

**WANG**

3106

**CONTROL DATA CORPORATION  
REMOVABLE STORAGE DRIVE  
DIAGRAMS**

**Models:**

**PA3A1**

**PA3A2**

**Volume 3**

**Customer Engineering Reprint  
Product Maintenance Manual**

**741-1489**

PREFACE

The purpose of this manual is to provide the Wang-trained Customer Engineer (CE) with instructions to operate, troubleshoot, and repair the Removable Storage Drive.

First Edition (June, 1984)

This is the first reprint of Control Data Corporation's RSD, Volume 3. The material in this document may only be used for the purpose stated in the Preface. Updates and/or changes to this document will be published as Product Update Bulletins (PUB's) or subsequent editions.

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**CDC® REMOVABLE STORAGE DRIVE**

**PA3A1**

**PA3A2**

**DIAGRAMS**

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**Volume 3**

**HARDWARE MAINTENANCE MANUAL**

## REVISION RECORD

REVISION	DESCRIPTION
01 (11-18-82)	Preliminary Release
A (12-22-82)	Manual released documenting series codes 01 and 02 units. This edition obsoletes all previous editions.
B (05-03-83)	Manual revised to incorporate the following series code 03 and 04 changes: ECO's 03253, 03282, technical changes, editorial changes, and to add dual channel (PA3A2) documentation to manual. This edition obsoletes all previous editions.
C (07-08-83)	Manual revised to incorporate series code 05 and technical and editorial changes.
D (09-28-83)	Manual revised to incorporate the following series code 06 changes: ECO's 03322, 03392, 03308, 03463, technical changes, and editorial changes.
E (12-05-83)	Manual revised to incorporate the following series code 07 changes: ECO 03436, technical changes and editorial changes.

REVISION LETTERS I, O, Q  
AND X ARE NOT USED.

Address comments concerning this  
manual to:

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Small Disk Division  
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or use Comment Sheet in the back  
of this manual.

# LIST OF EFFECTIVE PAGES

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## PREFACE

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This manual contains maintenance information for the CONTROL DATA® PA3A1/PA3A2 Removable Storage Drive (RSD). It is prepared for customer engineers and other technical personnel directly involved with maintaining the RSD.

The information in this manual is presented as follows:

Section 1 - Diagrams. Contains logic diagrams.

The following manuals apply to the RSD and are available from Control Data Corporation, Literature Distribution Services, 308 North Dale Street, St. Paul, MN 55103:

<u>Publication No.</u>	<u>Title</u>
83324480	PA3A1/PA3A2 Hardware Maintenance Manual, Volume 1 (contains general description, operation, installation and checkout information, and parts data)
83324490	PA3A1/PA3A2 Hardware Maintenance Manual, Volume 2 (contains theory of operation and maintenance)
83324630	PA3A1/PA3A2 Hardware Maintenance Manual, Volume 3 (contains diagrams)
83322440	CDC Microcircuits, Volume 1 (provides functional descriptions for integrated circuits)
83324440	CDC Microcircuits, Volume 2 (provides functional descriptions for integrated circuits)

## WARNING

To ensure the integrity of safety features built into these drives, installation and maintenance must be performed only by qualified service personnel using designated CDC/MPI parts. Also, in case of fire or other emergency, isolate the drives from main power by disconnecting the drive power plugs from their site power receptacles. In situations where pulling the plugs is not possible or practical, use the system main power disconnect to isolate the drives from main power.

## WARNUNG

Um das einwandfreie Funktionieren der eingebauten Schutzvorrichtungen zu gewährleisten, darf die Installation und Wartung nur von qualifiziertem Service-Personal unter Verwendung von Original CDC/MPI Teilen durchgeführt werden. Beim Ausbrechen von Feuer oder in anderen Notfällen ist die Verbindung zum Hauptstromnetz dadurch zu unterbrechen, dass die Stecker der Antriebe aus den Steckdosen gezogen werden. Sollte dies nicht möglich oder unpraktisch sein, ist der Hauptstromunterbrecher des Systems zu bedienen, um die Antriebe vom Hauptstromnetz zu trennen.

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## ABBREVIATIONS

---

A	Ampere	CLK	Clock
ABV	Above	CLR	Clear
ac	Alternating Current	cm	Centimeter
ADD	Address	CNTR	Counter
ADDR	Address	COMP	Comparator
ADJ	Adjust	CONT	Control
ADRS	Address	CONTD	Continued
AGC	Automatic Gain Control	CT	Center Tap
ALT	Alternate	CYL	Cylinder
AM	Address Mark	D/A	Digital to Analog
AME	Address Mark Enable	dc	Direct Current
AMP	Amplifier, Ampere	DET	Detect
ASSY	Assembly	DIFF	Differential
BLW	Below	DIV	Division
C	Celsius	DLY	Delay
CB	Circuit Breaker	DRVR	Driver
CDA	Complete Drive Assembly	ECL	Emitter Coupled Logic
CDC	Control Data Corporation	ECO	Engineering Change Order
CH	Channel	EN	Enable
CHK	Check	ENBL	Enable

## ABBREVIATIONS (Contd)

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EXT	External	IND	Index
F	Fahrenheit, Fuse	INTRPT	Interrupt
FCO	Field Change Order	I/O	Input/Output
FDBK	Feedback	IPB	Illustrated Parts Breakdown
FIG	Figure	IPS	Inches per Second
FLT	Fault	kg	Kilogram
FSD	Fixed Storage Drive	kPa	Kilopascal
ft	Foot	kW	Kilowatt
FTU	Field Test Unit	lb	Pound
FWD	Forward	LED	Light Emitting Diode
GND	Ground	LSI	Large Scale Integration
HD	Head	LTD	Lock to Data
HEX	Hexagon	m	Meter
Hg	Mercury	MAX	Maximum
HR	High Resolution	MB	Megabyte
HYST	Hysteresis	MEM	Memory
Hz	Hertz	MHz	Megahertz
IC	Integrated Circuit	mm	Millimeter
IDENT	Identification	MPI	Magnetic Peripherals, Inc.
in	Inch		

## ABBREVIATIONS (Contd)

---

MPU	Microprocessor Unit	PS	Power Supply
MRK	Mark	PWR	Power Supply
ms	Millisecond	RCVR	Receiver
MTR	Motor	RD	Read
mV	Millivolt	RDY	Ready
NC	No Connection	REF	Reference
NORM	Normal	REQ	Request
NRZ	Non Return to Zero	RES	Resolution
ns	Nanosecond	REV	Reverse, Revision
OC	On Cylinder	RGTR	Register
OS	One-Shot	r/min	Revolutions Per Minute
OSC	Oscillator	RSD	Removable Storage Drive
P	Plug	RTZ	Return to Zero
PD	Peak Detect	R/W	Read/Write
pF	Picofarad	s	Second
PG	Page	S/C	Series Code
PHH	Phillips Head	SEC	Second
PLO	Phase Lock Oscillator	SEL	Select
PROC	Procedure	SEQ	Sequence
PROG	Programmable	SPD	Speed

## ABBREVIATIONS (Contd)

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SS	Sector Switch	W	Watts
T	Tracks to go	W/	With
TP	Thread Forming	W/O	Without
TIM	Timer	W PROT	Write Protect
TP	Test Point	W+R	Write or Read
TSP	Troubleshooting Procedure	W·R	Write and Read
TTL	Transistor-Transistor Logic	WRT	Write
V	Volts, Voltage	XFR	Transfer
Vbb	Bias Voltage	Ω	Ohms
VCC	Bias Voltage	\$	Hexadecimal Address
VCO	Voltage Controlled Oscillator	uF	Microfarad
		us	Microsecond

**SECTION**

**1**

**DIAGRAMS**



## INTRODUCTION

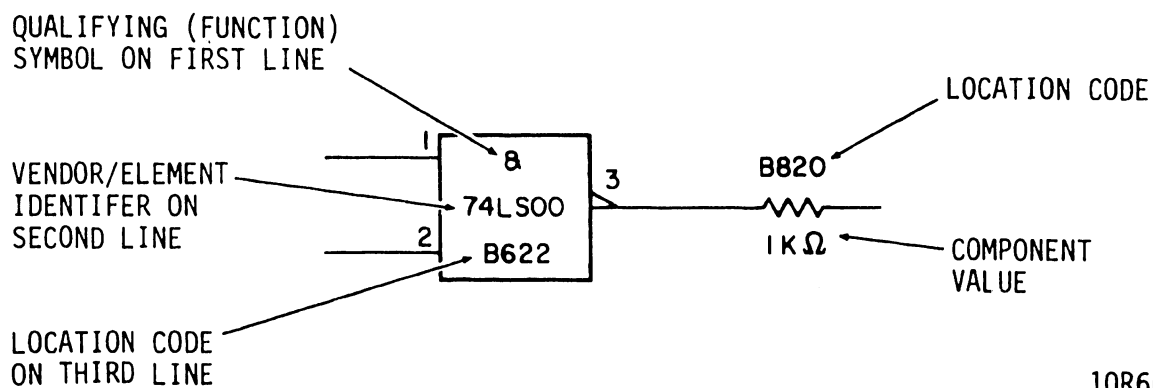
This section contains the logic diagrams and an explanation of the diagram conventions. The diagram conventions, along with the microcircuit manuals, provide the necessary information to understand and use the diagrams. The diagram conventions are:

- Symbology
- Abbreviations
- Logic Levels
- Signal Names
- Logic Arrangement
- Intersheet References

## SYMBOLGY

### GENERAL

The diagrams contain a modified version of ANSI standard Y32.14 logic symbology (see figure 1-1). The logic symbols for integrated circuits contain a qualifying symbol, an element identifier, and a location code.



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Figure 1-1. Logic Symbology

## QUALIFYING (FUNCTION) SYMBOL

The qualifying symbol denotes the basic operation being performed by the integrated circuit. Refer to the microcircuits manual for an explanation of the qualifying symbols used in the diagrams.

## ELEMENT IDENTIFIER

The second line of any symbol contains the vendor/element identifier. This number identifies the integrated circuit type. Refer to the microcircuits manuals for an explanation of the element identifiers used in the diagrams.

## LOCATION CODE

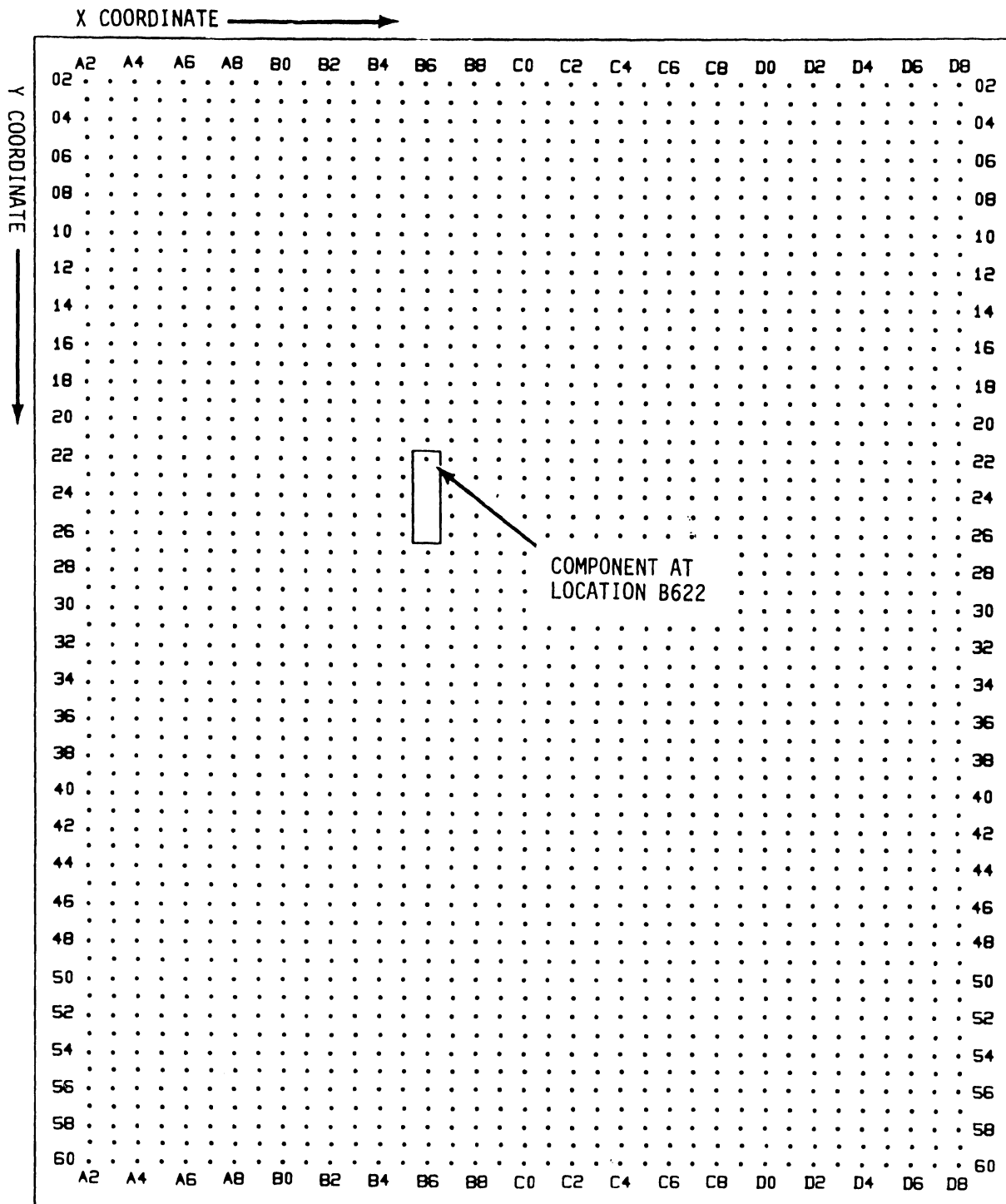
The location code identifies the location of each component on the circuit board. The location code is a four-character XXYY designation related to an X-Y grid defined on the edges of the circuit board. To avoid confusion, the "XX" characters are alpha-numeric and the "YY" characters are numeric. Figure 1-2 shows a circuit board with a component at location code B622, which is the intersection of grid lines B6 (X) and 22 (Y).

## ABBREVIATIONS

Standard abbreviations from ANSI Y1.1 are used whenever possible. Refer to the list of abbreviations contained in the front matter for a definition of all abbreviations used in the diagrams.

## LOGIC LEVELS

Three types of logic are used in the drives that this manual applies to: TTL logic, ECL logic, and CMOS logic. Logic levels for the three types are shown in table 1-1. Different circuit configurations and temperatures may result in legitimate readings that fall outside of the typical range. Such readings should be suspect only in the event of problems.



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Figure 1-2. Location Code Example

TABLE 1-1. LOGIC VOLTAGE LEVELS

Logical State	Nominal Voltage	Typical Range
TTL "1"	3.3 V	2.0 V to 3.3 V*
TTL "0"	0.2 V	0.2 V to 0.8 V
ECL "1"	-0.924 V	-0.96 V to -0.81 V
ECL "0"	-1.75 V	-1.65 V to -1.85 V
CMOS "1"	5.0 V	3.5 V to 5.0 V
CMOS "0"	0 V	0 V to 1.5 V

\*Measuring a TTL open collector voltage may result in a reading that is close to the actual power supply voltage.

## SIGNAL NAMES

Input and output signals are labeled to reflect their particular function. If an output signal has no connection, and therefore no function, it is labelled "NC" to indicate no connection. The polarity (logical state) of a signal is identified by a plus or minus sign before the signal name. A plus sign before a signal name indicates that the signal is active when the logic level is high or in a logical "1" state. A minus sign before a signal name indicates that the signal is active when the logic level is low or in a logical "0" state. Refer to the discussion on logic levels.

## LOGIC ARRANGEMENT

Logic diagrams for the drive consist of overall block diagrams and independent diagram sets for the interlocks, the detachable cables, and the circuit boards. The diagram sets are presented in the order given in table 1-2. Refer to figure 1-3 for the location of the circuit boards in the drive.

Each diagram set consists of one or more sheets with each sheet identified by the sheet number which appears in the lower right-hand corner of the page. The first sheet in each set, the cover sheet, is described in the following paragraph.

TABLE 1-2. CONTENTS OF DIAGRAMS

Card Type	Cross Ref. Number	Title
	0002	24" RSD Block Diagram
_PBX	01XX	Operator Panel
_EBN	02XX	Single Channel I/O
_UUN	03XX	Servo Preamp
_PEX	04XX	Control Board
_PDX	05XX	Power Amp
_PMX	06XX	Motor Speed Control
_PGX	07XX	Read/Write PLOs
_PFX	08XX	Data Latch
_PCX	09XX	R/W Preamp
	1002	DC Harness Cabling Diagram
	1012	Control Board to I/O Board Cable
	1022	Control Board to Data Latch & R/W PLOs Cable
	1032	Motor Speed Control to Motor Cable
	1042	Interlocks
	1052	Servo Preamp to R/W Preamp
	1062	Data Latch to R/W Preamp

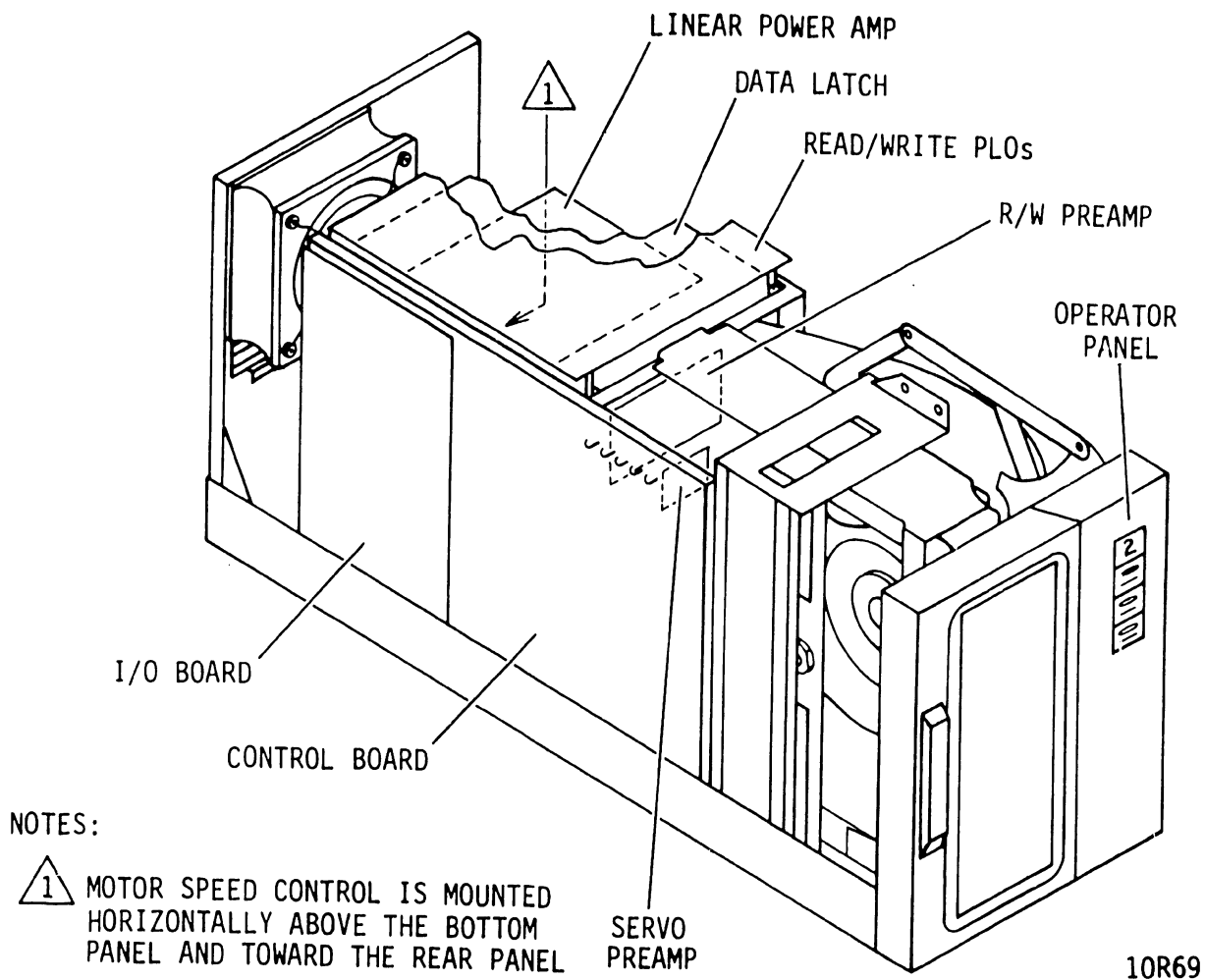


Figure 1-3. Circuit Board Locations

### LOGIC DIAGRAM COVER SHEETS

The logic diagram cover sheet is the first sheet of each logic set. It contains power and ground connections, and lists unused logic elements. In the larger logic sets, either sheet 1 or sheet 2 has a table that cross-references each connector pin number to the logic sheet showing that signal input or output.

### CARD TYPE

The card type designation is shown on sheet 1 in the title block.

## INTERSHEET REFERENCES

Each logic diagram is assigned a four-digit cross-reference number and a two-digit sheet number. The first two digits of the cross-reference number indicate the assigned set number, and the last two digits indicate the sheet number within that set. Table 1-2 lists the cross-reference number for each logic diagram set. The following paragraphs discuss how to trace signals from one point to another in the diagrams and refer to both the sheet numbers and the cross-reference numbers.

The procedure for tracing signals in the logic diagrams depends on whether the signal path continues on the same sheet, on another sheet in the same logic set, or on a sheet in a different logic set. These three cases are symbolized differently in the logic (see figure 1-4) and are discussed separately in the following paragraphs.

When a logic signal is continued on the same sheet but cannot be shown in series, "line of sight" arrows along with a letter within a circle are used to indicate signal origin and destination.

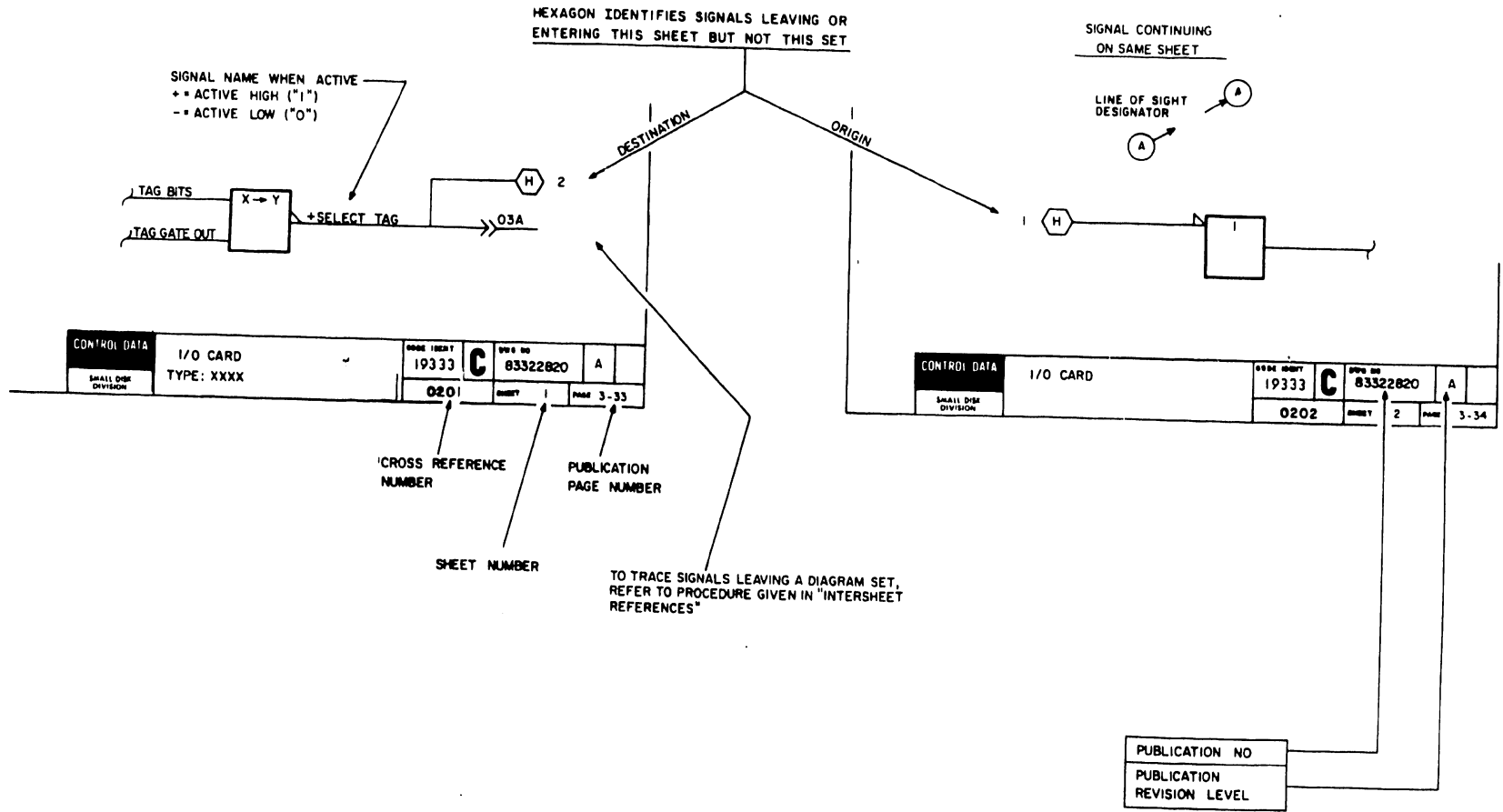
When a logic signal is continued on another sheet of the same logic set, that sheet number appears next to a hexagon containing a designating letter. This same letter is then shown where the signal is continued.

When a signal is continued on a sheet of another logic set, it follows a path through a cable from one circuit board to another. Each sheet of logic which has signals coming from or going to other circuit boards is accompanied by a Logic Cross Reference Information sheet, printed on the page facing the logic sheet. Logic Cross Reference Information lists all signal inputs and signal outputs in the order they appear on the logic sheet. Each signal input listing includes the cross-reference number of the logic sheet where the signal originates and the connector and pin number for the signal origin. Each signal output listing includes the crossreference number of the logic sheet where the signal goes and the connector and pin number for the signal destination.

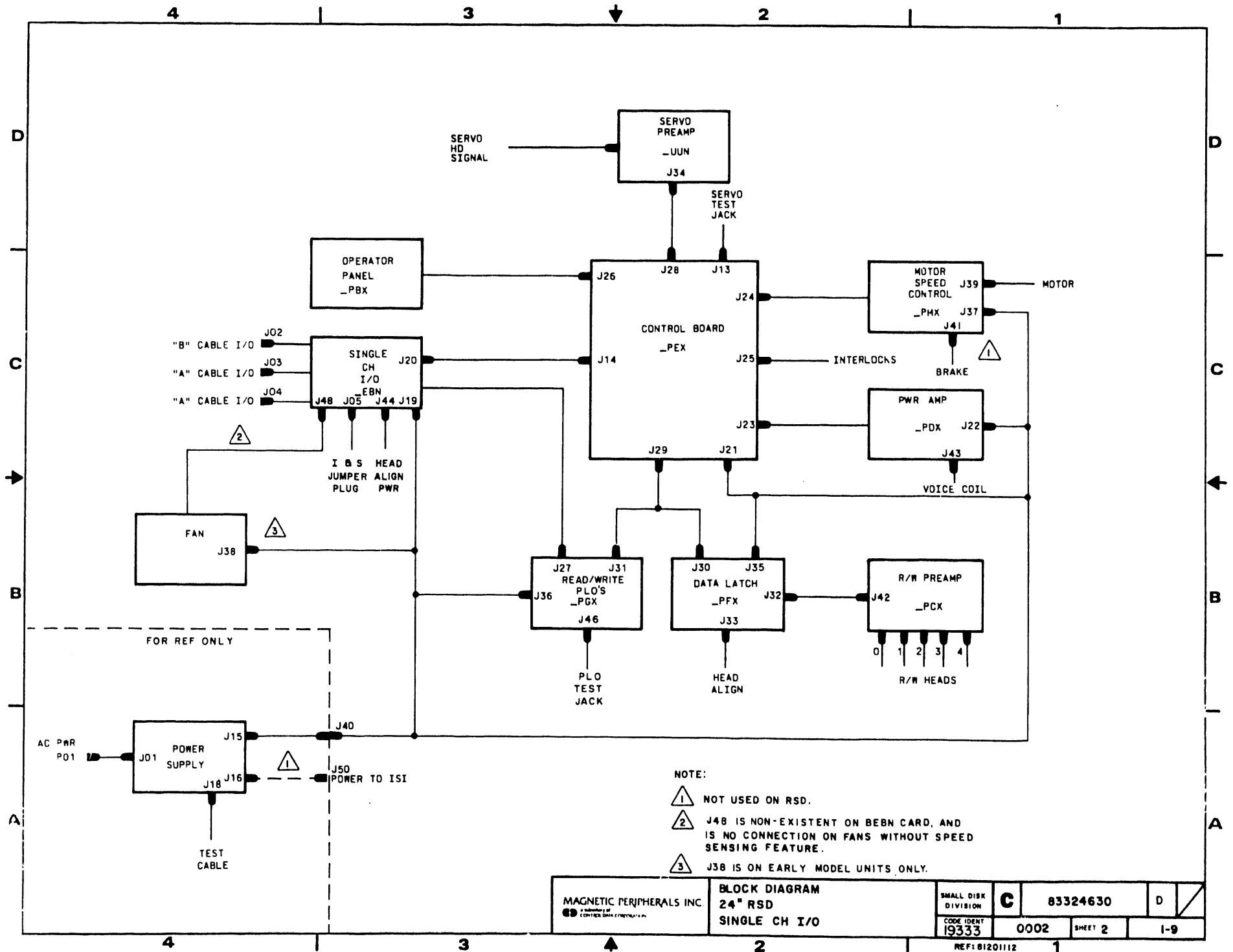
Each logic sheet is linked to its associated Logic Cross Reference Information sheet by the connector and pin symbols that are duplicated on both sheets. For instance, if a logic sheet shows a signal entering the board on pin 1 of connector J14, then the Logic Cross Reference Information sheet has the following entry under Signal Inputs:

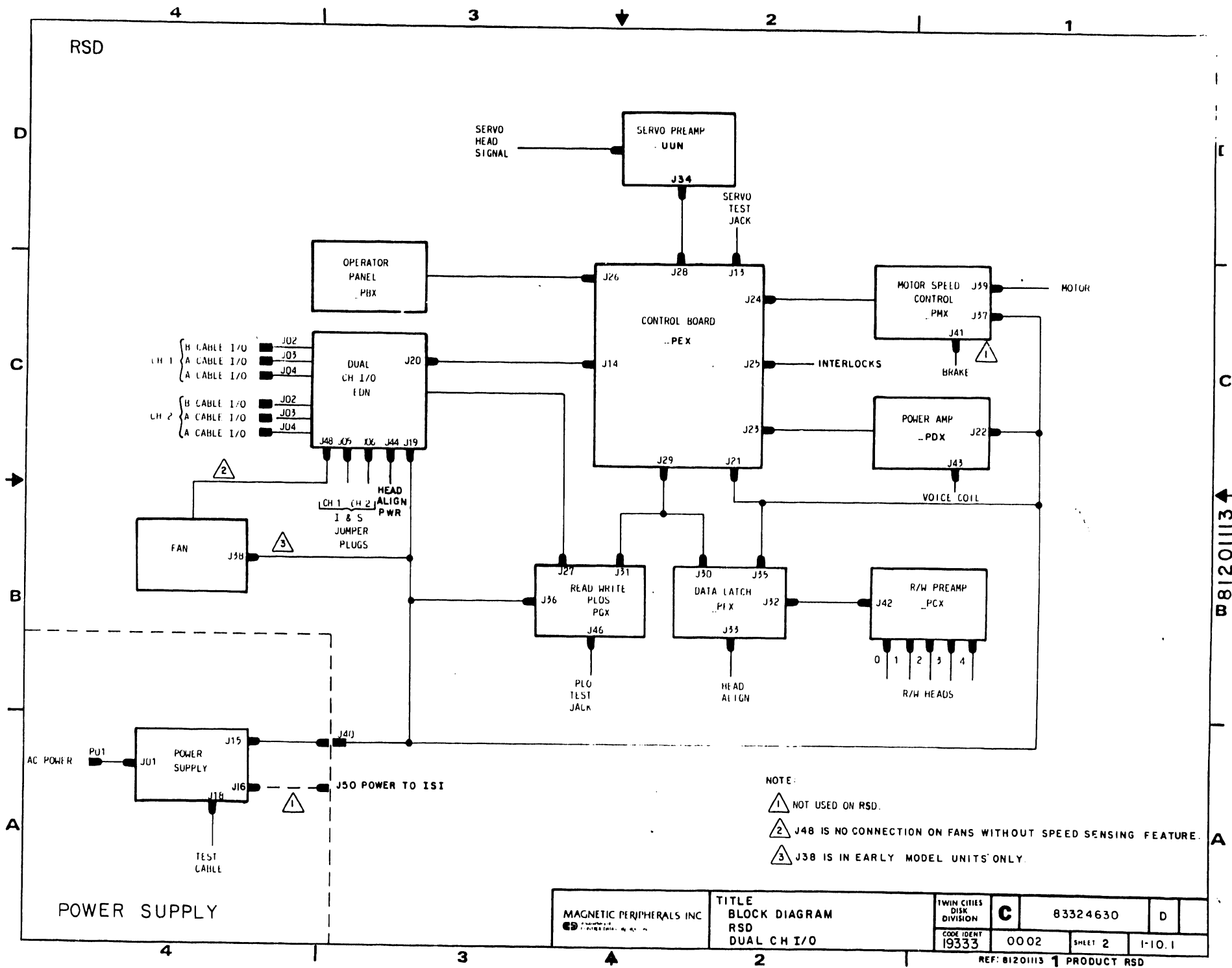
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01    J14  
---->>-----|
```

Figure 1-4. Key to Logic









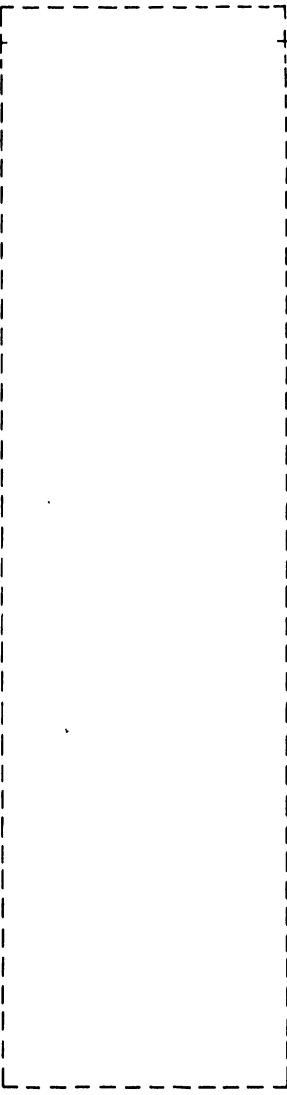
B8120113

MAGNETIC PERIPHERALS INC.	TITLE BLOCK DIAGRAM RSD DUAL CH I/O		TWIN CITIES DISK DIVISION	C	83324630	D
	CODE IDENT 19333	0002	SHEET 2	1-10.1		

REF: 8120113 1 PRODUCT RSD

**SIGNAL INPUTS**

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0402 J26-04 -04->> P26  
0402 J26-01 -01->> P26  
0402 J26-06 -06->> P26

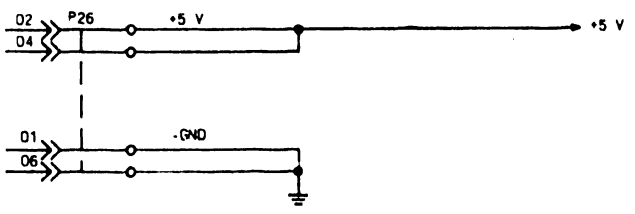


**SIGNAL OUTPUTS**

**LOGIC CROSS REFERENCE INFORMATION**

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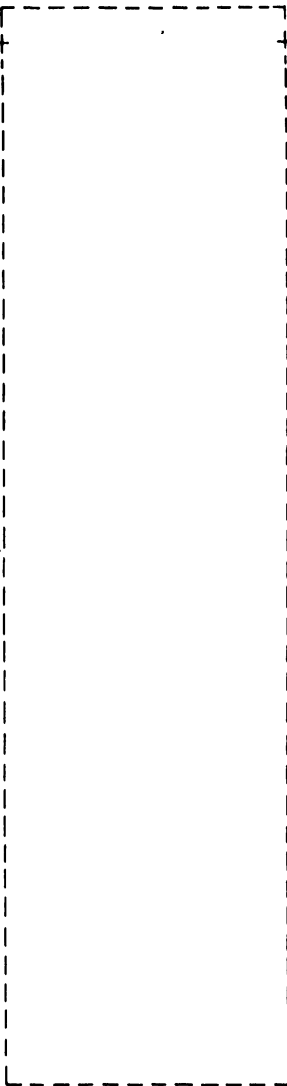
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	REV	ECO	DESCRIPTION	DRFT	DATE	CHKD	APP
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	A	D303028B D303028B	RELEASED	PLM	6/18/72	DGO	III
	B	D303100	ADDITION SHIT 2.	DM	8/28/72	EMS	IV



REFERENCE DRAWING		MAGNETIC PERIPHERALS INC.		TITLE	
COMP. ASSY. 54330902		FIRST USED ON		SCHEMATIC DIAGRAM	
CTR 54331102		NEXT ASSEMBLY		OPERATOR PANEL	
		PASAI-A		TYPE CPBX	
COMPONENTS EXCEPT AS NOTED		DWN	FAE AUDETTE	11/23/70	
TOLERANCE	VALUE	RATING	CHKD	DGD	4-16-71
RES			ENGR	PLM	4-16-72
CAP			MFG	W. J. Harris	8/28/72
			QA	M. K. K. K.	8/28/72
		FORM. NO.	19333	OIOI	SHEET 1 OF 3
		REF: 54331002	1	PAGE 1-11	
				PRODUCT RSD	

**SIGNAL INPUTS**

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0409 J26-13 13 ->> P26  
0409 J26-12 12 ->> P26

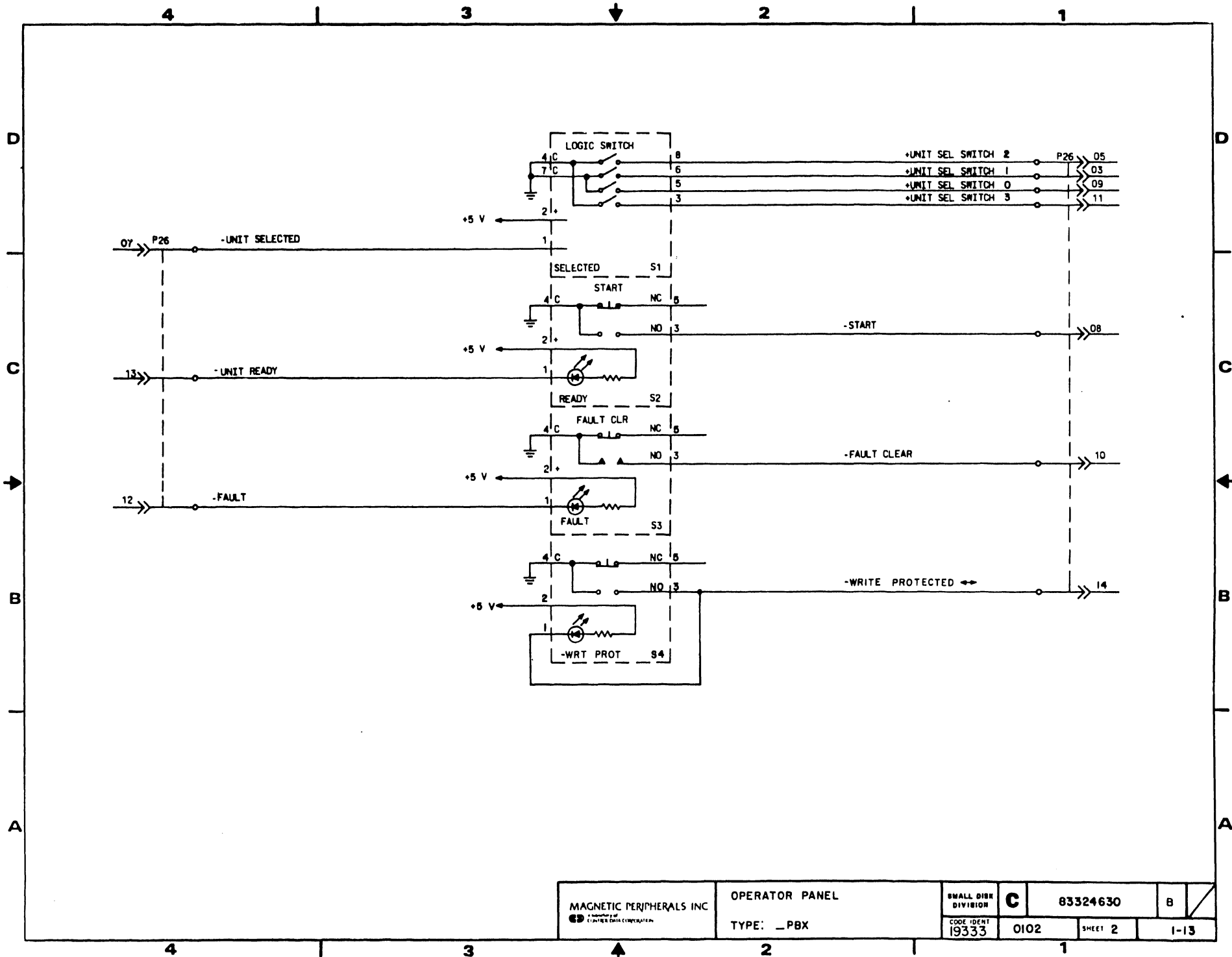


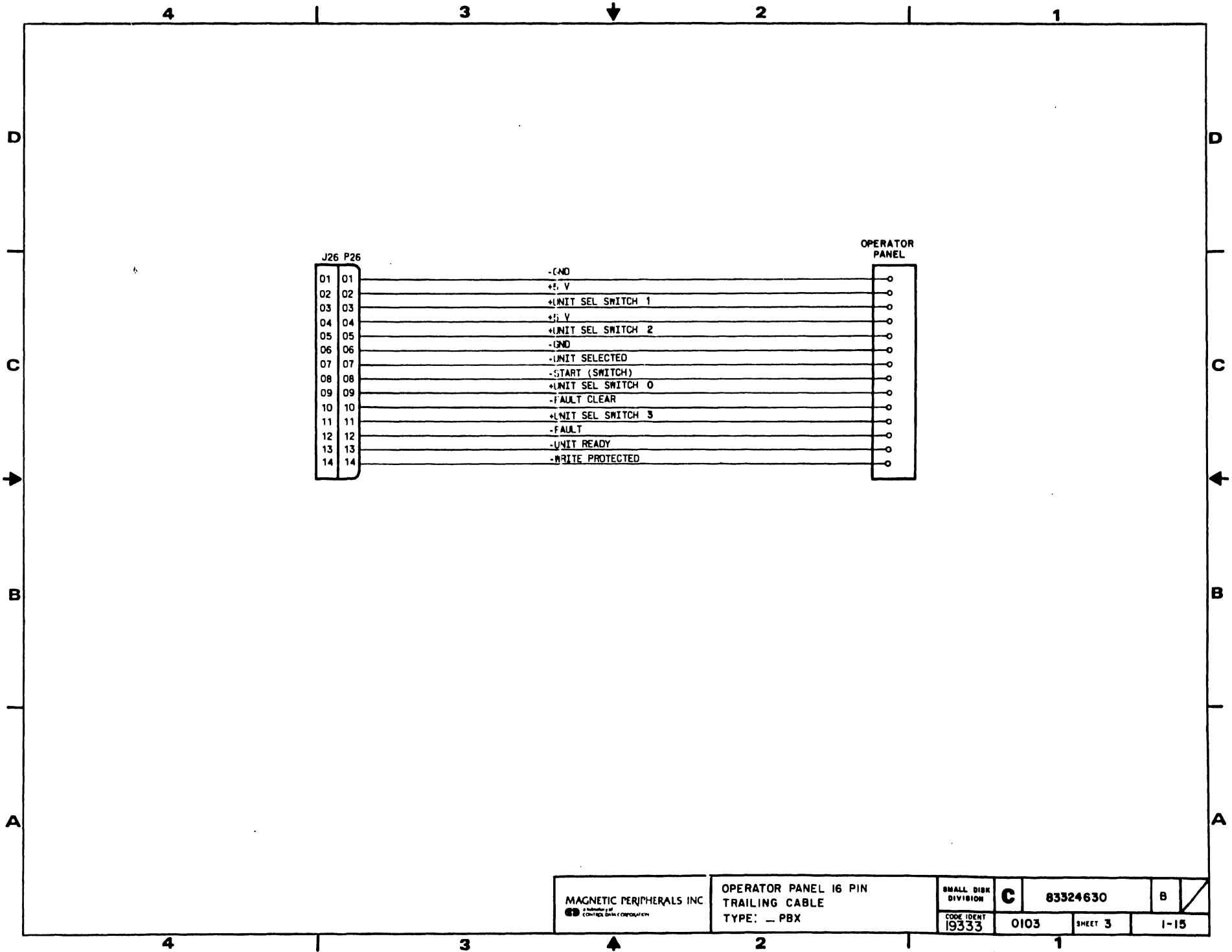
**SIGNAL OUTPUTS**

P26 ->> 05 0405 J26-05  
P26 ->> 03 0405 J26-03  
P26 ->> 09 0405 J26-09  
P26 ->> 11 0402 J26-11  
P26 ->> 08 0407 J26-08  
P26 ->> 10 0408 J26-10  
P26 ->> 14 0409 J26-14

**LOGIC CROSS REFERENCE INFORMATION**

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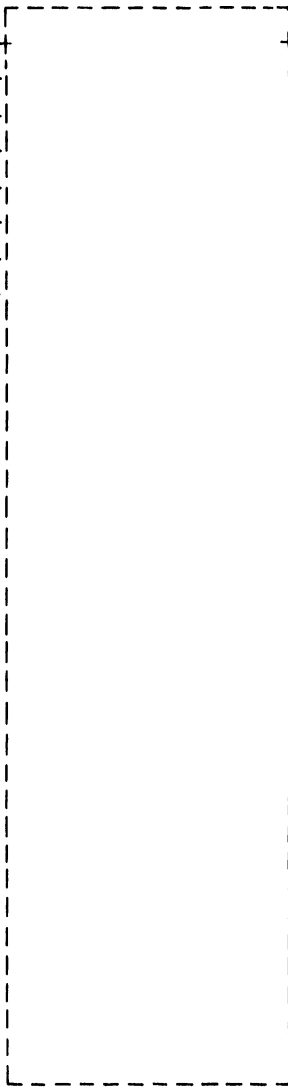


**SIGNAL INPUTS**

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NC	-	07	>>	J19
1002	J40-01	08	>>	J19
1002	J40-02	03	>>	J19
NC	-	04	>>	J19
1002	J40-03	01	>>	J19
1002	J40-15	06	>>	J19
NC	-	02	>>	J19

**SIGNAL OUTPUTS**

J44	>>	04	Head Alignment Test Jack
J44	>>	06	Head Alignment Test Jack
J44	>>	03	Head Alignment Test Jack
J44	>>	01	Head Alignment Test Jack
J44	>>	05	Head Alignment Test Jack



**LOGIC CROSS REFERENCE INFORMATION**

PUB		83324630		REV		B	
CROSS REF NO		0201		PAGE		1-16	



UNUSED LOGIC ELEMENTS

TYPE	LOCATION	OUTPUT PINS
10125	C204	12, 1
9602	E844	9, 10
74LS04	E865	8, 9, 10
74LS02	E855	13
7404	C821	8
4049	D811	2, 6, 10, 15
10125	C902	12

UNUSED RESISTOR PACKS

VALUE	LOCATION	PINS
1 k $\Omega$	E543	2, 3, 5, 7
1 k $\Omega$	E055	8
82 $\Omega$	B844	6, 7, 8
470 $\Omega$	C009	4, 5, 8
1 k $\Omega$	D332	6, 7, 8

FILTER CAPS <sup>2</sup>

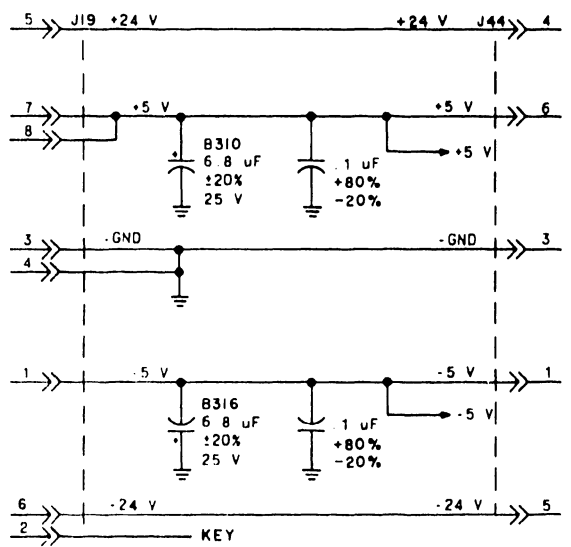
.1 $\mu$ F	
+5 V	-5 V
C721	B322
A525	C733
C021	C611
B333	E045
D257	A625
E657	C756
C633	E745
C711	D245
D225	D357
D945	D956
C645	C745
	C621

PART NO RANGE
00 THRU 99

REVISION RECORD		REV	ECN	DESCRIPTION	DRFT	DATE	CHKD	APP
01	DJ0319A			PRE-RELEASED		4/2/82	DGD	II
02	NS0256			CHG IC SMT 5	DLM	4/21/82	DGD	II
03	DJ03083			LST PIN 14 GND	DLM	4/24/82	DGD	II
04	DJ03003			KEY J14 / GND	DLM	7/20/82	DGD	II
A	1516550			RELEASED	DLM	10/20/82	DGD	II
B	DJ03132			CORRECTIONS	DLM	10/15/82	DGD	III
C	DJ03177			CORRECTIONS	KKD	12/15/82		
D	DJ03237			REPLACE CHIP	MJ	3/17/83		
E	DJ03355			CORRECTIONS	MJ	7/14/83		

NOTES:

- UNLESS OTHERWISE SPECIFIED:  
ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GND AND PIN 14 CONNECTED TO +5 V.  
ALL DIODES, 15165500.  
ALL RESISTOR PACK RESISTORS 1/8 W.  $\pm$ 3%.
- SEE TABLE FOR FILTER CAP LOCATIONS.
- J05 IS A/B CABLE JUMPER.

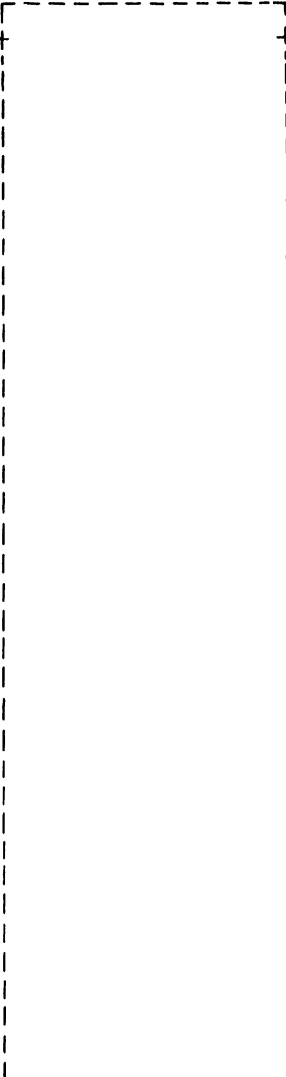


APPLIES TO SINGLE CHANNEL UNITS ONLY.

REFERENCE DRAWING			MAGNETIC PERIPHERALS INC		TITLE	
COMP ASSY 54020501			GD		SCHEMATIC DIAGRAM	
CTR 54020701			FIRST USED ON		SINGLE CH SMD I/O	
			NEXT ASSEMBLY		TYPE BEBN	
COMPONENTS EXCEPT AS NOTED			DWN	DLM	3/11/82	SIZE
TOLERANCE	VALUE	RATING	CHKD	Dennis G. Donat	4/30/82	C
RES $\pm$ 5%	OHMS	1/4W	ENGR	R. S. ...	4/20/82	
CAP $\pm$ 10%			MFG	P. M. ...	7/24/82	
			QA	...	7/1/82	
			DA		19333	
					0201	
					SHEET 1 OF 7	
					PAGE 1-17	
					REF: 54020601	
					PRODUCT RSD/FSP	

**SIGNAL INPUTS**

0405 J14-10 ~~21~~ >> ~~J20~~

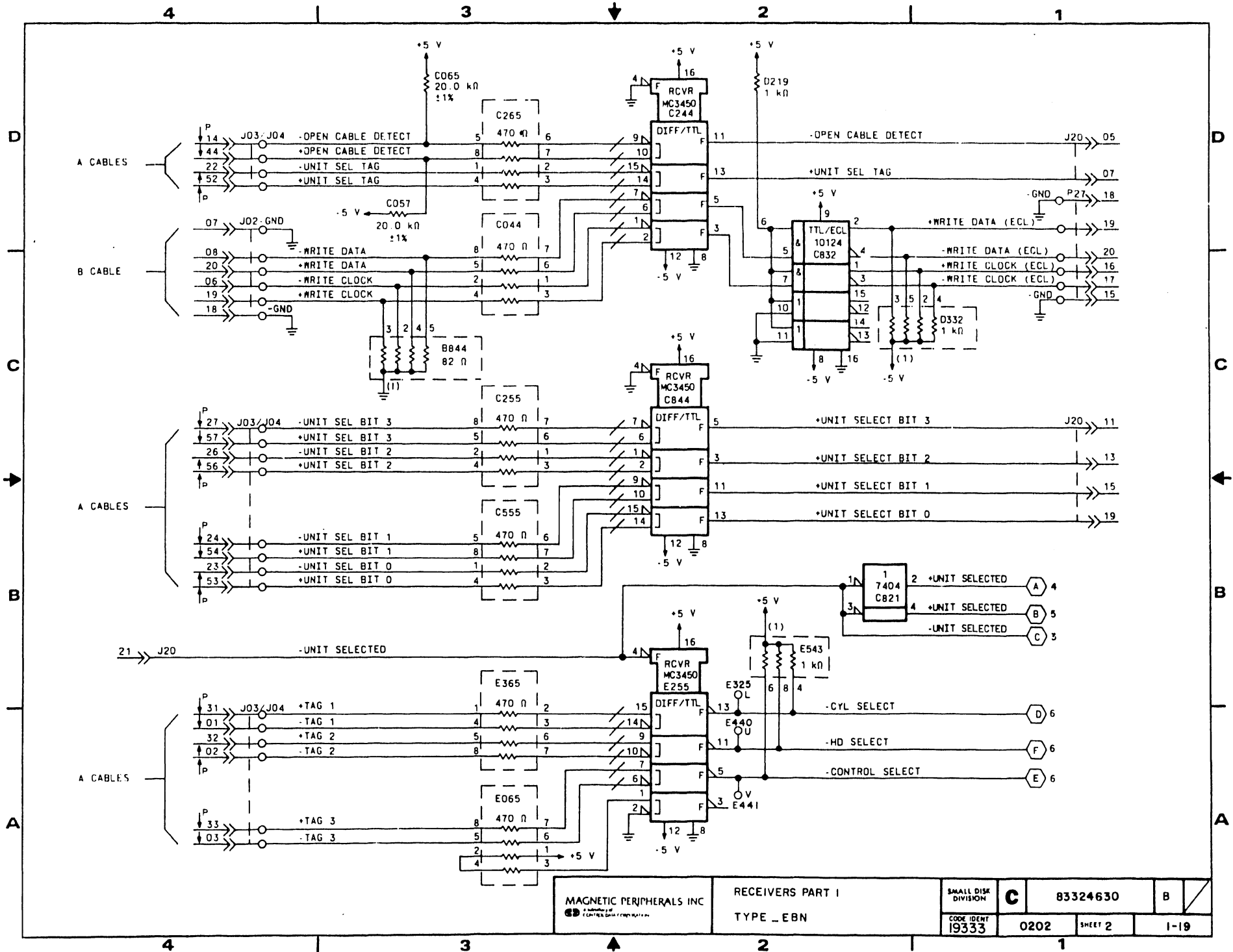


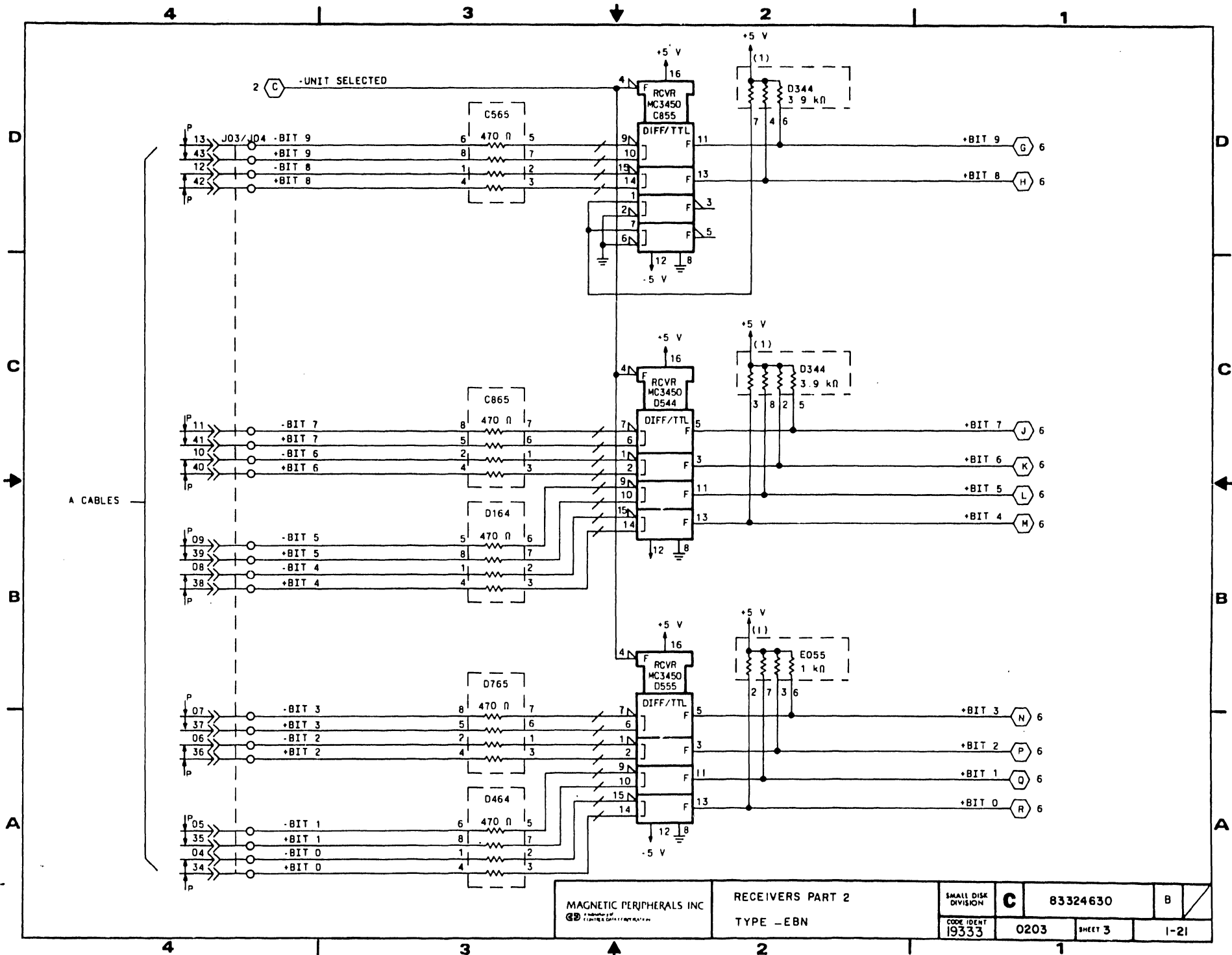
**SIGNAL OUTPUTS**

<del>J20 &gt;&gt; 05</del>	0405 J14-18
<del>J20 &gt;&gt; 07</del>	0405 J14-17
<del>P27 &gt;&gt; 18</del>	0701 J27-18
<del>P27 &gt;&gt; 19</del>	0702 J27-19
<del>P27 &gt;&gt; 20</del>	0702 J27-20
<del>P27 &gt;&gt; 16</del>	0702 J27-16
<del>P27 &gt;&gt; 17</del>	0702 J27-17
<del>P27 &gt;&gt; 15</del>	0701 J27-15
<del>J20 &gt;&gt; 11</del>	0405 J14-15
<del>J20 &gt;&gt; 13</del>	0405 J14-14
<del>J20 &gt;&gt; 15</del>	0405 J14-13
<del>J20 &gt;&gt; 19</del>	0405 J14-11

**LOGIC CROSS REFERENCE INFORMATION**

PUB 83324630		REV A
CROSS REF NO 0202	PAGE 1-18	

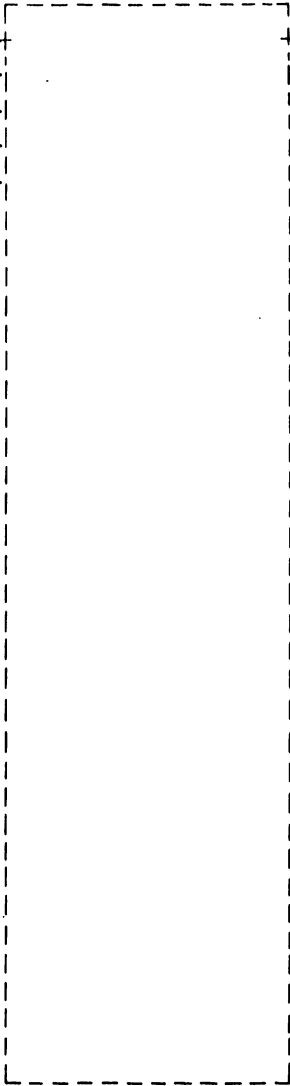




MAGNETIC PERIPHERALS INC CORPORATION	RECEIVERS PART 2		SMALL DISK DIVISION	C	83324630	B
	TYPE -EBN		CODE IDENT 19333			

**SIGNAL INPUTS**

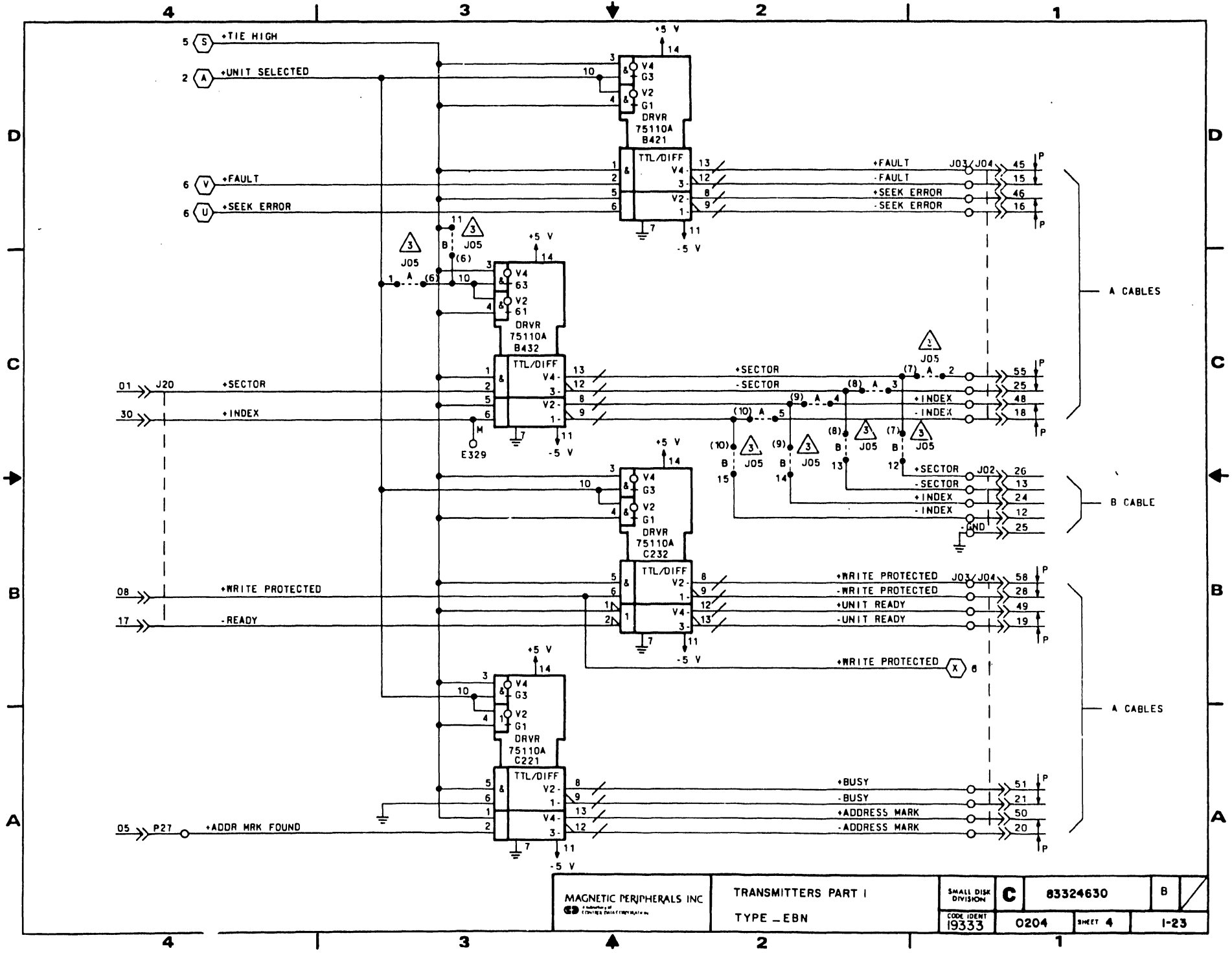
0410 J14-20 01 >> J20  
0410 J14-35 30 >> J20  
0409 J14-24 08 >> J20  
0406 J14-12 17 >> J20  
0705 J27-05 05 >> P27



**SIGNAL OUTPUTS**

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	A
CROSS REF NO	0204	PAGE	1-22

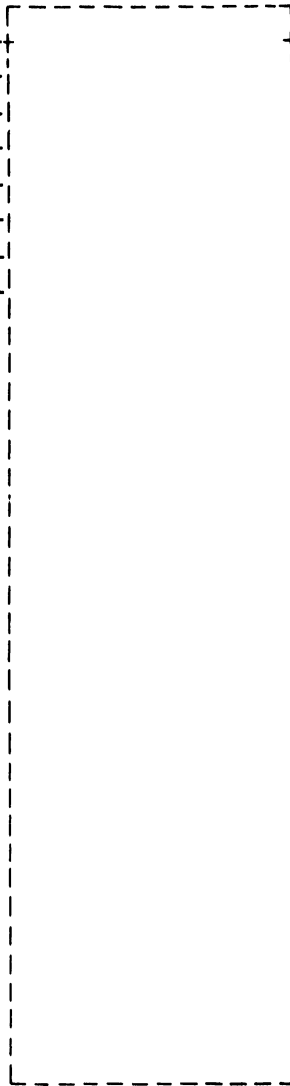


**SIGNAL INPUTS**

0703 J27-01 ~~01~~ >> ~~P27~~  
0703 J27-02 ~~02~~ >> ~~P27~~  
0702 J27-14 ~~14~~ >> ~~P27~~  
0702 J27-13 ~~13~~ >> ~~P27~~  
0702 J27-11 ~~11~~ >> ~~P27~~  
0702 J27-10 ~~10~~ >> ~~P27~~  
0701 J27-12 ~~12~~ >> ~~P27~~  
0410 J14-16 ~~09~~ >> ~~J20~~

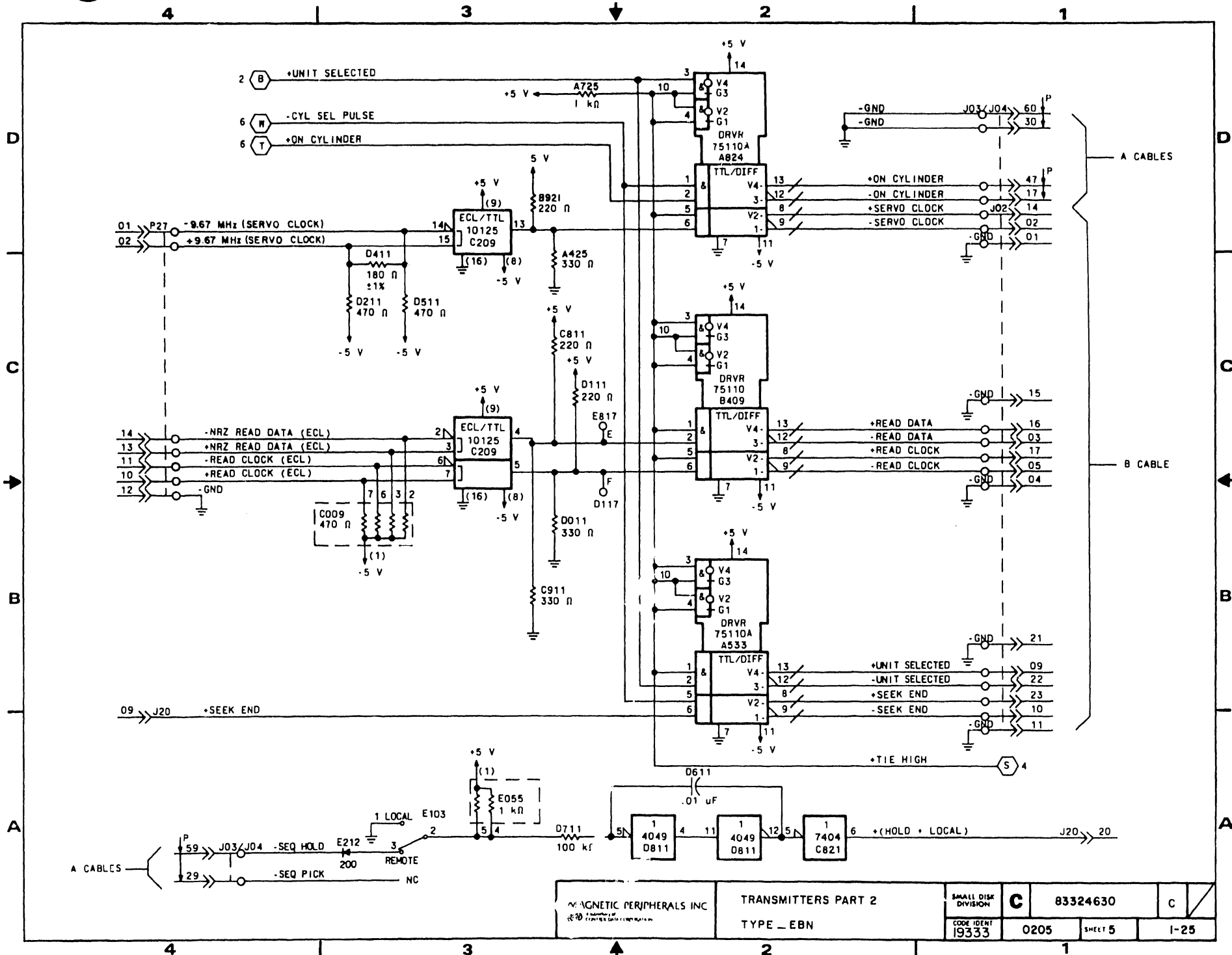
**SIGNAL OUTPUTS**

J20 >> 20 0407 J14-30



**LOGIC CROSS REFERENCE INFORMATION**

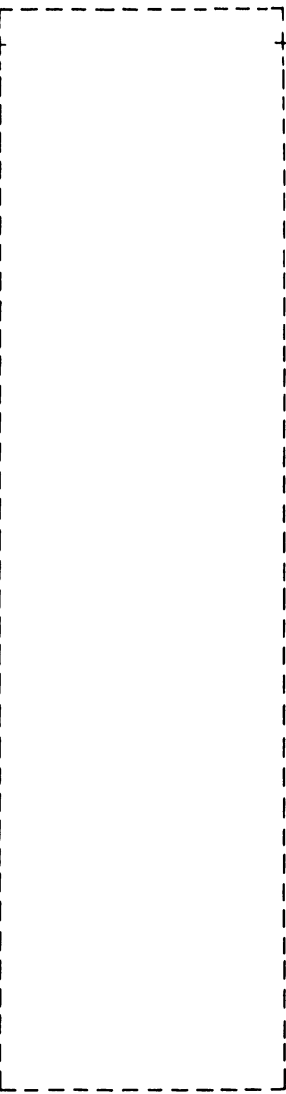
PUB 83324630		REV A
CROSS REF NO 0205	PAGE 1-24	





**SIGNAL INPUTS**

0409 J14-31 22 >> J20  
 0406 J14-08 25 >> J20  
 0406 J14-09 23 >> J20  
 0403 J14-29 18 >> J20  
 0704 J27-08 08 >> P27

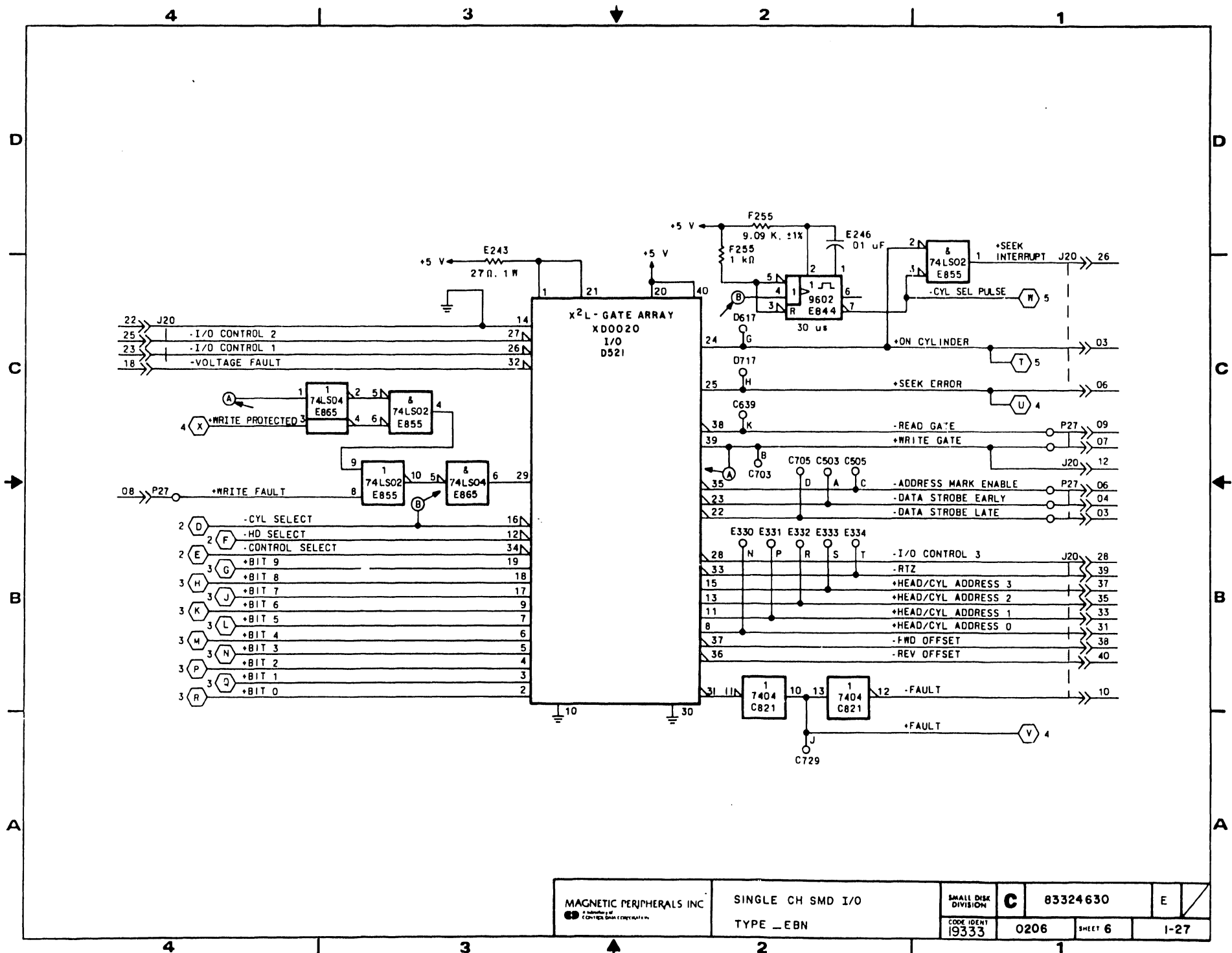


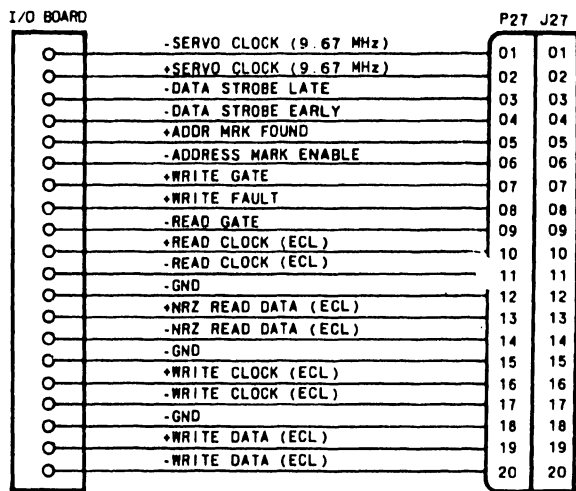
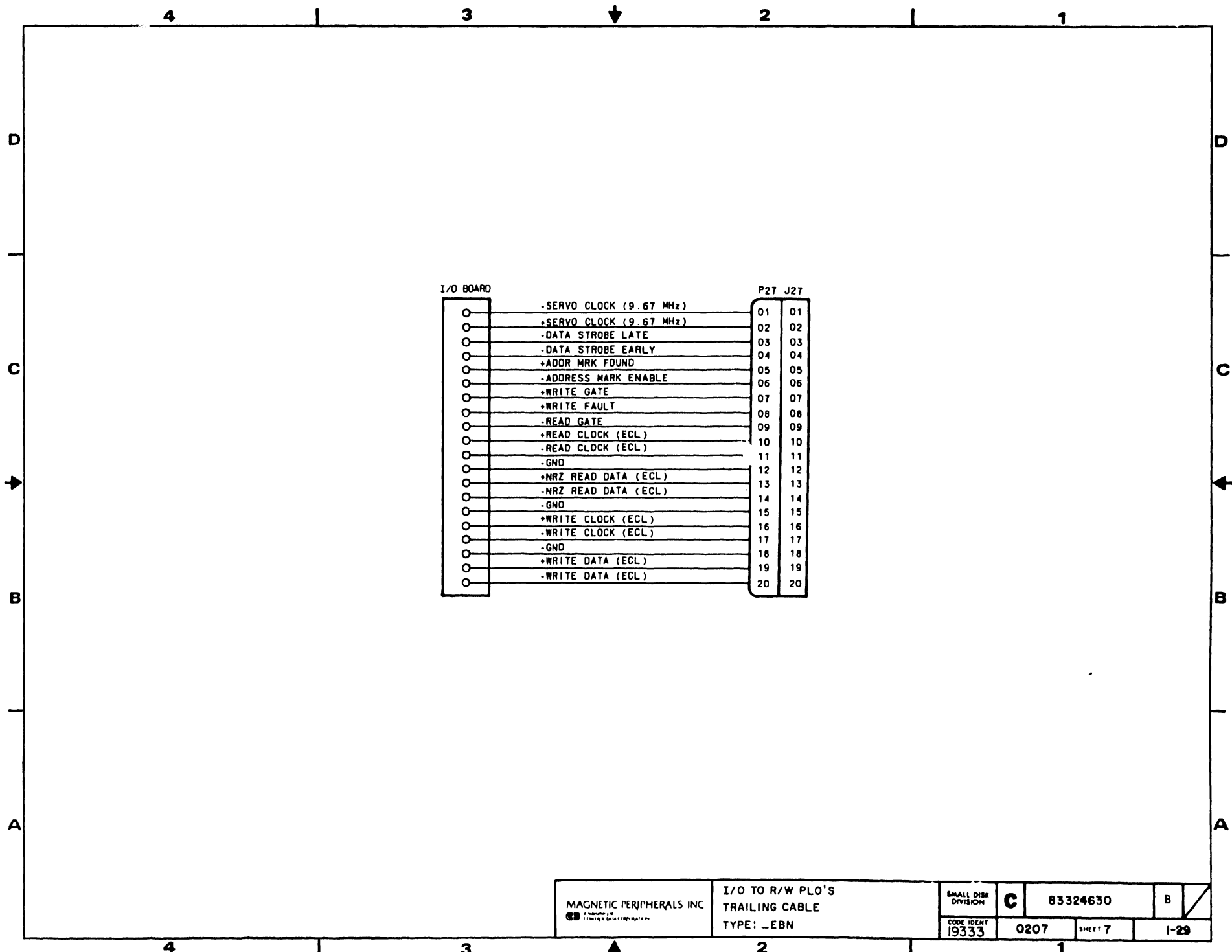
**SIGNAL OUTPUTS**

J20 >> 26 0406 J14-33  
 J20 >> 03 0410 J14-19  
 J20 >> 06 0410 J14-23  
 P27 >> 09 0704 J27-09  
 P27 >> 07 0702 J27-07  
 J20 >> 12 0409 J14-26  
 P27 >> 06 0704 J27-06  
 P27 >> 04 0705 J27-04  
 P27 >> 03 0705 J27-03  
 J20 >> 28 0406 J14-34  
 J20 >> 39 0406 J14-01  
 J20 >> 37 0406 J14-02  
 J20 >> 35 0406 J14-03  
 J20 >> 33 0406 J14-04  
 J20 >> 31 0406 J14-05  
 J20 >> 38 0418 J14-39  
 J20 >> 40 0418 J14-40  
 J20 >> 10 0406 J14-25

**LOGIC CROSS REFERENCE INFORMATION**

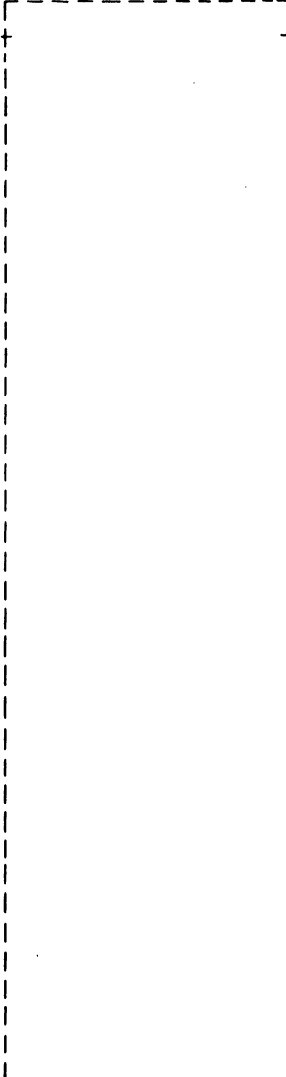
PUB		REV
83324630		B
CROSS REF NO	PAGE	
0206	1-26	





**SIGNAL INPUTS**

1002	J40-11	05	>>	J19	-----
NC	-	07	>>	J19	-----
1002	J40-01	08	>>	J19	-----
1002	J40-02	03	>>	J19	-----
NC	-	04	>>	J19	-----
From Fan		04	>>	J48	-----
From Fan		02	>>	J48	-----
1002	J40-03	01	>>	J19	-----
1002	J40-15	06	>>	J19	-----
NC	-	02	>>	J19	-----



**SIGNAL OUTPUTS**

J44	>>	04	-----	Head Alignment Test Jack
J44	>>	02	-----	Head Alignment Test Jack
J44	>>	06	-----	Head Alignment Test Jack
J44	>>	03	-----	Head Alignment Test Jack
J44	>>	01	-----	Head Alignment Test Jack
J44	>>	05	-----	Head Alignment Test Jack

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0201	1-30		

4 3 2 1

UNUSED LOGIC ELEMENTS

TYPE	LOCATION	OUTPUT PINS
10125	C209	12, 1
7404	C821	8
74LS04	E865	10, 12

UNUSED RESISTOR PACKS

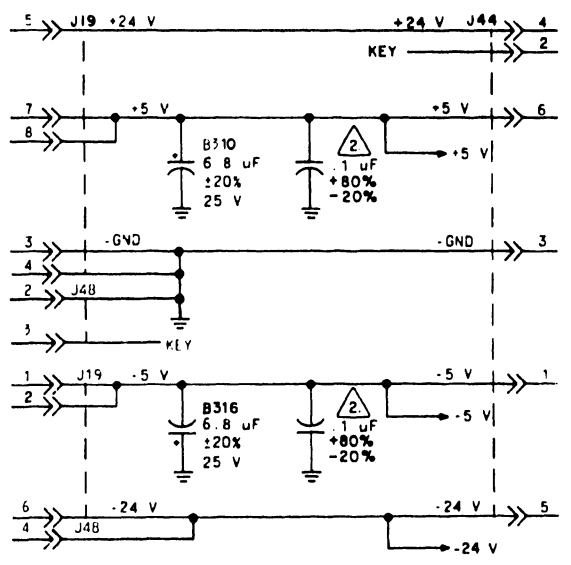
VALUE	LOCATION	PINS
1 k $\Omega$	E543	2, 5, 7
1 k $\Omega$	E195	8
56 $\Omega$	B944	6, 7, 8
470 $\Omega$	C009	4, 5, 8
1 k $\Omega$	D332	6, 7, 8
47 k $\Omega$	E365	2, 4, 8
47 k $\Omega$	C865	3, 4, 5

FILTER CAPS <sup>2</sup>

.1 $\mu$ F	
+5 V	-5 V
C721	B323
A525	C733
C021	C611
B333	E045
D257	A625
E698	C756
C633	E745
C711	D245
D225	D357
D945	D956
B233	B133
D165	C621
	C765

PART NO RANGE		REVISION RECORD				
REV	ECO	DESCRIPTION	DRFT	DATE	CHKD	APP
	02 THRU 02					
A	DJ23000	RELEASED		1-3-82		
B	DJ03278	SCH CHGS	DLM	2-16-82		III
C	DJ03319	ADD FAN FAULT GND.	MJ	5-18-83		
D	DJ03358	CORRECTIONS	MJ	1-14-83		
E	DJ03392	CEBN $\rightarrow$ EEBN	MJ	10-13-83		
F	DJ03474	RESISTOR CHANGES	CB	1-13-84		

- NOTES:
- UNLESS OTHERWISE SPECIFIED:  
ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GND AND PIN 14 CONNECTED TO +5 V.  
ALL DIODES 15165580.  
ALL TRANSISTORS, 2N3646, PNP, 50210310.  
ALL RESISTOR PACK RESISTORS 1/8 W.  $\pm$ 3%.
  - <sup>2</sup> SEE TABLE FOR FILTER CAP LOCATIONS.
  - <sup>3</sup> J05 IS A/B CABLE JUMPER.
  - <sup>4</sup> DELAY TIME FOR REFERENCE ONLY.
  - ALL  $\bigcirc$ - $\bigcirc$  INDICATES MOLDED JUMPER WIRES.

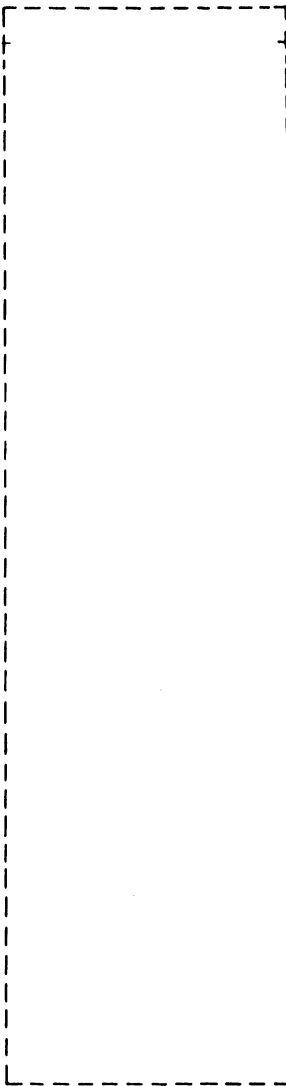


APPLIES TO SINGLE CHANNEL UNITS ONLY.

REFERENCE DRAWING			MAGNETIC PERIPHERALS INC		TITLE	
COMP ASSY 54020502			FIRST USED ON		83324630	
CTR 54020702			NEXT ASSEMBLY		E	
COMPONENTS EXCEPT AS NOTED			DWN	C. Semakula	11-22-82	
RES	TOLERANCE	VALUE	RATING	CHKD	DG Dent	12-7-82
	$\pm$ 5%	OHMS	1/4W	ENGR	G. J. ...	1-7-82
CAP	$\pm$ 10%			MFG	...	
				DA	...	
FSCW NC				19333		0201
REF: 54020602/05				1		SHEET 1 OF 7
				PAGE 1-30.1		PRODC'T RSD/FSD

**SIGNAL INPUTS**

0405 J14-10 21-->> J20

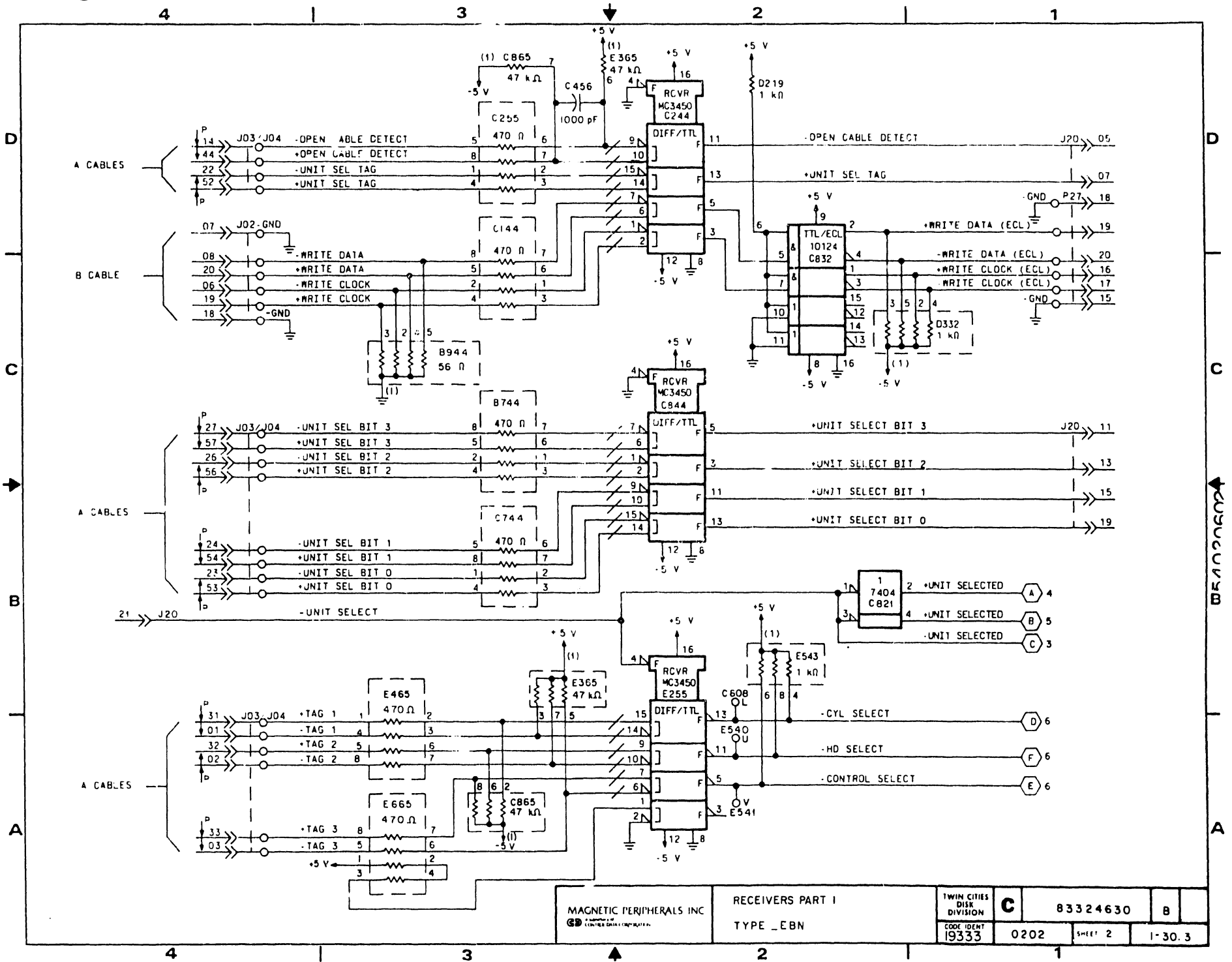


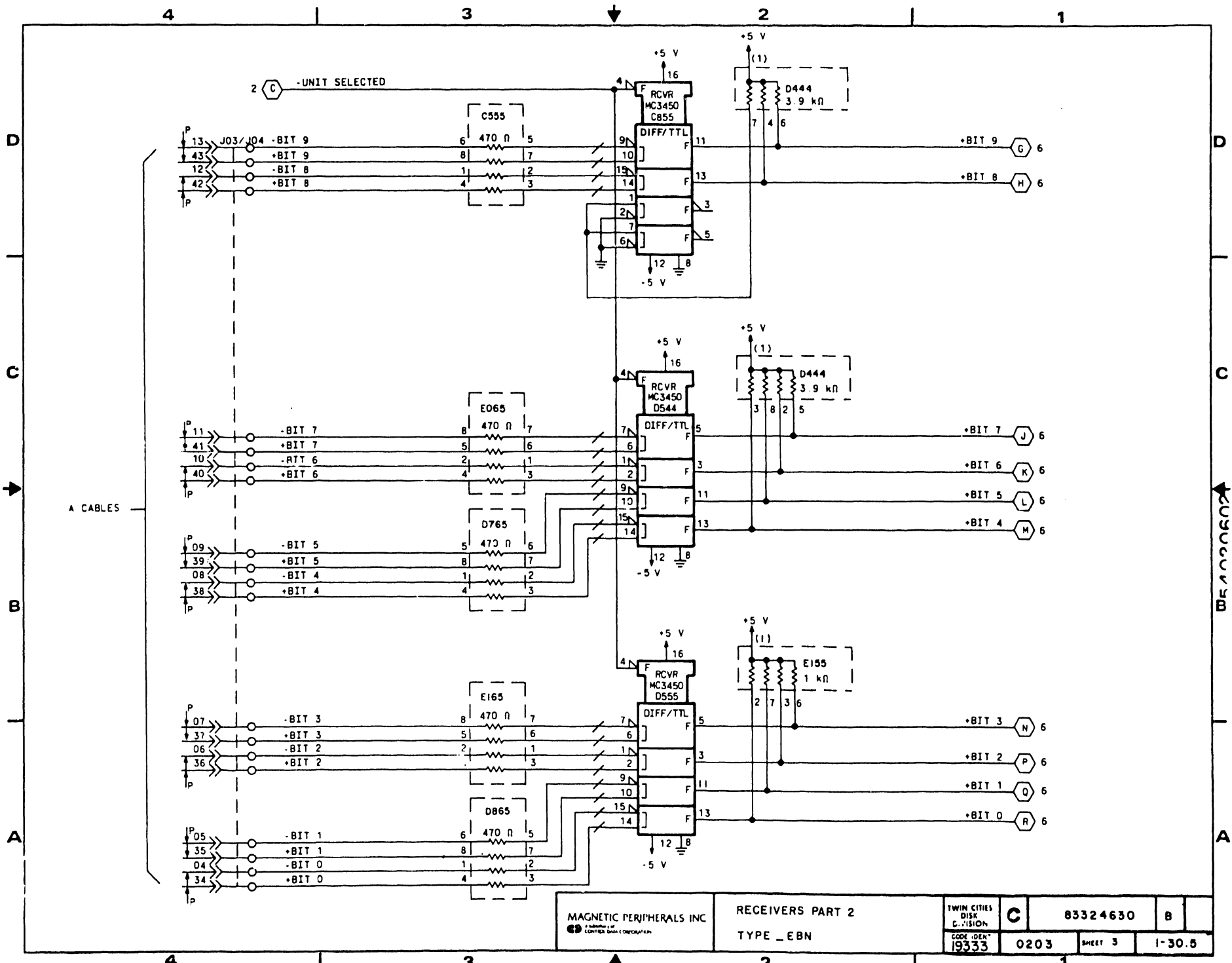
**SIGNAL OUTPUTS**

J20-->>05	0405 J14-18
J20-->>07	0405 J14-17
P27-->>18	0701 J27-18
P27-->>19	0702 J27-19
P27-->>20	0702 J27-20
P27-->>16	0702 J27-16
P27-->>17	0702 J27-17
P27-->>15	0701 J27-15
J20-->>11	0405 J14-15
J20-->>13	0405 J14-14
J20-->>15	0405 J14-13
J20-->>19	0405 J14-11

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0202	PAGE	1-30,2



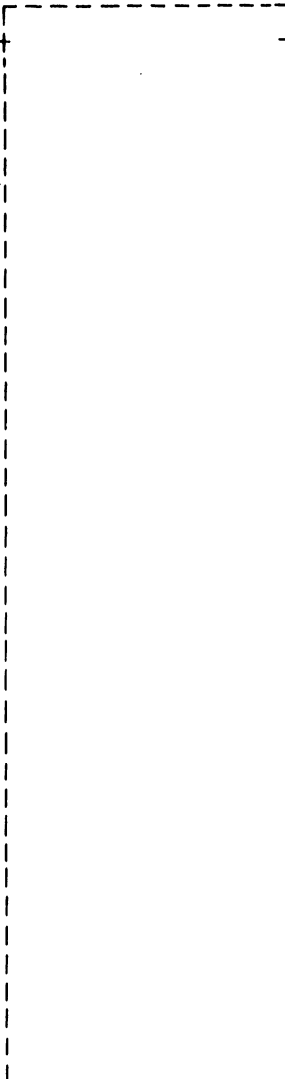




**SIGNAL INPUTS**

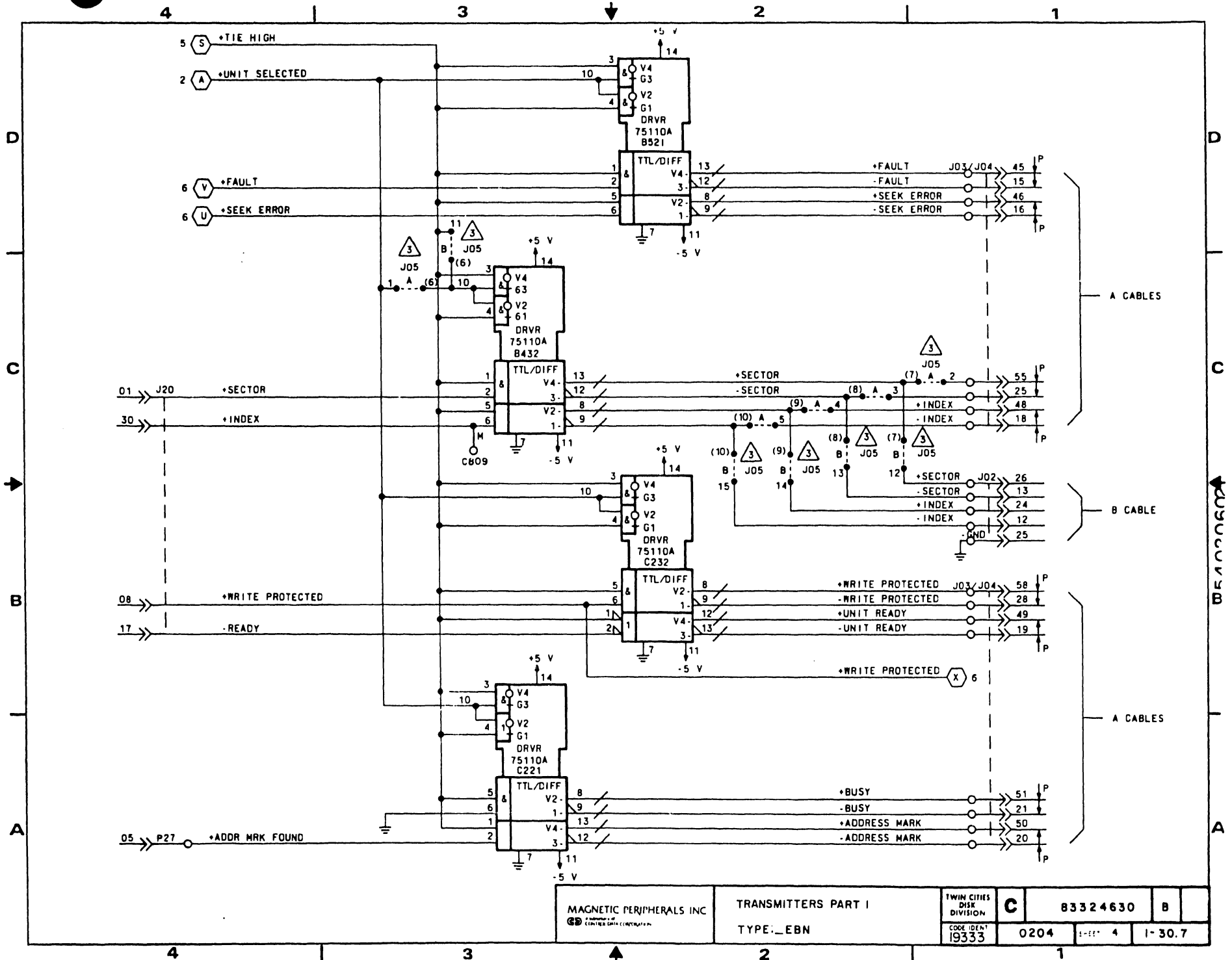
0410	J14-20	01	>>	J20
0410	J14-35	30	>>	J20
0409	J14-24	08	>>	J20
0406	J14-12	17	>>	J20
0705	J27-05	05	>>	P27

**SIGNAL OUTPUTS**



**LOGIC CROSS REFERENCE INFORMATION**

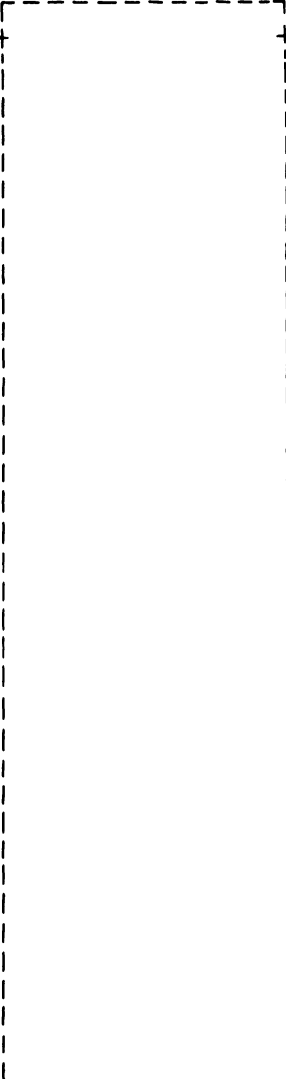
PUB	83324630	REV	B
CROSS REF NO	0204	PAGE	1-30.6



MAGNETIC PERIPHERALS INC <small>GE</small> GENERAL ELECTRIC CORPORATION	TRANSMITTERS PART I TYPE: EBN	TWIN CITIES DISK DIVISION	C	83324630	B
		CODE IDENT 19333			

**SIGNAL INPUTS**

0703 J27-01 01 ->> P27  
0703 J27-02 02 ->> P27  
0702 J27-14 14 ->> P27  
0702 J27-13 13 ->> P27  
0702 J27-11 11 ->> P27  
0702 J27-10 10 ->> P27  
0701 J27-12 12 ->> P27  
0410 J14-16 09 ->> J20

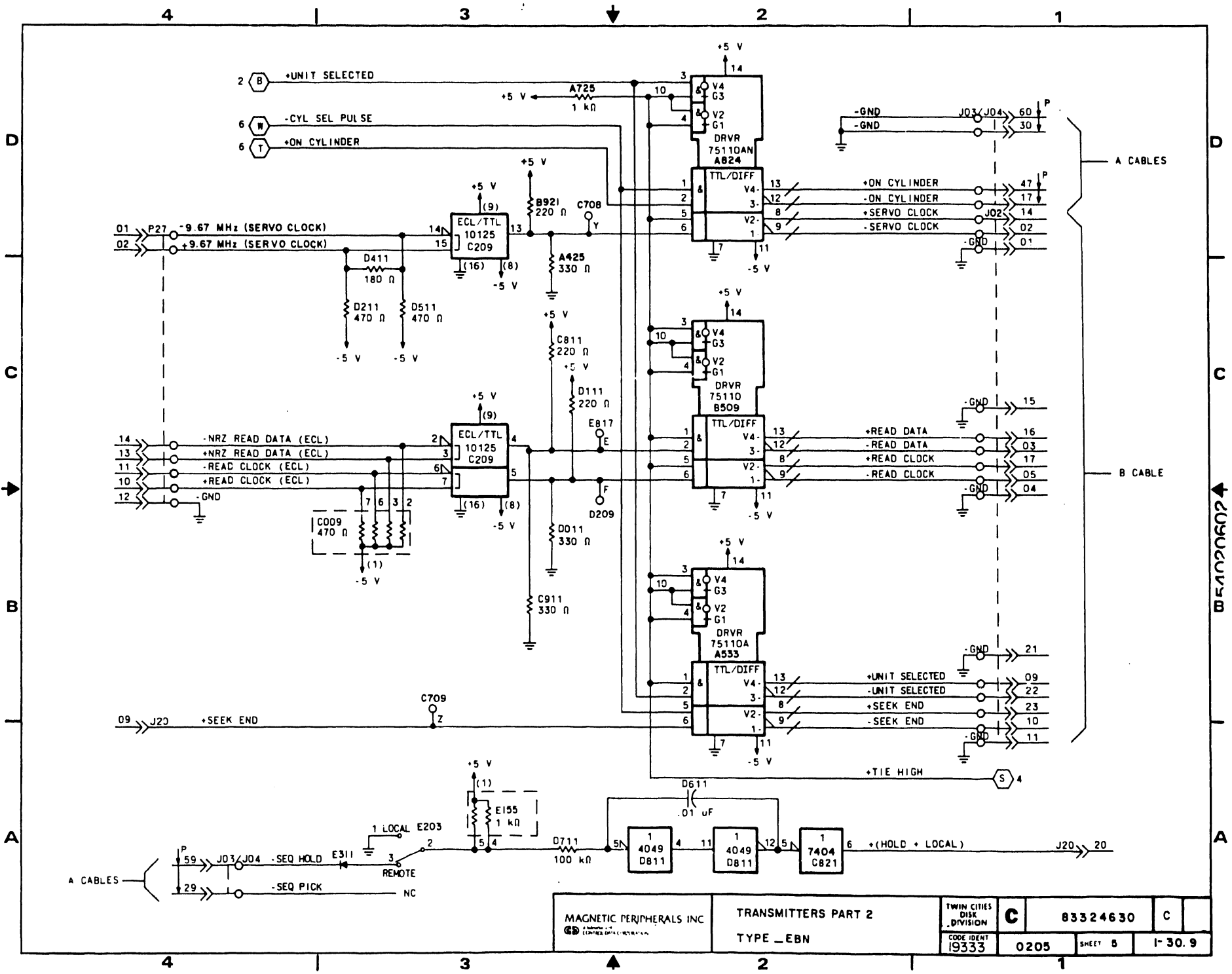


**SIGNAL OUTPUTS**

J20 ->> 20 0407 J14-30

**LOGIC CROSS REFERENCE INFORMATION**

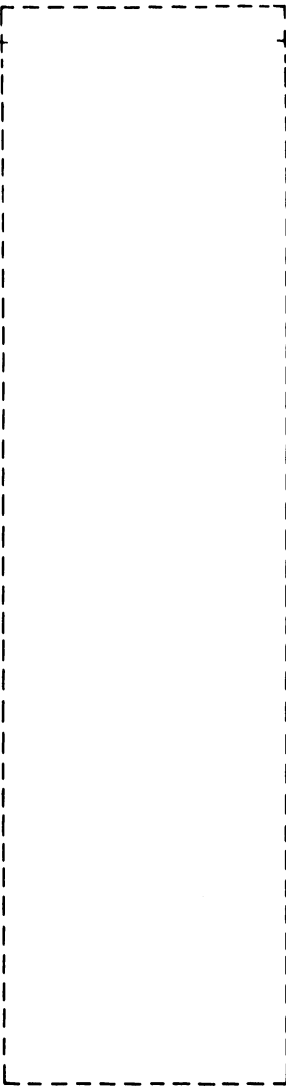
PUB 83324630		REV B
CROSS REF NO 0205	PAGE 1-30.8	



MAGNETIC PERIPHERALS INC A DIVISION OF GENERAL ELECTRIC COMPANY	TRANSMITTERS PART 2	TWIN CITIES DISK DIVISION	C	83324630	C
	TYPE_EBN	CODE IDENT 19333	0205	SHEET 5	I-30.9

**SIGNAL INPUTS**

From Fan	01	>>	J48
0409 J14-31	22	>>	J20
0406 J14-08	25	>>	J20
0406 J14-09	23	>>	J20
0403 J14-29	18	>>	J20
0704 J27-08	08	>>	P27
0404 J14-21	02	>>	J20

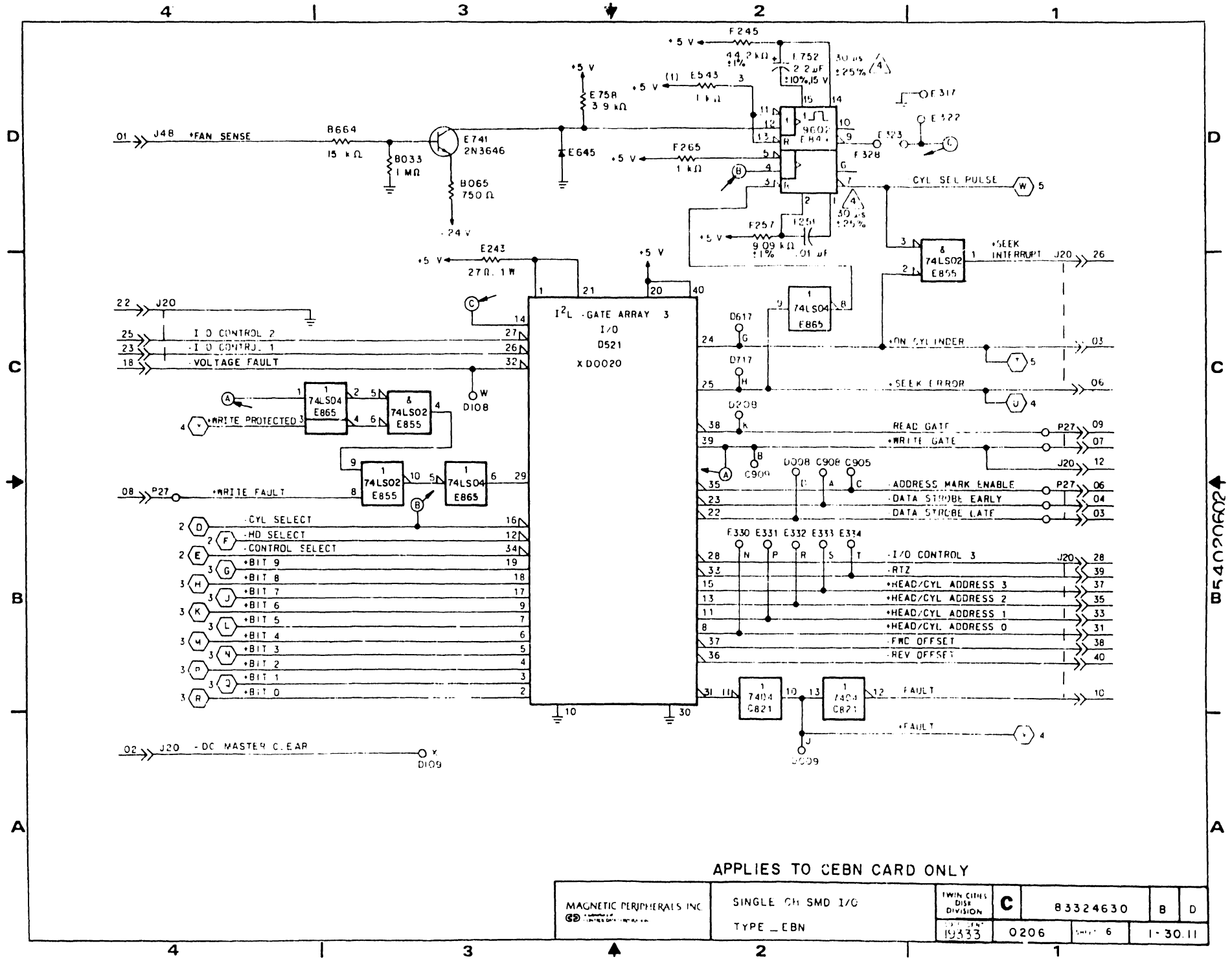


**SIGNAL OUTPUTS**

J20	>>	26	0406 J14-33
J20	>>	03	0410 J14-19
J20	>>	06	0410 J14-23
P27	>>	09	0704 J27-09
P27	>>	07	0702 J27-07
J20	>>	12	0409 J14-26
P27	>>	06	0704 J27-06
P27	>>	04	0705 J27-04
P27	>>	03	0705 J27-03
J20	>>	28	0406 J14-34
J20	>>	39	0406 J14-01
J20	>>	37	0406 J14-02
J20	>>	35	0406 J14-03
J20	>>	33	0406 J14-04
J20	>>	31	0406 J14-05
J20	>>	38	0418 J14-39
J20	>>	40	0418 J14-40
J20	>>	10	0406 J14-25

**LOGIC CROSS REFERENCE INFORMATION**

PUB		83324630	REV	D
CROSS REF NO	0206	PAGE	1-30.10	



MAGNETIC PERIPHERALS INC 	SINGLE CH SMD I/O	TWIN CITIES DISK DIVISION	C	83324630	B	D
	TYPE - CBN	19333				

**SIGNAL INPUTS**

From Fan	01	-->>	J48
0409 J14-31	22	-->>	J20
0406 J14-08	25	-->>	J20
0406 J14-09	23	-->>	J20
0403 J14-29	18	-->>	J20
0704 J27-08	08	-->>	P27
0404 J14-21	02	-->>	J20

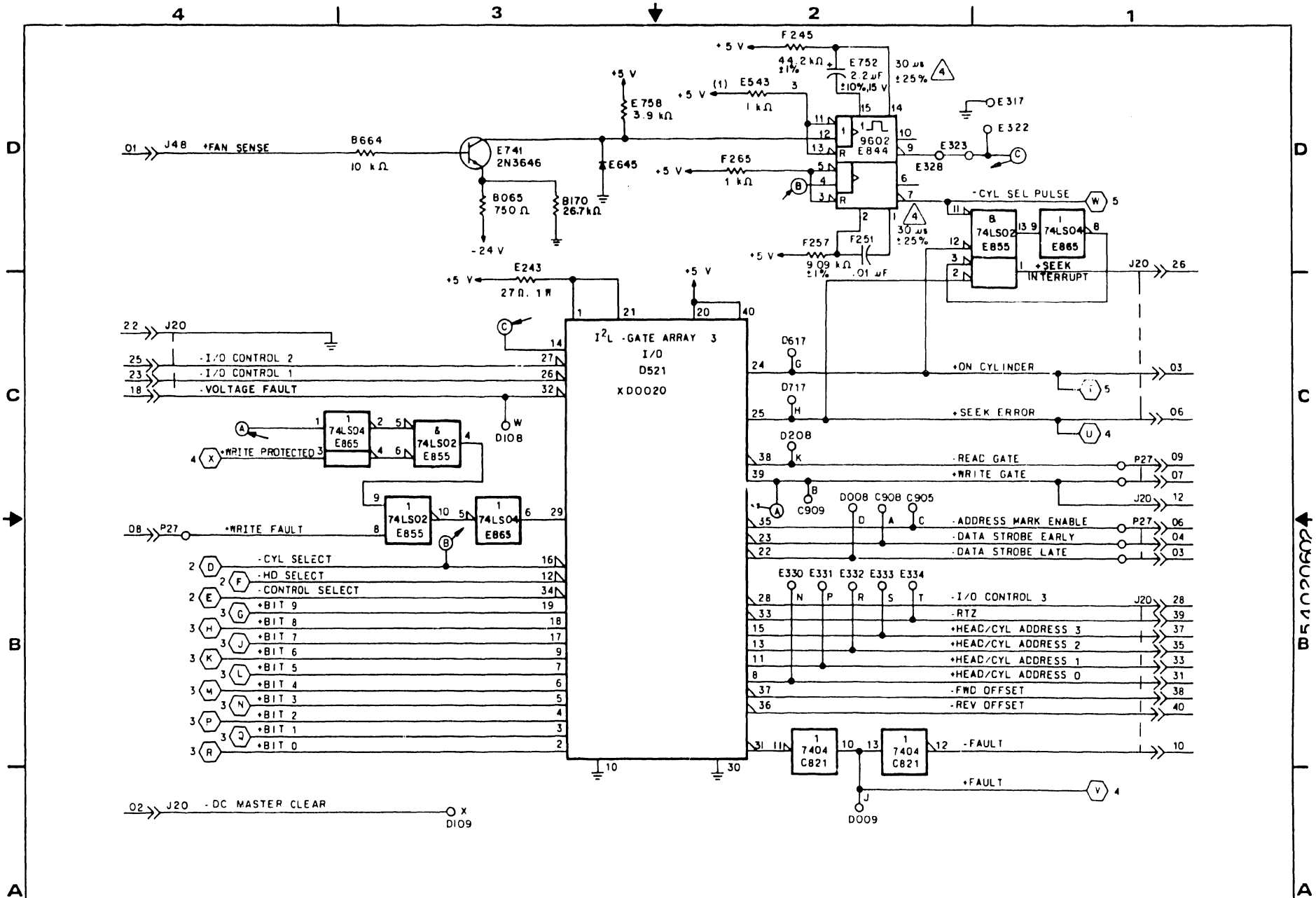


**SIGNAL OUTPUTS**

J20	-->>	26	0406	J14-33
J20	-->>	03	0410	J14-19
J20	-->>	06	0410	J14-23
P27	-->>	09	0704	J27-09
P27	-->>	07	0702	J27-07
J20	-->>	12	0409	J14-26
P27	-->>	06	0704	J27-06
P27	-->>	04	0705	J27-04
P27	-->>	03	0705	J27-03
J20	-->>	28	0406	J14-34
J20	-->>	39	0406	J14-01
J20	-->>	37	0406	J14-02
J20	-->>	35	0406	J14-03
J20	-->>	33	0406	J14-04
J20	-->>	31	0406	J14-05
J20	-->>	38	0418	J14-39
J20	-->>	40	0418	J14-40
J20	-->>	10	0406	J14-25

**LOGIC CROSS REFERENCE INFORMATION**

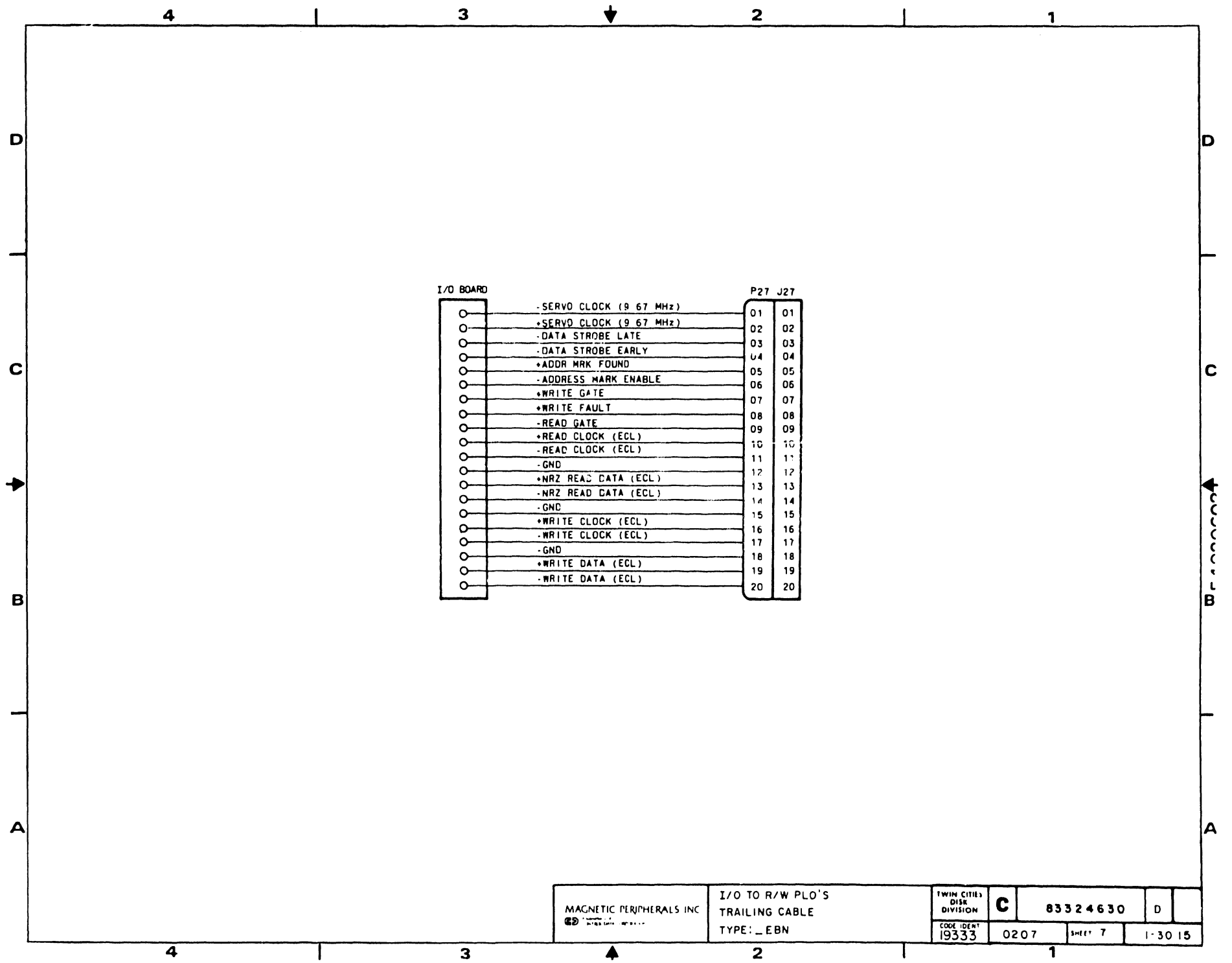
PUB	83324630	REV	D
CROSS REF NO	0206	PAGE	1-30.12



APPLIES TO ALL \_EBN CARDS EXCEPT B/CB/N.

MAGNETIC PERIPHERALS INC A DIVISION OF CENTRAL DATA CORPORATION	SINGLE CH SMD I/O	TWIN CITIES DISK DIVISION	<b>C</b>	(13324630	E
	TYPE _EBN	CODE IDENT 19333	0206	SHEET 6	1-30.13

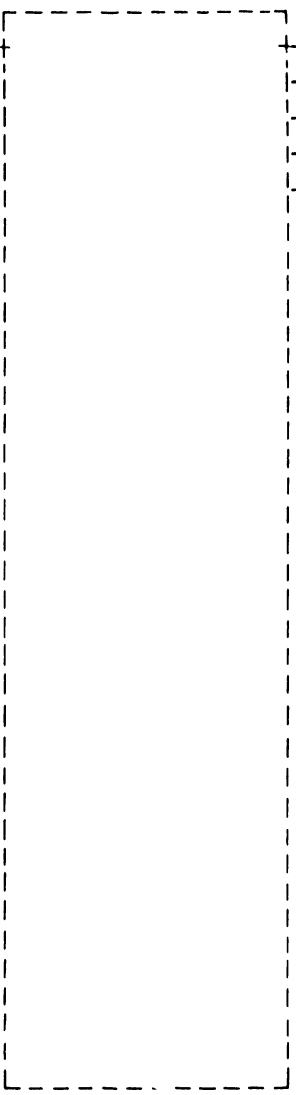




I/O BOARD		P27 J27	
○	-SERVO CLOCK (9.67 MHz)	01	01
○	+SERVO CLOCK (9.67 MHz)	02	02
○	-DATA STROBE LATE	03	03
○	-DATA STROBE EARLY	04	04
○	+ADDR MRK FOUND	05	05
○	-ADDRESS MARK ENABLE	06	06
○	+WRITE GATE	07	07
○	+WRITE FAULT	08	08
○	-READ GATE	09	09
○	+READ CLOCK (ECL)	10	10
○	-READ CLOCK (ECL)	11	11
○	-GND	12	12
○	+NRZ READ DATA (ECL)	13	13
○	-NRZ READ DATA (ECL)	14	14
○	-GND	15	15
○	+WRITE CLOCK (ECL)	16	16
○	-WRITE CLOCK (ECL)	17	17
○	-GND	18	18
○	+WRITE DATA (ECL)	19	19
○	-WRITE DATA (ECL)	20	20

**SIGNAL INPUTS**

1002	J40-11	05	>>	J19	-----
NC	-	07	>>	J19	-----
1002	J40-01	08	>>	J19	-----
1002	J40-02	03	>>	J19	-----
NC	-	04	>>	J19	-----
1002	J40-03	01	>>	J19	-----
1002	J40-15	06	>>	J19	-----
NC	-	02	>>	J19	-----



**SIGNAL OUTPUTS**

J44	>>	04	-----	Head Alignment Test Jack
J44	>>	06	-----	Head Alignment Test Jack
J44	>>	03	-----	Head Alignment Test Jack
J44	>>	01	-----	Head Alignment Test Jack
J44	>>	05	-----	Head Alignment Test Jack

**LOGIC CROSS REFERENCE INFORMATION**

PUB		83324630		REV	D
CROSS REF NO	0201	PAGE	1-30.16		

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3

2

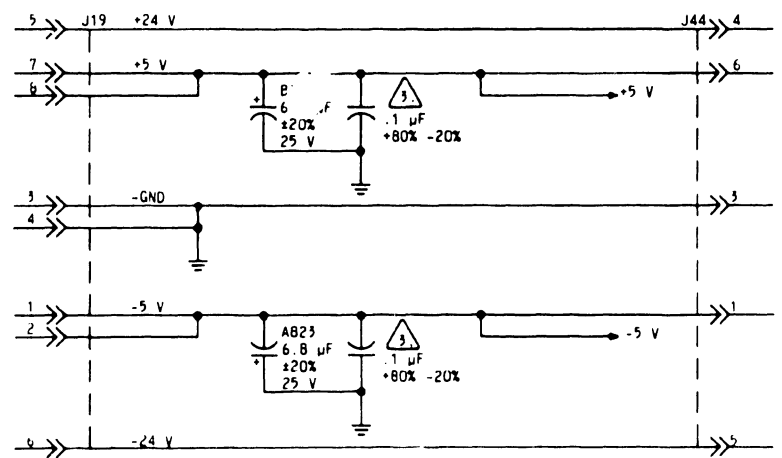
1

UNUSED LOGIC ELEMENTS		
ELEMENT	LOCATION	OUTPUT PINS
10125	C510	4
4049	K153	10, 12, 15

FILTER CAPS	
.1 $\mu$ F	
+5 V	-5 V
B710	A752
C920	B722
E111	D611
E264	D621
E732	E142
E821	E231
E842	E864
F453	F411
F931	F421
G022	G031
G064	G042
G642	G664
H253	J342
H732	
H764	
J938	
J944	
K653	
K764	

PART NO. RANGE	REVISION RECORD						
	REV	ECO	DESCRIPTION	DRFT	DATE	CHKD	APP
00 THRU 00	A	0123000	RELEASED		3-6-83		CSH

1. UNLESS OTHERWISE SPECIFIED:
- ALL 16 PIN IC'S HAVE PIN 8 CONNECTED TO GROUND AND PIN 16 CONNECTED TO +5 V.
  - ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GROUND AND PIN 14 CONNECTED TO +5 V.
  - ALL DILCDES 15165580.
  - ALL TRANSISTORS, PNP, 2N3646, 50210310.
  - ALL RESISTOR PACK RESISTORS, 1/8 W,  $\pm 3\%$ .
  - ALL  $\bigcirc$ - $\bigcirc$  INDICATES MOLDED JUMPER WIRES.
2. DELAY TIME FOR REFERENCE ONLY.
3. SEE TABLE FOR .1  $\mu$ F FILTER CAPACITOR LOCATIONS.
4. J05 AND J06 ARE A/B CABLE JUMPER.



APPLIES TO DUAL CHANNEL UNITS ONLY.

REFERENCE DRAWING		MAGNETIC PERIPHERALS INC. a General Data Company		TITLE	
COMP ASSY. 54021300		FIRST USED ON		SCHEMATIC DIAGRAM	
CTR. 54021500		PA3A1-A, PA5A1-A		DUAL CH SMD I/O	
COMPONENTS EXCEPT AS NOTED		DWN		TWIN CITIES DISK DIVISION	
TOLERANCE		F. A.		C	
RES	$\pm 5\%$	VALUE	OHMS	83324630	B
CAP	$\pm 10\%$	RATING	1/4W	1-31	
ENGR		MFG		19333	
QA		GA		0201	
DATE		DATE		SHEET 1 OF 13	
1/26/83		7-27-83		1-31	
3-17-83		7-27-83		PRODUCT RSD/F30	
2-18-83		7-27-83		REF 54021400	

4

3

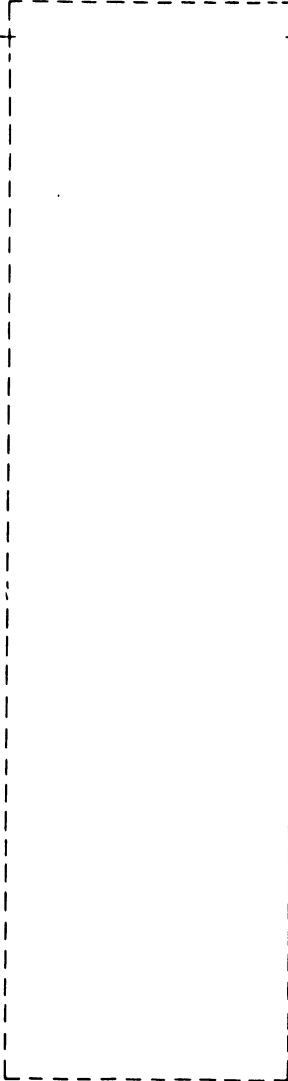
2

1

54021400

**SIGNAL INPUTS**

0405 J14-10 20 >> J20

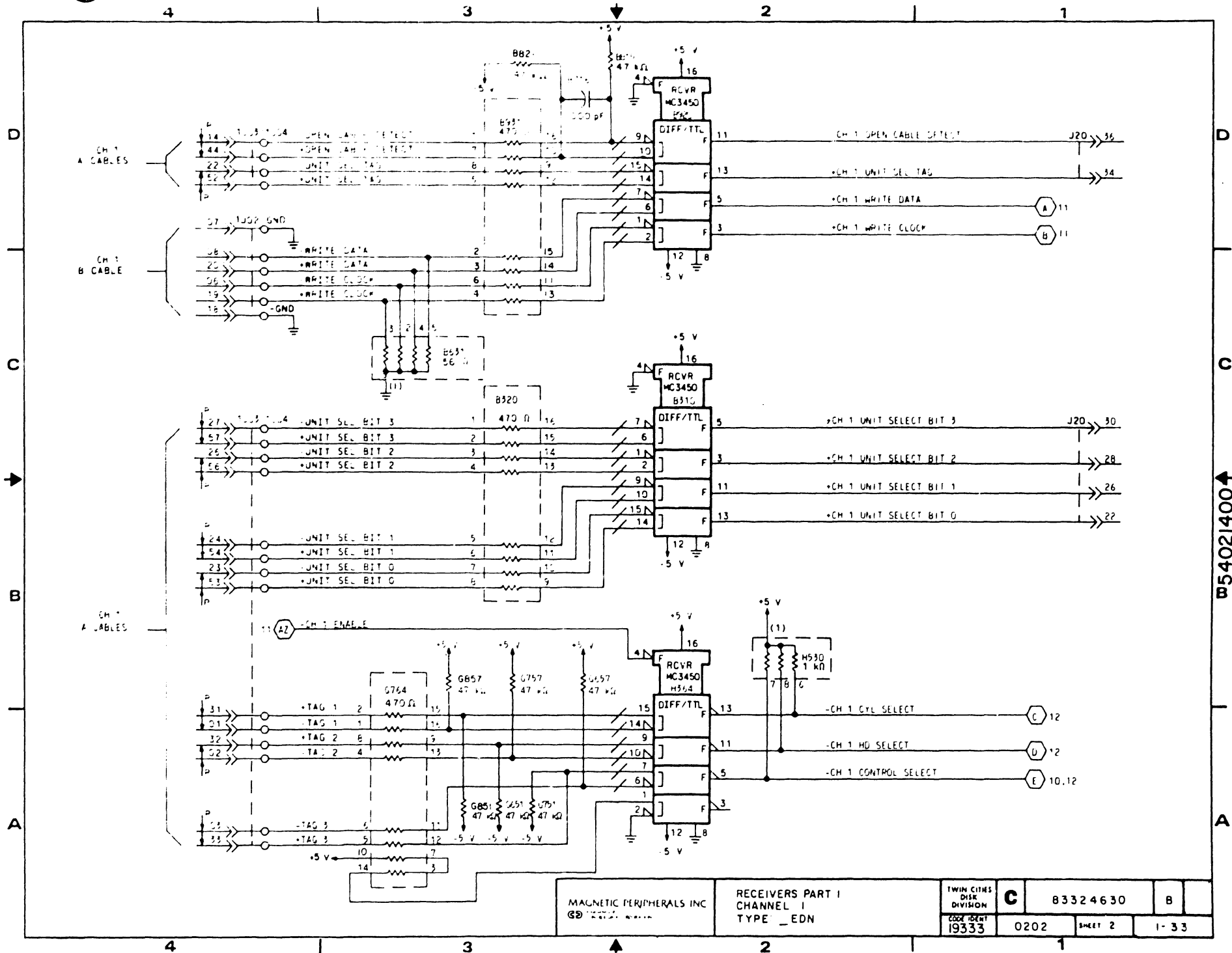


**SIGNAL OUTPUTS**

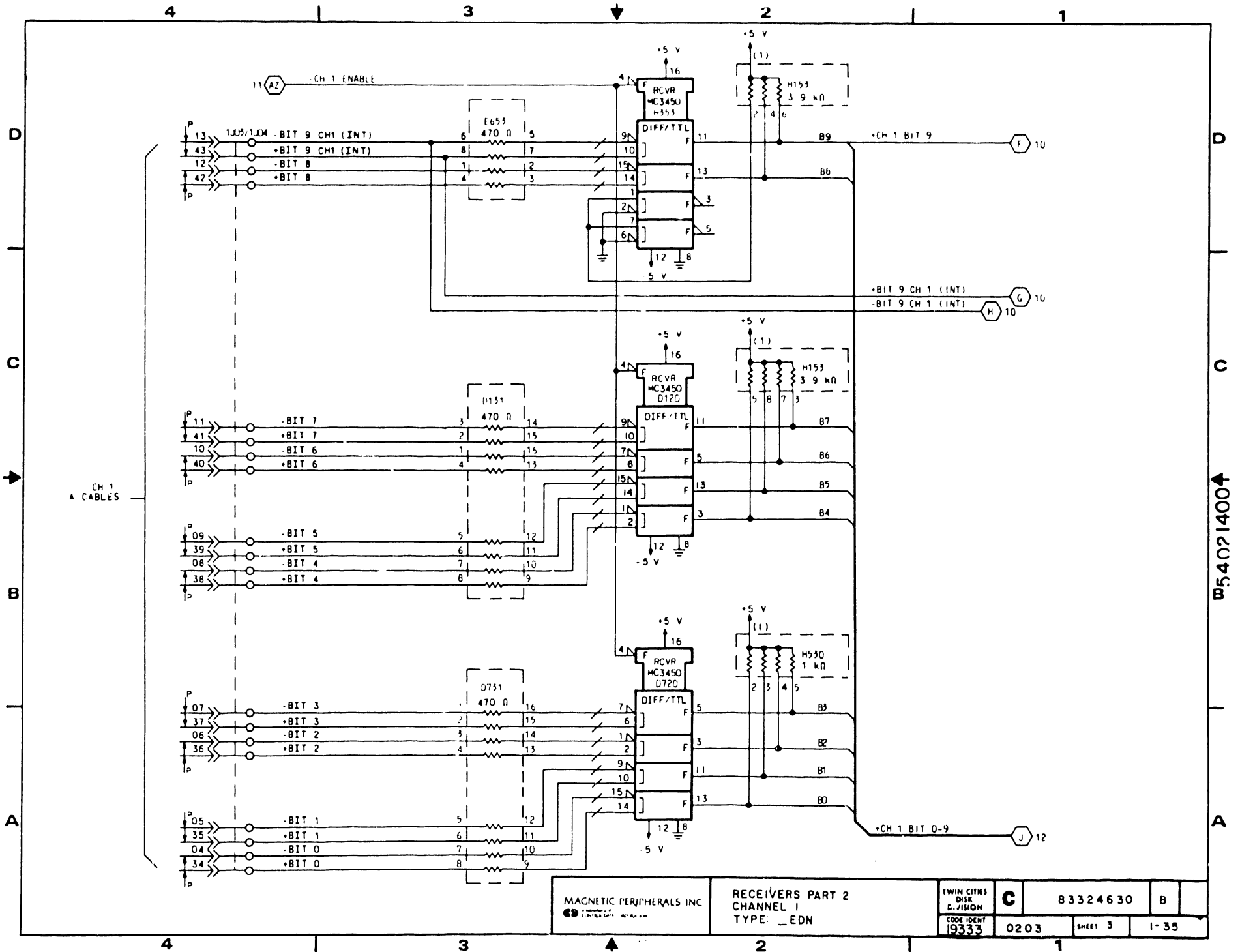
J20 >> 36	0405 J14-18
J20 >> 34	0405 J14-17
J20 >> 30	0405 J14-15
J20 >> 28	0405 J14-14
J20 >> 26	0405 J14-13
J20 >> 22	0405 J14-11

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0202	1-32		



w54021400↑



MAGNETIC PERIPHERALS INC  
 60 COMPANY ROAD

RECEIVERS PART 2  
 CHANNEL 1  
 TYPE: EDN

TWIN CITIES  
 DISK  
 DIVISION  
 CODE IDENT  
 19333

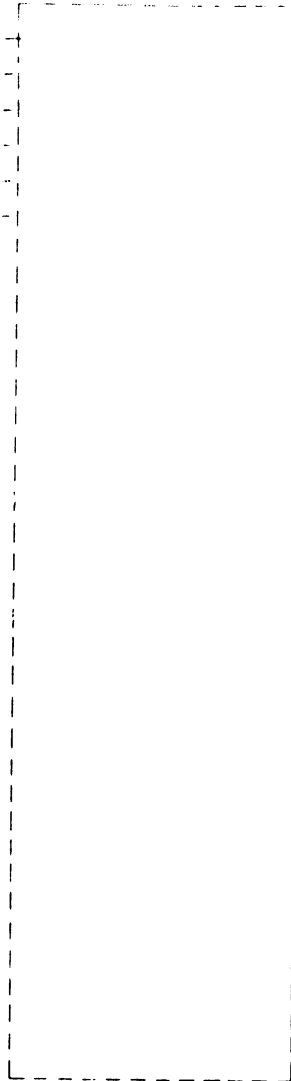
<b>C</b>	83324630	B
0203	SHEET 3	1-35

B540214004

### SIGNAL INPUTS

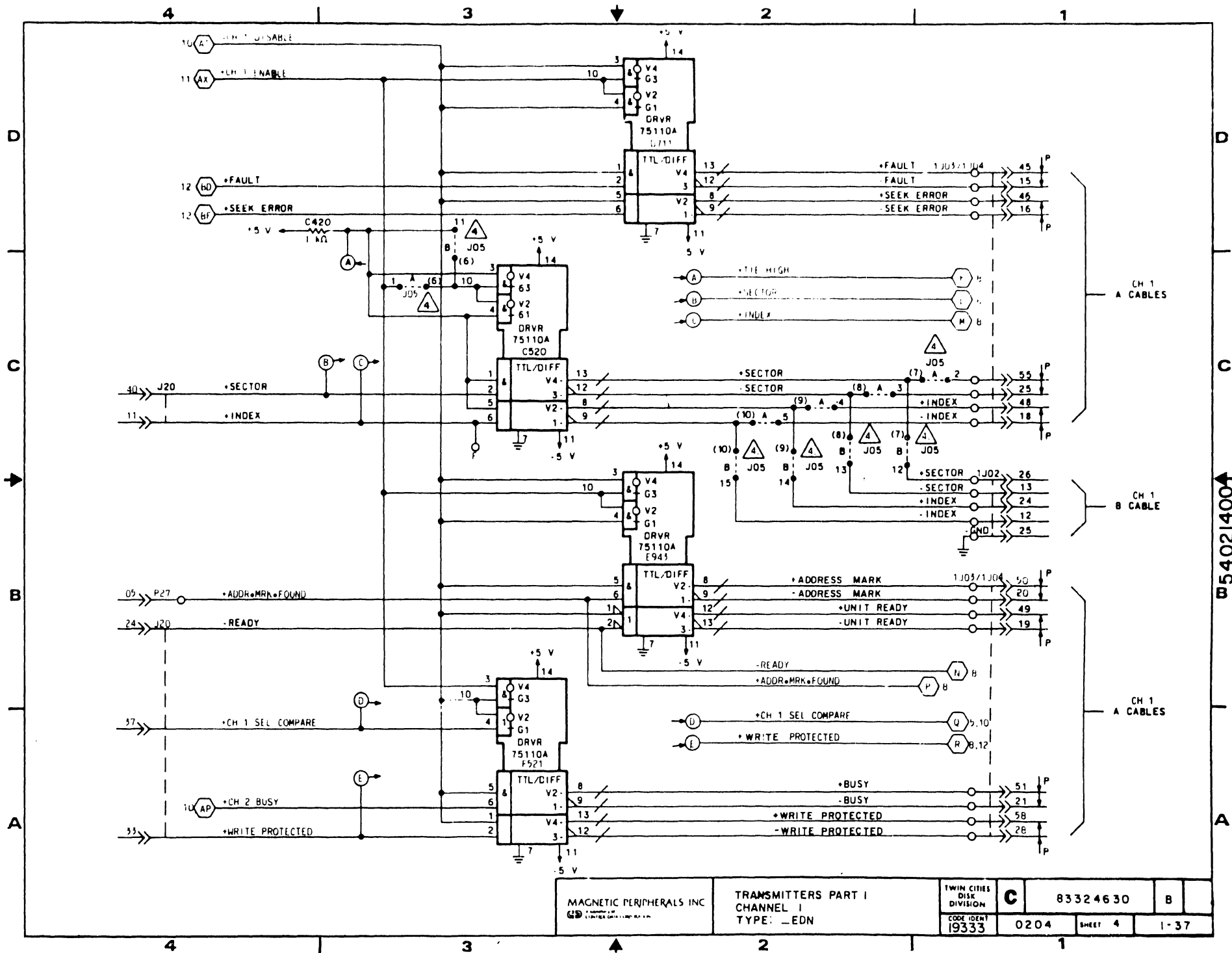
0410	J14-20	40	>>>	J20
0410	J14-35	11	>>>	J20
0705	J27-05	05	>>>	P27
0406	J14-12	24	>>>	J20
0405	J14-22	37	>>>	J20
0409	J14-24	33	>>>	J20

### SIGNAL OUTPUTS



### LOGIC CROSS REFERENCE INFORMATION

PUB	83324630	REV	B
CROSS REF NO	0204	PAGE	1-36



MAGNETIC PERIPHERALS INC  
10000 W. 10th Ave., Denver, Colorado 80202

TRANSMITTERS PART I  
 CHANNEL 1  
 TYPE: \_EDN

TWIN CITIES DISK DIVISION	<b>C</b>	83324630	B
CODE IDENT 19333	0204	SHEET 4	1-37

B54021400

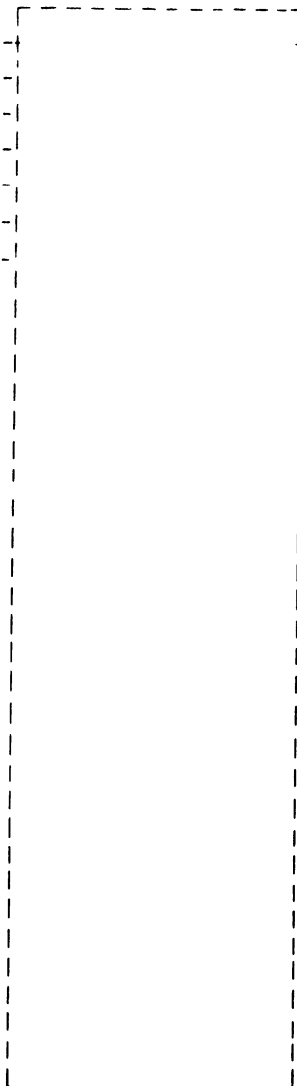


**SIGNAL INPUTS**

0703	J27-01	01	>>	P27
0703	J27-02	02	>>	P27
0702	J27-14	14	>>	P27
0702	J27-13	13	>>	P27
0702	J27-11	11	>>	P27
0702	J27-10	10	>>	P27
0701	J27-12	12	>>	P27

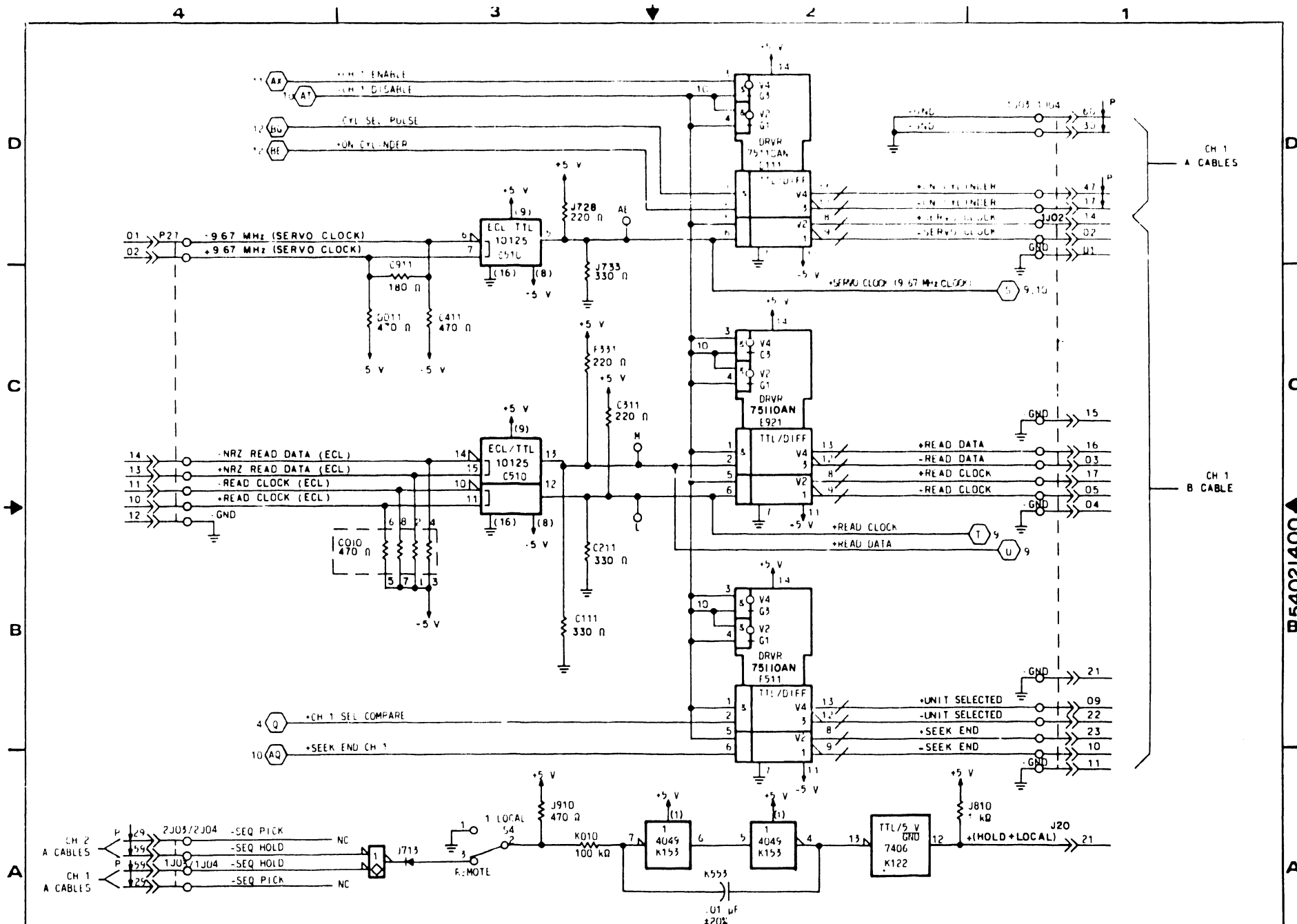
**SIGNAL OUTPUTS**

J20 >> 21 0407 J14-30



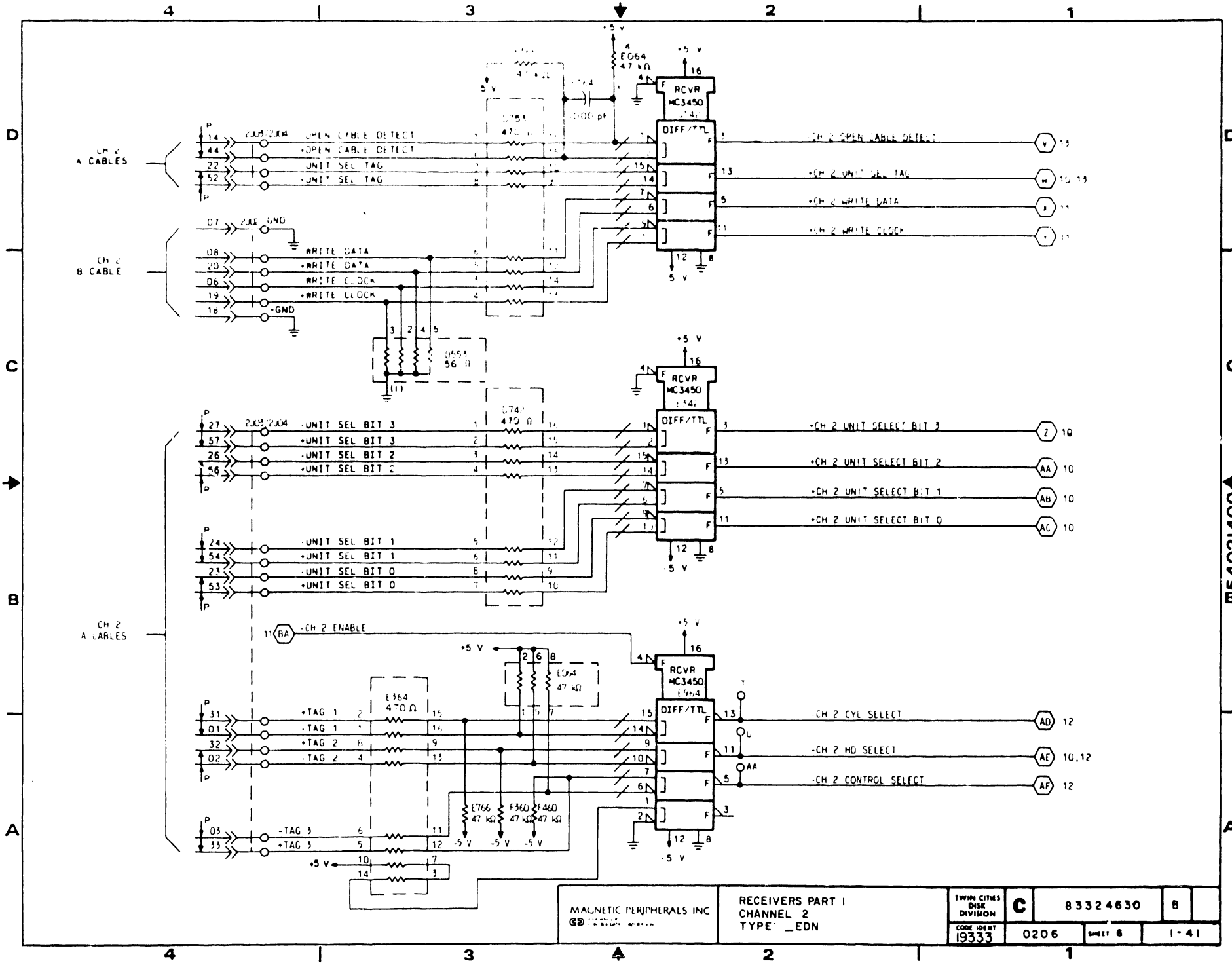
**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	0205	PAGE	1-38

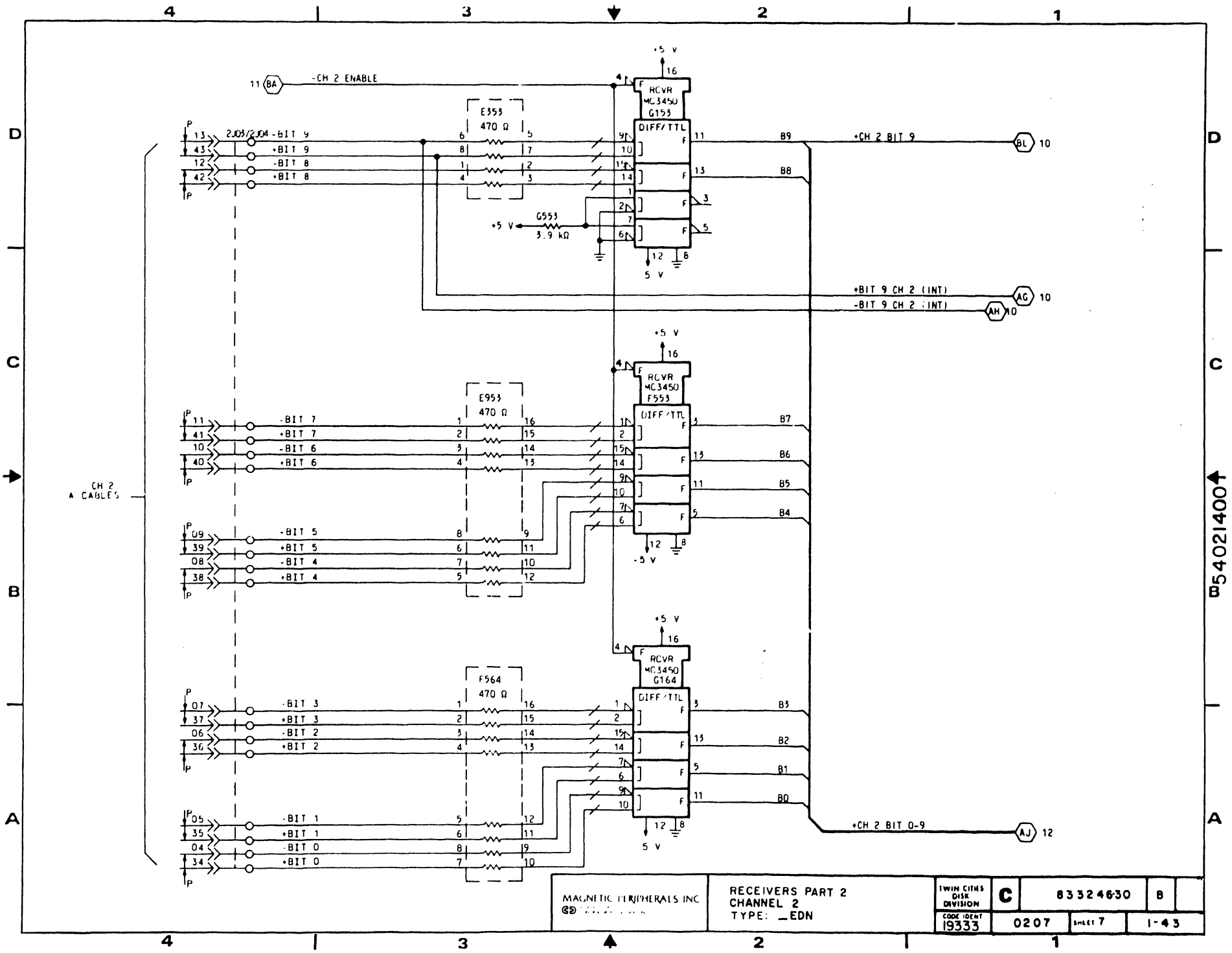


MAGNETIC PERIPHERALS INC 3000 ...	TRANSMITTERS PART 2 CHANNEL 1 TYPE: -EDN		TWIN CITIES DISK DIVISION	<b>C</b>	83324630	D
	CODE IDENT 19333	0205	SHEET 5	1-39		

W 54021400



B540214004



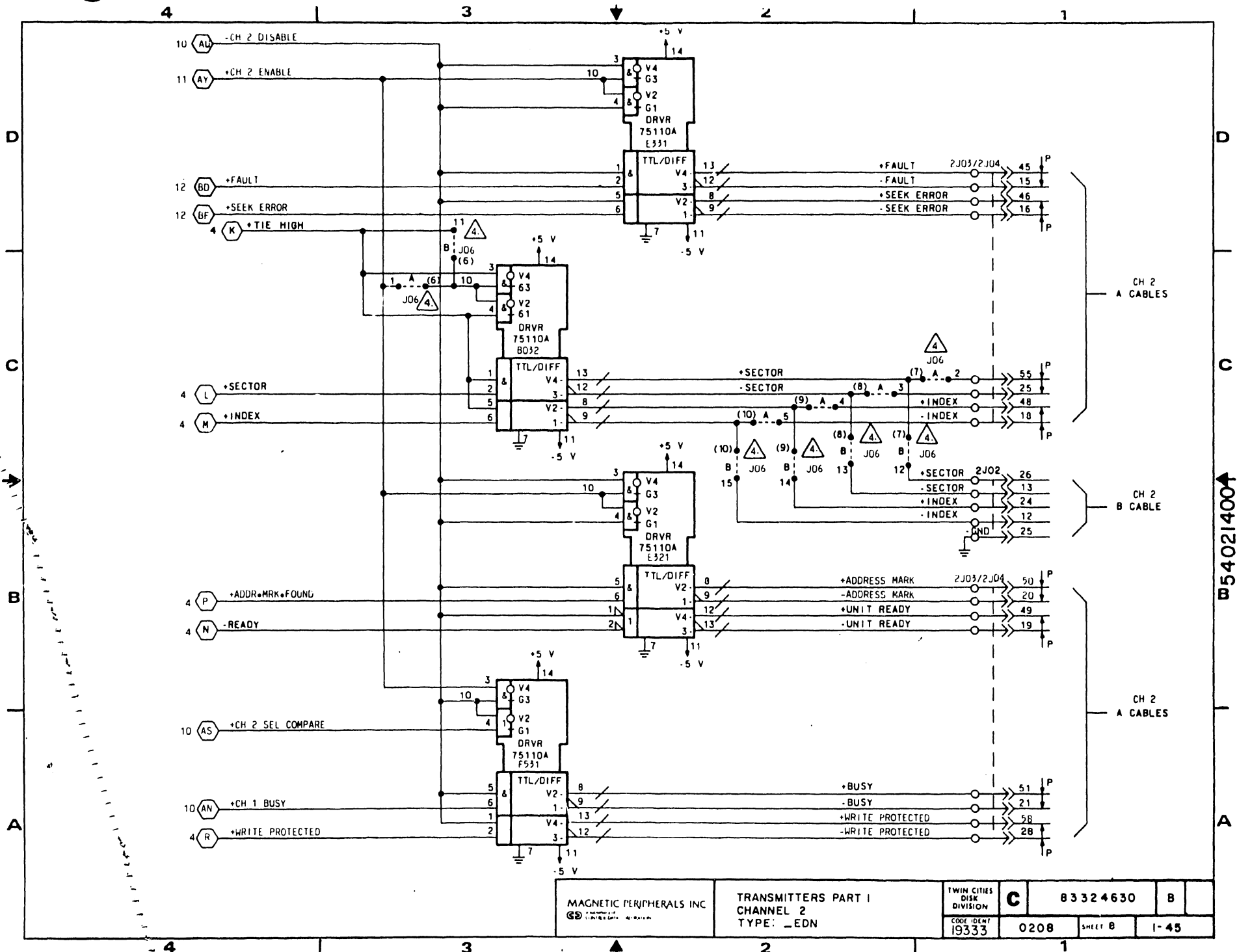
MAGNETIC PERIPHERALS INC  
 2000 S. ...

RECEIVERS PART 2  
 CHANNEL 2  
 TYPE: EDN

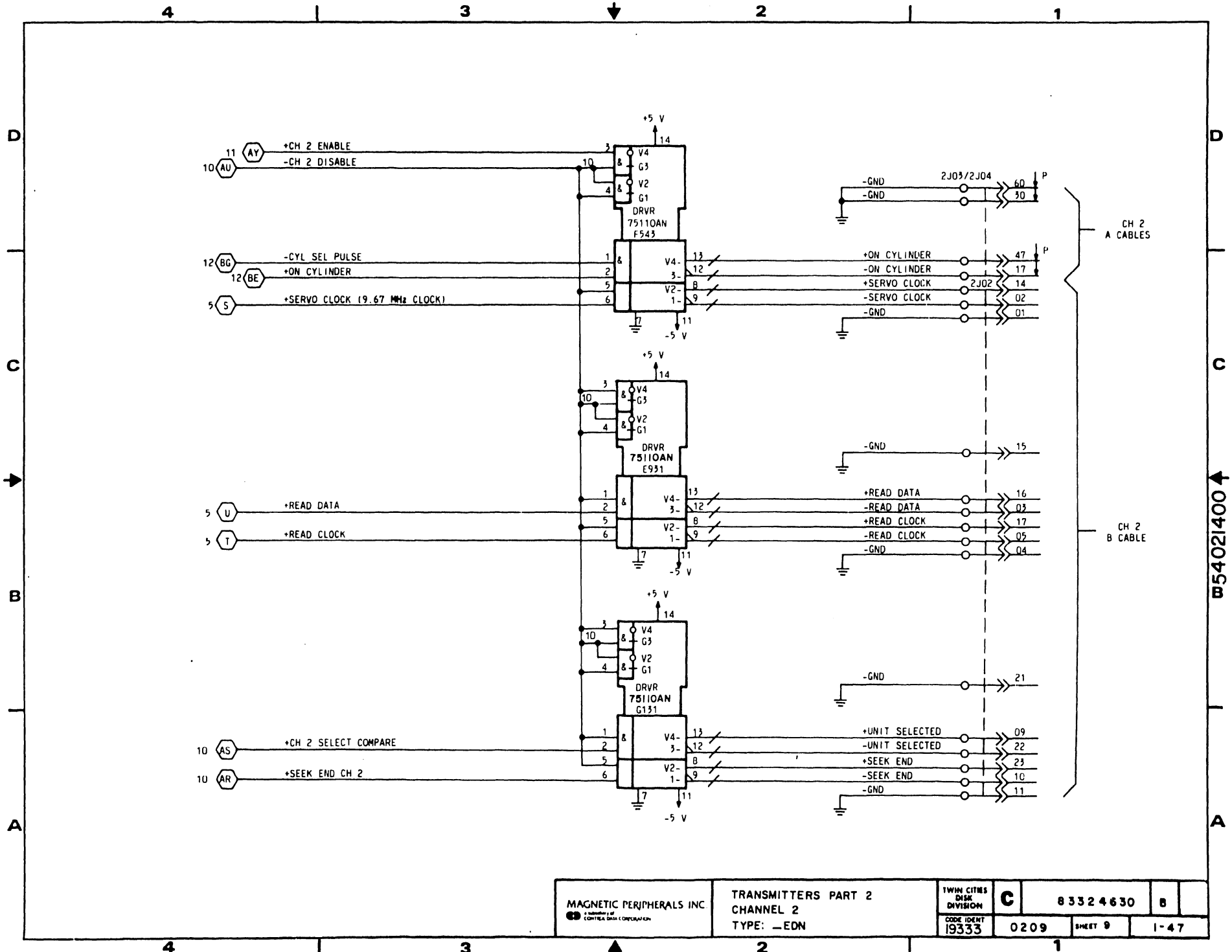
TWIN CITIES  
 DISK  
 DIVISION  
 CODE IDENT  
 19333

C	83324630	B
0207	SHEET 7	1-43

B54021400↑



B54021400A



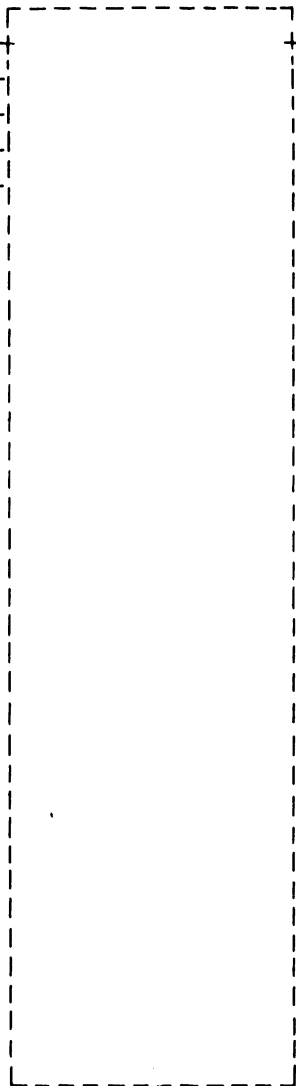
W54021400

**SIGNAL INPUTS**

0404 J14-21 39 ->> J20  
0405 J14-32 17 ->> J20  
0405 J14-07 14 ->> J20  
0405 J14-06 12 ->> J20  
0410 J14-16 32 ->> J20

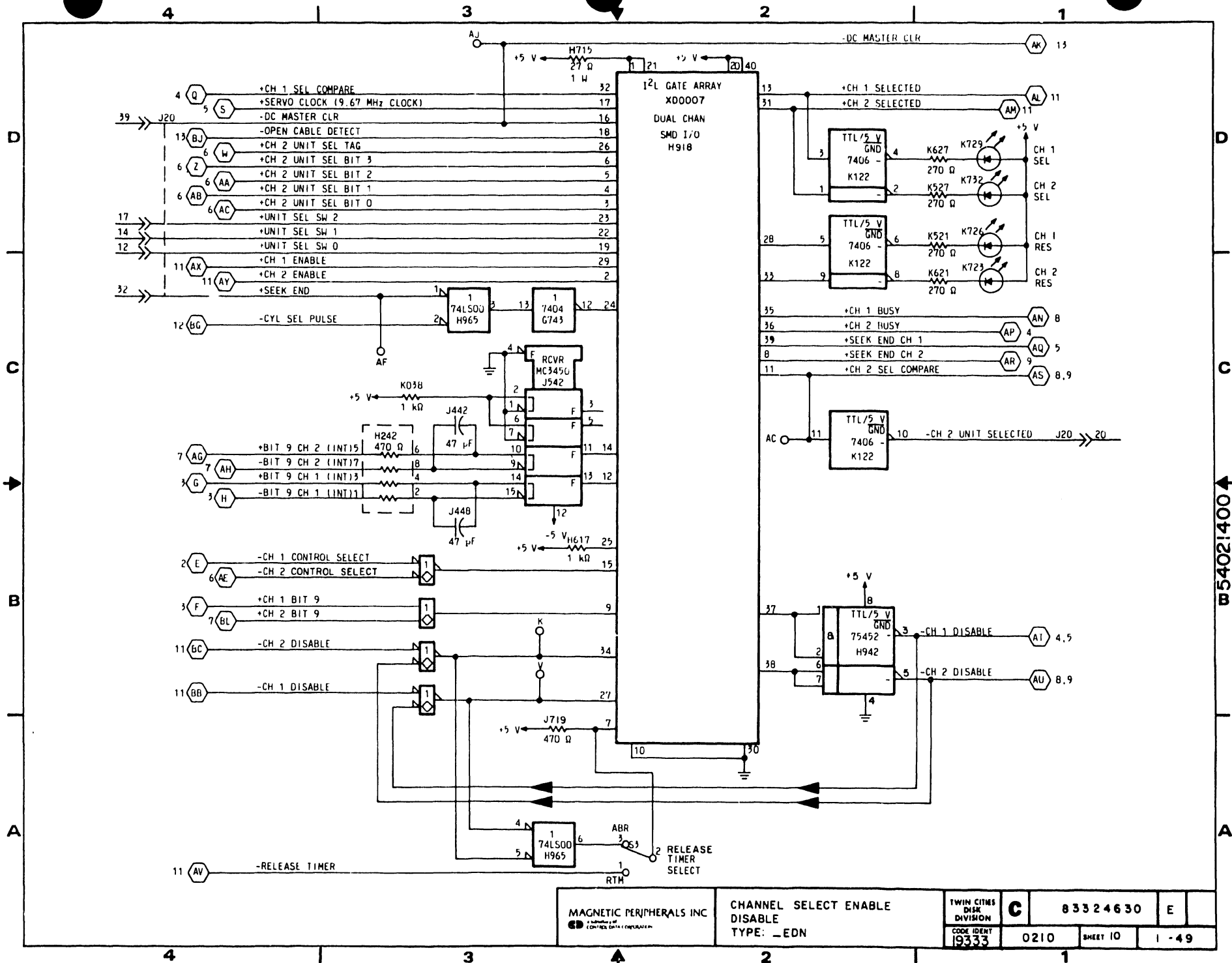
**SIGNAL OUTPUTS**

J20 ->> 20 0405 J14-10



**LOGIC CROSS REFERENCE INFORMATION**

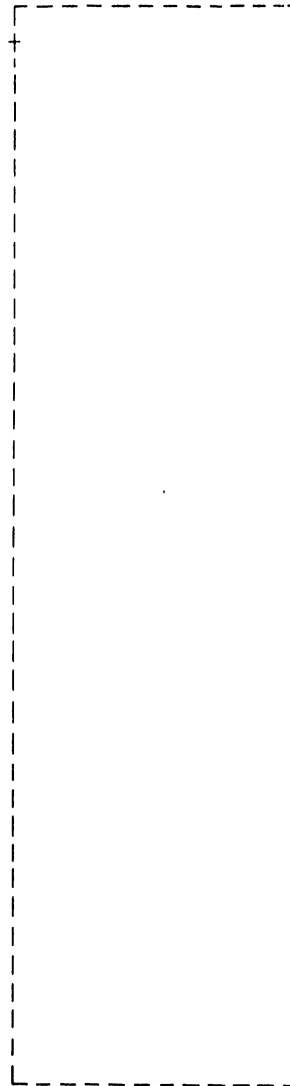
PUB		83324630	REV	B
CROSS REF NO	0210	PAGE	1-48	





**SIGNAL INPUTS**

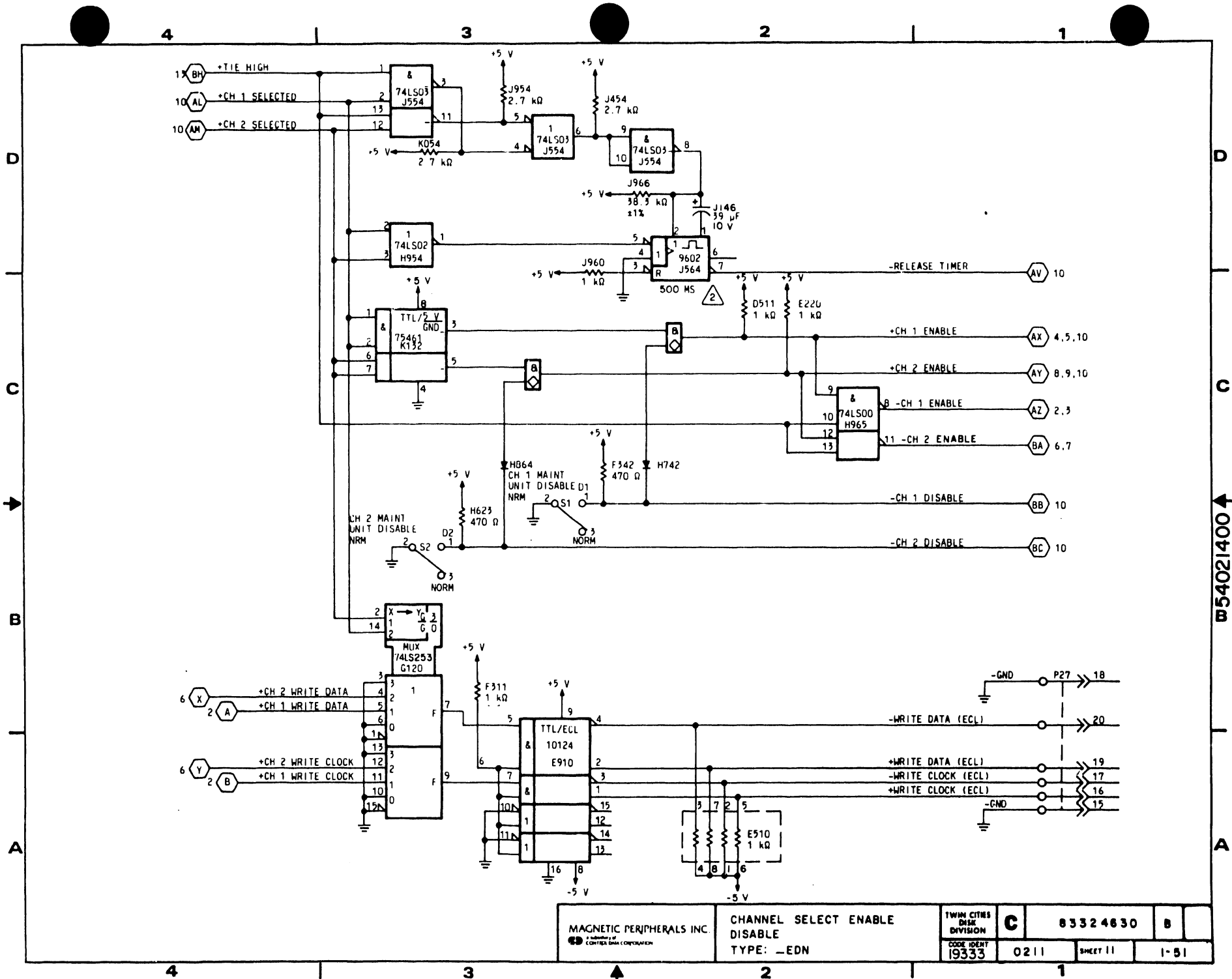
**SIGNAL OUTPUTS**



P27	>>	18	0701	J27-18
P27	>>	20	0702	J27-20
P27	>>	19	0702	J27-19
P27	>>	17	0702	J27-17
P27	>>	16	0702	J27-16
P27	>>	15	0701	J27-15

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0211	PAGE	1-50

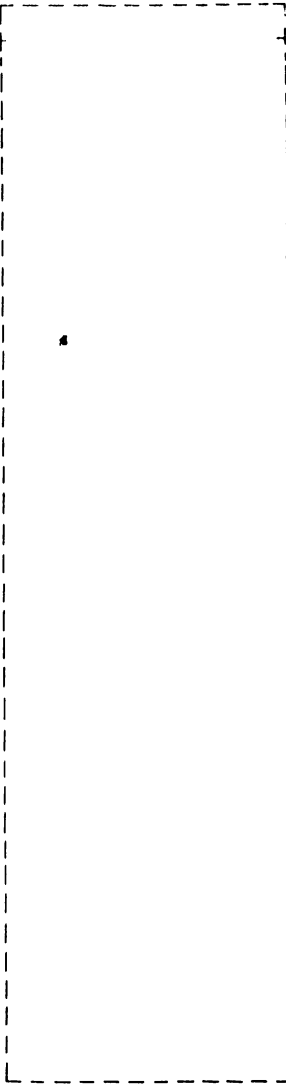


W54021400

MAGNETIC PERIPHERALS INC. A subsidiary of CENTRAL DATA CORPORATION	CHANNEL SELECT ENABLE DISABLE TYPE: -EDN		TWIN CITIES DISK DIVISION	<b>C</b>	83324630	B
	CODE IDENT 19333	0211	SHEET 11	1-51		

**SIGNAL INPUTS**

0704	J27-08	08	>> P27
0409	J14-31	19	>> J20
0406	J14-08	16	>> J20
0406	J14-09	18	>> J20
0403	J14-29	23	>> J20

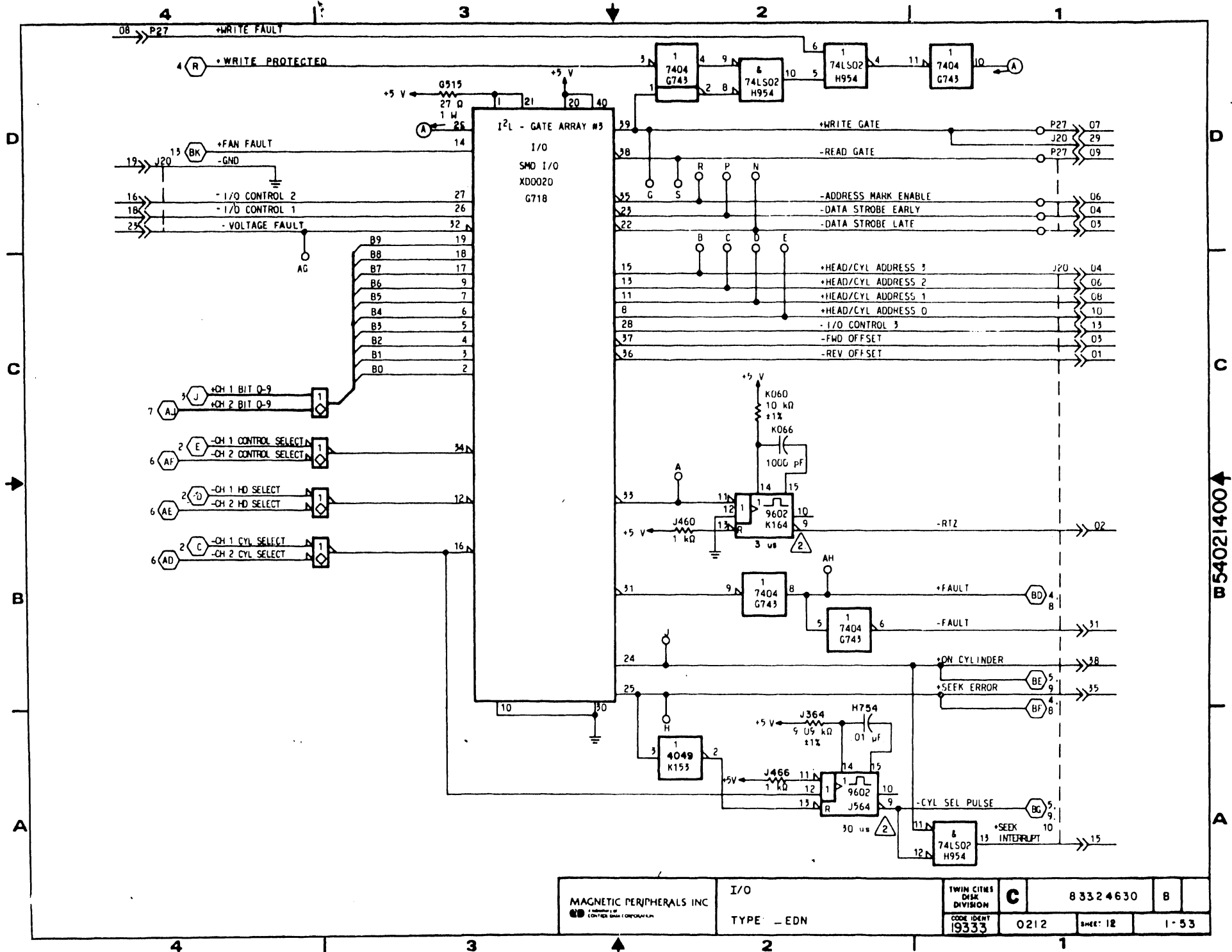


**SIGNAL OUTPUTS**

P27	>> 07	0702	J27-07
J20	>> 29	0409	J14-26
P27	>> 09	0704	J27-09
P27	>> 06	0704	J27-06
P27	>> 04	0705	J27-04
P27	>> 03	0705	J27-03
J20	>> 04	0406	J14-02
J20	>> 06	0406	J14-03
J20	>> 08	0406	J14-04
J20	>> 10	0406	J14-05
J20	>> 13	0406	J14-34
J20	>> 03	0418	J14-39
J20	>> 01	0418	J14-40
J20	>> 02	0406	J14-01
J20	>> 31	0406	J14-25
J20	>> 38	0410	J14-19
J20	>> 35	0410	J14-23
J20	>> 15	0406	J14-33

**LOGIC CROSS REFERENCE INFORMATION**

PUB		83324630		REV	B
CROSS REF NO	0212	PAGE	1-52		



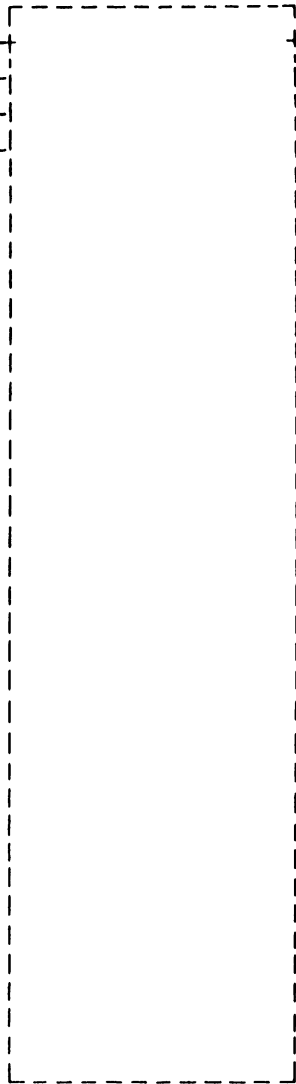
MAGNETIC PERIPHERALS INC <small>CONTRACT MANUFACTURING</small>	I/O	TWIN CITY'S DISK DIVISION	<b>C</b> 8 332 4630 B	
	TYPE - EDN	CODE IDENT 19333		0212
		SHEET: 12		1-53

B54021400A

**SIGNAL INPUTS**

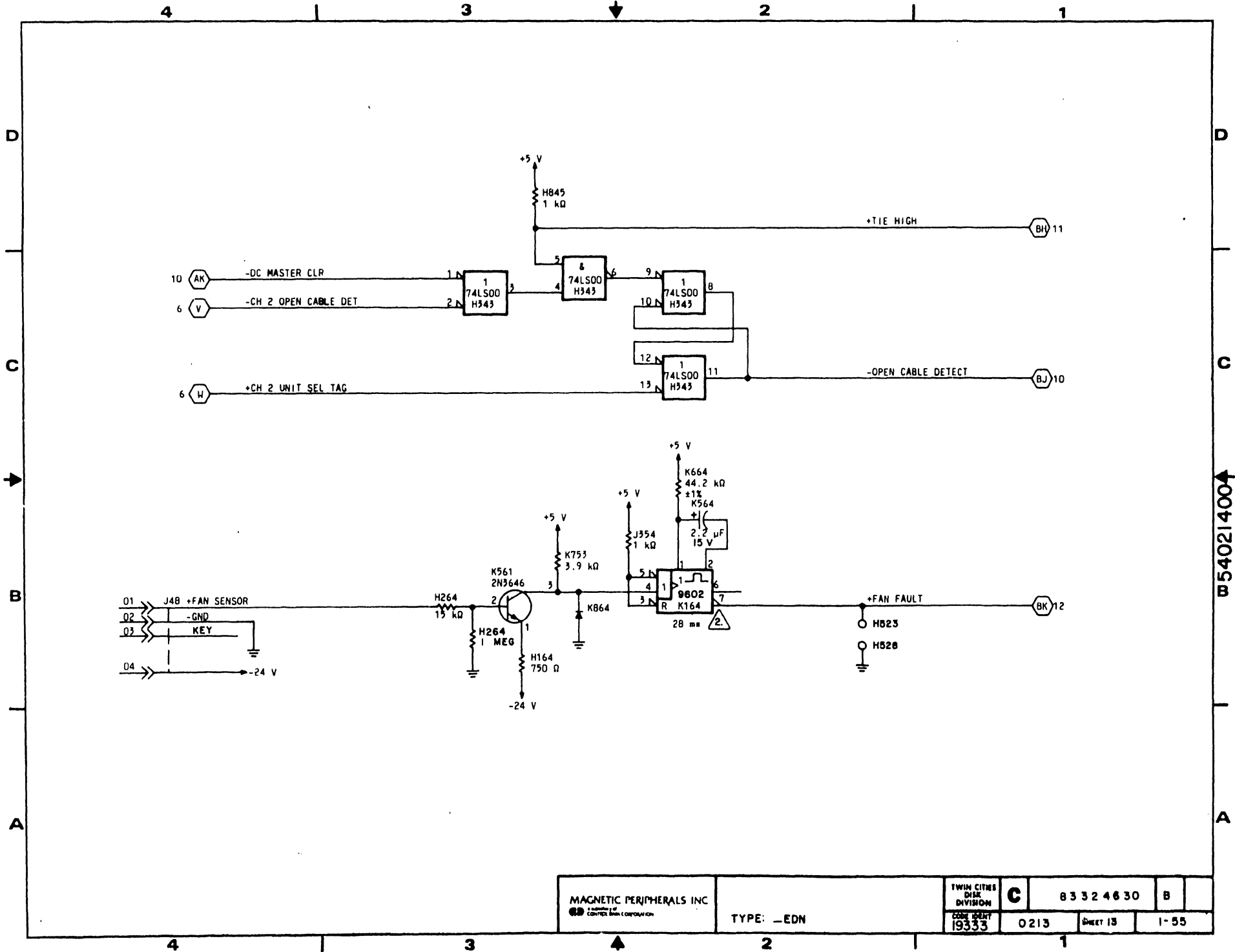
From Fan 01 ->> J48  
From Fan 02 ->> J48  
From Fan 03 ->> J48  
From Fan 04 ->> J48

**SIGNAL OUTPUTS**



**LOGIC CROSS REFERENCE INFORMATION**

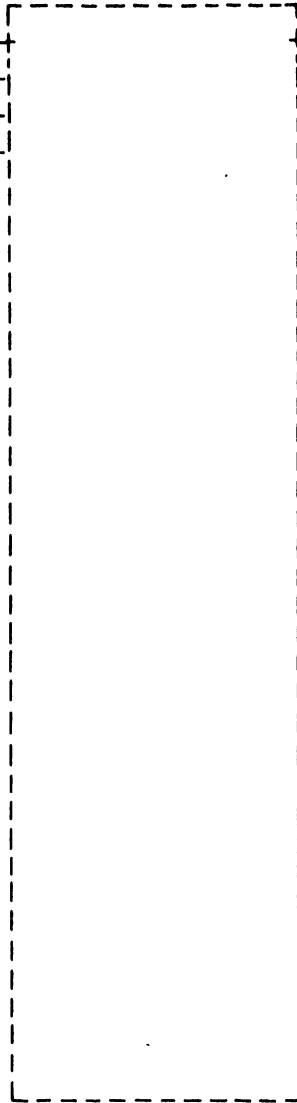
PUB	83324630	REV	B
CROSS REF NO	0213	PAGE	1-54



B540214004

**SIGNAL INPUTS**

0411 J28-01 -01-->> J34  
0411 J28-03 -03-->> J34  
0411 J28-05 -05-->> J34  
0402 J28-06 -06-->> J34



**SIGNAL OUTPUTS**

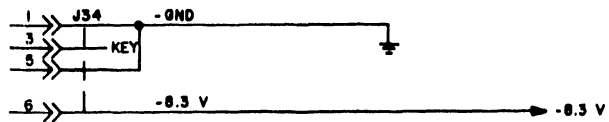
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0301	PAGE	1-56

PART NO RANGE	REVISION RECORD						
	REV	ECO	DESCRIPTION	DEPT	DATE	CHKD	APP
00 THRU 99	01	0J03018A	PRE-RELEASED		4/21/82	DS	II
	02	0J03091	ADD CAP	DLM	7-29-82	BD	II
	A	0J03092	RELEASED	DLM	8-11-82	BD	II
	B	0J03352	ADD KEY	MJ	10-14-82		
	C	0J03443	CORRECTION	MJ	10-14-82		

NOTES:

1. UNLESS OTHERWISE SPECIFIED:

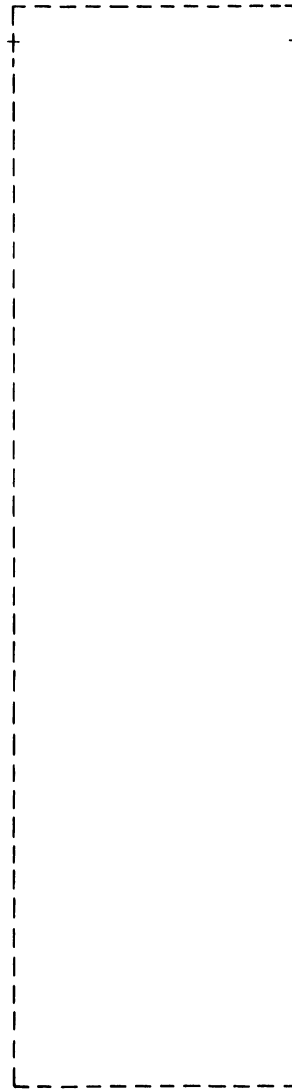


REFERENCE DRAWING			MAGNETIC PERIPHERALS INC.			TITLE		
COMP ASSY 54007301			FIRST USED ON			SCHEMATIC DIAGRAM		
CTR 54007801			NEXT ASSEMBLY			SERVO PREAMP (RSD)		
			PA3A1-A			TYPE BUUN		
COMPONENTS, EXCEPT AS NOTED			DWN	D L MEYER	12/29/81	SIZE		
TOLERANCE	VALUE	RATING	CHKD	DG Donat	5/13/82	SMALL DISK DIVISION	C	83324630
RES			ENGR	R. Nielsen	5/15/82			D
CAP			MFG					
			QA	M. B. ...	5/26/82	FRCH NO.	19333	0301
								SHEET 1 OF 2
								PAGE 1-57



**SIGNAL INPUTS**

**SIGNAL OUTPUTS**



J34 >> 02

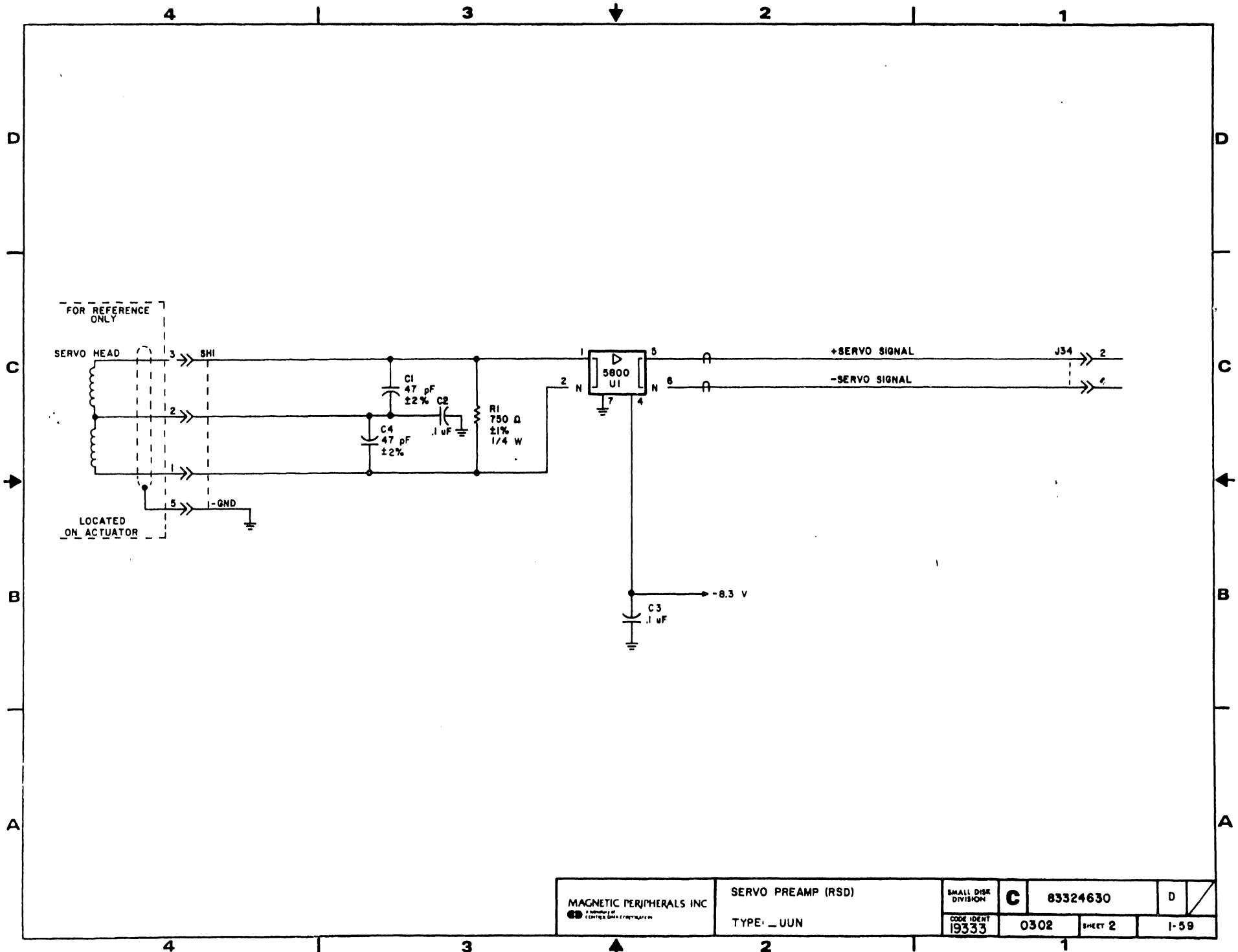
0411 J28-02

J34 >> 04

0411 J28-04

**LOGIC CROSS REFERENCE INFORMATION**

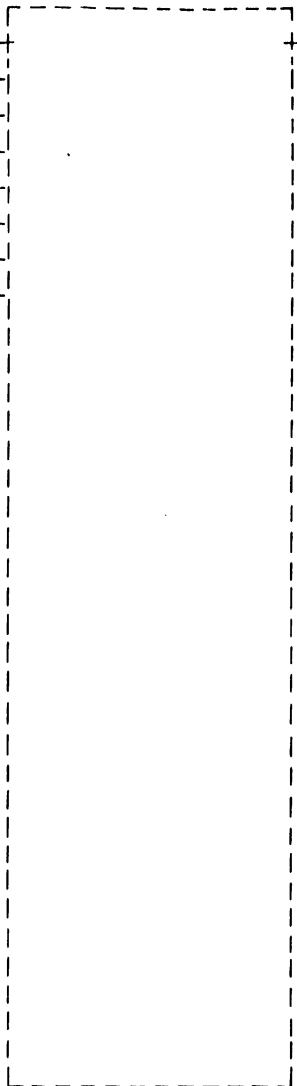
PUB 83324630		REV D
CROSS REF NO 0302	PAGE 1-58	



MAGNETIC PERIPHERALS INC <small>A DIVISION OF</small> <small>CONTECH DATA CORPORATION</small>	SERVO PREAMP (RSD)	SMALL DISK DIVISION	<b>C</b>	83324630	D
	TYPE: UUN	CODE IDENT 19333	0302	SHEET 2	1-59

**SIGNAL INPUTS**

1002	J40-11	05	>>	J21
1002	J40-04	07	>>	J21
1002	J40-01	08	>>	J21
1002	J40-02	03	>>	J21
1002	J40-05	04	>>	J21
1002	J40-03	01	>>	J21
1002	J40-06	02	>>	J21
1002	J40-15	06	>>	J21



**SIGNAL OUTPUTS**

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	0401	PAGE	1-60

UNUSED LOGIC ELEMENTS		
ELEMENT	LOCATION	OUTPUT PINS
10102	P127	14
LM393	M782	7
10125	E715	5, 12, 13
74LS86	E235	3, 8, 11
13202	E672	10
LM339	E662	1, 2
74LS20	E851	8
74LS00	L918	11
96LS02	L208	9, 10
7406	E224	8, 12
412	C982	7

UNUSED TRANSISTOR PACKS		
TYPE	LOCATION	PINS
MPQ3546	N356	5, 6, 7

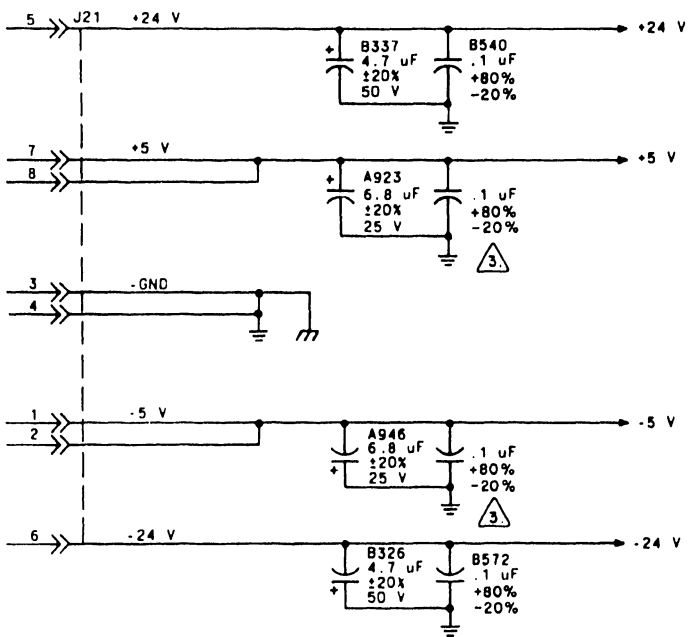
UNUSED RESISTOR PACKS		
VALUE	LOCATION	PIN(S)
1 kΩ	N505	2, 8
1 kΩ	K213	2, 5

FILTER CAPS			
.1 uF			
+5 V	-5 V	+15 V	-15 V
J538	F115	C881	L556
E116	N008		K664
E615	M337	F681	N675
E625		H281	M868
E734	P520	J281	J762
E743	M527	K181	G174
E752	N027	M681	E062
G438	N827	N781	B462
G618	P527	M468	C481
H638	N737	P562	
H515		B981	
J262		D155	
L050			
L737			
K252			
L827			
L814			
K229			
J911			
K710			
P008			
M408			
H320			
B562			

PART NO RANGE  
00 THRU 99

REVISION RECORD							
REV	ECO	DESCRIPTION	DATE	DATE	CHKD	APP	
01	D1030230	PRE-RELEASED		7/1/82	060	II	
02	D1030279	ADD CAP	Ulm	7/1/82	060	II	
03	D1030290	CHG SMT 9	Ulm	7/3/82	060	II	
A	D1030300	RELEASED	Ulm	7/21/82	060	II	
B	D1030316	CHG VALUES	DIM	10/5/82	060	II	
C	D1030323	CORRECTION	MJ	3/1/83			
D	D1030328	CHANGE COMPONENTS	MJ	3/1/83			
E	D1030328	CORRECTIONS	MJ	5/12/83			
F	D1030333	CORRECTIONS	MJ	7/2/83			
G	D1030330	CHANGE DIODE	MJ	1/14/83			
H	D1030329	CHANGE RES AND CAP	MJ	10/4/83			

- NOTES:
- UNLESS OTHERWISE SPECIFIED:  
ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GROUND.  
ALL 16 PIN IC'S HAVE PIN 8 CONNECTED TO GROUND,  
AND PIN 16 CONNECTED TO +5 V.  
ALL DIODES, 15165580.  
ALL DIODES, LED, 94372500.  
ALL DIODE ARRAYS, D116, 50241801.  
ALL RESISTOR PACK RESISTORS, ±3%, 1/8 W.  
ALL TRANSISTORS, SPNP, MM5005, 50222400.  
ALL TRANSISTOR ARRAYS, NPN, MPQ2369, 50213300.  
ALL ○—○ INDICATE MOLDED JUMPER WIRES.
  - INPUT PINS OF UNUSED LOGIC ELEMENT 74LS20 TO GROUND.
  - SEE TABLE FOR .1 uF FILTER CAP LOCATIONS.
  - FOR EASE OF LOCATING WHICH PAGE A CONNECTOR PIN IS ON SEE PIN/SHEET CROSS REFERENCE DIAGRAMS ON SHEET 2.
  - DIODE, SILICON, 24552500.
  - DIODE, SILICON, 1N4001, 95637301.
  - DIODE, SILICON, 1CV 17, 50240113.
  - TRANSISTOR, SPNP, 2N3569, 50210801.
  - TRANSISTOR, SPNP, 2N3645, 50211200.
  - TRANSISTOR ARRAY, MPQ3546, 15165619.
  - TEST SELECT RESISTORS TO BE SELECTED FROM DRAWING 94357500 AND INSERTED DURING CARD TEST PER CARD TEST REQUIREMENTS.
  - INPUT PINS OF UNUSED LOGIC ELEMENT 74LS00 TO +5 V.
  - DELAY TIME FOR REFERENCE ONLY.



REFERENCE DRAWING COMP ASSY 54332101		MAGNETIC PERIPHERALS INC CORPORATION OF AMERICA		TITLE SCHEMATIC DIAGRAM RSD CONTROL BOARD TYPE BPEX	
CTR 54332301		FIRST USED ON PASAI-A	NEXT ASSEMBLY 54332101	SMALL DISK DIVISION	
COMPONENTS EXCEPT AS NOTED		DWN D G DONAT	5-26-82	C 83324630 E	
TOLERANCE	VALUE	RATING	CHKD DGD	1/1/83	
RES ±5%	OHMS	1/4 W	ENGR R. Nelson	1/1/82	
CAP ±10%			MFG L. M. Bentley	2-20-82	
			QA M. J. Smith	9-20-82	
SCALE 0401		CODE SHEET 1 OF 23	PAGE 1-61		REF: 54332201

**SIGNAL INPUTS**

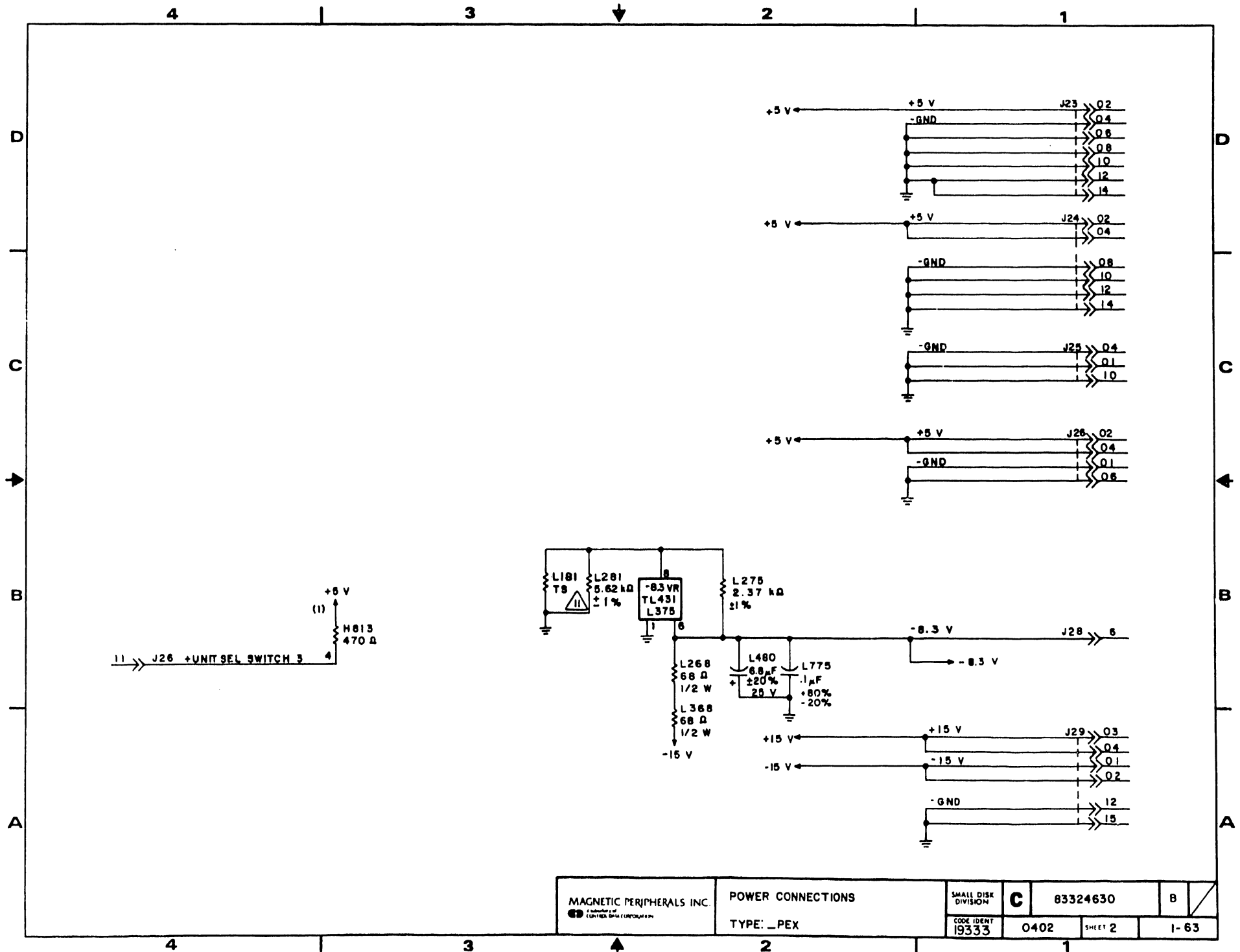
0102 P26-11 11 >> J26

**SIGNAL OUTPUTS**

J23 >> 02	0502 P23-02
J23 >> 04	0502 P23-04
J23 >> 06	0502 P23-06
J23 >> 08	0502 P23-08
J23 >> 10	0502 P23-10
J23 >> 12	0502 P23-12
J23 >> 14	0502 P23-14
J24 >> 02	0601 P24-02
J24 >> 04	0601 P24-04
J24 >> 08	0601 P24-08
J24 >> 10	0601 P24-10
J24 >> 12	0601 P24-12
J24 >> 14	0601 P24-14
J25 >> 04	1042 P25-04
J25 >> 01	1042 P25-01
J25 >> 10	1042 P25-10
J26 >> 02	0101 P26-02
J26 >> 04	0101 P26-04
J26 >> 01	0101 P26-01
J26 >> 06	0101 P26-06
J28 >> 06	0301 J34-02
J29 >> 03	0801 J30-24
J29 >> 04	0701 J31-24
J29 >> 01	0801 J30-23
J29 >> 01	0701 J31-23
J29 >> 02	0801 J30-26
J29 >> 02	0701 J31-26
J29 >> 02	0801 J30-25
J29 >> 02	0701 J31-25
J29 >> 12	0801 J30-15
J29 >> 12	0701 J31-15
J29 >> 15	0801 J30-12
J29 >> 15	0701 J31-12

**LOGIC CROSS REFERENCE INFORMATION**

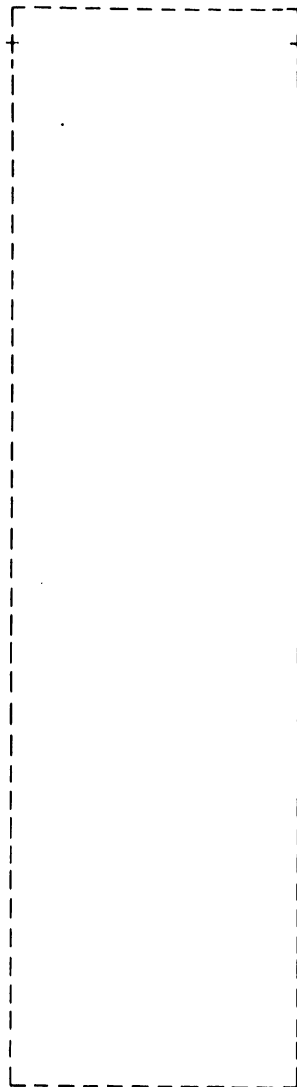
PUB	83324630	REV	B
CROSS REF NO	0402	PAGE	1-62



MAGNETIC PERIPHERALS INC. A subsidiary of UNITED DISK CORPORATION	POWER CONNECTIONS		SMALL DISK DIVISION	<b>C</b>	83324630	B
	TYPE: _PEX	CODE IDENT 19333	0402	SHEET 2	1-63	

**SIGNAL INPUTS**

**SIGNAL OUTPUTS**

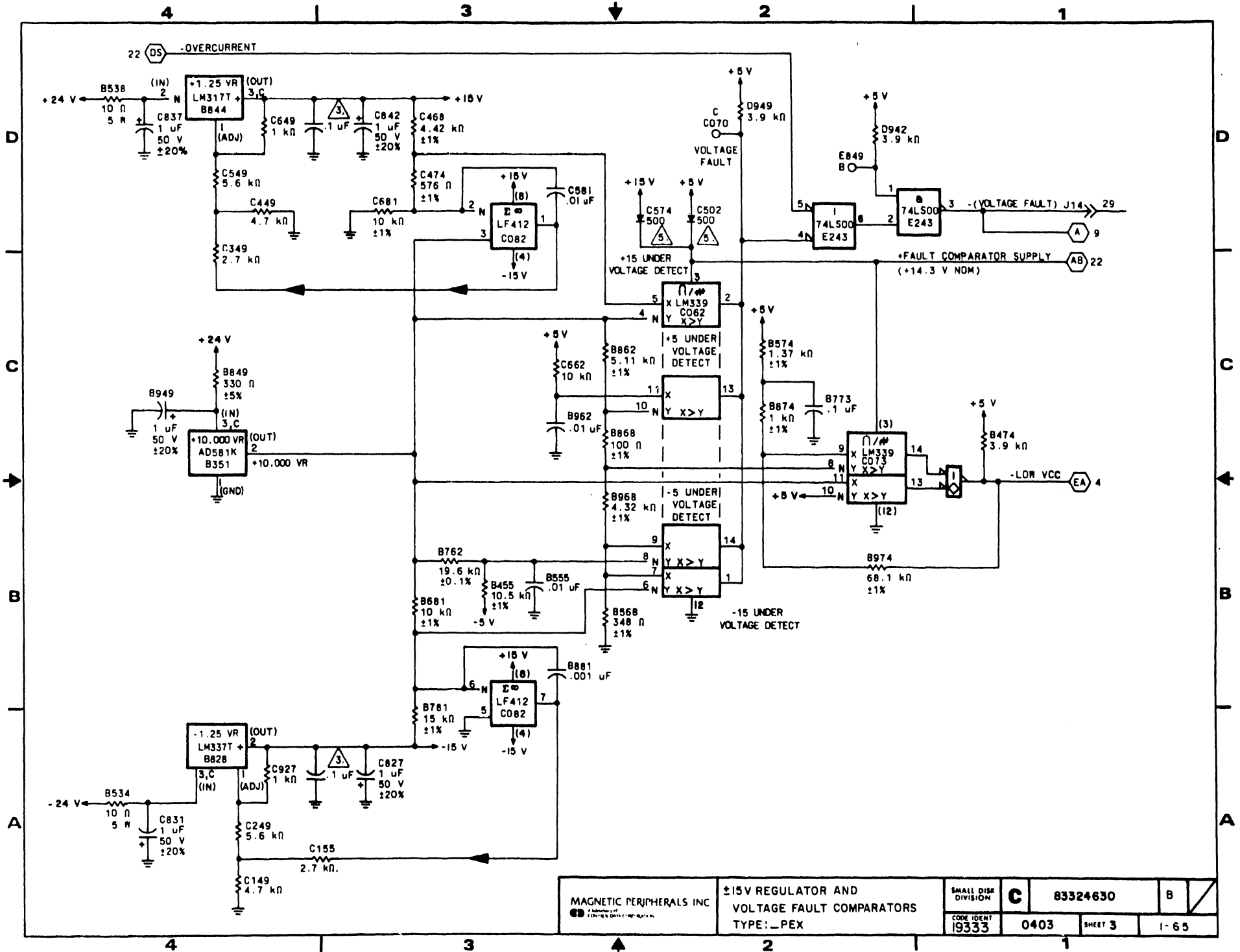


J14 >> 29

SINGLE		DUAL	
CHANNEL UNITS	CHANNEL UNITS	CHANNEL UNITS	CHANNEL UNITS
0206	J20-18	0212	J20-23

**LOGIC CROSS REFERENCE INFORMATION**

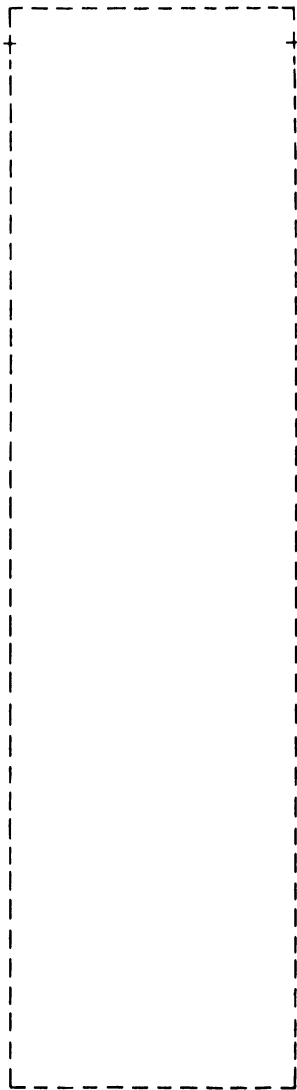
PUB	83324630	REV	B
CROSS REF NO	0403	PAGE	1-64





**SIGNAL INPUTS**

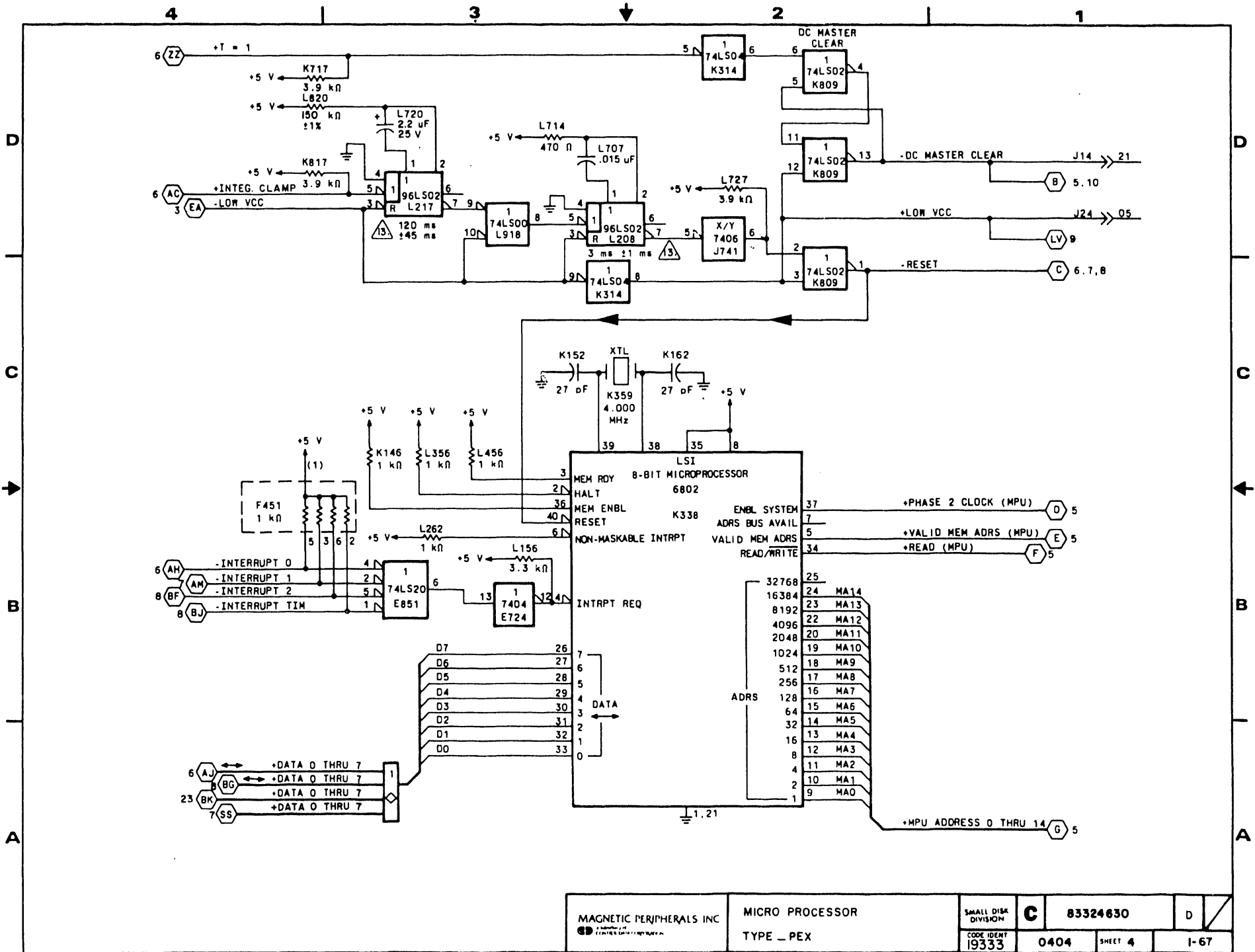
**SIGNAL OUTPUTS**



		<u>SINGLE</u>	<u>DUAL</u>
		<u>CHANNEL UNITS</u>	<u>CHANNEL UNITS</u>
J14	-->> 21	0206 J20-02	0210 J20-39
J24	-->> 05	0602 P24-05	0602 P24-05

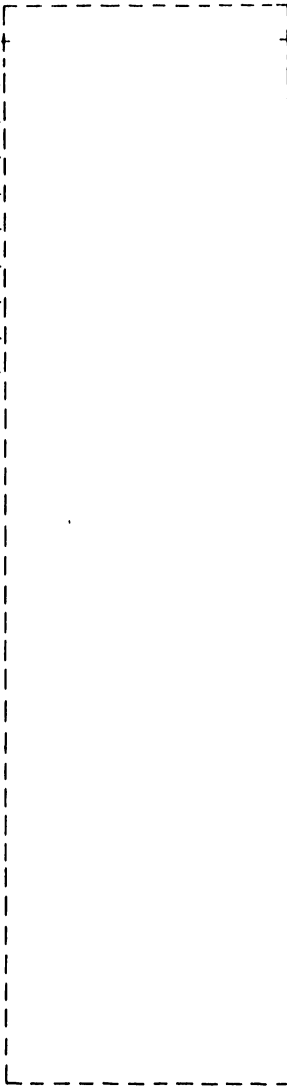
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0404	PAGE	1-66



**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS		
0202	J20-05	0202	J20-36	18 ->> J14
0202	J20-07	0202	J20-34	17 ->> J14
0202	J20-11	0202	J20-30	15 ->> J14
0202	J20-13	0202	J20-28	14 ->> J14
0202	J20-15	0202	J20-26	13 ->> J14
0202	J20-19	0202	J20-22	11 ->> J14
0102	P26-05	0102	P26-05	05 ->> J26
0102	P26-03	0102	P26-03	03 ->> J26
0102	P26-09	0102	P26-09	09 ->> J26

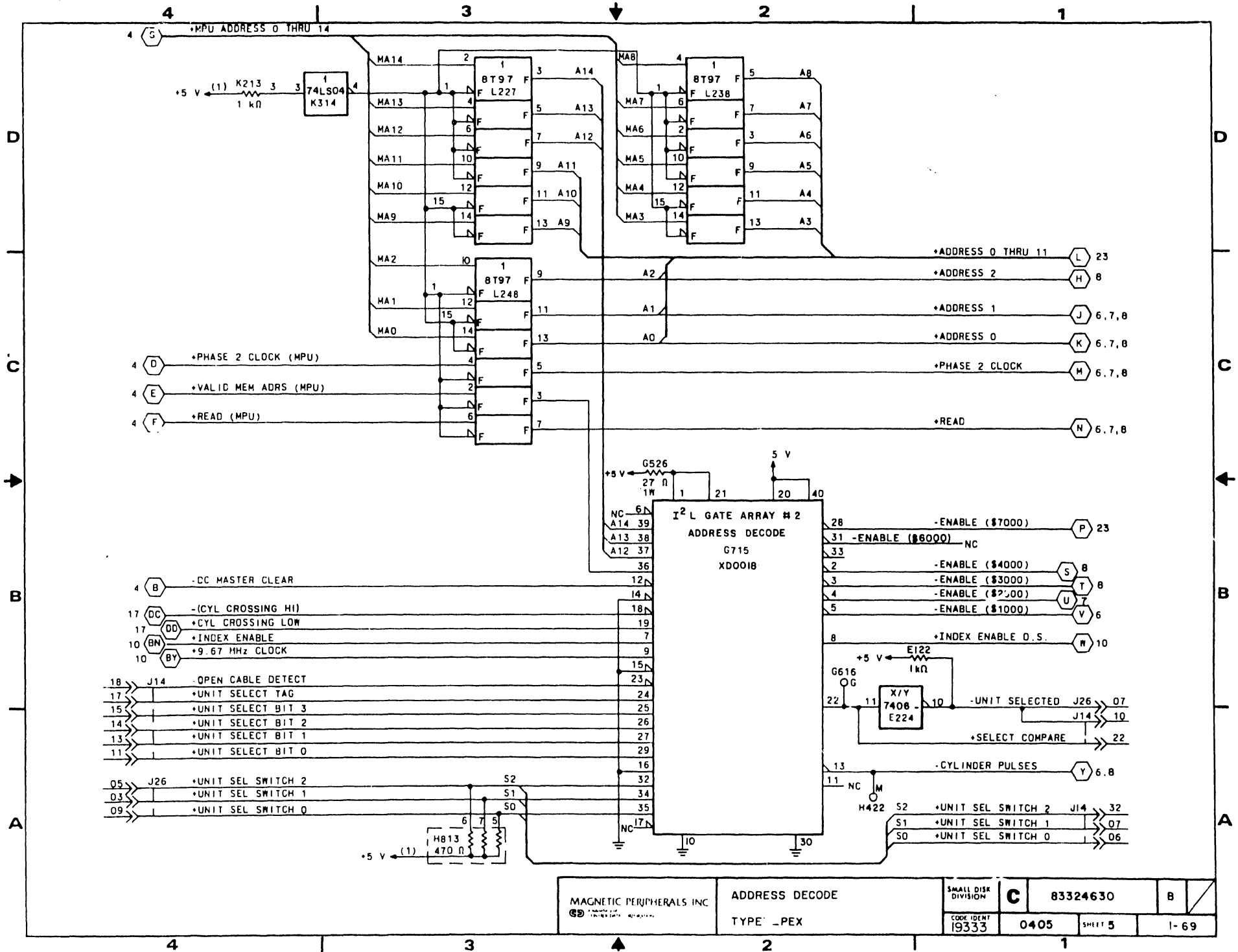


**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
J26	>> 07	0102	P26-07
J14	>> 10	0202	J20-21
J14	>> 22	NC	J20-04
J14	>> 32	NC	J20-24
J14	>> 07	NC	J20-27
J14	>> 06	NC	J20-29
		0210	J20-20
		0204	J20-37
		0210	J20-17
		0210	J20-14
		0210	J20-12

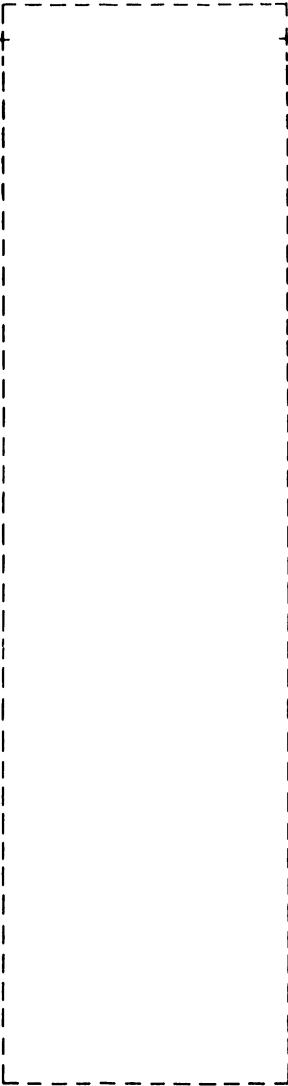
**LOGIC CROSS REFERENCE INFORMATION**

PUB 83324630		REV B
CROSS REF NO 0405	PAGE 1-68	



**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0206	J20-26	0212	J20-15	33	>> J14
0206	J20-39	0212	J20-02	01	>> J14
0206	J20-28	0212	J20-13	34	>> J14
0206	J20-10	0212	J20-31	25	>> J14
1042	P25-05	1042	P25-05	05	>> J25
0206	J20-37	0212	J20-04	02	>> J14
0206	J20-35	0212	J20-06	03	>> J14
0206	J20-33	0212	J20-08	04	>> J14
0206	J20-31	0212	J20-10	05	>> J14

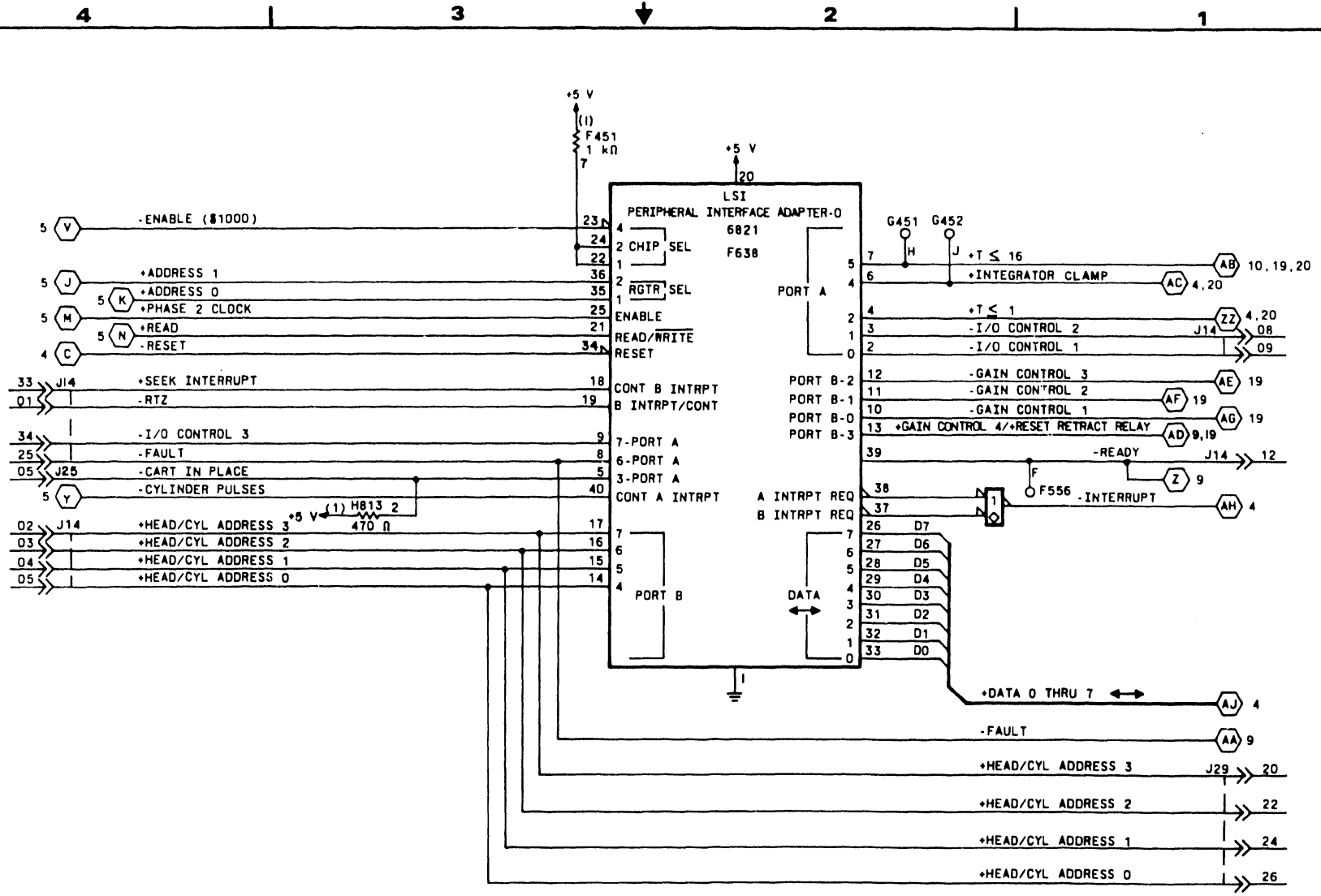


**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0206	J20-25	0212	J20-16	J14	>> 08
0206	J20-23	0212	J20-18	J14	>> 09
0204	J20-17	0204	J20-24	J14	>> 12
0701	J31-07	0701	J31-07	J29	>> 20
0805	J30-07	0805	J30-07	J29	>> 22
0701	J31-05	0701	J31-05	J29	>> 24
0805	J30-05	0805	J30-05	J29	>> 24
0701	J31-03	0701	J31-03	J29	>> 26
0805	J30-03	0805	J30-03	J29	>> 26
0701	J31-01	0701	J31-01	J29	>> 26
0805	J30-01	0805	J30-01	J29	>> 26

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0406	PAGE	1-70



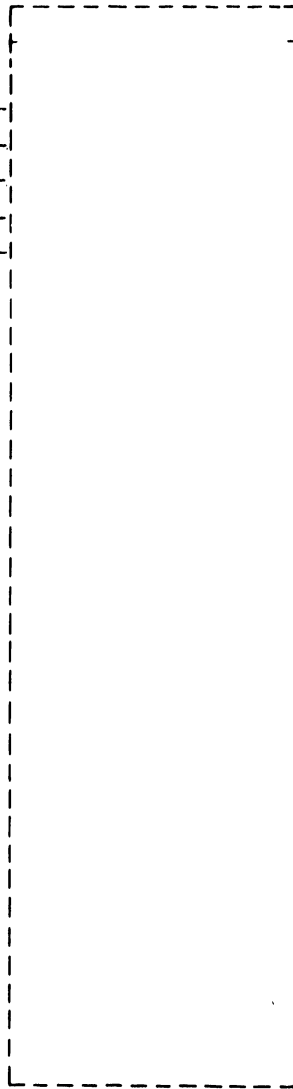
**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
----------------------	--	--------------------	--

1042	P25-08	1042	P25-08	08	->>	J25
1042	P25-02	1042	P25-02	02	->>	J25
0102	P26-08	0102	P26-08	08	->>	J26
0205	J20-20	0205	J20-21	30	->>	J14
NC	J20-16	NC	J20-25	28	->>	J14

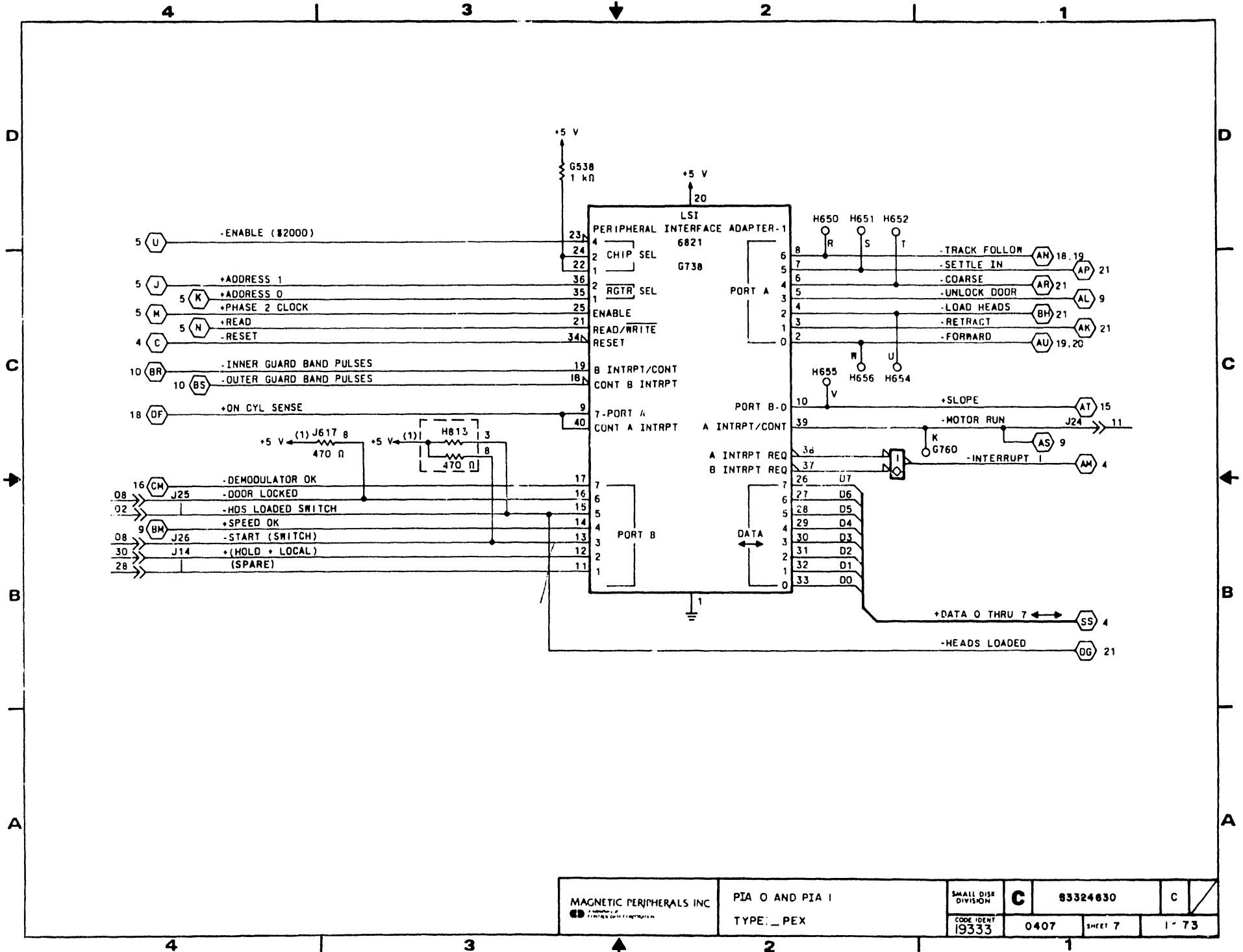
**SIGNAL OUTPUTS**

J24 -->> 11 0602 P24-11



**LOGIC CROSS REFERENCE INFORMATION**

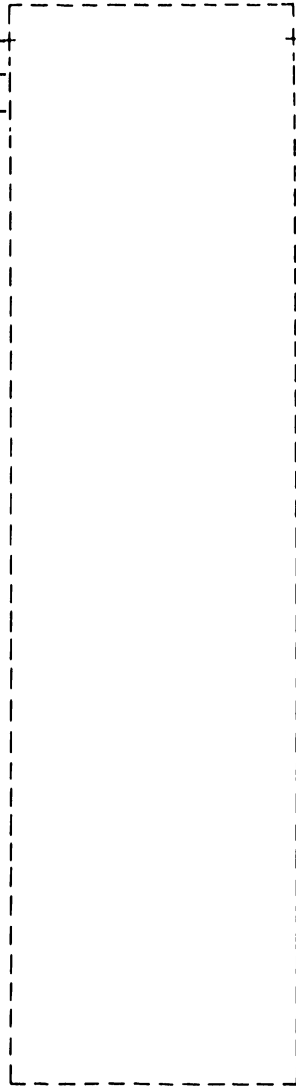
PUB 83324630		REV B
CROSS REF NO 0407	PAGE 1-72	





**SIGNAL INPUTS**

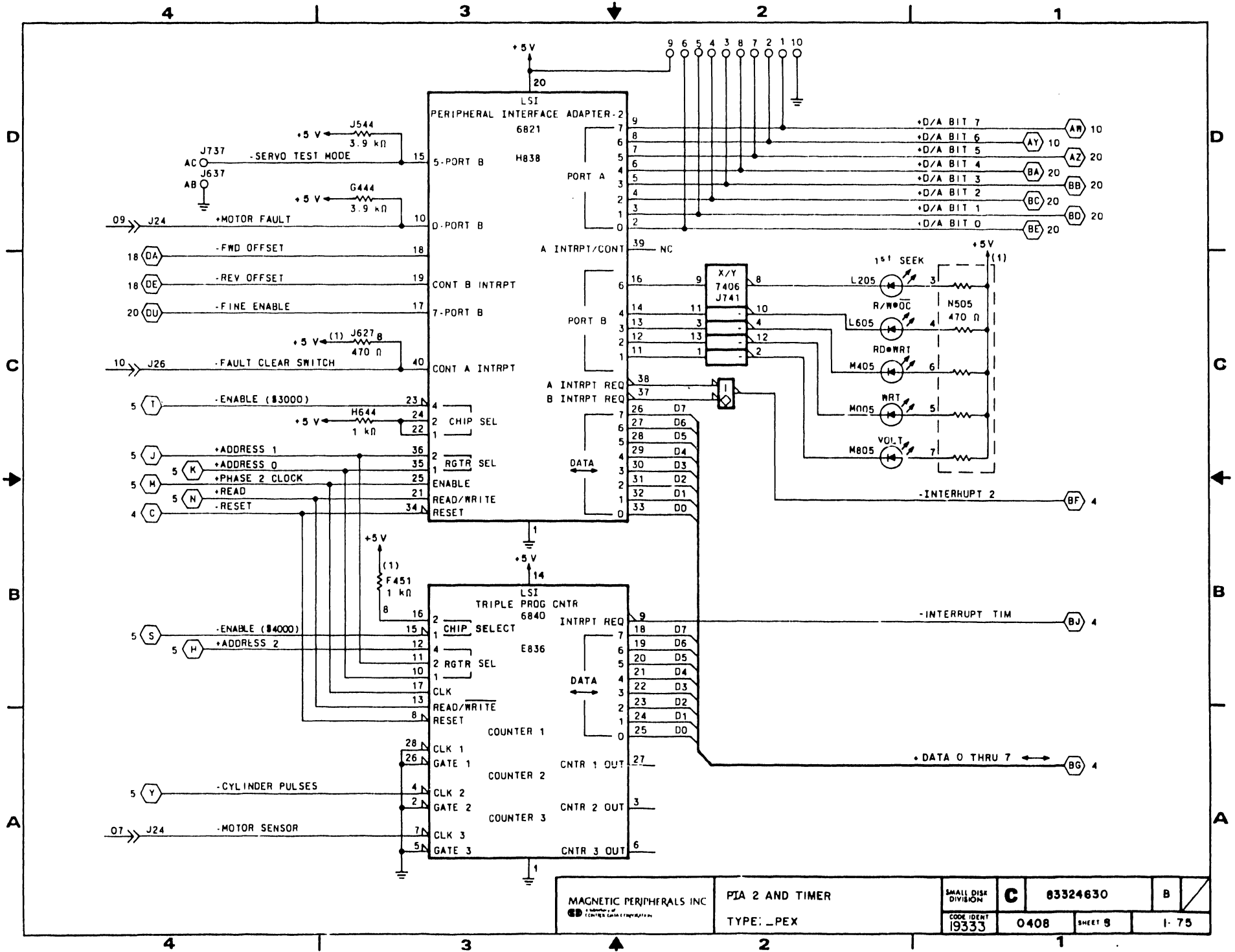
0602 P24-09 09 >> J24  
0102 P26-10 10 >> J26  
0602 P24-07 07 >> J24



**SIGNAL OUTPUTS**

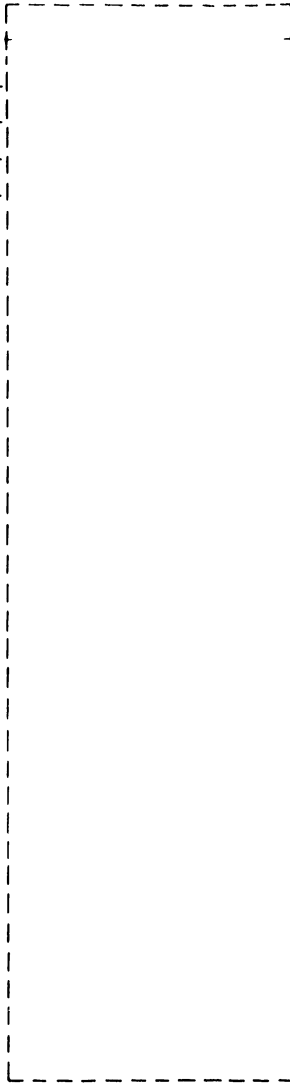
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0408	PAGE	1-74



**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0603	P24-03	0603	P24-03	03	J24
0602	P24-01	0602	P24-01	01	J24
0206	J20-12	0212	J20-29	26	J14
1042	O25-03	1042	P25-03	03	J25

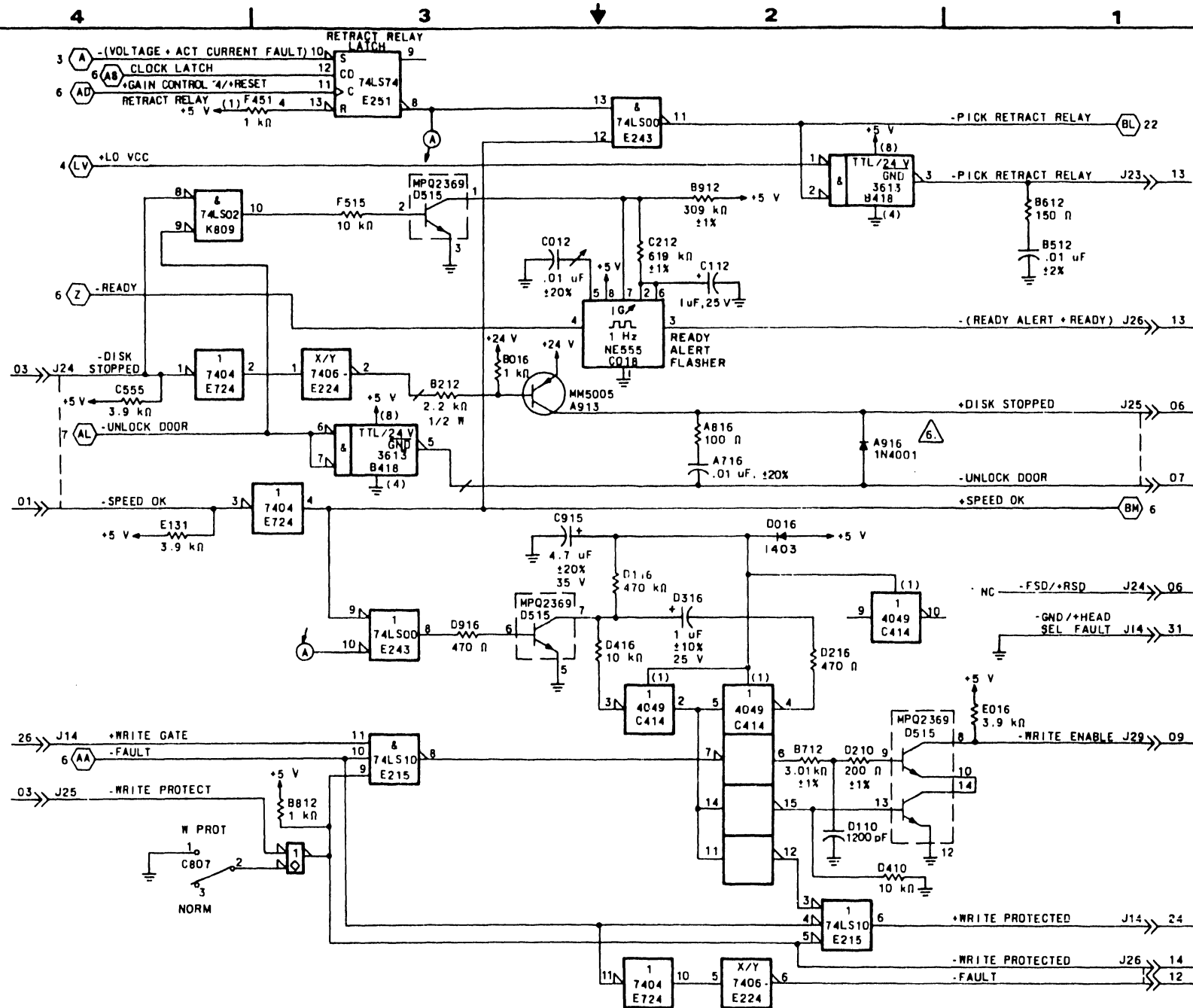


**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
J23	>> 13	0502	P23-13
J26	>> 13	0102	P26-13
J25	>> 06	1042	P25-06
J25	>> 07	1042	P25-07
J24	>> 06	0602	P24-06
J14	>> 31	0206	J20-22
J29	>> 09	0802	J30-18
J14	>> 24	0204	J20-08
J26	>> 14	0102	P26-14
J26	>> 12	0102	P26-12

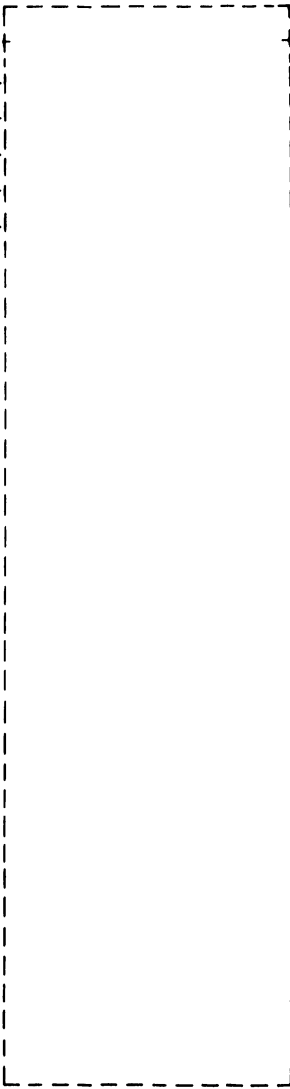
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0409	PAGE	1-76



**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0206	J20-33	0212	J20-38	19	J14
0206	J20-06	0212	J20-35	23	J14
0703	J31-13	0703	J31-13	14	J29
0703	J31-14	0703	J31-14	13	J29
1042	P25-09	1042	P25-09	09	J25

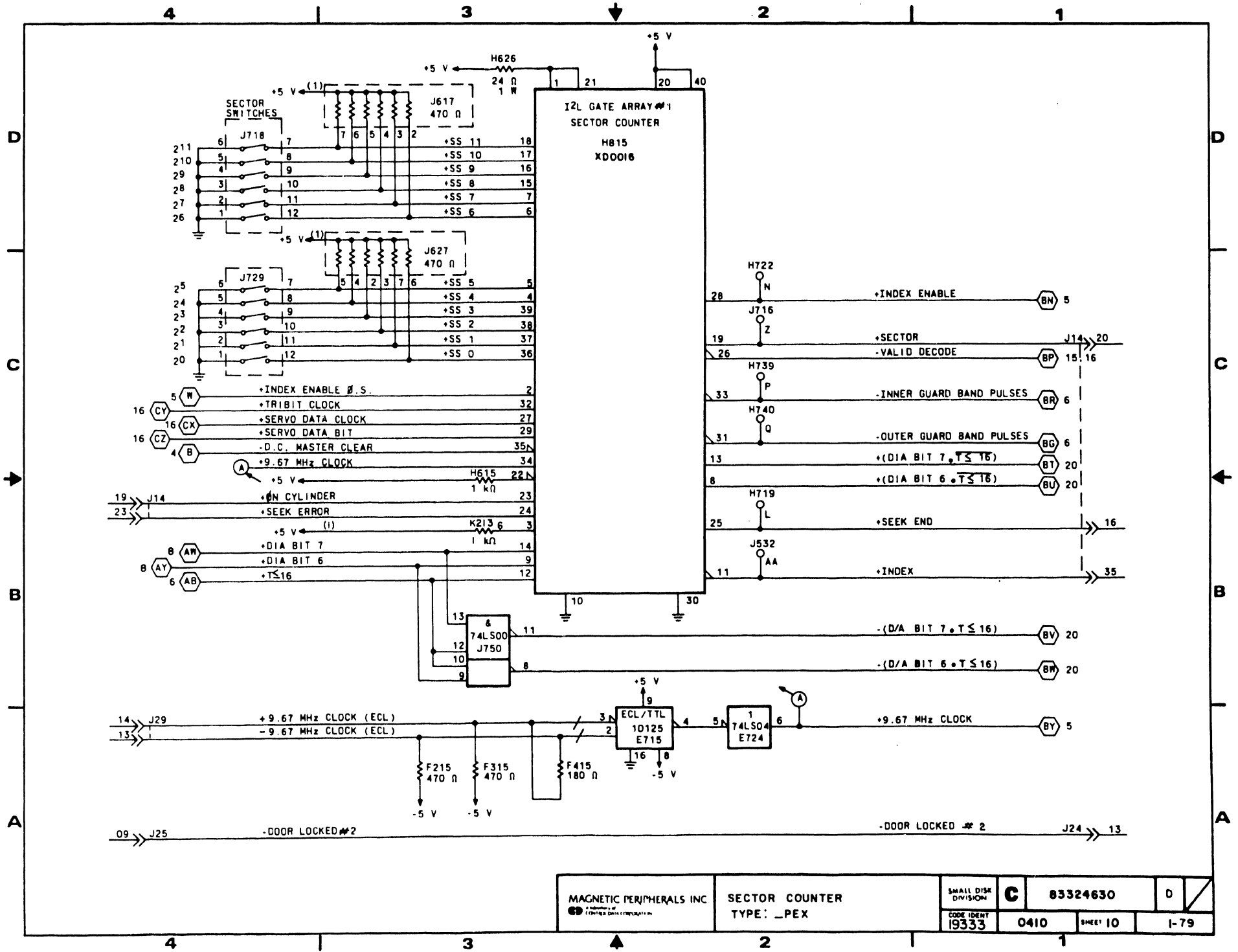


**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
0204	J20-01	0204	J20-40
0205	J20-09	0210	J20-32
0204	J20-30	0204	J20-11
0603	P24-13	0603	P24-13

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0410	1-78		

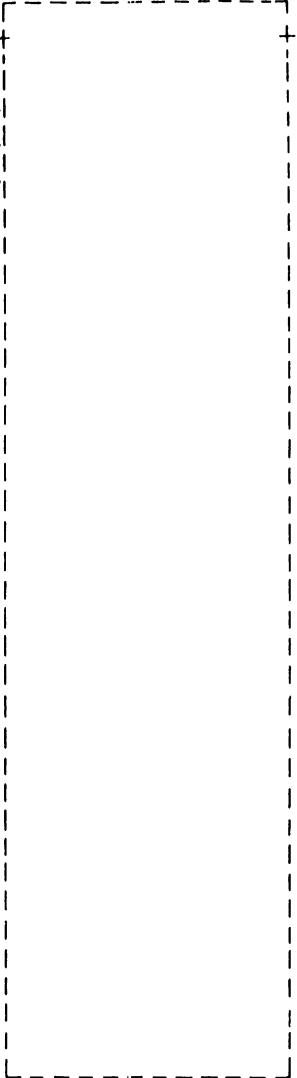


MAGNETIC PERIPHERALS INC A Division of CONRAD ELECTRON CORPORATION	SECTOR COUNTER TYPE: _PEX	SMALL DISK DIVISION	<b>C</b>	<b>83324630</b>	D
		CODE IDENT 19333	0410	SHEET 10	1-79

**SIGNAL INPUTS**

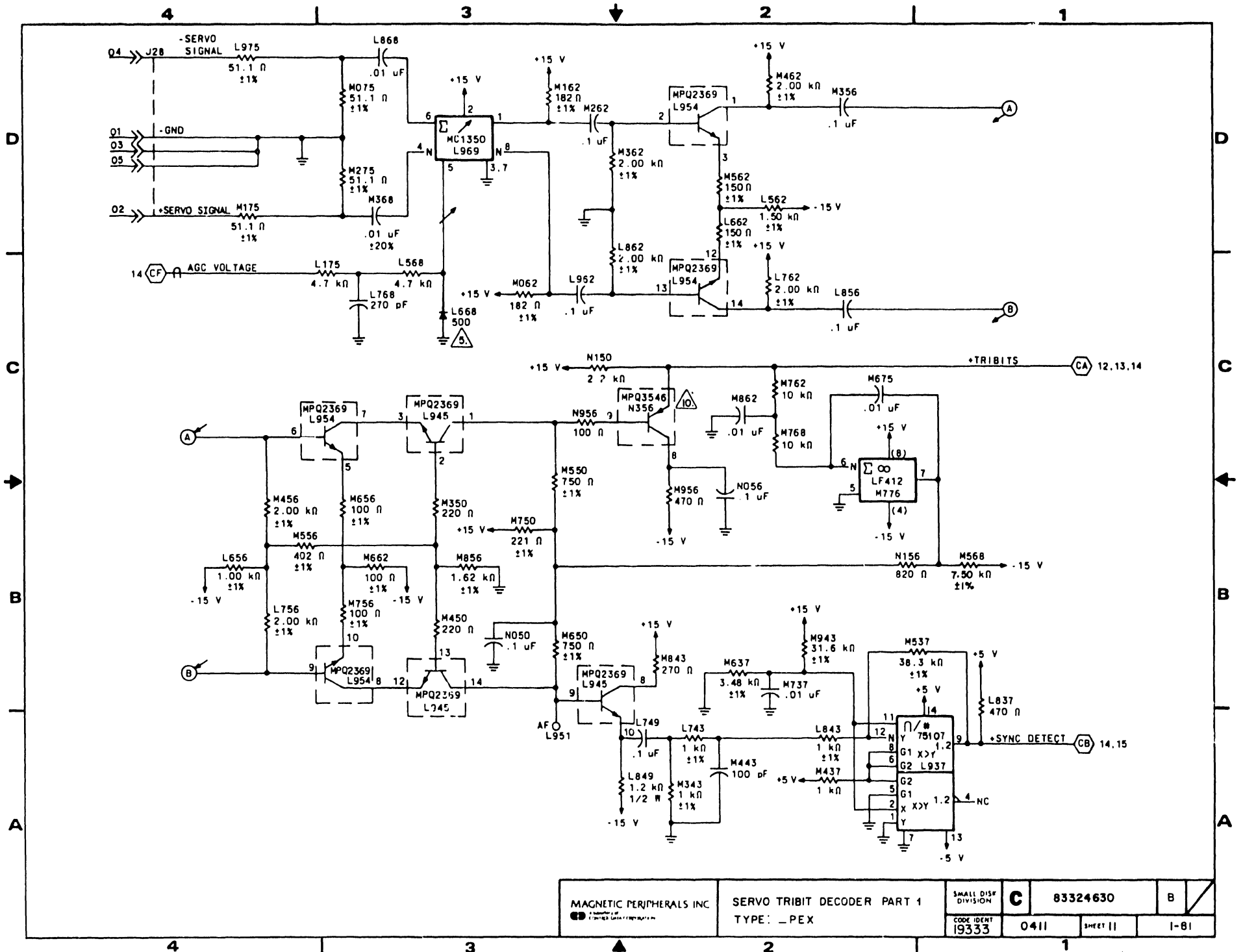
0302	J34-04	04	->>	J28
0301	J34-01	01	->>	J28
0301	J34-03	03	->>	J28
0301	J34-05	05	->>	J28
0302	J34-06	02	->>	J28

**SIGNAL OUTPUTS**



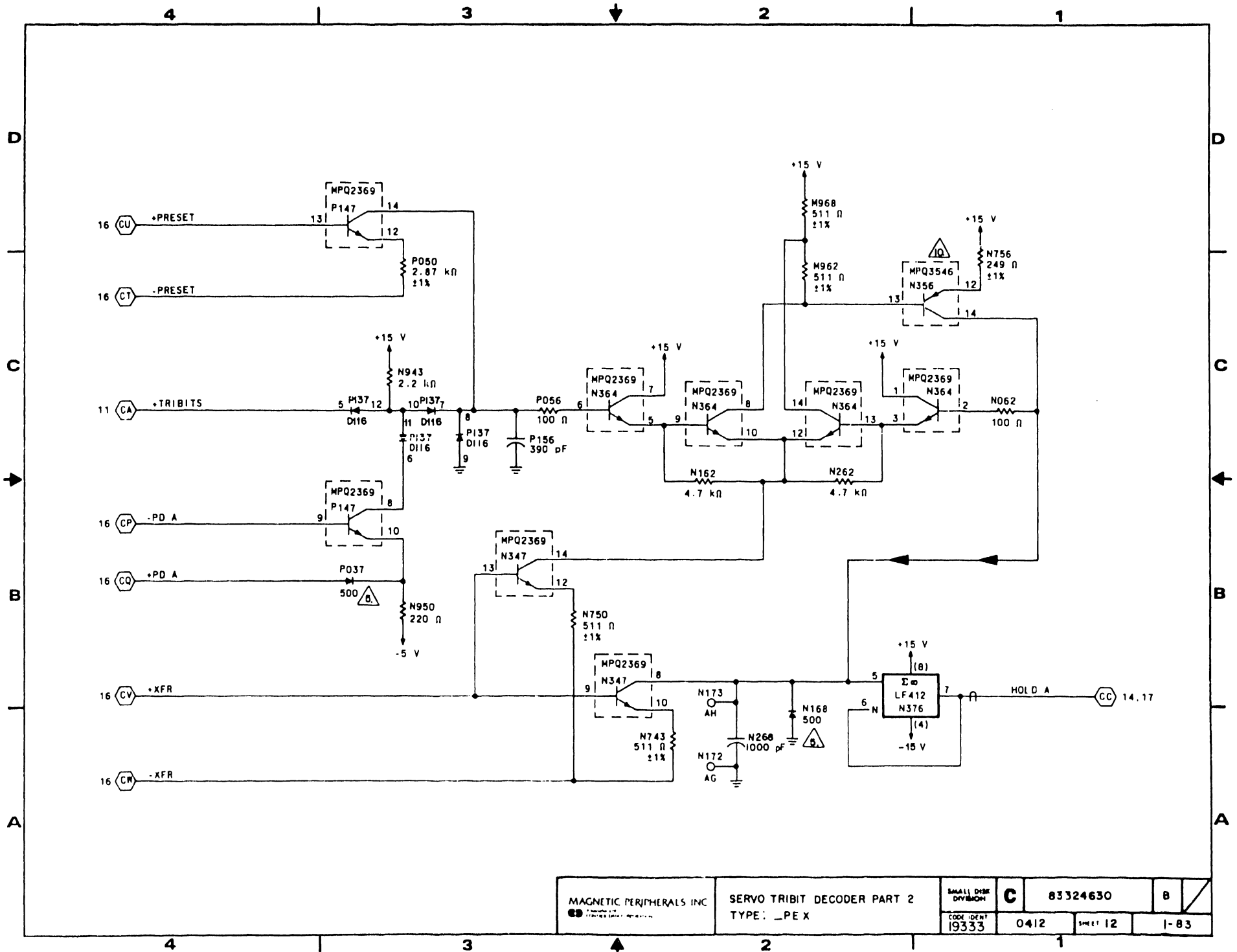
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0411	PAGE	1-80

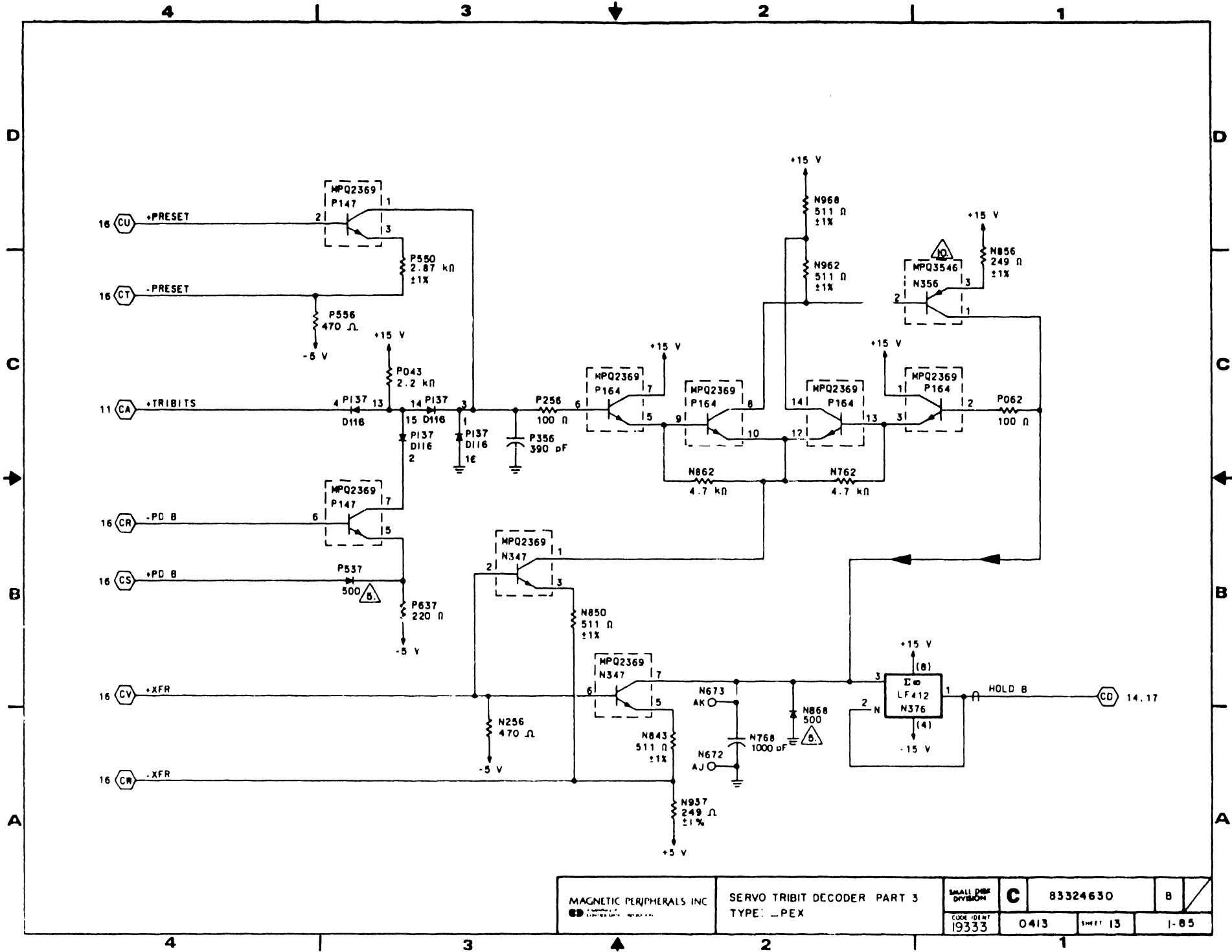


MAGNETIC PERIPHERALS INC <small>Member of          IBM Corporation</small>	SERVO TRIBIT DECODER PART 1 TYPE: -PEX		SMALL DISK DIVISION	<b>C</b>	83324630	B
			CODE IDENT 19333	0411	SHEET 11	1-81





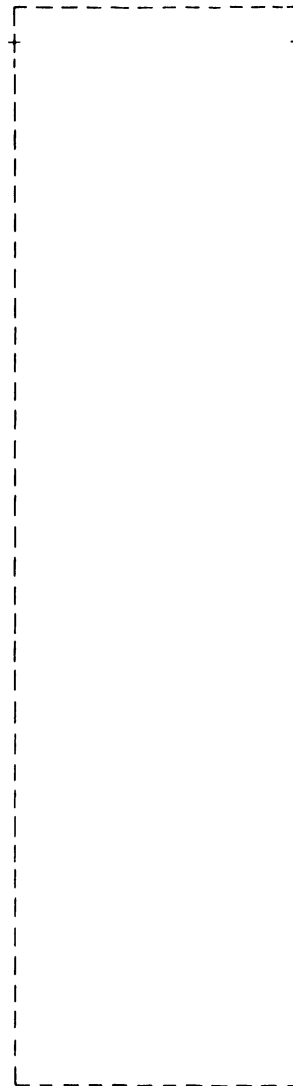
MAGNETIC PERIPHERALS INC SERVO TRIBIT DECODER PART 2 TYPE: _PE X	SMALL DISK DIVISION	<b>C</b>	83324630	B
	CODE IDENT 19333	0412	SHEET 12	1-83



MAGNETIC PERIPHERALS INC SERVO TRIBIT DECODER PART 3 TYPE: -PEX	SMALL DISK DIVISION	C	83324630	B
	CODE IDENT I9333	0413	SHEET 13	J-85

**SIGNAL INPUTS**

**SIGNAL OUTPUTS**



J29 >> 17

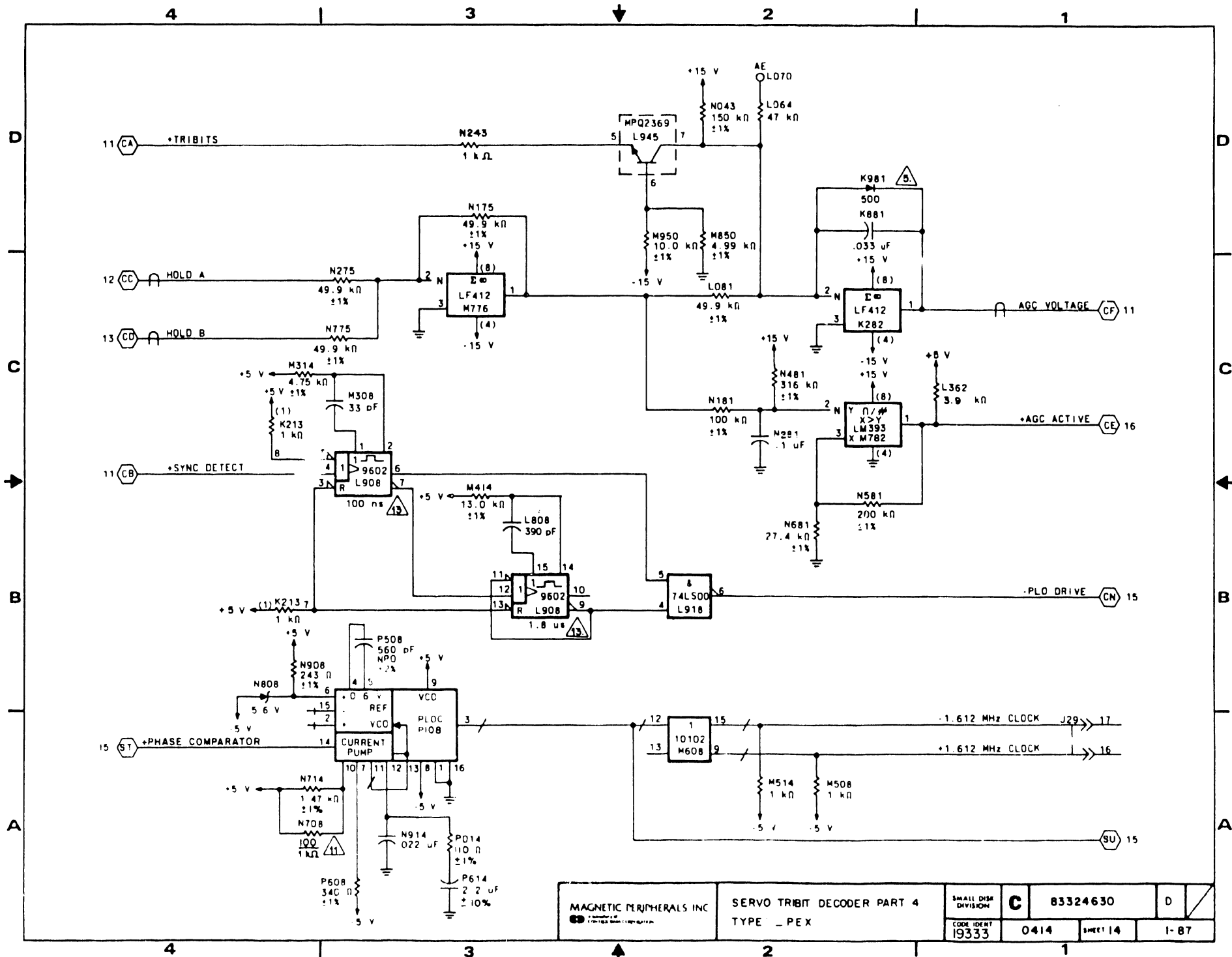
0703 J31-10  
0801 J30-10

J29 >> 16

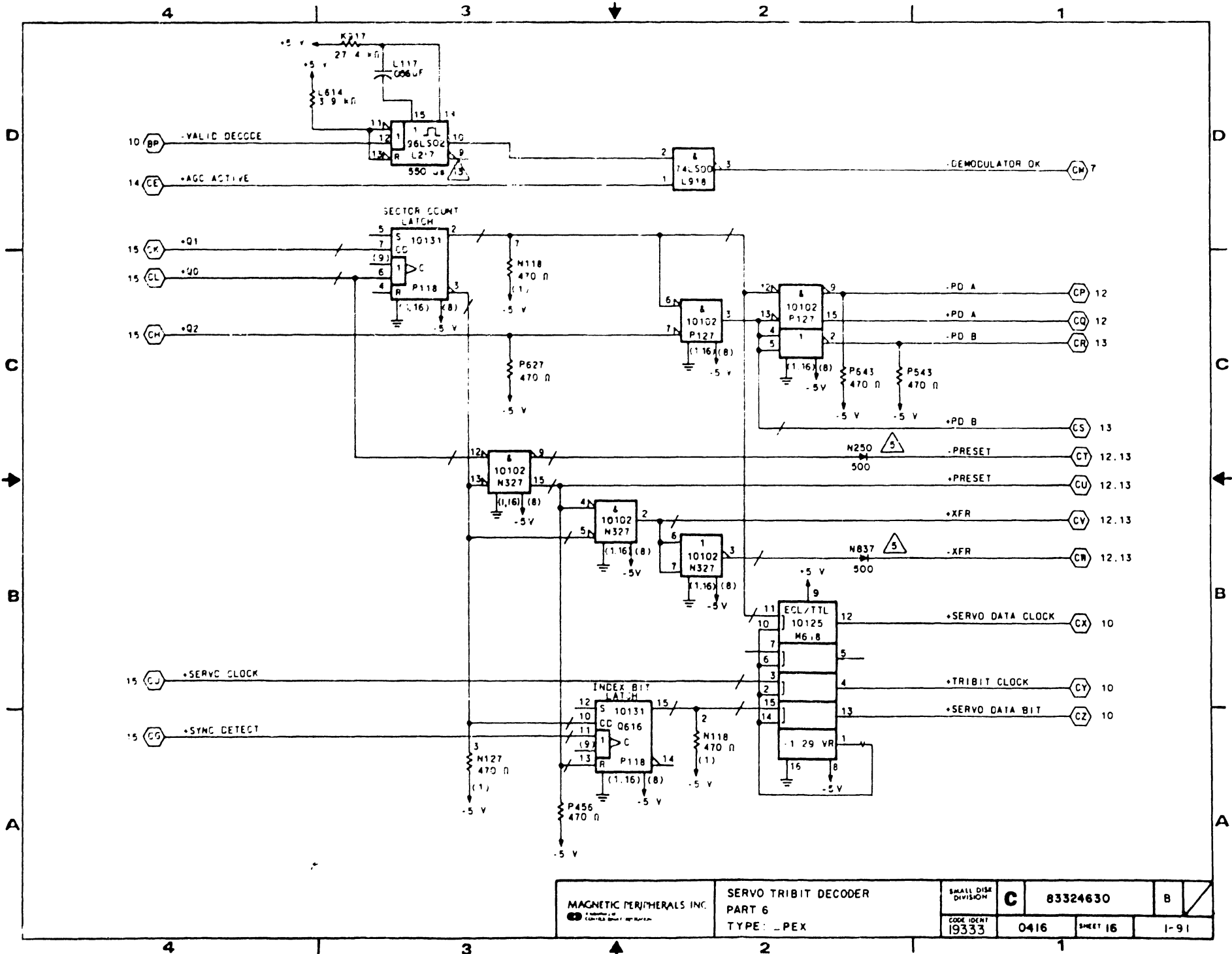
0703 J31-11  
0801 J30-11

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0414	PAGE	1-86

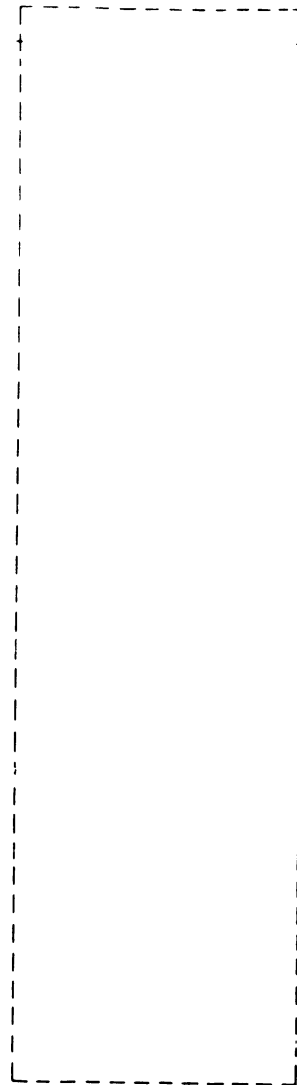






SIGNAL INPUTS

SIGNAL OUTPUTS

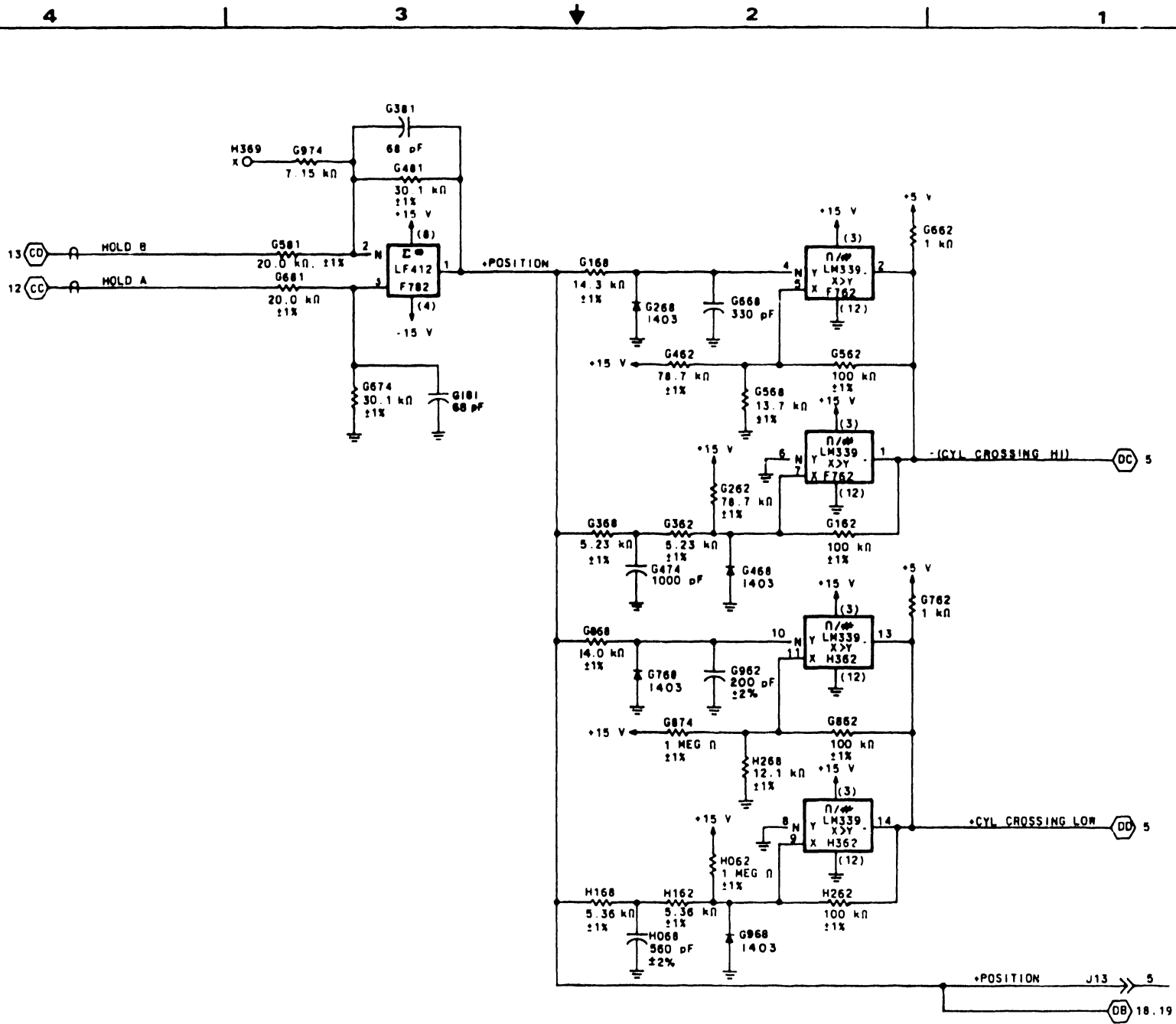


J13 >>> 05

Servo Test Jack k

LOGIC CROSS REFERENCE INFORMATION

PUB	83324630	REV	B
CROSS REF NO	0417	PAGE	1-92

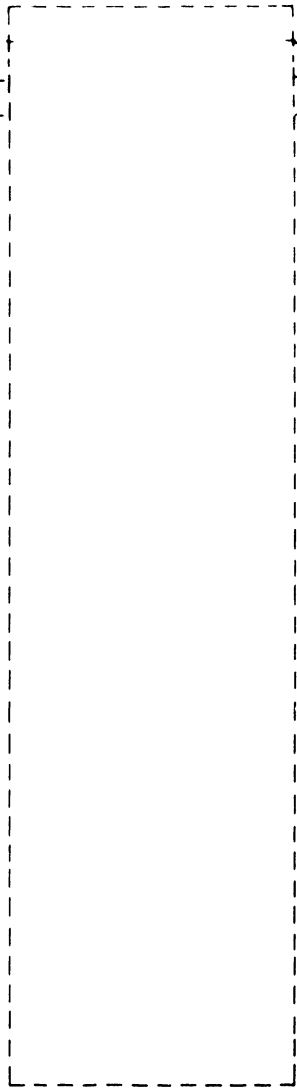


MAGNETIC PERIPHERALS INC A DIVISION OF GENERAL ELECTRIC COMPANY	POSITION	SMALL DISK DIVISION	<b>C</b>	83324630	C
	TYPE: PEX	CODE IDENT 19333	0417	SHEET 17	I-93



**SIGNAL INPUTS**

SINGLE		DUAL			
CHANNEL	UNITS	CHANNEL	UNITS		
0206	J20-40	0212	J20-01	40 >>	J14
0206	J20-38	0212	J20-03	39 >>	J14

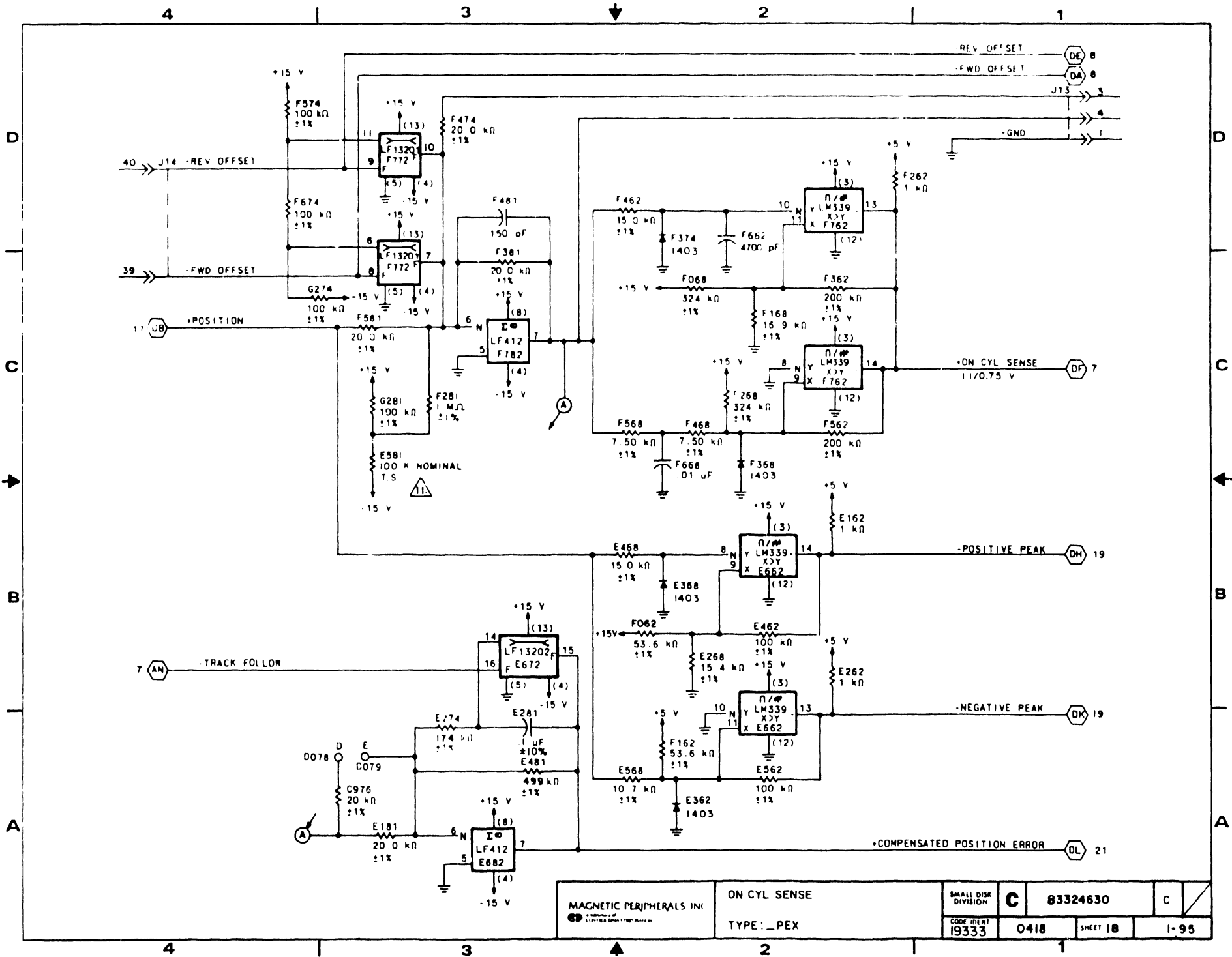


**SIGNAL OUTPUTS**

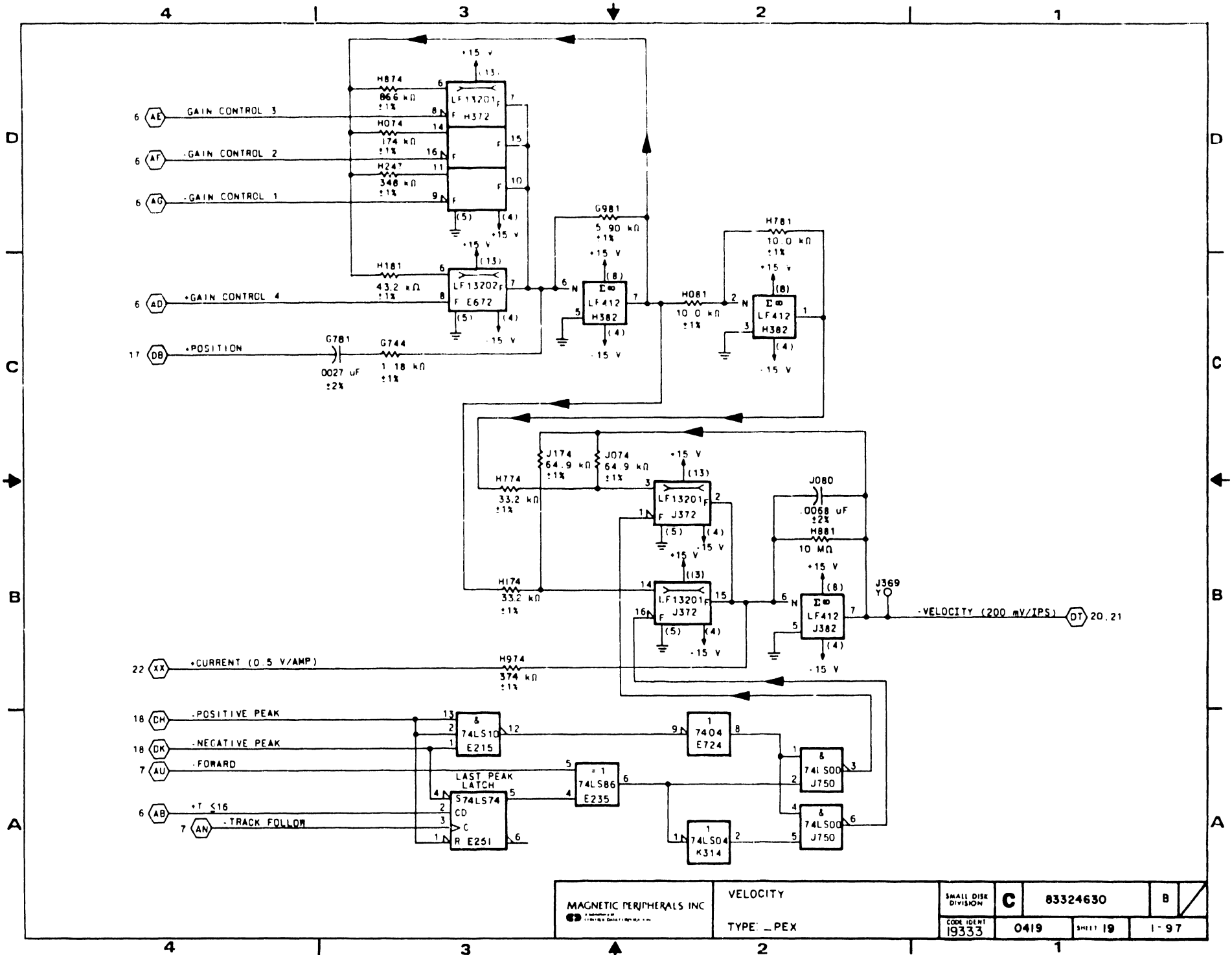
J13	>>	03	Servo Test Jack
J13	>>	04	Servo Test Jack
J13	>>	01	Servo Test Jack

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0418	PAGE	1-94

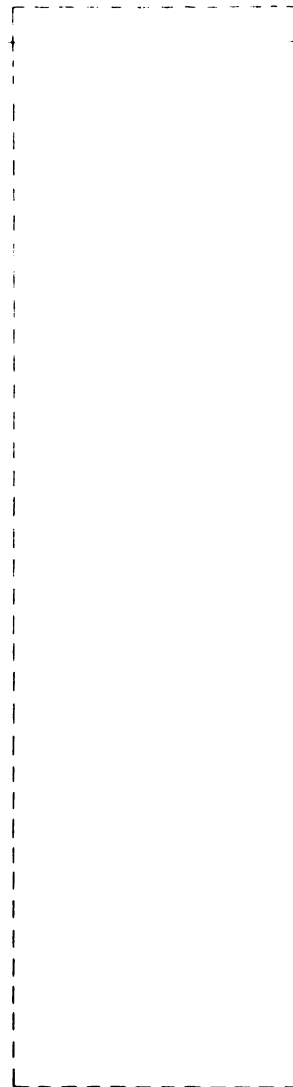


MAGNETIC PERIPHERALS INC. <small>AN IRVING-CLOUD COMPANY</small>	ON CYL SENSE		SMALL DISK DIVISION	<b>C</b>	83324630	C
	TYPE: PEX		CODE IDENT	19333	0418	SHEET 18



**SIGNAL INPUTS**

**SIGNAL OUTPUTS**

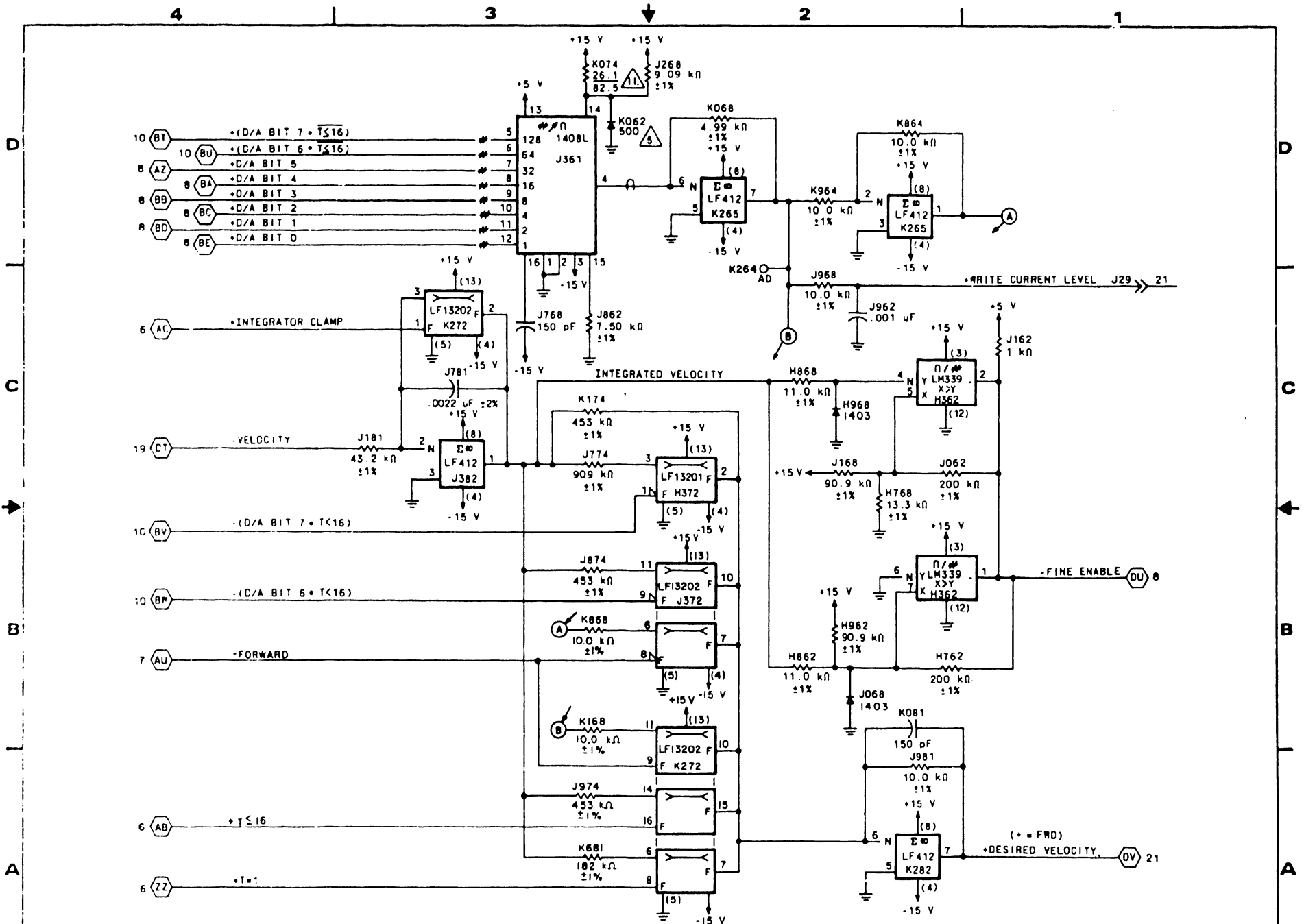


J29 >> 21

0701 J31-06  
0803 J30-06

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0420	PAGE	1-98



- 10 (BT) •(D/A BIT 7 • T<16)
- 10 (BU) •(C/A BIT 6 • T<16)
- 8 (AZ) •D/A BIT 5
- 8 (BA) •D/A BIT 4
- 8 (BB) •D/A BIT 3
- 8 (BC) •D/A BIT 2
- 8 (BD) •D/A BIT 1
- 8 (BE) •D/A BIT 0

6 (AC) •INTEGRATOR CLAMP

19 (CT) •VELOCITY

10 (BV) •(D/A BIT 7 • T<16)

10 (BP) •(C/A BIT 6 • T<16)

7 (AU) •FORWARD

6 (AB) •T ≤ 16

6 (ZZ) •T =

•WRITE CURRENT LEVEL J29 → 21

MAGNETIC PERIPHERALS INC <small>• DIVISION OF          CHRYSLER GROUP COMPANY</small>	DESIRED VELOCITY	SMALL DISK DIVISION	<b>C</b>	83324630	C
	TYPE: _PEX	CODE IDENT 19333	0420	SHEET 20	1-99

**SIGNAL INPUTS**

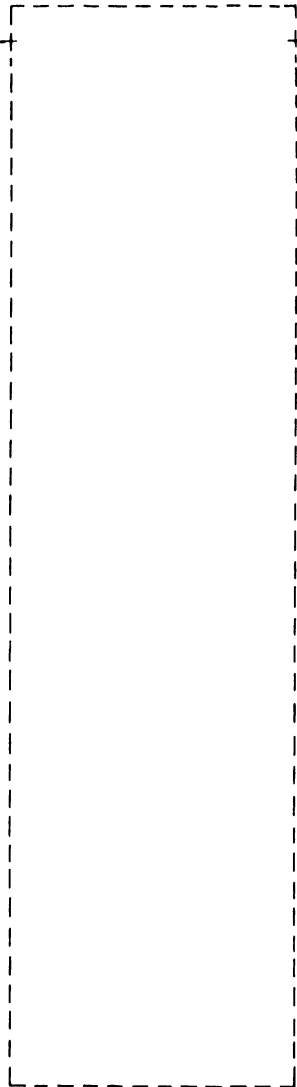
**SIGNAL OUTPUTS**

0502 P23-09

09-->>J23

J23-->>11

0502 P23-11



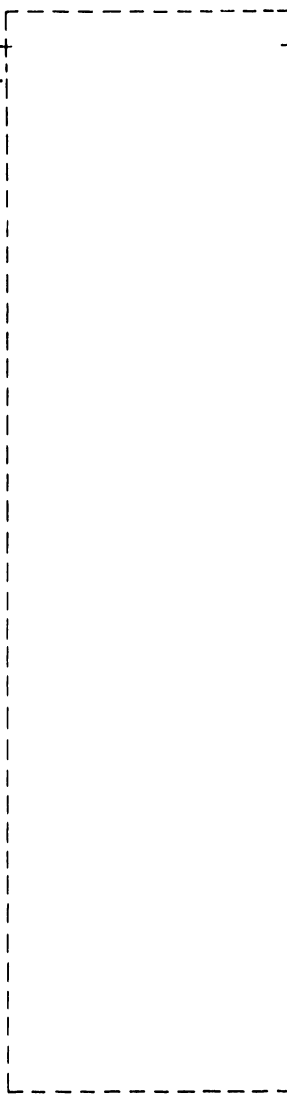
**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0421	1-100		



**SIGNAL INPUTS**

0502 P23-07 07 >> J23  
0502 P23-05 05 >> J23



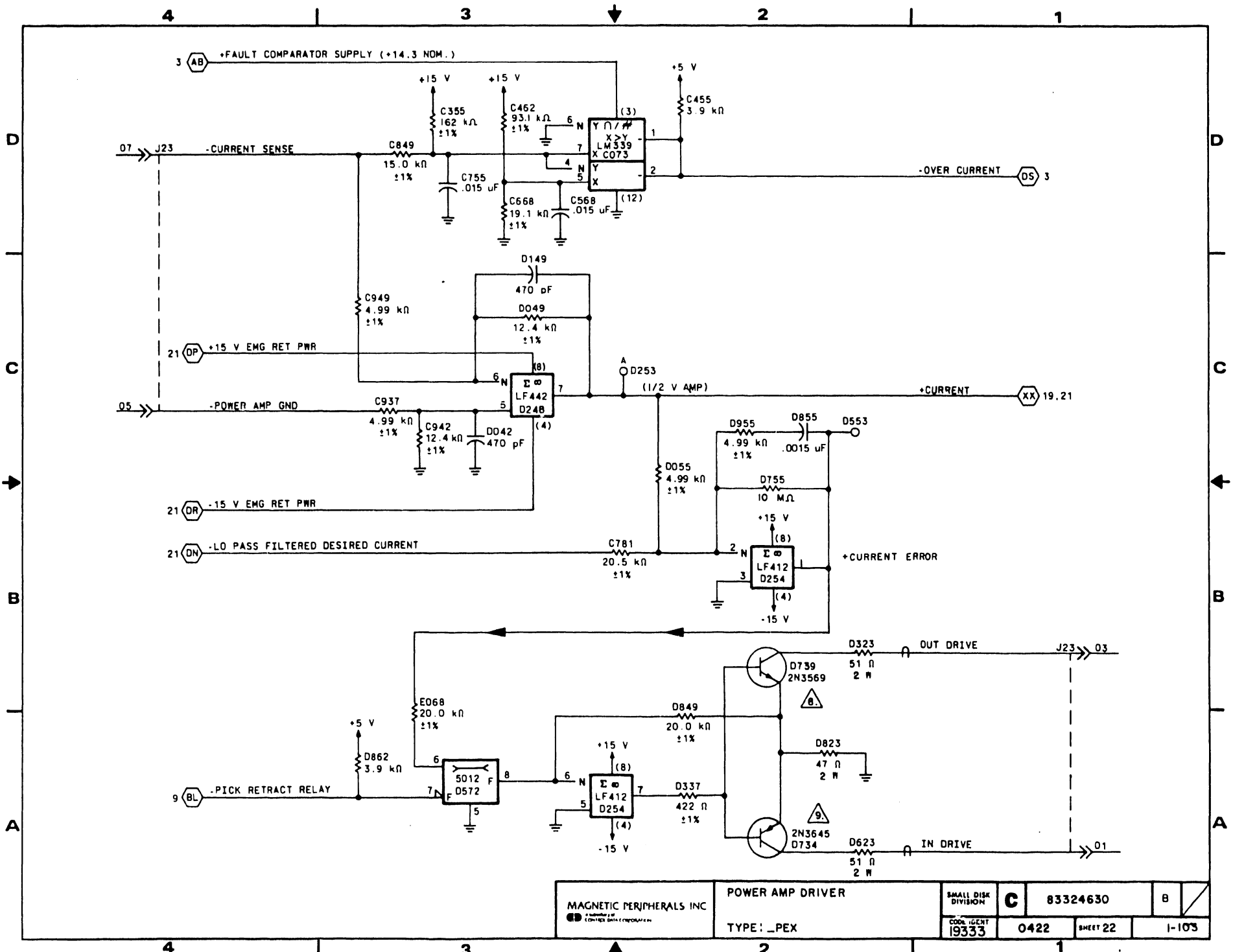
**SIGNAL OUTPUTS**

J23 >> 03 0502 P23-03  
J23 >> 01 0502 P23-01

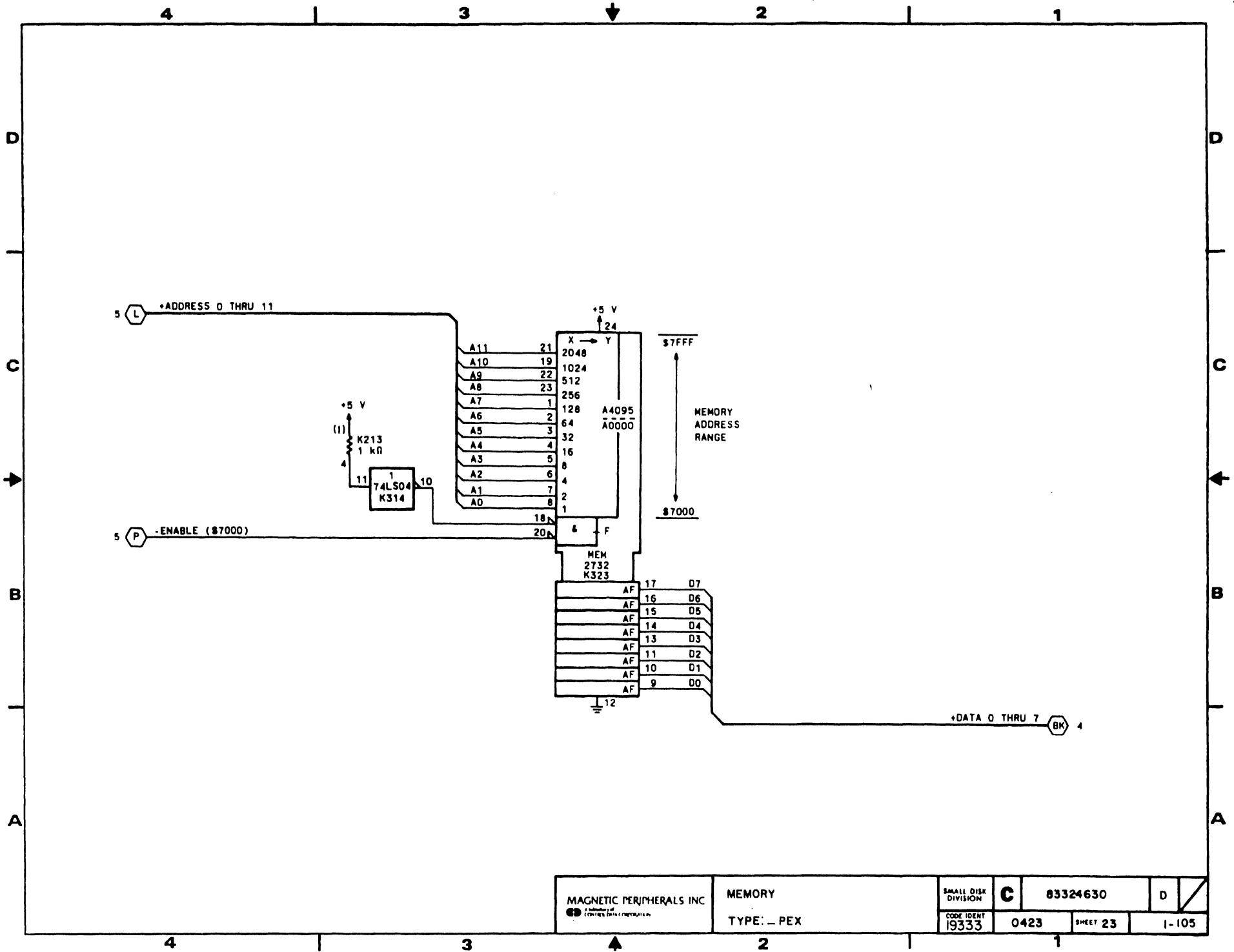
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0422	PAGE	1-102



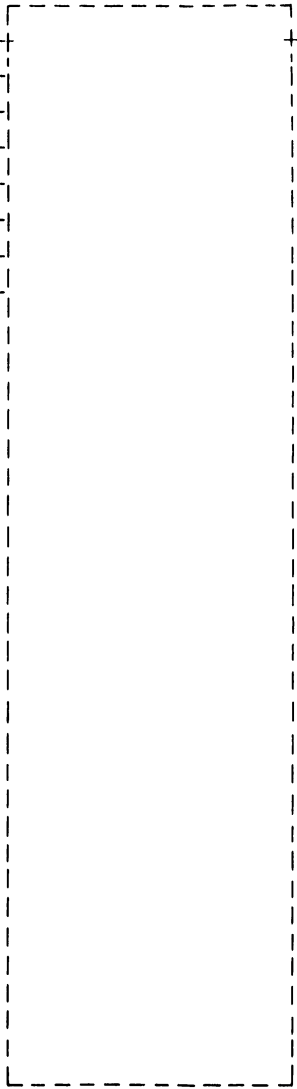


MAGNETIC PERIPHERALS INC A DIVISION OF COMDEX DATA CORPORATION	POWER AMP DRIVER		SMALL DISK DIVISION	<b>C</b>	83324630	B
	TYPE: _PEX		COOL IDENT 19333	0422	SHEET 22	1-103



**SIGNAL INPUTS**

1002	J40-11	05	>>	J21	-----
1002	J40-04	07	>>	J21	-----
1002	J40-01	08	>>	J21	-----
1002	J40-02	03	>>	J21	-----
1002	J40-05	04	>>	J21	-----
1002	J40-03	01	>>	J21	-----
1002	J40-06	02	>>	J21	-----
1002	J40-15	06	>>	J21	-----



**SIGNAL OUTPUTS**

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0401	PAGE	1-106

UNUSEC LOGIC ELEMENTS		
ELEMENT	LOCATION	OUTPUT PINS
10102	P127	14
LM393	M782	7
10125	E715	5, 12, 13
74LS10	E215	12
13202	E672	10
LM339	E662	1, 2
74LS20	E851	8
74LS00	L918	11
96LS02	L208	9, 10
7406	E224	8, 12
417	C982	7

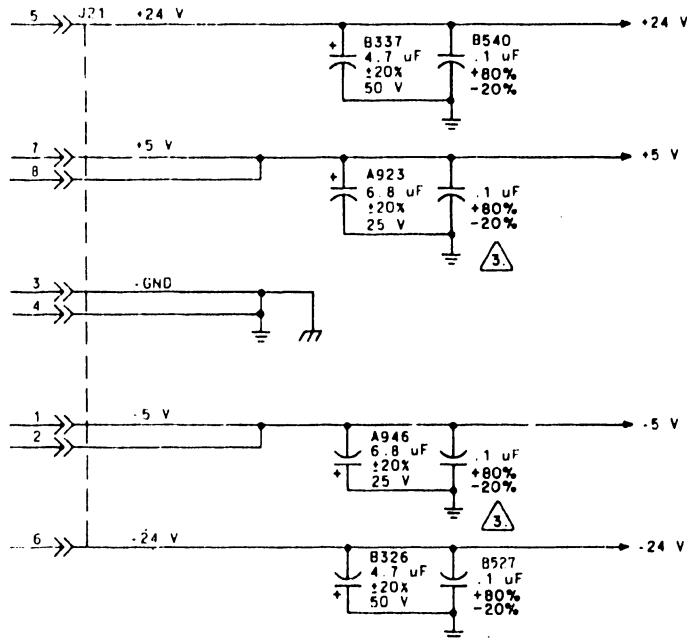
UNUSED TRANSISTOR PACKS		
TYPE	LOCATION	PINS
MPQ3546	N356	5, 6, 7

UNUSED RESISTOR PACKS		
VALUE	LOCATION	PIN(S)
1 kΩ	N505	2, 8
1 kΩ	K213	2, 5

.1 uF			
+5 V	-5 V	+15 V	-15 V
J538	F115	C881	L556
E116	N008		K664
E615	M337	F681	N875
E625		M281	M868
F634	P520	J281	J762
F643	M527	K181	G174
E752	N027	M681	E062
G438	N827	N781	B462
G518	P527	M46B	C481
H638	N737	P562	
H515	N018	B981	
J262		D155	
L150			
L737			
K252			
L827			
L814			
K229			
J911			
K710			
M320			
M408			
B562			

PART NO RANGE	REVISION RECORD						
	REV	ECO	DESCRIPTION	DATE	CHKD	APP	
02 THRU 02	A	01.12.80	RELEASED	11/18/82			10
	B	DJ03288	LOGIC DIA CORR	3/17/83	REB		10
	C	DJ03347	ADD CHANGES	04/27/83	USD		10
	D	DJ03330	CHANGE DIODE VALUES	04/27/83	USD		10
	E	DJ03312	ADDED KEY	04/27/83	CR		10
	F	DJ03441	CHG RES/CAP CPEX	04/27/83	CR		10
	G	DJ03443	CHG SCH LABELING	04/27/83			10
	H	DJ03463	REPLAC CPEX WITH DPEX	10/14/83			10

- NOTES
- UNLESS OTHERWISE SPECIFIED ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GROUND. ALL 16 PIN IC'S HAVE PIN 8 CONNECTED TO GROUND, AND PIN 16 CONNECTED TO +5 V
  - ALL DIODES. 50241403
  - ALL DIODES. LED 94372500
  - ALL DIODE ARRAYS. D116. 50241801.
  - ALL RESISTOR PACK RESISTORS. ±3%, 1/8 W.
  - ALL TRANSISTORS. SPNP. HM5005. 50222400.
  - ALL TRANSISTOR ARRAYS. NPN. MPQ2369. 50213300.
  - ALL ○—○ INDICATE MOLDED JUMPER WIRES.
- △2 INPUT PINS OF UNUSED LOGIC ELEMENT 74LS20 TO GROUND.
- △3 SEE TABLE FOR .1 uF FILTER CAP LOCATIONS.
- FOR EASE OF LOCATING WHICH PAGE A CONNECTOR PIN IS ON SEE PIN/SHEET CROSS REFERENCE DIAGRAMS ON SHEET 2.
  - DIODE SILICON. 24553500.
  - DIODE. SILICON. 1N4001. 95637301.
  - DIODE. SILICON, 1CV, 50240113.
  - TRANSISTOR. SPNP. 2N3569. 50210801.
  - TRANSISTOR. SPNP. 2N3645. 50211200.
  - TRANSISTOR ARRAY. MPQ3546. 15165619.
  - TEST SELECT RESISTORS TO BE SELECTED FROM DRAWING 94357500 AND INSERTED DURING CARD TEST PER CARD TEST REQUIREMENTS.
  - DELAY TIME FOR REFERENCE ONLY.

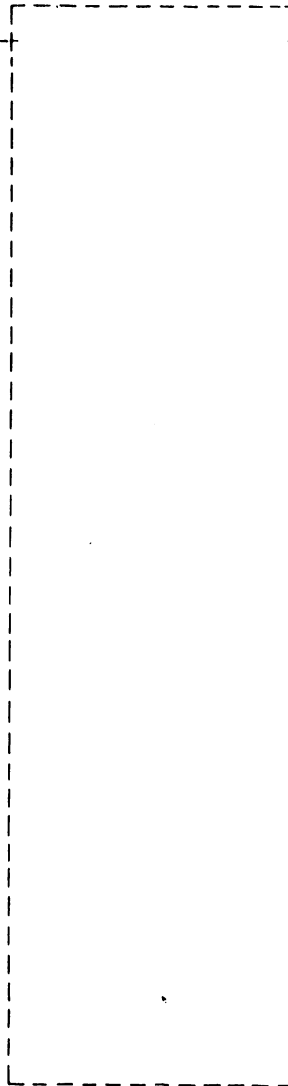


REFERENCE DRAWING			MAGNETIC PERIPHERALS INC		TITLE	
COMP ASSY 54332102			FIRST USED ON		NEXT ASSEMBLY	
CTR 54332302			PA3A1-A		SCHEMATIC DIAGRAM RSD CONTROL BOARD TYPE DPEX	
COMPONENTS EXCEPT AS NOTED			DWN	F. A.	11/18/82	REV
TOLERANCE	VALUE	RATING	CHKD	DGD	11/18/82	
RES	±5%	OHMS 1/4 W	ENGR	R. Nelson	12-20-77	
CAP	±10%		MFG			
			QA	J. J. Baker	2-3-83	
TWIN CITIES DISK DIVISION			SCALE		0401	CODE IDENT
C 83324630			19333		1-106.1	
REF: B4332203			1		PRODUCT RSD	

B54332202

**SIGNAL INPUTS**

0102 P26-11 11-->> J26

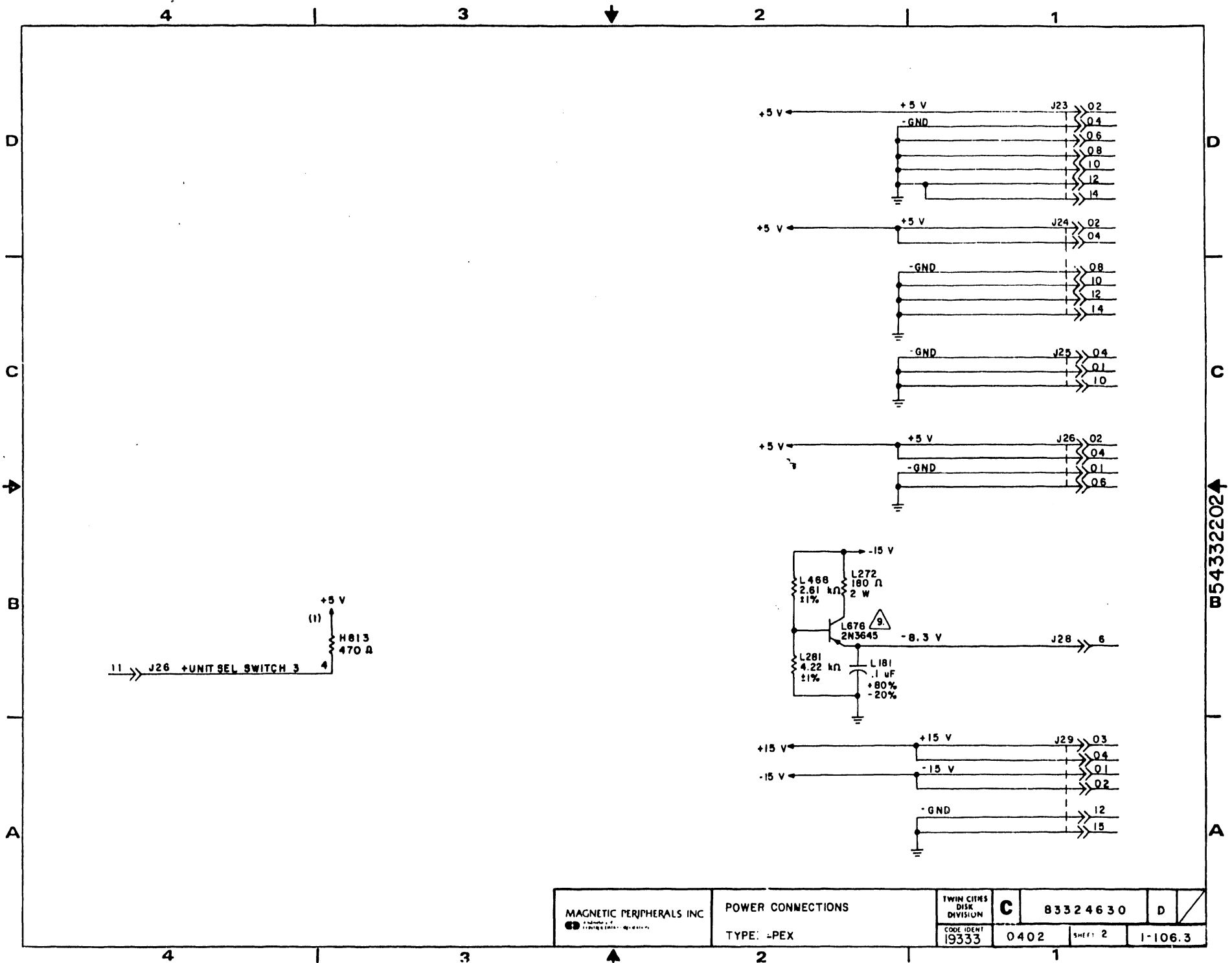


**SIGNAL OUTPUTS**

J23 >> 02	0502	P23-02
J23 >> 04	0502	P23-04
J23 >> 06	0502	P23-06
J23 >> 08	0502	P23-08
J23 >> 10	0502	P23-10
J23 >> 12	0502	P23-12
J23 >> 14	0502	P23-14
J24 >> 02	0601	P24-02
J24 >> 04	0601	P24-04
J24 >> 08	0601	P24-08
J24 >> 10	0601	P24-10
J24 >> 12	0601	P24-12
J24 >> 14	0601	P24-14
J25 >> 04	1042	P25-04
J25 >> 01	1042	P25-01
J25 >> 10	1042	P25-10
J26 >> 02	0101	P26-02
J26 >> 04	0101	P26-04
J26 >> 01	0101	P26-01
J26 >> 06	0101	P26-06
J28 >> 06	0301	J34-02
J29 >> 03	0801	J30-24
J29 >> 04	0701	J31-24
J29 >> 01	0801	J30-23
J29 >> 01	0701	J31-23
J29 >> 01	0801	J30-26
J29 >> 01	0701	J31-26
J29 >> 02	0801	J30-25
J29 >> 02	0701	J31-25
J29 >> 12	0801	J30-15
J29 >> 12	0701	J31-15
J29 >> 15	0801	J30-12
J29 >> 15	0701	J31-12

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0402	PAGE	1-106.2

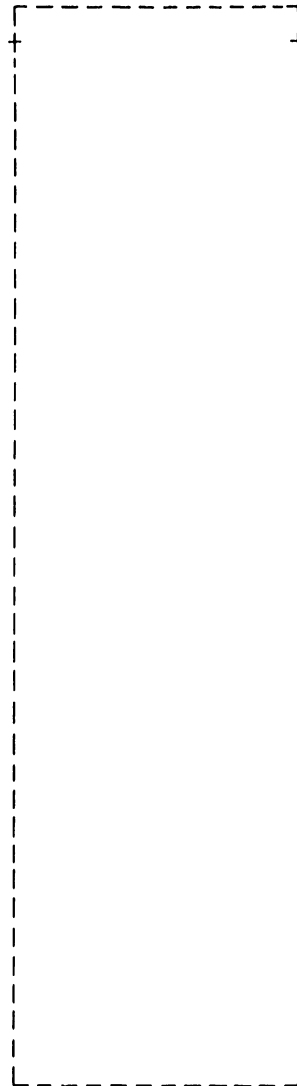


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MAGNETIC PERIPHERALS INC <small>• A DIVISION OF •</small> <small>INTERNATIONAL BUSINESS MACHINES CORPORATION</small>	POWER CONNECTIONS		TWIN CITIES DISK DIVISION	<b>C</b>	83324630	D
	TYPE: -PEX		CODE IDENT 19333	0402	SHEET 2	1-106.3

**SIGNAL INPUTS**

**SIGNAL OUTPUTS**

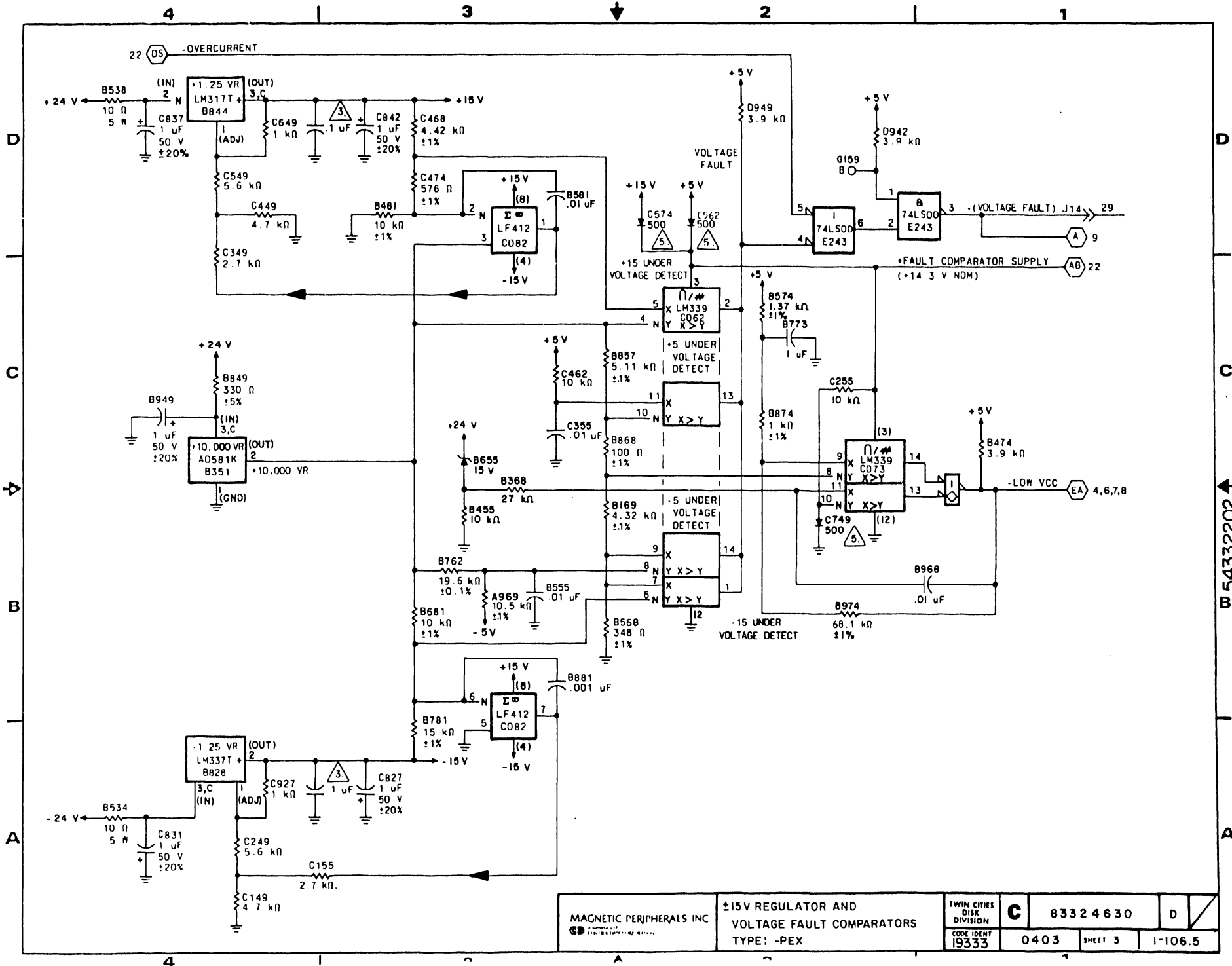


SINGLE CHANNEL UNITS      DUAL CHANNEL UNITS

J14 -->> 29      0206 J20-18    0212 J20-23

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0403	PAGE	1-106.4



MAGNETIC PERIPHERALS INC  
 ±15V REGULATOR AND  
 VOLTAGE FAULT COMPARATORS  
 TYPE: -PEX

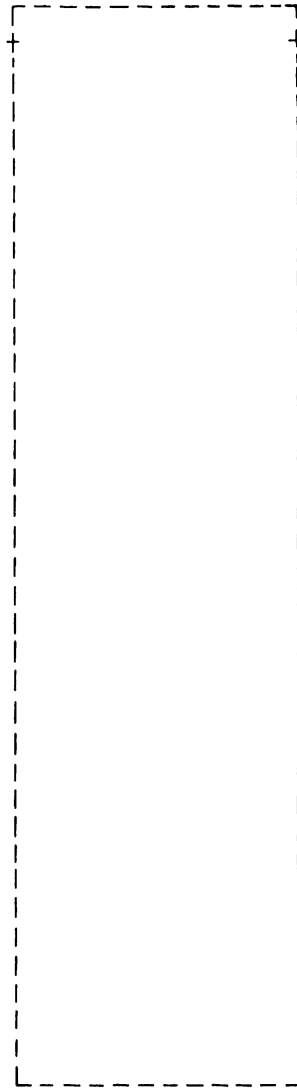
TWIN CITIES DISK DIVISION	<b>C</b>	83324630	D
CODE IDENT 19333	0403	SHEET 3	I-106.5

B 54332202



**SIGNAL INPUTS**

**SIGNAL OUTPUTS**



		<u>SINGLE</u>		<u>DUAL</u>	
		<u>CHANNEL</u>	<u>UNITS</u>	<u>CHANNEL</u>	<u>UNITS</u>

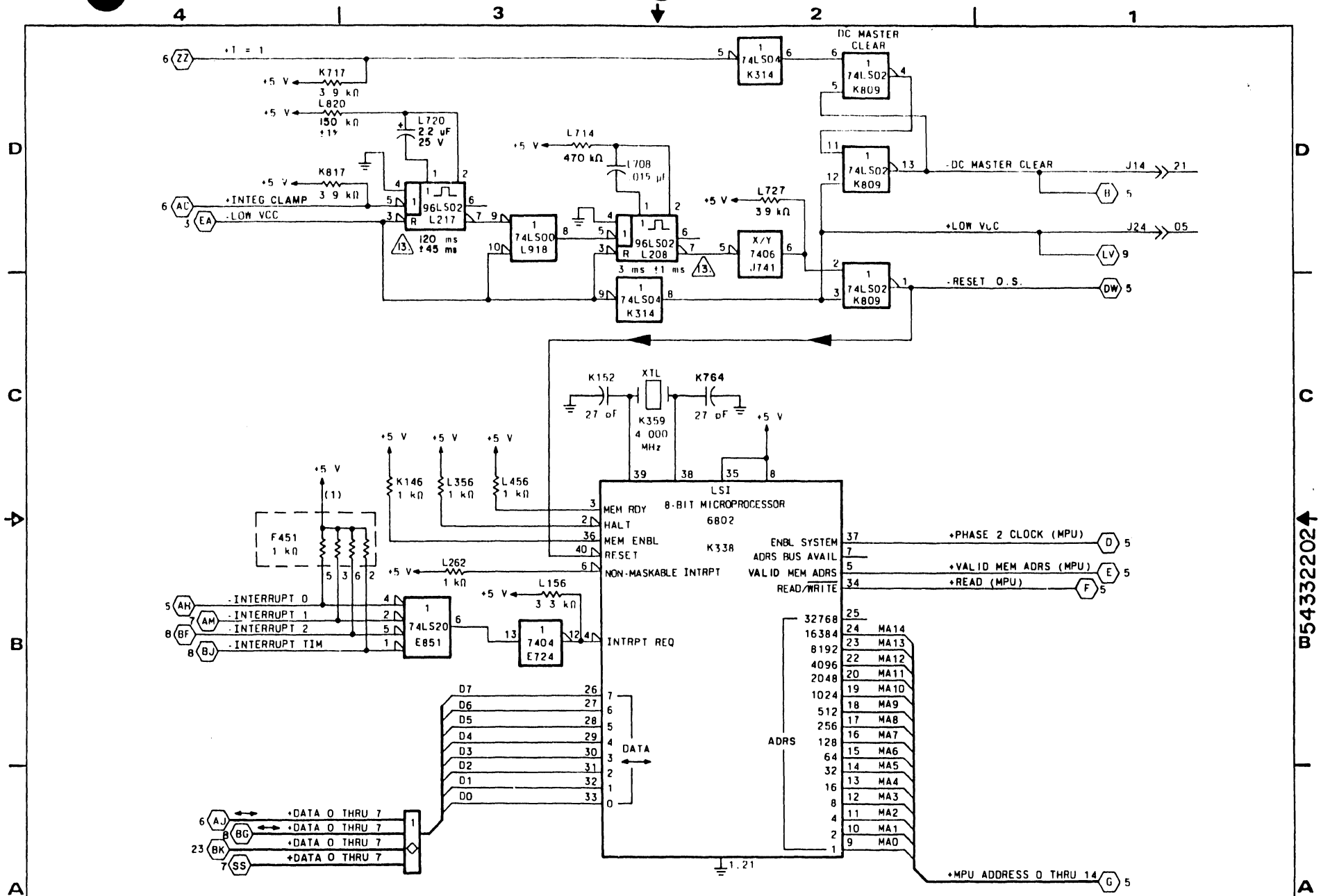
J14 >> 21

J24 >> 05

0206	J20-02	0210	J20-39
0602	P24-05	0602	P24-05

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		D	
CROSS REF NO		PAGE	
0404		1-106.6	

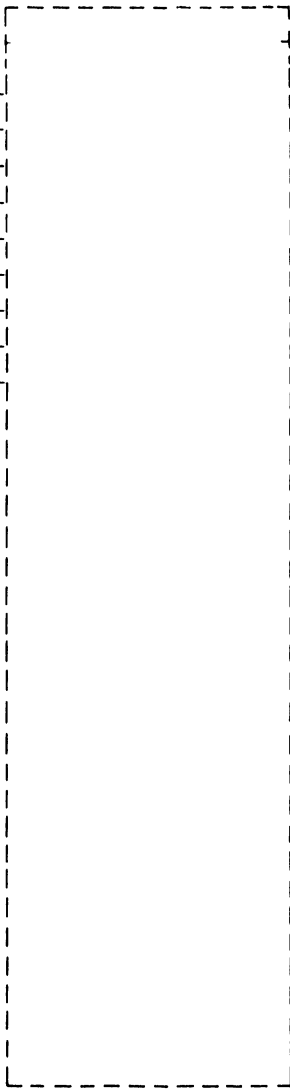


MAGNETIC PERIPHERALS INC GD	MICRO PROCESSOR TYPE: - PEX	TWIN CITIES DISK DIVISION	C	83324630	D
		CODE IDENT 19333			

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**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0202	J20-11	0202	J20-30	15	>> J14
0202	J20-05	0202	J20-36	18	>> J14
0202	J20-07	0202	J20-34	17	>> J14
0202	J20-13	0202	J20-28	14	>> J14
0202	J20-15	0202	J20-26	13	>> J14
0202	J20-19	0202	J20-22	11	>> J14
0102	P26-05	0102	P26-05	05	>> J26
0102	P26-03	0102	P26-03	03	>> J26
0102	P26-09	0102	P26-09	09	>> J26

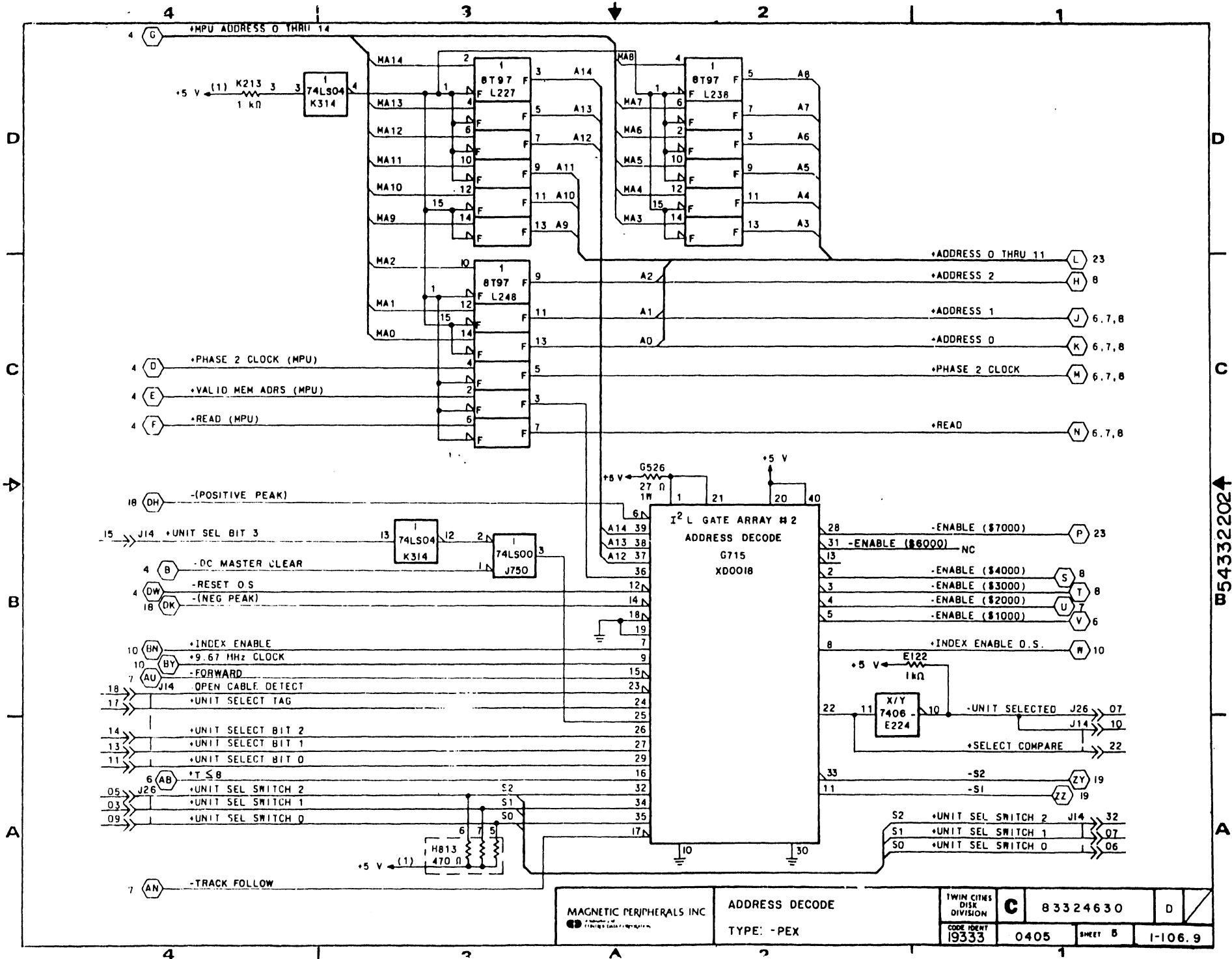


**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
J26	>> 07	0102	P26-07
J14	>> 10	0202	J20-21
J14	>> 22	NC	J20-04
J14	>> 32	NC	J20-24
J14	>> 07	NC	J20-27
J14	>> 06	NC	J20-29
		0102	P26-07
		0210	J20-20
		0204	J20-37
		0210	J20-17
		0210	J20-14
		0210	J20-12

**LOGIC CROSS REFERENCE INFORMATION**

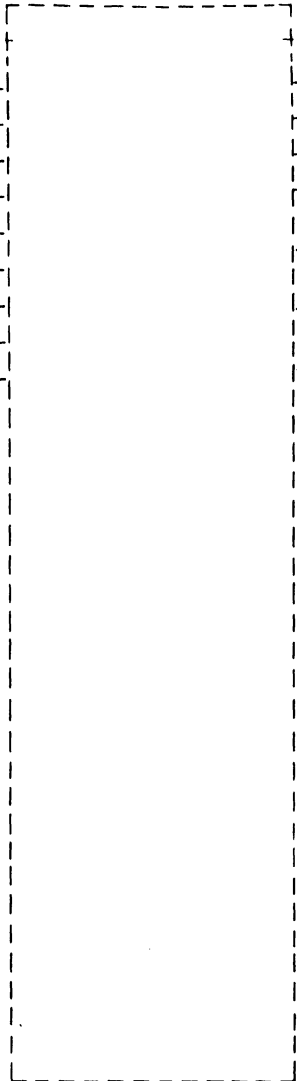
PUB		REV	
83324630		D	
CROSS REF NO		PAGE	
0405		1-106.8	



B54332202A

**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0206	J20-26	0212	J20-15	33	J14
0206	J20-39	0212	J20-02	01	J14
0206	J20-28	0212	J20-13	34	J14
0206	J20-10	0212	J20-31	25	J14
1042	P25-05	1042	P25-05	05	J25
0206	J20-37	0212	J20-04	02	J14
0206	J20-35	0212	J20-06	03	J14
0206	J20-33	0212	J20-08	04	J14
0206	J20-31	0212	J20-10	05	J14

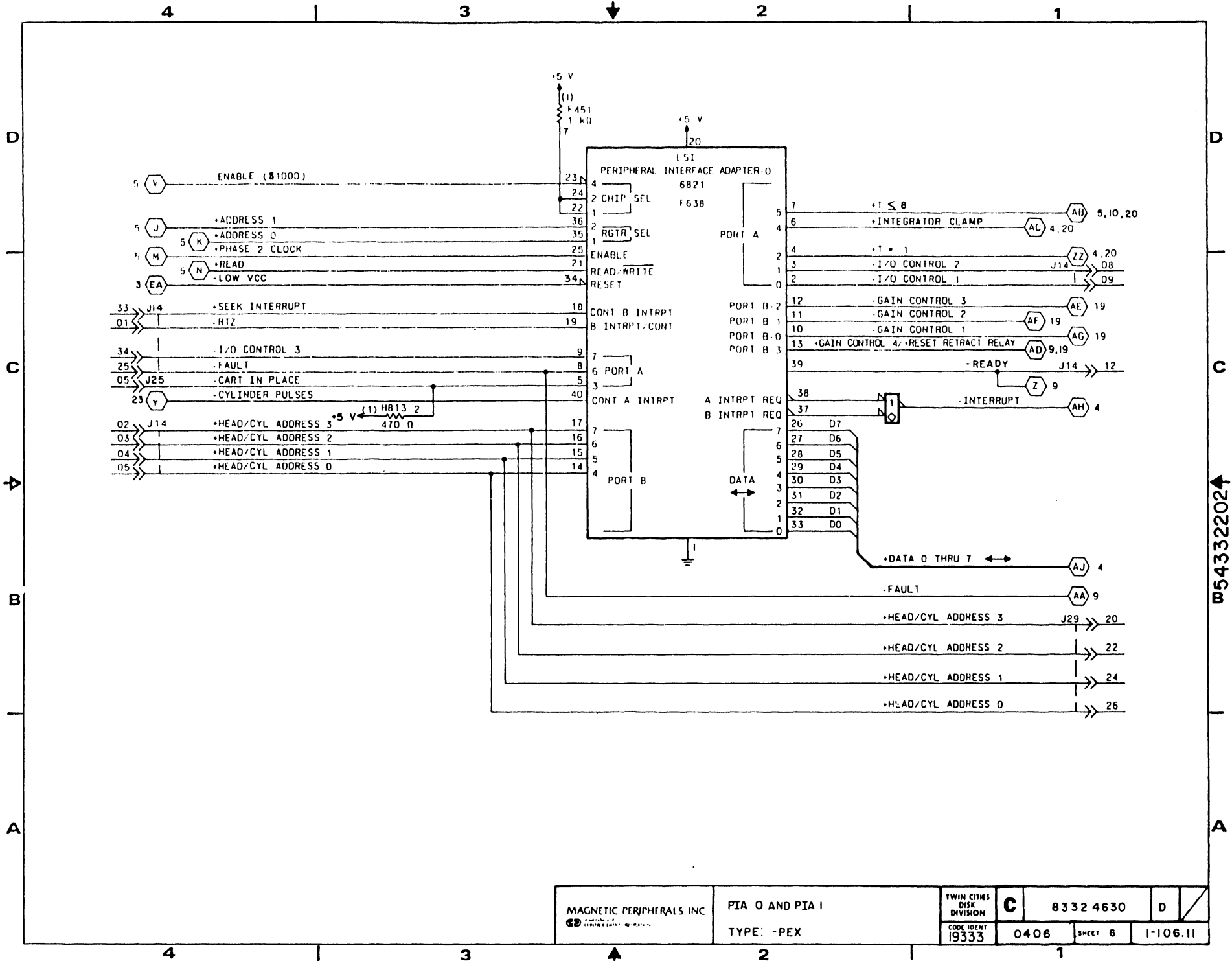


**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0206	J20-25	0212	J20-16	J14	08
0206	J20-23	0212	J20-18	J14	09
0204	J20-17	0204	J20-24	J14	12
0701	J31-07	0701	J31-07	J29	20
0805	J30-07	0805	J30-07	J29	22
0701	J31-05	0701	J31-05	J29	24
0805	J30-05	0805	J30-05	J29	26
0701	J31-03	0701	J31-03		
0805	J30-03	0805	J30-03		
0701	J31-01	0701	J31-01		
0805	J30-01	0805	J30-01		

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0406	PAGE	1-106.10



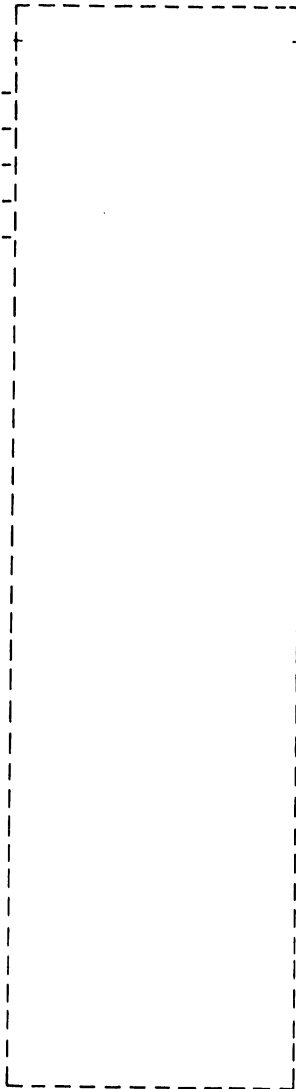
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**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
1042	P25-08	1042	P25-08	08	J25
1042	P25-02	1042	P25-02	02	J25
0102	P26-08	0102	P26-08	08	J26
0205	J20-20	0205	J20-21	30	J14
NC	J20-16	NC	J20-25	28	J14

**SIGNAL OUTPUTS**

J24 --->> 11 0602 P24-11



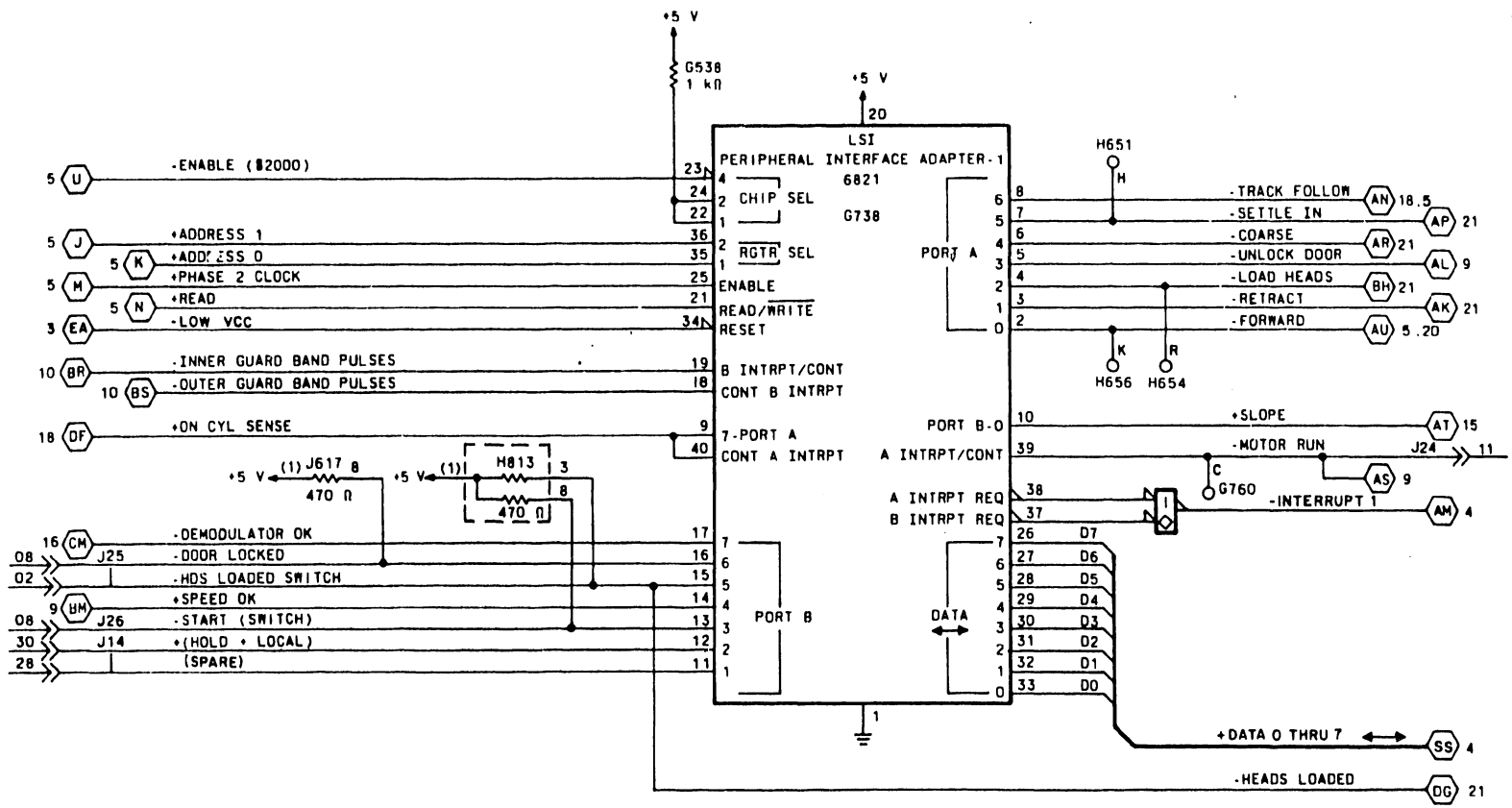
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0407	PAGE	1-106.12

4 3 2 1

D  
C  
B  
A

D  
C  
B  
A



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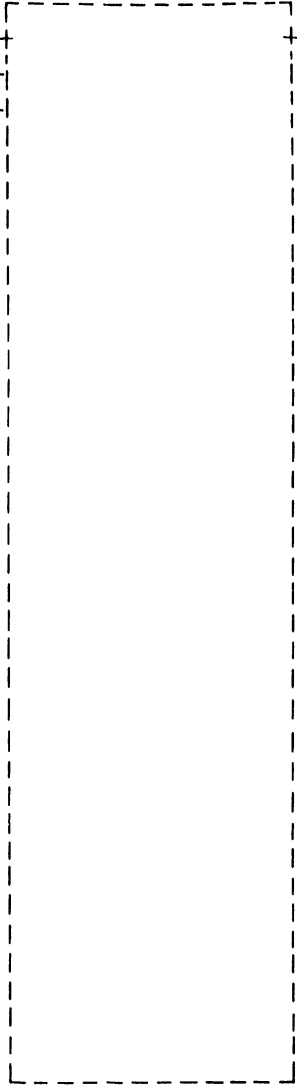
MAGNETIC PERIPHERALS INC <small>MEMBER OF THE PERKINS ELECTRONIC CORPORATION</small>	PIA 0 AND PIA 1		TWIN CITIES DISK DIVISION	C	83324630	D
	TYPE: - PEX		CODE IDENT 19333			



**SIGNAL INPUTS**

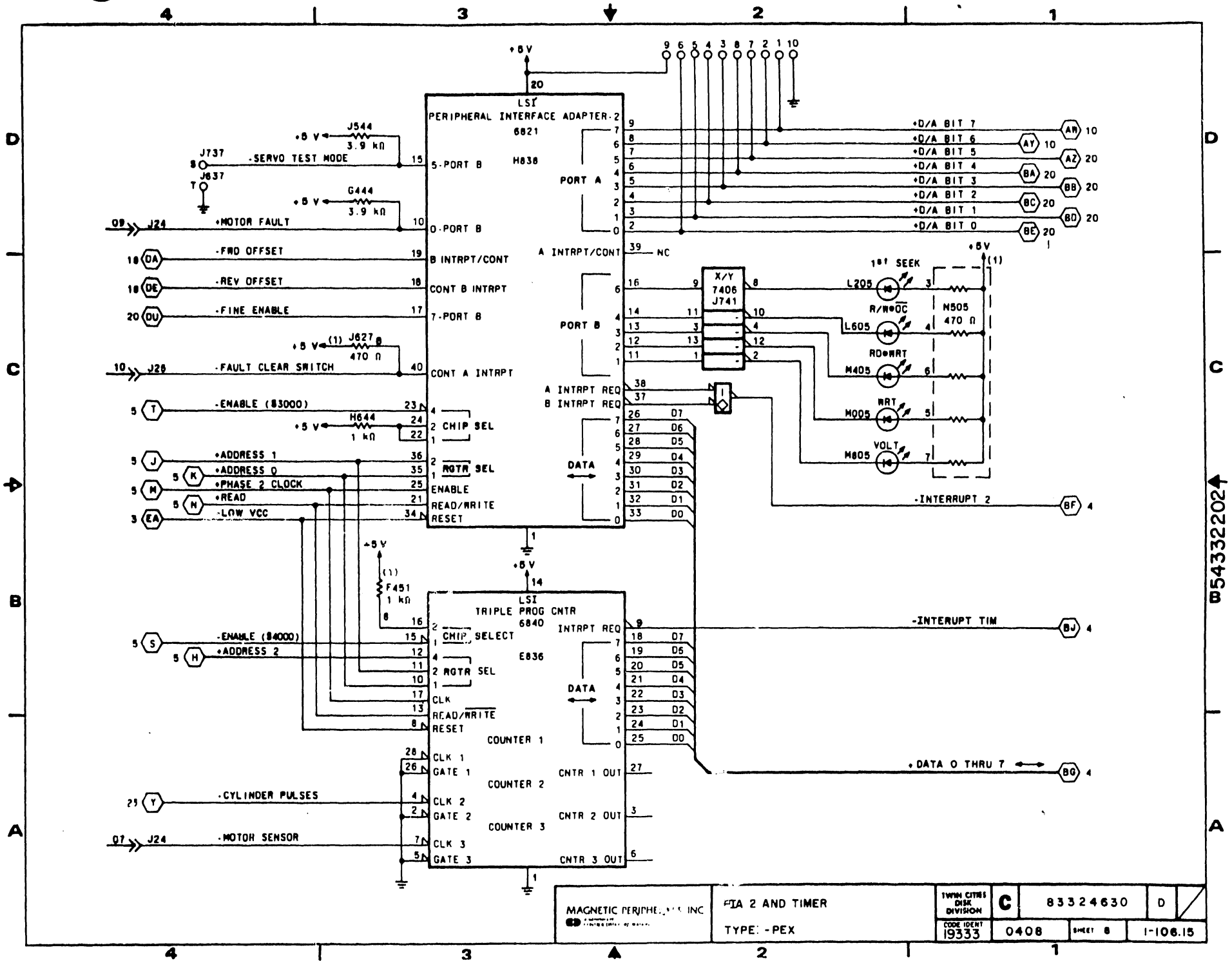
0602 P24-09 09 ->> J24  
0102 P26-10 10 ->> J26  
0602 P24-07 07 ->> J24

**SIGNAL OUTPUTS**



**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		D	
CROSS REF NO	PAGE		
0408	1-106.14		

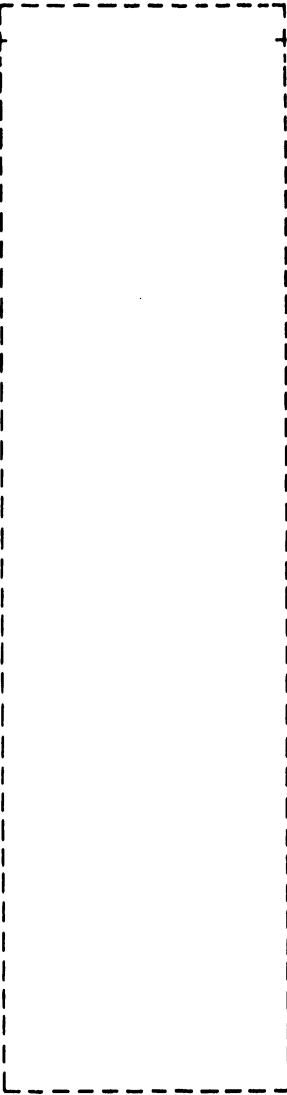


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MAGNETIC PERIPHERALS, INC. A DIVISION OF BURROUGHS CORPORATION	FIA 2 AND TIMER		TWIN CITIES DISK DIVISION	C	83324630	D
	TYPE: -PEX		CODE IDENT 19333	0408	SHEET 8	I-106.15

**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0603	P24-03	0603	P24-03	03	J24
0602	P24-01	0602	P24-01	01	J24
0206	J20-12	0212	J20-29	26	J14
1042	O25-03	1042	P25-03	03	J25

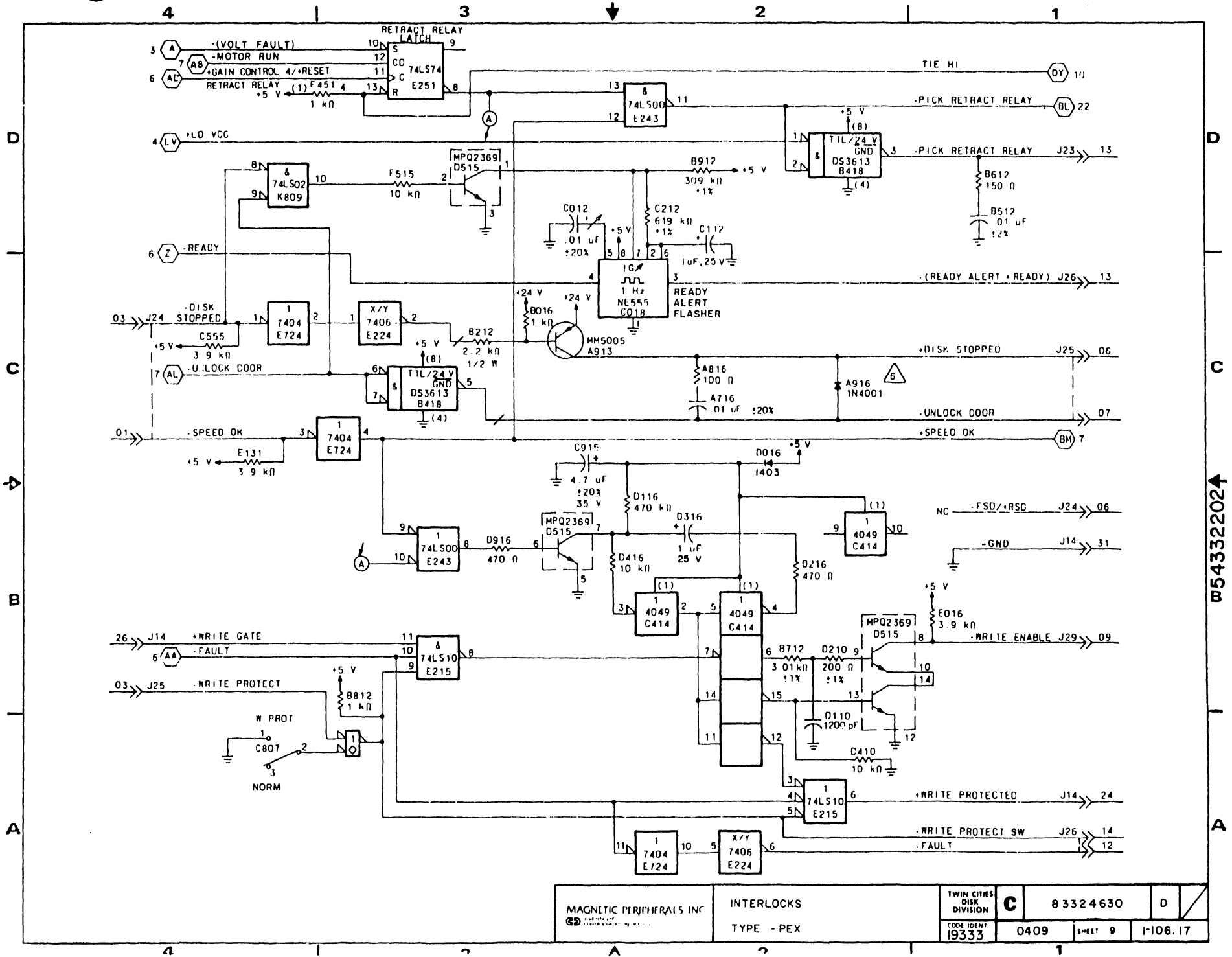


**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
J23	>> 13	0502	P23-13
J26	>> 13	0102	P26-13
J25	>> 06	1042	P25-06
J25	>> 07	1042	P25-07
J24	>> 06	0602	P24-06
J14	>> 31	0206	J20-22
J29	>> 09	0802	J30-18
J14	>> 24	0204	J20-08
J26	>> 14	0102	P26-14
J26	>> 12	0102	P26-12

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV
83324630		D
CROSS REF NO	PAGE	
0409	1-106.16	

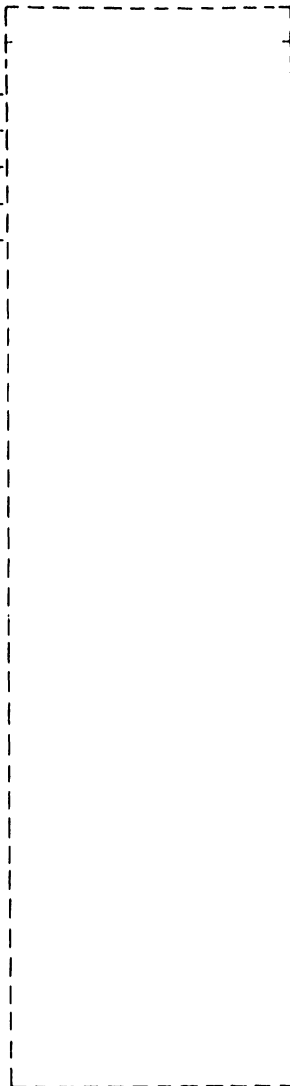


W543322024

MAGNETIC PERIPHERALS INC CD	INTERLOCKS TYPE - PEX	TWIN CITIES DISK DIVISION	C	83324630	D
		CODE IDENT 19333			

**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0206	J20-33	0212	J20-38	19	>> J14
0206	J20-06	0212	J20-35	23	>> J14
0703	J31-13	0703	J31-13	14	>> J29
0703	J31-14	0703	J31-14	13	>> J29
1042	P25-09	1042	P25-09	09	>> J25

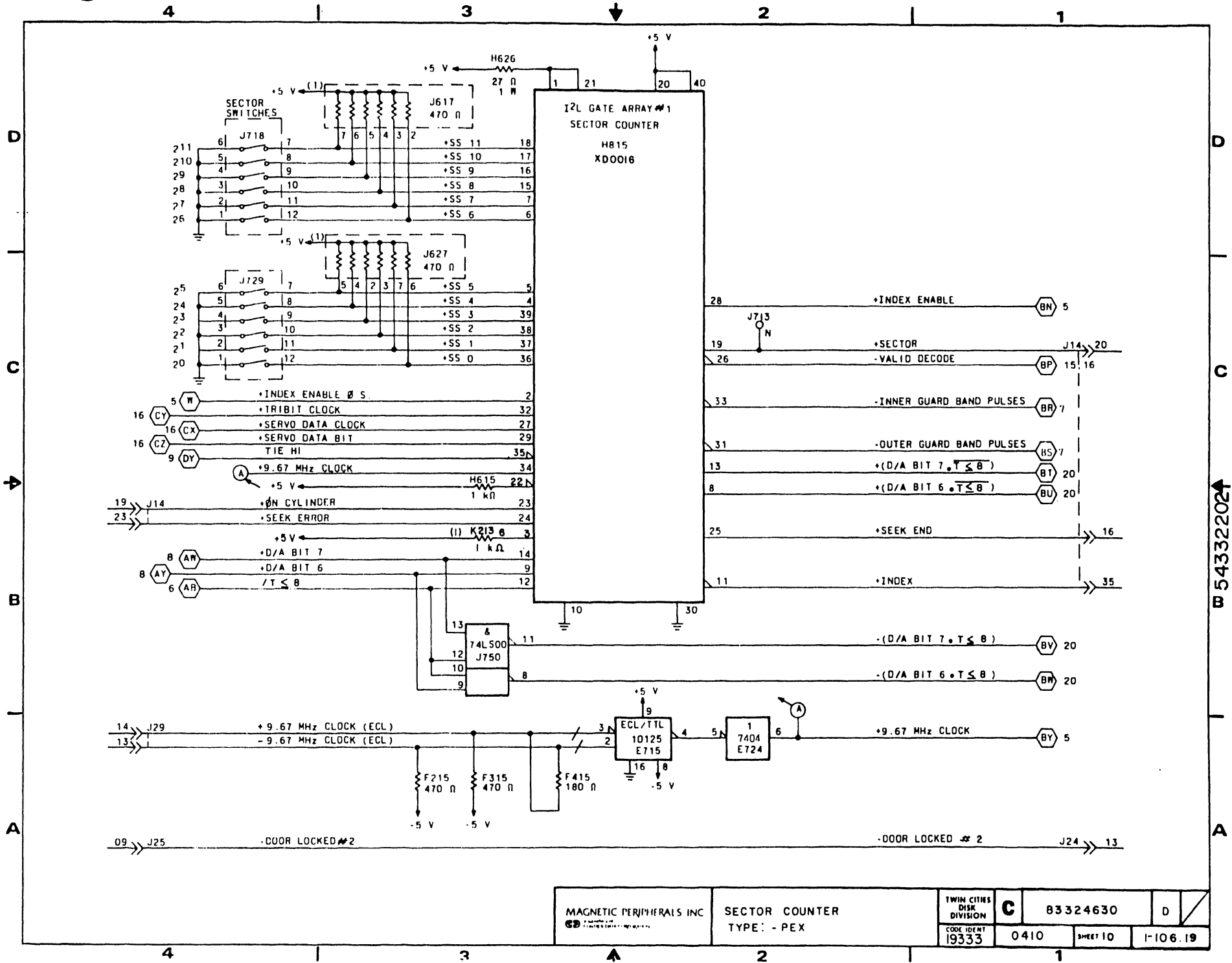


**SIGNAL OUTPUTS**

		SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
J14	>>	20	0204	J20-01	0204 J20-40
J14	>>	16	0205	J20-09	0210 J20-32
J14	>>	35	0204	J20-30	0204 J20-11
J24	>>	13	0603	P24-13	0603 P24-13

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0410	PAGE	1-106.18

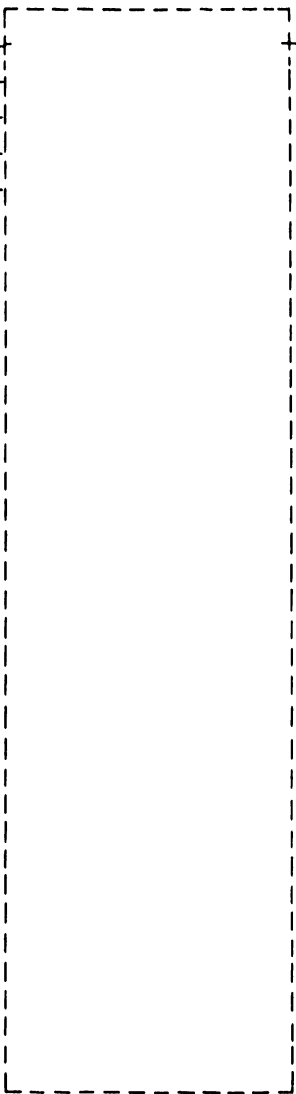


MAGNETIC PERIPHERALS INC GP	SECTOR COUNTER TYPE: - PEX	TWIN CITIES DISK DIVISION	C	83324630	D
		CODE IDENT 19333			

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**SIGNAL INPUTS**

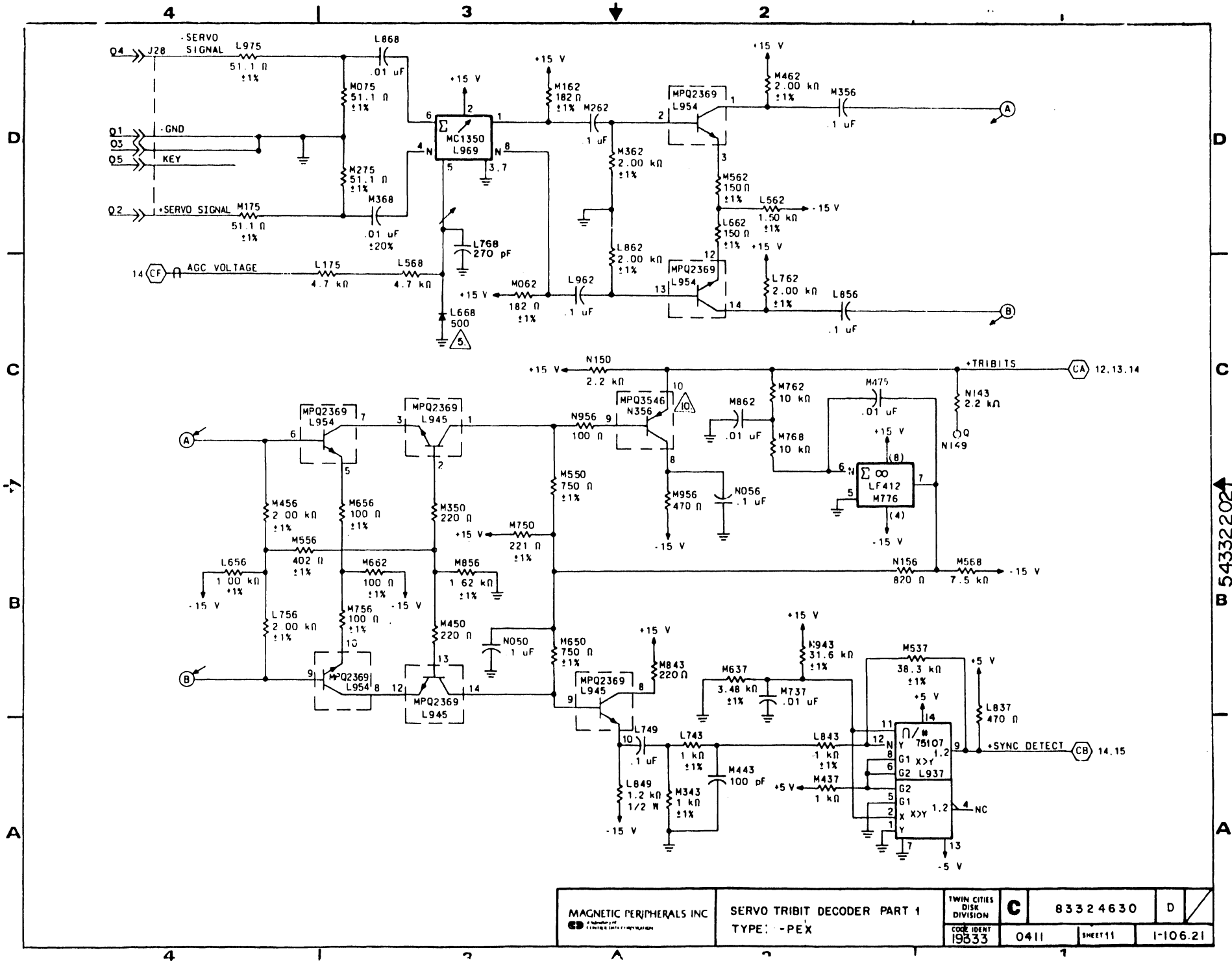
0302	J34-04	04	>>	J28
0301	J34-01	01	>>	J28
0301	J34-03	03	>>	J28
0301	J34-05	05	>>	J28
0302	J34-06	02	>>	J28



**SIGNAL OUTPUTS**

**LOGIC CROSS REFERENCE INFORMATION**

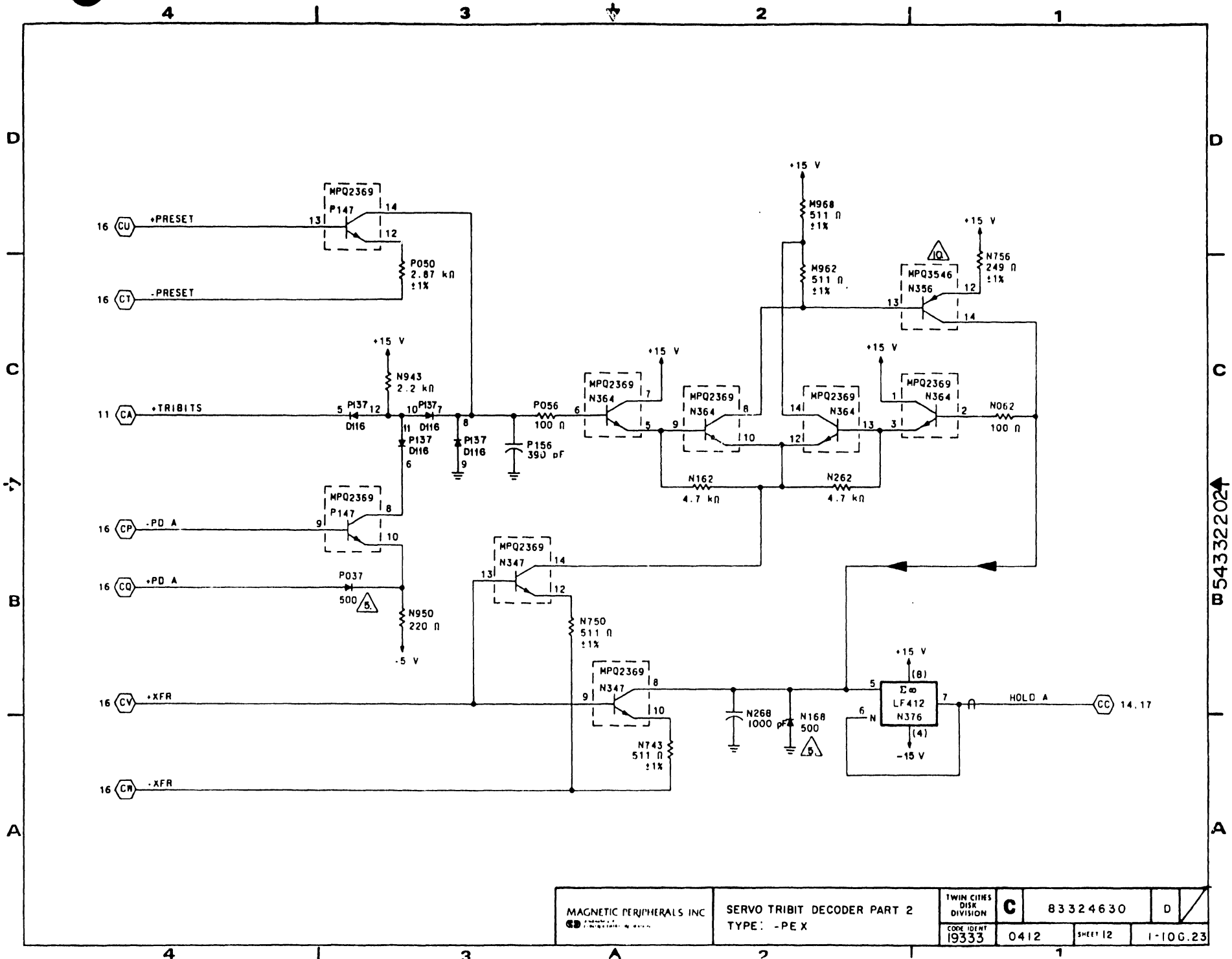
PUB		83324630	REV	D
CROSS REF NO	0411	PAGE	1-106.20	



MAGNETIC PERIPHERALS INC. <small>           A DIVISION OF            GENERAL ELECTRIC CORPORATION         </small>	SERVO TRIBIT DECODER PART 1 TYPE: -PEX		TWIN CITIES DISK DIVISION	<b>C</b>	83324630	D
			CODE IDENT 19833	0411	SHEET 11	I-106.21

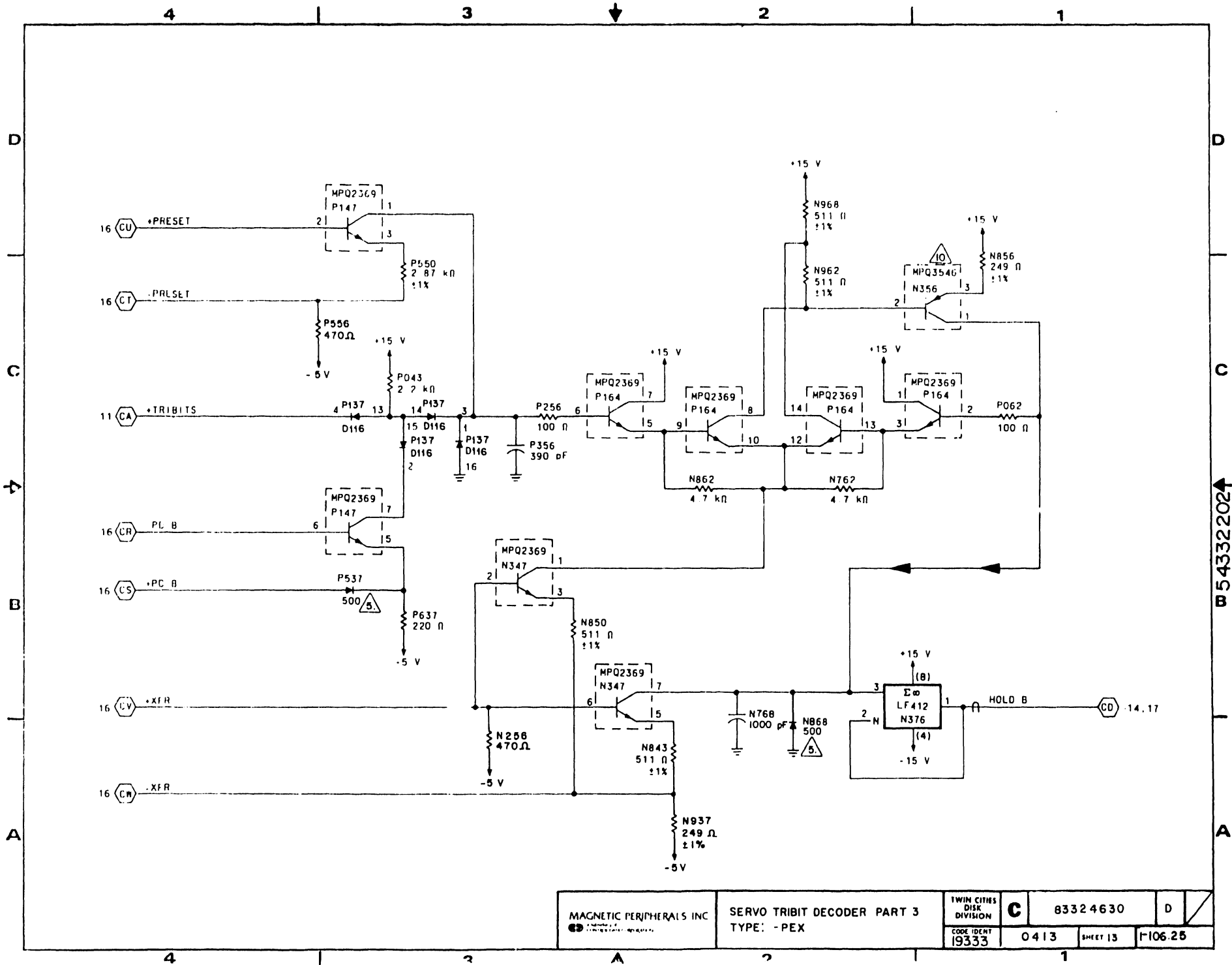
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MAGNETIC PERIPHERALS INC <small>CD</small>	SERVO TRIBIT DECODER PART 2 TYPE: -PEX	TWIN CITIES DISK DIVISION	<b>C</b>	83324630	D
		CODE IDENT 19333			

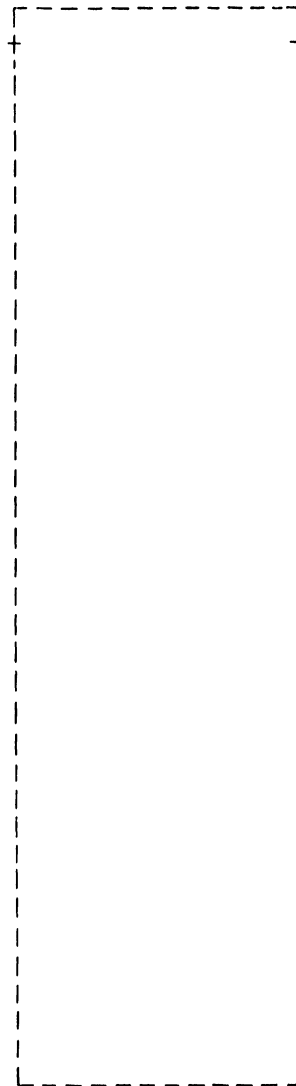


MAGNETIC PERIPHERALS INC SERVO TRIBIT DECODER PART 3 TYPE: - PEX	TWIN CITIES DISK DIVISION	C	83324630	D
	CODE IDENT 19333			

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**SIGNAL INPUTS**

**SIGNAL OUTPUTS**



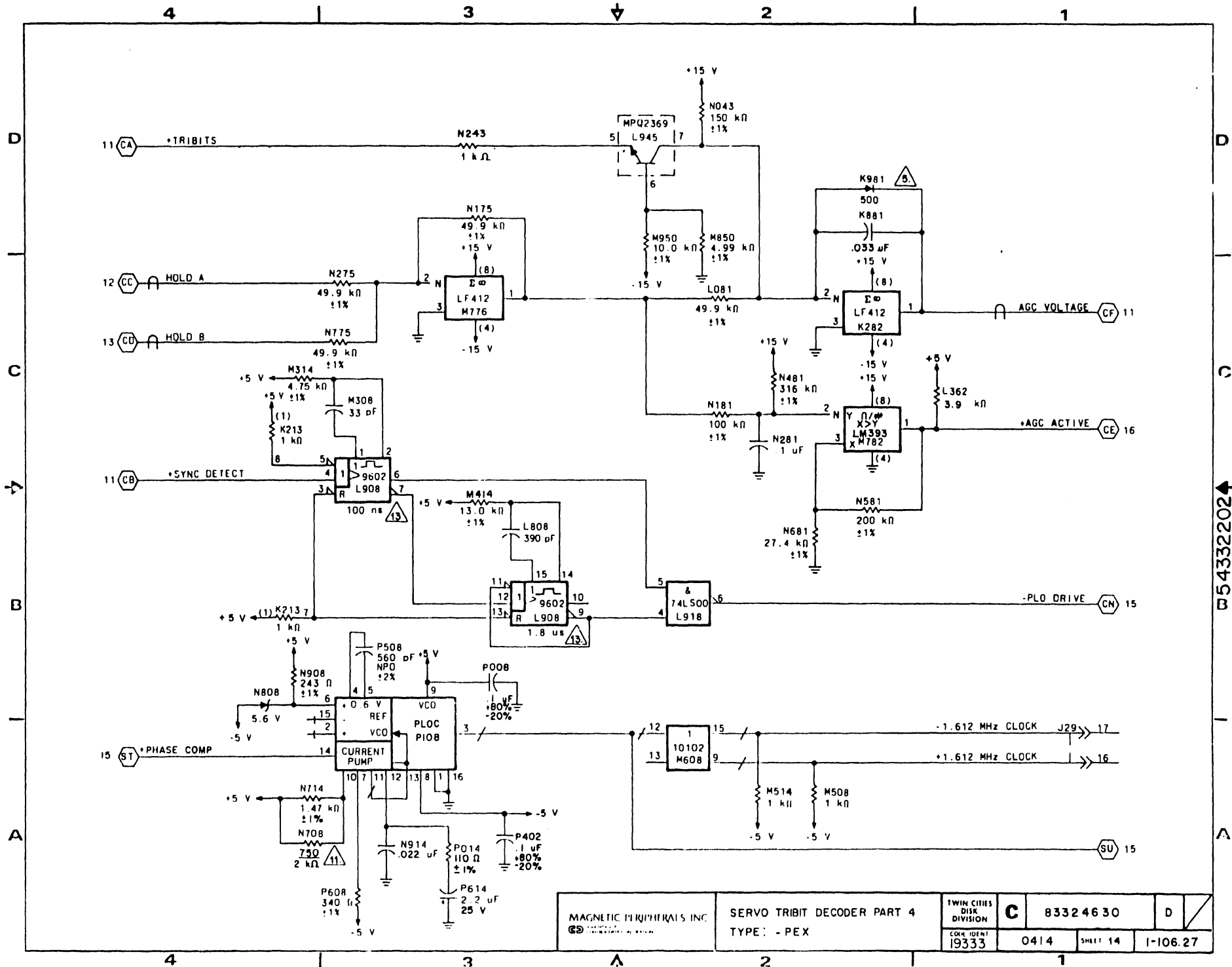
J29 -->> 17

J29 -->> 16

0703 J31-10  
0801 J30-10  
0703 J31-11  
0801 J30-11

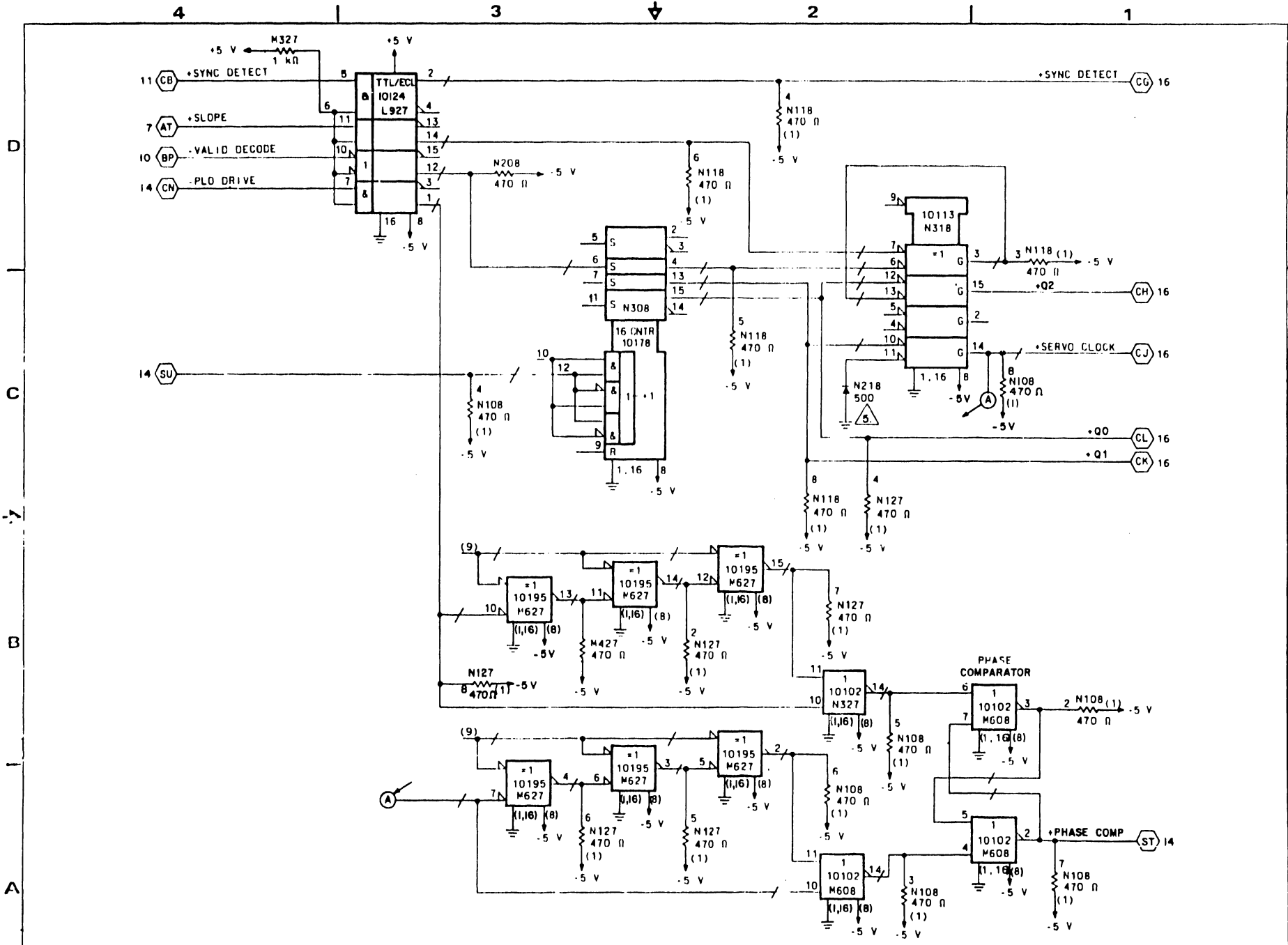
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0414	PAGE	1-106.26



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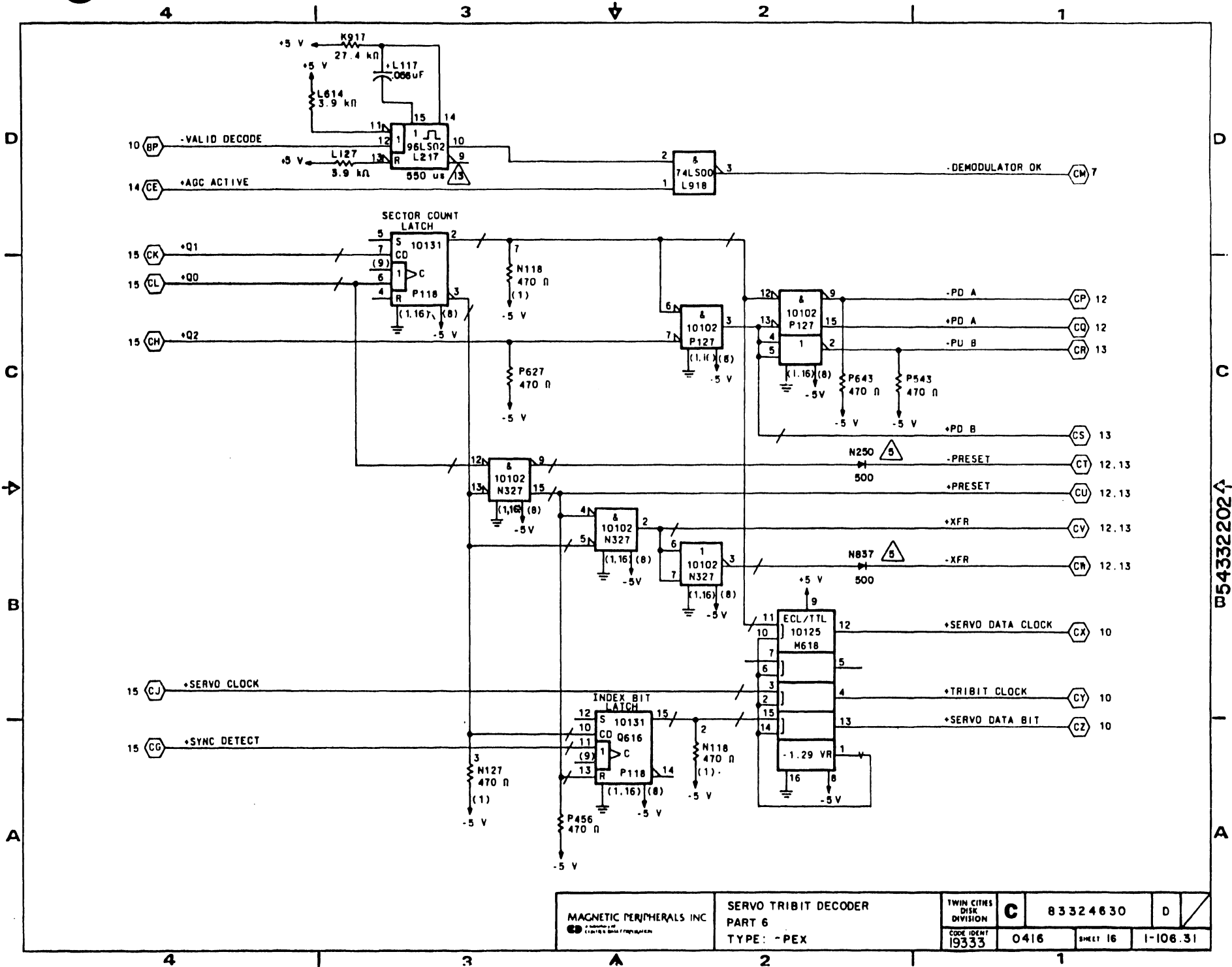
MAGNETIC PERIPHERALS INC.	SERVO TRIBIT DECODER PART 4 TYPE: - PEX	TWIN CITIES DISK DIVISION	C	83324630	D
		FORM IDENT 19333			



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C  
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MAGNETIC PERIPHERALS INC 	SERVO TRIBIT DECODER PART 5 TYPE: -PEX	TWIN CITIES DISK DIVISION	<b>C</b>	83324630	D
		FORM 1001 19333			

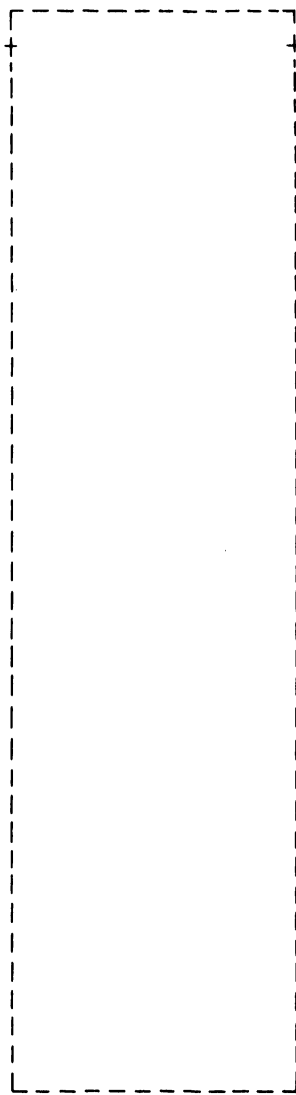


MAGNETIC PERIPHERALS INC A DIVISION OF GE	SERVO TRIBIT DECODER PART 6 TYPE: -PEX	TWIN CITIES DISK DIVISION	C	83324630	D
		CODE IDENT 19333	0416	SHEET 16	1-106.31

P54332202

**SIGNAL INPUTS**

**SIGNAL OUTPUTS**

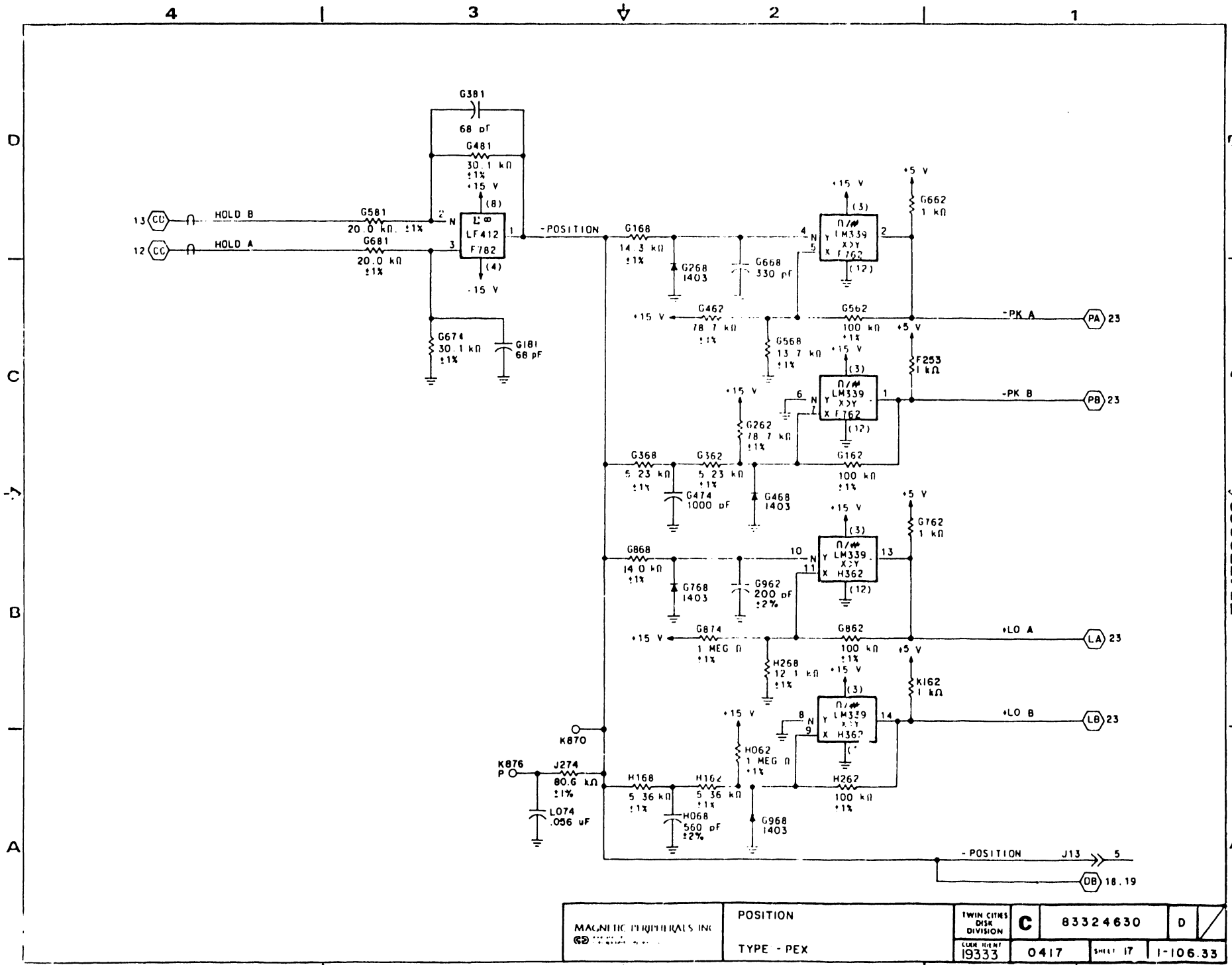


J13 >> 05

Servo Test Jack

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0417	PAGE	1-106.32



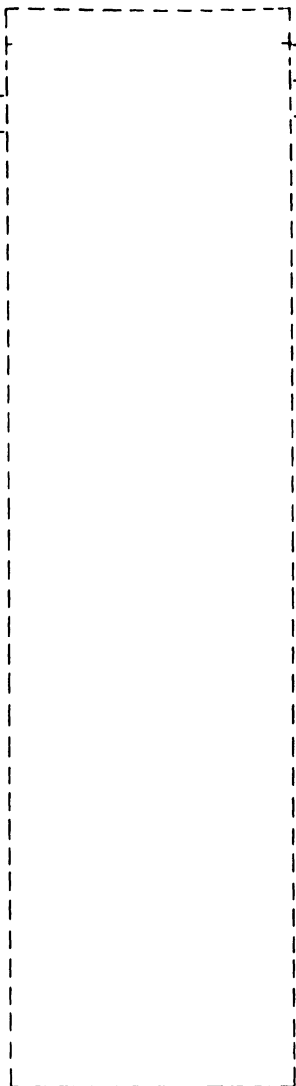
054332202

MAGNETIC PERIPHERALS INC. 63	POSITION	TWIN CITIES DISK DIVISION	C	83324630	D
	TYPE - PEX	19333	0417	SHEET 17	1-106.33



**SIGNAL INPUTS**

SINGLE		DUAL			
CHANNEL	UNITS	CHANNEL	UNITS		
0206	J20-38	0212	J20-03	39	J14
0206	J20-40	0212	J20-01	40	J14

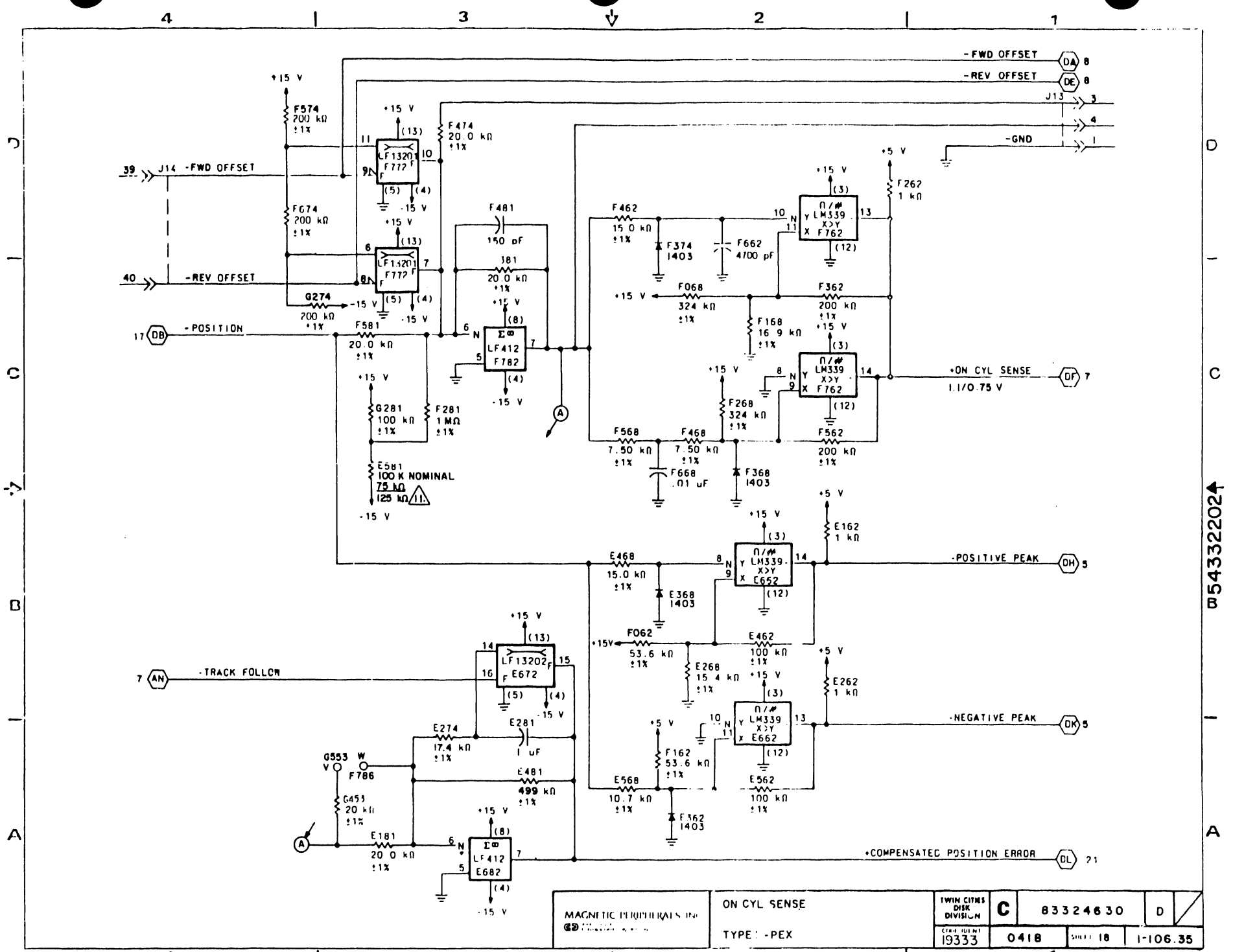


**SIGNAL OUTPUTS**

J13	>>	03	Servo Test Jack
J13	>>	04	Servo Test Jack
J13	>>	01	Servo Test Jack

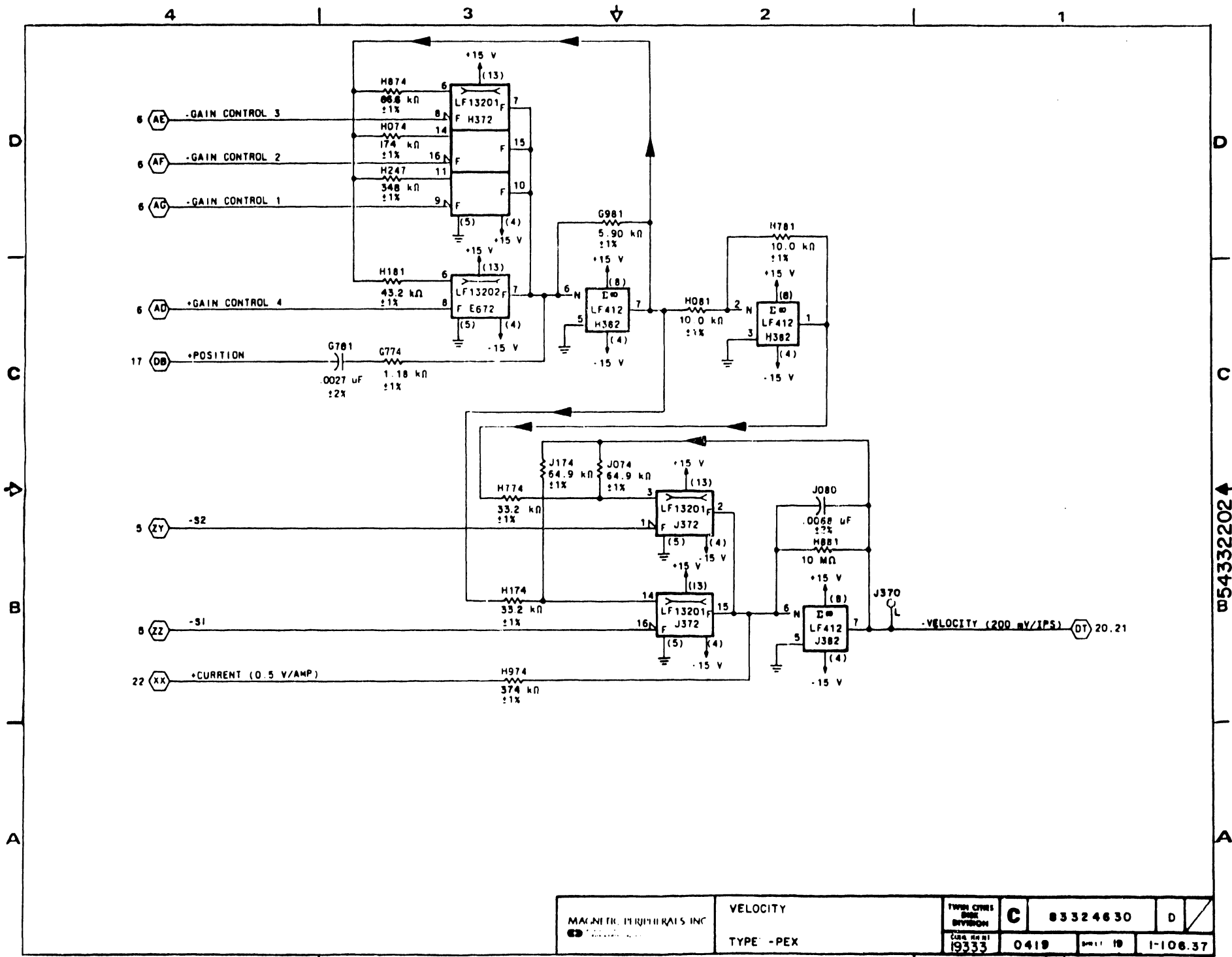
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0418	PAGE	1-106.34



054332202A

MAGNETIC PERIPHERALS G9	ON CYL SENSE	TWIN CITIES DISK DIVISION	<b>C</b>	83324630	D
	TYPE: -PEX	CRW 10/11/61 19333	0418	SHEET 18	1-106.35

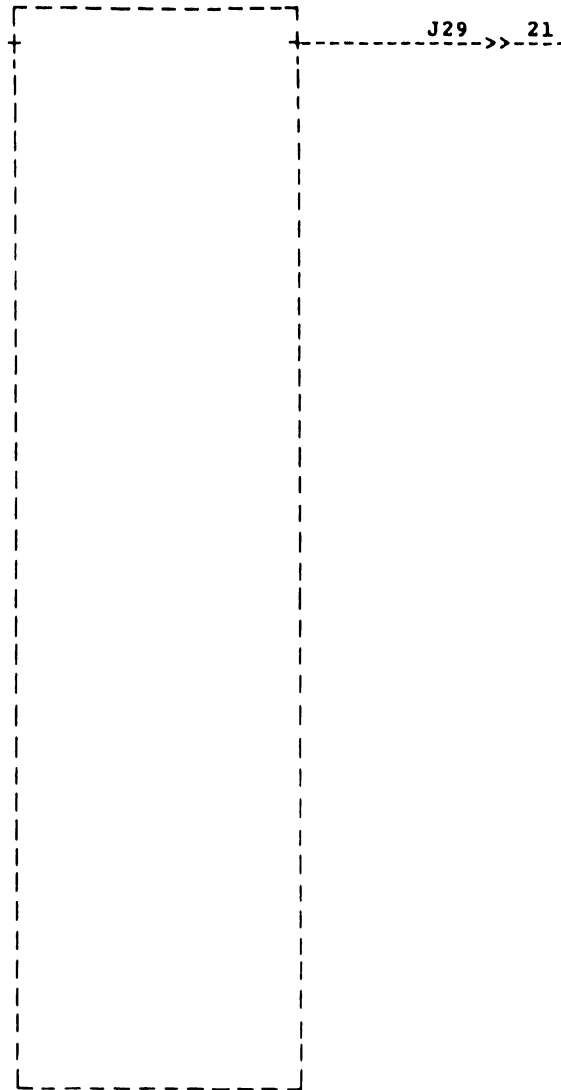


54332202

MACMETRIC INSTRUMENTALS INC 	VELOCITY	TWIN CITY DISK DIVISION	C	83324630	D
	TYPE - PEX	19333	0419	REV 11 19	1-106.37

**SIGNAL INPUTS**

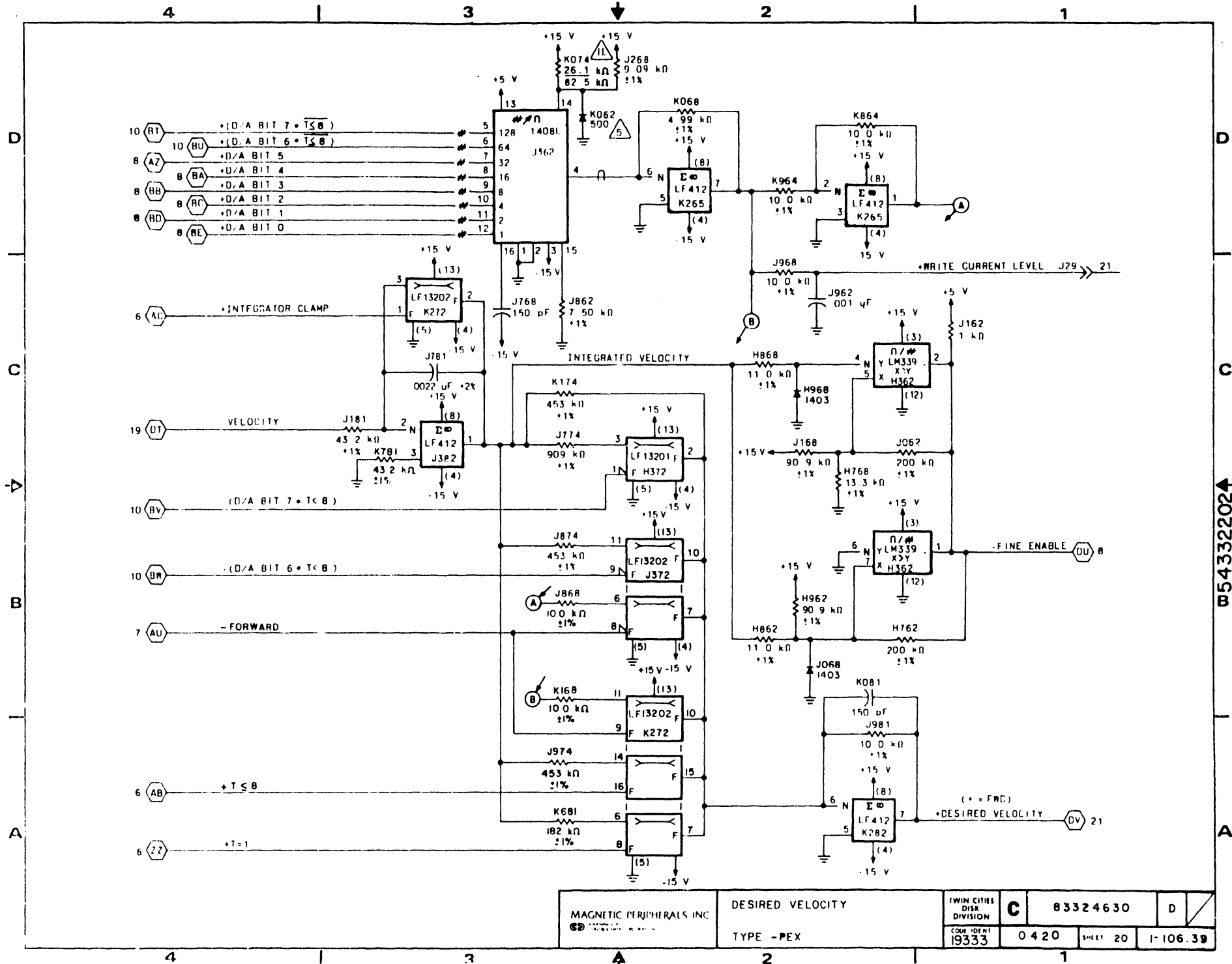
**SIGNAL OUTPUTS**



0701 J31-06  
0803 J30-06

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0420	PAGE	1-106.38

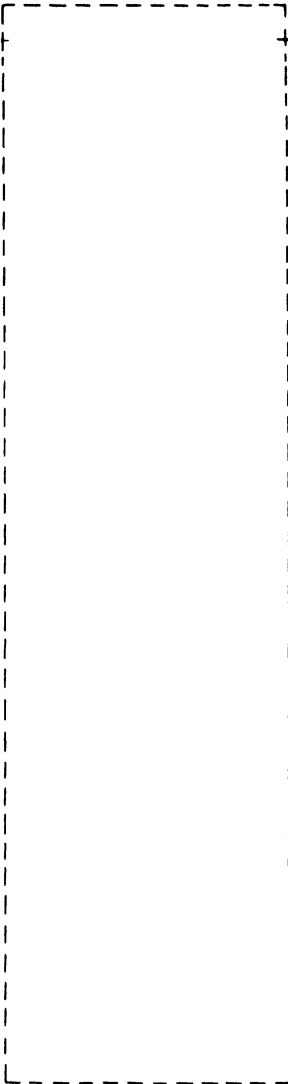


MAGNETIC PERIPHERALS INC DESIGN DIVISION	DESIRED VELOCITY	TWIN CITIES DISK DIVISION	C	83324630	D
	TYPE - PEX	19333	0420	SHEET 20	I-106.39

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**SIGNAL INPUTS**

0502 P23-09 09 >> J23

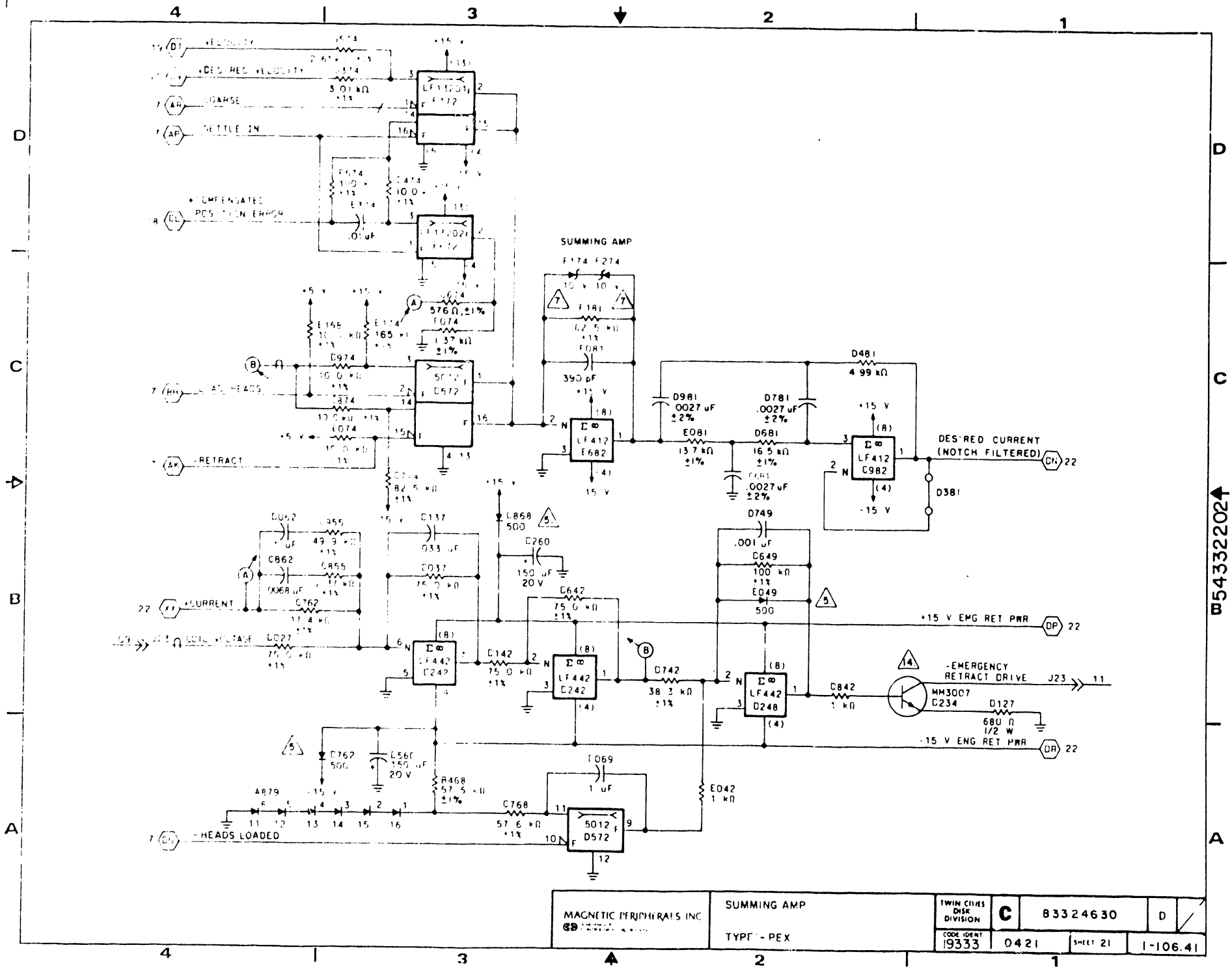


**SIGNAL OUTPUTS**

J23 11 >> 0502 P23-11

**LOGIC CROSS REFERENCE INFORMATION**

PUB 83324630		REV D
CROSS REF NO 0421	PAGE 1-106.40	

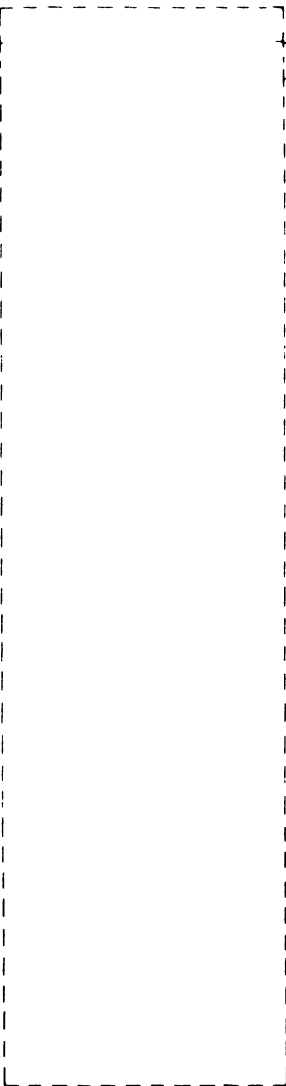


54332202

MAGNETIC PERIPHERALS INC 99 FORT WORTH, TEXAS	SUMMING AMP	TWIN CITIES DISK DIVISION	C	833 24630	D
	TYPE - PEX	CODE IDENT 19333	0421	SHEET 21	1-106.41

**SIGNAL INPUTS**

0502 P23-07 07 >> J23  
0502 P23-05 05 >> J23



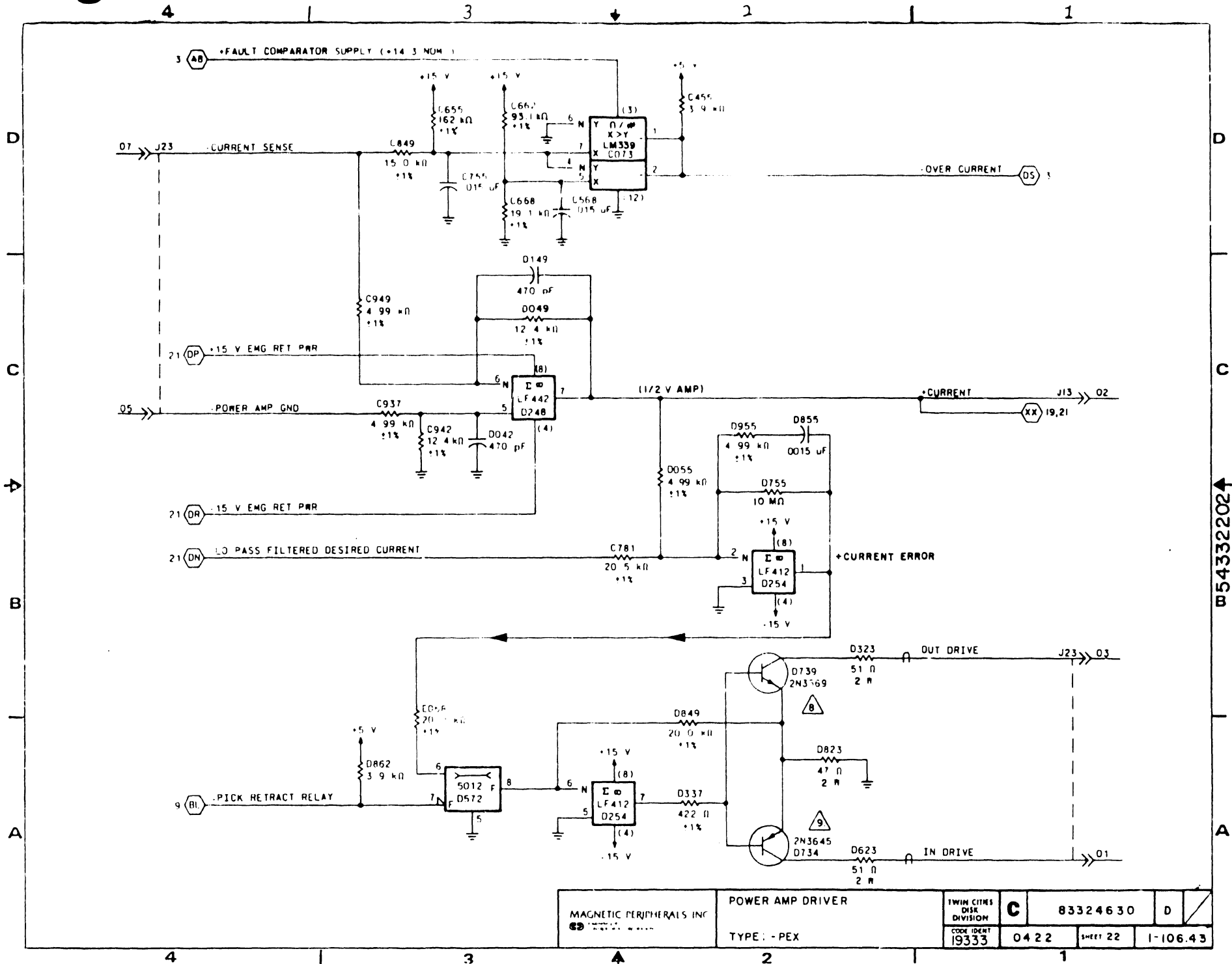
**SIGNAL OUTPUTS**

J13 02 Servo Test Jack  
J23 03 0502 P23 03  
J23 01 0502 P23-01

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0422	PAGE	1-106.42





MAGNETIC PERIPHERALS INC 83324630	POWER AMP DRIVER		TWIN CITIES DISK DIVISION	C	83324630	D
	TYPE: -PEX		CODE IDENT 19333	0422	SHEET 22	1-106.43

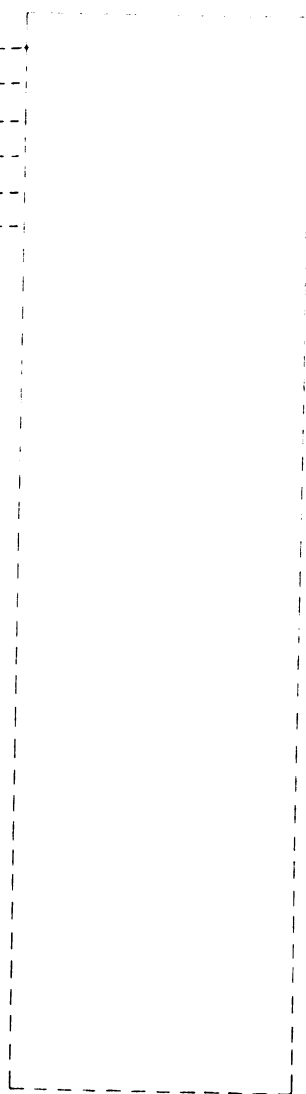
543322024



**SIGNAL INPUTS**

1002	J40-07	06	J22
1002	J40-13	01	J22
0601	J37-01	04	J22
1002	J40-14	03	J22
1002	J40-15	02	J22
NC	-	05	J22

**SIGNAL OUTPUTS**




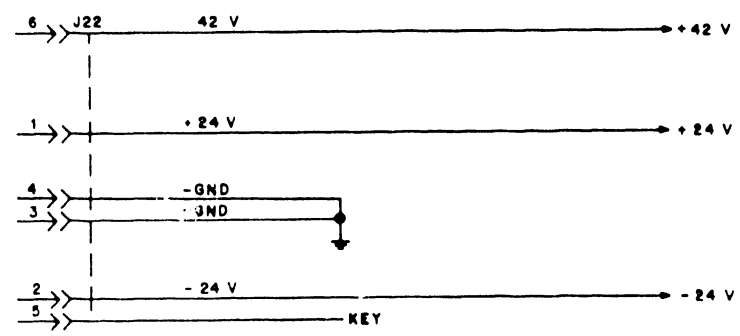
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	D
CROSS REF NO	0501	PAGE	1-106.46

PART NO RANGE	REVISION RECORD						
	REV	ECO	DESCRIPTION	DEPT	DATE	CHKD	APP
00 THRU 99	01	670302A	PRE-RELEASED		4/18/82	AS	IL
	02	670307J	CHG CONN		7/13/82	DGD	IL
	A	670307B	RELEASD		7/18/82	DGD	IL

NOTES

- 1 UNLESS OTHERWISE SPECIFIED
- ALL DIODES. 95637301
- ALL RECTIFIERS. A15A. 95588200
- ALL TRANSISTORS SPMP. 2N3792. 50221401
- ALL DARLINGTON TRANSISTORS. SPMP. 17K100. 52223603
- 2  TRANSISTOR. SPMP. 2N3716. 50221301



REFERENCE DRAWING			MAGNETIC PERIPHERALS INC			TITLE		
COMP ASSY 54331701			FIRST USED ON			SMALL DISK DIVISION		
TEST REQ. 54331901			PA3A1-A			83324630		
COMPONENTS EXCEPT AS NOTED			DWN D. G. D.			SIZE C		
TOLERANCE VALUE RATING			CHRD D. G. D.			0501		
RES			ENGR			SHEET 1 OF 3		
CAP			MFG			PAGE 1-107		
			QA			19333		

**SIGNAL INPUTS**

0421	J23-11	11	>>	P23	----->
0402	J23-12	12	>>	P23	----->
0422	J23-03	03	>>	P23	----->
0402	J23-04	04	>>	P23	----->
0422	J23-01	01	>>	P23	----->
0402	J23-02	02	>>	P23	----->
0409	J23-13	13	>>	P23	----->
0402	J23-14	14	>>	P23	----->

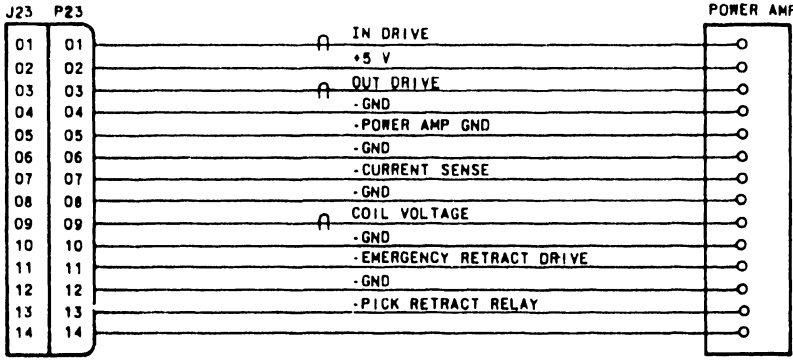
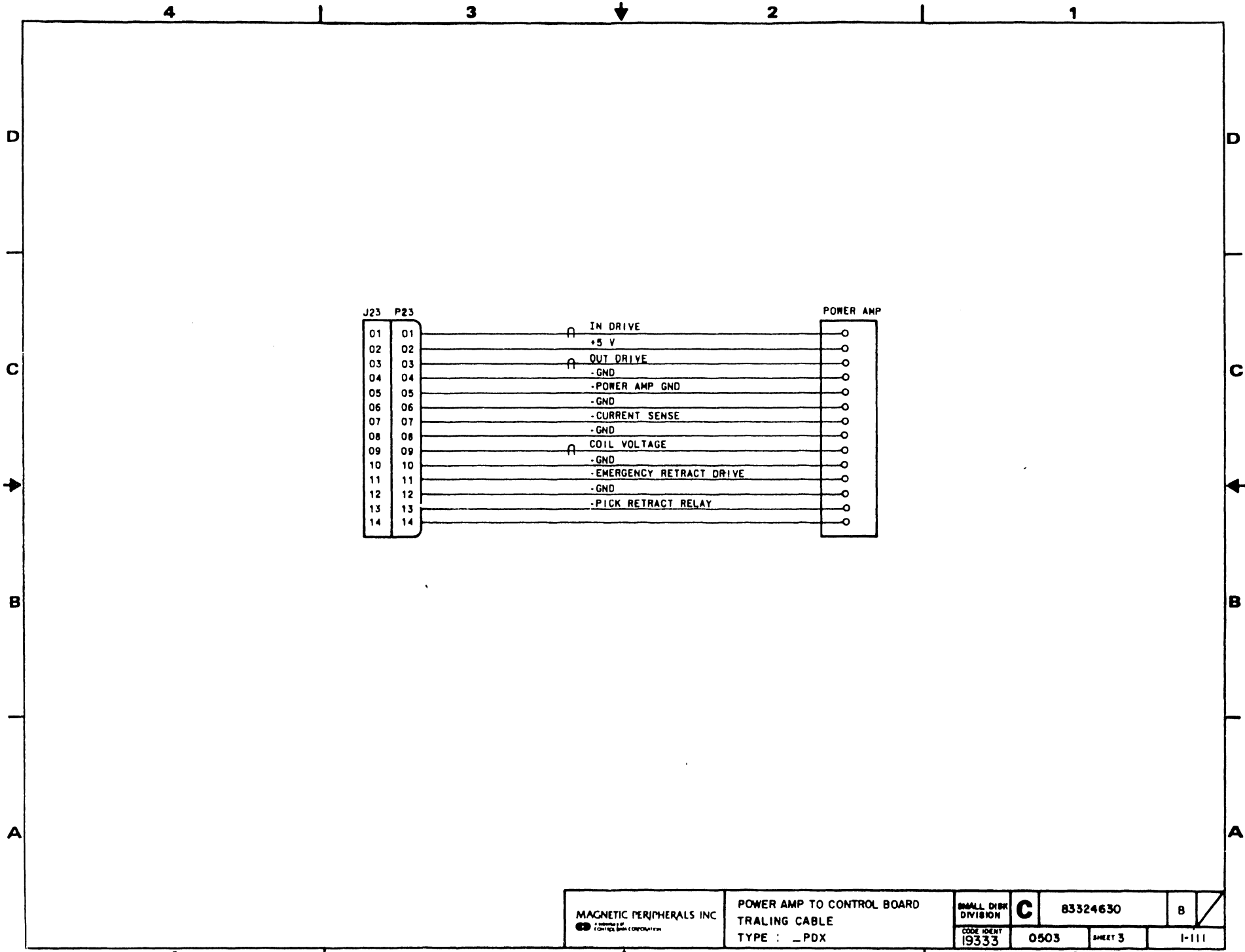
**SIGNAL OUTPUTS**

P23	>>	09	----->	0421	J23-09
P23	>>	10	----->	0402	J23-10
J43	>>	01	----->		To Voice Coil
J43	>>	02	----->		To Voice Coil
J43	>>	03	----->		To Voice Coil
J43	>>	04	----->		To Voice Coil
P23	>>	07	----->	0422	J23-07
P23	>>	08	----->	0402	J23-08
P23	>>	05	----->	0422	J23-05
P23	>>	06	----->	0402	J23-06

**LOGIC CROSS REFERENCE INFORMATION**

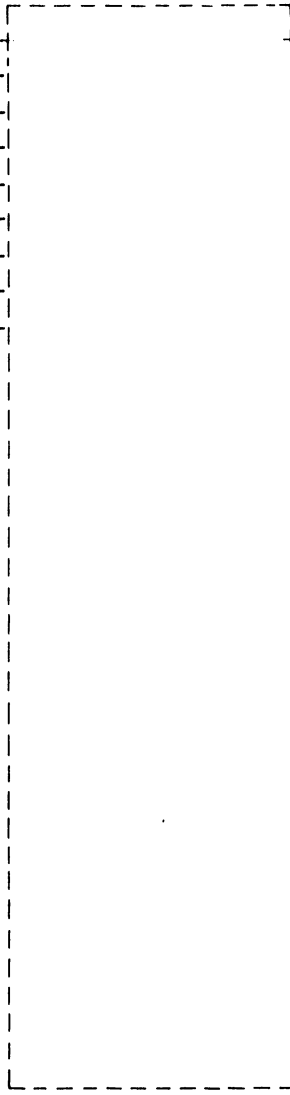
PUB		83324630		REV	B
CROSS RET NO	0502	PAGE	1-108		





**SIGNAL INPUTS**

0402 J24-02 ~~02~~ >> ~~P24~~  
 0402 J24-04 ~~04~~ >> ~~P24~~  
 0402 J24-08 ~~08~~ >> ~~P24~~  
 0402 J24-10 ~~10~~ >> ~~P24~~  
 0402 J24-12 ~~12~~ >> ~~P24~~  
 0402 J24-14 ~~14~~ >> ~~P24~~  
 1002 J40-07 ~~06~~ >> ~~J37~~  
 1002 J40-08 ~~05~~ >> ~~J37~~  
 1002 J40-13 ~~04~~ >> ~~J37~~



**SIGNAL OUTPUTS**

~~J39~~ >> ~~07~~ To Motor  
~~J39~~ >> ~~03~~ To Motor  
~~J39~~ >> ~~06~~ To Motor  
~~J37~~ >> ~~01~~ 0501 J22-04

**LOGIC CROSS REFERENCE INFORMATION**

PUB		83324630		REV	B
CROSS REF NO	0601	PAGE	1-112		



UNUSED LOGIC ELEMENTS 2

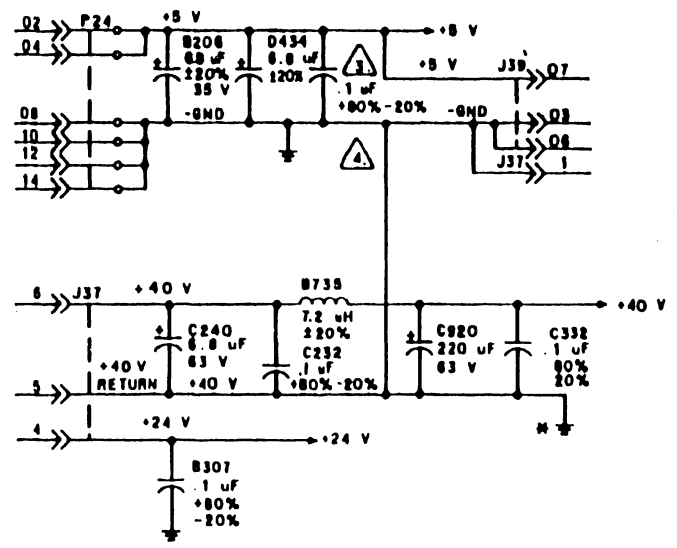
ELEMENT	LOCATION	OUTPUT PIN (S)
7404	E80B	1E

FILTER CAPS 3

VOLTAGE	CAPACITANCE
+5 V	.1 uF
E120	
D640	
D604	
D104	
E104	
E127	
C611	

PART NO RANGE	REVISION RECORD						
	REV	ECO	DESCRIPTION	DATE	CHKD	APP	
00 THRU 99	01	<del>00001AB</del>	PRE-RELEASED	6/4/82	SP	DA	1
	02	D10302Z	CHG LSI PROGRAM	6/11/82	DE	DA	II
	A	<del>011800</del>	RELEASED	9/7/82	OS	DA	II
	B	DJ05177	ADD PIN TO SMT REF	10/15/82	DE	DA	II
	C	DJ03389	CORRECTIONS	7/1/83			

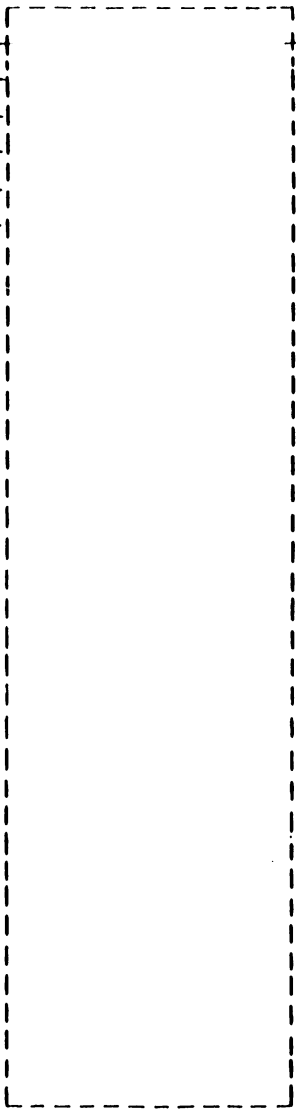
- NOTES:
- UNLESS OTHERWISE SPECIFIED:  
ALL 18 PIN IC'S HAVE PIN 8 CONNECTED TO GND AND PIN 18 CONNECTED TO +5 V.  
ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GND AND PIN 14 CONNECTED TO +5 V.  
ALL DIODES 95588200.  
ALL RESISTOR PACK RESISTORS ±3% 1/8 W.
  - 2 UNUSED LOGIC ELEMENT INPUT PINS ARE GROUNDED.
  - 3 SEE TABLE FOR FILTER CAP LOCATIONS.
  - 4 +40 V RETURN AND GND TIED TOGETHER AT ONLY ONE POINT. +40 V RETURN IS INDICATED BY .
  - 5 -GND ON FSD ONLY.



REFERENCE DRAWING			MAGNETIC PERIPHERALS INC		TITLE		
COMP ASSY 8433480E			80		SCHEMATIC DIAGRAM		
CTR 8433810E			FIRST USED ON		MOTOR SPEED CONTROL		
			PABAI-A		TYPE CPMX		
			PABAI-A				
COMPONENTS EXCEPT AS NOTED			DWN	P.A.	12/22/82		
TOLERANCE	VALUE	RATING	CHKD	E.M.S./DAB	5/27/82		
RES	±5%	OHMS 1/4W	ENGR	R. J. ...	6-1-82		
CAP	±10%		MFG	A. M. ...	7-3-82		
			QA	M. ...	7-16-82		
					REV. NO.	0601	SHEET 1 of 5
					19333		PAGE 1-113
					REF: 8433500E		PRODUCT R50/F50

**SIGNAL INPUTS**

0404 J24-05 05 >> P24  
 0407 J24-11 11 >> P24  
 0409 J24-06 06 >> P24  
 1032 P39-04 04 >> J39  
 1032 P39-01 01 >> J39  
 1032 P39-05 05 >> J39

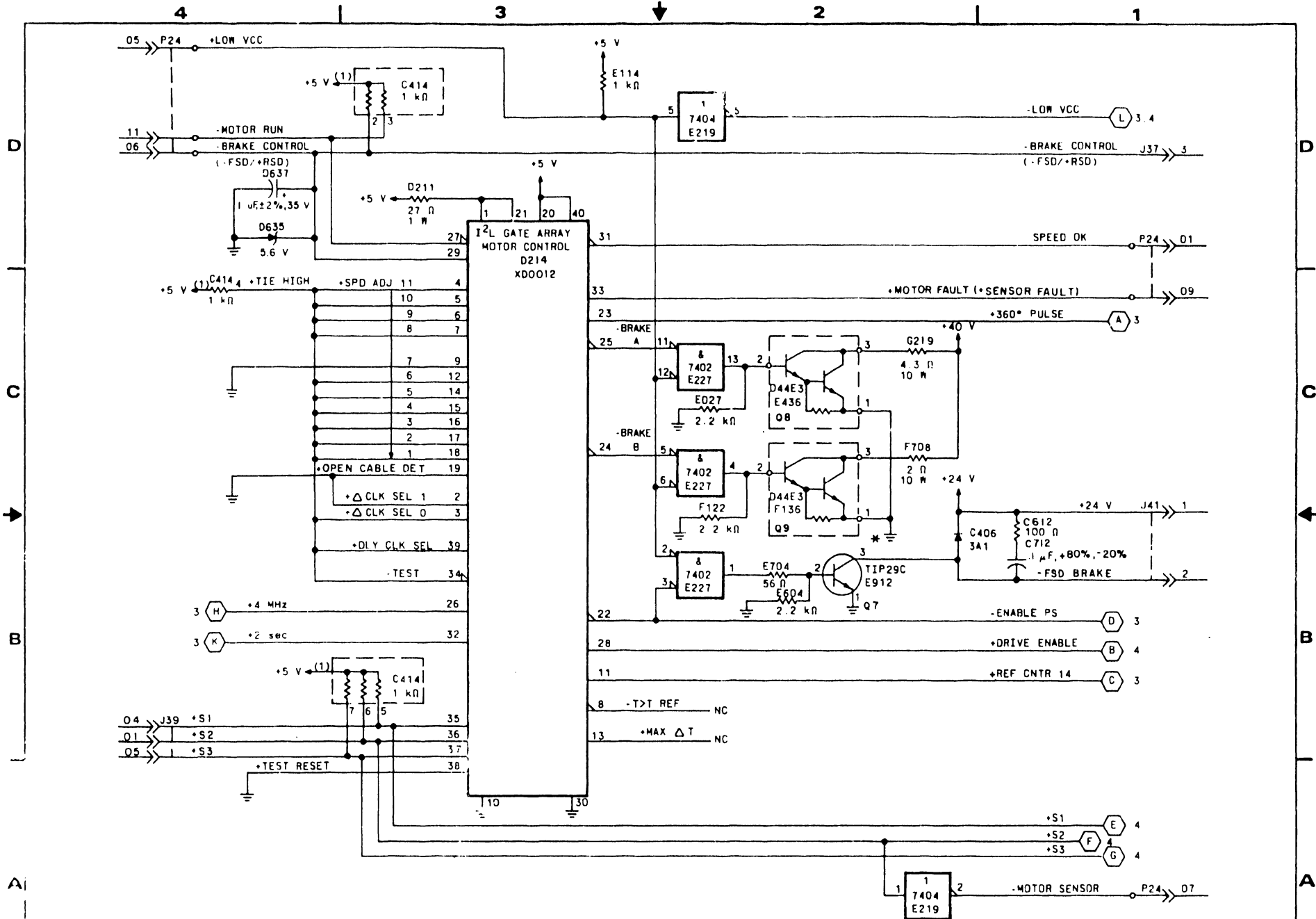


**SIGNAL OUTPUTS**

J37 >> 03 1002 J40-12  
 P24 >> 01 0409 J24-01  
 P24 >> 09 0408 J24-09  
 J41 >> 01 NC -  
 J41 >> 02 NC -  
 P24 >> 07 0408 J24-07

**LOGIC CROSS REFERENCE INFORMATION**

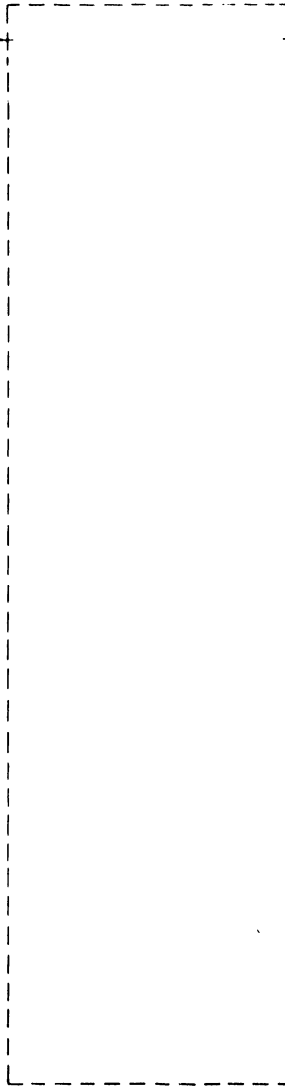
PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0602	1-114		



	MOTOR SPEED CONTROL	SMALL DISK DIVISION	<b>C</b>	83324630	C
	TYPE: <u>PMX</u>	19333	0602	SHEET 2	1-115

**SIGNAL INPUTS**

0410 J24-13 -13-->>-P24

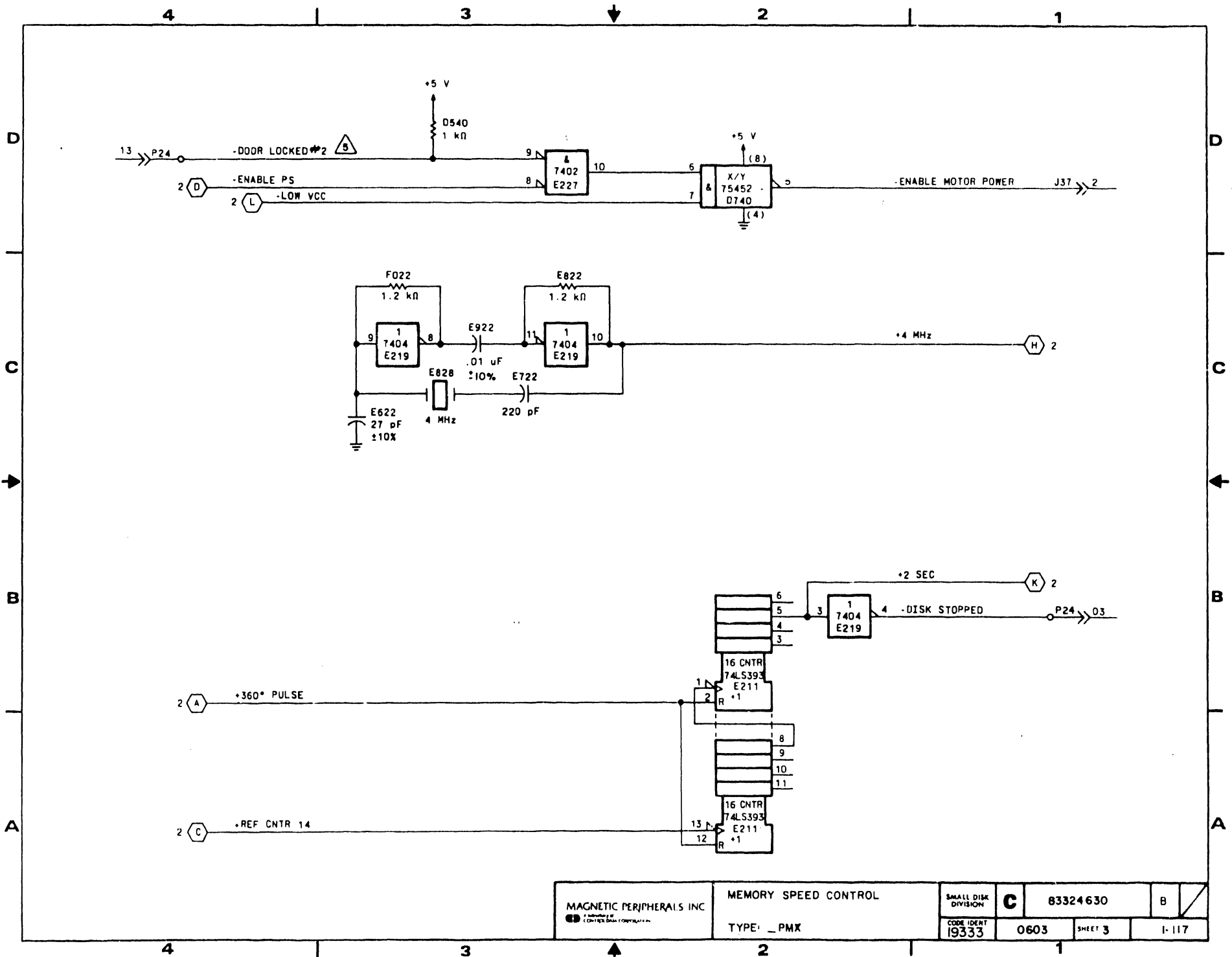


**SIGNAL OUTPUTS**

J37-->>-02- 1002 J40-09  
P24-->>-03- 0409 J24-03

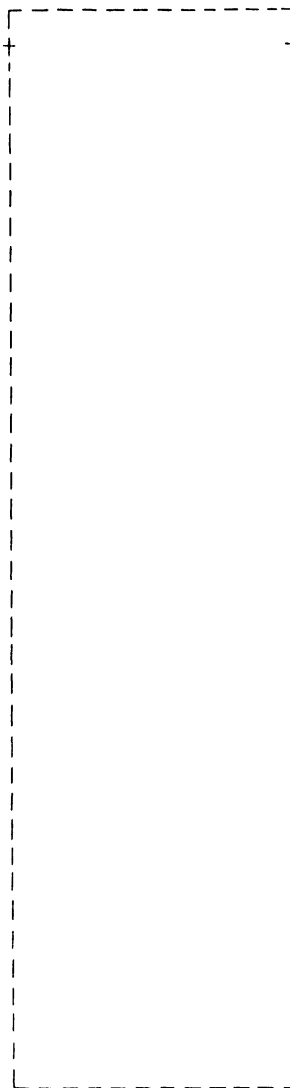
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0603	PAGE	1-116



**SIGNAL INPUTS**

**SIGNAL OUTPUTS**



J39 ->> 02 1032 P39-02  
J39 ->> 08 1032 P39-08  
J39 ->> 09 1032 P39-09

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV
83324630		B
CROSS REF NO	PAGE	
0604	1-118	

4 | 3 | 2 | 1

D

C

B

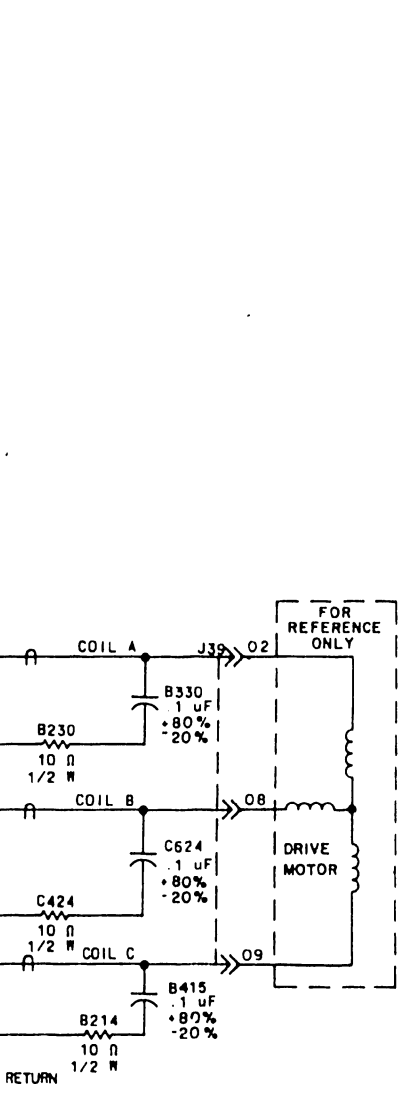
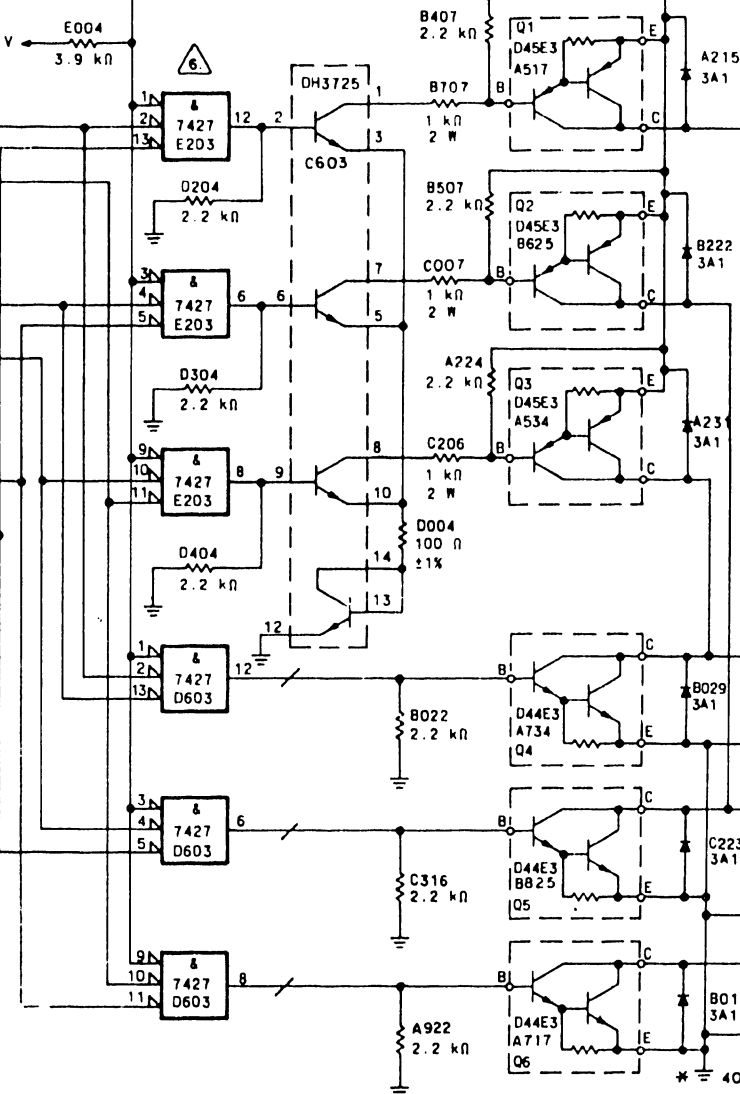
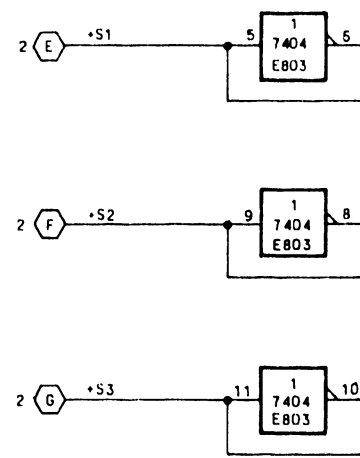
A

D

C

B

A



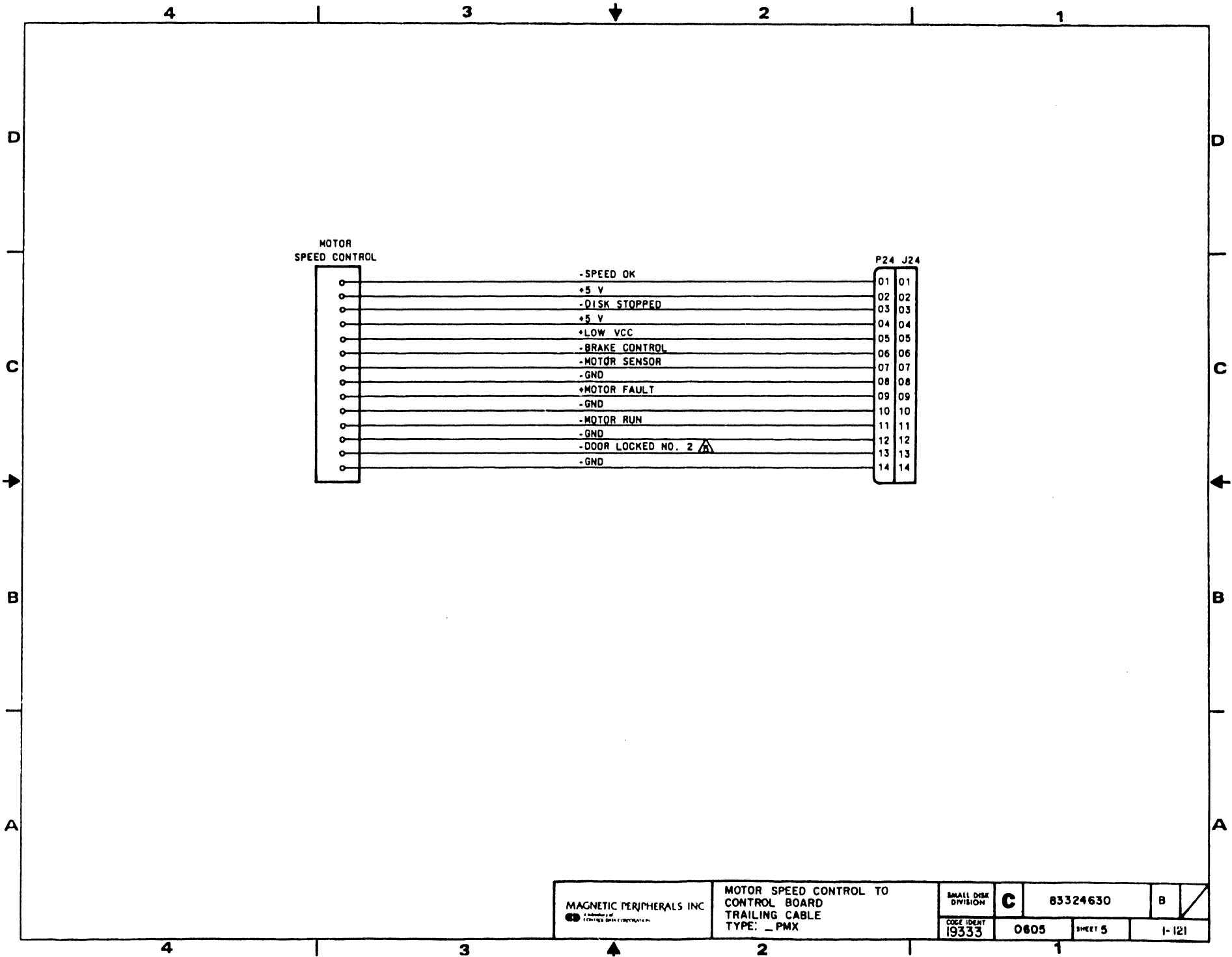
6. DECODER TRUTH TABLE:

EN	S1	S2	S3	Q1	Q2	Q3	Q4	Q5	Q6	A	B	C
L	L	L	L	OFF	OFF	ON	OFF	ON	OFF	H	L	OPEN
L	L	L	H	OFF	OFF	ON	OFF	OFF	ON	H	OPEN	L
X	L	H	L	△	OFF	OFF	OFF	OFF	OFF	OPEN	OPEN	OPEN
L	L	H	H	OFF	ON	OFF	OFF	OFF	ON	OPEN	H	L
L	H	L	L	ON	OFF	OFF	OFF	ON	OFF	OPEN	L	H
X	H	L	H	△	OFF	OFF	OFF	OFF	OFF	OPEN	OPEN	OPEN
L	H	H	L	ON	OFF	OFF	ON	OFF	OFF	L	OPEN	H
L	H	H	H	OFF	ON	OFF	ON	OFF	OFF	L	H	OPEN
H	X	X	X	OFF	OFF	OFF	OFF	OFF	OFF	OPEN	OPEN	OPEN

7. THESE ARE FAULT CONDITIONS DECODED IN THE LSI CHIP. THESE CONDITIONS DO NOT OCCUR DURING NORMAL OPERATION.

MAGNETIC PERIPHERALS INC. A subsidiary of CONTECH DATA CORPORATION	MOTOR SPEED CONTROL		SMALL DISK DIVISION	C	83324630	B
	TYPE: ...PMX	CONFIDENTIAL I9333	0604			

4 | 3 | 2 | 1



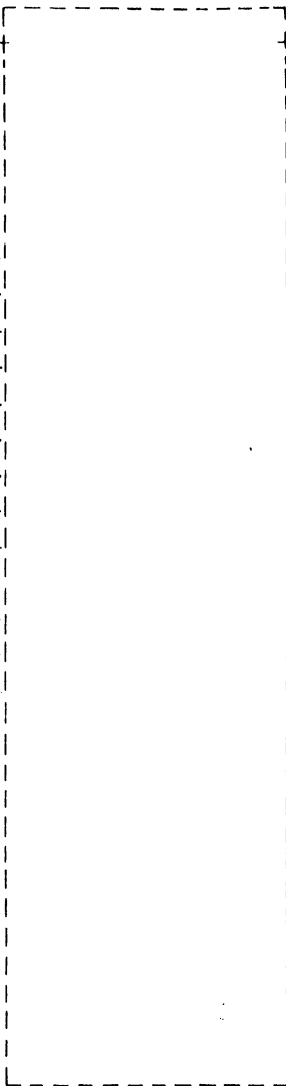


**SIGNAL INPUTS**

**SIGNAL OUTPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS	
----------------------	--	--------------------	--

0402	J29-03	0402	J29-03	24	>>	J31
0402	J29-04	0402	J29-04	23	>>	J31
0406	J29-26	0406	J29-26	01	>>	J31
0406	J29-24	0406	J29-24	03	>>	J31
0406	J29-22	0406	J29-22	05	>>	J31
0420	J29-21	0420	J29-21	06	>>	J31
0406	J29-20	0406	J29-20	07	>>	J31
1002	J40-01	1002	J40-01	06	>>	J36
NC	-	NC	-	05	>>	J46
1002	J40-02	1002	J40-02	05	>>	J36
0205	P27-12	0205	P27-12	12	>>	J27
0202	P27-15	0211	P27-15	15	>>	J27
0202	P27-18	0211	P27-18	18	>>	J27
NC	-	NC	-	09	>>	J31
0402	J29-15	0402	J29-15	12	>>	J31
0402	J29-12	0402	J29-12	15	>>	J31
NC	-	NC	-	19	>>	J31
NC	-	NC	-	22	>>	J31
0402	J29-01	0402	J29-01	26	>>	J31
0402	J29-02	0402	J29-02	25	>>	J31
1002	J40-03	1002	J40-03	04	>>	J36
NC	-	NC	-	01	>>	J36
NC	-	NC	-	02	>>	J36
NC	-	NC	-	03	>>	J36



J46	>>	04	NC	-
J46	>>	06	NC	-

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0701	PAGE	1-122

4

3

2

1

UNUSED LOGIC ELEMENT

TYPE	LOCATION	OUTPUT PIN(S)
74LS05	A642	6, 8, 10
10123	B905	2, 15
10124	E449	12

UNUSED RESISTOR PACKS

LOCATION	PIN(S)
B832	2, 3
B847	4, 7, 8
D205	6, 8
D246	4
E430	1, 2
B913	6

PART NO RANGE	REVISION RECORD						
	REV	ECO	DESCRIPTION	DRFT	DATE	CHKD	APP
00 THRU 99	01	DJ03084A	PRE-RELEASED		6/1/82		II
	02	DJ030912	CHK TIME DELAY		6/23/82	DSD	II
	A	DJ03000 DJ03034B	RELEASED		9/15/82	DSD	II
	B	DJ03115	DELETE TP'S		1/16/82	DSD	II
	C	DJ03132	ADD PIN TO SWT REF		10/16/82	DSD	III
	D	DJ03183	BPGX TO CPGX		12/20/82		
E	DJ03200	CPGX TO DPGX		12/20/82			
F	DJ03446	DPGX TO FPGX		1/25/83			
G	DJ03436	FPGX TO GPGX		2/28/84			

FILTER CAPS

.01 uF	
+5	-5
B918	C003
A227	C703
A357	C720
D254	E610
B203	E621
A846	E641
	D247
	D140
	C430
	B840
	B213

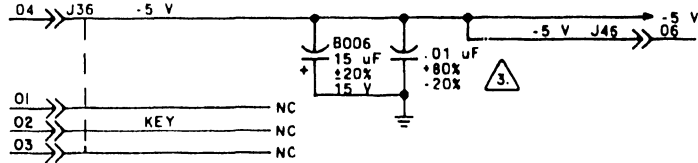
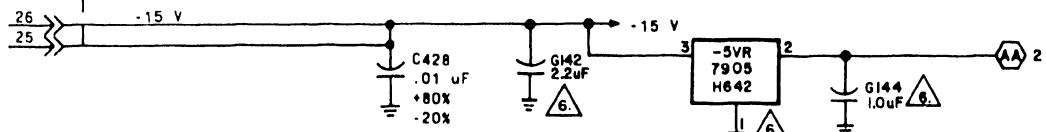
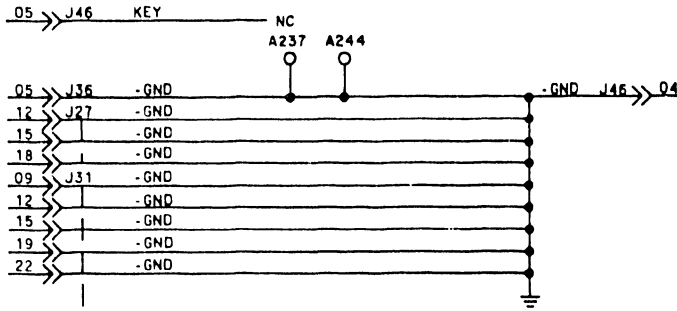
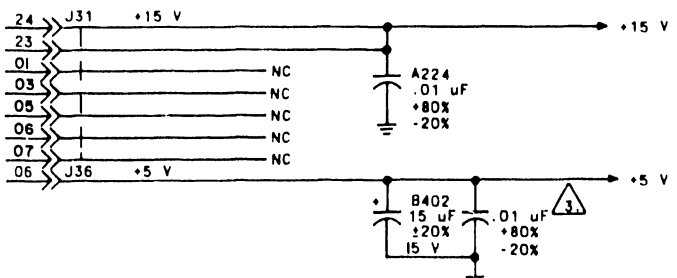
NOTES:

- UNLESS OTHERWISE SPECIFIED:  
ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GROUND AND PIN 14 CONNECTED TO +5V.  
ALL 16 PIN IC'S HAVE PINS 1 & 16 CONNECTED TO GROUND AND PIN 8 CONNECTED TO -5V.  
ALL DIODES SILICON, 24553500.  
ALL TRANSISTOR ARRAY, MPQ2369, NPN, 50213300.  
ALL RESISTOR PACK RESISTORS, 1/8W ±3%.  
ALL DELAY LINES 94393900.
- TRANSISTOR ARRAY, MPQ4258, PNP, 15165543.
- SEE TABLE FOR .01uF FILTER CAPACITOR LOCATIONS.
- DELAY TIME FOR REFERENCE ONLY.

UNUSED PIN OF IC'S XC32201

CODE	INPUT PIN & NAME	OUTPUT PIN & NAME
-02	4 RESET	11 2ND:2 OUT
-02	7 RESET COMP	12 2ND:4 OUT
-02	6 2ND:4 IN	27 SYNC'D WRT GATE
-02		DELATED
-07	32 SYNC'D WRT GATE	22 WRT ENABLE
-07		11 SHIFT CLOCK
-07		20 SYNC CHECK
-07		19 ERROR
-07		18 -DECODED DATA
-07		17 +DECODED DATA
-08	33 RESET	29 COIN INC FREQ
-08	5 (INC + DEC FREQ)	24 COIN FREQ
-08		DELATED
-08		12 (INC + DEC FREQ)

VOLTAGE REGULATOR H642 AND CAPACITORS G142, G144 ARE NOT ON B/C/D/F/GPX BOARDS.



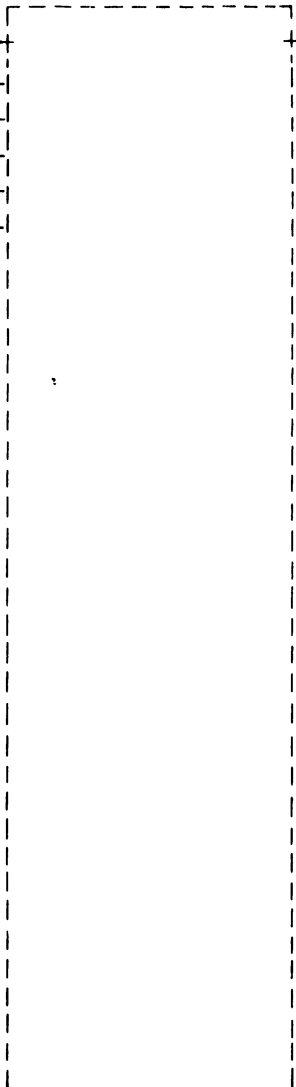
REFERENCE DRAWING			MAGNETIC PERIPHERALS INC		TITLE			
COMP ASSY 54332901			FIRST USED ON		SCHEMATIC DIAGRAM			
CTR 54333101			PASA1-A, PASA1-A		READ/WRITE PLOS			
COMPONENTS EXCEPT AS NOTED			DWN F. AUDETTE		TYPE B/C/D/F/GPX			
TOLERANCE VALUE RATING			CHKD DSD	4/19/82	SIZE	E		
RES ±5%	OHMS	1/4 W	ENGR	5/18/82	C	83324630	E	
CAP ±10%			NFO	7/16/82				
IND ±10%			QA	9-20-82	SMALL DISK DIVISION			
					PAGE NO.	0701	SHEET 1 OF 6	PAGE 1-123

**SIGNAL INPUTS**

**SIGNAL OUTPUTS**

SINGLE		DUAL			
CHANNEL	UNITS	CHANNEL	UNITS		

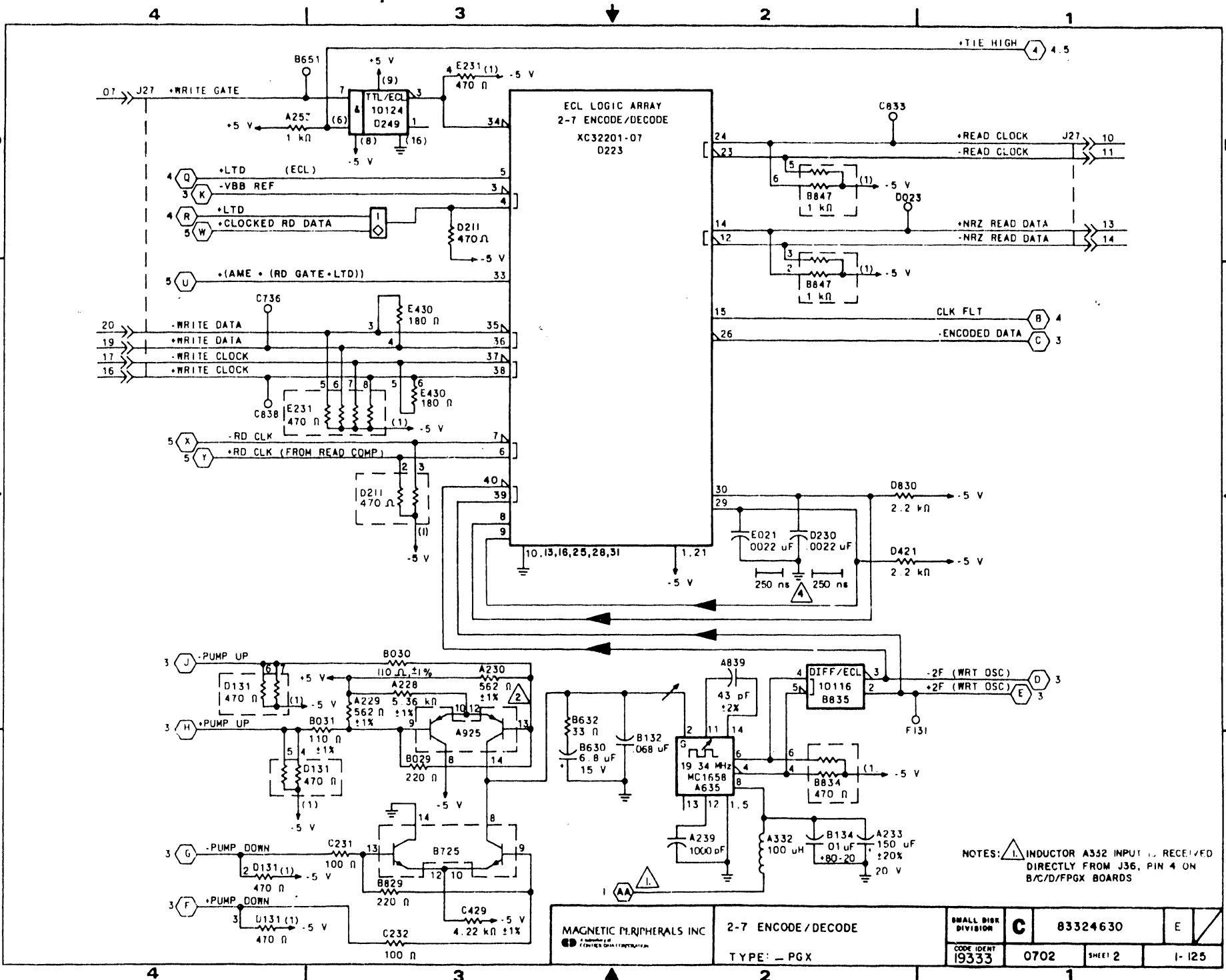
0206	P27-07	0212	P27-07	07	>> J27
0202	P27-20	0211	P27-20	20	>> J27
0202	P27-19	0211	P27-19	19	>> J27
0202	P27-17	0211	P27-17	17	>> J27
0202	P27-16	0211	P27-16	16	>> J27



J27	>> 10	0205	P27-10
J27	>> 11	0205	P27-11
J27	>> 13	0205	P27-13
J27	>> 14	0205	P27-14

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0702	1-124		

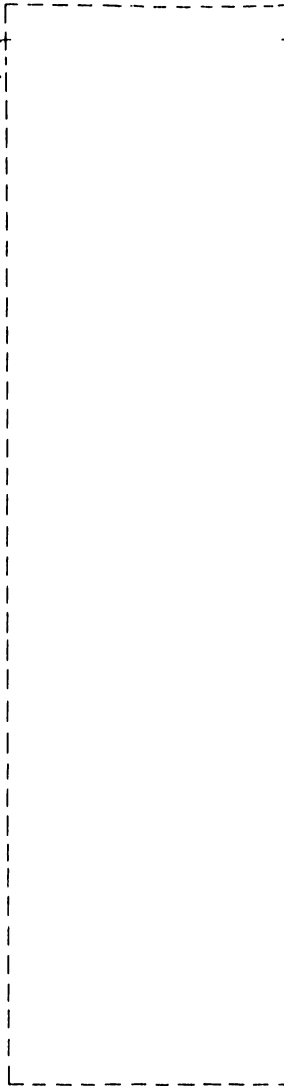


NOTES:  $\Delta$  INDUCTOR A332 INPUT IS RECEIVED DIRECTLY FROM J36, PIN 4 ON B/C/D/FPGX BOARDS

MAGNETIC PERIPHERALS INC A Division of CIRCLE K CORPORATION	2-7 ENCODE/DECODE	SMALL DISK DIVISION	C	83324630	E
	TYPE: - PGX	CODE IDENT 19333	0702	SHEET 2	I-125

**SIGNAL INPUTS**

0414 J29-16 11 ->> J31  
 0414 J29-17 10 ->> J31

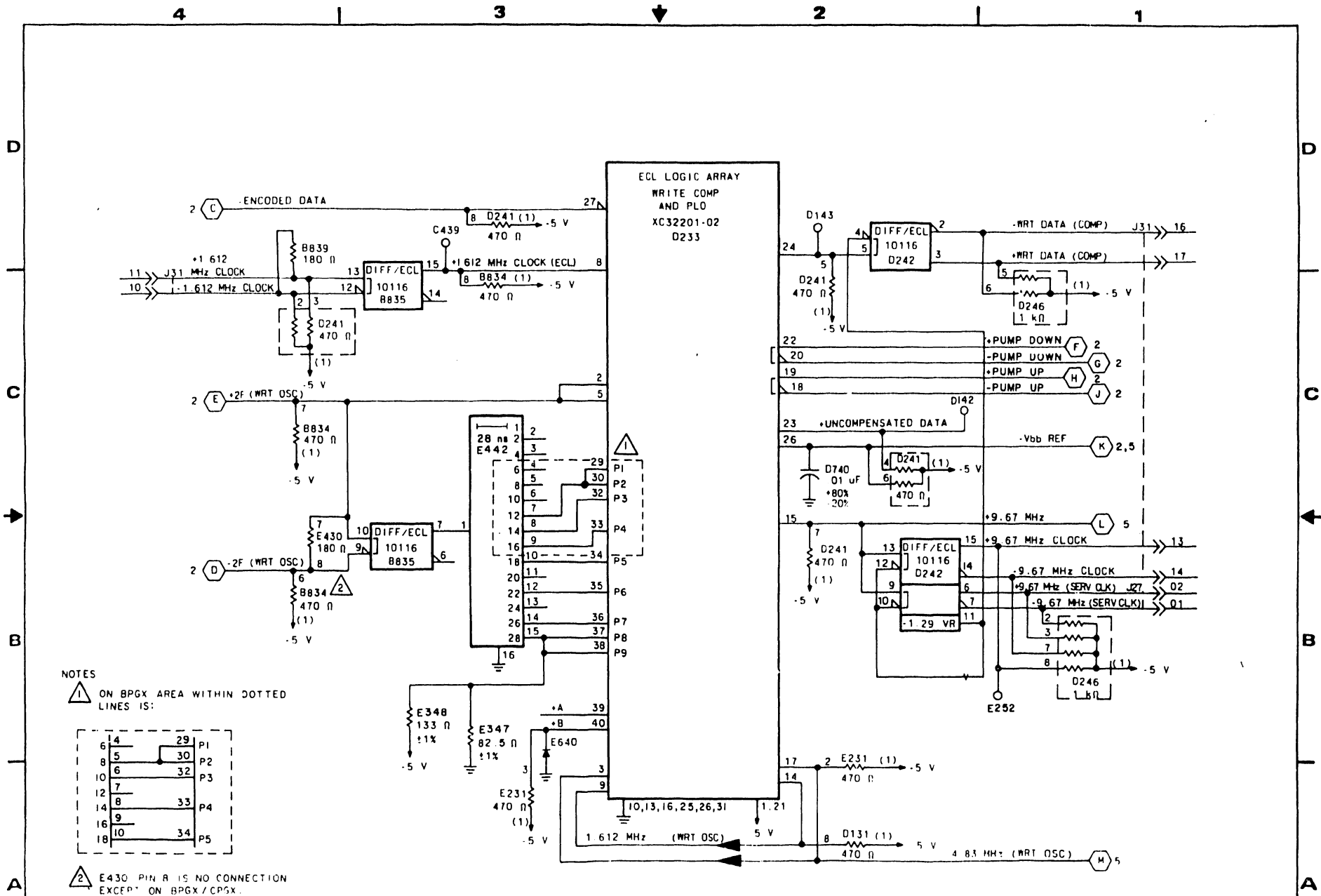


**SIGNAL OUTPUTS**

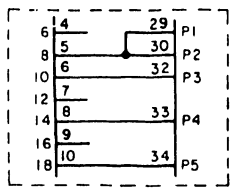
J31 ->> 16 0802 J30-16  
J31 ->> 17 0802 J30-17  
J31 ->> 13 0410 J29-14  
 0801 J30-13  
J31 ->> 14 0410 J29-13  
 0801 J30-14  
J27 ->> 02 0205 P27-02  
J27 ->> 01 0205 P27-01

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0703	PAGE	1-126



NOTES  
 ⚠ ON BPGX AREA WITHIN DOTTED LINES IS:



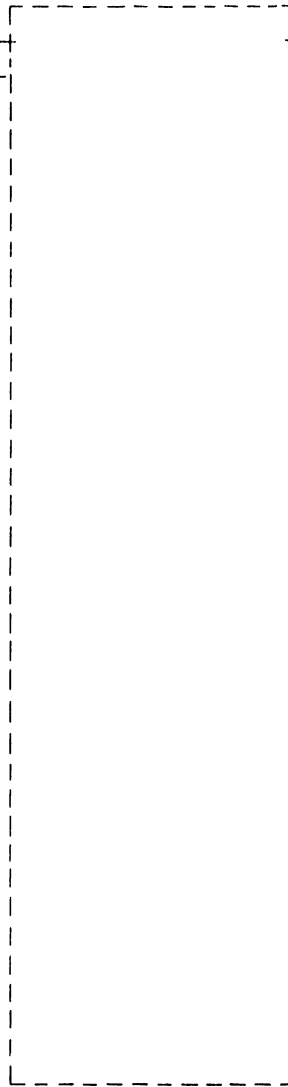
⚠ E430 PIN B IS NO CONNECTION EXCEPT ON BPGX/CP5X.

APPLIES TO B/C/DPGX CARDS ONLY.

MAGNETIC PERIPHERALS INC <small>GE</small>	WRITE COMP & PLO	SMALL DISK DIVISION	C	83324630	C	
	TYPE: _PGX	CON IDENT 19333	0703	SHEET 3	1-127	

**SIGNAL INPUTS**

0414 J29-16 11 >> J31  
 0414 J29-17 10 >> J31

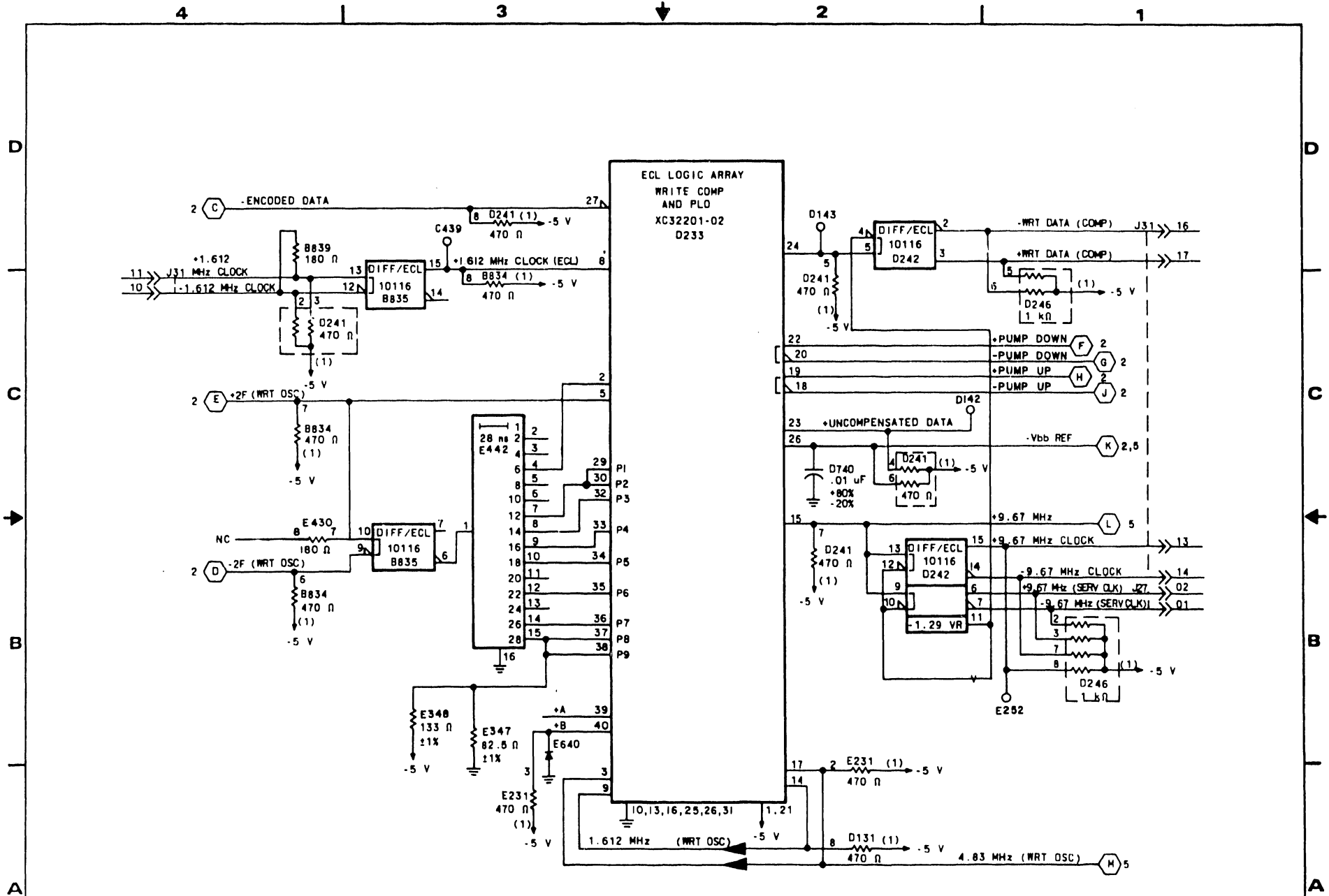


**SIGNAL OUTPUTS**

J31 >> 16 0802 J30-16  
 J31 >> 17 0802 J30-17  
 J31 >> 13 0410 J29-14  
 0801 J30-13  
 J31 >> 14 0410 J29-13  
 0801 J30-14  
 J27 >> 02 0205 P27-02  
 J27 >> 01 0205 P27-01

**LOGIC CROSS REFERENCE INFORMATION**

PUB 83324630		REV C
CROSS REF NO 0703	PAGE 1-128	



APPLIES TO ALL -PGX CARDS EXCEPT B/C/DPGX.

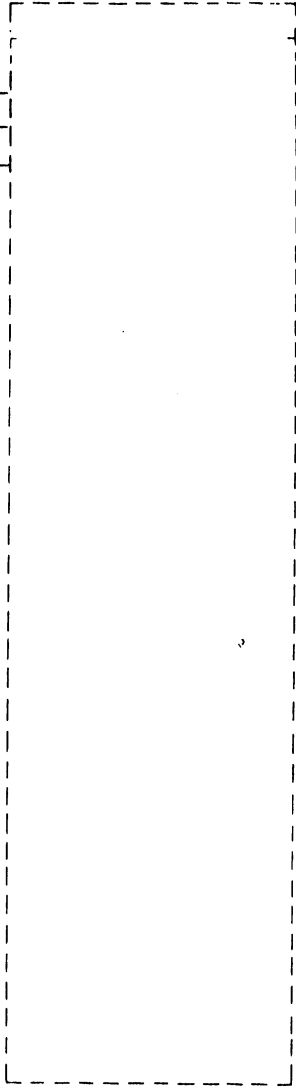
<b>MAGNETIC PERIPHERALS INC.</b> <small>Member of CONQUEST DATA CORPORATION</small>	WRITE COMP & PLO		SMALL DISK DIVISION	<b>C</b>	83324630	C
	TYPE: PGX		CODE IDENT 19333	0703	SHEET 3	128.1



**SIGNAL INPUTS**

SINGLE	DUAL				
<u>CHANNEL UNITS</u>	<u>CHANNEL UNITS</u>				

0803	J30-08	0803	J30-08	08	J31
0206	P27-06	0212	P27-06	06	J27
0206	P27-09	0212	P27-09	09	J27



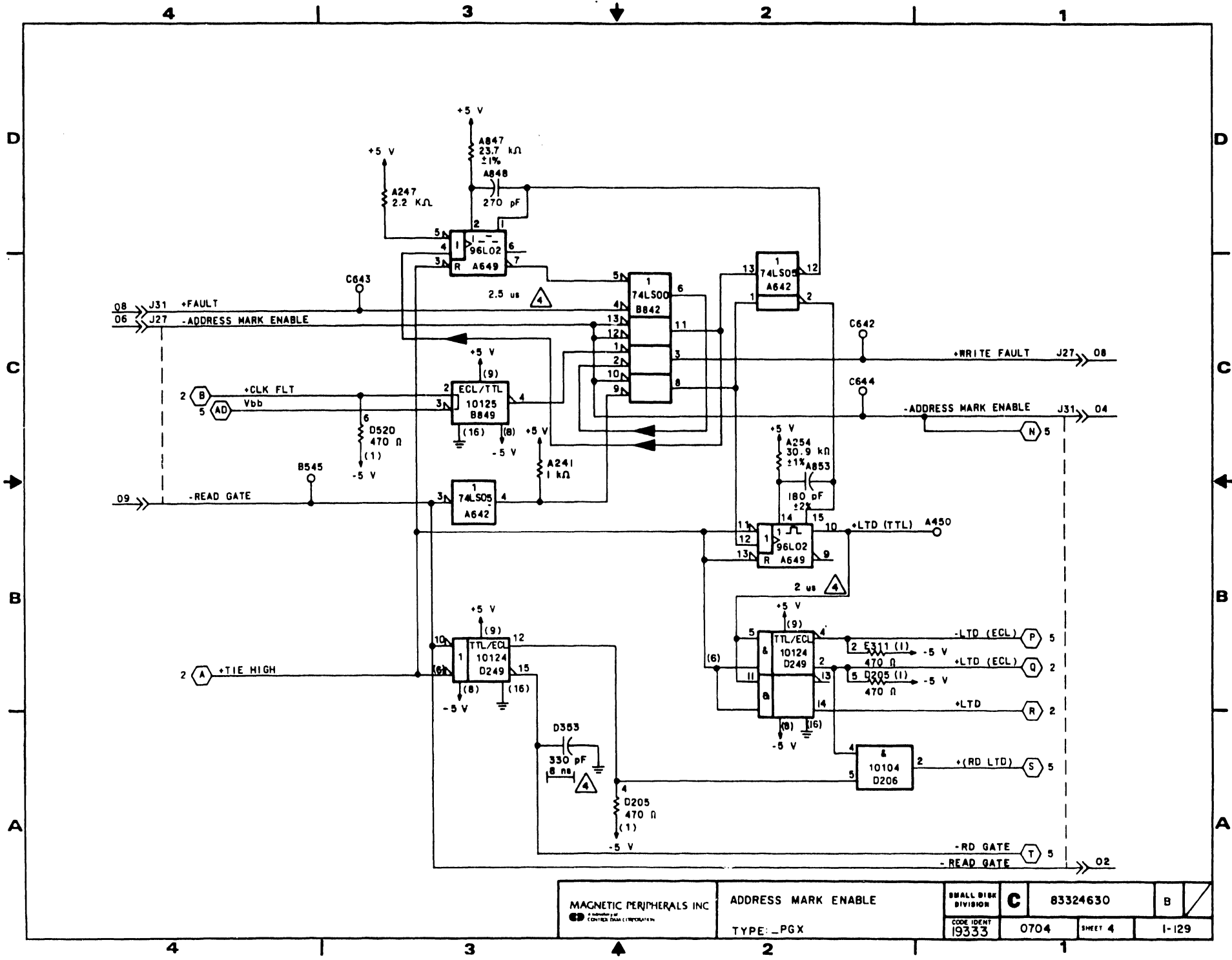
**SIGNAL OUTPUTS**

SINGLE	DUAL		
<u>CHANNEL UNITS</u>	<u>CHANNEL UNITS</u>		


J27	>>	08
J31	>>	04
J31	>>	02

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	C
CROSS REF NO	0704	PAGE	1-128.2



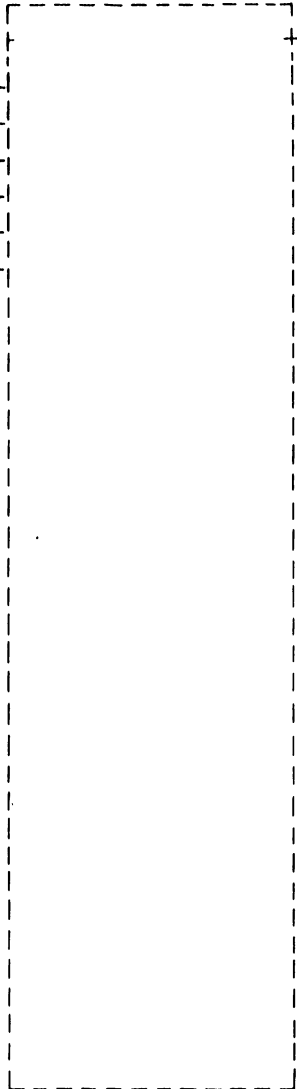
<b>MAGNETIC PERIPHERALS INC</b> <small>A DIVISION OF</small> <small>CONTRON DATA CORPORATION</small>	ADDRESS MARK ENABLE		SMALL DISK DIVISION	<b>C</b>	83324630	B
	TYPE: -LPGX		CODE IDENT	19333	0704	SHEET 4

**SIGNAL INPUTS**

SINGLE CHANNEL UNITS		DUAL CHANNEL UNITS			
0206	P27-03	0212	P27-03	03	J27
0206	P27-04	0212	P27-04	04	J27
0808	J30-20	0808	J30-20	20	J31
0808	J30-21	0808	J30-21	21	J31
NC	-	NC	-	03	J46
NC	-	NC	-	02	J46

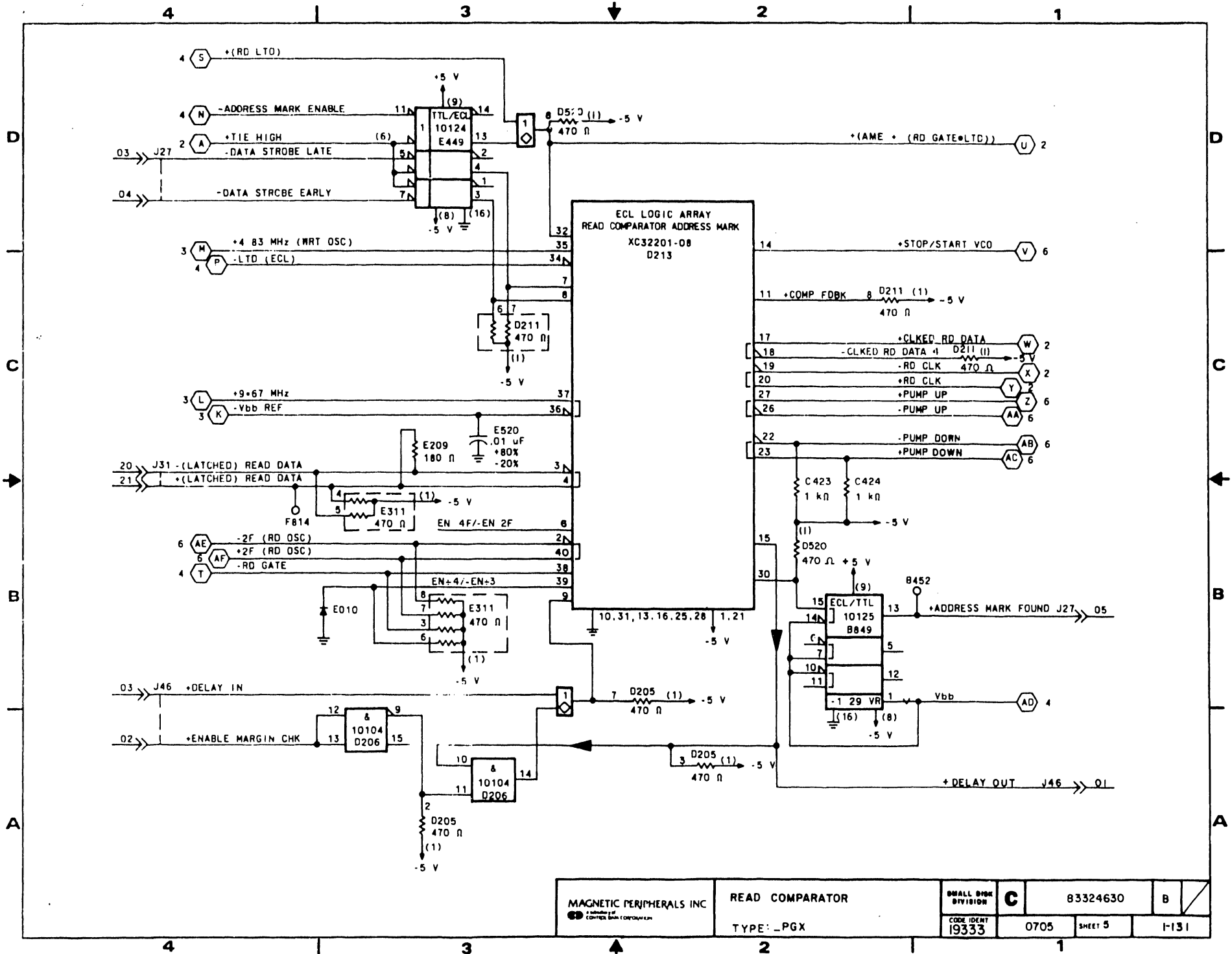
**SIGNAL OUTPUTS**

J27	>>	05	0204	P27-05
J46	>>	01	NC	-

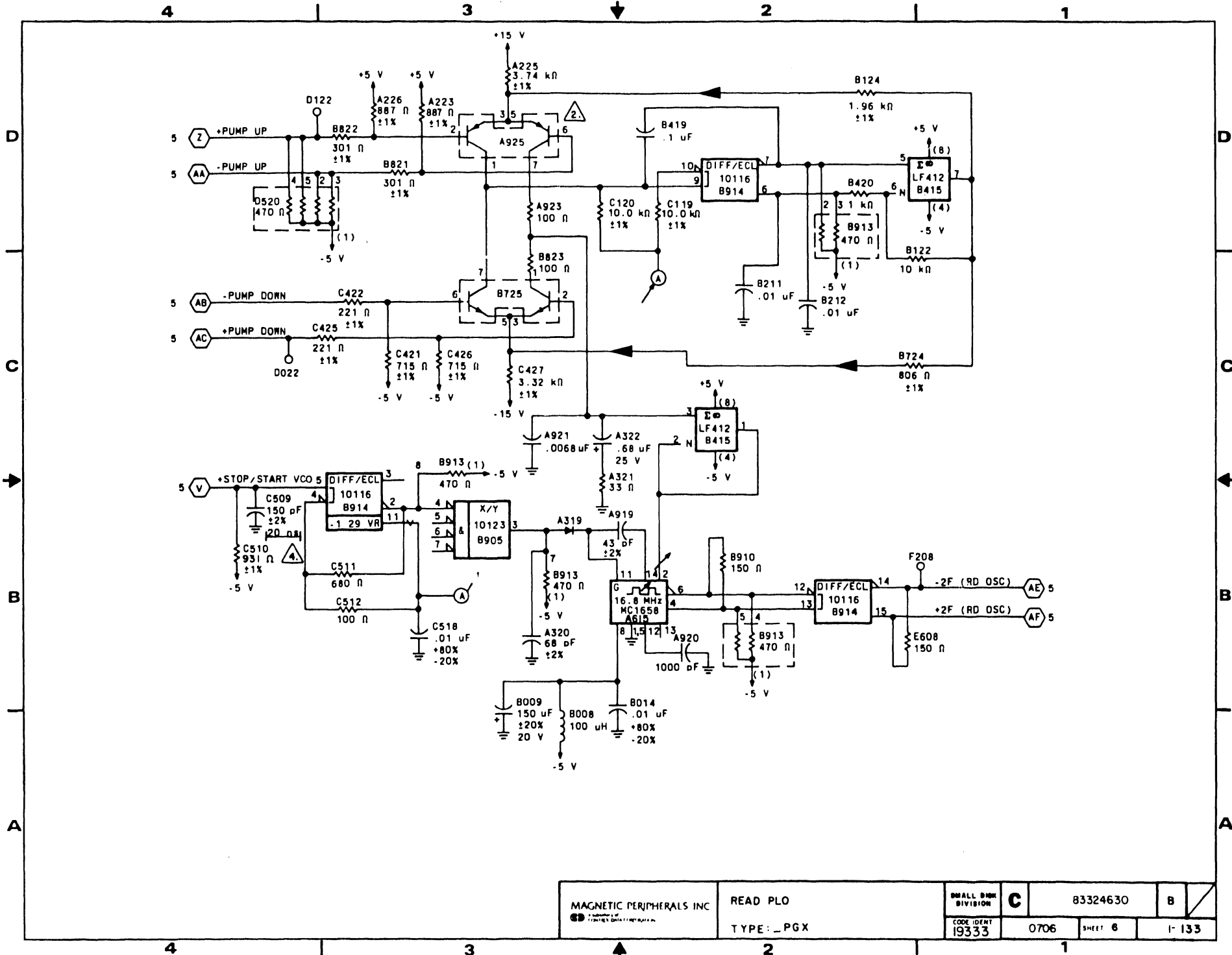


**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0705	1-130		



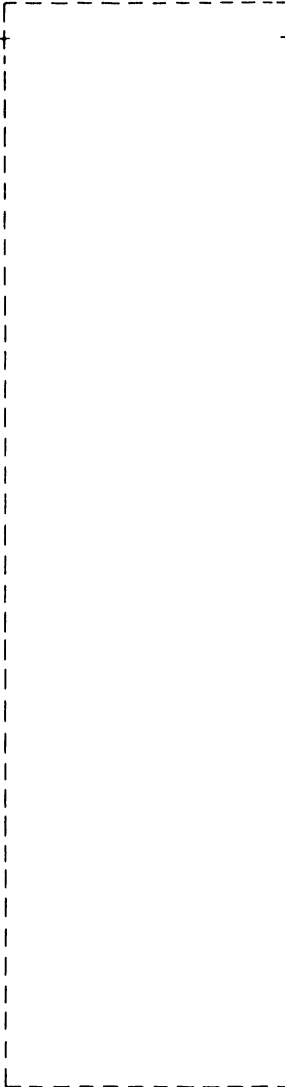
MAGNETIC PERIPHERALS INC <small>CONTRACT MANUFACTURING</small>	READ COMPARATOR	SMALL SIGNAL DIVISION	<b>C</b>	83324630	B
	TYPE: _PGX	CODE IDENT 19333	0705	SHEET 5	1-131



MAGNETIC PERIPHERALS INC A DIVISION OF INTERNATIONAL BUSINESS MACHINES CORPORATION	READ PLO	SMALL DIK DIVISION	C	83324630	B
	TYPE: PGX	CODE IDENT 19333	0706	SHEET 6	I-133

**SIGNAL INPUTS**

0402	J29-04	23	>>	J30	-----
0402	J29-03	24	>>	J30	-----
1002	J40-01	06	>>	J35	-----
NC	-	03	>>	J35	-----
NC	-	02	>>	J35	-----
NC	-	01	>>	J35	-----
1002	J40-02	05	>>	J35	-----
1002	J40-03	04	>>	J35	-----
0402	J29-02	25	>>	J30	-----
0402	J29-01	26	>>	J30	-----
NC	-	02	>>	J30	-----
NC	-	09	>>	J30	-----
0414	J29-17	10	>>	J30	-----
0414	J29-16	11	>>	J30	-----
0703	J31-13	13	>>	J30	-----
0703	J31-14	14	>>	J30	-----
0402	J29-15	12	>>	J30	-----
0402	J29-12	15	>>	J30	-----
NC	-	19	>>	J30	-----
NC	-	22	>>	J30	-----



**SIGNAL OUTPUTS**

J32	>>	04	-----	0901	J42-04
J32	>>	05	-----	0901	J42-05
J32	>>	02	-----	0901	J42-02
J32	>>	08	-----	0901	J42-08
J32	>>	11	-----	0901	J42-11
J32	>>	03	-----	0901	J42-03

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0801		1-134	

UNUSED LOGIC ELEMENTS		
ELEMENT	LOCATION	OUTPUT PIN(S)
7486	L135	8
7407	M044	12
10131	E647	14, 15

UNUSED TRANSISTOR PACKS		
ELEMENT	LOCATION	PIN(S)
MPQ2907	N326	8, 9, 10
MPQ2369	M226	1, 2, 3
CA3096	F122	7, 8, 9
CA3096	G422	7, 8, 9

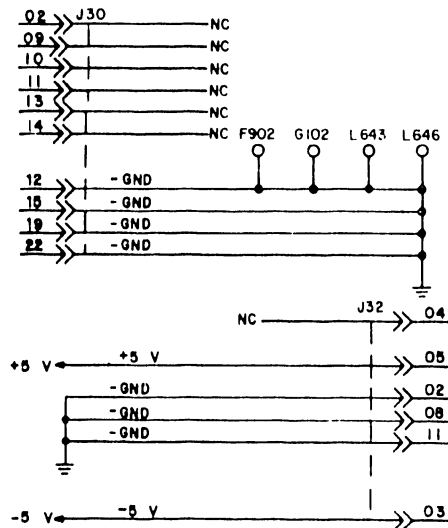
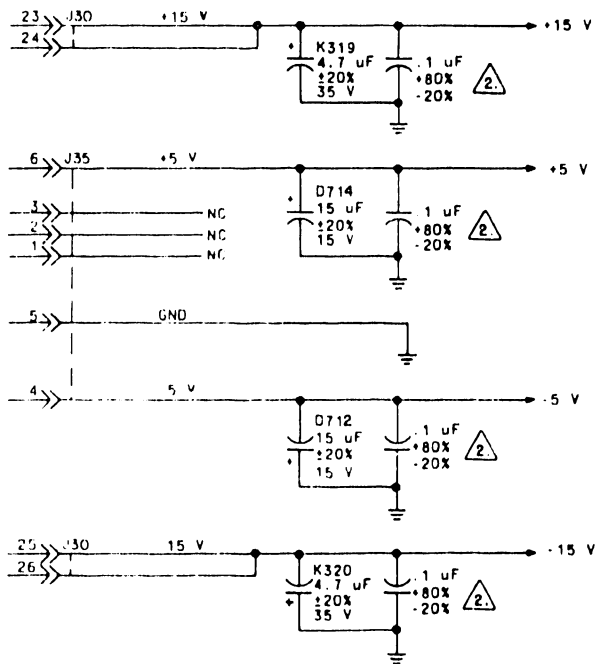
FILTER CAPS			
1 $\mu$ F ±80% -20%			
+15 V	+5 V	5 V	-15 V
E526	L952	D946	K427
K428	F645	E330	L622
L621	F708	F143	M618
M615	F717	F147	
	F722	F709	
	K436	F718	
	K447	DR10	
	M806	G134	
		G922	
		J826	
		J921	
		N315	
		M807	

UNUSED RESISTOR PACKS	
LOCATION	PIN(S)
D735	6, 7, 8
E047	5, 8
G336	2, 3, 8
J232	2
M443	6

PART NO RANGE		REVISION RECORD						
REV	PCO	DESCRIPTION	DRFT	DATE	CHKD	APP		
01	0303032A	PRE-RELEASED		4-2-82			II	
02	0303086	CHG VALUE & LOC	OLM	8-12-82	DGD		II	
A	0303086	RELEASED	OLM	9-24-82	DGD		II	
15	0303140	DELETE PINS	DLAM	10-6-82	DGD		III	
16	0303132	ALL PIN SMT REF	DLAM	10-18-82	DGD		III	
D	0303132	CORRECTION						
F	0303132	BBOX TO C/PFX	MJ	5-17-83				
F	0303199	DELETE PINS	MJ	10-4-83				

NOTES

- UNLESS OTHERWISE SPECIFIED
  - ALL 14 PIN IC'S HAVE PIN 7 CONNECTED TO GROUND AND PIN 14 CONNECTED TO +5 V.
  - ALL 16 PIN IC'S HAVE PINS 1 AND 16 CONNECTED TO GROUND AND PIN 8 CONNECTED TO -5 V.
  - ALL DIODES, 24553500
  - ALL TRANSISTORS, SPNP, 2N4258, 15165563.
  - ALL TRANSISTOR ARRAYS, NPN, MPQ2369, 50213300
  - ALL DELAY LINES 94267303
  - ALL DELAY LINES HAVE PIN 7 AND 8 CONNECTED TO GROUND.
  - ALL RESISTOR PACK RESISTORS, 1/8 W, ±3%.
  - ALL POTENTIOMETERS, 1/4 W, ±10%.
- 2 SEE TABLE FOR 1  $\mu$ F FILTER CAPACITOR LOCATIONS
- 3 TRANSISTOR ARRAY, PNP, MPQ2907, 50212700.
- 4 TRANSISTOR ARRAYS, NPN/PNP, CA3096, 50213100, PIN 16 TO -5 V.
- 5 DELAY TIME FOR REF ONLY.

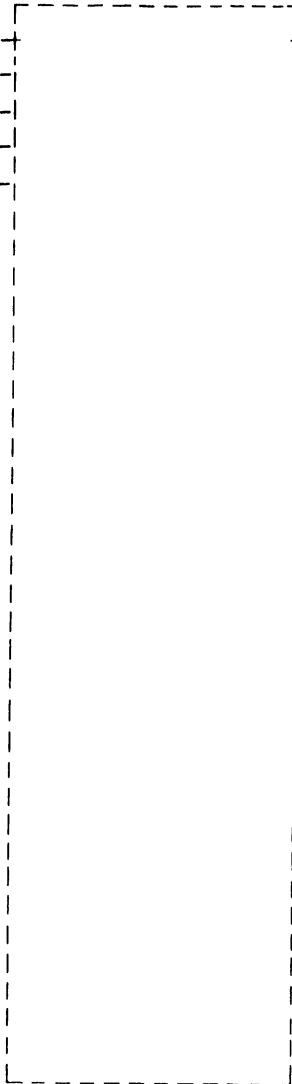


REFERENCE DRAWING				MAGNETIC PERIPHERALS INC		TITLE	
COMP ASSY 54332501				CORPORATION		SCHEMATIC DIAGRAM	
CTR 54332701				FIRST USED ON		DATA LATCH	
				NEXT ASSEMBLY		TYPE B/C/PFX	
COMPONENTS, EXCEPT AS NOTED				DWN F. AUDETTE		2/10/82	
TOLERANCE	VALUE	RATING	CHKD	OG-Dant	5/10/82	SMALL DISK DIVISION	SIZE C
RES ±5%	0HMS	1/4 W	ENGR	J.R. Bink	5-11-82	83324630	D
CAP ±10%			MFG	K.M. Ant	8-30-82		
IND ±5%			QA	P. Kupinski	8/31/82		
ZEN ±5%							

REF 54332601/3 SHEET 1 OF 8 PAGE 1-135

**SIGNAL INPUTS**

0703 J31-16 ~~16~~ >> J30  
0703 J31-17 ~~17~~ >> J30  
0409 J29-09 ~~10~~ >> J30  
0902 J42-10 ~~10~~ >> J32  
0902 J42-09 ~~09~~ >> J32



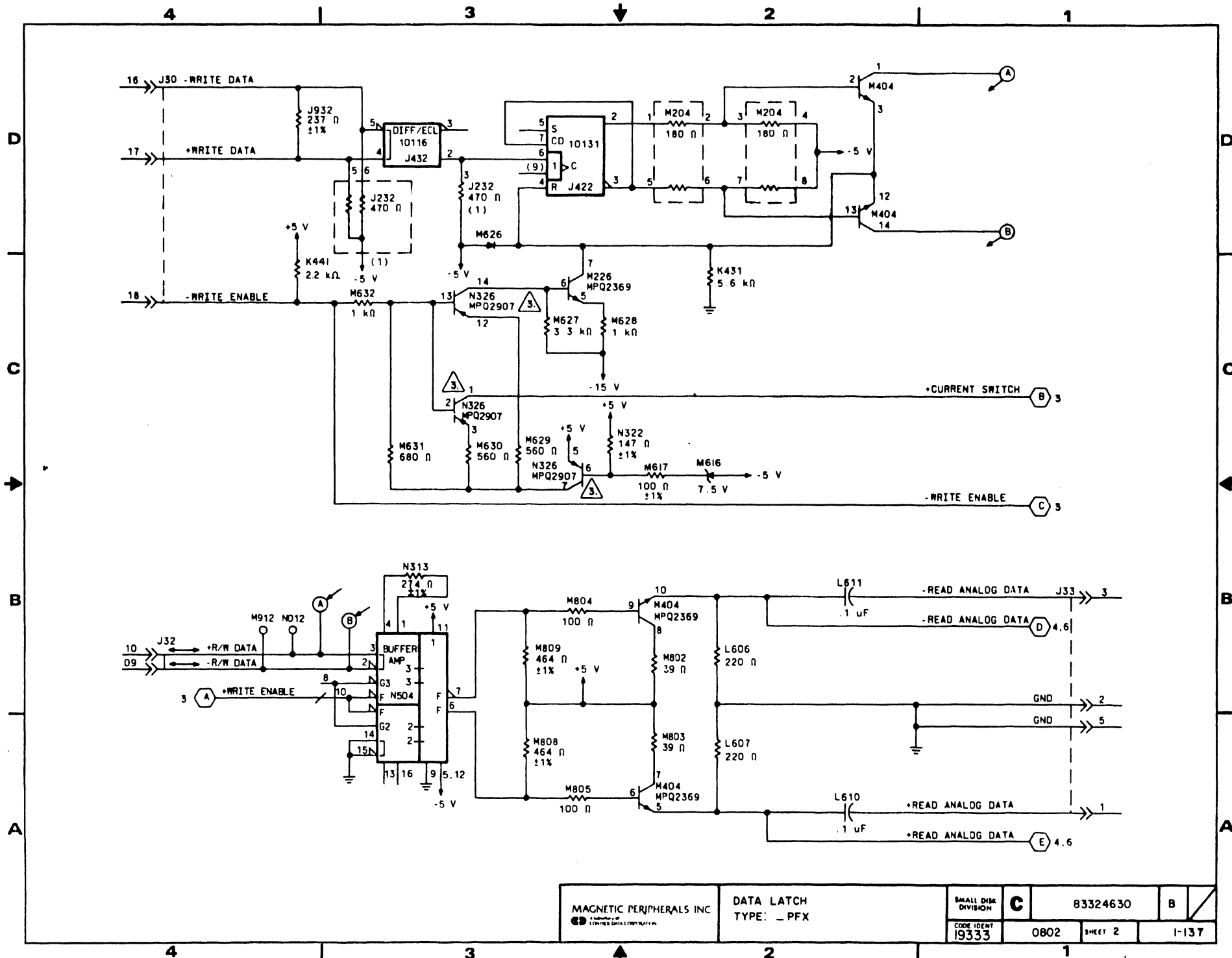
**SIGNAL OUTPUTS**

J33 >> 03 NC -  
J33 >> 02 NC -  
J33 >> 05 NC -  
J33 >> 01 NC -

**LOGIC CROSS REFERENCE INFORMATION**

PUR	83324630	REV	B
CROSS REF NO	0802	PAGE	1-136

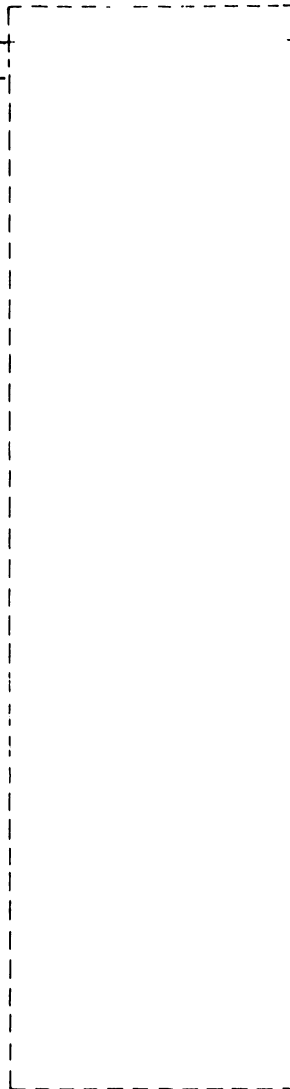




MAGNETIC PERIPHERALS INC. <small>A DIVISION OF</small> COMVERSE DATA CORPORATION	DATA LATCH TYPE: - PFX	SMALL DISK DIVISION	<b>C</b>	83324630	<b>B</b>
		CODE IDENT 19333	0802	SHEET 2	1-137

**SIGNAL INPUTS**

0420 J29-21 -06-->>-J30  
0902 J42-06 -06-->>-J32

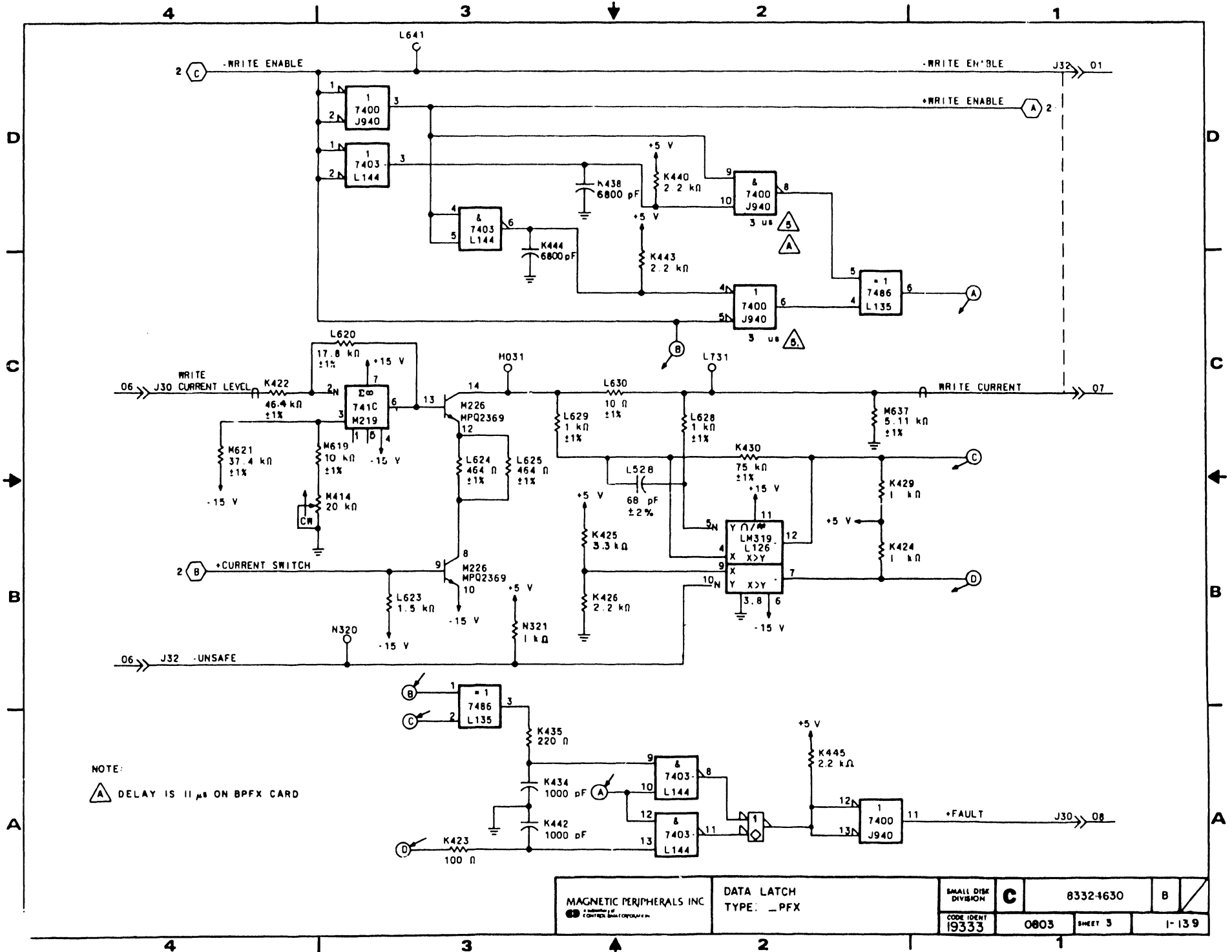


**SIGNAL OUTPUTS**

J32-->>-01 0902 J42-01  
J32-->>-07 0902 J42-07  
J30-->>-08 0704 J31-08

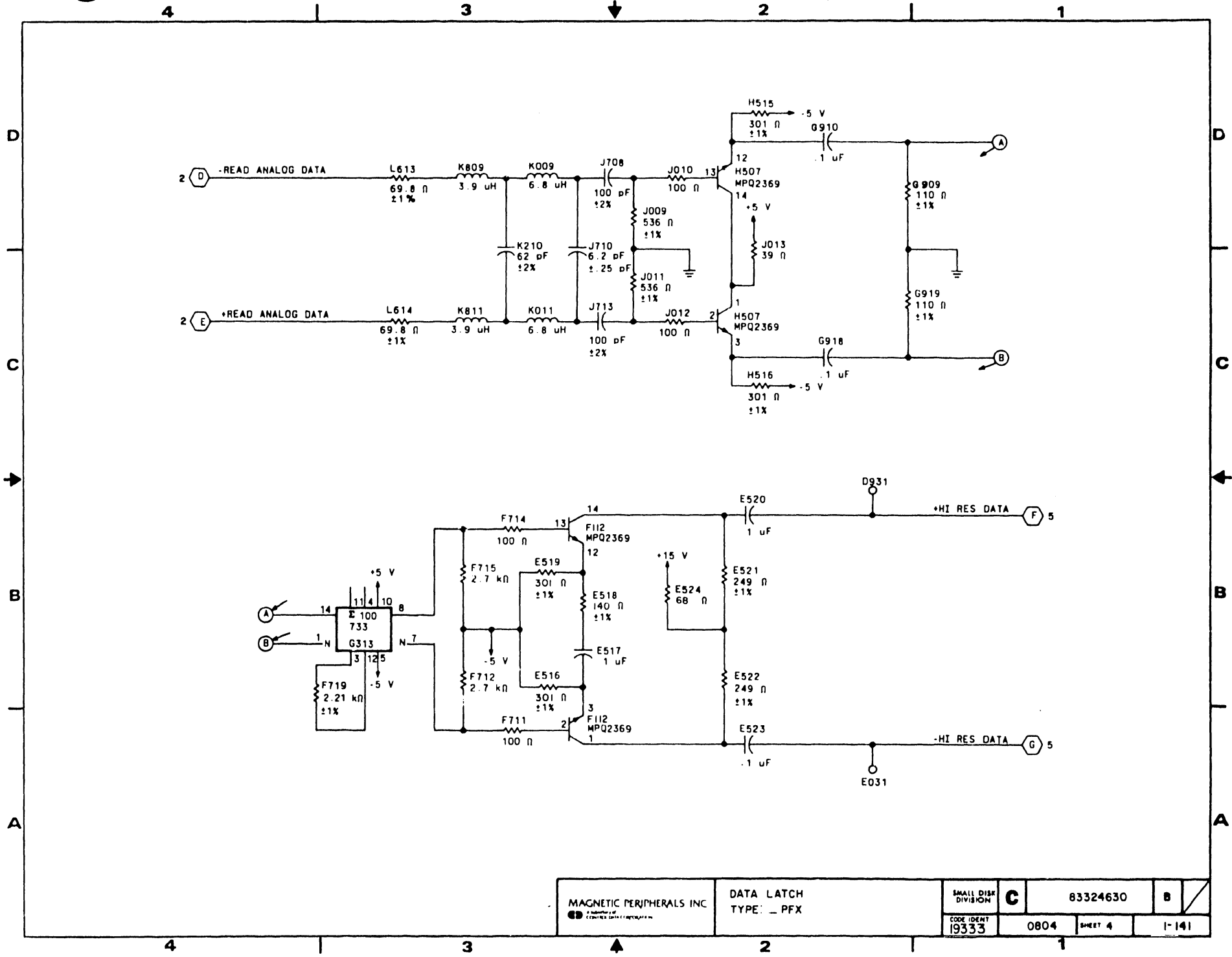
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0803	PAGE	1-138



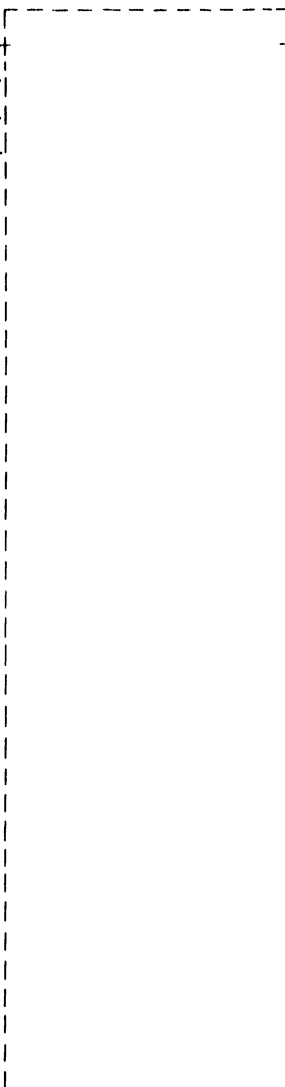
NOTE:  
 ⚠ DELAY IS 11 μs ON BPFx CARD

MAGNETIC PERIPHERALS INC <small>CONTROL DATA CORPORATION</small>	DATA LATCH TYPE: -PFX	SMALL DISK DIVISION	C	83324630	B
		CODE IDENT 19333	0803	SHEET 3	I-139



**SIGNAL INPUTS**

0406 J29-26 01 ->> J30  
 0406 J29-24 03 ->> J30  
 0406 J29-22 05 ->> J30  
 0406 J29-20 07 ->> J30

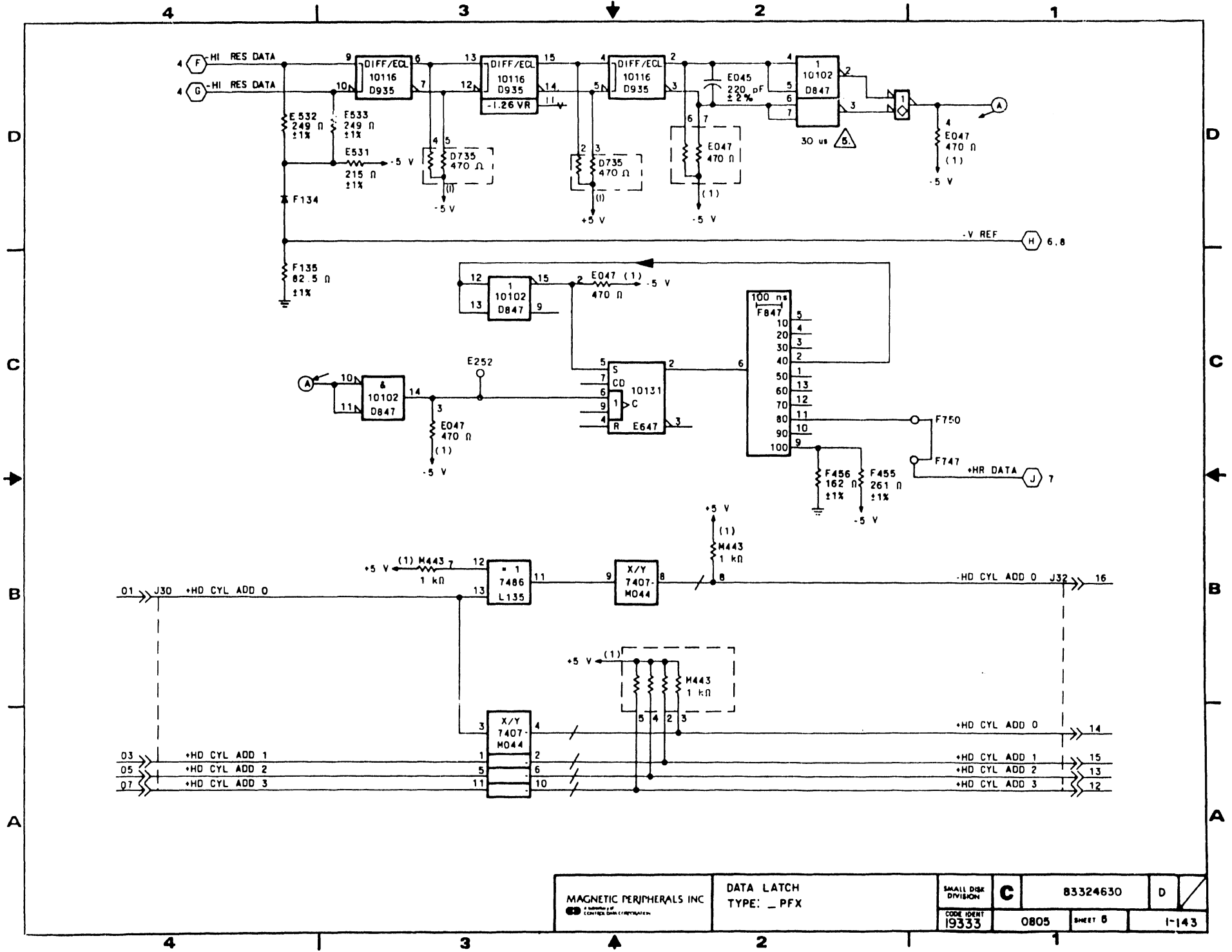


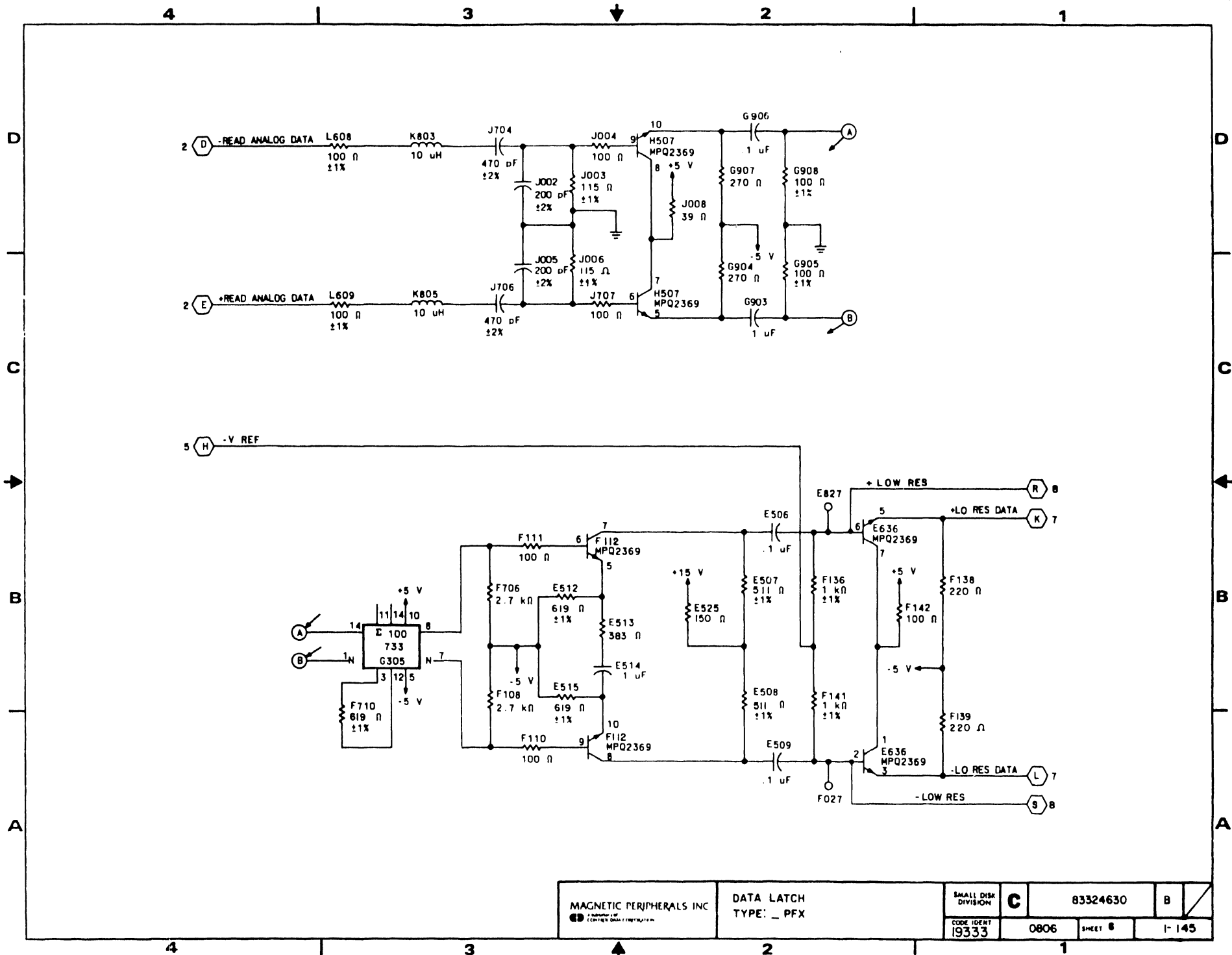
**SIGNAL OUTPUTS**

J32 ->> 16 NC J42-16  
J32 ->> 14 0902 J42-1  
J32 ->> 15 0902 J42-15  
J32 ->> 13 0902 J42-13  
J32 ->> 12 NC J42-12

**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0805	PAGE	1-142

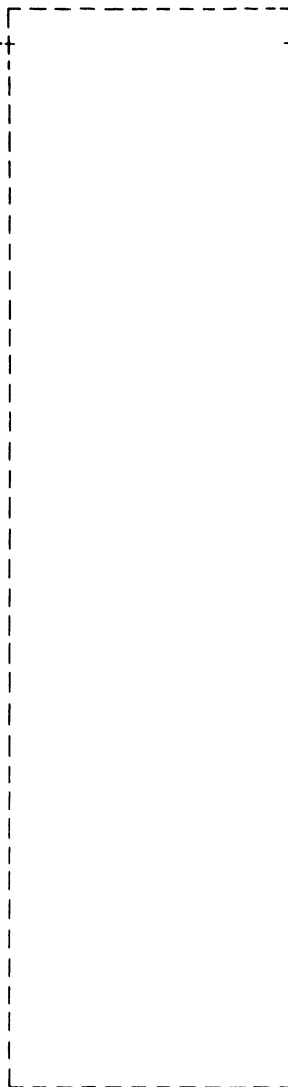




**SIGNAL INPUTS**

**SIGNAL OUTPUTS**

0704 J31-04 -04-->> J30



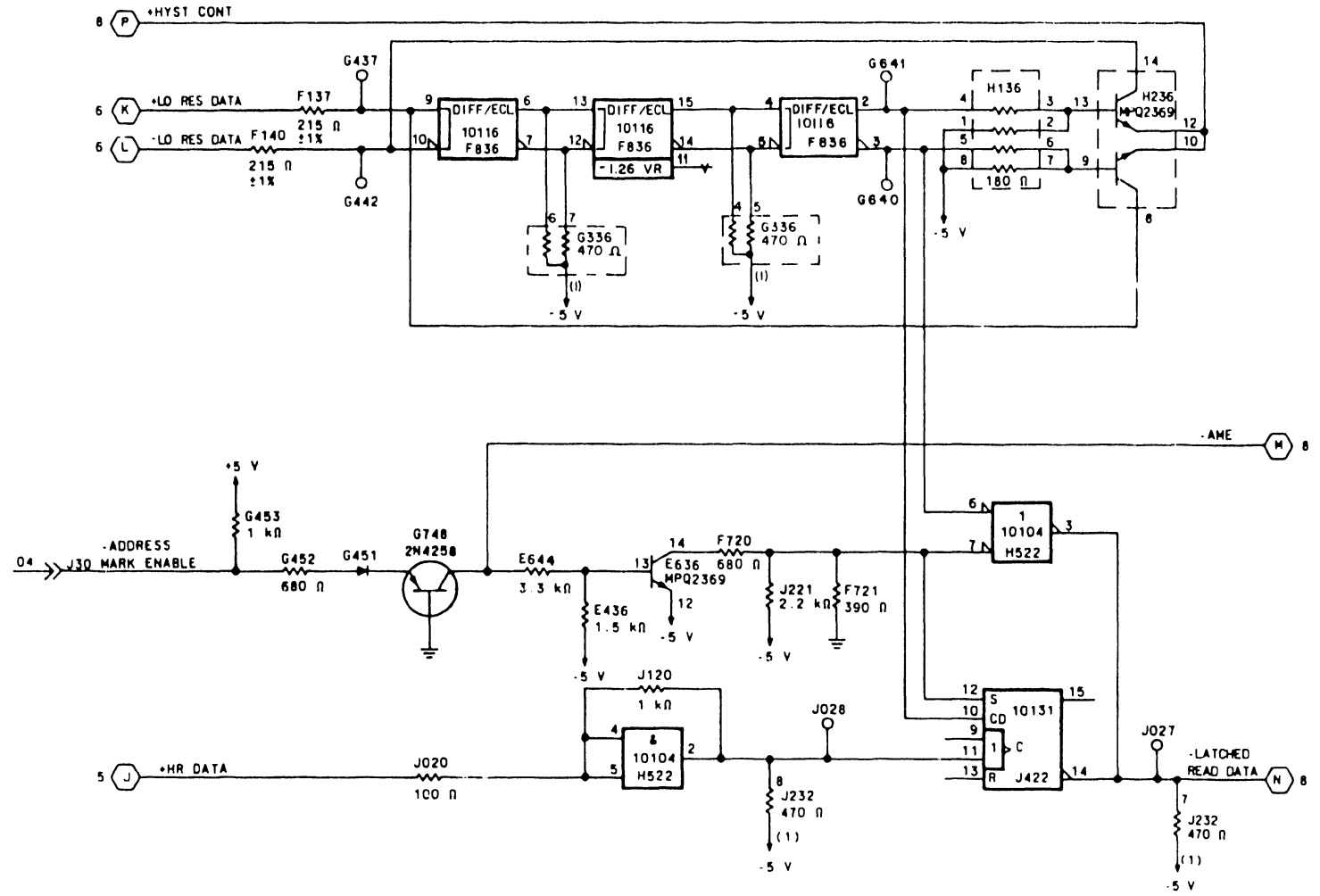
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0807	PAGE	1-146



4 | 3 | 2 | 1

D  
C  
B  
A

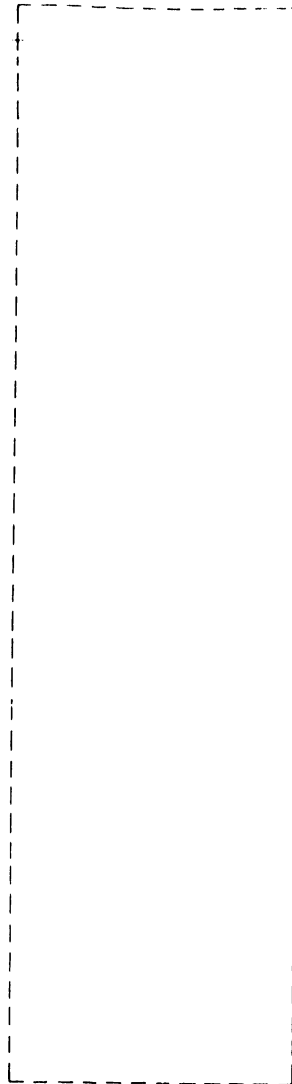


MAGNETIC PERIPHERALS INC <small>10000 W. 10th Ave., Denver, CO 80202</small>	DATA LATCH TYPE: - PFX		SMALL DISK DIVISION	<b>C</b>	83324630	<b>B</b>
			CODE IDENT 19333	0807	SHEET 7	1-147

4 | 3 | 2 | 1

**SIGNAL INPUTS**

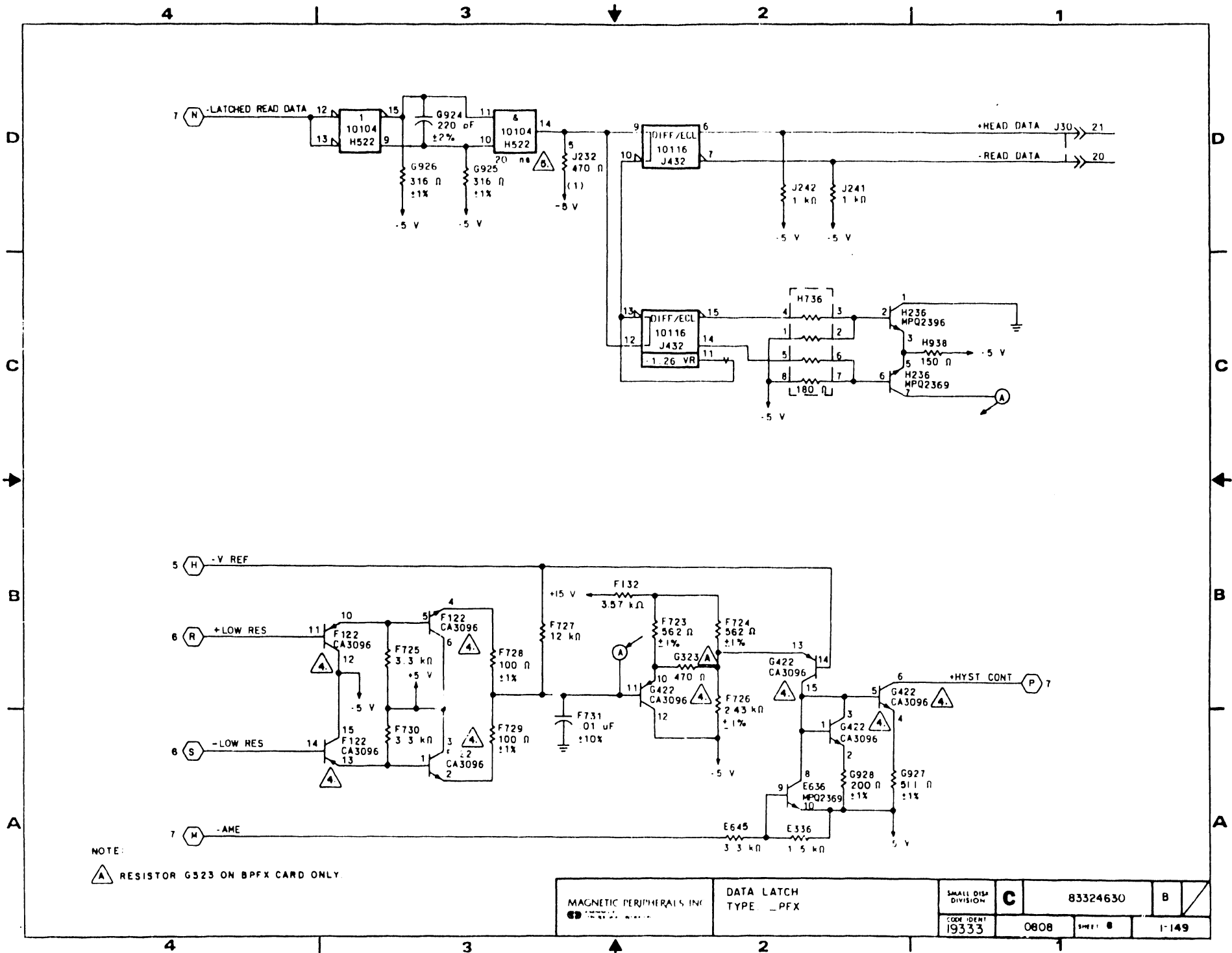
**SIGNAL OUTPUTS**



J30 --> 21 0705 J31-21  
J30 --> 20 0705 J31-20

**LOGIC CROSS REFERENCE INFORMATION**

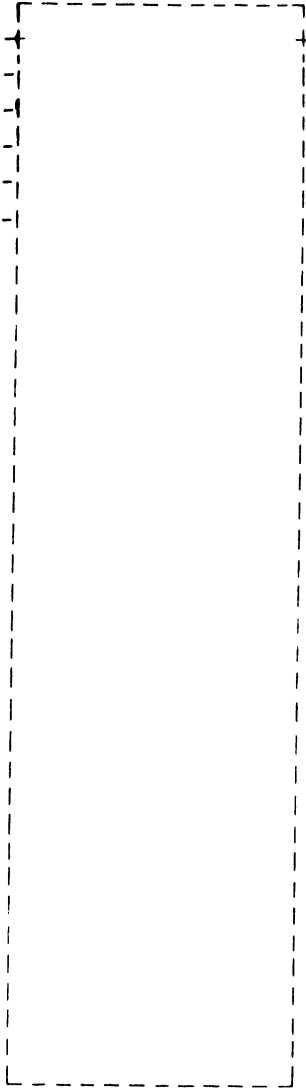
PUB	83324630	REV	B
CROSS REF NO	0808	PAGE	1-148



**SIGNAL INPUTS**

0801 J32-05 05 ->> J42  
0801 J32-02 02 ->> J42  
0801 J32-04 04 ->> J42  
0801 J32-08 08 ->> J42  
0801 J32-11 11 ->> J42  
0801 J32-03 03 ->> J42

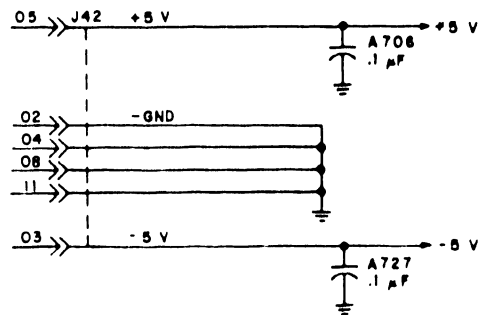
**SIGNAL OUTPUTS**



**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	0901	PAGE	1-150

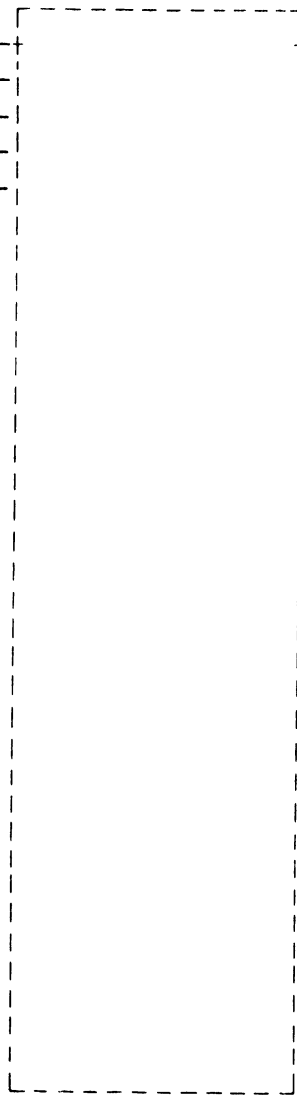
PART NO RANGE	REVISION RECORD						
	REV	ECO	DESCRIPTION	DEPT	DATE	CHKD	APP
00 THRU 99	A	DJ23000	RELEASED	MJ	9/8/62	JL-LJ	



REFERENCE DRAWING				MAGNETIC PERIPHERALS INC		TITLE				
COMP ASSY 54331301				FIRST USED ON		SCHEMATIC DIAGRAM				
				PASAI-A		R/W PREAMP				
				NEXT ASSEMBLY		TYPE : CPCX				
COMPONENTS EXCEPT AS NOTED				DWN	M A FRANCE	11-10-61	SIZE			
RES	5%	OHMS	1/4 W	CHKD	DG Donat	4-30-62	C	83324630	B	
CAP	50% - 20%			ENGR	FR Bost	4-16-62				
				MFG			FORM NO			
				QA			19333	0901	SHEET 1 OF 2	PAGE 1-151
							REF 54331402			PRODUCT RSD

**SIGNAL INPUTS**

0805 J32-13 13 -> J42  
0805 J32-15 15 -> J42  
0805 J32-14 14 -> J42  
0803 J32-01 01 -> J42  
0803 J32-07 07 -> J42

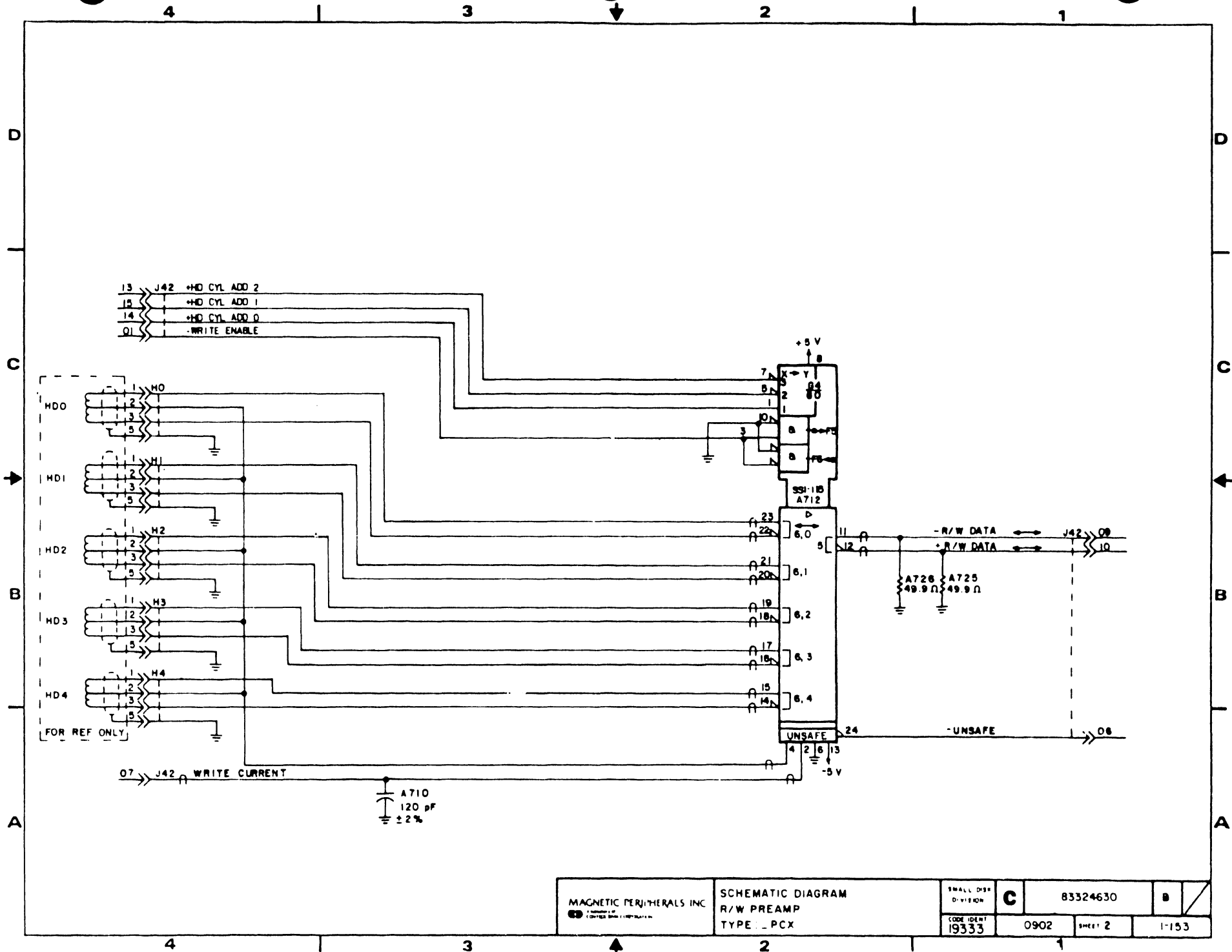


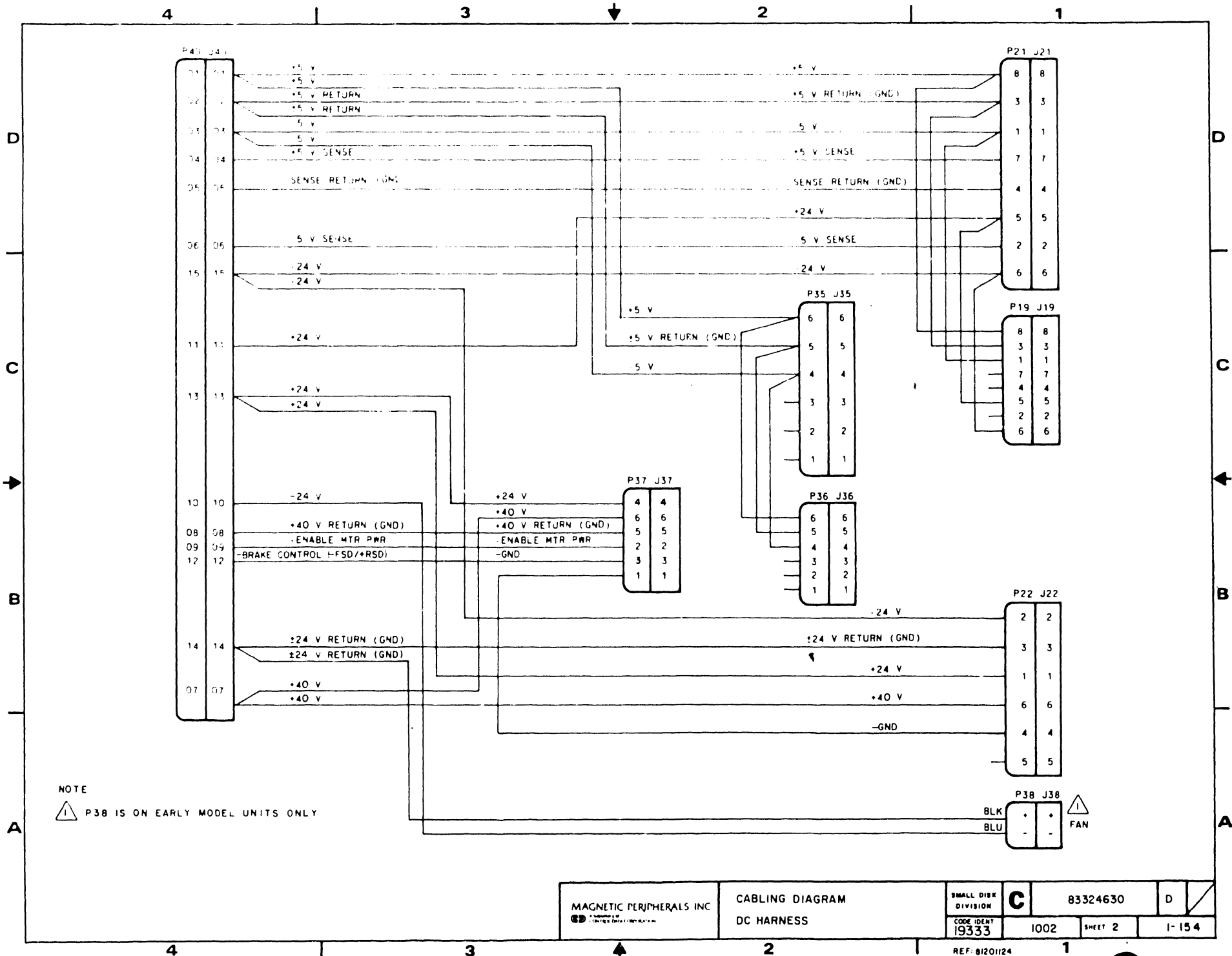
**SIGNAL OUTPUTS**

J42 -> 09 0802 J32-09  
J42 -> 10 0802 J32-10  
J42 -> 06 0803 J32-06

**LOGIC CROSS REFERENCE INFORMATION**

PUB		REV	
83324630		B	
CROSS REF NO	PAGE		
0902	1-152		







4

3

2

1

D

D

C

C

B

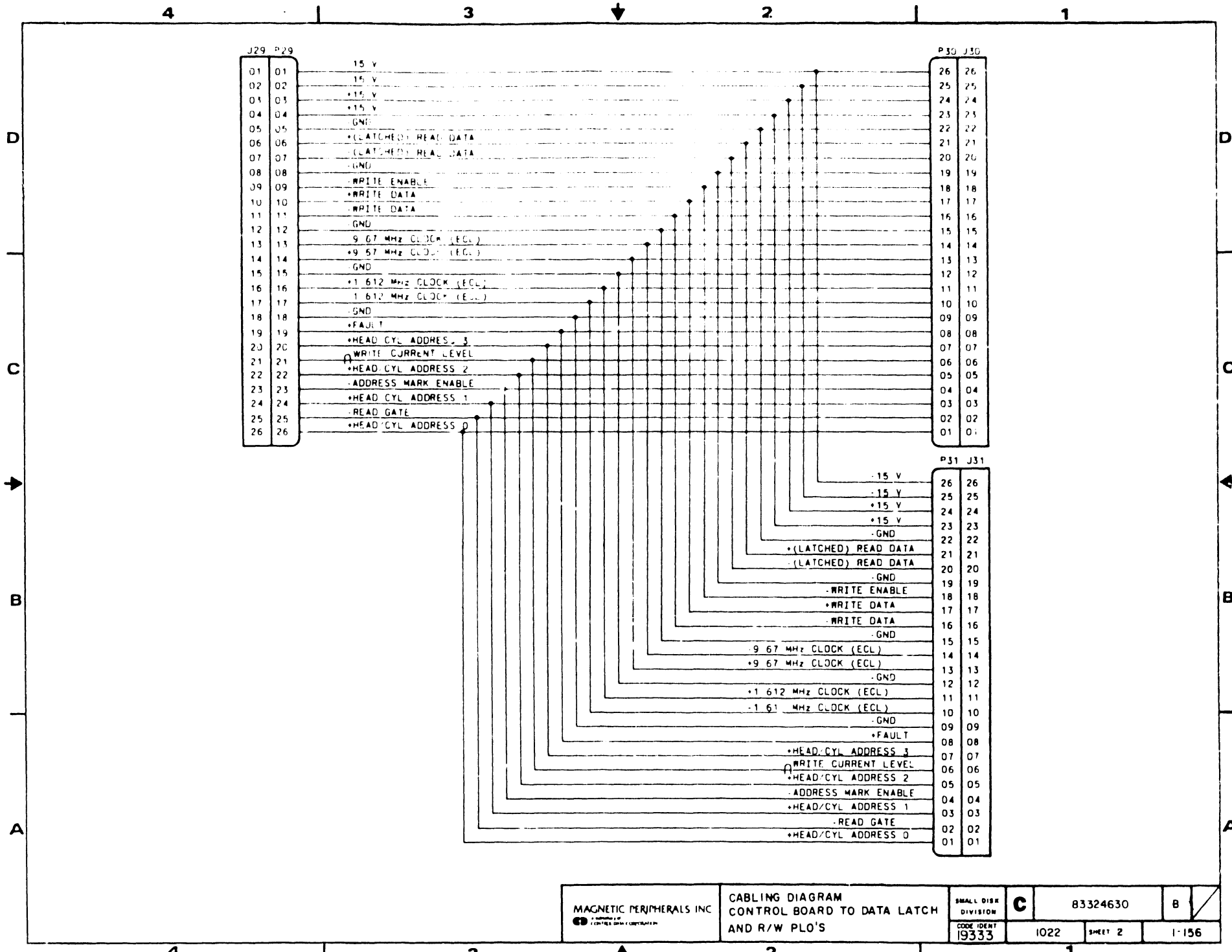
B

A

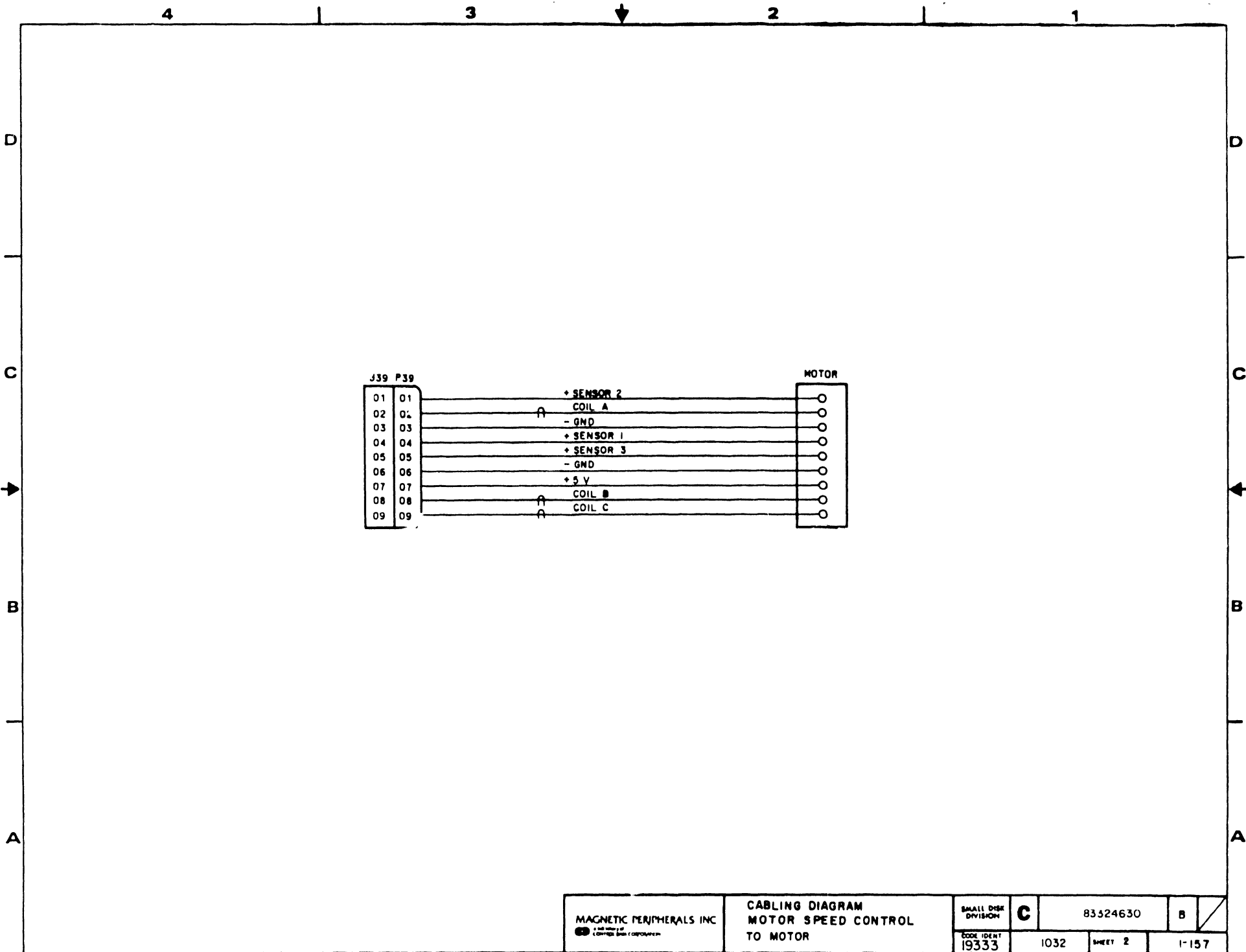
A

J14 P14			SINGLE CHANNEL P20 J20		DUAL CHANNEL P20 J20	
20	20	+SECTOR	01	01	40	40
21	21	-DC MASTER CLEAR	02	02	39	39
19	19	+ON CYLINDER	03	03	38	38
22	22	+SELECT COMPARE	04	04	37	37
18	18	-OPEN CABLE DETECT	05	05	36	36
23	23	+SEEK ERROR	06	06	35	35
17	17	+UNIT SELECT TAG	07	07	34	34
24	24	+WRITE PROTECTED	08	08	33	33
16	16	+SEEK END	09	09	32	32
25	25	-FAULT	10	10	31	31
15	15	+UNIT SELECT BIT 3	11	11	30	30
26	26	+WRITE GATE	12	12	29	29
14	14	+UNIT SELECT BIT 2	13	13	28	28
27	27	+UNIT SELECT BIT 1	14	14	27	27
13	13		15	15	26	26
28	28	-READY	16	16	25	25
12	12	-VOLTAGE FAULT	17	17	24	24
29	29	+UNIT SELECT BIT 0	18	18	23	23
11	11	+{HOLD * LOCAL}	19	19	22	22
30	30	-UNIT SELECTED	20	20	21	21
10	10	GND	21	21	20	20
31	31	-I/O CONTROL 1	22	22	19	19
09	09	+UNIT SEL SWITCH 2	23	23	18	18
32	32	-I/O CONTROL 2	24	24	17	17
08	08	+SEEK INTERRUPT	25	25	16	16
33	33	+UNIT SEL SWITCH 1	26	26	15	15
07	07	-I/O CONTROL 3	27	27	14	14
34	34	+UNIT SEL SWITCH 0	28	28	13	13
06	06	+INDEX	29	29	12	12
35	35	+HEAD/CYL ADDRESS 0	30	30	11	11
05	05		31	31	10	10
36	36	+HEAD/CYL ADDRESS 1	32	32	09	09
04	04		33	33	08	08
37	37	+HEAD/CYL ADDRESS 2	34	34	07	07
03	03		35	35	06	06
38	38	+HEAD/CYL ADDRESS 3	36	36	05	05
02	02	-FWD OFFSET	37	37	04	04
39	39	-RTZ	38	38	03	03
01	01	-REV OFFSET	39	39	02	02
40	40		40	40	01	01

MAGNETIC PERIPHERALS INC. <small>A DIVISION OF          CONTROL DATA CORPORATION</small>	CABLING DIAGRAM CONTROL BOARD TO I/O BOARD		SMALL DISK DIVISION <b>C</b>	83324630	B
	CODE IDENT 19333	1012	SHEET 2	1-155	REF: 81201128

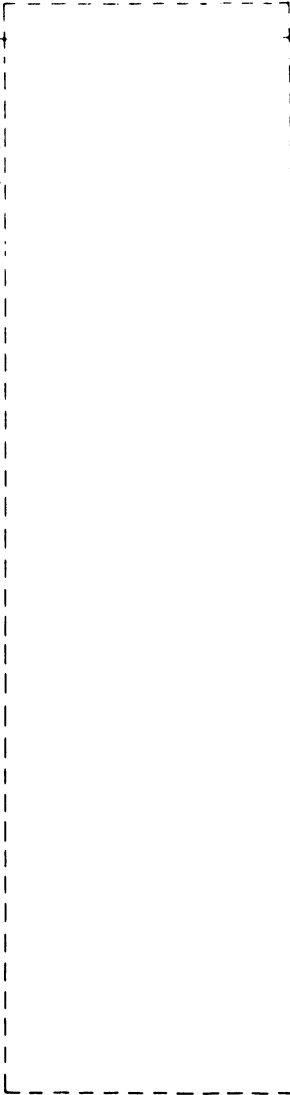


MAGNETIC PERIPHERALS INC <small>1000 UNIVERSITY AVENUE          CHICAGO, ILL. 60607</small>	CABLING DIAGRAM CONTROL BOARD TO DATA LATCH AND R/W PLO'S		SMALL DISK DIVISION	<b>C</b>	83324630	B
	CODE IDENT 19333	1022	SHEET 2	1-156		



**SIGNAL INPUTS**

0402	J25-01	01	>>	P25
0402	J25-04	04	>>	P25
0409	J25-06	06	>>	P25
0409	J25-07	07	>>	P25
0402	J25-10	10	>>	P25

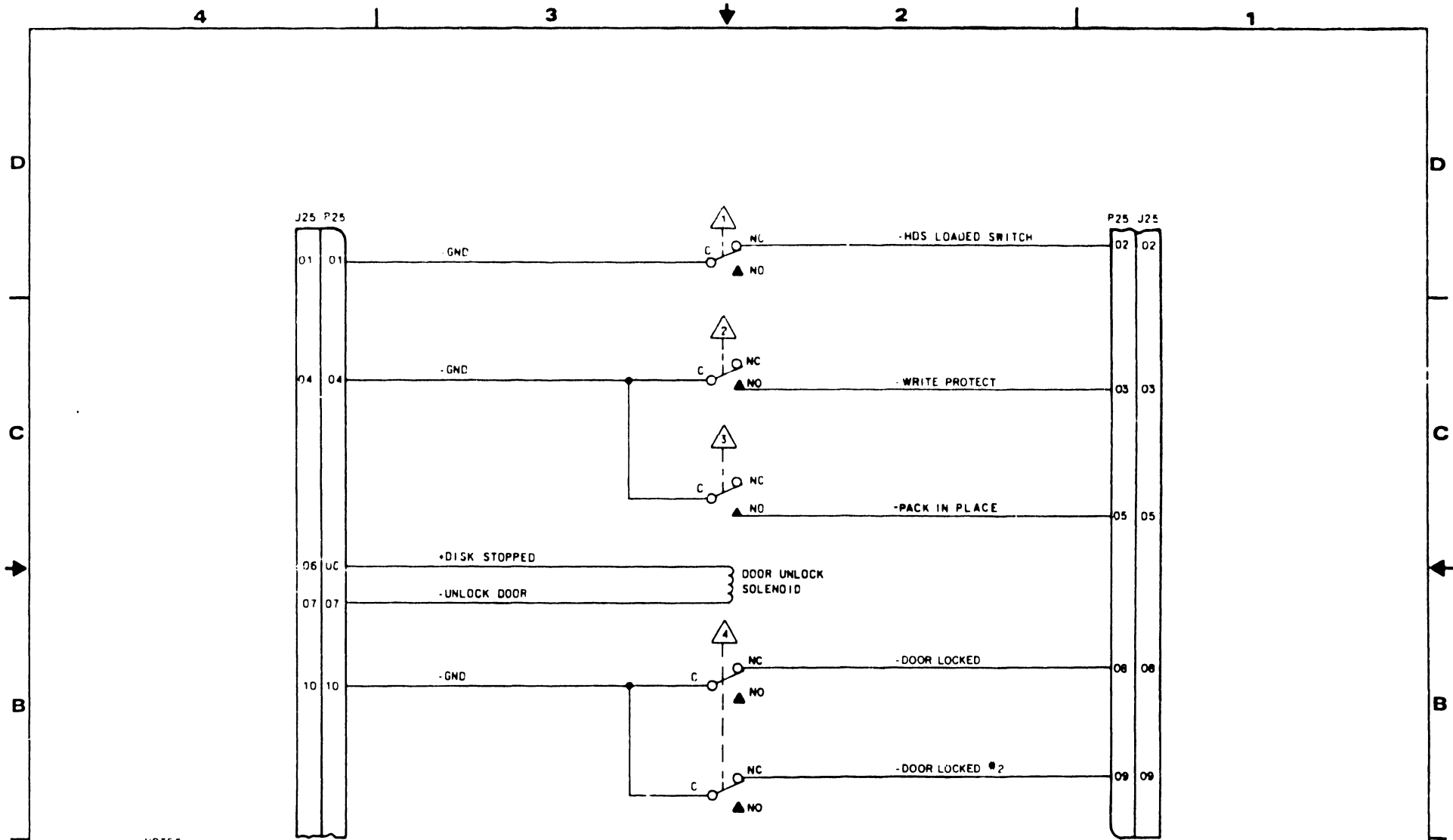


**SIGNAL OUTPUTS**

P25	>>	02	0407	J25-02
P25	>>	03	0409	J25-03
P25	>>	05	0406	J25-05
P25	>>	08	0407	J25-08
P25	>>	09	0410	J25-09

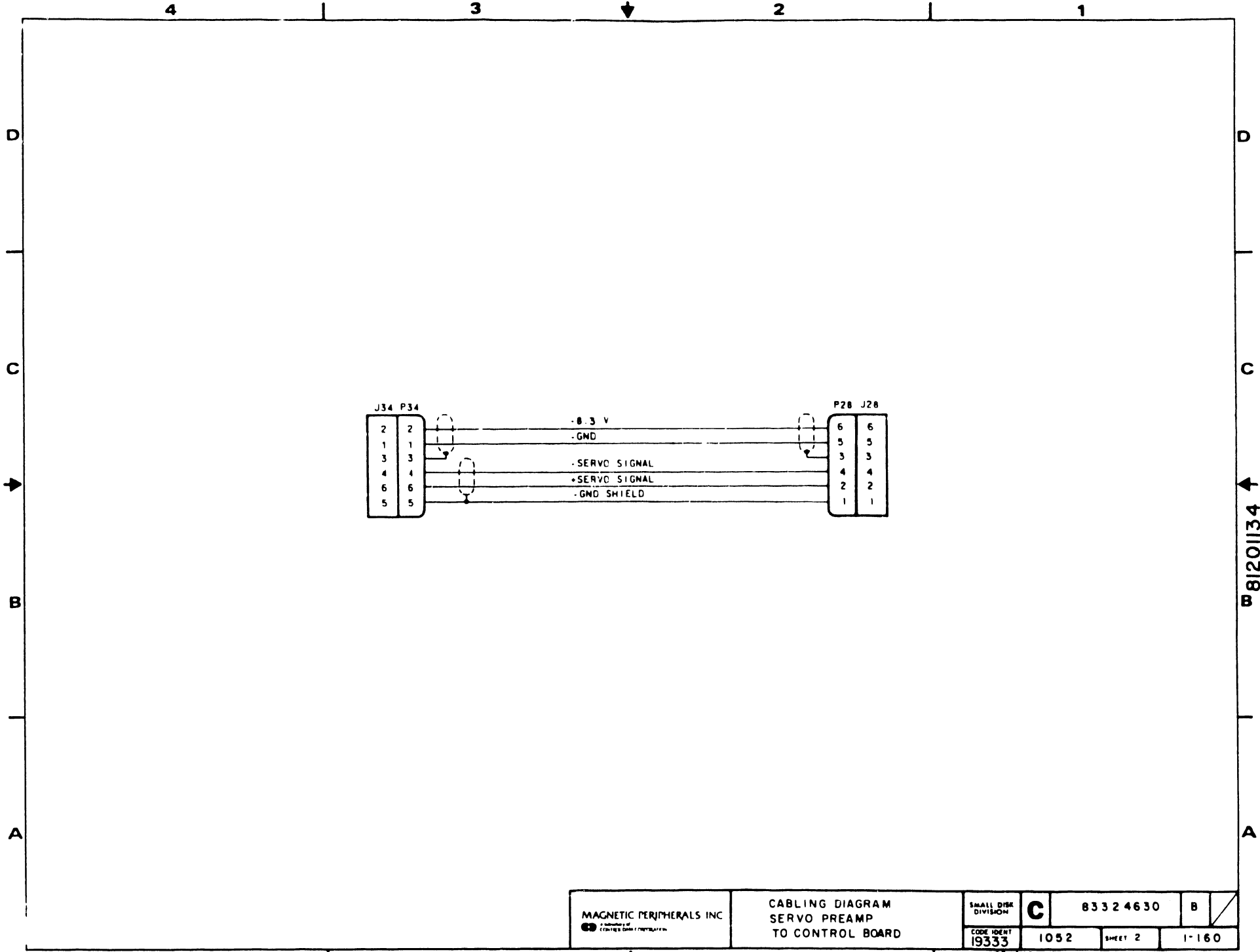
**LOGIC CROSS REFERENCE INFORMATION**

PUB	83324630	REV	B
CROSS REF NO	1042	PAGE	1-158



NOTES

- 1 SWITCH ACTIVATED BY CARRIAGE BEING RETRACTED.
- 2 SWITCH ACTIVATED BY WRITE PROTECT TAB ON CARTRIDGE
- 3 SWITCH ACTIVATED WHEN CARTRIDGE IS IN PLACE.
- 4 SWITCH ACTIVATED WHEN DOOR IS UNLOCKED



REF 81201134 1

4

3

2

1

D

D

C

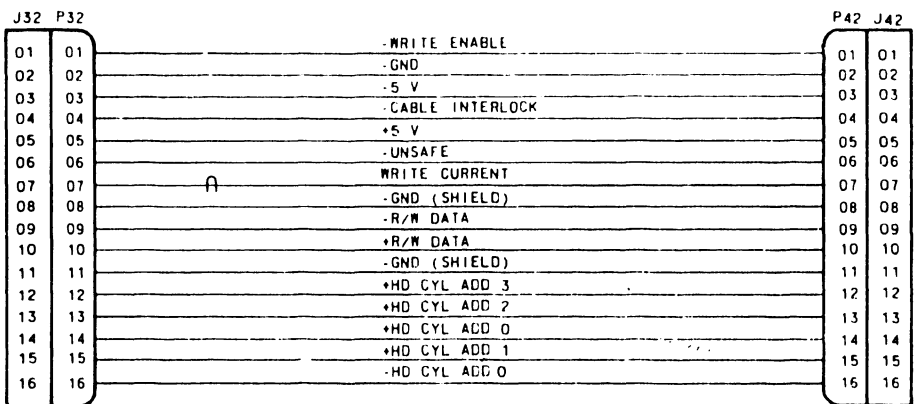
C

B

B

A

A



81201133

4

3

2

**END**