J040	03 *	18324100	8047	B03
08	1K012	03	1J026	05	18324100	8047	B03
08	1K012	04	1J026	12 *	18324100	8047	B03
05	1K012	05	1L012	07	18324100	8047	B03
06	1K012	06	1K021	01	18324100	8047	B03
06	1K012	10	1J016	06 *	18324100	8047	B03
08	1K012	11	1J017	10	18324100	8047	B03
07	1K012	12	1J009	01	18324100	8047	B03
06	1K013	01	1K024	01	18324100	8047	B03
06	1K013	02	1K024	02	18324100	8047	B03
07	1K013	05	1K025	01 *	18324100	8047	B03
07	1K013	06	1K025	02 *	18324100	8047	B03
07	1K013	07	1K025	07	18324100	8047	B03
07	1K013	08	1K025	08	18324100	8047	B03
09	1K018	01	1L005	11 *	18324100	8047	B03
08	1K018	01	1J030	12	18324100	8047	B03
07	1K018	02	1J030	05	18324100	8047	B03
04	1K018	02	1J016	08 *	18324100	8047	B03
06	1K018	03	1L024	07	18324100	8047	B03
07	1K018	04	1L029	01	18324100	8047	B03
03	1K018	05	1K018	11 *	18324100	8047	B03
07	1K018	05	1J020	09	18324100	8047	B03
09	1K018	06	1J026	03	18324100	8047	B03
08	1K018	07	1J017	04	18324100	8047	B03
09	1K018	07	1L033	06 *	18324100	8047	B03
08	1K018	08	1J026	12 *	18324100	8047	B03
09	1K018	09	1L002	12 *	18324100	8047	B03
05	1K018	10	1L013	07	18324100	8047	B03
03	1K018	11	1K018	05	18324100	8047	B03
05	1K018	12	1L015	10	18324100	8047	B03
10	1K019	01	1J038	07 *	18324100	8047	B03
09	1K019	02	1K037	01	18324100	8047	B03
08	1K019	03	1K035	05	18324100	8047	B03
09	1K019	04	1J037	12 *	18324100	8047	B03
09	1K019	05	1K037	05	18324100	8047	B03
08	1K019	06	1K035	09	18324100	8047	B03
10	1K019	07	1J037	11 *	18324100	8047	B03
09	1K019	08	1K037	09	18324100	8047	B03
09	1K019	09	1K036	01	18324100	8047	B03
26	1K019	10	1C019	10	18324100	8047	B03
10	1K019	11	1K038	01	18324100	8047	B03
09	1K019	12	1K036	05	18324100	8047	B03
11	1K020	01	1H012	07 *	18324100	8047	B03
08	1K020	02	1K036	06	18324100	8047	B03
08	1K020	03	1K036	02	18324100	8047	B03
08	1K020	04	1K035	10	18324100	8047	B03
08	1K020	05	1K035	06	18324100	8047	B03
08	1K020	06	1K035	02	18324100	8047	B03
12	1K020	07	1H012	06	18324100	8047	B03
09	1K020	08	1K038	02	18324100	8047	B03
09	1K020	09	1K037	10	18324100	8047	B03
09	1K020	10	1K037	06	18324100	8047	B03
09	1K020	11	1K037	02	18324100	8047	B03
08	1K020	12	1K036	10	18324100	8047	B03
06	1K021	01	1K012	06 *	18324100	8047	B03
11	1K021	02	1J042	07 *	18324100	8047	B03
07	1K021	02	1L012	09	18324100	8047	B03
06	1K021	04	1J018	01	18324100	8047	B03
05	1K021	05	1J018	04 *	18324100	8047	B03
05	1K021	06	1J019	06 *	18324100	8047	B03

06	1K021	08	1J017	01
06	1K021	09	1J015	11 *
07	1K021	10	1L032	06 *
03	1K021	11	1L020	01
09	1K021	12	1I015	08
06	1K022	01	1K011	01 *
06	1K022	02	1K011	02 *
03	1K022	04	1K024	05
04	1K022	04	1J020	09 *
13	1K022	05	1G027	10
03	1K022	06	1K024	06 *
06	1K022	07	1K011	03 *
06	1K022	08	1K011	04 *
14	1K022	12	1G022	10
07	1K023	01	1K011	05 *
07	1K023	02	1K011	06 *
03	1K023	04	1K023	11
06	1K023	04	1J028	01 *
05	1K023	05	1J021	05 *
06	1K023	06	1J020	01 *
07	1K023	07	1K011	07 *
07	1K023	08	1K011	08 *
05	1K023	10	1J022	08 *
03	1K023	11	1K023	04 *
07	1K023	12	1J022	01 *
06	1K024	01	1K013	01 *
06	1K024	02	1K013	02 *
11	1K024	04	1H011	11 *
08	1K024	04	1J036	02
03	1K024	05	1K022	04 *
13	1K024	06	1G022	12 *
03	1K024	06	1K022	06
07	1K025	01	1K013	05
07	1K025	02	1K013	06
09	1K025	05	1K007	05
10	1K025	06	1H029	12
07	1K025	07	1K013	07 *
07	1K025	08	1K013	08 *
09	1K025	12	1K008	01
10	1K026	01	1I011	08 *
11	1K026	07	1H035	12 *

11	1K027	07	1H035	10 *
11	1K028	01	1I012	03 *
10	1K028	01	1H035	09
12	1K028	07	1I007	11 *
05	1K029	01	1J035	06 *
08	1K029	07	1I032	09
10	1K030	01	1I014	12 *
06	1K030	07	1J022	12 *
05	1K031	01	1J035	02 *
04	1K031	01	1J027	12
07	1K035	01	1L027	09 *
08	1K035	02	1K020	06 *
	1K035	03	GND	
08	1K035	05	1K019	03 *
08	1K035	06	1K020	05 *
	1K035	07	GND	
08	1K035	09	1K019	06 *
08	1K035	10	1K020	04 *
	1K035	11	GND	

03	1K032	05	1K033	01
03	1K032	09	1K033	02
03	1K032	02	1K033	11
11	1K032	10	1H035	11
14	1K032	10	1I009	02
02	1K033	09	1K033	10
02	1K033	10	1K033	9
03	1K033	01	1K032	5
03	1K033	02	1K032	09
03	1K033	11	1K032	02

09	1K036	01	1K019	09 *	18324100	8047	B03
08	1K036	02	1K020	03 *	18324100	8047	B03
	1K036	03	GND		18324100	8047	B03
09	1K036	05	1K019	12 *	18324100	8047	B03
08	1K036	06	1K020	02 *	18324100	8047	B03
	1K036	07	GND		18324100	8047	B03
07	1K036	09	1L027	08 *	18324100	8047	B03
08	1K036	10	1K020	12 *	18324100	8047	B03
	1K036	11	GND		18324100	8047	B03
09	1K037	01	1K019	02 *	18324100	8047	B03
09	1K037	02	1K020	11 *	18324100	8047	B03
	1K037	03	GND		18324100	8047	B03
09	1K037	05	1K019	05 *	18324100	8047	B03
09	1K037	06	1K020	10 *	18324100	8047	B03
	1K037	07	GND		18324100	8047	B03
09	1K037	09	1K019	08 *	18324100	8047	B03
09	1K037	10	1K020	09 *	18324100	8047	B03
	1K037	11	GND		18324100	8047	B03
10	1K038	01	1K019	11 *	18324100	8047	B03
09	1K038	02	1K020	08 *	18324100	8047	B03
	1K038	03	GND		18324100	8047	B03
06	1K038	05	1J030	10	18324100	8047	B03
	1K038	06	GND		18324100	8047	B03
	1K038	07	GND		18324100	8047	B03
06	1K038	09	1J030	11	18324100	8047	B03
	1K038	10	GND		18324100	8047	B03
	1K038	11	GND		18324100	8047	B03
23	1K039	01	1D022	10 *	18324100	8047	B03
	1K039	02	GND		18324100	8047	B03
	1K039	03	GND		18324100	8047	B03
22	1K039	05	1D030	11 *	18324100	8047	B03
	1K039	06	GND		18324100	8047	B03
	1K039	07	GND		18324100	8047	B03
24	1K039	09	1D019	11 *	18324100	8047	B03
	1K039	10	GND		18324100	8047	B03
	1K039	11	GND		18324100	8047	B03
25	1K040	01	1D010	11 *	18324100	8047	B03
	1K040	02	GND		18324100	8047	B03
	1K040	03	GND		18324100	8047	B03
20	1K040	05	1E030	11 *	18324100	8047	B03
	1K040	06	GND		18324100	8047	B03
	1K040	07	GND		18324100	8047	B03
25	1K040	09	1E005	11 *	18324100	8047	B03
	1K040	10	GND		18324100	8047	B03
	1K040	11	GND		18324100	8047	B03
23	1K041	01	1E010	11 *	18324100	8047	B03
	1K041	02	GND		18324100	8047	B03
	1K041	03	GND		18324100	8047	B03
25	1K041	05	1E002	11 *	18324100	8047	B03
	1K041	06	GND		18324100	8047	B03
	1K041	07	GND		18324100	8047	B03
07	1K042	01	1J030	07	18324100	8047	B03
	1K042	02	GND		18324100	8047	B03
	1K042	03	GND		18324100	8047	B03
07	1K042	05	1J030	08	18324100	8047	B03
	1K042	06	GND		18324100	8047	B03
	1K042	07	GND		18324100	8047	B03
08	1K042	09	1J030	09	18324100	8047	B03
	1K042	10	GND		18324100	8047	B03
	1K042	11	GND		18324100	8047	B03
23	1L001	03	1E008	03	18324100	8047	B03
04	1L001	04	1L007	01	18324100	8047	B03

24	1L001	07	1E011	03	18324100	8047	B03
05	1L001	08	1L009	01	18324100	8047	B03
25	1L001	11	1E014	02	18324100	8047	B03
06	1L001	12	1L011	01	18324100	8047	B03
24	1L002	03	1E019	03	18324100	8047	B03
05	1L002	04	1L010	07	18324100	8047	B03
25	1L002	07	1E022	01	18324100	8047	B03
07	1L002	08	1L013	01	18324100	8047	B03
26	1L002	11	1E023	01	18324100	8047	B03
09	1L002	12	1K018	09	18324100	8047	B03
26	1L003	03	1E038	12	18324100	8047	B03
06	1L003	04	1L014	09	18324100	8047	B03
21	1L003	07	1F010	04	18324100	8047	B03
07	1L003	08	1L014	01	18324100	8047	B03
21	1L003	11	1F002	03	18324100	8047	B03
06	1L003	12	1L014	07	18324100	8047	B03
20	1L004	03	1F006	04	18324100	8047	B03
03	1L004	04	1L004	12	18324100	8047	B03
06	1L004	04	1L015	01	★ 18324100	8047	B03
21	1L004	07	1F008	02	18324100	8047	B03
03	1L004	08	1L004	12	★ 18324100	8047	B03
22	1L004	11	1F012	02	18324100	8047	B03
03	1L004	12	1L004	04	★ 18324100	8047	B03
03	1L004	12	1L004	08	18324100	8047	B03
06	1L005	03	1L015	09	★ 18324100	8047	B03
11	1L005	03	1I016	07	18324100	8047	B03
18	1L005	04	1J042	10	★ 18324100	8047	B03
05	1L005	04	1K001	07	18324100	8047	B03
09	1L005	08	1L022	01	18324100	8047	B03
09	1L005	11	1K018	01	18324100	8047	B03
09	1L005	12	1L023	01	18324100	8047	B03
15	1L006	04	1H012	02	18324100	8047	B03
04	1L007	01	1L001	04	★ 18324100	8047	B03
03	1L007	07	1L008	01	18324100	8047	B03
05	1L007	08	1K004	07	18324100	8047	B03
14	1L007	09	1I025	07	18324100	8047	B03
14	1L007	10	1I024	01	18324100	8047	B03
14	1L007	11	1I022	01	18324100	8047	B03
14	1L007	12	1I020	01	18324100	8047	B03
03	1L008	01	1L007	07	★ 18324100	8047	B03
05	1L008	02	1K003	04	18324100	8047	B03
14	1L008	03	1I025	01	18324100	8047	B03
13	1L008	04	1I023	01	18324100	8047	B03
13	1L008	05	1I021	01	18324100	8047	B03
13	1L008	06	1I019	01	18324100	8047	B03
02	1L008	07	1L009	07	★ 18324100	8047	B03
06	1L008	08	1K005	01	18324100	8047	B03
14	1L008	09	1I024	02	18324100	8047	B03
14	1L008	10	1I023	02	18324100	8047	B03
13	1L008	11	1I020	02	18324100	8047	B03
13	1L008	12	1I019	02	18324100	8047	B03
05	1L009	01	1L001	08	★ 18324100	8047	B03
02	1L009	07	1L008	07	18324100	8047	B03
06	1L009	08	1K005	07	18324100	8047	B03
13	1L009	09	1I025	08	18324100	8047	B03
14	1L009	10	1I025	02	18324100	8047	B03
14	1L009	11	1I022	02	18324100	8047	B03
14	1L009	12	1I021	02	18324100	8047	B03
03	1L010	01	1L011	07	★ 18324100	8047	B03
06	1L010	02	1K006	01	18324100	8047	B03
12	1L010	03	1I022	03	18324100	8047	B03
12	1L010	04	1I021	03	18324100	8047	B03

12	1L010	05	1I020	03	18324100	8047	B03
12	1L010	06	1I019	03	18324100	8047	B03
05	1L010	07	1L002	04 *	18324100	8047	B03
04	1L010	10	1L012	01	18324100	8047	B03
12	1L010	11	1I018	05	18324100	8047	B03
13	1L010	12	1I017	05	18324100	8047	B03
06	1L011	01	1L001	12 *	18324100	8047	B03
03	1L011	07	1L010	01	18324100	8047	B03
06	1L011	08	1K006	07	18324100	8047	B03
13	1L011	09	1I025	09	18324100	8047	B03
14	1L011	10	1I025	03	18324100	8047	B03
14	1L011	11	1I024	03	18324100	8047	B03
13	1L011	12	1I023	03	18324100	8047	B03
04	1L012	01	1L010	10 *	18324100	8047	B03
11	1L012	02	1I018	01	18324100	8047	B03
12	1L012	03	1I017	01	18324100	8047	B03
02	1L012	04	1L013	04 *	18324100	8047	B03
11	1L012	05	1I017	06	18324100	8047	B03
12	1L012	06	1I017	02	18324100	8047	B03
05	1L012	07	1K012	05 *	18324100	8047	B03
07	1L012	09	1K021	02 *	18324100	8047	B03
08	1L012	10	1L027	12 *	18324100	8047	B03
03	1L012	12	1L015	10 *	18324100	8047	B03
07	1L013	01	1L002	08 *	18324100	8047	B03
02	1L013	04	1L012	04	18324100	8047	B03
11	1L013	05	1I018	06	18324100	8047	B03
12	1L013	06	1I018	02	18324100	8047	B03
05	1L013	07	1K018	10 *	18324100	8047	B03
08	1L013	08	1J015	10	18324100	8047	B03
09	1L013	08	1L031	01 *	18324100	8047	B03
09	1L013	09	1J016	03 *	18324100	8047	B03
07	1L013	10	1K003	09 *	18324100	8047	B03
10	1L013	11	1L033	02	18324100	8047	B03
15	1L013	12	1H001	09	18324100	8047	B03
07	1L014	01	1L003	08 *	18324100	8047	B03
02	1L014	02	1L014	04	18324100	8047	B03
02	1L014	03	1L015	04 *	18324100	8047	B03
02	1L014	04	1L014	02 *	18324100	8047	B03
06	1L014	07	1L003	12 *	18324100	8047	B03
02	1L014	08	1L014	10	18324100	8047	B03
06	1L014	09	1L003	04 *	18324100	8047	B03
03	1L014	09	1L015	04	18324100	8047	B03
02	1L014	10	1L014	08 *	18324100	8047	B03
06	1L015	01	1L004	04	18324100	8047	B03
09	1L015	03	1K001	01	18324100	8047	B03
03	1L015	04	1L014	09 *	18324100	8047	B03
02	1L015	04	1L014	03	18324100	8047	B03
09	1L015	06	1K001	02	18324100	8047	B03
08	1L015	07	1K001	06 *	18324100	8047	B03
06	1L015	09	1L005	03	18324100	8047	B03
08	1L015	09	1L031	07 *	18324100	8047	B03
05	1L015	10	1K018	12 *	18324100	8047	B03
03	1L015	10	1L012	12	18324100	8047	B03
12	1L015	12	1I011	09	18324100	8047	B03
16	1L016	01	1G023	12 *	18324100	8047	B03
06	1L016	01	1L024	11	18324100	8047	B03
22	1L016	02	1E009	08 *	18324100	8047	B03
08	1L016	02	1L030	06	18324100	8047	B03
	1L016	03	GND		18324100	8047	B03
18	1L016	05	1G026	05 *	18324100	8047	B03
05	1L016	05	1L024	10	18324100	8047	B03
23	1L016	06	1E012	08 *	18324100	8047	B03



08	1L016	06	1L030	05	18324100	8047	R03
	1L016	07	GND		18324100	8047	R03
07	1L016	09	1L029	12	18324100	8047	R03
23	1L016	10	1E015	08 *	18324100	8047	R03
08	1L016	10	1L030	04	18324100	8047	R03
	1L016	11	GND		18324100	8047	R03
15	1L017	01	1G018	12 *	18324100	8047	R03
05	1L017	01	1L024	09	18324100	8047	R03
22	1L017	02	1E020	08 *	18324100	8047	R03
07	1L017	02	1L030	03	18324100	8047	R03
	1L017	03	GND		18324100	8047	R03
16	1L017	05	1G017	11 *	18324100	8047	R03
07	1L017	05	1L029	11	18324100	8047	R03
22	1L017	06	1E022	12 *	18324100	8047	R03
07	1L017	06	1L028	12	18324100	8047	R03
	1L017	07	GND		18324100	8047	R03
18	1L017	09	1G021	05 *	18324100	8047	R03
07	1L017	09	1L029	10	18324100	8047	R03
23	1L017	10	1E023	12 *	18324100	8047	R03
06	1L017	10	1L028	11	18324100	8047	R03
	1L017	11	GND		18324100	8047	R03
24	1L018	01	1E040	08 *	18324100	8047	R03
06	1L018	01	1L028	10	18324100	8047	R03
	1L018	02	GND		18324100	8047	R03
	1L018	03	GND		18324100	8047	R03
21	1L018	05	1F001	08 *	18324100	8047	R03
06	1L018	05	1L028	09	18324100	8047	R03
	1L018	06	GND		18324100	8047	R03
	1L018	07	GND		18324100	8047	R03
17	1L018	09	1G015	12 *	18324100	8047	R03
06	1L018	09	1L029	09	18324100	8047	R03
21	1L018	10	1F003	08 *	18324100	8047	R03
06	1L018	10	1L028	08	18324100	8047	R03
	1L018	11	GND		18324100	8047	R03
16	1L019	01	1G015	06 *	18324100	8047	R03
06	1L019	01	1L029	08	18324100	8047	R03
20	1L019	02	1F007	08 *	18324100	8047	R03
06	1L019	02	1L028	07	18324100	8047	R03
	1L019	03	GND		18324100	8047	R03
16	1L019	05	1G016	12 *	18324100	8047	R03
06	1L019	05	1L029	07	18324100	8047	R03
20	1L019	06	1F008	12 *	18324100	8047	R03
06	1L019	06	1L028	06	18324100	8047	R03
	1L019	07	GND		18324100	8047	R03
20	1L019	09	1F012	12 *	18324100	8047	R03
06	1L019	09	1L028	05	18324100	8047	R03
	1L019	10	GND		18324100	8047	R03
	1L019	11	GND		18324100	8047	R03
03	1L020	01	1K021	11 *	18324100	8047	R03
22	1L020	02	1E031	12 *	18324100	8047	R03
03	1L020	02	1L022	05	18324100	8047	R03
	1L020	03	GND		18324100	8047	R03
23	1L020	05	1E031	11 *	18324100	8047	R03
04	1L020	05	1L025	07	18324100	8047	R03
06	1L020	06	1L029	06 *	18324100	8047	R03
	1L020	07	GND		18324100	8047	R03
	1L020	09	GND		18324100	8047	R03
	1L020	10	GND		18324100	8047	R03
	1L020	11	GND		18324100	8047	R03
04	1L021	01	1L022	11 *	18324100	8047	R03
	1L021	02	GND		18324100	8047	R03
	1L021	03	GND		18324100	8047	R03

17	1L021	05	1G015	05	*	18324100	8047	B03
	1L021	06	GND			18324100	8047	B03
	1L021	07	GND			18324100	8047	B03
09	1L022	01	1L005	08	*	18324100	8047	B03
06	1L022	01	1L031	12		18324100	8047	B03
03	1L022	02	1L023	05	*	18324100	8047	B03
02	1L022	03	1L022	04		18324100	8047	B03
02	1L022	04	1L022	03	*	18324100	8047	B03
03	1L022	05	1L020	02	*	18324100	8047	B03
17	1L022	06	1G028	06		18324100	8047	B03
03	1L022	07	1L025	12	*	18324100	8047	B03
04	1L022	09	1L026	06	*	18324100	8047	B03
17	1L022	10	1G015	09	*	18324100	8047	B03
04	1L022	11	1L021	01		18324100	8047	B03
17	1L022	12	1H038	02		18324100	8047	B03
09	1L023	01	1L005	12	*	18324100	8047	B03
06	1L023	01	1L031	11		18324100	8047	B03
03	1L023	05	1L022	02		18324100	8047	B03
08	1L023	05	1L038	01	*	18324100	8047	B03
03	1L023	06	1L025	01		18324100	8047	B03
08	1L024	01	1L038	12	*	18324100	8047	B03
16	1L024	03	1G026	12		18324100	8047	B03
10	1L024	04	1I016	12		18324100	8047	B03
03	1L024	05	1L026	09		18324100	8047	B03
03	1L024	06	1L026	02	*	18324100	8047	B03
06	1L024	07	1K018	03	*	18324100	8047	B03
05	1L024	09	1L017	01	*	18324100	8047	B03
05	1L024	10	1L016	05	*	18324100	8047	B03
06	1L024	11	1L016	01	*	18324100	8047	B03
10	1L024	12	1J016	07		18324100	8047	B03
03	1L025	01	1L023	06	*	18324100	8047	B03
04	1L025	07	1L020	05	*	18324100	8047	B03
11	1L025	08	1I030	11		18324100	8047	B03
11	1L025	09	1I033	11		18324100	8047	B03
04	1L025	10	1L030	12	*	18324100	8047	B03
03	1L025	11	1L026	05		18324100	8047	B03
03	1L025	12	1L022	07		18324100	8047	B03
07	1L026	01	1L038	11	*	18324100	8047	B03
11	1L026	02	1J042	01	*	18324100	8047	B03
03	1L026	02	1L024	06		18324100	8047	B03
23	1L026	03	1E033	05		18324100	8047	B03
17	1L026	04	1G039	10	*	18324100	8047	B03
03	1L026	05	1L025	11	*	18324100	8047	B03
11	1L026	06	1J042	02	*	18324100	8047	B03
04	1L026	06	1L022	09		18324100	8047	B03
23	1L026	07	1E034	08		18324100	8047	B03
11	1L026	08	1I033	10		18324100	8047	B03
03	1L026	09	1L024	05	*	18324100	8047	B03
07	1L026	10	1L038	10	*	18324100	8047	B03
18	1L026	12	1G032	08		18324100	8047	B03
11	1L027	01	1I030	04	*	18324100	8047	B03
04	1L027	01	1L030	12		18324100	8047	B03
03	1L027	02	1L030	01		18324100	8047	B03
03	1L027	03	1L028	01		18324100	8047	B03
09	1L027	07	1J038	08	*	18324100	8047	B03
07	1L027	08	1K036	09		18324100	8047	B03
07	1L027	09	1K035	01		18324100	8047	B03
12	1L027	10	1I026	04	*	18324100	8047	B03
08	1L027	12	1L012	10		18324100	8047	B03
18	1L027	12	1G039	09	*	18324100	8047	B03
03	1L028	01	1L027	03	*	18324100	8047	B03
06	1L028	05	1L019	09	*	18324100	8047	B03

06	1L028	06	1L019	06	*	18324100	8047	B06
06	1L028	07	1L019	02	*	18324100	8047	B06
06	1L028	08	1L018	10	*	18324100	8047	B06
06	1L028	09	1L018	05	*	18324100	8047	B06
06	1L028	10	1L018	01	*	18324100	8047	B06
06	1L028	11	1L017	10	*	18324100	8047	B06
07	1L028	12	1L017	06	*	18324100	8047	B06
07	1L029	01	1K018	04	*	18324100	8047	B06
09	1L029	06	1J042	11	*	18324100	8047	B06
06	1L029	06	1L020	06		18324100	8047	B06
06	1L029	07	1L019	05	*	18324100	8047	B06
06	1L029	08	1L019	01	*	18324100	8047	B06
06	1L029	09	1L018	09	*	18324100	8047	B06
07	1L029	10	1L017	09	*	18324100	8047	B06
07	1L029	11	1L017	05	*	18324100	8047	B06
17	1L029	12	1G035	11		18324100	8047	B06
07	1L029	12	1L016	09	*	18324100	8047	B06
03	1L030	01	1L027	02	*	18324100	8047	B06
07	1L030	03	1L017	02	*	18324100	8047	B06
08	1L030	04	1L016	10	*	18324100	8047	B06
08	1L030	05	1L016	06	*	18324100	8047	B06
08	1L030	06	1L016	02	*	18324100	8047	B06
02	1L030	07	1L031	06	*	18324100	8047	B06
33	1L030	11	1H017	09		18324100	8047	B06
04	1L030	12	1L025	10		18324100	8047	B06
04	1L030	12	1L027	01	*	18324100	8047	B06
09	1L031	01	1L013	08		18324100	8047	B06
	1L031	02	GND			18324100	8047	B06
02	1L031	06	1L030	07		18324100	8047	B06
03	1L031	07	1L032	04	*	18324100	8047	B06
08	1L031	07	1L015	09		18324100	8047	B06
18	1L031	08	1G039	05	*	18324100	8047	B06
12	1L031	11	1I030	05		18324100	8047	B06
06	1L031	11	1L023	01	*	18324100	8047	B06
12	1L031	12	1I030	06		18324100	8047	B06
06	1L031	12	1L022	01	*	18324100	8047	B06
10	1L032	01	1J015	09	*	18324100	8047	B06
03	1L032	04	1L031	07		18324100	8047	B06
13	1L032	05	1I016	08		18324100	8047	B06
07	1L032	06	1K021	10		18324100	8047	B06
15	1L032	07	1K001	10	*	18324100	8047	B06
13	1L033	01	1I015	05	*	18324100	8047	B06
10	1L033	02	1L013	11	*	18324100	8047	B06
12	1L033	03	1I027	01		18324100	8047	B06
11	1L033	04	1I026	09		18324100	8047	B06
11	1L033	05	1I026	05		18324100	8047	B06
09	1L033	06	1K018	07		18324100	8047	B06
14	1L034	01	1H040	04	*	18324100	8047	B06
03	1L034	07	1L037	10		18324100	8047	B06
03	1L034	08	1L037	04		18324100	8047	B06
03	1L034	09	1L036	10		18324100	8047	B06
03	1L034	10	1L036	04		18324100	8047	B06
02	1L034	11	1L035	10		18324100	8047	B06
03	1L034	12	1L035	04		18324100	8047	B06
17	1L035	01	1H007	12		18324100	8047	B06
03	1L035	04	1L034	12	*	18324100	8047	B06
16	1L035	06	1G030	12		18324100	8047	B06
18	1L035	07	1H007	11		18324100	8047	B06
02	1L035	10	1L034	11	*	18324100	8047	B06
17	1L035	12	1G030	11		18324100	8047	B06
18	1L036	01	1H007	10		18324100	8047	B06

03	1L036	04	1L034	10	*	18324100	8047	B06
17	1L036	06	1G030	10		18324100	8047	B06
18	1L036	07	1H007	09		18324100	8047	B06
03	1L036	10	1L034	09	*	18324100	8047	B06
18	1L036	12	1G030	09		18324100	8047	B06
18	1L037	01	1H007	08		18324100	8047	B06
03	1L037	04	1L034	08	*	18324100	8047	B06
17	1L037	06	1G030	08		18324100	8047	B06
19	1L037	07	1H007	07		18324100	8047	B06
03	1L037	10	1L034	07	*	18324100	8047	B06
18	1L037	12	1G030	07		18324100	8047	B06
08	1L038	01	1L023	05		18324100	8047	B06
19	1L038	06	1G021	01		18324100	8047	B06
17	1L038	07	1G032	06		18324100	8047	B06
14	1L038	08	1J011	08		18324100	8047	B06
08	1L038	09	1J040	10	*	18324100	8047	B06
09	1L038	10	1J042	03	*	18324100	8047	B06
07	1L038	10	1L026	10		18324100	8047	B06
07	1L038	11	1L026	01		18324100	8047	B06
08	1L038	12	1L024	01		18324100	8047	B06

# COMMENT SHEET

MANUAL TITLE CONTROL DATA 8047-B DISK DRIVE CONTROLLER

Customer Engineering Manual

PUBLICATION NO. 60159400

REVISION \_\_\_\_\_

**FROM:**

NAME: \_\_\_\_\_

BUSINESS  
ADDRESS: \_\_\_\_\_

**COMMENTS:**

This form is not intended to be used as an order blank. Your evaluation of this manual will be welcomed by Control Data Corporation. Any errors, suggested additions or deletions, or general comments may be made below. Please include page number references and fill in publication revision level as shown by the last entry on the Record of Revision page at the front of the manual. Customer engineers are urged to use the TAR.

CUT ALONG LINE

FORM CA231 REV. 1-67

NO POSTAGE STAMP NECESSARY IF MAILED IN U. S. A.

FOLD ON DOTTED LINES AND STAPLE

STAPLE

STAPLE

FOLD

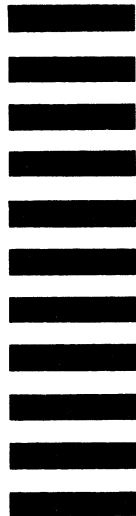
FOLD

FIRST CLASS  
PERMIT NO. 8241  
MINNEAPOLIS, MINN.

**BUSINESS REPLY MAIL**  
NO POSTAGE STAMP NECESSARY IF MAILED IN U.S.A.

POSTAGE WILL BE PAID BY  
**CONTROL DATA CORPORATION**  
**8100 34TH AVENUE SOUTH**  
**MINNEAPOLIS, MINNESOTA 55440**

**ATTN: TECHNICAL PUBLICATIONS DEPT.**  
**PLANT TWO**

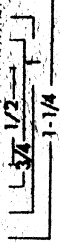


CUT ALONG LINE

FOLD

FOLD

**CONTROL DATA**



>>> CUT OUT FOR USE AS LOOSE-LEAF BINDER TITLE TAB

**CONTROL DATA**

CONTROL DATA CORPORATION

8100 34th AVE. SO., MINNEAPOLIS, MINN. 55440

LITHO IN U.S.A.