

# 1260 VXI SWITCHING CARD

# 1260-40 SWITCH MODULE

**PUBLICATION NO. 980673-007**

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The RACAL logo consists of the word "RACAL" in a bold, italicized, sans-serif font. Each letter is contained within a rectangular box, and the boxes are slightly offset to create a sense of depth and movement.

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## RETURN of PRODUCT

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Authorization is required from Racal Instruments before you send us your product for service or calibration. Call your nearest Racal Instruments support facility. A list is located on the last page of this manual. If you are unsure where to call, contact Racal Instruments, Inc. Customer Support Department in Irvine, California, USA at 1-800-722-3262 or 1-949-859-8999 or via fax at 1-949-859-7139. We can be reached at:

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# FOR YOUR SAFETY

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Before undertaking any troubleshooting, maintenance or exploratory procedure, read carefully the **WARNINGS** and **CAUTION** notices.

This equipment contains voltage hazardous to human life and safety, and is capable of inflicting personal injury.

If this instrument is to be powered from the AC line (mains) through an autotransformer, ensure the common connector is connected to the neutral (earth pole) of the power supply.

Before operating the unit, ensure the conductor (green wire) is connected to the ground (earth) conductor of the power outlet. Do not use a two-conductor extension cord or a three-prong/two-prong adapter. This will defeat the protective feature of the third conductor in the power cord.

Maintenance and calibration procedures sometimes call for operation of the unit with power applied and protective covers removed. Read the procedures and heed warnings to avoid "live" circuit points.

Before operating this instrument:

1. Ensure the instrument is configured to operate on the voltage at the power source. See Installation Section.
2. Ensure the proper fuse is in place for the power source to operate.
3. Ensure all other devices connected to or in proximity to this instrument are properly grounded or connected to the protective third-wire earth ground.

If the instrument:

- fails to operate satisfactorily
- shows visible damage
- has been stored under unfavorable conditions
- has sustained stress

Do not operate until performance is checked by qualified personnel.

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## **NOTE FOR SYSTEMS WITH 1260-OPT 01T**

The “Module-Specific Syntax” section of this manual shows the command syntax for the 1260-01S Smart Card. If you are using the newer 1260-01T Smart Card, the commands will NOT work as shown.

Consult the 1260-01T Manual for a description of the commands that may be used with the 1260-01T Smart Card.

The channel numbers described in this manual are valid for the 1260-01T. The channel numbers continue to be used for the 1260-01T.

The syntax of the commands that use channel numbers has changed for those cards controlled by the 1260-01T.

The new syntax used to close a channel is:

```
CLOSE (@ <module address> ( <channel> ) )
```

For example, for a relay module whose <module address> is set to 7, closing <channel> 0 is performed with the command:

```
CLOSE (@7 (0))
```

Using the older 1260-01S, the command would be (as shown in this manual):

```
CLOSE 7.0
```

Many other command syntax differences exist. Please consult chapter 2 of the 1260-01T manual for a description of the commands that are available for the 1260-01T.

### Control Information for the 1260-40A

The following information describes the control-register-to-relay-channel mapping for a 1260-40A Relay Module. This information may be used to control a 1260-40A when using a 1260-01T in the register-based mode of operation.

Each relay on this module is controlled by setting or clearing a single bit within a Control Register. Control Registers on the module operate 8 channels simultaneously. There are eight control bits per Control Register. Setting the bit to a 1 closes the relay; setting the bit to a 0 opens the relay.

The table below shows the mapping from logical channels to control bits. The logical channels are used when operating the relay module in message-based mode. The control bits within the Control Registers are used to operate the module in register-based mode.

Each Control Register is located 2 addresses from the previous Control Register. That is, each Control Register is located at an odd address. This is shown in Table 2-2 of the 1260-01T manual. Control Register 0 is located at the "Base A24 Address" for the module. Consult the "Register-Based Operation" Section of Chapter 2 of the 1260-01T manual for a description of calculating control register addresses.

Channel	Control Register	Control Bit
0000	0	0
0001	0	4
0002	3	0
0003	3	4
0004	1	0
0005	1	4
0006	4	0
0007	4	4
0008	2	0
0009	2	4
0010	5	0
0011	5	4
0012	6	0
0013	6	4
0014	9	0
0015	9	4
0016	7	0
0017	7	4
0018	10	0
0019	10	4
0020	8	0
0021	8	4
0022	11	0
0023	11	4
0100	0	1
0101	0	5
0102	3	1
0103	3	5
0104	1	1
0105	1	5
0106	4	1
0107	4	5
0108	2	1
0109	2	5
0110	5	1
0111	5	5
0112	6	1
0113	6	5
0114	9	1
0115	9	5
0116	7	1
0117	7	5
0118	10	1

Channel	Control Register	Control Bit
0119	10	5
0120	8	1
0121	8	5
0122	11	1
0123	11	5
0200	0	2
0201	0	6
0202	3	2
0203	3	6
0204	1	2
0205	1	6
0206	4	2
0207	4	6
0208	2	2
0209	2	6
0210	5	2
0211	5	6
0212	6	2
0213	6	6
0214	9	2
0215	9	6
0216	7	2
0217	7	6
0218	10	2
0219	10	6
0220	8	2
0221	8	6
0222	11	2
0223	11	6
0300	0	3
0301	0	7
0302	3	3
0303	3	7
0304	1	3
0305	1	7
0306	4	3
0307	4	7
0308	2	3
0309	2	7
0310	5	3
0311	5	7
0312	6	3
0313	6	7
0314	9	3
0315	9	7
0316	7	3
0317	7	7
0318	10	3
0319	10	7
0320	8	3
0321	8	7
0322	11	3
0323	11	7

### Control Information for the 1260-40B

The following information describes the control-register-to-relay-channel mapping for a 1260-40B Relay Module. This information may be used to control a 1260-40B when using a 1260-01T in the register-based mode of operation.

Each relay on this module is controlled by setting or clearing a single bit within a Control Register. Control Registers on the module operate 8 channels simultaneously. There are eight control bits per Control Register. Setting the bit to a 1 closes the relay; setting the bit to a 0 opens the relay.

The table below shows the mapping from logical channels to control bits. The logical channels are used when operating the relay module in message-based mode. The control bits within the Control Registers are used to operate the module in register-based mode.

Each Control Register is located 2 addresses from the previous Control Register. That is, each Control Register is located at an odd address. This is shown in Table 2-2 of the 1260-01T manual. Control Register 0 is located at the "Base A24 Address" for the module. Consult the "Register-Based Operation" Section of Chapter 2 of the 1260-01T manual for a description of calculating control register addresses.

Channel	Control Register	Control Bit
0000	0	0
0001	0	4
0002	3	0
0003	3	4
0004	1	0
0005	1	4
0006	4	0
0007	4	4
0008	2	0
0009	2	4
0010	5	0
0011	5	4
0100	0	1
0101	0	5
0102	3	1
0103	3	5
0104	1	1
0105	1	5
0106	4	1
0107	4	5
0108	2	1
0109	2	5
0110	5	1
0111	5	5
0200	0	2
0201	0	6
0202	3	2
0203	3	2
0204	1	2
0205	1	6
0206	4	2
0207	4	6
0208	2	2
0209	2	6
0210	5	2
0211	5	6
0300	0	3
0301	0	7
0302	3	3
0303	3	7
0304	1	3
0305	1	7
0306	4	3



Channel	Control Register	Control Bit
0307	4	7
0308	2	3
0309	2	7
0310	5	3
0311	5	7
0400	6	0
0401	6	4
0402	9	0
0403	9	4
0404	7	0
0405	7	4
0406	10	0
0407	10	4
0408	8	0
0409	8	4
0410	11	0
0411	11	4
0500	6	1
0501	6	5
0502	9	1
0503	9	5
0504	7	1
0505	7	5
0506	10	1
0507	10	5
0508	8	1
0509	8	5
0510	11	1
0511	11	5
0600	6	2
0601	6	6
0602	9	2
0603	9	2
0604	7	2
0605	7	6
0606	10	2
0607	10	6
0608	8	2
0609	8	6
0610	11	2
0611	11	6
0700	6	3
0701	6	7
0702	9	3
0703	9	7
0704	7	3
0705	7	7
0706	10	3
0707	10	7
0708	8	3
0709	8	7
0710	11	3
0711	11	7

### Control Information for the 1260-40C

The following information describes the control-register-to-relay-channel mapping for a 1260-40C Relay Module. This information may be used to control a 1260-40C when using a 1260-01T in the register-based mode of operation.

Each relay on this module is controlled by setting or clearing a single bit within a Control Register. Control Registers on the module operate 8 channels simultaneously. There are eight control bits per Control Register. Setting the bit to a 1 closes the relay; setting the bit to a 0 opens the relay.

The table below shows the mapping from logical channels to control bits. The logical channels are used when operating the relay module in message-based mode. The control bits within the Control Registers are used to operate the module in register-based mode.

Each Control Register is located 2 addresses from the previous Control Register. That is, each Control Register is located at an odd address. This is shown in Table 2-2 of the 1260-01T manual. Control Register 0 is located at the "Base A24 Address" for the module. Consult the "Register-Based Operation" Section of Chapter 2 of the 1260-01T manual for a description of calculating control register addresses.

Channel	Control Register	Control Bit
0000	0	0
0001	0	4
0002	3	0
0003	3	4
0004	1	0
0005	1	4
0006	4	0
0007	4	4
0008	2	0
0009	2	4
0010	5	0
0011	5	4
0100	0	1
0101	0	5
0102	3	1
0103	3	5
0104	1	1
0105	1	5
0106	4	1
0107	4	5
0108	2	1
0109	2	5
0110	5	1
0111	5	5
0200	0	2
0201	0	6
0202	3	2
0203	3	2
0204	1	2
0205	1	6
0206	4	2
0207	4	6
0208	2	2
0209	2	6
0210	5	2
0211	5	6
0300	0	3
0301	0	7
0302	3	3
0303	3	7
0304	1	3
0305	1	7
0306	4	3

Channel	Control Register	Control Bit
0307	4	7
0308	2	3
0309	2	7
0310	5	3
0311	5	7
1000	6	0
1001	6	4
1002	9	0
1003	9	4
1004	7	0
1005	7	4
1006	10	0
1007	10	4
1008	8	0
1009	8	4
1010	11	0
1011	11	4
1100	6	1
1101	6	5
1102	9	1
1103	9	5
1104	7	1
1105	7	5
1106	10	1
1107	10	5
1108	8	1
1109	8	5
1110	11	1
1111	11	5
1200	6	2
1201	6	6
1202	9	2
1203	9	2
1204	7	2
1205	7	6
1206	10	2
1207	10	6
1208	8	2
1209	8	6
1210	11	2
1211	11	6
1300	6	3
1301	6	7
1302	9	3
1303	9	7
1304	7	3
1305	7	7
1306	10	3
1307	10	7
1308	8	3
1309	8	7
1310	11	3
1311	11	7

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# Chapter 1

## MODULE SPECIFICATION

---

### 1260-40 Signal Matrix Module

The 1260-40 Signal Matrix Module is a 4 x 24 matrix. It switches two lines per channel and has the capability of being configured as two 4 x 12 matrices or one 8 x 12 matrix. The configuration is determined at the time of ordering, and is set in the factory. An expansion port is provided to allow the 1260-40 to be used as part of a larger matrix.

#### Switch Configurations

1260-40A: One 4x24 two wire matrix

1260-40B: One 8x12 two wire matrix

1260-40C: Two 4x12 two wire matrix

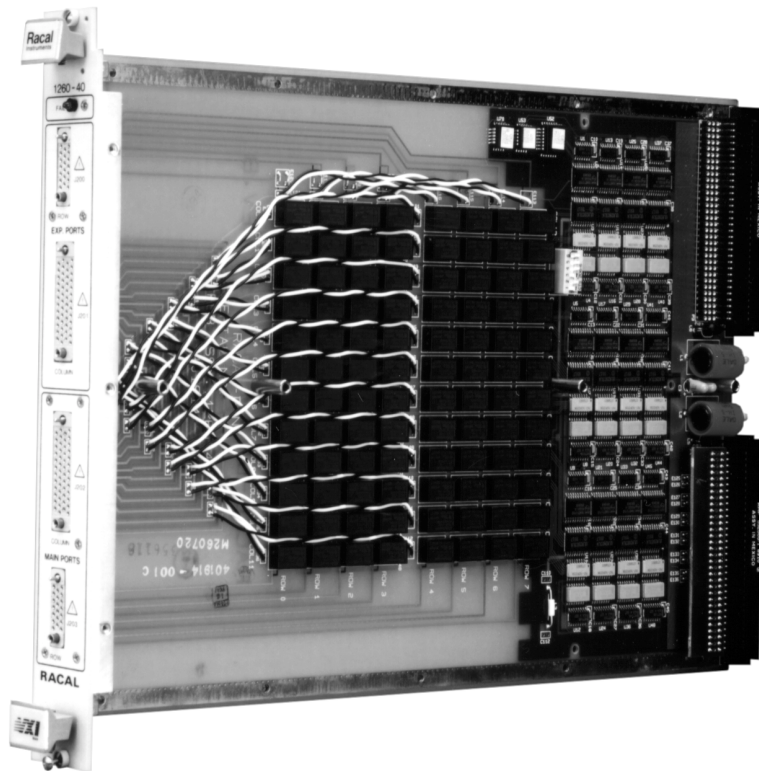
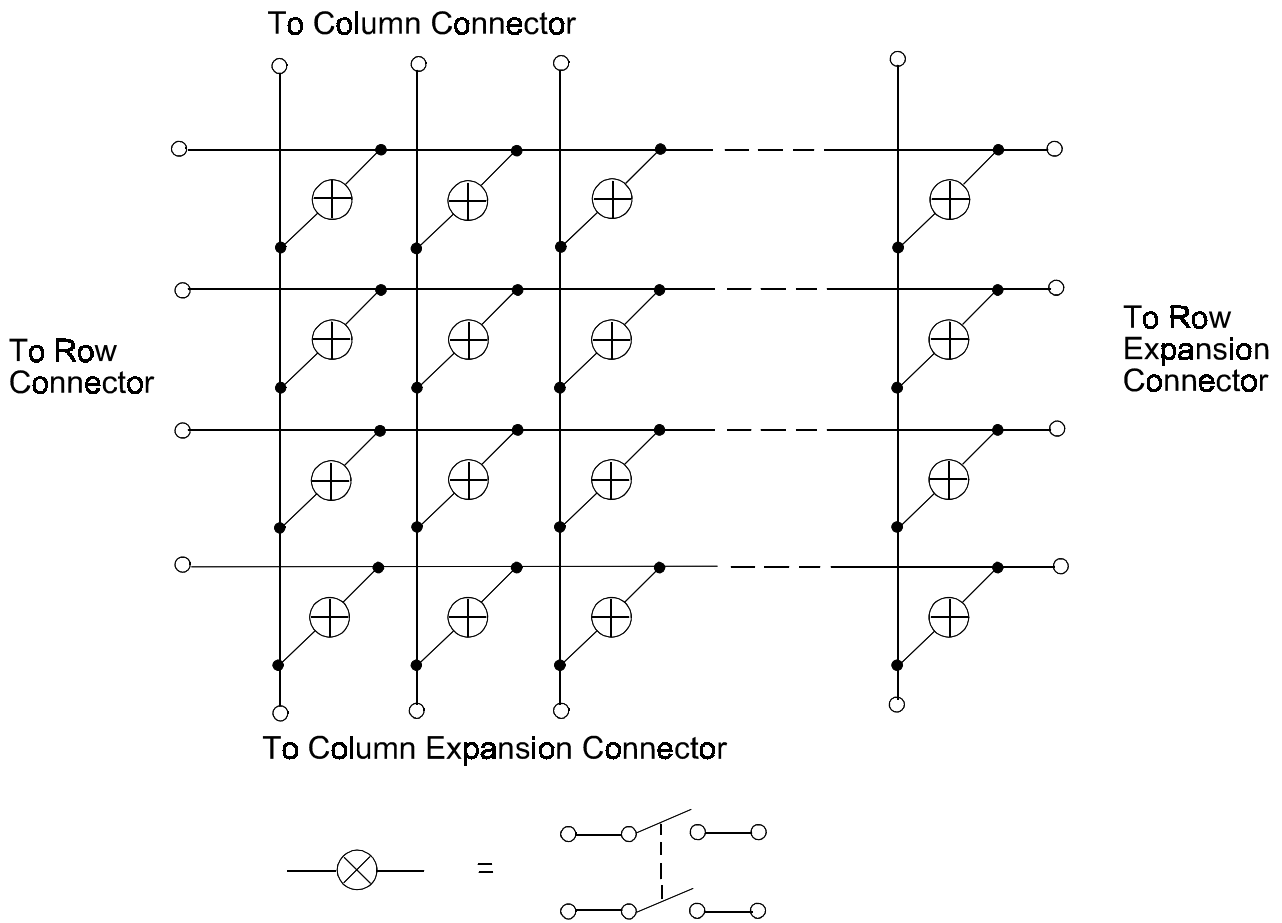


Figure 1-1, 1260-40





Model 1260-40 4X24 two-wire matrix configuration with provisions for expansion connector.

Figure 1-2, 1260-40 Functional Diagram.

## Specifications

User Connector	Quick Disconnect
Maximum Switchable Voltage (Terminal -Terminal or Terminal-Chassis)	250 VDC, 250 VAC RMS
Maximum Switchable Current Per Channel	1 ADC, 1A RMS
Maximum Switchable Power Per Channel	30 W DC, 62.5 VA AC
Path Resistance	<1 $\Omega$
Isolation Hi-Lo	>10 <sup>10</sup> $\Omega$
Capacitance Open Channel: Channel-Chassis: Hi-Lo:	<10 pF <70 pF <40 pF (typical)
Bandwidth, 50 $\Omega$ Termination	20 MHz (typical)
Insertion Loss, 50 $\Omega$ Termination	<.30 dB to 100 kHz <1dB to 1 MHz <3.00 dB to 20 MHz
Crosstalk, 50 $\Omega$ Termination	<-70 dB to 100 kHz <-50 dB to 1 MHz <-20 dB to 10 MHz
Switching Time	2 mS
Minimum Option 01 Firmware Revision	17.1
Cooling Requirements Airflow Backpressure	4 litres / sec 0.5 mm H <sub>2</sub> O
Power Requirements (I <sub>Pm</sub> ) +5 V +24 V	0.4A (2.8A Option 01 installed) 10 mA per energized relay
Weight	1.17Kg (2.59 lbs) 1.30 Kg (2.87 lbs) with Option 01

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## Chapter 2

# INSTALLATION INSTRUCTIONS

---

### Unpacking and Inspection

1. Before unpacking the switching module, check the exterior of the shipping carton for any signs of damage. All irregularities should be noted on the shipping bill.
2. Remove the instrument from its carton, preserving the factory packaging as much as possible.
3. Inspect the switching module for any defect or damage. Immediately notify the carrier if any damage is apparent.
4. Have a qualified person check the instrument for safety before use.

### Reshipment Instructions

1. Use the original packing when returning the switching module to Racal Instruments for calibration or servicing. The original shipping carton and the instrument's plastic foam will provide the necessary support for safe reshipment.
2. If the original packing is unavailable, wrap the switching module in plastic sheeting and use plastic spray foam to surround and protect the instrument.
3. Reship in either the original or a new shipping carton.

### Option 01 Installation

Installation of the Option 01 into the *126040* is described in the Installation section of the 1260 Series VXI Switching Cards Manual.

### Module Installation

Installation of the 1260-40 Switching Module into a VXI mainframe, including the setting of DIP switches, is described in the Installation section of the 1260 Series VXI Switching Cards Manual.

## 1260-40 ID Byte

Each configuration of the 126040 will respond to different sets of values for <group number>, <row number> and <column number>. The set of values the 126040 will respond to is controlled by switches 5 and 6 on DIP switch S1 on the 1260-40 PCB. The switch settings that correspond to the three configurations are as follows:

Model Configuration		S1 Switches	
		5	6
1260-40A	One 4 X 24	Off	Off
1260-40B	One 8 X 12	On	Off
1260-40C	One 4 X 12	Off	On
Reserved for future use		On	On

## MODULE SPECIFIC SYNTAX

---

### 1260-40 Module Specific Syntax

The Module Specific Syntax for the 1260-40 is required in the use of the OPEN and CLOSE commands. It will also appear in data output by the Master in response to the PDATAOUT and PSETUP commands.

---

### Syntax

The Module Specific Syntax for the 126040 4 x 24 Signal Matrix module is as follows:

<module address>.<group number><rownumber><columnnumber>

where <module address> is the address.

---

**NOTE:**

**The <module address> used here is not the VXibus defined logical address of the 1260 Series Master. It is peculiar to the 1260 Series and describes the switching module in relation to the Master. This address corresponds to the binary value of the switch setting of SW1 on the switching module PCB.**

---

<group number> is a reference to the matrix containing the relay to be switched. It is value 0 for the 126040A and 126040B, and value 0 or 1 for the 1260-40C. The 1260-40A and 1260-40B contain only one matrix and <group number> may be omitted if desired.

<rownumber> is the matrix row to be connected to column <columnnumber>, value 0 - 3 or 0-7 depending on the configuration set.

<columnnumber> is the matrix column to be connected to row <rownumber>, value 0 - 12 or 0-23, depending on the

configuration set.

Refer to Figures 3-1, 3-2 and 3-3 for the group numbers, row numbers, column numbers and connector pins to be used in the various configurations of the 124040. Note that Figure 3-3 shows the <group number> and <row number> together.

If more than one connection is to be made or broken with contiguous rows or columns, the following format is supported:

<module address>. <rownumber> <columnnumber>-<row number><columnnumber>

Example:      OPEN 3.0101-0304

This OPEN statement has the same effect as a series of open commands to open all of the connections between Rows 1 through 3, and Columns 1 through 4.

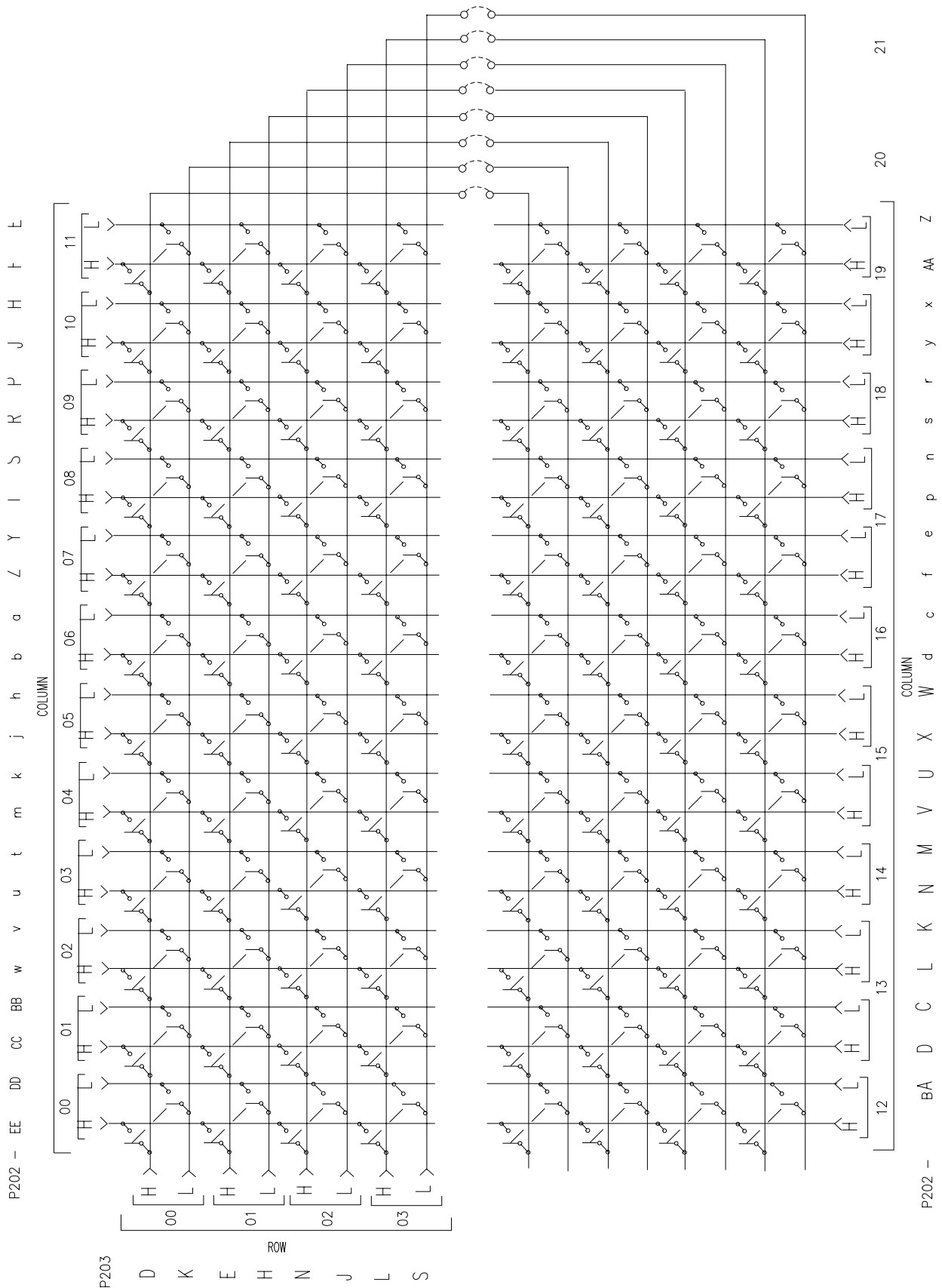


Figure 3-1, 1260-40A Configuration





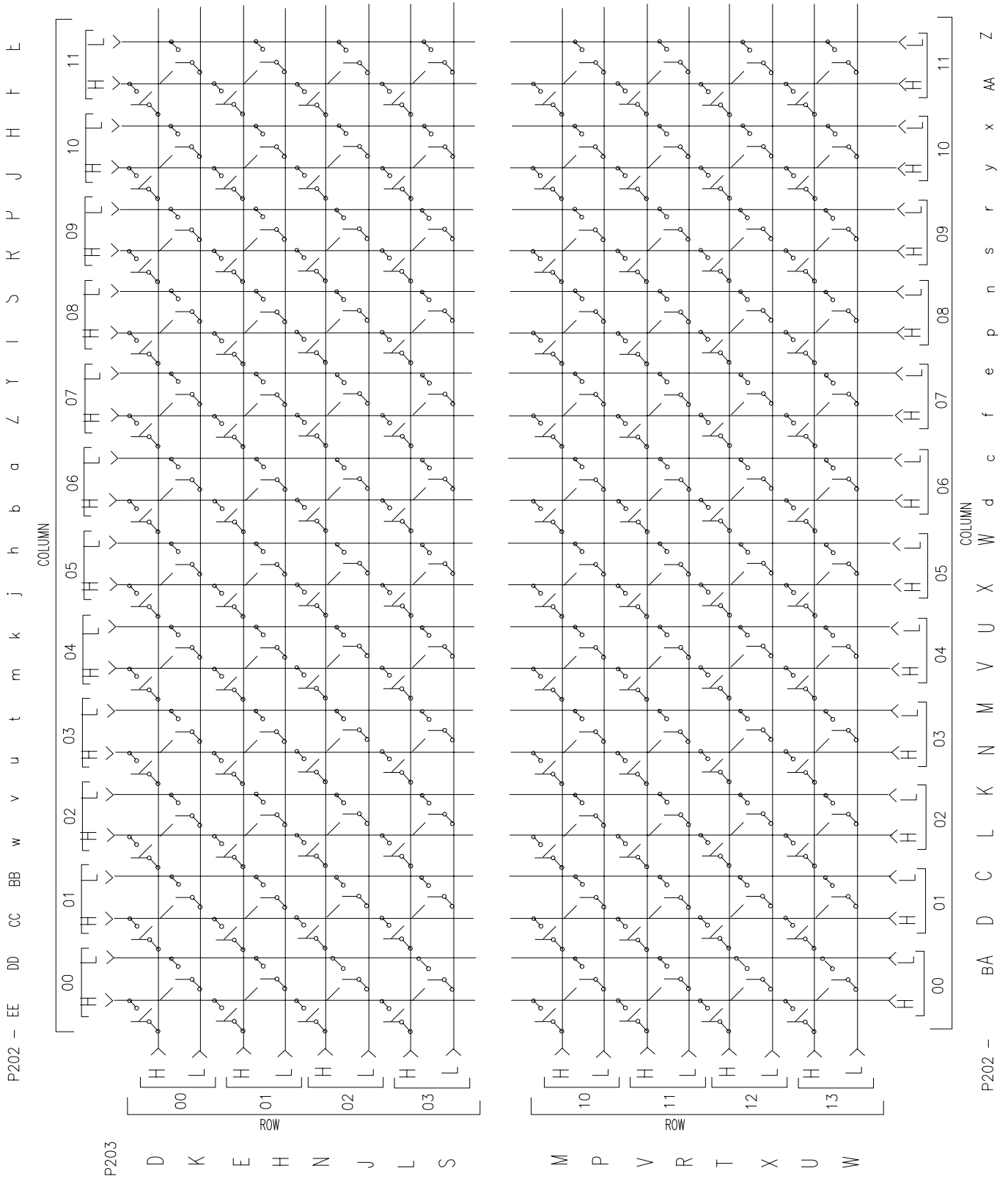


Figure 3-3, 1260-40C Configuration

### 1260-40 Connector Pin Configuration

Refer to Figures 3-4 and 3-5 for the pin configurations of P200, P201, P202, and P203 on the 1260-40.

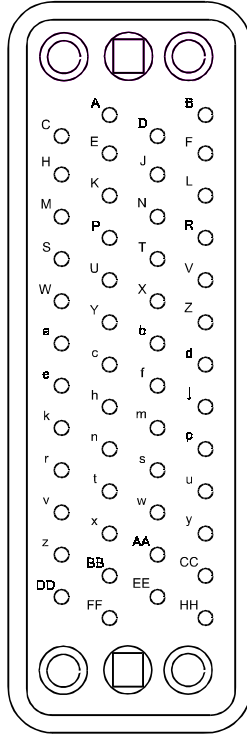


Figure 3-4, 1260-40 P201 and P202 Pin Configuration

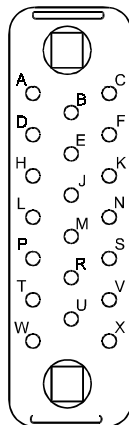
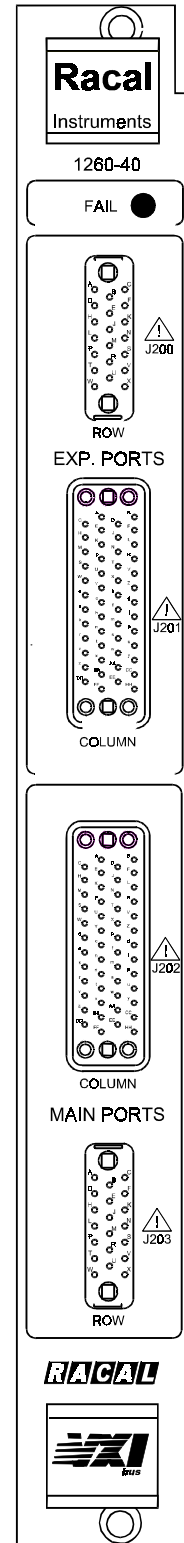


Figure 3-5, 1260-40 P200 and P203 Pin Configuration



## 1260-40 Expansion Port

The 1260-40 matrix row and column connections on P203 and P202 are in parallel with expansion ports P200 and P201 to allow the 1260-40 to be used in the configuration of matrices larger than those that may be configured by the 1260-40 alone. The pin-to-pin correspondence of the matrix rows and columns connections to the expansion ports is as follows:

<b>Matrix Rows (0-7)</b>	<b>Main Port</b>	<b>Expansion Port</b>
Row 0 Hi	P 203-D	P 200-R
Row 0 Lo	P 203-K	P 200-V
Row 1 Hi	P 203-E	P 200-P
Row 1 Lo	P 203-H	P 200-M
Row 2 Hi	P 203-N	P 200-S
Row 2 Lo	P 203-J	P 200-L
Row 3 Hi	P 203-L	P 200-J
Row 3 Lo	P 203-S	P 200-N
Row 4 Hi	P 203-M	P 200-H
Row 4 Lo	P 203-P	P 200-E
Row 5 Hi	P 203-V	P 200-K
Row 5 Lo	P 203-R	P 200-D
Row 6 Hi	P 203-T	P 200-B
Row 6 Lo	P 203-X	P 200-F
Row 7 Hi	P 203-U	P 200-A
Row 7 Lo	P 203-W	P 200-C

<b>Matrix Columns (0 - 23)</b>	<b>Main Port</b>	<b>Expansion Port</b>
Column 0 Hi	P 202-EE	P 201-C
Column 0 Lo	P 202-DD	P 201-D
Column 1 Hi	P 202-CC	P 201-E
Column 1 Lo	P 202-BB	P 201-F
Column 2 Hi	P 202-w	P 201-M
Column 2 Lo	P 202-v	P 201-N
Column 3 Hi	P 202-u	P 201-P
Column 3 Lo	P 202-t	P 201-R
Column 4 Hi	P 202-m	P 201-W
Column 4 Lo	P 202-k	P 201-X
Column 5 Hi	P 202-j	P 201-Y
Column 5 Lo	P 202-h	P 201-Z
Column 6 Hi	P 202-b	P 201-e
Column 6 Lo	P 202-a	P 201-f
Column 7 Hi	P 202-Z	P 201-h
Column 7 Lo	P 202-Y	P 201-j
Column 8 Hi	P 202-T	P 201-r
Column 8 Lo	P 202-S	P 201-s
Column 9 Hi	P 202-R	P 201-t
Column 9 Lo	P 202-P	P 201-u
Column 10 Hi	P 202-J	P 201-z
Column 10 Lo	P 202-H	P 201-AA
Column 11 Hi	P 202-F	P 201-BB
Column 11 Lo	P 202-E	P 201-CC
Column 12 Hi	P 202-B	P 201-FF
Column 12 Lo	P 202-A	P 201-HH

<b>Matrix Columns (0-23)</b>	<b>Main Port</b>	<b>Expansion Port</b>
Column 13Hi	P 202-D	P 201-DD
Column 13 Lo	P 202-C	P 201-EE
Column 14 Hi	P 202-L	P 201-x
Column 14 Lo	P 202-K	P 201-y
Column 15 Hi	P 202-N	P 201-v
Column 15 Lo	P 202-M	P 201-w
Column 16 Hi	P 202-V	P 201-n
Column 16 Lo	P 202-U	P 201-p
Column 17 Hi	P 202-X	P 201-k
Column 17 Lo	P 202-W	P 201-m
Column 18 Hi	P 202-d	P 201-c
Column 18 Lo	P 202-c	P 201-d
Column 19 Hi	P 202-f	P 201-a
Column 19 Lo	P 202-e	P 201-b
Column 20 Hi	P 202-p	P 201-U
Column 20 Lo	P 202-n	P 201-V
Column 21 Hi	P 202-s	P 201-S
Column 21 Lo	P 202-r	P 201-T
Column 22 Hi	P 202-y	P 201-K
Column 22 Lo	P 202-x	P 201-L
Column 23 Hi	P 202-AA	P 201-H
Column 23 Lo	P 202-z	P 201-J

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# Chapter 4

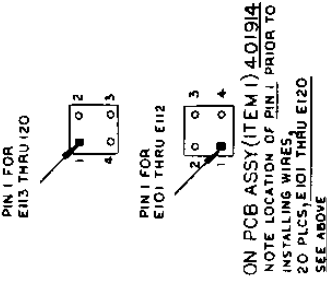
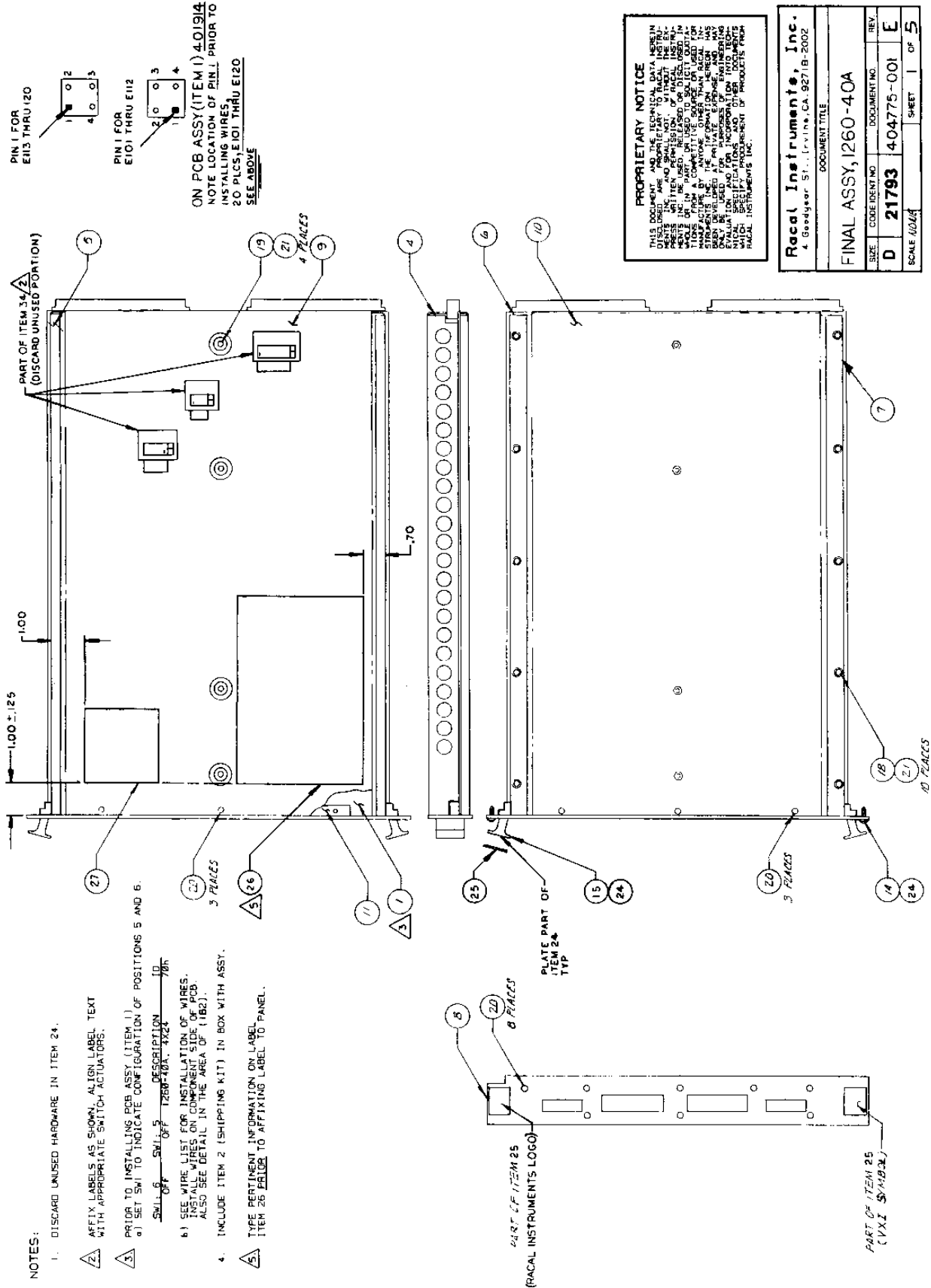
## DRAWINGS

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404775-001, Final Assembly, 1260-40A.....	4-3
404775-002, Final Assembly, 1260-40B.....	4-4
404775-003, Final Assembly, 1260-40C.....	4-5
401914, PCB Assembly, 1260-40.....	4-6
431914, Schematic, 1260-40.....	4-8



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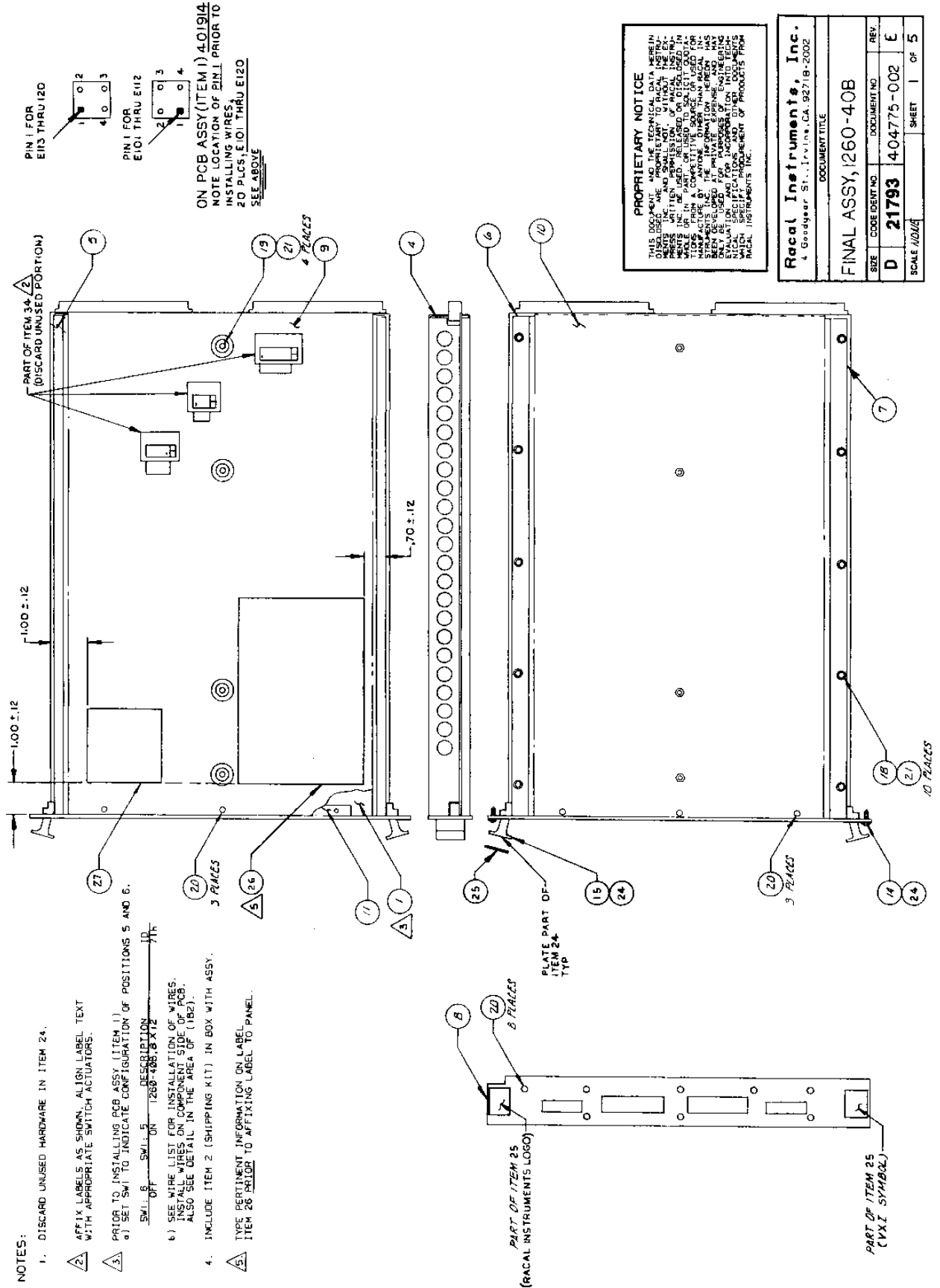
ON PCB ASSY (ITEM 1) 401914  
NOTE LOCATION OF PIN 1 PRIOR TO  
INSTALLING WIRES.  
20 PLCS. E101 THRU E120  
SEE ABOVE

- NOTES:
- DISCARD UNUSED HARDWARE IN ITEM 24.
  - AFFIX LABELS AS SHOWN. ALIGN LABEL TEXT WITH APPROPRIATE SWITCH ACTUATORS.
  - PRIOR TO INSTALLING PCB ASSY (ITEM 1)
    - SET SW1 TO INDICATE CONFIGURATION OF POSITIONS 5 AND 6.

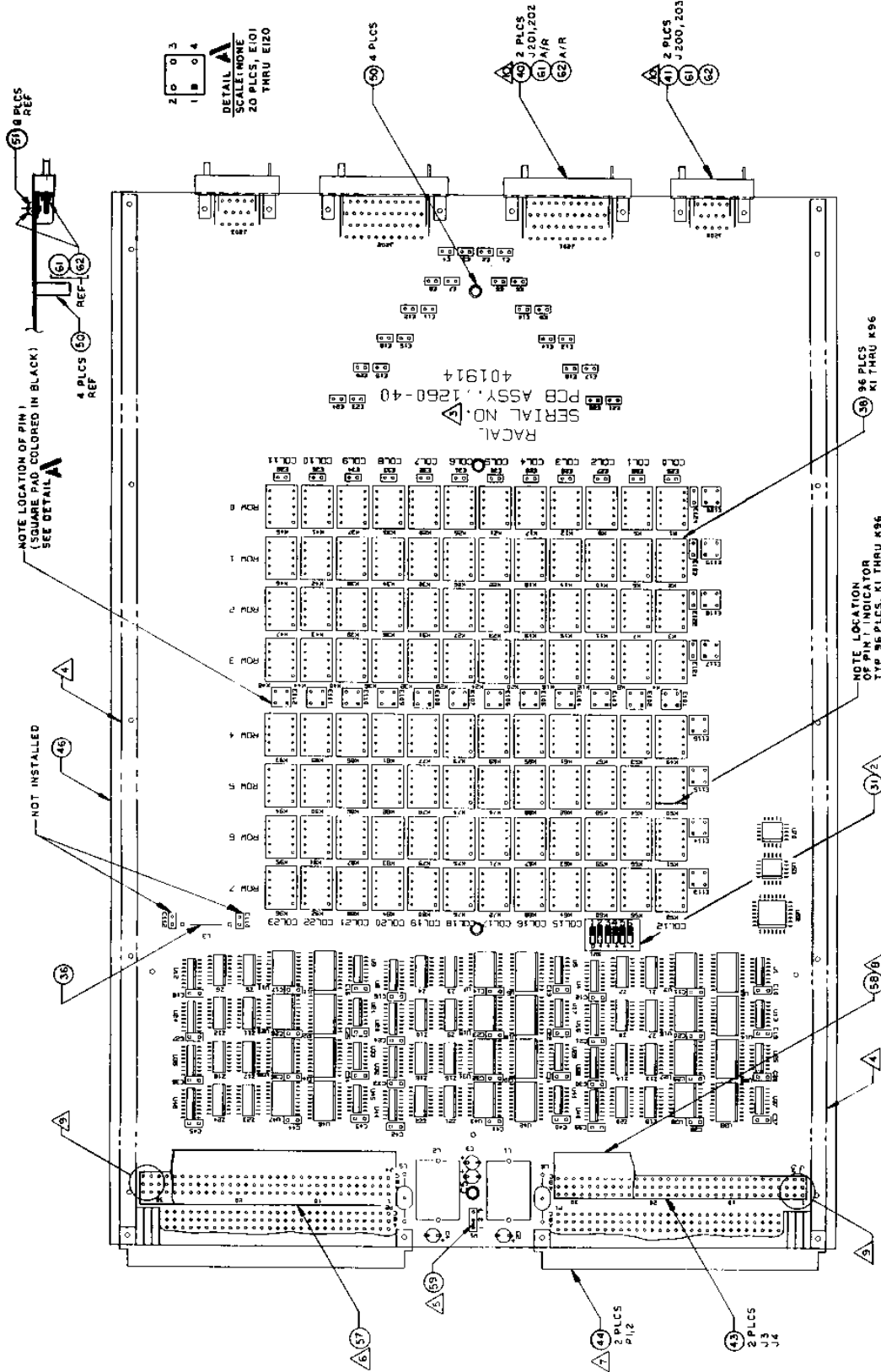
SW1 OFF	SW1 ON	DESCRIPTION
1260-10A	1322	10
  - SEE WIRE LIST FOR INSTALLATION OF WIRES. ALSO SEE DETAIL IN THE AREA OF (182).
  - INCLUDE ITEM 2 (SHIPPING KIT) IN BOX WITH ASSY.
  - TYPE PERTINENT INFORMATION ON LABEL ITEM 25 PRIOR TO AFFIXING LABEL TO PANEL.

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<b>Racal Instruments, Inc.</b>	
4 Goodyear St., Irvine, CA 92718-2002	
DOCUMENT TITLE	
FINAL ASSY, 1260-40A	
SIZE	DOCUMENT NO.
D	404775-001
SCALE 1/16"	SHEET 1 OF 5



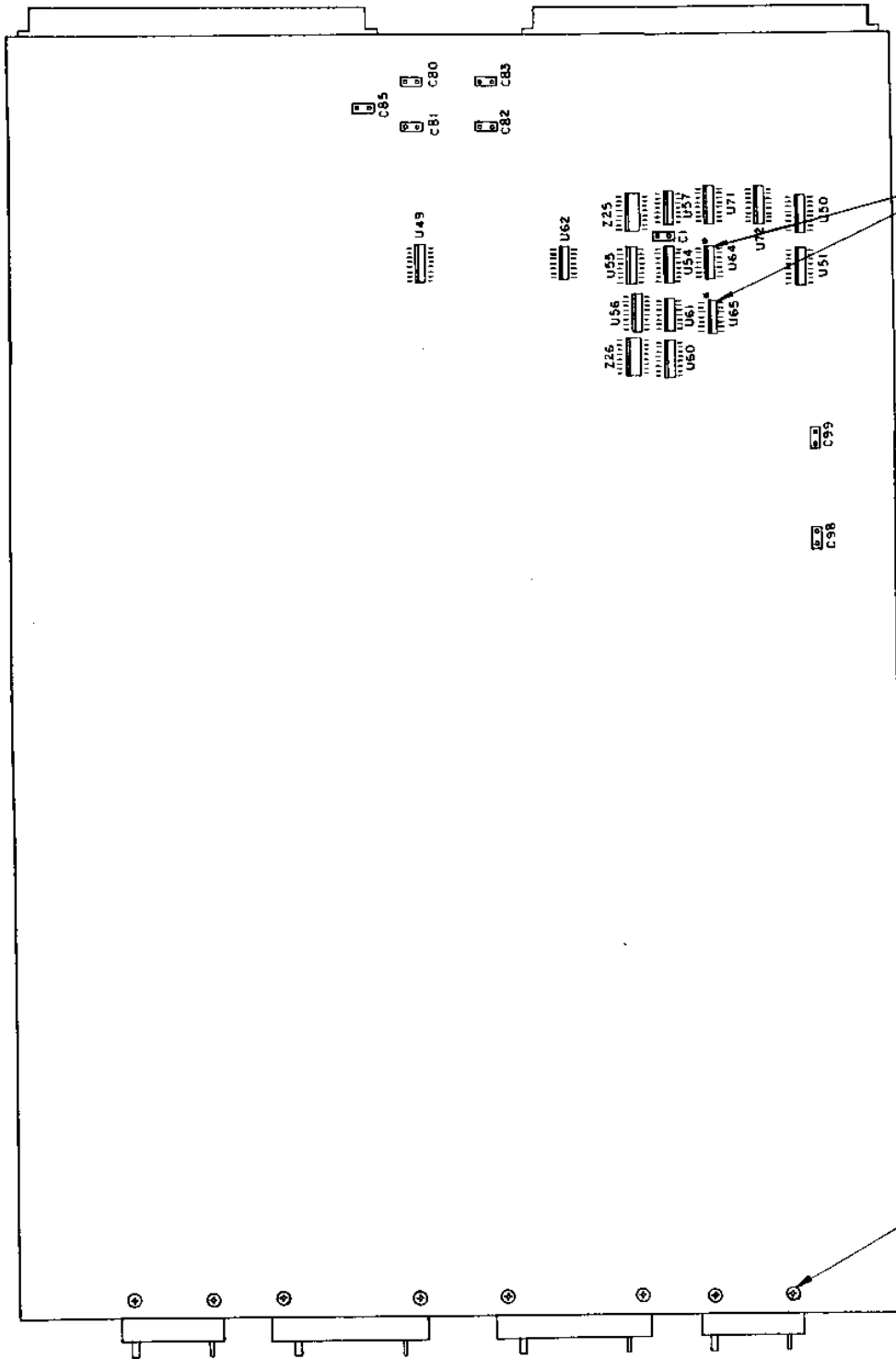




<b>Racal Instruments, Inc.</b> 4 Goodyear St., Irvine, CA 92718-2002 DOCUMENT TITLE	
PCB ASSY, 1260-40	REV.
D	L
21793 1401914	SHEET 1 OF 6

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- ▲ INSTALL (ITEM 57) PCB, INTO (ITEM 43) J 4.
  - ▲ INSTALL ITEM 58 BETWEEN W1-1 AND W1-2.
  - ▲ AREAS INDICATED TO BE FLAT AND FREE FROM SOLDER.
  - ▲ INK STAMP SERIAL NUMBER APPROX. WHERE SHOWN, COMPONENT SIDE
  - ▲ SET SWI TO LOGICAL ADDRESS Y PER TABLE 1.
  - ▲ REFERENCE SCHEMATIC 43191A.
- NOTES: UNLESS OTHERWISE SPECIFIED
- ▲ SOLDER TAILS ON CIRCUITSIDE OF PCB FOR P1 AND P2 (ITEM 44) TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.
  - ▲ INSTALL (ITEM 58) PCB INTO (ITEM 43) J3.
  - ▲ SOLDER TAILS ON CIRCUIT SIDE OF PCB FOR J3 AND J4 (ITEM 43) 3 ROWS (9 PINS) NEAREST EDGE OF PCB BOARD TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.
  - ▲ SOLDER TAILS ON CIRCUITSIDE OF PCB FOR J200, Z03 (ITEM 41) & J201, Z02 (ITEM 60) 2 ROWS NEAREST EDGE OF PCB BOARD TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.



NOT INSTALLED  
SEE DETAIL **B3**

CIRCUIT SIDE

5) 8 PLCS

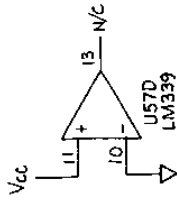
6 PLCS (60)  
USE A/R

DETAIL **B3**  
SCALE: NONE  
IN US4 + US5 LOCATION  
\* NOTE IC ORIENTATION

SIZE	CODE IDENT NO	DOCUMENT NO.	REV.
D	21793	401914	L
SCALE	SHEET 2 OF 6		

U71, 72	74HCT253	16	8
U70	231152 (16L80)	20	10
U57	LM339	3	12
U56	74HCT185	16	8
U54, 55	74LS138	16	8
U53	231153 (16R4)	20	10
U52	231154 (22V1DH)	28	14
U51	26LS91	16	8
U49, 50	26LS32	15	8
U4, 8, 12, 16, 20, 24, U28, 32, 36, 40, 44, 48, 60	74HCT166	15	8
U3, 7, 11, 15, 19, 23, U27, 31, 35, 39, 43, 47	2803	14C	9
U2, 6, 10, 14, 18, 22, U26, 30, 34, 38, 42, 46	74HCT273	20	10
U1, 5, 9, 13, 17, 21, 25, U29, 33, 37, 41, 45, 51, 52	74HCT164	14	7
REF. DES.	IC TYPE	+5V PIN NO.	GND PIN NO.

Z26	
W1	
U72	
5M1	
J203	
L6	
K96	
E136	
C112	
HIGHEST REF. DES.	



5. FOR 1260-40A AND 1260-40C JUMPERS ARE NOT INSTALLED IN E101 THRU E112.

4. C110 AND C112 ARE NOT INSTALLED.

- 3. RELAYS K1 THRU K96 ARE RACAL P/N 310197. ALL RELAYS SHOWN IN DE-ENERGIZED POSITION.
- 2. RESISTOR NETWORKS ARE IN OHMS.
- 1. CAPACITOR VALUES ARE IN MICROFARADS, 50V, +/-20% UNLESS OTHERWISE SPECIFIED.

NOTES: UNLESS OTHERWISE SPECIFIED

431914	SCHEM., 1260-40A
431914	SCHEM., 1260-40B
431914	SCHEM., 1260-40C
RACAL P/N	TITLE

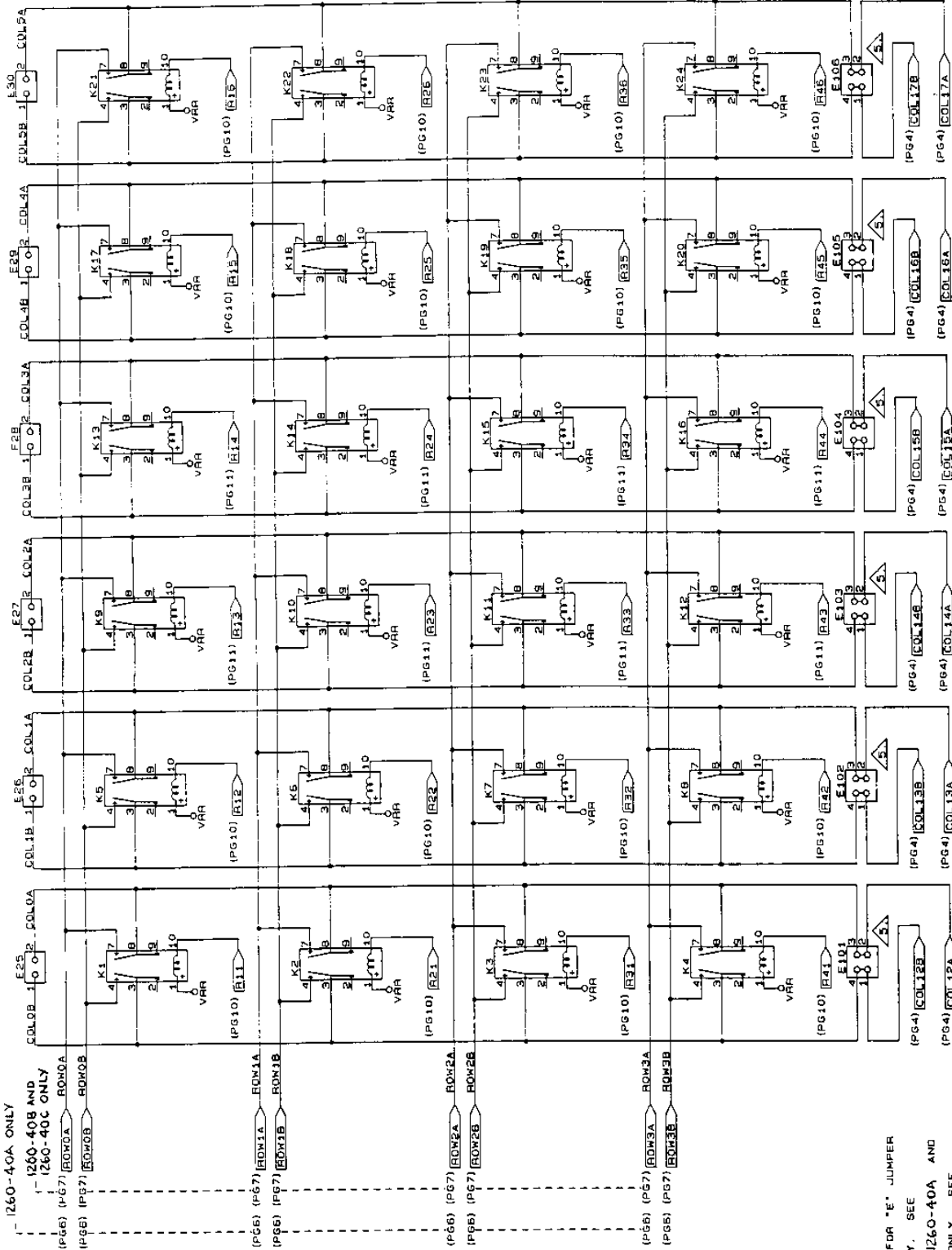
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DOCUMENT TITLE  
**SCHEM., 1260-40**

SIZE	CODE IDENT NO	DOCUMENT NO.	REV
<b>B</b>	<b>21793</b>	<b>431914</b>	<b>D</b>

SCALE \_\_\_\_\_ SHEET **1** OF **19**



1260-40A ONLY

1260-40B AND 1260-40C ONLY

(P66) (P67) ROM0A

(P66) (P67) ROM0B

(P66) (P67) ROM1A

(P66) (P67) ROM1B

(P66) (P67) ROM2A

(P66) (P67) ROM2B

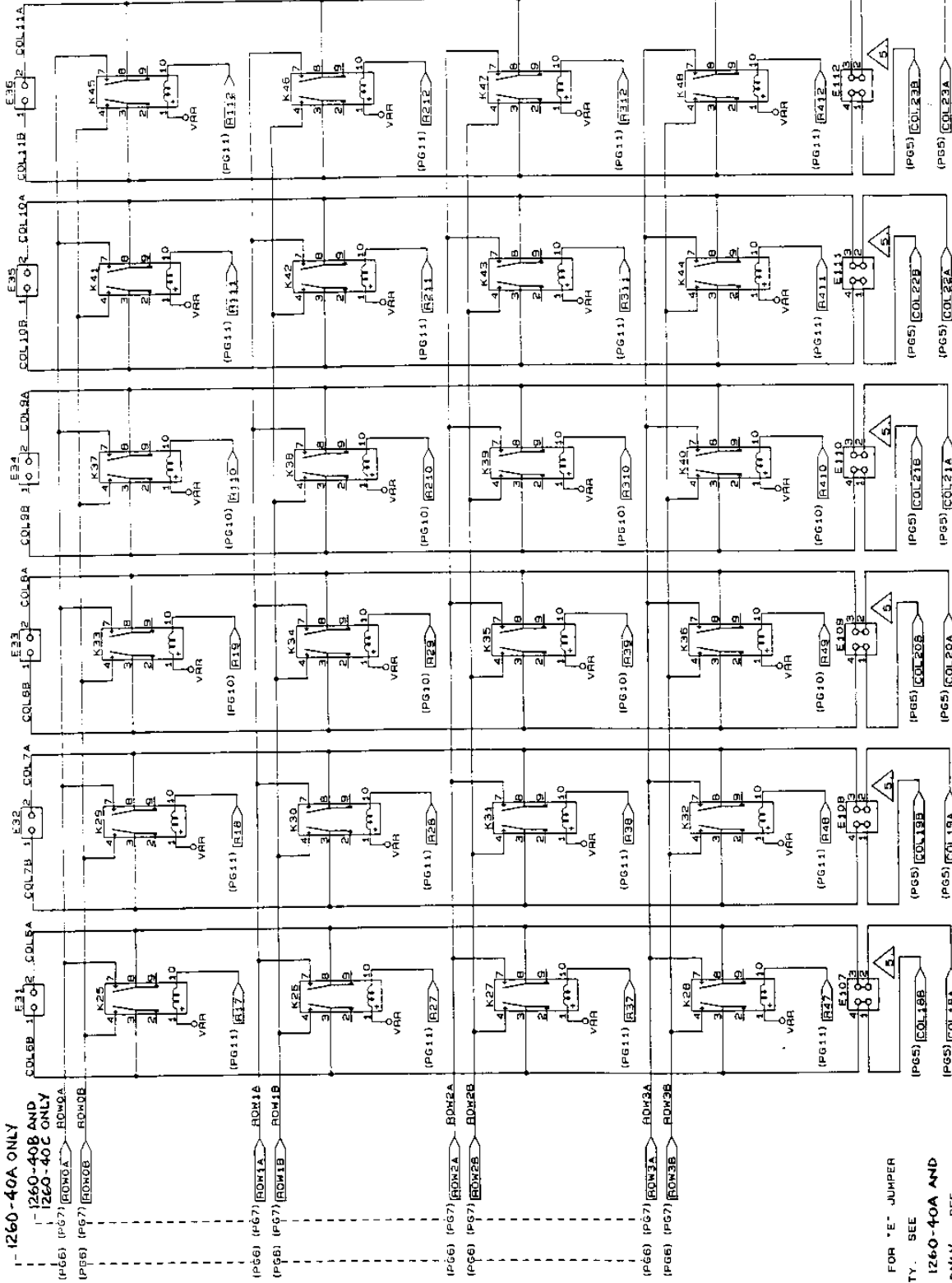
(P66) (P67) ROM3A

(P66) (P67) ROM3B

NOTE: FOR "E" JUMPER CONNECTIVITY, SEE PAGE B FOR 1260-40A AND 1260-40C ONLY. SEE PAGE 9 FOR 1260-40B ONLY.

SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE	SHEET 2 OF 19		





1260-40A ONLY

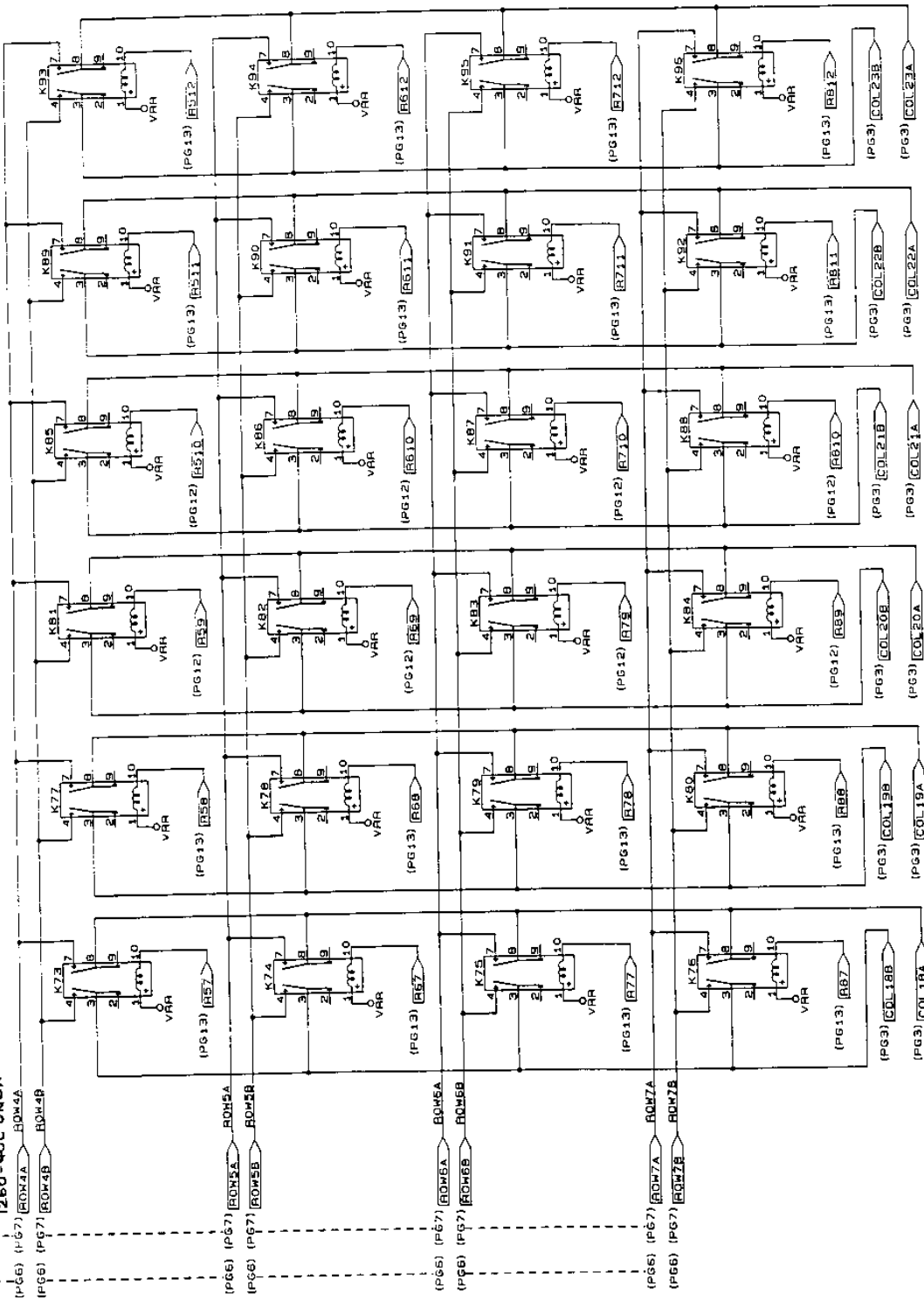
(PG66) ROM25  
(PG67) ROM26  
(PG68) ROM27  
(PG69) ROM28  
(PG70) ROM29  
(PG71) ROM30  
(PG72) ROM31  
(PG73) ROM32  
(PG74) ROM33  
(PG75) ROM34  
(PG76) ROM35  
(PG77) ROM36  
(PG78) ROM37  
(PG79) ROM38  
(PG80) ROM39  
(PG81) ROM40  
(PG82) ROM41  
(PG83) ROM42  
(PG84) ROM43  
(PG85) ROM44  
(PG86) ROM45  
(PG87) ROM46  
(PG88) ROM47  
(PG89) ROM48  
(PG90) ROM49  
(PG91) ROM50  
(PG92) ROM51  
(PG93) ROM52  
(PG94) ROM53  
(PG95) ROM54  
(PG96) ROM55  
(PG97) ROM56  
(PG98) ROM57  
(PG99) ROM58  
(PG100) ROM59  
(PG101) ROM60  
(PG102) ROM61  
(PG103) ROM62  
(PG104) ROM63  
(PG105) ROM64  
(PG106) ROM65  
(PG107) ROM66  
(PG108) ROM67  
(PG109) ROM68  
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(PG114) ROM73  
(PG115) ROM74  
(PG116) ROM75  
(PG117) ROM76  
(PG118) ROM77  
(PG119) ROM78  
(PG120) ROM79  
(PG121) ROM80  
(PG122) ROM81  
(PG123) ROM82  
(PG124) ROM83  
(PG125) ROM84  
(PG126) ROM85  
(PG127) ROM86  
(PG128) ROM87  
(PG129) ROM88  
(PG130) ROM89  
(PG131) ROM90  
(PG132) ROM91  
(PG133) ROM92  
(PG134) ROM93  
(PG135) ROM94  
(PG136) ROM95  
(PG137) ROM96  
(PG138) ROM97  
(PG139) ROM98  
(PG140) ROM99  
(PG141) ROM100

NOTE: FOR "E" JUMPER  
CONNECTIVITY. SEE  
PAGE 8 FOR 1260-40A AND  
1260-40C ONLY. SEE  
PAGE 9 FOR 1260-40B ONLY.

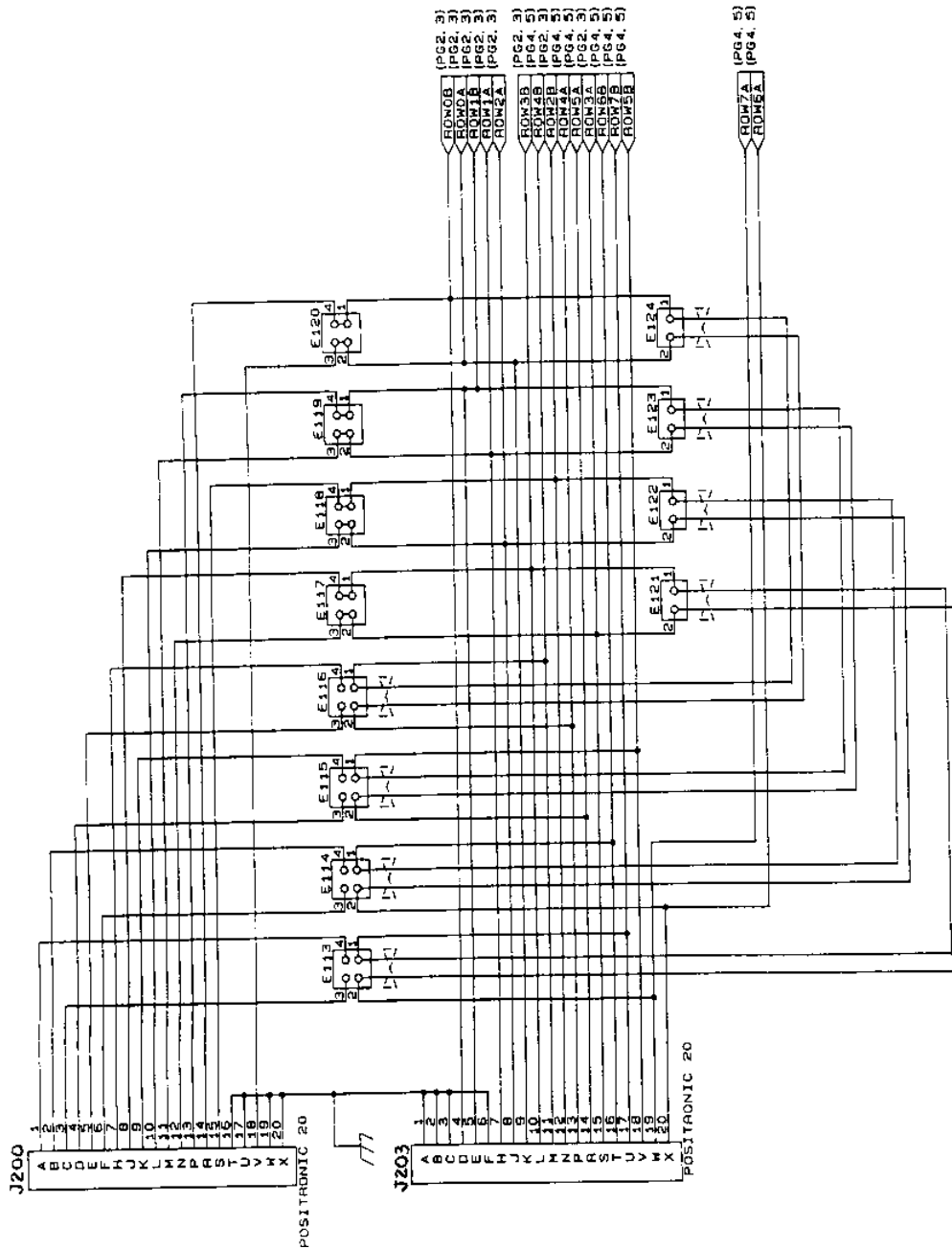
SIZE	CODE IDENT NO.	DOCUMENT NO	REV.
B	21793	431914	D
SCALE	SHEET 3 OF 19		



1260-40A ONLY  
 1260-40B AND  
 1260-40C ONLY

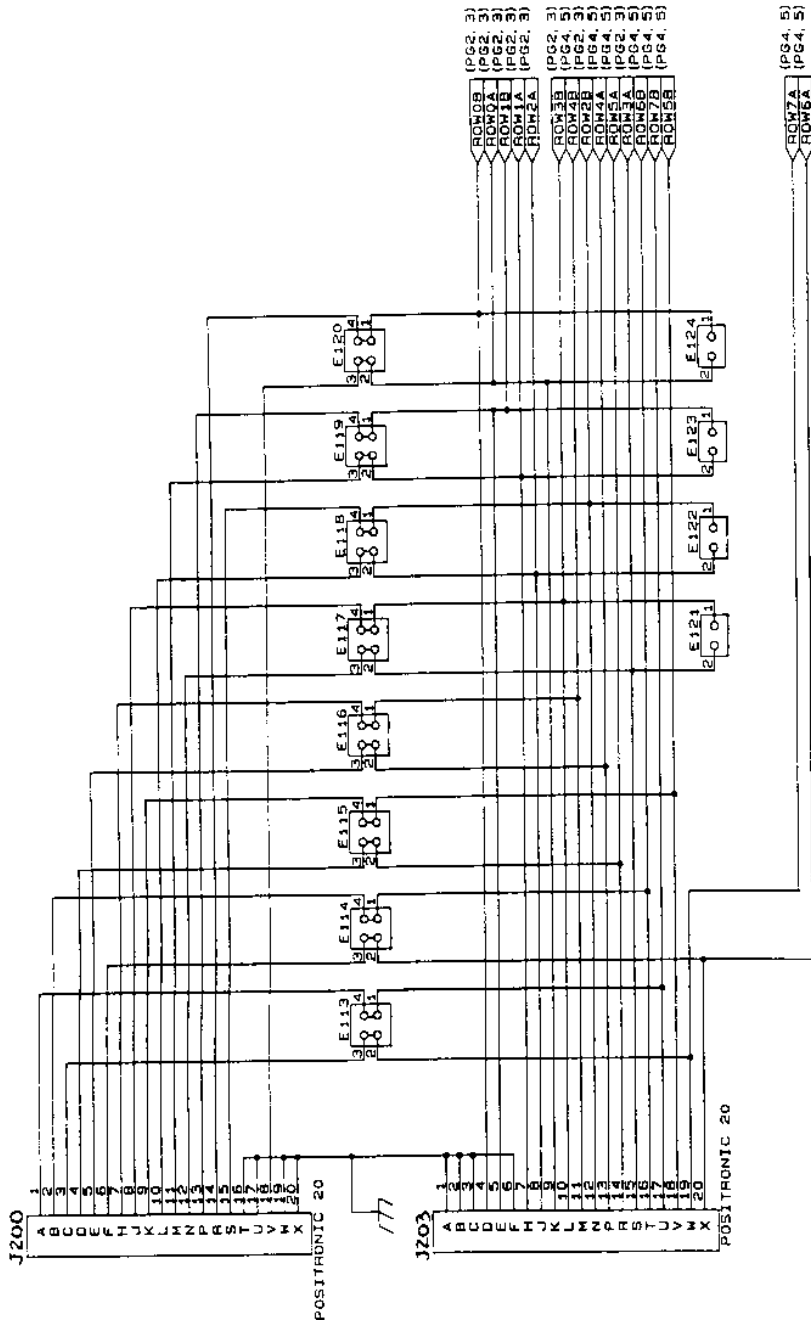


SIZE	CODE IDENT NO.	DOCUMENT NO.	REV
B	21793	431914	D
SCALE		SHEET 5	OF 19



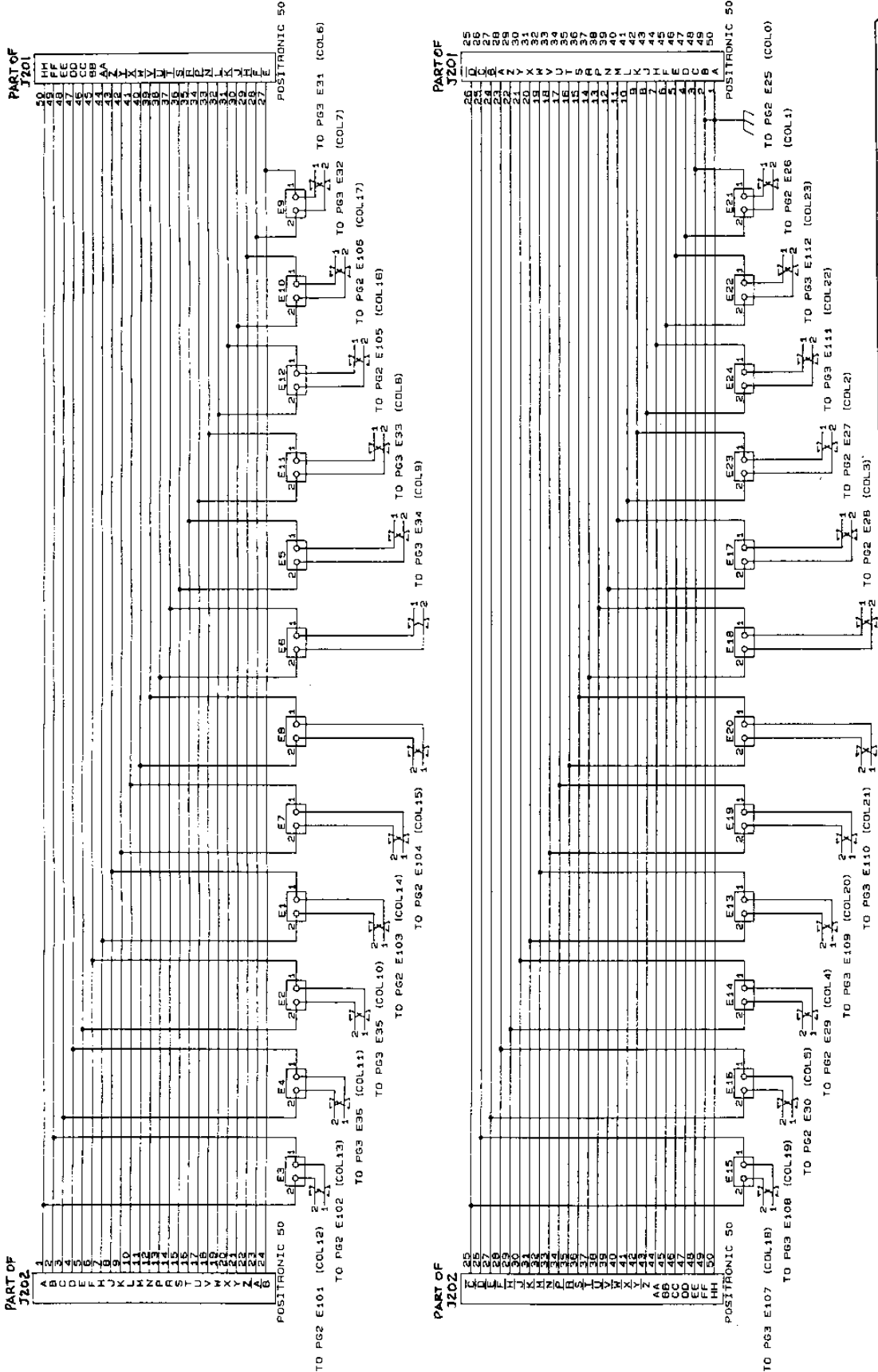
1260-40A ONLY

SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE		SHEET 6	OF 19



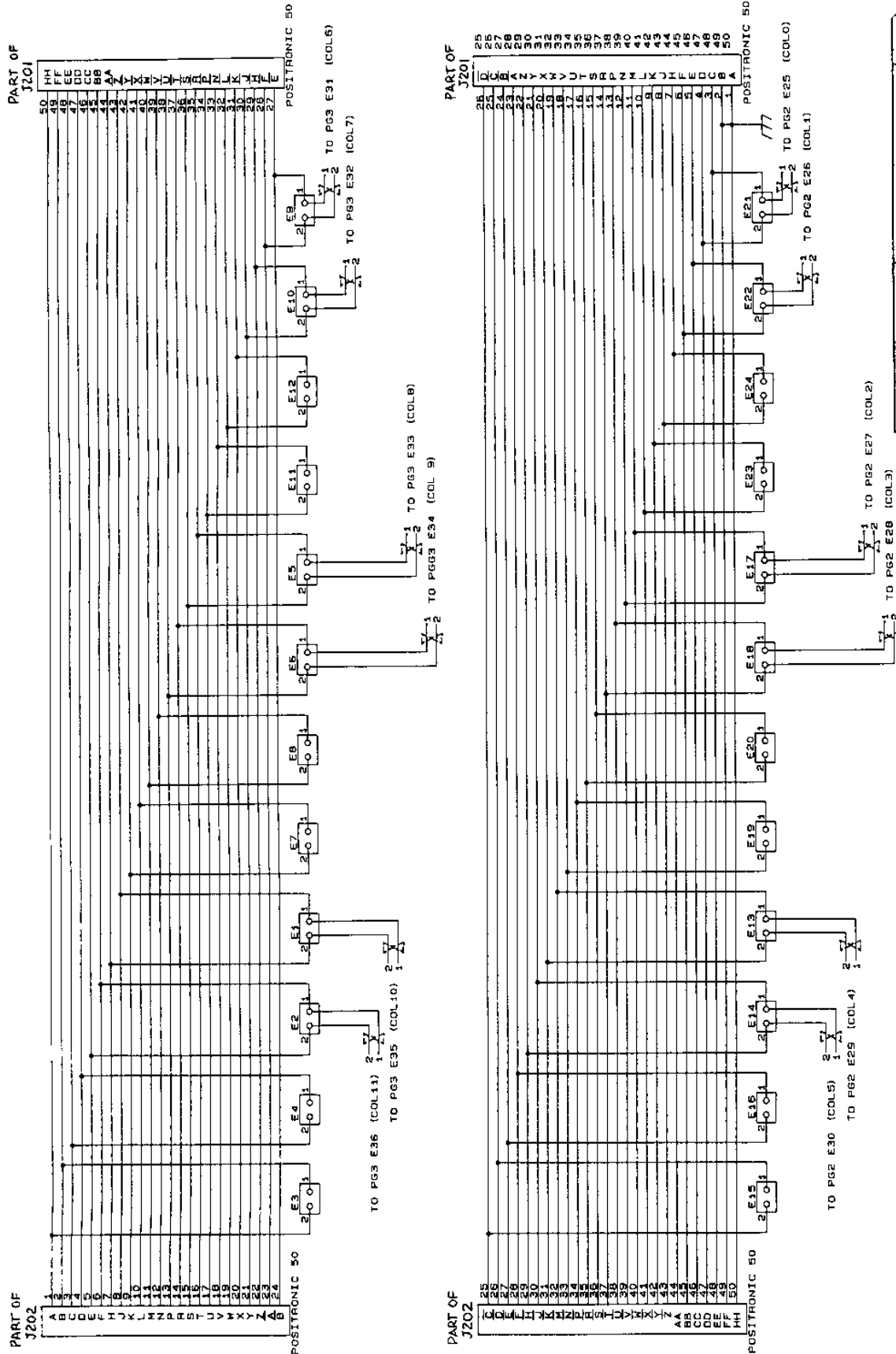
1260-40B AND 1260-40C ONLY

SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE		SHEET 7	OF 19



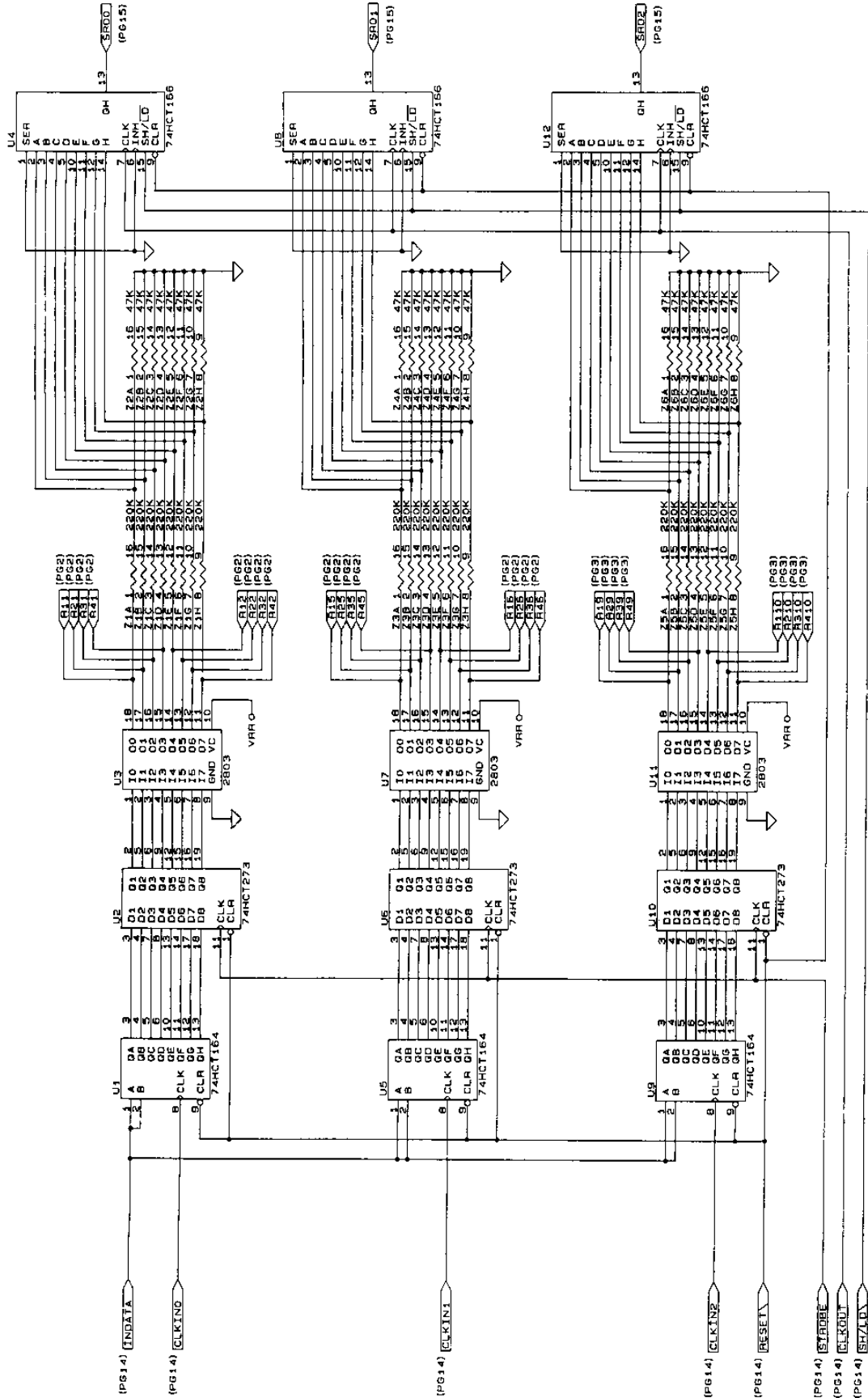
SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE		SHEET 8	OF 19

1260-40A AND 1260-40C ONLY



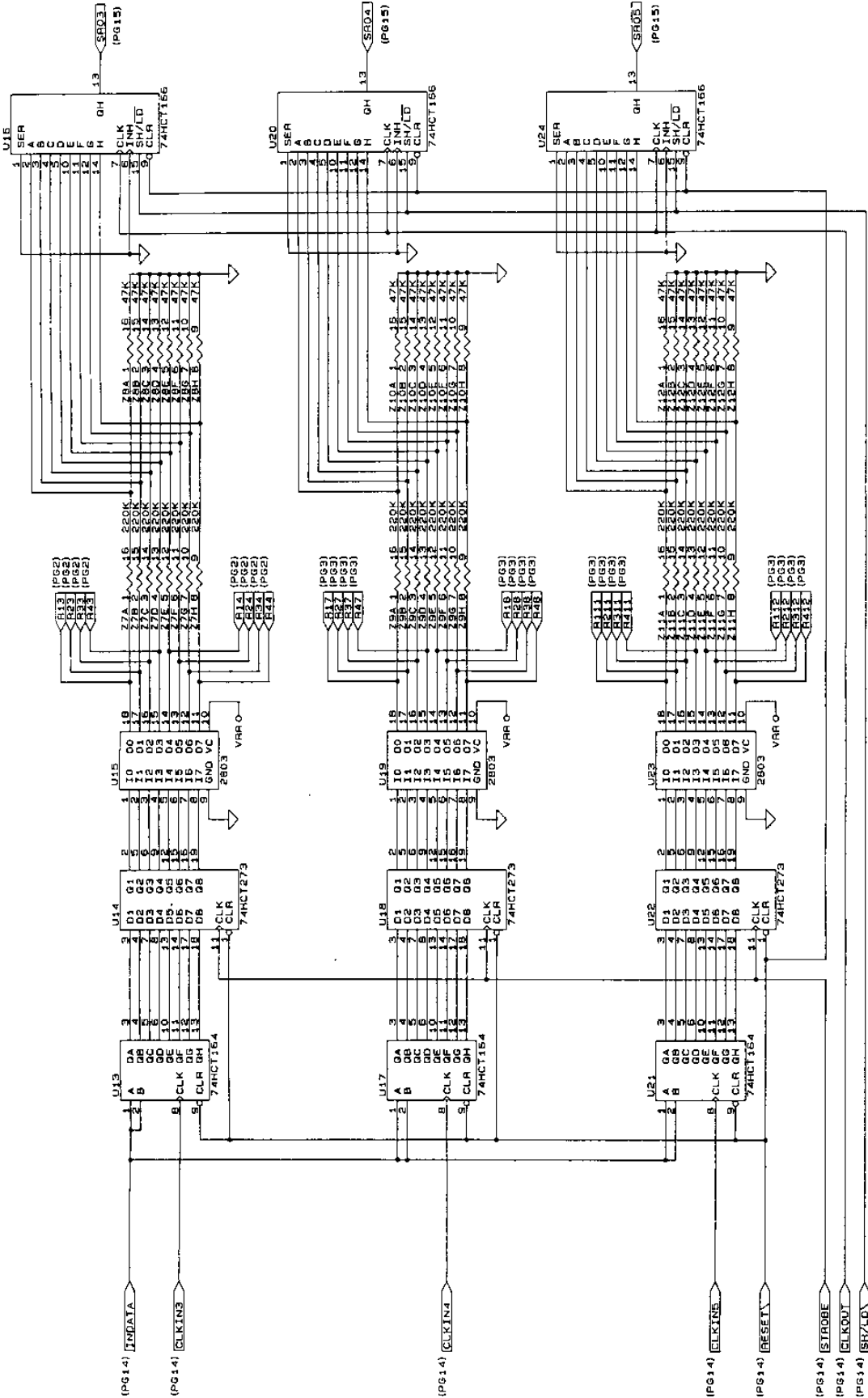
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B	21793	431914	D
SCALE		SHEET 9	OF 19

1260-40B ONLY

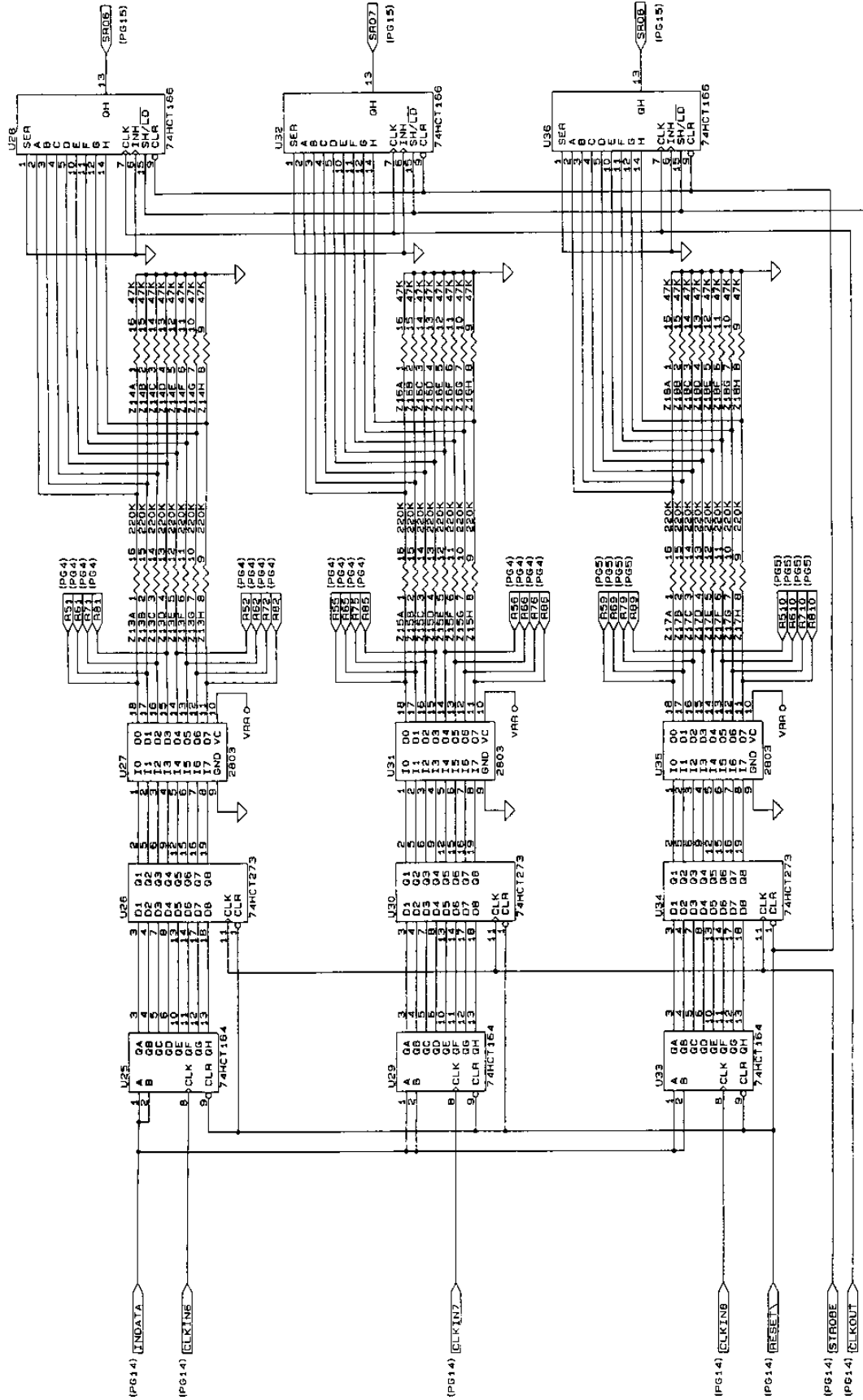


SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE		SHEET 10	OF 19





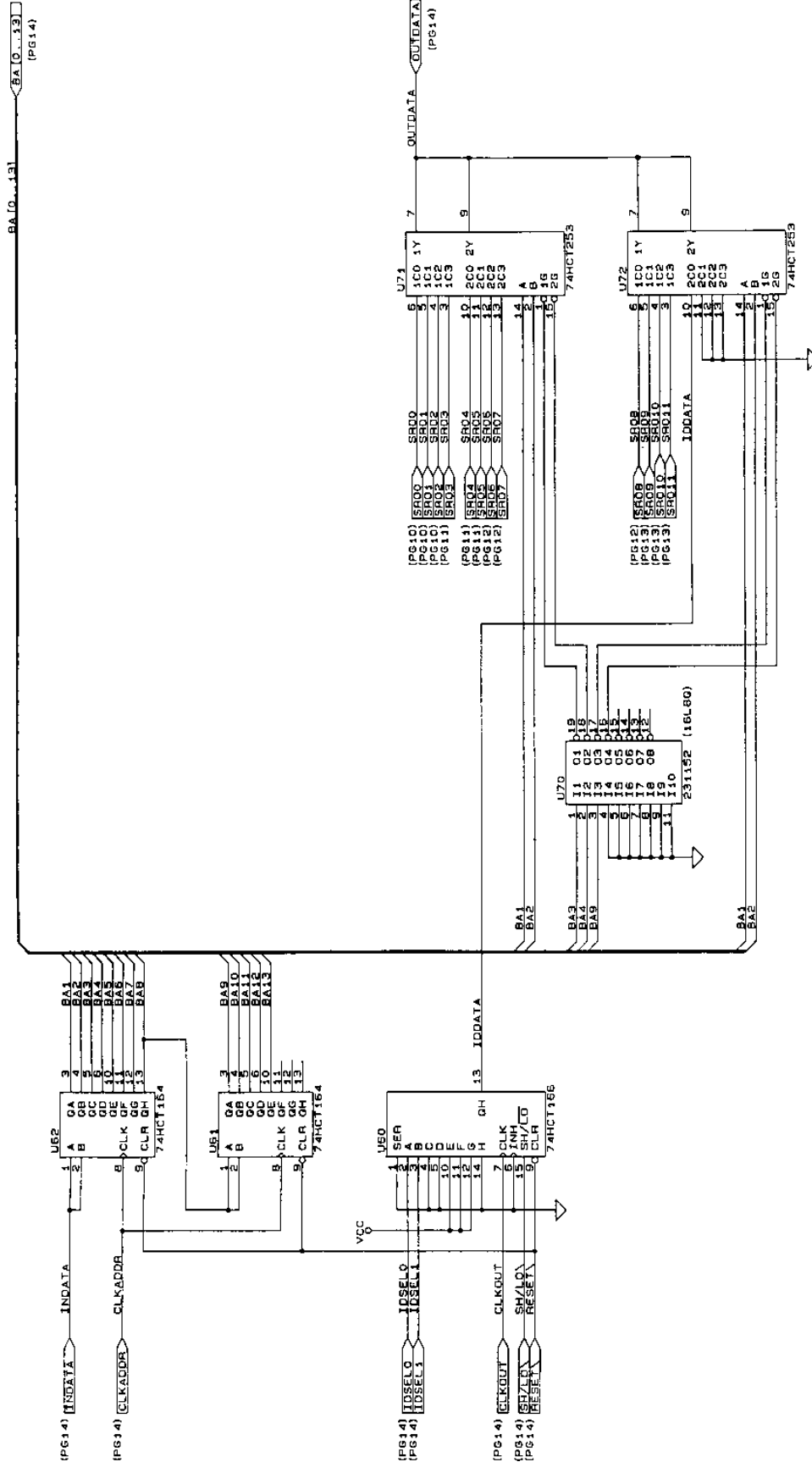
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B	21793	431914	D
SCALE		SHEET 11	OF 19



SIZE	CODE IDENT NO	DOCUMENT NO	REV
B	21793	431914	D
SCALE		SHEET 12	OF 19







BA10...13  
(PG14)

(PG14) INDATA  
(PG14) CLKADDR  
(PG14) SER  
(PG14) SH/LD  
(PG14) RESET

U70  
1 SER  
2 A  
3 B  
4 C  
5 D  
6 E  
7 F  
8 G  
9 H  
10 INH  
11 LD  
12 CLR  
13 RESET

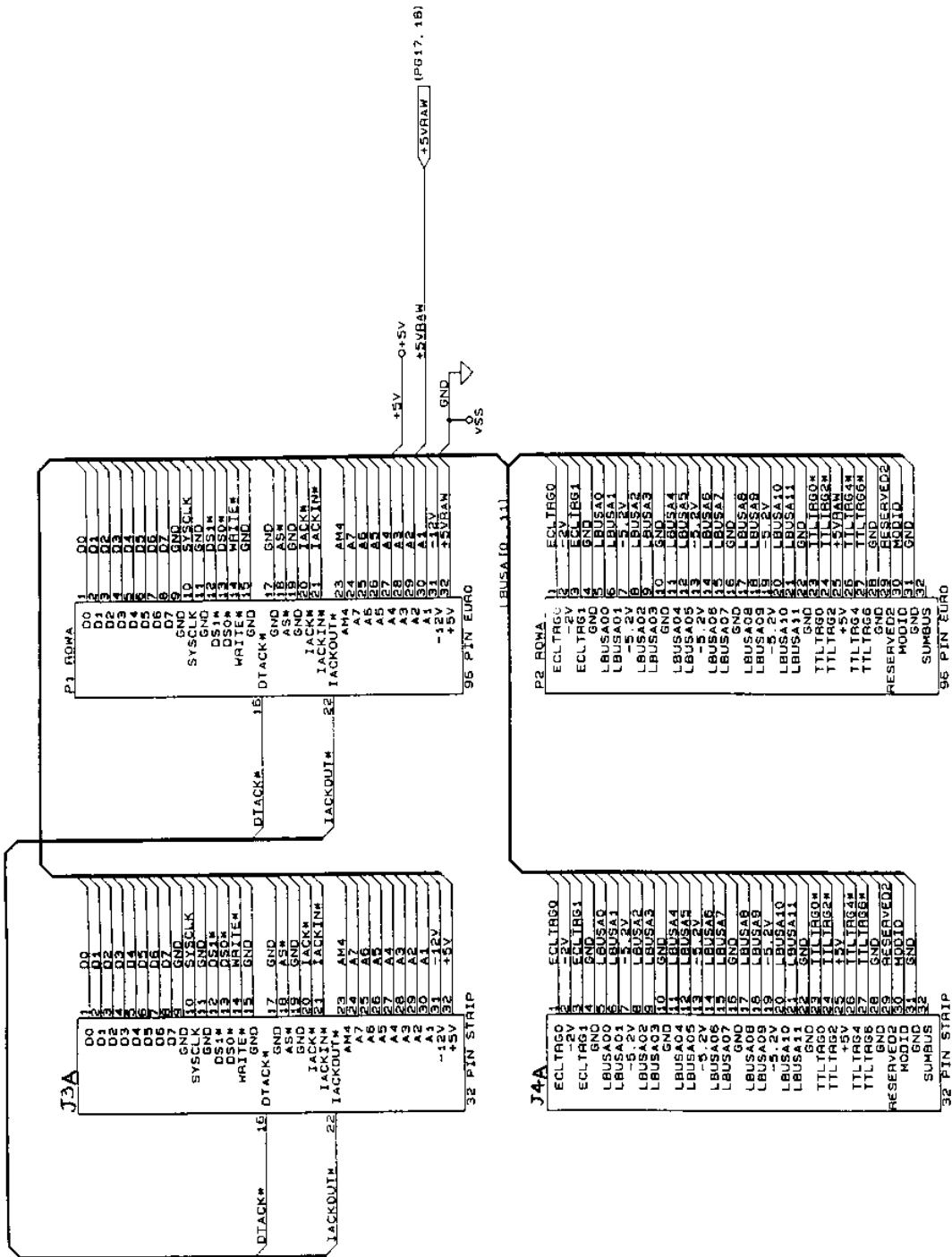
U71  
1 A  
2 B  
3 C  
4 D  
5 E  
6 F  
7 G  
8 H  
9 I  
10 J  
11 K  
12 L  
13 M

U72  
1 A  
2 B  
3 C  
4 D  
5 E  
6 F  
7 G  
8 H  
9 I  
10 J  
11 K  
12 L  
13 M

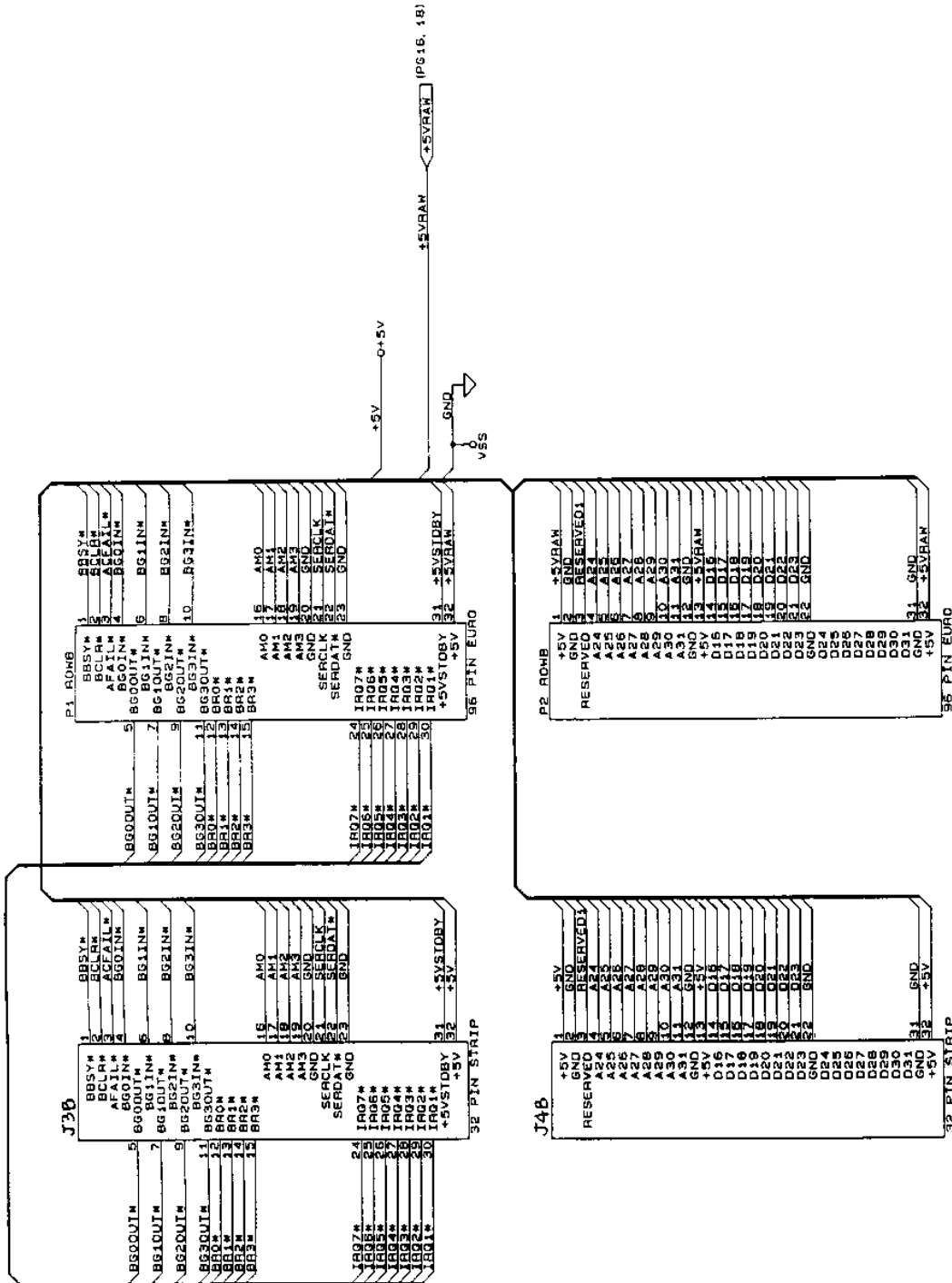
U73  
1 A  
2 B  
3 C  
4 D  
5 E  
6 F  
7 G  
8 H  
9 I  
10 J  
11 K  
12 L  
13 M

OUTDATA  
(PG14)

SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE		SHEET	OF
		15	19

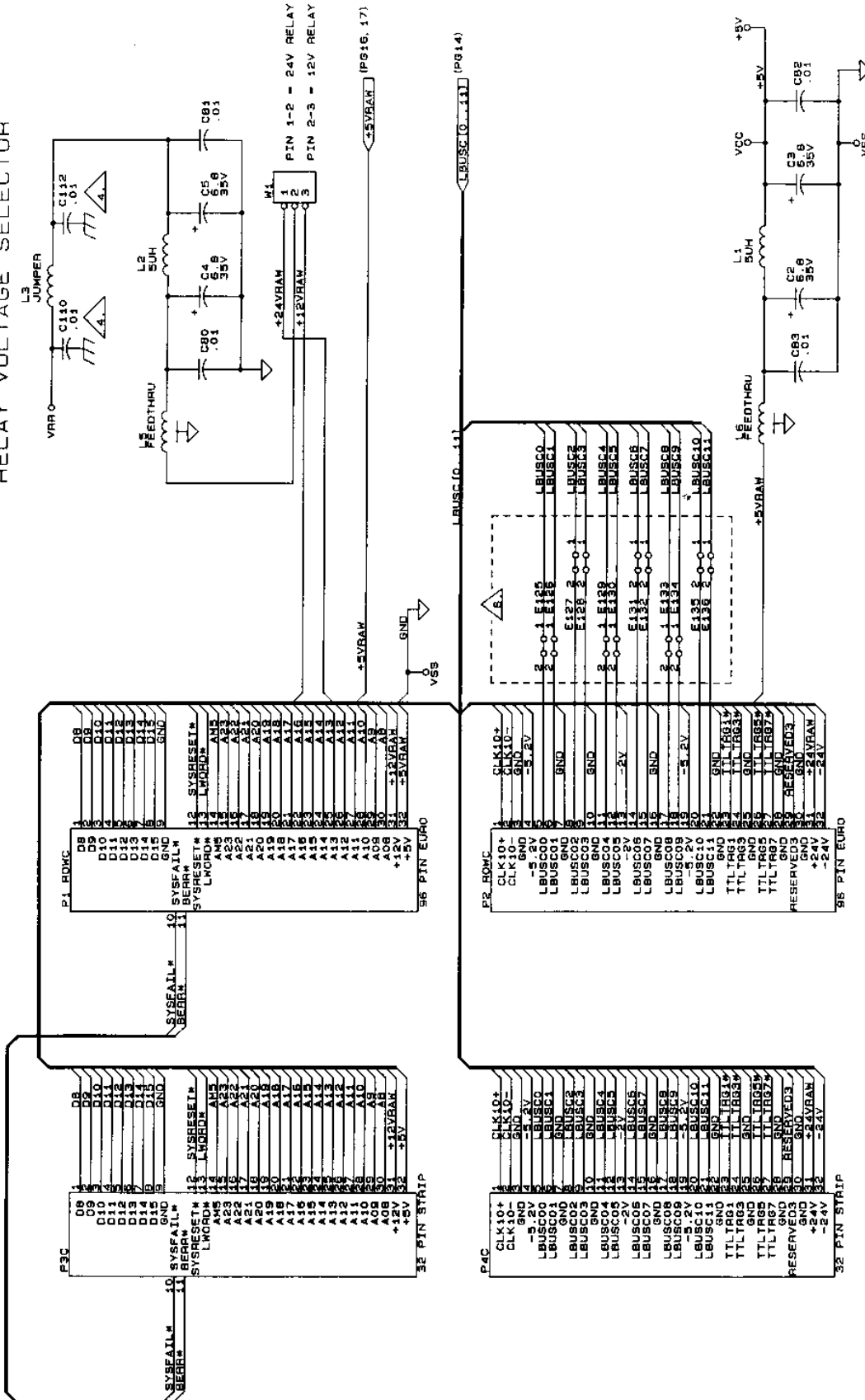


SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
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SCALE		SHEET	OF
		16	19



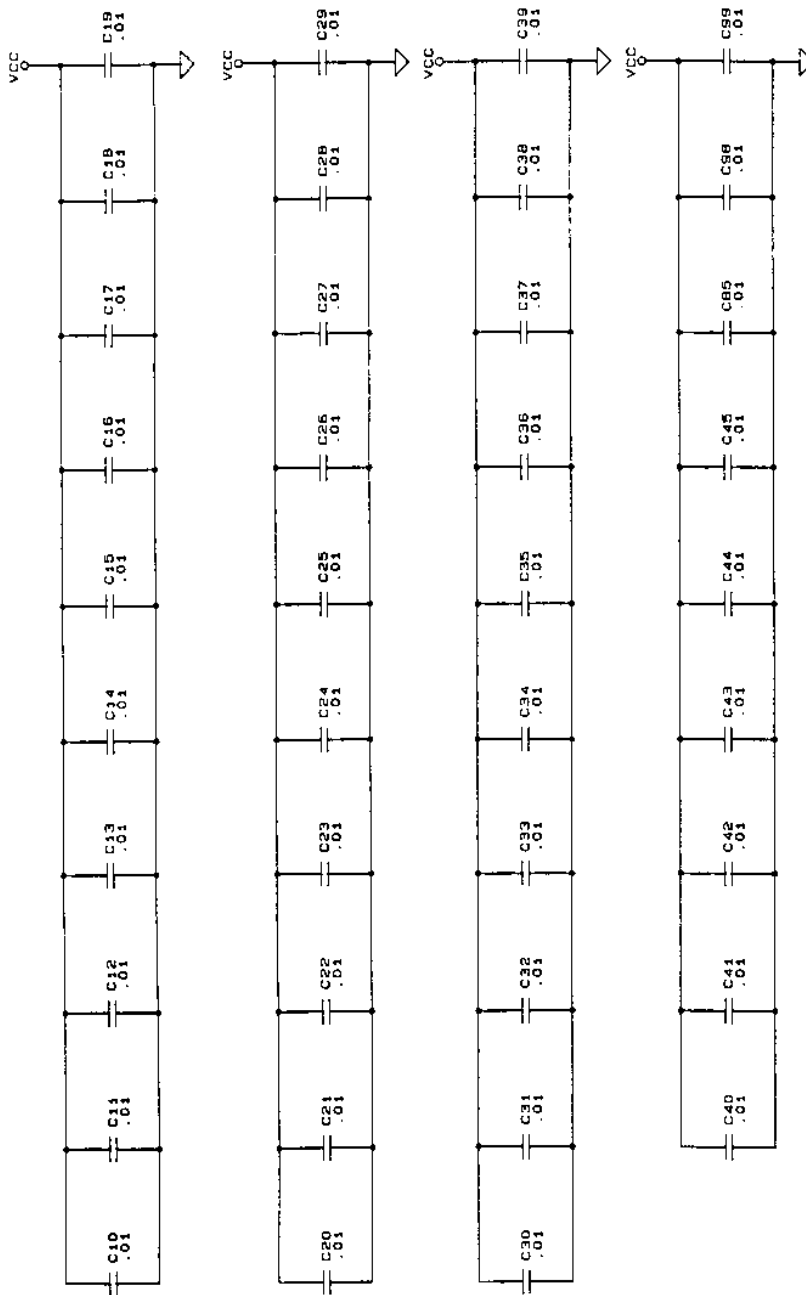
SIZE	CODE IDENT NO.	DOCUMENT NO.	REV
B	21793	431914	D
SCALE		SHEET 17	OF 19

RELAY VOLTAGE SELECTOR



SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE		SHEET 18	OF 19





SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
B	21793	431914	D
SCALE	SHEET 19 OF 19		

# Chapter 5

## PARTS LIST

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404775-001, Final Assembly, 1260-40A.....	5-3
404775-002, Final Assembly, 1260-40B.....	5-4
404775-003, Final Assembly, 1260-40C.....	5-5
401914, PCB Assembly, 1260-40.....	5-6
404937, Shipping Kit, 1260-40 .....	5-9
List of Suppliers.....	5-10

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# User Manual 1260-40

404775-001 - FINAL ASSY, 1260-40A

REF DESIG	RACAL P/N	INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
{1}1	401914		PCB ASSY, 1260-40	21793	401914
{2}1	404937		SHIPPING KIT, 1260-40	21793	404937
{4}1	455446		SHIELD, SIDE PANEL, TOP	21793	455446
{5}1	455446-001		SHIELD, SIDE, TOP, L.H.	21793	455446-001
{6}1	455447		SHIELD, SIDE PANEL, BOTTOM	21793	455447
{7}1	455447-001		SHIELD, SIDE, BOTTOM, L.H.	21793	455447-001
{8}1	455499-001		PANEL, FRONT, 1260-40	21793	455499-001
{9}1	455501		COVER, TOP, 1260-40	21793	455501
{10}1	455502		COVER, BOTTOM, 1260-40	21793	455502
{11}1	455521		BRACKET, FRONT	21793	455521
{12}A/R	500022		WIRE, BARE COPPER/TIN, 22 GA	21793	500022
{13}A/R	500132		WIRE, TEFLON TWISTED PAIR, 24 GA, BLK/WHT	-	-
{14}1	611264		HANDLE, EXTRACTOR, BOTTOM	62559	20817-327
{15}1	611265		HANDLE, EXTRACTOR, TOP	62559	20817-328
{18}10	615044		SCREW, PPH, 4-40 X .375	-	-
{19}4	615049		SCREW, PPH, 4-40 X .875	-	-
{20}14	615512		SCREW, PPH, 2-56X.188	-	-
{21}14	617127		WASHER, LOCK, #4, LIGHT SERIES	-	-
{24}.5	611266		MOUNTING HARDWARE, HANDLE	62559	121100-745
{25}1	921148-001		LABEL SET VXI	21793	921148-001
{26}1	921212-005		LABEL, VXI, 1260-40	21793	921212-005
{27}1	921059		LABEL, CAUTION, STATIC	21793	921059
{28}1	920710		LABEL, IDENTIFICATION	21793	920710
{34}1	921309		LABEL, VXI SWITCH ID	21793	921309

404775-002 - FINAL ASSY, 1260-40B

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
{1}1	401914	PCB ASSY, 1260-40	21793	401914
{2}1	404937	SHIPPING KIT, 1260-40	21793	404937
{4}1	455446	SHIELD, SIDE PANEL, TOP	21793	455446
{5}1	455446-001	SHIELD, SIDE, TOP, L.H.	21793	455446-001
{6}1	455447	SHIELD, SIDE PANEL, BOTTOM	21793	455447
{7}1	455447-001	SHIELD, SIDE, BOTTOM, L.H.	21793	455447-001
{8}1	455499-001	PANEL, FRONT, 1260-40	21793	455499-001
{9}1	455501	COVER, TOP, 1260-40	21793	455501
{10}1	455502	COVER, BOTTOM, 1260-40	21793	455502
{11}1	455521	BRACKET, FRONT	21793	455521
{12}A/R	500022	WIRE, BARE COPPER/TIN, 22 GA	21793	500022
{13}A/R	500132	WIRE, TEFLON TWISTED PAIR, 24 GA, BLK/WHT	-	-
{14}1	611264	HANDLE, EXTRACTOR, BOTTOM	62559	20817-327
{15}1	611265	HANDLE, EXTRACTOR, TOP	62559	20817-328
{18}10	615044	SCREW, PPH, 4-40 X .375	-	-
{19}4	615049	SCREW, PPH, 4-40 X .875	-	-
{20}14	615512	SCREW, PFH, 2-56X.188	-	-
{21}14	617127	WASHER, LOCK, #4, LIGHT SERIES	-	-
{24}.5	611266	MOUNTING HARDWARE, HANDLE	62559	21100-745
{25}1	921148-001	LABEL SET VXI	21793	921148-001
{26}1	921212-005	LABEL, VXI, 1260-40	21793	921212-005
{27}1	921059	LABEL, CAUTION, STATIC	21793	921059
{28}1	920710	LABEL, IDENTIFICATION	21793	920710
{34}1	921309	LABEL, VXI SWITCH ID	21793	921309

# User Manual 1260-40

404775-003 - FINAL ASSY, 1260-40C

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
{1}1	401914	PCB ASSY, 1260-40	21793	401914
{2}1	404937	SHIPPING KIT, 1260-40	21793	404937
{4}1	455446	SHIELD, SIDE PANEL, TOP	21793	455446
{5}1	455446-001	SHIELD, SIDE, TOP, L.H.	21793	455446-001
{6}1	455447	SHIELD, SIDE PANEL, BOTTOM	21793	455447
{7}1	455447-001	SHIELD, SIDE, BOTTOM, L.H.	21793	455447-001
{8}1	455499-001	PANEL, FRONT, 1260-40	21793	455499-001
{9}1	455501	COVER, TOP, 1260-40	21793	455501
{10}1	455502	COVER, BOTTOM, 1260-40	21793	455502
{11}1	455521	BRACKET, FRONT	21793	455521
{12}A/R	500022	WIRE, BARE COPPER/TIN, 22 GA	21793	500022
{13}A/R	500132	WIRE, TEFLON TWISTED PAIR, 24 GA, BLK/WHT	-	-
{14}1	611264	HANDLE, EXTRACTOR, TOP	62559	20817-327
{15}1	611265	HANDLE, EXTRACTOR, BOTTOM	62559	20817-328
{18}10	615044	SCREW, PPH, 4-40 X .375	-	-
{19}4	615049	SCREW, PPH, 4-40 X .875	-	-
{20}14	615512	SCREW, PFH, 2-56X.188	-	-
{21}14	617127	WASHER, LOCK, #4, LIGHT SERIES	-	-
{24}.5	611266	MOUNTING HARDWARE, HANDLE	62559	21100-745
{25}1	1921148-001	LABEL SET VXI	21793	1921148-001
{26}1	1921212-005	LABEL, VXI, 1260-40	21793	1921212-005
{27}1	1921059	LABEL, CAUTION, STATIC	21793	1921059
{28}1	1920710	LABEL, IDENTIFICATION	21793	1920710
{34}2	1921309	LABEL, VXI SWITCH ID	21793	1921309

401914 - PCB ASSY, 1260-40

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
C1	130177	CAPACITOR, CHIP, SMD, 270PF	95275	VJ1206A271KXAMT
C2-C5	110126	CAP, TANTA, 6.8UF, 35V, 20 PERCENT	05397	T355F685M035A5
C10-C45	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C80-C83	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C85	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C98	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C99	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
J3	601925	CONNECTOR, PCB, RECEPT, 3 ROW, 96P	52072	618008
J4	601925	CONNECTOR, PCB, RECEPT, 3 ROW, 96P	52072	618008
J200	601856-020	CONNECTOR, SMPL, PCB RECEPT	21793	601856-020
J201	601856-050	CONNECTOR, SMPL, PCB RECEPT	21793	601856-050
J202	601856-050	CONNECTOR, SMPL, PCB RECEPT	21793	601856-050
J203	601856-020	CONNECTOR, SMPL, PCB RECEPT	21793	601856-020
K1-K96	310197	RELAY, 2 FORM C	61529	TQ2E-24V
L1	310193	CHOKER, SHIELDED, 5UH	91637	IH-5-5-10
L2	310193	CHOKER, SHIELDED, 5UH	91637	IH-5-5-10
L3	600245	JUMPER, INSULATED	52210	L-2007-1
L5	1100164	CAP, FEED-THRU, 800PF, 50V	00779	842448-2
L6	1100164	CAP, FEED-THRU, 800PF, 50V	00779	842448-2
P1	601675	CONNECTOR, EUROCARD TYPE C, 96-PIN	00779	532505-1
P2	601675	CONNECTOR, EUROCARD TYPE C, 96-PIN	00779	532505-1
SW1	600814	SWITCH, SLIDE, 6SPST	02660	31-010
U1	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U2	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U3	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U4	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U5	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U6	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U7	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U8	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U9	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U10	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U11	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U12	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U13	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U14	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U15	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U16	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U17	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U18	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U19	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U20	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U21	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U22	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U23	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U24	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U25	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U26	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U27	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U28	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U29	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U30	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U31	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U32	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U33	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U34	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U35	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U36	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U37	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D

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401914 - PCB ASSY, 1260-40

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
U38	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U39	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U40	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U41	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U42	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U43	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U44	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U45	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U46	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U47	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U48	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U49	231096	IC, QUAD DIFF RECEIVER	01295	AM26LS32ACD
U50	231096	IC, QUAD DIFF RECEIVER	01295	AM26LS32ACD
U51	231125	IC, DIGITAL, LINE DRIVER	27014	DS26LS31MN
U52	231154	IC, PROGRAMMED PLA	21793	231154
U53	231153	IC, PROGRAMMED PLA	21793	231153
U54	231094	IC, DEMUX DECODER	18324	N74LS138D
U55	231094	IC, DEMUX DECODER	18324	N74LS138D
U56	231135	IC, DIGITAL, 4-BIT COMPARATOR	18324	PC74HCT85D
U57	231093	IC, QUAD COMPARATOR	04713	LM339D
U60	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U61	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U62	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U70	231152	IC, PROGRAMMED PIA	21793	231152
U71	231147	IC, MULTIPLEXER	04713	74HC253D
U72	231147	IC, MULTIPLEXER	04713	74HC253D
Z1	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z2	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z3	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z4	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z5	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z6	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z7	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z8	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z9	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z10	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z11	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z12	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z13	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z14	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z15	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z16	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z17	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z18	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z19	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z20	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z21	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z22	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z23	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z24	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z25	080114	RES NETWORK, 16P8R, 15K	73138	628-AL-153J
Z26	080120	RES NETWORK, 10K	11236	767-161R10K
{46}1	411914	PCB 1260-14 (UNLOADED)	21793	411914
{50}4	611227	SPACER, PRESS, #4, PCB	46384	KFSE-116-20
{51}8	615012	SCREW, PPH, 2-56 X .125	-	-
{57}1	401951	PCB ASSY., LBUS JUMPER	21793	401951
{58}1	401951-003	PCB ASSY., P3 JUMPER	21793	401951-003
{59}A/R	500022	WIRE, BARE COPPER/TIN, 22 GA	21793	500022
{60}A/R	500023	WIRE, BARE COPPER/TIN, 24 GA	21793	500023



401914 - PCB ASSY, 1260-40

REF	RACAL-INST	DESCRIPTION	FSC	MANUFACTURER'S P/N
DESIG	P/N			
{61}A/R	1921279	LOCQUIC, PRIMER	105972	174756
{62}A/R	1921280	LOCTITE, HIGH STRENGTH	105972	127121

## User Manual 1260-40

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404937 - SHIPPING KIT, 1260-40

REF	RACAL INST				
DESIG	P/N		DESCRIPTION	FSC	MANUFACTURER'S P/N
{1}2	1455540		KEY, LOCKOUT, TTL, A/C	21793	1455540
{2}2	1455541		KEY, LOCKOUT, TTL, A/C	21793	1455541
{3}2	1455542		KEY, LOCKOUT, TTL, A/C	21793	1455542
{6}2	1601855-020		CONNECTOR, SGMC. CABLE PLUG	21793	1601855-020
{7}2	1601855-050		CONNECTOR, SGMC. CABLE PLUG	21793	1601855-050
{8}140	1601857		CONTACT, SGMC. M	28198	1M5422N
{10}3	1615014		SCREW, PPH, 2-56 X .250	-	-
{11}1	1980673-007		MANUAL, 1260-40	21793	1980673-007

List of Suppliers

FSC	SUPPLIER
00779	AMP, INC. HARRISBURG, PA
01295	TEXAS INSTRUMENTS, INC. DALLAS, TX
02660	AMPHENOL CORP. BROADVIEW, IL
04713	MOTOROLA, INC. (SEMICONDUCTOR PRODUCTS DIV.) PHOENIX, AZ
05397	UNION CARBIDE CORP. (MATERIALS SYSTEMS DIV.) CLEVELAND, OH
05972	LOCTITE CORP. HARTFORD, CT
11236	CTS OF BERNE, INC. BERNE, IN
18324	SIGNETICS, INC. SUNNYVALE, CA
21793	RACAL INSTRUMENTS IRVINE, CA
27014	NATIONAL SEMI-CONDUCTOR CORP. SANTA CLARA, CA
28198	POSITRONIC INDUSTRIES INC. SPRINGFIELD, MO
46384	PENN ENG. & MFG. CORP DOYLESTOWN, PA
52072	CIRCUIT ASSY. CORP. COSTA MESA, CA
52210	GETTING ENGRG. & MFG. CO. SPRING MILLS, PA
56289	SPAGUE ELECTRIC CO. N. ADAMS, MA
61529	AROMAT CORP. CUPERTINO, CA
62559	SCHROFF, INC. WARWICK, RI
73138	BECKMAN INSTRUMENTS FULLERTON, CA
91637	DALE ELECTRONICS, INC. COLUMBUS, NE
95275	VITRAMON, INC. BRIDGEPORT, CT

## Chapter 6

# OPTIONAL HARNESS ASSEMBLIES

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The following harness assemblies are used to connect Racal Instruments Model 1260-40 to Freedom Series Test Receiver Interfaces.

Each Harness documentation consists of an assembly drawing, parts list, system wire list, and wire list.

407284, Virginia Panel, Inc Series VP90 Interface Harness

407285, TTI Testron, Inc. Interface Harness (TTI Receiver must be above chassis)

For more information on Racal Instruments complete line of Test Receiver Interface solutions, contact your Sales Representative.

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## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
	BLK AA (J100)	Uxx-SLOT yy (J202,J203)	CABLE	407284		SYSTEM WIRE LIST
<p>This system wirelist serves as a template for incorporating this harness assembly into the overall system wirelist. It does not in any way affect the fabrication of this harness assembly.</p>						
<p><b>RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718</b></p>						
DOCUMENT TITLE			SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-40, VP90			A	21793	407284	A
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DOC. NO. 407284



## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
1	J100-33 (602201-003)	J203-K 602092-001	24 AWG WHT	602201- 806	54"	ROW 0A
2	J100-1 (602201-003)	J203-D 602092-001	24 AWG WHT	602201- 806	54"	ROW 0B
3	J100-65 (602201-003)	J203-H 602092-001	24 AWG WHT	602201- 806	54"	ROW 1A
4	J100-34 (602201-003)	J203-E 602092-001	24 AWG WHT	602201- 806	54"	ROW 1B
5	J100-2 (602201-003)	J203-J 602092-001	24 AWG WHT	602201- 806	54"	ROW 2A
6	J100-66 (602201-003)	J203-N 602092-001	24 AWG WHT	602201- 806	54"	ROW 2B
7	J100-35 (602201-003)	J203-S 602092-001	24 AWG WHT	602201- 806	54"	ROW 3A
8	J100-3 (602201-003)	J203-L 602092-001	24 AWG WHT	602201- 806	54"	ROW 3B
9	J100-67 (602201-003)	J203-P 602092-001	24 AWG WHT	602201- 806	54"	ROW 4A
10	J100-36 (602201-003)	J203-M 602092-001	24 AWG WHT	602201- 806	54"	ROW 4B
11	J100-4 (602201-003)	J203-R 602092-001	24 AWG WHT	602201- 806	54"	ROW 5A
12	J100-68 (602201-003)	J203-V 602092-001	24 AWG WHT	602201- 806	54"	ROW 5B
13	J100-37 (602201-003)	J203-X 602092-001	24 AWG WHT	602201- 806	54"	ROW 6A
14	J100-5 (602201-003)	J203-T 602092-001	24 AWG WHT	602201- 806	54"	ROW 6B
15	J100-69 (602201-003)	J203-W 602092-001	24 AWG WHT	602201- 806	54"	ROW 7A
16	J100-38 (602201-003)	J203-U 602092-001	24 AWG WHT	602201- 806	54"	ROW 7B
17	J100-6 (602201-003)	J203-A 602092-001	24 AWG WHT	602201- 806	54"	CHASSIS GND
18	J100-70 (602201-003)	J203-B 602092-001	24 AWG WHT	602201- 806	54"	CHASSIS GND
19	J100-39 (602201-003)	J203-C 602092-001	24 AWG WHT	602201- 806	54"	CHASSIS GND
20	J100-7 (602201-003)	J203-F 602092-001	24 AWG WHT	602201- 806	54"	CHASSIS GND
21	J100-71 NO CONNECT					
22	J100-40 NO CONNECT					
23	J100-8 NO CONNECT					
24	J100-72 NO CONNECT					
25	J100-41 (602201-003)	J202-DD 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 0A
<b>RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718</b>						
DOCUMENT TITLE			SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-40, VP90			A	21793	407284	A
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## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
26	J100-9 (602201-003)	J202-EE 602092-001	24 AWG WHT	602201-806	54"	COLUMN 0B
27	J100-73 (602201-003)	J202-BB 602092-001	24 AWG WHT	602201-806	54"	COLUMN 1A
28	J100-42 (602201-003)	J202-CC 602092-001	24 AWG WHT	602201-806	54"	COLUMN 1B
29	J100-10 (602201-003)	J202-v 602092-001	24 AWG WHT	602201-806	54"	COLUMN 2A
30	J100-74 (602201-003)	J202-w 602092-001	24 AWG WHT	602201-806	54"	COLUMN 2B
31	J100-43 (602201-003)	J202-t 602092-001	24 AWG WHT	602201-806	54"	COLUMN 3A
32	J100-11 (602201-003)	J202-u 602092-001	24 AWG WHT	602201-806	54"	COLUMN 3B
33	J100-75 (602201-003)	J202-k 602092-001	24 AWG WHT	602201-806	54"	COLUMN 4A
34	J100-44 (602201-003)	J202-m 602092-001	24 AWG WHT	602201-806	54"	COLUMN 4B
35	J100-12 (602201-003)	J202-h 602092-001	24 AWG WHT	602201-806	54"	COLUMN 5A
36	J100-76 (602201-003)	J202-j 602092-001	24 AWG WHT	602201-806	54"	COLUMN 5B
37	J100-45 (602201-003)	J202-a 602092-001	24 AWG WHT	602201-806	54"	COLUMN 6A
38	J100-13 (602201-003)	J202-b 602092-001	24 AWG WHT	602201-806	54"	COLUMN 6B
39	J100-77 (602201-003)	J202-Y 602092-001	24 AWG WHT	602201-806	54"	COLUMN 7A
40	J100-46 (602201-003)	J202-Z 602092-001	24 AWG WHT	602201-806	54"	COLUMN 7B
41	J100-14 (602201-003)	J202-S 602092-001	24 AWG WHT	602201-806	54"	COLUMN 8A
42	J100-78 (602201-003)	J202-T 602092-001	24 AWG WHT	602201-806	54"	COLUMN 8B
43	J100-47 (602201-003)	J202-P 602092-001	24 AWG WHT	602201-806	54"	COLUMN 9A
44	J100-15 (602201-003)	J202-R 602092-001	24 AWG WHT	602201-806	54"	COLUMN 9B
45	J100-79 (602201-003)	J202-H 602092-001	24 AWG WHT	602201-806	54"	COLUMN 10A
46	J100-48 (602201-003)	J202-J 602092-001	24 AWG WHT	602201-806	54"	COLUMN 10B
47	J100-16 (602201-003)	J202-E 602092-001	24 AWG WHT	602201-806	54"	COLUMN 11A
48	J100-80 (602201-003)	J202-F 602092-001	24 AWG WHT	602201-806	54"	COLUMN 11B
49	J100-49 (602201-003)	J202-A 602092-001	24 AWG WHT	602201-806	54"	COLUMN 12A
50	J100-17 (602201-003)	J202-B 602092-001	24 AWG WHT	602201-806	54"	COLUMN 12B

DOC. NO. 407284

**RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718**

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-40, VP90	A	21793	407284	A
			SHEET 5 of 7	

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
51	J100-81 (602201-003)	J202-C 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 13A
52	J100-50 (602201-003)	J202-D 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 13B
53	J100-18 (602201-003)	J202-K 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 14A
54	J100-82 (602201-003)	J202-L 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 14B
55	J100-51 (602201-003)	J202-M 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 15A
56	J100-19 (602201-003)	J202-N 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 15B
57	J100-83 (602201-003)	J202-U 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 16A
58	J100-52 (602201-003)	J202-V 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 16B
59	J100-20 (602201-003)	J202-W 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 17A
60	J100-84 (602201-003)	J202-X 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 17B
61	J100-53 (602201-003)	J202-c 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 18A
62	J100-21 (602201-003)	J202-d 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 18B
63	J100-85 (602201-003)	J202-e 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 19A
64	J100-54 (602201-003)	J202-f 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 19B
65	J100-22 (602201-003)	J202-n 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 20A
66	J100-86 (602201-003)	J202-p 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 20B
67	J100-55 (602201-003)	J202-r 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 21A
68	J100-23 (602201-003)	J202-s 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 21B
69	J100-87 (602201-003)	J202-x 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 22A
70	J100-56 (602201-003)	J202-y 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 22B
71	J100-24 (602201-003)	J202-z 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 23A
72	J100-88 (602201-003)	J202-AA 602092-001	24 AWG WHT	602201- 806	54"	COLUMN 23B
73	J100-57 NO CONNECT					
74	J100-25 NO CONNECT					
75	J100-89 NO CONNECT					
<b>RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718</b>						
DOCUMENT TITLE			SIZE	CODE NO.	DOCUMENT NO.	REV
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## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
76	J100-58 NO CONNECT					
77	J100-26 NO CONNECT					
78	J100-90 NO CONNECT					
79	J100-59 NO CONNECT					
80	J100-27 NO CONNECT					
81	J100-91 NO CONNECT					
82	J100-60 NO CONNECT					
83	J100-28 NO CONNECT					
84	J100-92 NO CONNECT					
85	J100-61 NO CONNECT					
86	J100-29 NO CONNECT					
87	J100-93 NO CONNECT					
88	J100-62 NO CONNECT					
89	J100-30 NO CONNECT					
90	J100-94 NO CONNECT					
91	J100-63 NO CONNECT					
92	J100-31 NO CONNECT					
93	J100-95 NO CONNECT					
94	J100-64 NO CONNECT					
95	J100-32 NO CONNECT					
96	J100-96 NO CONNECT					

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<b>RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718</b>				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
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## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
	BLK AAx RW 01 (J100)	Uxx-SLOT yy (J203)	CABLE	407285		SYSTEM WIRE LIST
	BLK AAx RW 02 (J101)	Uxx-SLOT yy (J203)	CABLE	407285		
	BLK AAx RW 03 (J102)	Uxx-SLOT yy (J202)	CABLE	407285		
	BLK AAx RW 04 (J103)	Uxx-SLOT yy (J202)	CABLE	407285		
	BLK AAx RW 05 (J104)	Uxx-SLOT yy (J202)	CABLE	407285		
	BLK AAx RW 06 (J105)	Uxx-SLOT yy (J202)	CABLE	407285		
	BLK AAx RW 07 (J106)	Uxx-SLOT yy (J202)	CABLE	407285		
<p>This system wirelist serves as a template for incorporating this harness assembly into the overall system wirelist. It does not in any way affect the fabrication of this harness assembly.</p>						
<p>RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718</p>						
DOCUMENT TITLE			SIZE	CODE NO.	DOCUMENT NO.	REV
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## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
1	J100-1 602199-001	J203-K 602092-001	24AWG WHT	524999	40"	ROW 0A
2	J100-2 602199-001	J203-D 602092-001	24AWG WHT	524999	40"	ROW 0B
3	J100-3 602199-001	J203-H 602092-001	24AWG WHT	524999	40"	ROW 1A
4	J100-4 602199-001	J203-E 602092-001	24AWG WHT	524999	40"	ROW 1B
5	J100-5 602199-001	J203-J 602092-001	24AWG WHT	524999	40"	ROW 2A
6	J100-6 602199-001	J203-N 602092-001	24AWG WHT	524999	40"	ROW 2B
7	J100-7 602199-001	J203-S 602092-001	24AWG WHT	524999	40"	ROW 3A
8	J100-8 602199-001	J203-L 602092-001	24AWG WHT	524999	40"	ROW 3B
9	J100-9 602199-001	J203-P 602092-001	24AWG WHT	524999	40"	ROW 4A
10	J100-10 602199-001	J203-M 602092-001	24AWG WHT	524999	40"	ROW 4B
11	J101-10 602199-001	J203-R 602092-001	24AWG WHT	524999	40"	ROW 5A
12	J101-9 602199-001	J203-V 602092-001	24AWG WHT	524999	40"	ROW 5B
13	J101-8 602199-001	J203-X 602092-001	24AWG WHT	524999	40"	ROW 6A
14	J101-7 602199-001	J203-T 602092-001	24AWG WHT	524999	40"	ROW 6B
15	J101-6 602199-001	J203-W 602092-001	24AWG WHT	524999	40"	ROW 7A
16	J101-5 602199-001	J203-U 602092-001	24AWG WHT	524999	40"	ROW 7B
17	J101-4 602199-001	J203-A 602092-001	24AWG WHT	524999	40"	CHASSIS GND
18	J101-3 602199-001	J203-B 602092-001	24AWG WHT	524999	40"	CHASSIS GND
19	J101-2 602199-001	J203-C 602092-001	24AWG WHT	524999	40"	CHASSIS GND
20	J101-1 602199-001	J203-F 602092-001	24AWG WHT	524999	40"	CHASSIS GND
21	J102-1 602199-001	J202-DD 602092-001	24AWG WHT	524999	40"	COLUMN 0A
22	J102-2 602199-001	J202-EE 602092-001	24AWG WHT	524999	40"	COLUMN 0B
23	J102-3 602199-001	J202-BB 602092-001	24AWG WHT	524999	40"	COLUMN 1A

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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
24	J102-4 602199-001	J202-CC 602092-001	24AWG WHT	524999	40"	COLUMN 1B
25	J102-5 602199-001	J202-v 602092-001	24AWG WHT	524999	40"	COLUMN 2A
26	J102-6 602199-001	J202-w 602092-001	24AWG WHT	524999	40"	COLUMN 2B
27	J102-7 602199-001	J202-t 602092-001	24AWG WHT	524999	40"	COLUMN 3A
28	J102-8 602199-001	J202-u 602092-001	24AWG WHT	524999	40"	COLUMN 3B
29	J102-9 602199-001	J202-k 602092-001	24AWG WHT	524999	40"	COLUMN 4A
30	J102-10 602199-001	J202-m 602092-001	24AWG WHT	524999	40"	COLUMN 4B
31	J103-10 602199-001	J202-h 602092-001	24AWG WHT	524999	40"	COLUMN 5A
32	J103-9 602199-001	J202-j 602092-001	24AWG WHT	524999	40"	COLUMN 5B
33	J103-8 602199-001	J202-a 602092-001	24AWG WHT	524999	40"	COLUMN 6A
34	J103-7 602199-001	J202-b 602092-001	24AWG WHT	524999	40"	COLUMN 6B
35	J103-6 602199-001	J202-Y 602092-001	24AWG WHT	524999	40"	COLUMN 7A
36	J103-5 602199-001	J202-Z 602092-001	24AWG WHT	524999	40"	COLUMN 7B
37	J103-4 602199-001	J202-S 602092-001	24AWG WHT	524999	40"	COLUMN 8A
38	J103-3 602199-001	J202-T 602092-001	24AWG WHT	524999	40"	COLUMN 8B
39	J103-2 602199-001	J202-P 602092-001	24AWG WHT	524999	40"	COLUMN 9A
40	J103-1 602199-001	J202-R 602092-001	24AWG WHT	524999	40"	COLUMN 9B
41	J104-1 602199-001	J202-H 602092-001	24AWG WHT	524999	40"	COLUMN 10A
42	J104-2 602199-001	J202-J 602092-001	24AWG WHT	524999	40"	COLUMN 10B
43	J104-3 602199-001	J202-E 602092-001	24AWG WHT	524999	40"	COLUMN 11A
44	J104-4 602199-001	J202-F 602092-001	24AWG WHT	524999	40"	COLUMN 11B
45	J104-5 602199-001	J202-A 602092-001	24AWG WHT	524999	40"	COLUMN 12A
46	J104-6 602199-001	J202-B 602092-001	24AWG WHT	524999	40"	COLUMN 12B

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## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
47	J104-7 602199-001	J202-C 602092-001	24AWG WHT	524999	40"	COLUMN 13A
48	J104-8 602199-001	J202-D 602092-001	24AWG WHT	524999	40"	COLUMN 13B
49	J104-9 602199-001	J202-K 602092-001	24AWG WHT	524999	40"	COLUMN 14A
50	J104-10 602199-001	J202-L 602092-001	24AWG WHT	524999	40"	COLUMN 14B
51	J105-10 602199-001	J202-M 602092-001	24AWG WHT	524999	40"	COLUMN 15A
52	J105-9 602199-001	J202-N 602092-001	24AWG WHT	524999	40"	COLUMN 15B
53	J105-8 602199-001	J202-U 602092-001	24AWG WHT	524999	40"	COLUMN 16A
54	J105-7 602199-001	J202-V 602092-001	24AWG WHT	524999	40"	COLUMN 16B
55	J105-6 602199-001	J202-W 602092-001	24AWG WHT	524999	40"	COLUMN 17A
56	J105-5 602199-001	J202-X 602092-001	24AWG WHT	524999	40"	COLUMN 17B
57	J105-4 602199-001	J202-c 602092-001	24AWG WHT	524999	40"	COLUMN 18A
58	J105-3 602199-001	J202-d 602092-001	24AWG WHT	524999	40"	COLUMN 18B
59	J105-2 602199-001	J202-e 602092-001	24AWG WHT	524999	40"	COLUMN 19A
60	J105-1 602199-001	J202-f 602092-001	24AWG WHT	524999	40"	COLUMN 19B
61	J106-1 602199-001	J202-n 602092-001	24AWG WHT	524999	40"	COLUMN 20A
62	J106-2 602199-001	J202-p 602092-001	24AWG WHT	524999	40"	COLUMN 20B
63	J106-3 602199-001	J202-r 602092-001	24AWG WHT	524999	40"	COLUMN 21A
64	J106-4 602199-001	J202-s 602092-001	24AWG WHT	524999	40"	COLUMN 21B
65	J106-5 602199-001	J202-x 602092-001	24AWG WHT	524999	40"	COLUMN 22A
66	J106-6 602199-001	J202-y 602092-001	24AWG WHT	524999	40"	COLUMN 22B
67	J106-7 602199-001	J202-z 602092-001	24AWG WHT	524999	40"	COLUMN 23A
68	J106-8 602199-001	J202-AA 602092-001	24AWG WHT	524999	40"	COLUMN 23B
69	J106-9 602199-001	NO CONNECT				

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### ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
70	J106-10 602199-001	NO CONNECT				
<b>RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718</b>						
DOCUMENT TITLE			SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-40, TTI			A	21793	407285	A
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## Chapter 7

# PRODUCT SUPPORT

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### **Product Support**

Racal Instruments has a complete Service and Parts Department. If you need technical assistance or should it be necessary to return your product for repair or calibration, call 1-800-722-3262. If parts are required to repair the product at your facility, call 1-949-859-8999 and ask for the Parts Department.

When sending your instrument in for repair, complete the form in the back of this manual.

For worldwide support and the office closes to your facility, refer to the Support Offices section on the following page.

### **Reshipment Instructions**

Use the original packing material when returning the 1260-40 to Racal Instruments for calibration or servicing. The original shipping crate and associated packaging material will provide the necessary protection for safe reshipment.

If the original packing material is unavailable, contact Racal Instruments Customer Service for information.

## Support Offices

### **Racal Instruments, Inc.**

4 Goodyear St., Irvine, CA 92618-2002  
Tel: (800) RACAL-ATE, (800) 722-2528,  
(949) 859-8999; FAX: (949) 859-7139

### **Racal Instruments, Ltd.**

480 Bath Road, Slough, Berkshire, SL1 6BE, United Kingdom  
Tel: +44 (0) 1628 604455; FAX: +44 (0) 1628 662017

### **Racal Systems Electronique S.A.**

18 Avenue Dutartre, 78150 LeChesnay, France  
Tel: +33 (1) 3923 2222; FAX: +33 (1) 3923 2225

### **Racal Systems Elettronica s.r.l.**

Strada 2-Palazzo C4, 20090 Milanofiori Assago, Milan, Italy  
Tel: +39 (0)2 5750 1796; FAX +39 (0)2 5750 1828

### **Racal Elektronik System GmbH.**

Technologiepark Bergisch Gladbach, Friedrich-Ebert-Strasse,  
D-51429 Bergisch Gladbach, Germany  
Tel.: +49 2204 8442 00; FAX: +49 2204 8442 19

### **Racal Australia Pty. Ltd.**

3 Powells Road, Brookvale, NSW 2100, Australia  
Tel: +612 9936 7000, FAX: +612 9936 7036

### **Racal Electronics Pte. Ltd.**

26 Ayer Rajah Crescent, 04-06/07 Ayer Rajah Industrial Estate,  
Singapore 0513.  
Tel: +65 7792200, FAX: +65 7785400

### **Racal Instruments, Ltd.**

Unit 5, 25F., Mega Trade Center, No 1, Mei Wan Road, Tsuen  
Wan, Hong Kong, PRC  
Tel: +852 2405 5500, FAX: +852 2416 4335