

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

1260 VXI
SWITCHING CARD

1260-13
SWITCHING/RELAY MODULE

PUBLICATION NO. 980673-002

RACAL INSTRUMENTS

Racal Instruments, Inc.
4 Goodyear St., Irvine, CA 92618-2002
Tel: (800) 722-3262, FAX: (949) 859-7309

Racal Instruments, Ltd.
480 Bath Road, Slough, Berkshire, SL1 6BE, United Kingdom
Tel: +44 (0) 8706 080134; FAX: +44 (0) 1753 791290

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 (02) 5750 1796; FAX +39 (02) 5750 1828

Racal Elektronik System GmbH.
Frankenforster Strasse 21, 51427 Bergisch Gladbach, Germany
Tel:+49 2204 92220; FAX: +49 2204 21491

Racal Australia Pty. Ltd.
3 Powells Road, Brookvale, NSW 2100, Australia
Tel: +61 (2) 9936 7000, FAX: +61 (2) 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

http://www.racalinst.com

RACAL

PUBLICATION DATE: March 10, 1998

Copyright 1996 by Racal Instruments, Inc. Printed in the United States of America. All rights reserved.
This book or parts thereof may not be reproduced in any form without written permission of the publisher.

WARRANTY STATEMENT

All Racal Instruments, Inc. products are designed and manufactured to exacting standards and in full conformance to Racal's ISO 9001 procedures.

For the specific terms of your standard warranty, or optional extended warranty or service agreement, contact your Racal customer service advisor. Please have the following information available to facilitate service.

1. Product serial number
2. Product model number
3. Your company and contact information

You may contact your customer service advisor by:

E-Mail:	Helpdesk@racalinstruments.com	
Telephone:	+1 800 722 3262	(USA)
	+44(0) 8706 080134	(UK)
	+852 2405 5500	(Hong Kong)
Fax:	+1 949 859 7309	(USA)
	+44(0) 1628 662017	(UK)
	+852 2416 4335	(Hong Kong)

RETURN of PRODUCT

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: helpdesk@racalinstruments.com.

PROPRIETARY NOTICE

This document and the technical data herein disclosed, are proprietary to Racal Instruments, and shall not, without express written permission of Racal Instruments, be used, in whole or in part to solicit quotations from a competitive source or used for manufacture by anyone other than Racal Instruments. The information herein has been developed at private expense, and may only be used for operation and maintenance reference purposes or for purposes of engineering evaluation and incorporation into technical specifications and other documents which specify procurement of products from Racal Instruments.

FOR YOUR SAFETY

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.

This page was left intentionally blank.

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 1260-13

The following information describes the control-register-to-relay-channel mapping for a 1260-13 Relay Module. This information may be used to control a 1260-13 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
0	0	0
1	0	1
2	0	2
3	0	3
4	0	4
5	0	5
6	0	6
7	0	7
8	1	0
9	1	1
10	1	2
11	1	3
12	1	4
13	1	5
14	1	6
15	1	7
16	2	0
17	2	1
18	2	2
19	2	3
20	2	4
21	2	5
22	2	6
23	2	7
24	3	0
25	3	1
26	3	2
27	3	3
28	3	4
29	3	5
30	3	6
31	3	7
32	4	0
33	4	1
34	4	2
35	4	3
36	4	4
37	4	5
38	4	6
39	4	7

Table of Contents

Chapter 1
Module Specification 1-1
General 1-1
Specifications (Per Independent Channel) 1-1

Chapter 2
INSTALLATION INSTRUCTIONS 2-1
Unpacking and Inspection 2-1
Reshipment Instructions 2-2
Option 01 Installation 2-2
Module Installation 2-2

Chapter 3
Module Specific Syntax 3-1
Syntax 3-1
Configuration Setting 3-1
Connector Pin Configuration 3-2

Chapter 4
DRAWINGS 4-1

Chapter 55-1
PARTS LIST 5-1

Chapter 6
OPTIONAL HARNESS ASSEMBLIES 6-1

Chapter 7
PRODUCT SUPPORT 7-1
Product Support 7-1
Reshipment Instructions 7-1
Support Offices 7-2

List of Figures

Figure 2-1, 1260-13 2-1

Figure 3-1, 1260-13 Relay Diagram 3-2
Figure 3-2, 1260-13 J200-J203 Pin Configurations 3-3
Figure 3-3, 1260-13 Channel 3-6
Figure 3-4, 1260-13 Components Per Channel 3-7
Figure 3-5, 1260-13 Jumper Locations 3-8

List of Tables

Table 3-1, 1260-13 "A,B,C and D" Assignments 3-4
Table 3-1, 1260-13 "A,B,C and D" Assignments (continued) 3-5

Chapter 1
MODULE SPECIFICATION

General

The 1260-13 Signal Switching/Relay Actuator module provides 40 independent channels of DPST switching. All pins of each channel are accessible through the front panel allowing each channel to function independently. Each channel features mounting holes to allow the addition of a series and shunt element such as arc suppressor for contact protection, filter, etc. It also provides mounting holes for jumpers to allow the configuration of custom relay switching networks. The module permits switching up to 2 amps and 220 volts DC or 250 volts rms per channel.

Specifications (Per Independent Channel)

Switch Configuration	40 DPST Relays
User Connector	Positronics SMPL 4 FOTO LB
Maximum Switchable Voltage	220 VDC, 250 VAC RMS
Maximum Switchable Current	
Per Channel	2 ADC or AC RMS
Maximum Switchable Power	60 W or 62.5 VA
Path Resistance	< 300 MΩ
Capacitance (Per Independent Channel)	
Open Channel	< 50 pF
Hi-Lo	< 80 pF
Bandwidth, (50Ω Termination)	50 MHz
Isolation, (50Ω Termination)	0.2 dB to 100 kHz 0.3 dB to 1 MHz 0.5 dB to 10 MHz

Crosstalk, (50Ω Termination)	< -70 dB to 100 kHz < -50 dB to 1 MHz < -25 dB to 10 MHz

Cooling Requirements

Airflow	1.0 liter/sec
Backpressure	0.05 mm H_20

Cooling Requirements (With Option 01S/T)

Airflow	2.0 liters/sec
Backpressure	0.2 mm H_20

Power Requirements (I_{pm})

+5 V	0.4 A (2.8A with Option 01)
+24 V	10 mA per energized relay

Weight	2.77 lbs (1.25 Kg) w/o Option 01
	3.05 lbs (1.37 Kg) with Option 01

Minimum Option 01 Firmware

Revision	17.1

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.

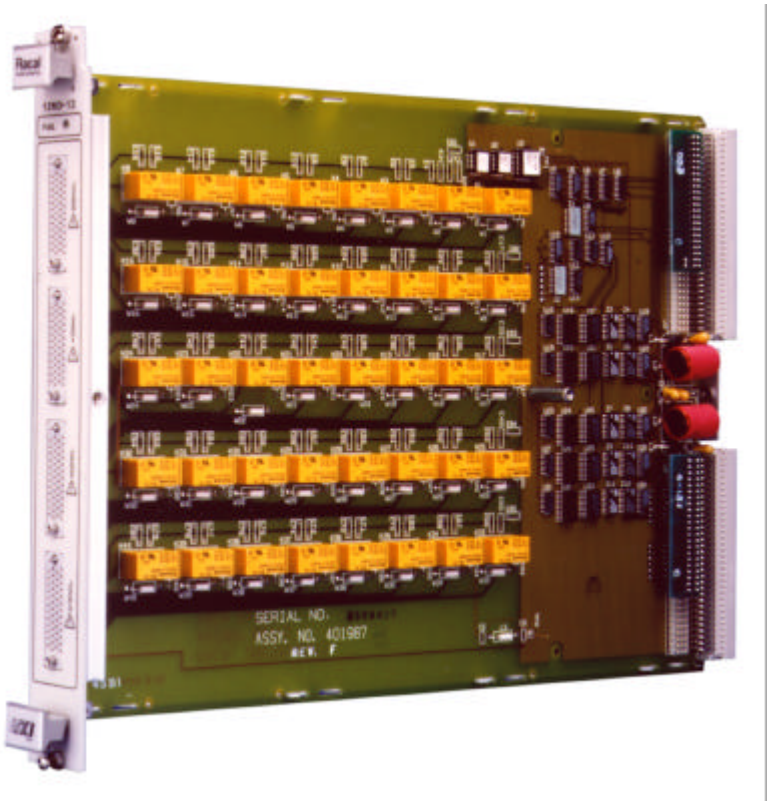


Figure 2-1, 1260-13

Reshipment Instructions

1. Use the original packing material 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 material 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 1260-13 is described in the Installation section of the 1260 Series VXI Switching Cards Manual.

Module Installation

Installation of the 1260-13 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. The ID byte DIP switches, SW1-5 and SW1-6, should be set OFF.

Chapter 3

MODULE SPECIFIC SYNTAX

The module specific syntax for the 1260-13 is required in the use of the OPEN and CLOSE commands. It will also appear in the data output by the Master in response to the PDATAOUT and PSETUP commands.

Syntax

The Module Specific Syntax for the 1260-13 module is as follows:

<module address>.<channel>

where <module address> is the switch card address.

<channel> is the channel number to be switched; the valid values for

<channel> range from 0 to 39

NOTE

The <module address> used here is <u>not</u> the VXIbus defined logical address of the 1260 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 module PCB.

Configuration Setting

The 1260-13 Signal Switching/Relay Actuator module provides 40 independent channels of DPST switching. All four pins of each DPST relay are accessible through the front panel allowing each channel to function independently. Each channel features mounting holes to allow the addition of a series and shunt element such as arc suppressor for contact protection, filter, etc. It also provides mounting holes for jumpers to allow the configuration of custom relay switching networks. The module permits switching up to 2 amps and 220 volts, DC or 250 volts rms per channel.

A total of 200 pins are accessible through the front panel connectors, 22 of which are not used. Each channel is assigned 4 pins, A,B,C and D, as shown in Figure 3-1.

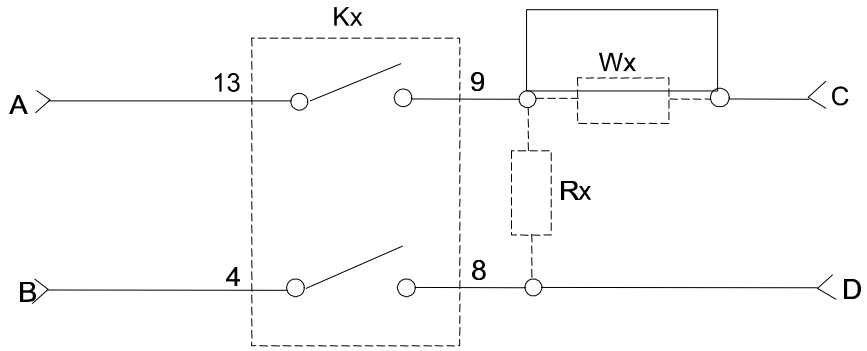


Figure 3-1, 1260-13 Relay Diagram

The corresponding pin assignments of the 4 pins for each channel is tabulated on Table 3-1.

Connector Pin Configuration

Refer to Figure 3-2 below for the pin configurations of the front panel connectors J200 to J203. J200 to J203 is Racal Instruments Part Number 601856-050. The mating connectors are Racal Instruments Part Number 601855-050, and mating pins are Racal Instruments Part Number 601857.

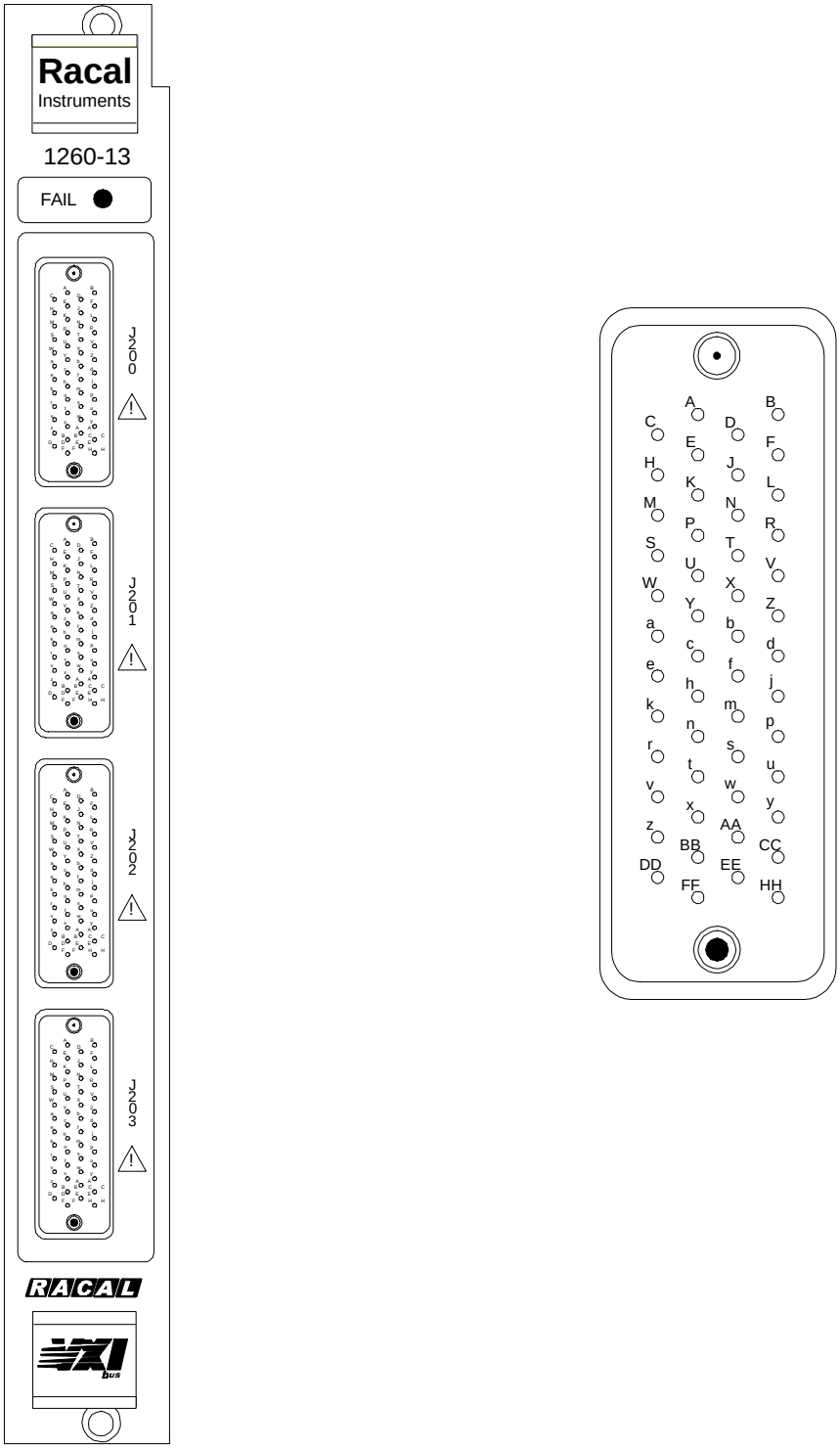


Figure 3-2, 1260-13 J200-J203 Pin Configurations

CHANNEL NO.	Pin A	Pin C	Pin B	Pin D
00	J200-s	J200-p	J200-r	J200-n
01	J200-m	J200-j	J200-k	J200-h
02	J200-f	J200-d	J200-e	J200-c
03	J200-b	J200-Z	J200-a	J200-Y
04	J200-X	J200-V	J200-W	J200-U
05	J200-T	J200-R	J200-S	J200-P
06	J200-N	J200-L	J200-M	J200-K
07	J200-J	J200-F	J200-H	J200-E
08	J201-f	J201-d	J201-e	J201-c
09	J201-b	J201-Z	J201-a	J201-Y
10	J201-X	J201-V	J201-W	J201-U
11	J201-T	J201-R	J201-S	J201-P
12	J201-N	J201-L	J201-M	J201-K
13	J201-J	J201-F	J201-H	J201-E
14	J200-EE	J200-CC	J200-DD	J200-BB
15	J200-AA	J200-y	J200-z	J200-x
16	J202-X	J202-V	J202-W	J202-U
17	J202-T	J202-R	J202-S	J202-P
18	J202-N	J202-L	J202-M	J202-K
19	J202-J	J202-F	J202-H	J202-E
20	J201-EE	J201-CC	J201-DD	J201-BB
21	J201-AA	J201-y	J201-z	J201-x
22	J201-w	J201-u	J201-v	J201-t
23	J201-s	J201-p	J201-r	J201-n
24	J203-N	J203-L	J203-M	J203-K
25	J203-J	J203-F	J203-H	J203-E
26	J202-EE	J202-CC	J202-DD	J202-BB
27	J202-AA	J202-y	J202-z	J202-x
28	J202-w	J202-u	J202-v	J202-t
29	J202-s	J202-p	J202-r	J202-n
30	J202-m	J202-j	J202-k	J202-h
31	J202-f	J202-d	J202-e	J202-c
32	J203-EE	J203-CC	J203-DD	J203-BB
33	J203-AA	J203-y	J203-z	J203-x
34	J203-w	J203-u	J203-v	J203-t
35	J203-s	J203-p	J203-r	J203-n
36	J203-m	J203-j	J203-k	J203-h
37	J203-f	J203-d	J203-e	J203-c
38	J203-b	J203-Z	J203-a	J203-Y
39	J203-X	J203-V	J203-W	J203-U

Table 3-1, 1260-13 "A,B,C and D" Assignments

COM	A	B
0	J200-D	J200-C
1	J200-w	J200-v
2	J201-m	J201-k
3	J202-b	J202-a
4	J203-T	J203-S

Chassis	**Ground**
J200-A	J200-FF
J201-A	J201-FF
J202-A	J202-FF
J203-A	J203-FF

Table 3-1, 1260-13 "A,B,C and D" Assignments (continued)

Figure 3-3 shows a 1260-13 channel with a series and shunt element associated with each channel. The series elements are designated W1 to W40 while the shunt elements are designated R1 to R40. To allow immediate use of the module, a zero-ohm jumper is installed on all positions for W1 to W40. No component is installed on R1 to R40.

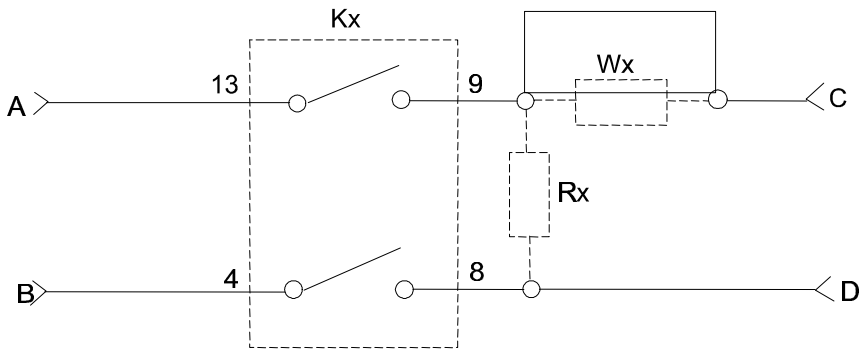
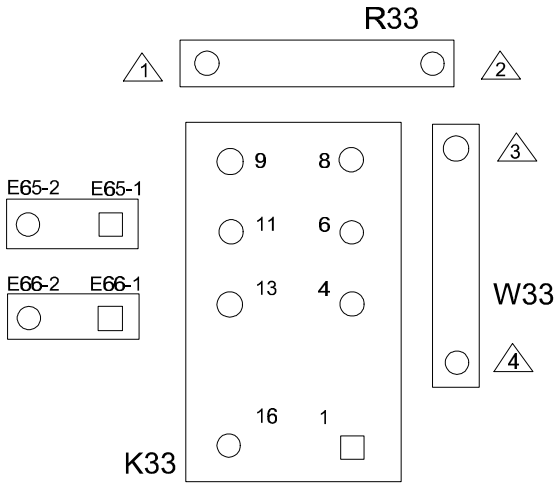


Figure 3-3, 1260-13 Channel

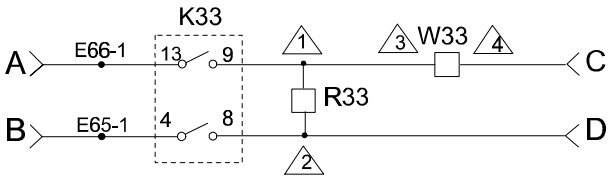
To install a shunt element at a particular channel, locate the "R" position which has a numerical assignment that is one higher than the channel number. For example, the shunt element associated with CH 19 will have the designation R20. The same procedure applies to the installation of a series element except, instead of an "R" designation, a series element will be installed on a "W" position. Since the module is shipped with jumpers installed on W1 to W40, installation of a series element will first require the removal of the jumper on the location of interest. Figure 3-4 summarizes the components associated with each channel. It also shows how the series and shunt elements are connected to the relay, which is useful when the elements being installed have associated polarities.

Custom relay switching networks can be implemented by using jumpers and mounting holes on the module. Referring to Figure 3-4, mounting holes are provided on the "A" and "B" side of each relay. In addition, a pair of "common" lines with mounting holes run alongside each column of 8 relays. These lines can be used to implement a multiplexer using the 8 adjacent relays. For example, to implement an 8 x 1 multiplexer using K1 to K8, use jumpers to connect E1-1 to E1-2, E2-1 to E2-2,..., E16-1 to E16-2 (See Figure 3-5). K1 to K8 now composes a 2-wire, 8 x 1 multiplexer with COM0A and COM0B as the common pair. The other four columns of eight relays can be configured in the same manner to provide a total of five 8 x 1 multiplexers. The pin assignment of the common pairs in shown on Table 3-1.

EXAMPLE: CH 32



COMPONENT LAYOUT
(TOP VIEW)



SCHEMATIC

NOTE: PINS 6 AND 11 OF THE RELAY ARE NOT USED

Figure 3-4, 1260-13 Components Per Channel

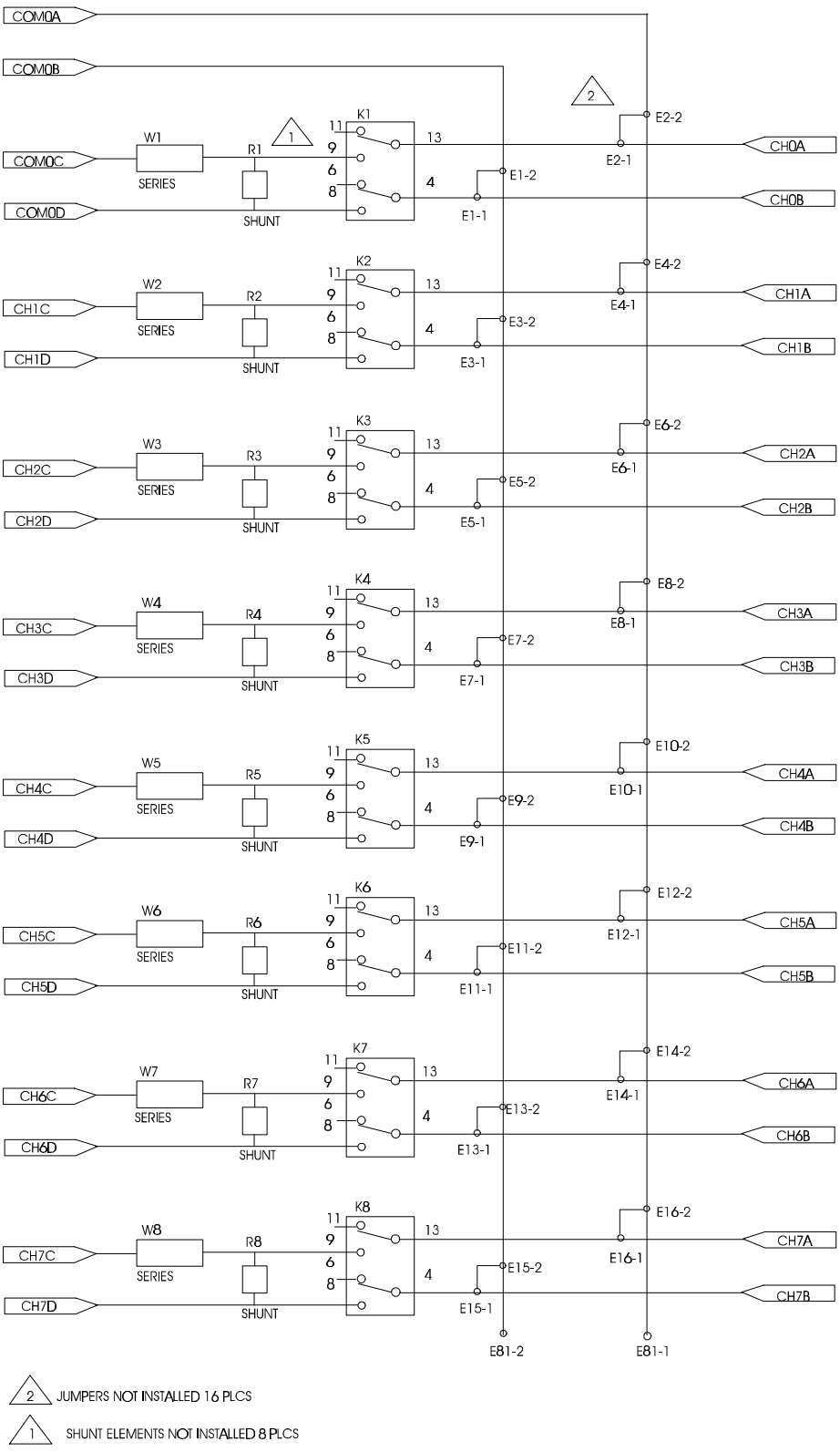
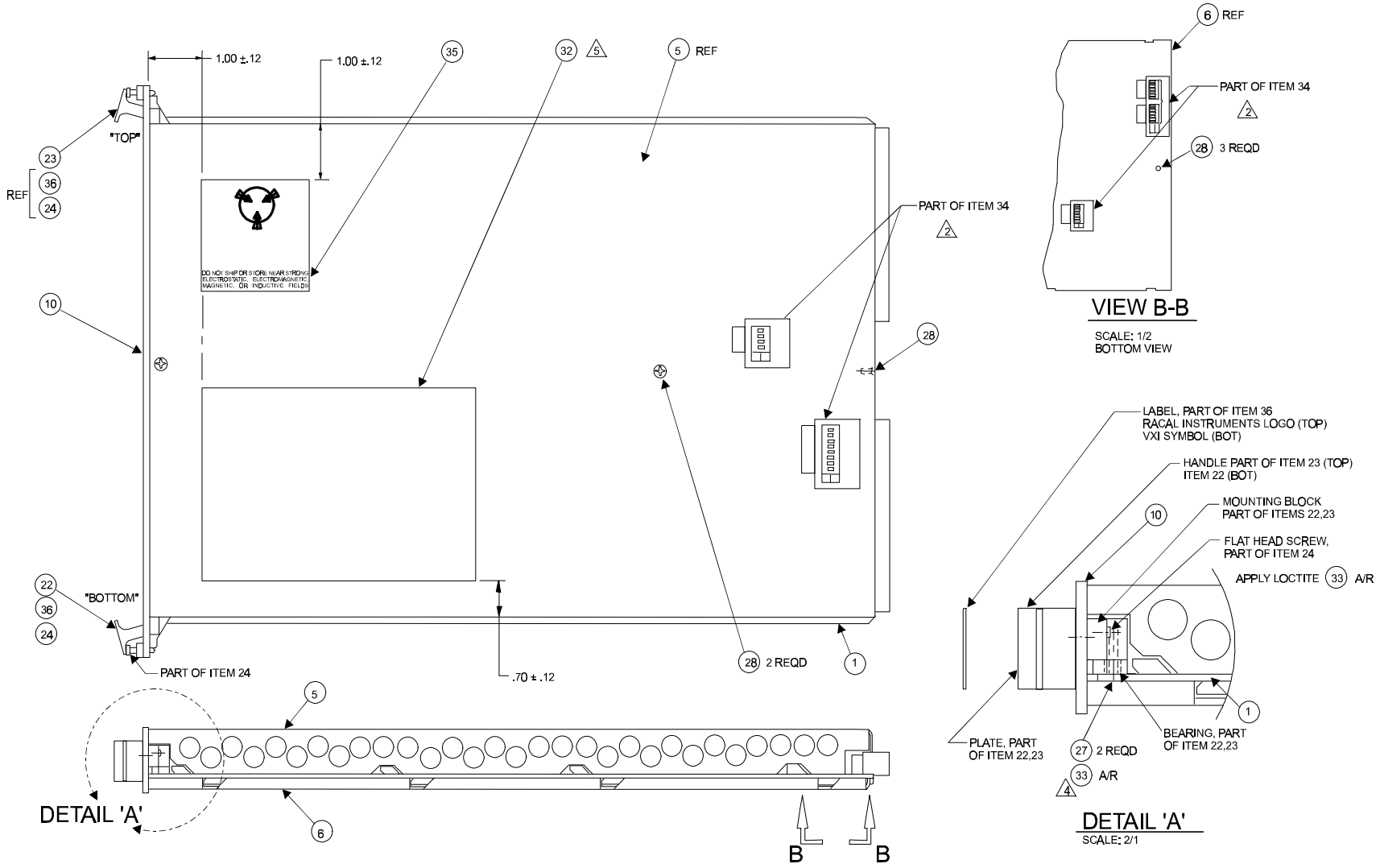


Figure 3-5, 1260-13 Jumper Locations

Chapter 4
DRAWINGS

404941	Final Assy, 1260-13	4-2
401987	PCB Assy, 1260-13	4-3
431987	Schematic, 1260-13	4-4



NOTES:
1. DISCARD UNUSED HARDWARE IN ITEM 24.

2 AFFIX LABELS AS SHOWN, ALIGN LABEL TEXT WITH APPROPRIATE SWITCH ACTUATORS.

3. INCLUDE SHIPPING KIT, ITEM 3 IN BOX WITH ASSY.

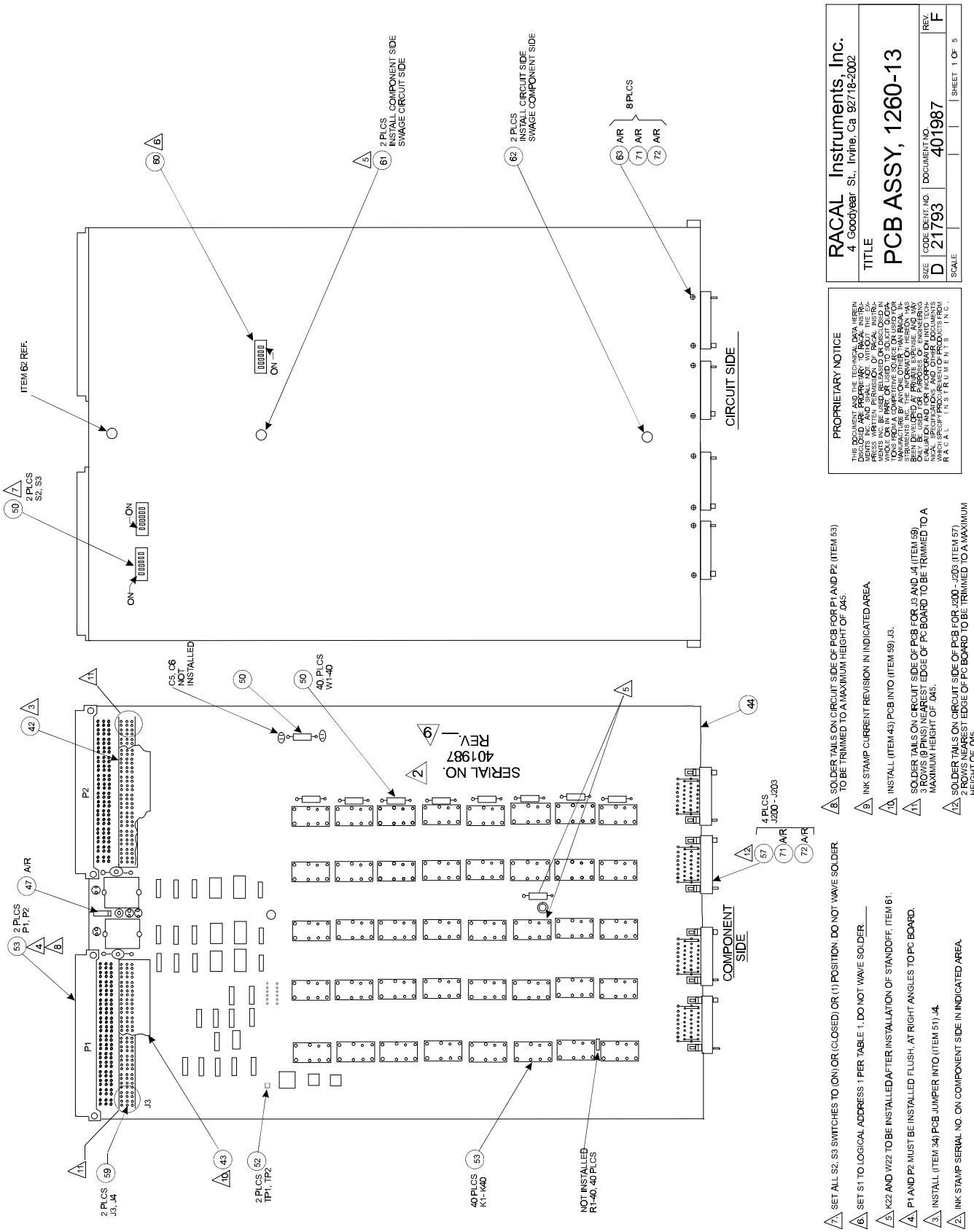
4 APPLY LOCTITE SPARINGLY. DO NOT ALLOW CONTACT WITH EJECTOR HANDLES ITEMS 22 (BOT) AND 23 (TOP)

5 TYPE PERTINENT INFORMATION ON LABEL ITEM 32 PRIOR TO AFFIXING LABEL TO PANEL.

PROPRIETARY NOTICE

THIS DOCUMENT AND THE TECHNICAL DATA HEREIN DISCLOSED ARE PROPRIETARY TO RACAL INSTRUMENTS INC. AND SHALL NOT, WITHOUT THE EXPRESS WRITTEN PERMISSION OF RACAL INSTRUMENTS INC. BE USED, RELEASED OR DISCLOSED IN WHOLE OR IN PART OR USED TO SOLICIT QUOTATIONS FROM A COMPETITIVE SOURCE OR USED FOR MANUFACTURE BY ANYONE OTHER THAN RACAL INSTRUMENTS INC. THE INFORMATION HEREON HAS BEEN DEVELOPED AT PRIVATE EXPENSE, AND MAY ONLY BE USED FOR PURPOSES OF ENGINEERING EVALUATION AND FOR INCORPORATION INTO TECHNICAL SPECIFICATIONS AND OTHER DOCUMENTS WHICH SPECIFY PROCUREMENT OF PRODUCTS FROM RACAL INSTRUMENTS INC.

Racal Instruments, Inc.			
4 Goodyear St., Irvine, CA 92718-2002			
TITLE			
1260-13, 40 CH, DPST, 220V 2A			
SIZE	CAGE CODE	DOCUMENT NUMBER	REV.
D	21793	404941	D
SCALE 1/1		SHT. 1 OF 2	



PROPRIETARY NOTICE

THIS DOCUMENT AND THE TECHNICAL DATA HEREIN DISCLOSED ARE PROPRIETARY TO RACAL INSTRUMENTS, INC. AND SHALL NOT, WITHOUT THE EXPRESS WRITTEN PERMISSION OF RACAL INSTRUMENTS INC. BE USED, RELOADED OR DISCLOSED IN WHOLE OR IN PART OR USED TO SOLICIT QUOTATION OR MANUFACTURE BY ANYONE OTHER THAN RACAL INSTRUMENTS INC. EXCEPT THAT THE INFORMATION HEREIN MAY BE USED OR DISCLOSED FOR MILITARY PROCUREMENT ONLY BE USED FOR PURPOSES OF ENGINEERING EVALUATION, PROCUREMENT OR MAINTENANCE BY THE U.S. GOVERNMENT PROVIDED THAT ALL SUCH DISCLOSURES ARE SUBJECT TO THE PROPRIETARY RESTRICTIONS WHICH SPECIFY PROCUREMENT OF PRODUCTS FROM R A C A L I N S T R U M E N T S I N C.

RACAL Instruments, Inc.
4 Goodyear St., Irvine, Ca 92718-2002

TITLE
PCB ASSY, 1260-13

SIZE	CODE IDENT NO.	DOCUMENT NO.	REV.
D	21793	401987	F

SCALE | SHEET 1 OF 5

1. REFERENCE SCHEMATIC 431905.

2 INK STAMP SERIAL NO. ON COMPONENT SIDE IN INDICATED AREA.

3 INSTALL (ITEM 34) PCB JUMPER INTO (ITEM 51) J4.

4 P1 AND P2 MUST BE INSTALLED FLUSH, AT RIGHT ANGLES TO PC BOARD.

5 K22 AND W22 TO BE INSTALLED AFTER INSTALLATION OF STANDOFF, ITEM 61.

6 SET S1 TO LOGICAL ADDRESS 1 PER TABLE 1. DO NOT WAVE SOLDER.

7 SET ALL S2, S3 SWITCHES TO (ON) OR (CLOSED) OR (1) POSITION. DO NOT WAVE SOLDER.

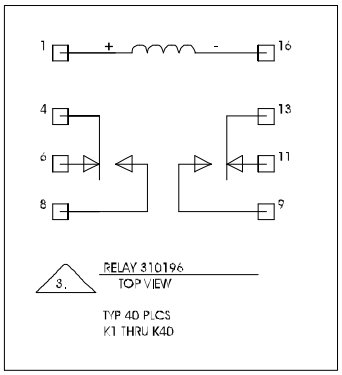
8 SOLDER TAILS ON CIRCUIT SIDE OF PCB FOR P1 AND P2 (ITEM 53) TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.

9 INK STAMP CURRENT REVISION IN INDICATED AREA.

10 INSTALL (ITEM 43) PCB INTO (ITEM 59) J3.

11 SOLDER TAILS ON CIRCUIT SIDE OF PCB FOR J3 AND J4 (ITEM 59) 3 ROWS (9 PINS) NEAREST EDGE OF PC BOARD TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.

12 SOLDER TAILS ON CIRCUIT SIDE OF PCB FOR J200 - J203 (ITEM 57) 2 ROWS NEAREST EDGE OF PC BOARD TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.



REF. DES.	IC TYPE	+5V PIN NO.	GND PIN NO.
U17,21,25,29,33	2803		9
U16,20,24,28,32	74HCT273	20	10
U14	74HCT85	16	8
U13	74LS138	16	8
U11,12,15,19,23,27,31	74HCT164	14	7
U10,18,22,26,30,34	74HCT166	16	8
U9	LM339	3	12
U7,8	26LS32	16	8
U6	26LS31	16	8
U4,5	74HCT253	16	8
U3	231154 (22V10H)	28	14
U2	231153 (16R4)	20	10
U1	231152 (16L8Q)	20	10

IC POWER AND GROUND CONNECTIONS

HIGHEST REF. DES.
Z12
W41
U34
TP2
SW3
R40
P2
L5
K40
J203
E85
C122

4. C5,C6,R1 THRU R40 ARE NOT INSTALLED.

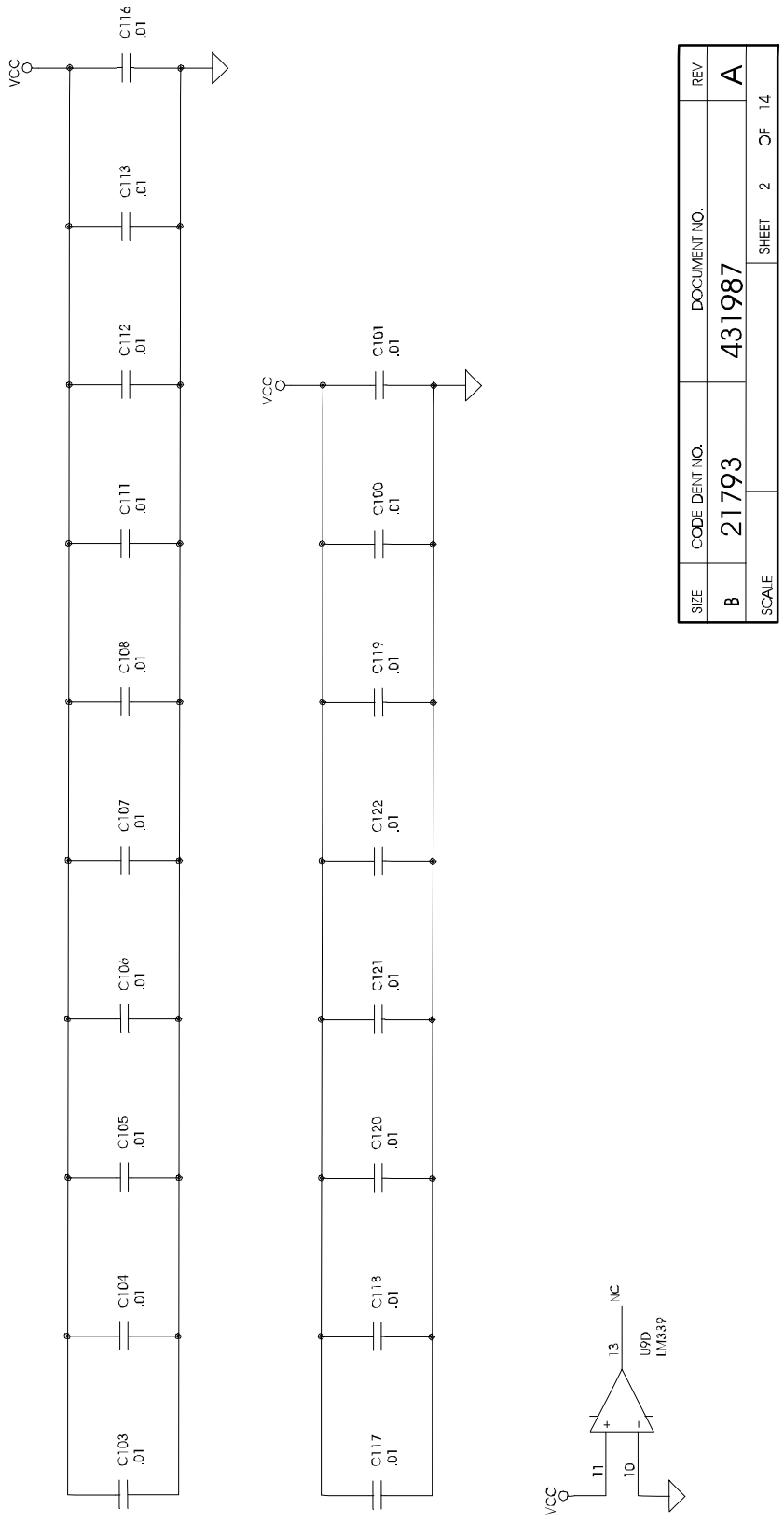
3. RELAYS K1 THRU K40 ARE RACAL DANA P/N 310196.

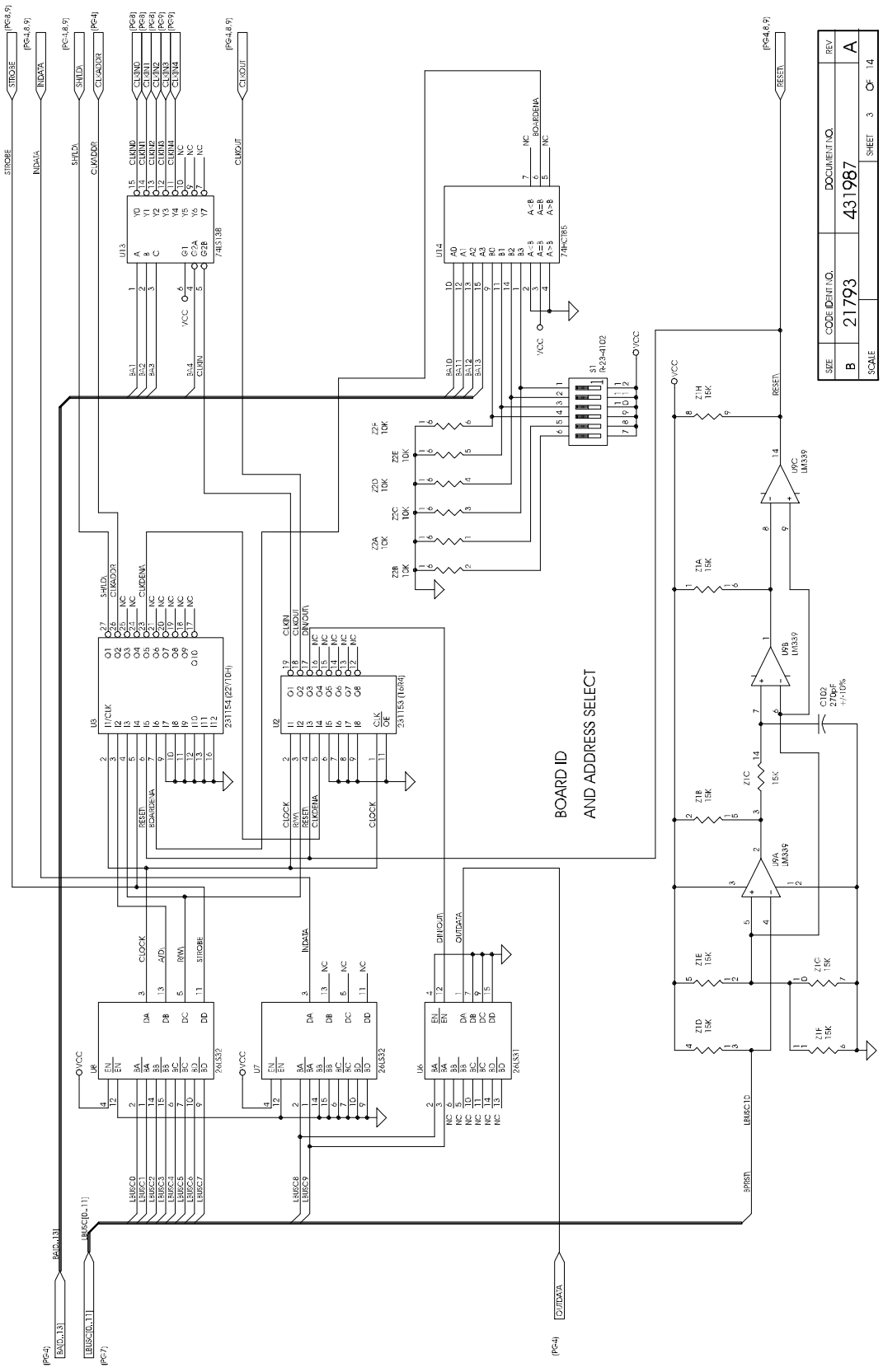
ALL RELAYS SHOWN IN DE-ENERGIZED POSITION.

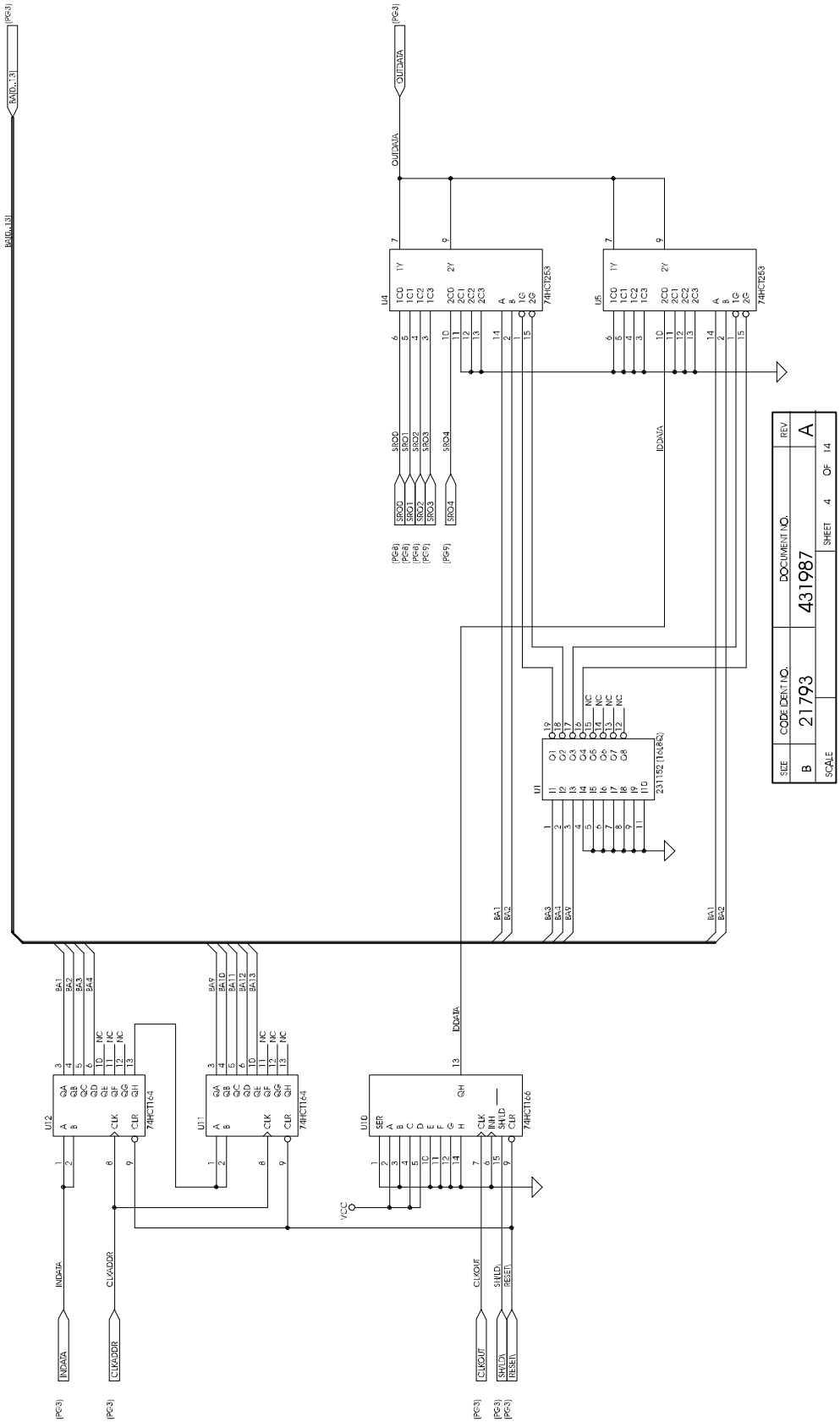
2. RESISTOR NETWORKS ARE IN OHMS.

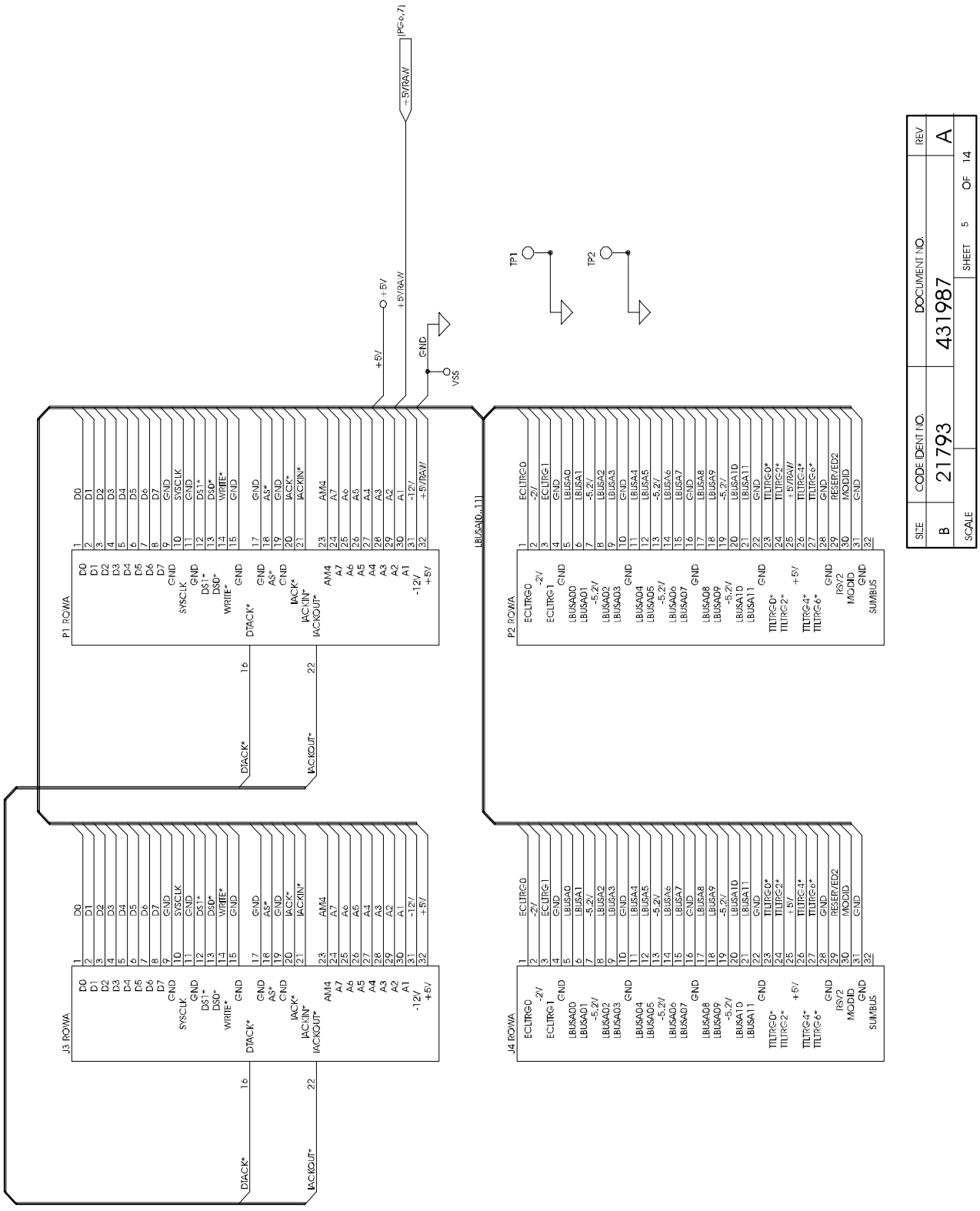
1. CAPACITOR VALUES ARE IN MICROFARADS, 50V, +/-20% UNLESS OTHERWISE SPECIFIED.

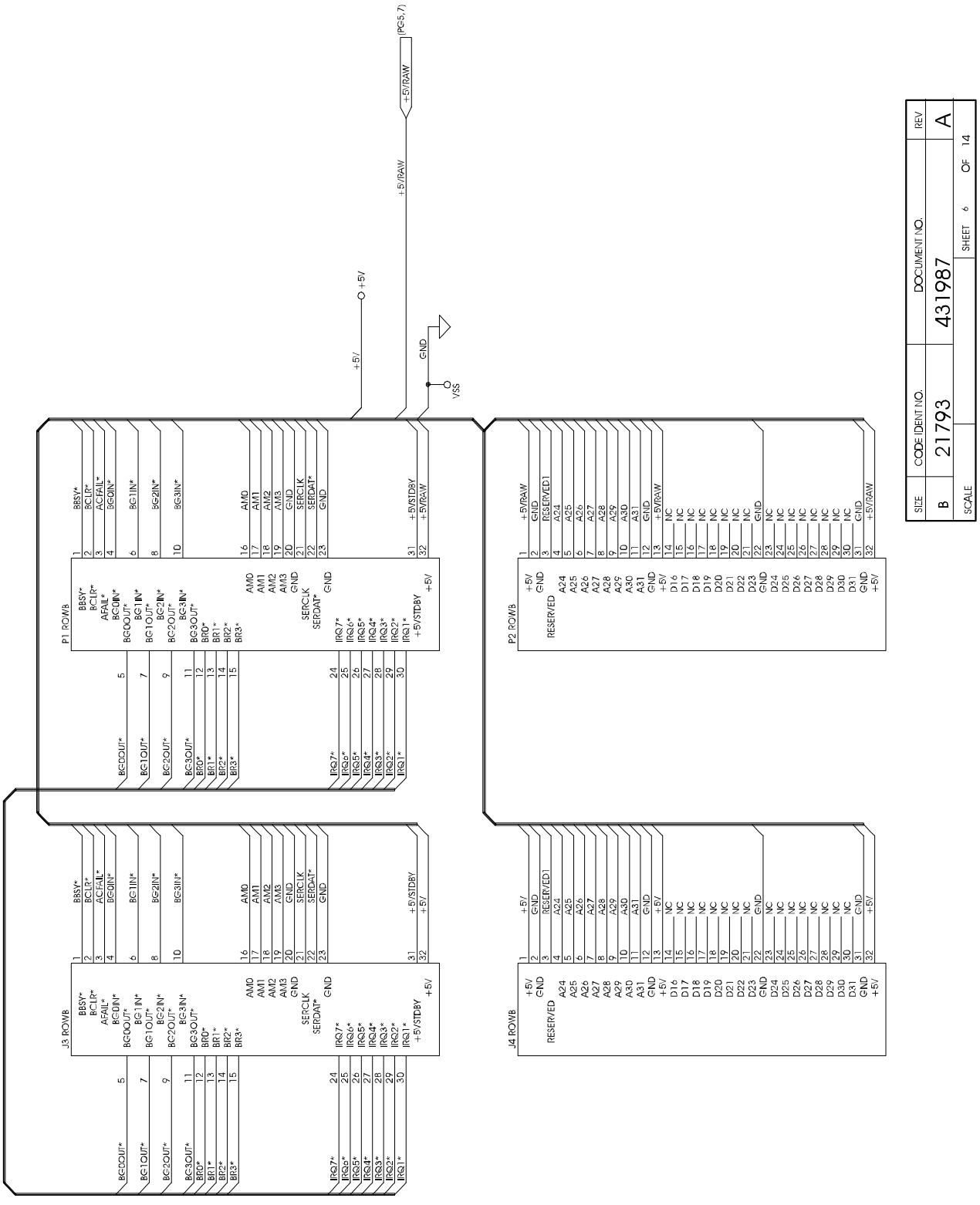
RACAL INSTRUMENTS, INC.		
Title: SCHEM,1260-13		
Size: B	Document Number: 431987	REV: A
Date: September 23, 1989	Sheet 1 of 14	

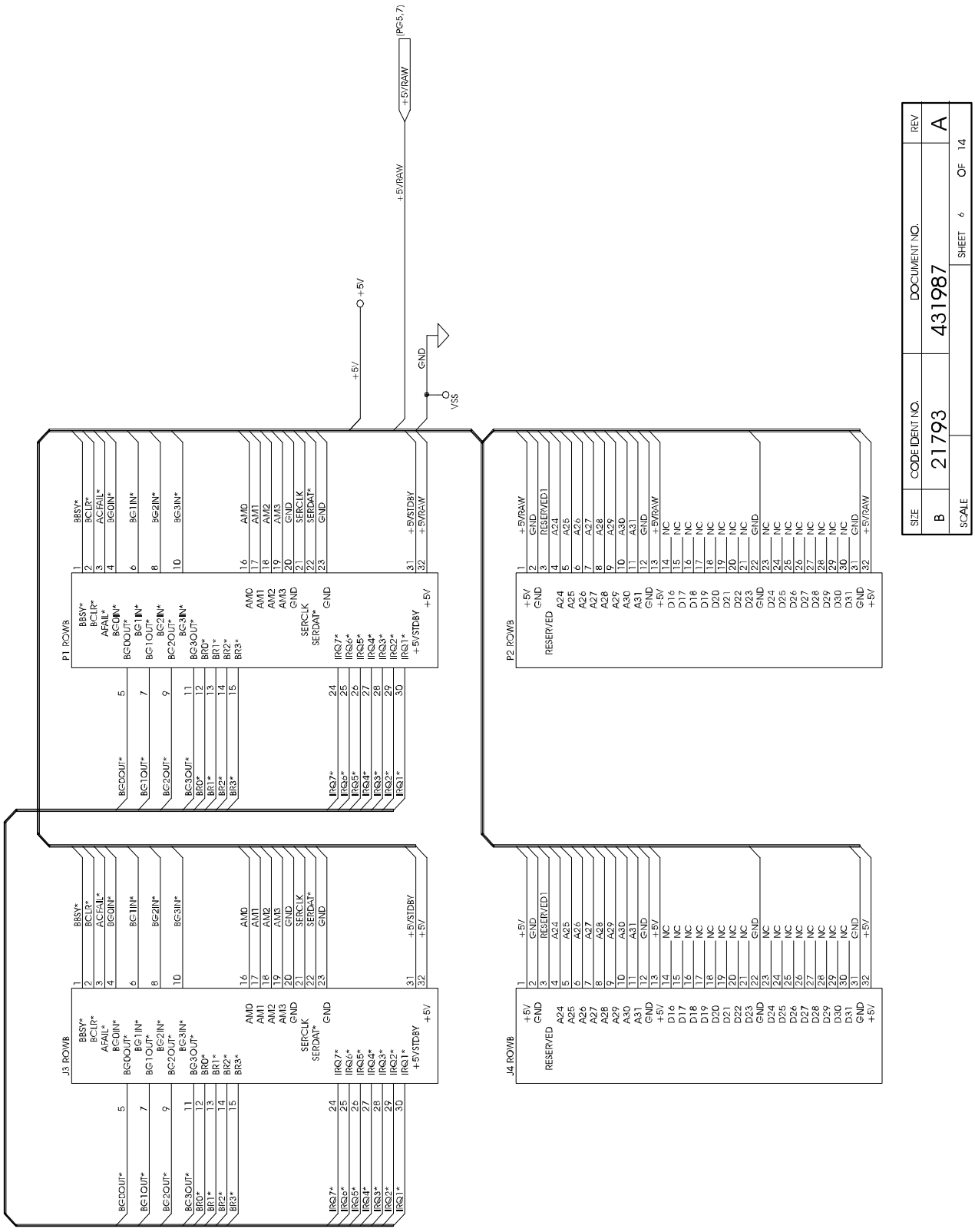

VCC
C116 .01
C113 .01
C112 .01
C111 .01
C108 .01
C107 .01
C106 .01
C105 .01
C104 .01
C103 .01
VCC
C101 .01
C100 .01
C119 .01
C122 .01
C121 .01
C120 .01
C118 .01
C117 .01
VCC
11
10
13
NC
U9D
LM339
SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 2 OF 14

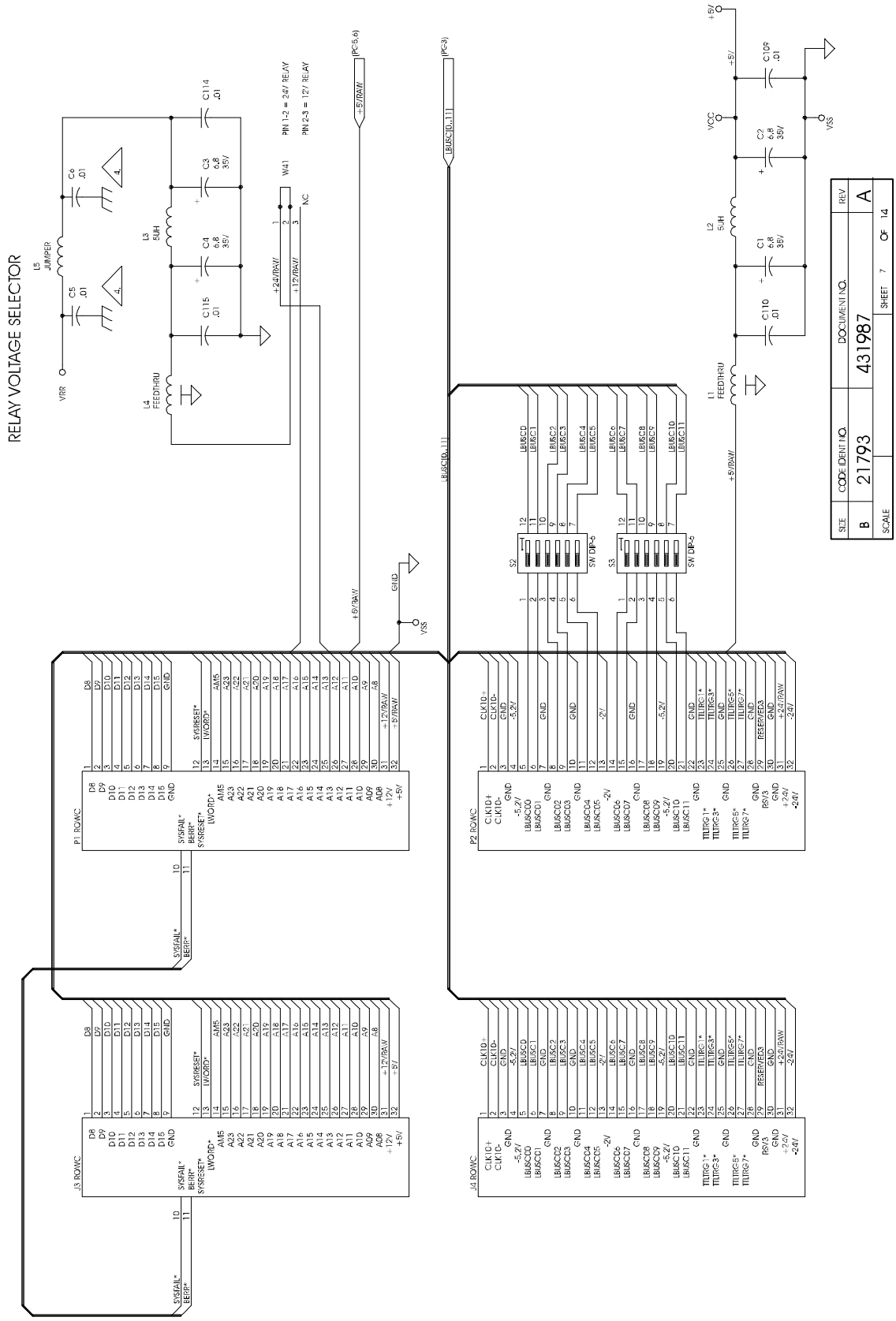

BOARD ID
AND ADDRESS SELECT
SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 3 OF 14

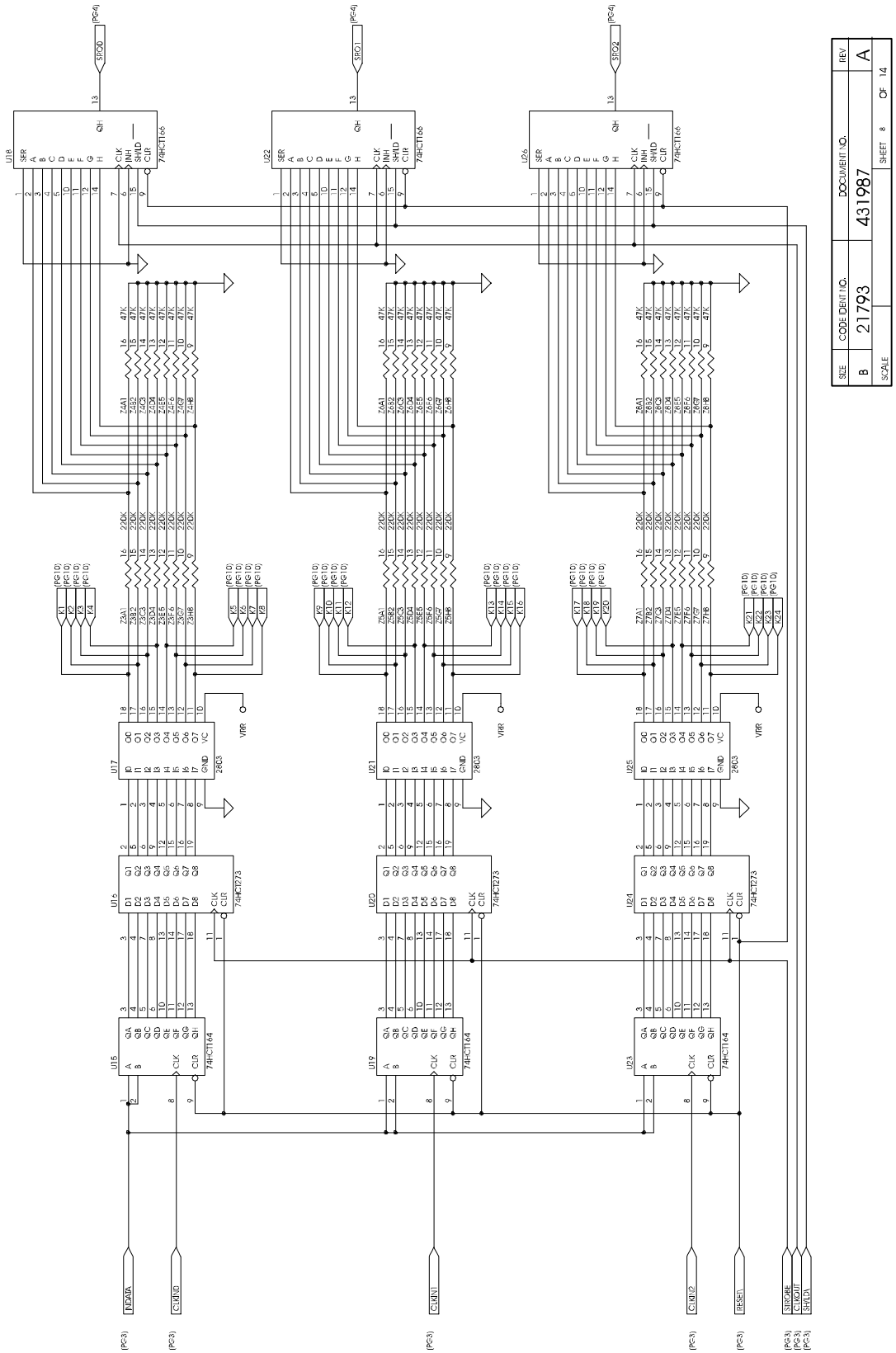

OUTDATA
IDDATA
INDATA
CLKADDR
CLKOUT
SHLD
RESET
VCC
74HCT253
74HCT574
74HCT166
231152 (16dPak)
SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 4 OF 14

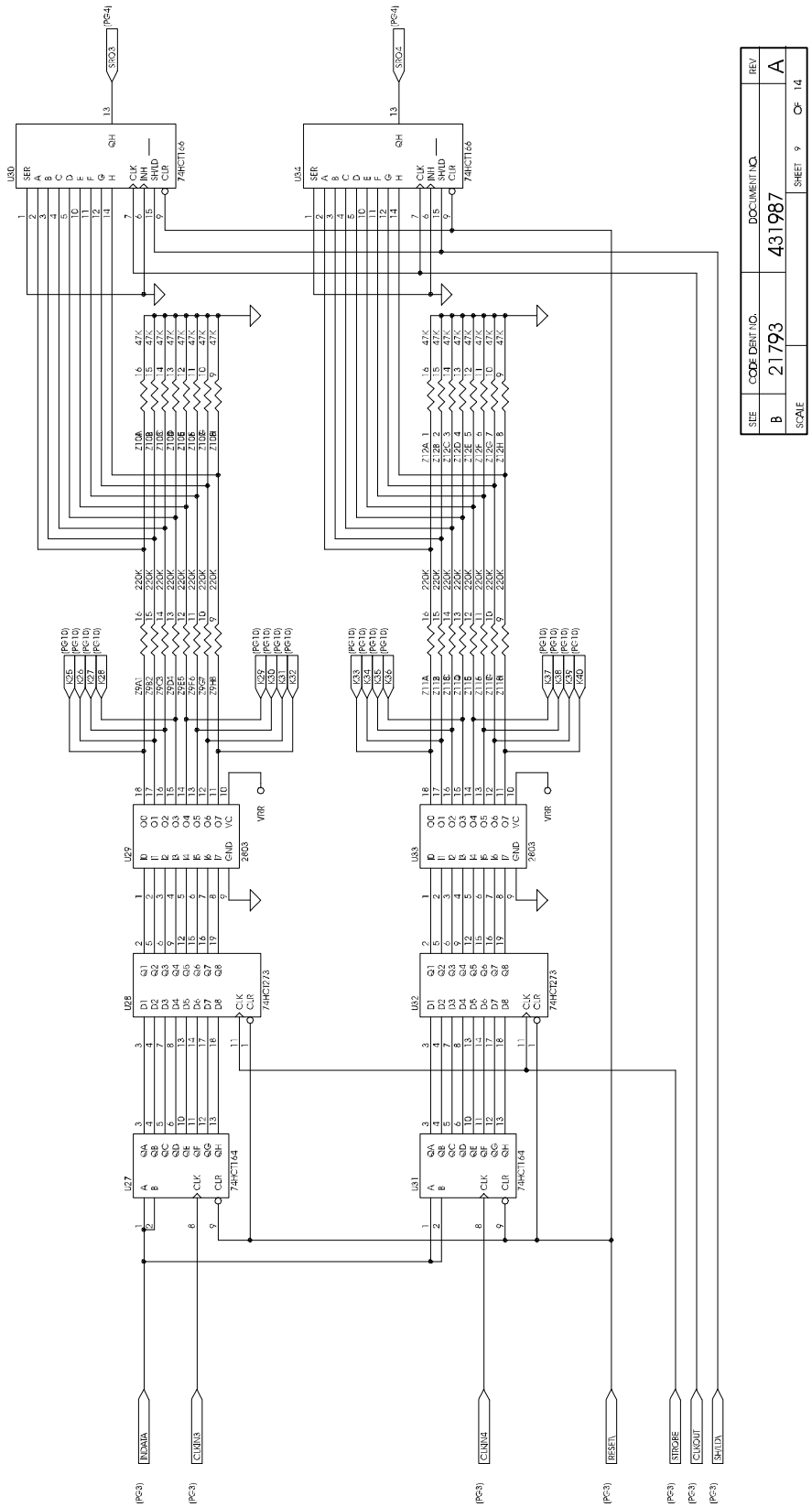

P1 ROWA
P2 ROWA
J3 ROWA
J4 ROWA
LBUSA(0..11)
+5V
+5V/RAW
GND
VSS
TP1
TP2
DTACK*
IACKOUT*
SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 5 OF 14

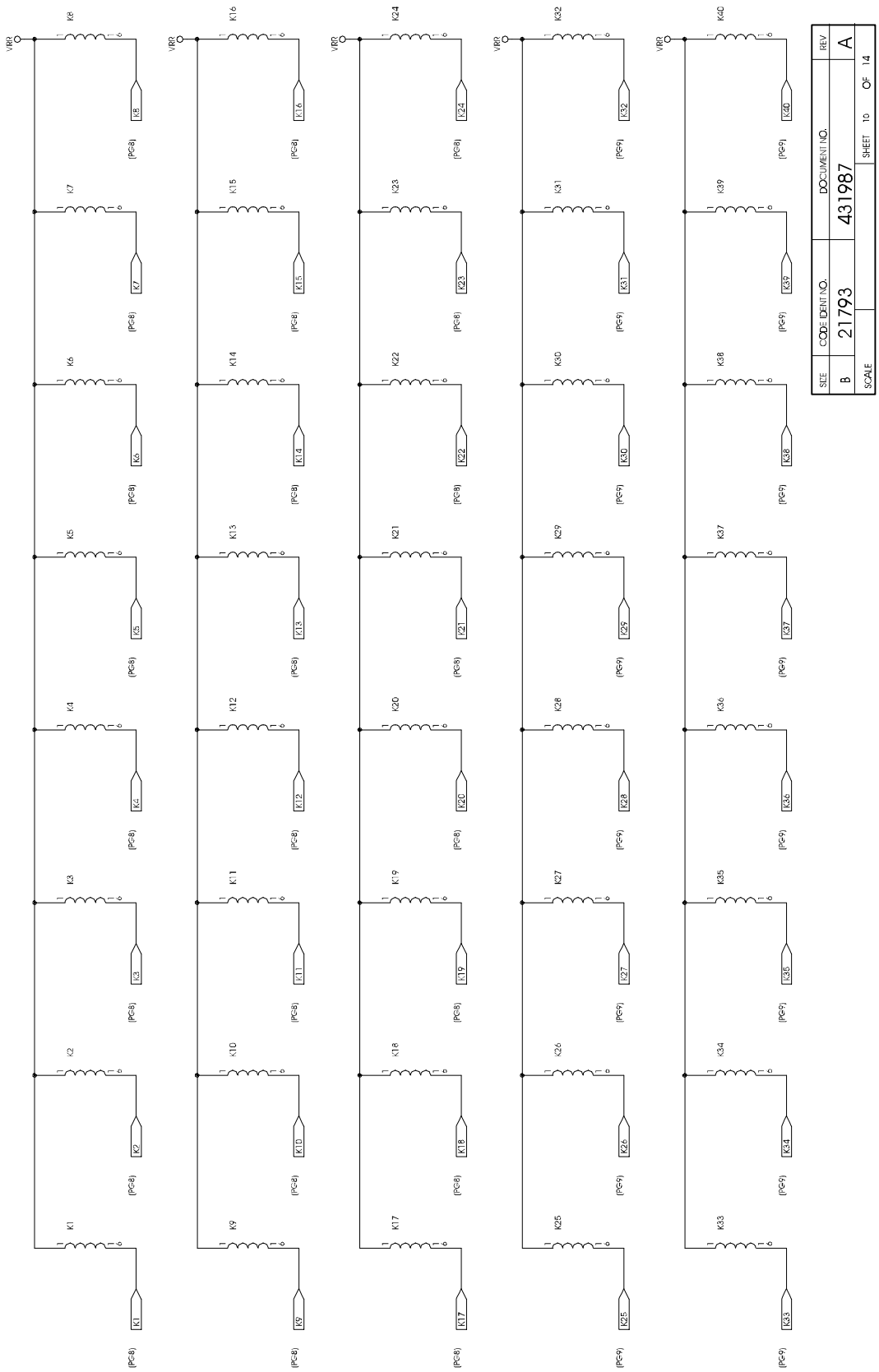

P1 ROW B
P2 ROW B
J3 ROW B
J4 ROW B
+5V
GND
+5V/RAW
(PG5, 7)
SIZE
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 6 OF 14

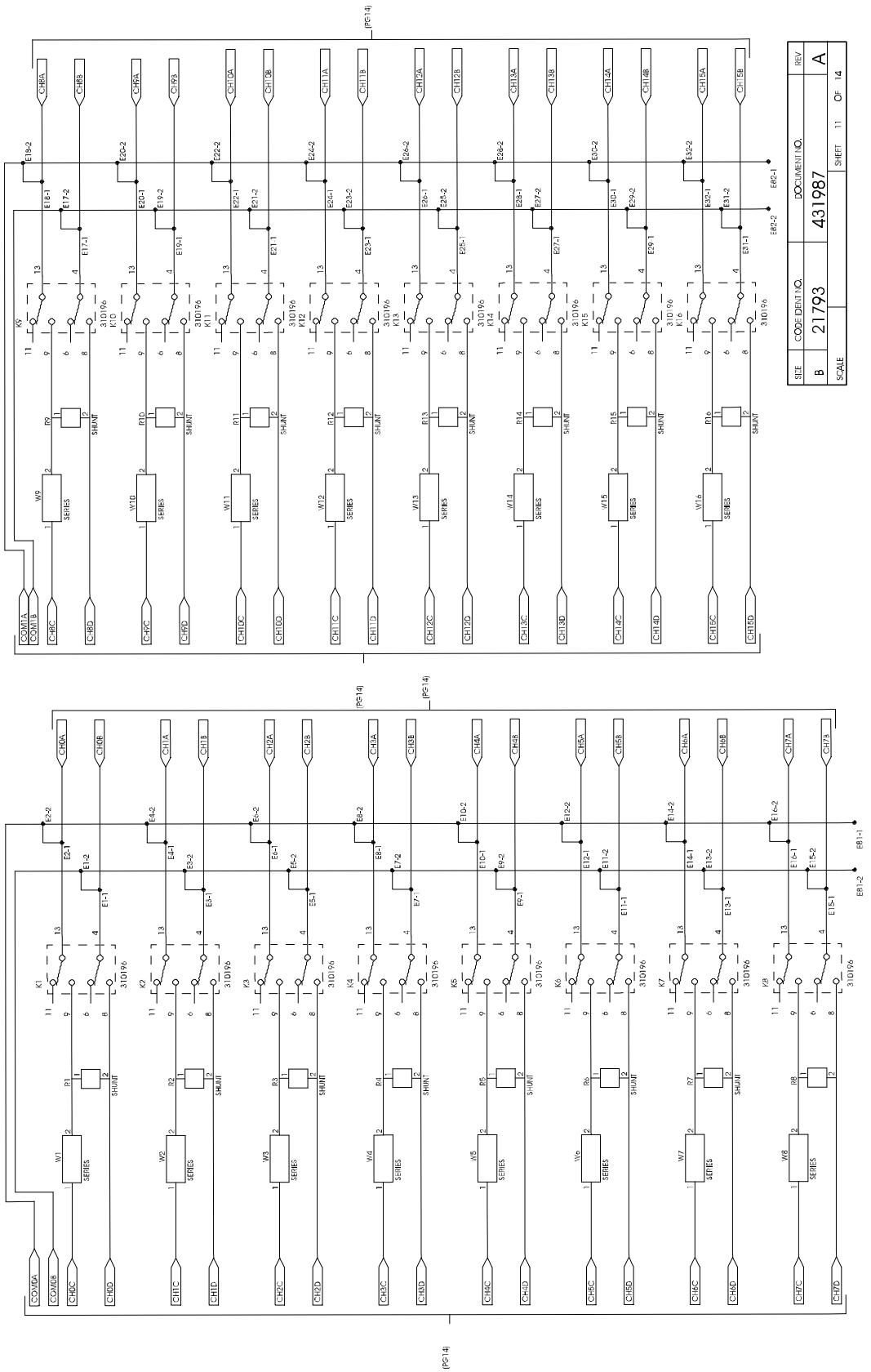

P1 ROW B
P2 ROW B
J3 ROW B
J4 ROW B
+5V
+5V/RAW
GND
VSS
(PG5,7)
SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 6 OF 14

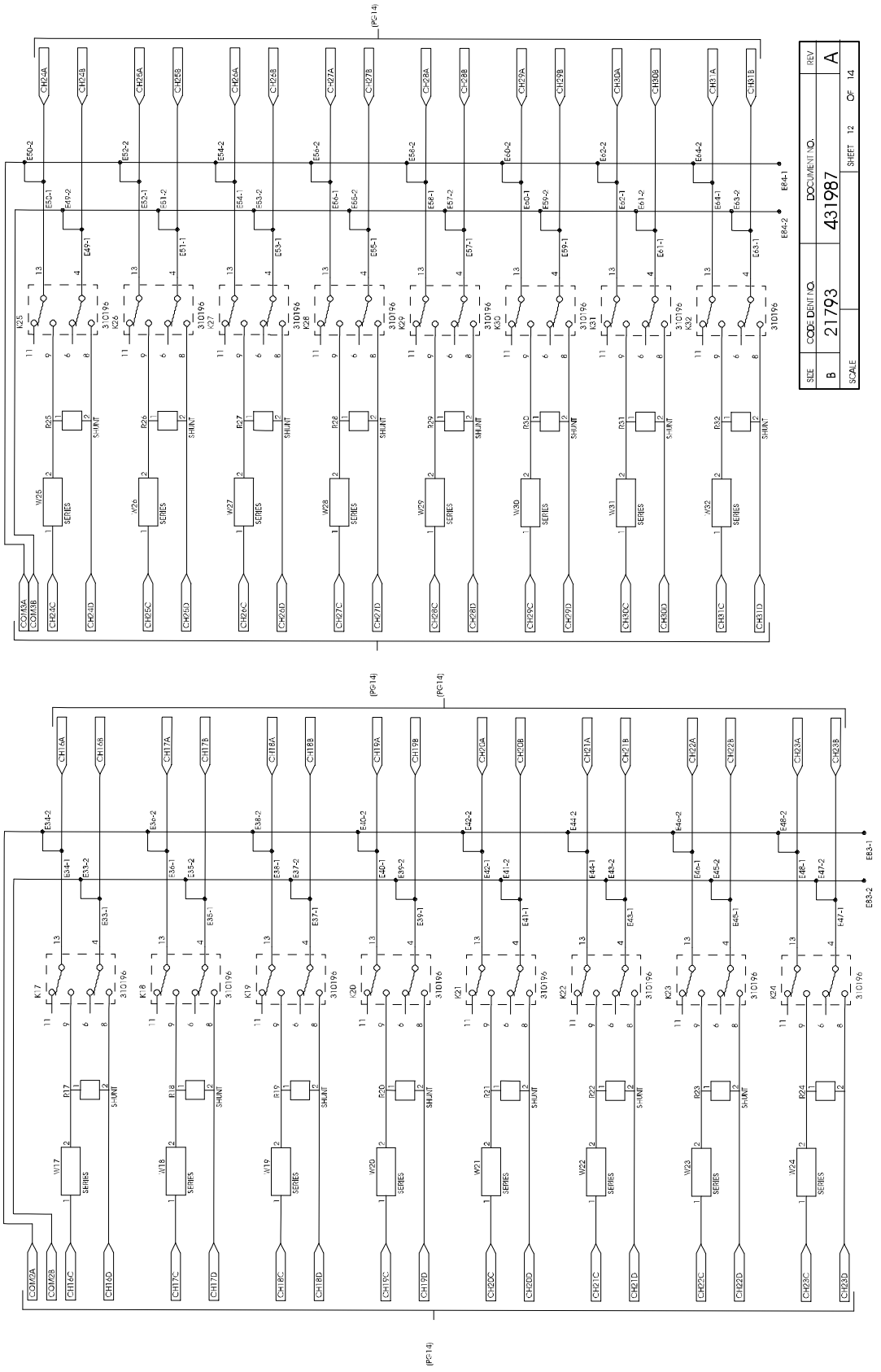

RELAY VOLTAGE SELECTOR
L5 JUMPER
C5 .01
C6 .01
VRR
L4 FEEDTHRU
L3 5UH
C115 .01
C4 6.8 35V
C3 6.8 35V
C114 .01
W41
PIN 1-2 = 24V RELAY
PIN 2-3 = 12V RELAY
+24/RAW
+12/RAW
NC
+5/RAW
L2 5UH
C110 .01
C1 6.8 35V
C2 6.8 35V
C105 .01
L1 FEEDTHRU
VCC
VSS
+5V
GND
S2
S3
SW DIP-6
P1 ROWC
P2 ROWC
J3 ROWC
J4 ROWC
SYSFAIL*
BERR*
SYSRESET*
LWORD*
SIZE
CODE IDENT NO.
DOCUMENT NO.
REV
B
21793
431987
A
SCALE
SHEET 7 OF 14

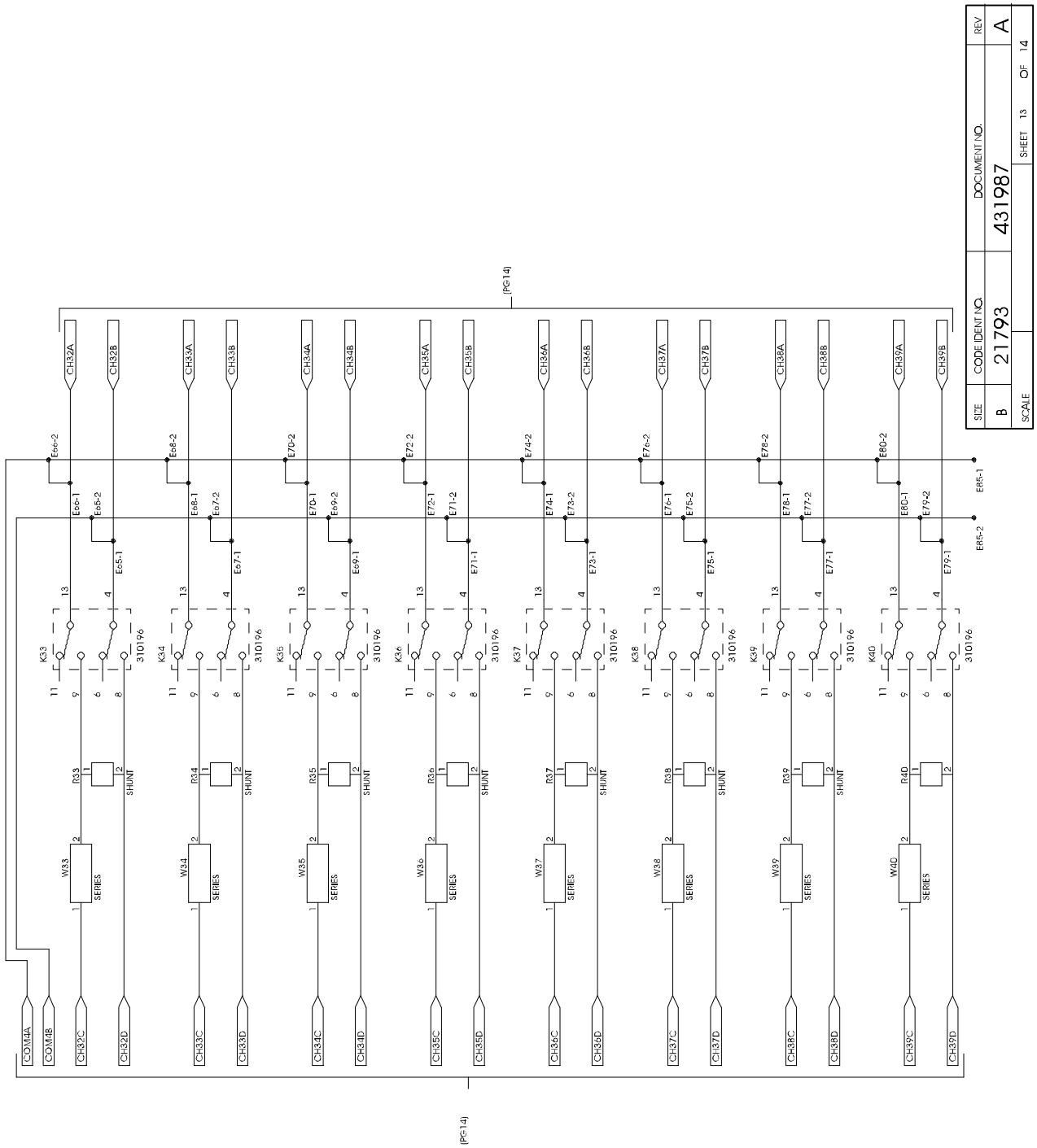

SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV.
A
SCALE
SHEET 8 OF 14
U18
U22
U26
74HCT166
SRO0
SRO1
SRO2
U17
U21
U25
2803
U15
U20
U24
74HCT273
U16
U19
U23
74HCT164
VRR
NDATA
CLKN0
CLKN1
CLKN2
RESET
STROBE
CLKOUT
SHLDN
(PC4)
(PC3)
(PG10)
47K
220K

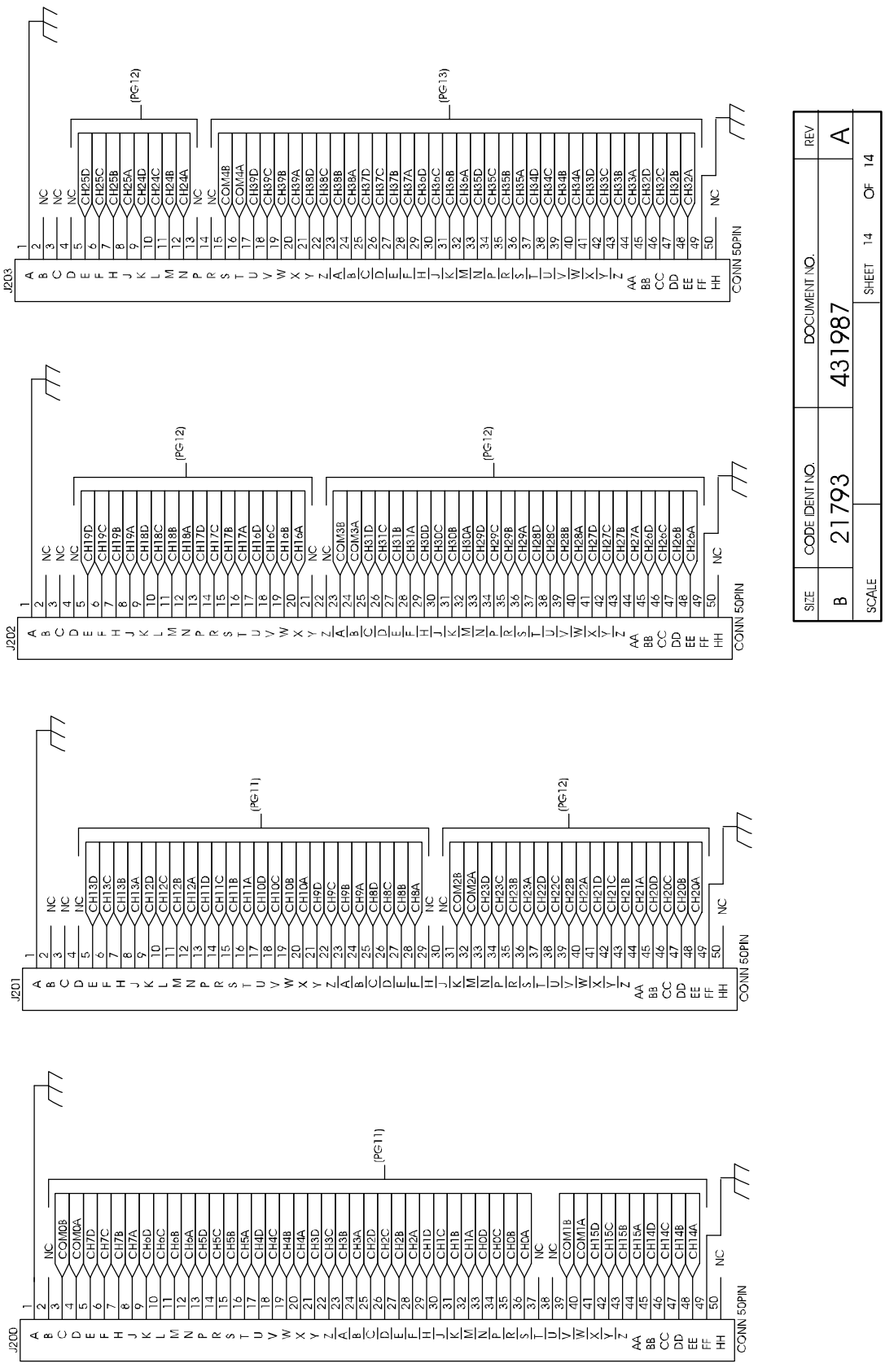

SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 9 OF 14
74HCT166
74HCT273
74HCT164
2803
220K
47K
VTRR
RESET1
STROBE
CLKOUT
SHFLDA
CLKIN4
CLKIN3
INDATA


VRR
K8
K7
K6
K5
K4
K3
K2
K1
K16
K15
K14
K13
K12
K11
K10
K9
K24
K23
K22
K21
K20
K19
K18
K17
K32
K31
K30
K29
K28
K27
K26
K25
K40
K39
K38
K37
K36
K35
K34
K33
(PG8)
(PG9)
SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 10 OF 14


SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 11 OF 14
(PG14)
COM1A
COM1B
CH8A
CH8B
CH8C
CH8D
CH9A
CH9B
CH9C
CH9D
CH10A
CH10B
CH10C
CH10D
CH11A
CH11B
CH11C
CH11D
CH12A
CH12B
CH12C
CH12D
CH13A
CH13B
CH13C
CH13D
CH14A
CH14B
CH14C
CH14D
CH15A
CH15B
CH15C
CH15D
COM2A
COM2B
CH6C
CH6D
CH1C
CH1D
CH2C
CH2D
CH3C
CH3D
CH4C
CH4D
CH5C
CH5D
CH16C
CH16D
CH7C
CH7D
SERIES
SHUNT
310196


SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 12 OF 14
(PG14)
COM2A
COM2B
CH24C
CH24D
CH25C
CH25D
CH26C
CH26D
CH27C
CH27D
CH28C
CH28D
CH29C
CH29D
CH30C
CH30D
CH31C
CH31D
CH16A
CH16B
CH17A
CH17B
CH18A
CH18B
CH19A
CH19B
CH20A
CH20B
CH21A
CH21B
CH22A
CH22B
CH23A
CH23B
COM3A
COM3B
CH16C
CH16D
CH17C
CH17D
CH18C
CH18D
CH19C
CH19D
CH20C
CH20D
CH21C
CH21D
CH22C
CH22D
CH23C
CH23D
SERIES
SHUNT
S-HUNT
310196


SIZE
B
CODE IDENT NO.
21793
DOCUMENT NO.
431987
REV
A
SCALE
SHEET 13 OF 14
(PG14)
(PG14)
COM4A
COM4B
CH32A
CH32B
CH33A
CH33B
CH34A
CH34B
CH35A
CH35B
CH36A
CH36B
CH37A
CH37B
CH38A
CH38B
CH39A
CH39B
E66-2
E68-2
E70-2
E72-2
E74-2
E76-2
E78-2
E80-2
E65-1
E65-2
E66-1
E68-1
E67-2
E70-1
E69-2
E72-1
E71-2
E74-1
E73-2
E76-1
E75-2
E78-1
E77-2
E80-1
E79-2
E85-1
E85-2
E65-1
E67-1
E69-1
E71-1
E73-1
E75-1
E77-1
E79-1
K33
K34
K35
K36
K37
K38
K39
K40
310196
R33
R34
R35
R36
R37
R38
R39
R40
SHUNT
W33
W34
W35
W36
W37
W38
W39
W40
SERIES
CH32C
CH32D
CH33C
CH33D
CH34C
CH34D
CH35C
CH35D
CH36C
CH36D
CH37C
CH37D
CH38C
CH38D
CH39C
CH39D


J200
J201
J202
J203
CONN 50PIN
(PG11)
(PG12)
(PG13)
SIZE
CODE IDENT NO.
DOCUMENT NO.
REV
B
21793
431987
A
SCALE
SHEET 14 OF 14

Chapter 5
PARTS LIST

404941	Final Assy, 1260-13	5-2
404942	Shipping Kit, 1260-13	5-2
401987	PCB Assy, 1260-13	5-3
	List of Suppliers	5-5

404941 - FINAL ASSY, 1260-13

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
(1)1	401987	PCB ASSY., 1260-13 (UNLOADED)	21793	401987
(3)1	404942	SHIPPING KIT, 1260-13	21793	404942
(5)1	456238-002	PANEL, RIGHT	21793	456238-002
(6)1	456239-002	PANEL, LEFT	21793	456239-002
(10)1	456309	PANEL, FRONT, 1260-13	21793	456309
(22)1	611264	HANDLE, EXTRACTOR, BOTTOM	62559	20817-327
(23)1	611265	HANDLE, EXTRACTOR, TOP	62559	20817-328
(24)0.5	611266	MOUNTING HARDWARE, HANDLE	62559	21100-745
(27)2	616405	SCREW, PFH, M2.5-.45 X 12	-	-
(28)6	616414	SCREW, PFL, M3.0-0.5 X 05	-	-
(32)1	921212-008	LABEL, VXI, 1260-13	21793	921212-008
(33)A/R	920962	LOCTITE, 242, MED STR.	05972	272
(34)1	921309	LABEL, VXI SWITCH ID	21793	921309
(35)1	921059	LABEL, CAUTION, STATIC	21793	921059
(36)1	921148-001	LABEL SET VXI	21793	921148-001

404942 - SHIPPING KIT, 1260-13

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
(1)2	455540	KEY, LOCKOUT, TTL, A/C	21793	455540
(2)2	455541	KEY, LOCKOUT, TTL, A/C	21793	455541
(3)2	455542	KEY, LOCKOUT, TTL, A/C	21793	455542
(6)4	601855-050	CONNECTOR, SGMC. CABLE PLUG	21793	601855-050
(7)200	601857	CONTACT, SGMC. MAIL	28198	M5422N
(9)3	615013	SCREW, PPF, 2-56 X .188	-	-
(10)1	980673-002	MANUAL, 1260-13 MODULE	21793	980673-002

401987 - PCB ASSY, 1260-13

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
C1-C4	110126	CAP, TANTA, 6.8UF, 35V, 20 PERCENT	05397	T355F685M035A5
C100	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C101	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C102	130177	CAP, CHIP, SMD, 270PF	95275	VJ1206A271KXAMT
C103-C122	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-J203	601856-050	CONNECTOR,SMPL, PCB RECEPT	21793	601856-050
K1-K40	310196	RELAY, 2FORM C	61529	DS2YE-S-DC24V
L1	100164	CAP, FEED-THRU,800PF, 50V	00779	842448-2
L2	310193	CHOKE, SHIELDED, 5UH	91637	IH-5-5-10
L3	310193	CHOKE, SHIELDED, 5UH	91637	IH-5-5-10
L4	100164	CAP, FEED-THRU,800PF, 50V	00779	842448-2
L5	600245	JUMPER, INSULATED	52210	L-2007-1
P1	601675-001	CONNECTOR, EUROCARD, 96 PIN MOD.	21793	601675-001
P2	601675-001	CONNECTOR, EUROCARD, 96 PIN MOD.	21793	601675-001
S1-S3	601969	SWITCH, DIP 6 POS, LOW PROFILE	65832	K406S
TP1	601197	POST, TEST, .025 SQ	00779	6-87022-6
TP2	601197	POST, TEST, .025 SQ	00779	6-87022-6
U1	231152	IC, PROGRAMMED PLA	21793	231152
U2	231153	IC, PROGRAMMED PLA	21793	231153
U3	231154	IC, PROGRAMMED PLA	21793	231154
U4	231147	IC, MULTIPLEXER	04713	74HC253D
U5	231147	IC, MULTIPLEXER	04713	74HC253D
U6	231125	IC, DIGITAL, LINE DRIVER	27014	DS26LS31MN
U7	231096	IC, QUAD DIFF RECEIVER	01295	AM26LS32ACD
U8	231096	IC, QUAD DIFF RECEIVER	01295	AM26LS32ACD
U9	231093	IC, QUAD COMPARATOR	04713	LM339D
U10	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U11	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U12	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U13	231094	IC, DEMUX DECODER	18324	N74LS138D
U14	231135	IC, DIGITAL, 4-BIT COMPARATOR	18324	PC74HCT85D
U15	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U16	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U17	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U18	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U19	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U20	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U21	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U22	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U23	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U24	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273

401987 - PCB ASSY, 1260-13

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
U25	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U26	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U27	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U28	231130	IC, DIGITAL, FLIP FLOP	18324	PC7414C273
U29	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U30	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U31	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U32	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U33	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U34	231120	IC, 8 BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
W1-W40	600245	JUMPER, INSULATED	52210	L-2007-1
Z1	080114	RES NETWORK, 16P8R, 15K	73138	628-AL-153J
Z2	080120	RES NETWORK, 10K	11236	767-161R10K
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
(42)1	401951	PCB ASSY., LBUS JUMPER	21793	401951
(43)1	401951-003	PCB ASSY., P3 JUMPER	21793	401951-003
(44)1	411987	PCB 1260-13 (UNLOADED)	21793	411987
(47)A/R	500022	WIRE, BARE COPPER/TIN, 22 GA	21793	500022
(61)1	611366	STANDOFF, ROUND SWAGE, M3X0.5Xl9	06540	21017-B-0350-28
(62)2	611367	ROUND SWAGE, M3X0.5X4.3	06S40	21003B-B-0350-28(L4.3)
(63)8	615012	SCREW, PPH, 2-56 X .125	-	-
(71)A/R	921279	LOCQUIC, PRIMER	05972	74756
(72)A/R	921280	LOCTITE, HIGH STRENGTH	05972	27121

List of Suppliers

FSC	SUPPLIER
00779	AMP, INC. HARRISBURG, PA
01295	TEXAS INSTRUMENTS, INC. DALLAS, TX
04713	MOTOROLA, INC. (SEMICONDUCTOR PRODUCTS DIV.) PHOENIX, AZ
05397	UNION CARBIDE CORP. (MATERIALS SYSTEMS DIV.) CLEVELAND, OH
05972	LOCTITE CORP. HARTFORD, CT
06540	AMATOM ELECTRONIC HARDWARE NEW ROCHELLE, NY
11236	CTS OF BERNE, INC. BERNE, IN
18324	SIGNETICS, INC. SUNNYVALE, CA
21793	RACAL INSTRUMENTS INC. IRVINE, CA
27014	NATIONAL SEMI-CONDUCTOR CORP. SANTA CLARA, CA
28198	POSITRONIC INDUSTRIES INC. SPRINGFIELD, MO
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
65832	AMERICAN RESEARCH & ENGINEERING ELGIN, IL
73138	BECKMAN INSTRUMENTS FULLERTON, CA
91637	DALE ELECTRONICS, INC. COLUMBUS, NE
95275	VITRAMON, INC. BRIDGEPORT, CT

This page was intentionally left blank

Chapter 6

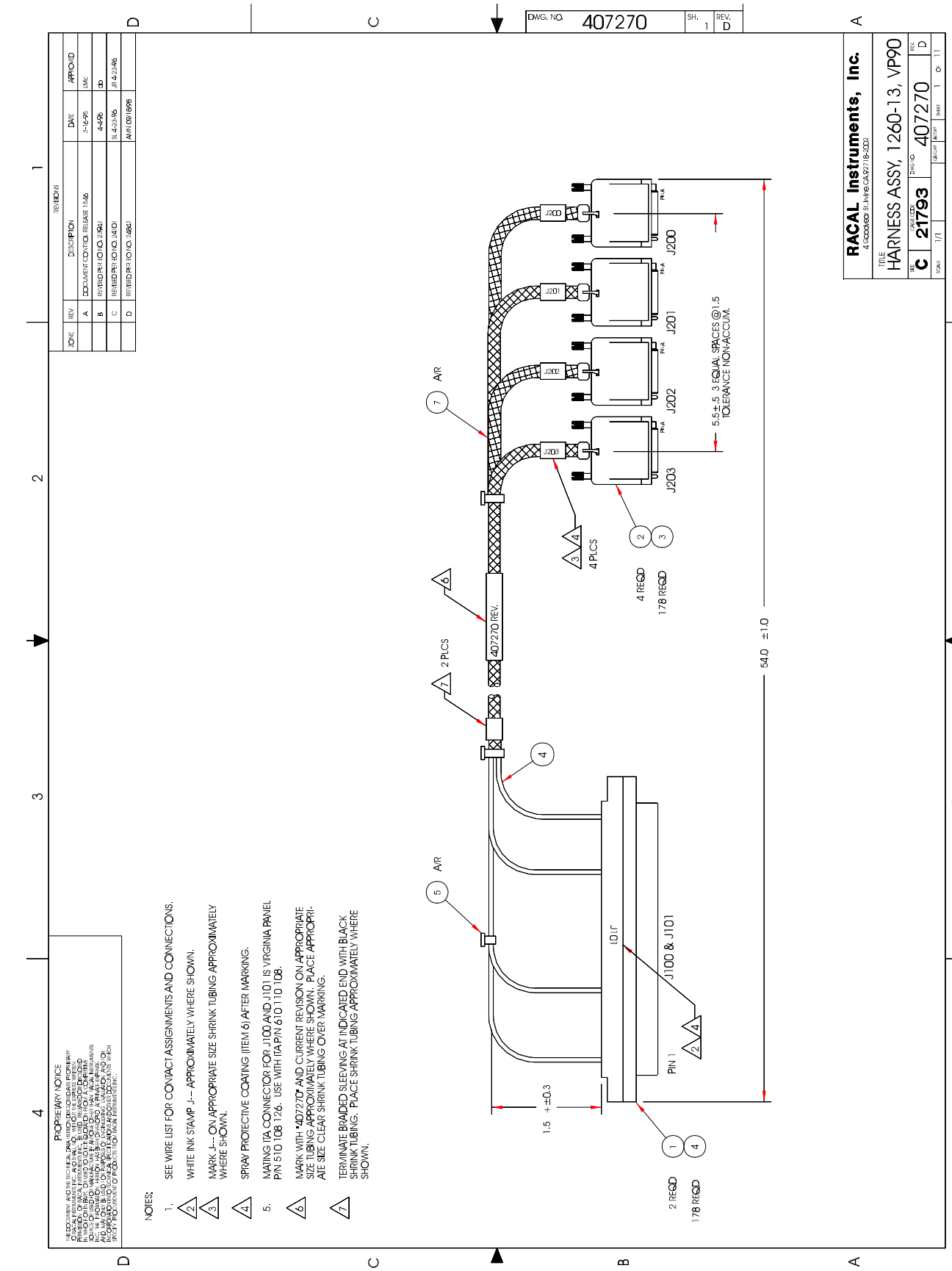
OPTIONAL HARNESS ASSEMBLIES

The following harness assemblies are used to connect Racal Instruments Model 1260-13 to Freedom Series Test Receiver Interfaces.

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

407270	Virginia Panel, Inc. Series VP90 Interface Harness
407271	TTI Testron, Inc. Interface Harness (TTI Receiver must be above chassis)

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


DWG. NO. 407270
SH. 1
REV. D
RACAL Instruments, Inc.
4 Goodyear St, Irvine CA 92618-2002
TITLE
HARNESS ASSY, 1260-13, VP90
SIZE C
CAGE CODE 21793
DWG NO 407270
REV D
SCALE 1/1
SHEET 1 OF 1
REVISIONS
ZONE REV DESCRIPTION DATE APPROVED
A DOCUMENT CONTROL RELEASE 15486 3-16-95 LMc
B REVISED PER ECN NO. 21941 4-4-96 CD
C REVISED PER ECN NO. 24101 SL 4-23-96 JR 4-23-96
D REVISED PER ECN NO. 24841 AMN 09/18/98
PROPRIETARY NOTICE
NOTES:
1. SEE WIRE LIST FOR CONTACT ASSIGNMENTS AND CONNECTIONS.
2 WHITE INK STAMP J-- APPROXIMATELY WHERE SHOWN.
3 MARK J-- ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.
4 SPRAY PROTECTIVE COATING (ITEM 6) AFTER MARKING.
5. MATING ITA CONNECTOR FOR J100 AND J101 IS VIRGINIA PANEL P/N 510 108 126. USE WITH ITA P/N 610 110 108.
6 MARK WITH "407270" AND CURRENT REVISION ON APPROPRIATE SIZE TUBING APPROXIMATELY WHERE SHOWN. PLACE APPROPRIATE SIZE CLEAR SHRINK TUBING OVER MARKING.
7 TERMINATE BRAIDED SLEEVING AT INDICATED END WITH BLACK SHRINK TUBING. PLACE SHRINK TUBING APPROXIMATELY WHERE SHOWN.
J200
J201
J202
J203
J100 & J101
PIN 1
2 REQD
178 REQD
4 REQD
178 REQD
4 PLCS
2 PLCS
A/R
A/R
407270 REV.
1.5 +-0.3
5.5 +- .5 3 EQUAL SPACES @1.5
TOLERANCE NON-ACCUM.
540.0 ±1.0

ENGINEERING PARTS LIST

ITEM	BIN	PART NO.	DESCRIPTION	QTY	REFERENCE
1		602201-003	CONN-RCV-PLG096C.---T-VP90	2	J100-J101
2		601855-050	CONN-CAB-PLG50CP	4	J200-J203
3		602092-001	CONT-SGM MALE CRIMP	178	W/J200-J203
4		602201-806	PATCHCORD,SIGNAL,24AWG,60IN	178	W/J101-J1O1
5		610777	TIE-CA-LKG-.062-.075	A/R	
6		910541	POLYURETHANE CONF. COAT	A/R	
7		GRP-110-1/2	TBGWOV-POY.250ID-BLACK	A/R	

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 2 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
	BLK AA (J100)	Uxx-SLOT yy (J200-J202)	CABLE	407270		SYSTEM WIRE LIST
	BLK AA (J101)	Uxx-SLOT yy (J201-J203)	CABLE	407270		

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.

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 3 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
1	J100-1 (602201-003)	J200-s 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 00 HI IN
2	J100-2 (602201-003)	J200-r 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 00 LO IN
3	J100-33 (602201-003)	J200-p 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 00 HI OUT
4	J100-34 (602201-003)	J200-n 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 00 LO OUT
5	J100-3 (602201-003)	J200-m 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 01 HI IN
6	J100-4 (602201-003)	J200-k 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 01 LO IN
7	J100-35 (602201-003)	J200-j 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 01 HI OUT
8	J100-36 (602201-003)	J200-h 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 01 LO OUT
9	J100-65 (602201-003)	J200-f 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 02 HI IN
10	J100-66 (602201-003)	J200-e 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 02L OI N
11	J100-67 (602201-003)	J200-d 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 02 HI OUT
12	J100-68 (602201-003)	J200-c 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 02 LO OUT
13	J100-5 (602201-003)	J200-b 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 03 HI IN
14	J100-6 (602201-003)	J200-a 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 03 LO IN
15	J100-37 (602201-003)	J200-Z 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 03 HI OUT
16	J100-38 (602201-003)	J200-Y 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 03 LO OUT
17	J100-7 (602201-003)	J200-X 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 04 HI IN
18	J100-8 (602201-003)	J200-W 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 04 LO IN
19	J100-39 (602201-003)	J200-V 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 04 HI OUT
20	J106-40 (602201-003)	J200-U 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 04 LO OUT
21	J100-69 (602201-003)	J200-T 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 05 HI IN
22	J100-70 (602201-003)	J200-S 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 05 LO IN
23	J100-71 (602201-003)	J200-R 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 05 HI OUT
24	J100-72 (602201-003)	J200-P 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 05 LO OUT
25	J100-9 (602201-003)	J200-N 602092-001	24 AWG WHT	602201-806	54"	CHANNEL 06 HI IN

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 4 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
26	J100-10	J200-M	24 AWG	602201-	54"	CHANNEL 06 LO IN
	(602201-003)	602092-001	WHT	806		
27	J100-41	J200-L	24 AWG	602201-	54"	CHANNEL 06 HI OUT
	(602201-003)	602092-001	WHT	806		
28	J100-42	J200-K	24 AWG	602201-	54"	CHANNEL 06 LO OUT
	(602201-003)	602092-001	WHT	806		
29	J100-11	J200-J	24 AWG	602201-	54"	CHANNEL 07 HI IN
	(602201-003)	602092-001	WHT	806		
30	J100-12	J200-H	24 AWG	602201-	54"	CHANNEL 07 LO IN
	(602201-003)	602092-001	WHT	806		
31	J100-43	J200-F	24 AWG	602201-	54"	CHANNEL 07 HI OUT
	(602201-003)	602092-001	WHT	806		
32	J100-44	J200-E	24 AWG	602201-	54"	CHANNEL 07 LO OUT
	(602201-003)	602092-001	WHT	806		
33	J100-73	J201-f	24 AWG	602201-	54"	CHANNEL 08 HI IN
	(602201-003)	602092-001	WHT	806		
34	J100-74	J201-e	24 AWG	602201-	54"	CHANNEL 08 LO IN
	(602201-003)	602092-001	WHT	806		
35	J100-75	J201-d	24 AWG	602201-	54"	CHANNEL 08 HI OUT
	(602201-003)	602092-001	WHT	806		
36	J100-76	J201-c	24 AWG	602201-	54"	CHANNEL 08 LO OUT
	(602201-003)	602092-001	WHT	806		
37	J100-13	J201-b	24 AWG	602201-	54"	CHANNEL 09 HI IN
	(602201-003)	602092-001	WIIT	806		
38	J100-14	J201-a	24 AWG	602201-	54"	CHANNEL 09 LO IN
	(602201-003)	602092-001	WHT	806		
39	J100-45	J201-Z	24 AWG	602201-	54"	CHANNEL 09 HI OUT
	(602201-003)	602092-001	WHT	806		
40	J100-46	J201-Y	24 AWG	602201-	54"	CHANNEL 09 LO OUT
	(602201-003)	602092-001	WHT	806		
41	J100-15	J201-X	24 AWG	602201-	54"	CHANNEL 10 HI IN
	(602201-003)	602092-001	WHT	806		
42	J100-16	J201-W	24 AWG	602201-	54"	CHANNEL 10 LO IN
	(602201-003)	602092-001	WHT	806		
43	J100-47	J201-V	24 AWG	602201-	54"	CHANNEL 10 HI OUT
	(602201-003)	602092-001	WHT	806		
44	J100-48	J201-U	24 AWG	602201-	54"	CHANNEL 10 LO OUT
	(602201-003)	602092-001	WHT	806		
45	J100-77	J201 -T	24 AWG	602201-	54"	CHANNEL 11 HI IN
	(602201-003)	602092-001	WHT	806		
46	J100-78	J201-S	24 AWG	602201-	54"	CHANNEL 11 LO IN
	(602201-003)	602092-001	WHT	806		
47	J100-79	J201-R	24 AWG	602201-	54"	CHANNEL 11 HI OUT
	(602201-003)	602092-001	WHT	806		
48	J100-80	J201-P	24 AWG	602201-	54"	CHANNEL 11 LO OUT
	(602201-003)	602092-001	WHT	806		
49	J100-17	J201-N	24 AWG	602201-	54"	CHANNEL 12 HI IN
	(602201-003)	602092-001	WHT	806		
50	J100-18	J201-M	24 AWG	602201-	54"	CHANNEL 12 LO IN
	(602201-003)	602092-001	WHT	806		

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 5 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
51	J100-49	J201-L	24 AWG	602201-	54"	CHANNEL 12 HI OUT
	(602201-003)	602092-001	WHT	806		
52	J100-50	J201-K	24 AWG	602201-	54"	CHANNEL 12 LO OUT
	(602201-003)	602092-001	WHT	806		
53	J100-19	J201-J	24 AWG	602201-	54"	CHANNEL 13 HI IN
	(602201-003)	602092-001	WHT	806		
54	J100-20	J201-H	24 AWG	602201-	54"	CHANNEL 13 LO IN
	(602201-003)	602092-001	WHT	806		
55	J100-51	J201-F	24 AWG	602201-	54"	CHANNEL 13 HI OUT
	(602201-003)	602092-001	WHT	806		
56	J100-52	J201-E	24 AWG	602201-	54"	CHANNEL 13 LO OUT
	(602201-003)	602092-001	WHT	806		
57	J100-81	J200-EE	24 AWG	602201-	54"	CHANNEL 14 HI IN
	(602201-003)	602092-001	WHT	806		
58	J100-82	J200-DD	24 AWG	602201-	54"	CHANNEL 14 LO IN
	(602201-003)	602092-001	WHT	806		
59	J100-83	J200-CC	24 AWG	602201-	54"	CHANNEL 14 HI OUT
	(602201-003)	602092-001	WHT	806		
60	J100-84	J200-BB	24 AWG	602201-	54"	CHANNEL 14 LO OUT
	(602201-003)	602092-001	WHT	806		
61	J100-21	J200-AA	24 AWG	602201-	54"	CHANNEL 15 HI IN
	(602201-003)	602092-001	WHT	806		
62	J100-22	J200-z	24 AWG	602201-	54"	CHANNEL 15 LO IN
	(602201-003)	602092-001	WHT	806		
63	J100-53	J200-y	24 AWG	602201-	54"	CHANNEL 15 HI OUT
	(602201-003)	602092-001	WHT	806		
64	J100-54	J200-x	24 AWG	602201-	54"	CHANNEL 15 LO OUT
	(602201-003)	602092-001	WHT	806		
65	J100-23	J202-X	24 AWG	602201-	54"	CHANNEL 16 HI IN
	(602201-003)	602092-001	WHT	806		
66	J100-24	J202-W	24 AWG	602201-	54"	CHANNEL 16 LO IN
	(602201-003)	602092-001	WHT	806		
67	J100-55	J202-V	24 AWG	602201-	54"	CHANNEL 16 HI OUT
	(602201-003)	602092-001	WHT	806		
68	J100-56	J202-U	24 AWG	602201-	54"	CHANNEL 16 LO OUT
	(602201-003)	602092-001	WHT	806		
69	J100-85	J202-T	24 AWG	602201-	54"	CHANNEL 17 HI IN
	(602201-003)	602092-001	WHT	806		
70	J100-86	J202-S	24 AWG	602201-	54"	CHANNEL 17 LO IN
	(602201-003)	602092-001	WHT	806		
71	J100-87	J202-R	24 AWG	602201-	54"	CHANNEL 17 HI OUT
	(602201-003)	602092-001	WHT	806		
72	J100-88	J202-P	24 AWG	602201-	54"	CHANNEL 17 LO OUT
	(602201-003)	602092-001	WHT	806		
73	J100-25	J202-N	24 AWG	602201-	54"	CHANNEL 18 HI IN
	(602201-003)	602092-001	WHT	806		
74	J100-26	J202-M	24 AWG	602201-	54"	CHANNEL 18 LO IN
	(602201-003)	602092-001	WHT	806		
75	J100-57	J202-L	24 AWG	602201-	54"	CHANNEL 18 HI OUT
	(602201-003)	602092-001	WHT	806		

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 6 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
76	J100-58	J202-K	24 AWG	602201-	54"	CHANNEL 18 LO OUT
	(602201-003)	602092-001	WHT	806		
77	J100-27	J202-J	24 AWG	602201-	54"	CHANNEL 19 HI IN
	(602201-003)	602092-001	WHT	806		
78	J100-28	J202-H	24 AWG	602201-	54"	CHANNEL 19 LO IN
	(602201-003)	602092-001	WHT	806		
79	J100-59	J202-F	24 AWG	602201-	54"	CHANNEL 19 HI OUT
	(602201-003)	602092-001	WHT	806		
80	J100-60	J202-E	24 AWG	602201-	54"	CHANNEL 19 LO OUT
	(602201-003)	602092-001	WHT	806		
81	J100-99					
	NO CONNECT					
82	J100-90					
	NO CONNECT					
83	J100-91					
	NO CONNECT					
84	J100-92					
	NO CONNECT					
85	J100-29	J200-D	24 AWG	602201-	54"	COMMON 00 HI
	(602201-003)	602092-001	WHT	806		
86	J100-30	J200-C	24 AWG	602201-	54"	COMMON 00 LO
	(602201-003)	602092-001	WHT	806		
87	J100-61	J200-w	24 AWG	602201-	54"	COMMON 01 HI
	(602201-003)	602092-001	WHT	806		
88	J100-62	J200-v	24 AWG	602201-	54"	COMMON 01 LO
	(602201-003)	602092-001	WHT	806		
89	J100-31	J200-A	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
90	J10032	J200-FF	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
91	J100-63	J201-A	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
92	J100-64	J201-FF	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
93	J100-93	J201-m	24 AWG	602201-	54"	COMMON 02 HI
	(602201-003)	602092-001	WHT	806		
94	J100-94	J201-k	24 AWG	602201-	54"	COMMON 02 LO
	(602101-003)	602092-001	WHT	806		
95	J100-95					
	NO CONNECT					
96	J100-96					
	NO CONNECT					
97	J101-1	J201-EE	24 AWG	602201-	54"	CHANNEL 20 HI IN
	(602201-003)	602092-001	WHT	806		
98	J101-2	J201-DD	24 AWG	602201-	54"	CHANNEL 20 LO IN
	(602201-003)	602092-001	WHT	806		
99	J101-33	J201-CC	24 AWG	602201-		CHANNEL 20 HI OUT
	(602201-003)	602092-001	WHT	806		
100	J101-34	J201-BB	24 AWG	602201-	54"	CHANNEL 20 LO OUT
	(602201-003)	602092-001	WHT	806		

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 7 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
101	J101-3	J201-AA	24 AWG	602201-	54"	CHANNEL 21 HI IN
	(602201-003)	602092-001	WHT	806		
102	J101-4	J201-z	24 AWG	602201-	54"	CHANNEL 21 LO IN
	(602201-003)	602092-001	WHT	806		
103	J101-35	J201-y	24 AWG	602201-	54"	CHANNEL 21 HI OUT
	(602201-003)	602092-001	WHT	806		
104	J101-36	J201-x	24 AWG	602201-	54"	CHANNEL 21 LO OUT
	(602201-003)	602092-001	WHT	806		
105	J101-65	J201-w	24 AWG	602201-	54"	CHANNEL 22 HI IN
	(602201-003)	602092-001	WHT	806		
106	J101-66	J201-v	24 AWG	602201-	54"	CHANNEL 22 LO IN
	(602201-003)	602092-001	WHT	806		
107	J101-67	J201-u	24 AWG	602201-	54"	CHANNEL 22 HI OUT
	(602201-003)	602092-001	WHT	806		
108	J101-68	J201-t	24 AWG	602201-	54"	CHANNEL 22 LO OUT
	(602201-003)	602092-001	WHT	806		
109	J101-5	J201-s	24 AWG	602201-	54"	CHANNEL 23 HI IN
	(602201-003)	602092-001	WHT	806		
110	J101-6	J20l-r	24 AWG	602201-	54"	CHANNEL 23 LO IN
	(602201-003)	602092-001	WHT	806		
111	J101-37	J201-p	24 AWG	602201-	54"	CHANNEL 23 HI OUT
	(602201-003)	602092-001	WHT	806		
112	J101-38	J201-n	24 AWG	602201-	54"	CHANNEL 23 LO OUT
	(602201-003)	602092-001	WHT	806		
113	J101-7	J203-N	24 AWG	602201-	54"	CHANNEL 24 HI IN
	(602201-003)	602092-001	WHT	806		
114	J101-8	J203-M	24 AWG	602201-	54"	CHANNEL 24 LO IN
	(602201-003)	602092-001	WHT	806		
115	J101-39	J203-L	24 AWG	602201-	54"	CHANNEL 24 HI OUT
	(602201-003)	602092-001	WHT	806		
116	J10140	J203-K	24 AWG	662201-	54"	CHANNEL 24 LO OUT
	(602201-003)	602092-001	WHT	806		
117	J101-69	J203-J	24 AWG	602201-	54"	CHANNEL 25 HI IN
	(602201-003)	602092-001	WHT	806		
118	J101-70	J203-H	24 AWG	602201-	54"	CHANNEL 25 LO IN
	(602201-003)	602092-001	WHT	806		
119	J101-71	J203-F	24 AWG	602201-	54"	CHANNEL 25 HI OUT
	(602201-003)	602092-001	WHT	806		
120	J101-72	J203-E	24 AWG	602201-	54"	CHANNEL 25 LO OUT
	(602201-003)	602092-001	WHT	806		
121	J101-9	J202-EE	24 AWG	602201-	54"	CHANNEL 26 HI IN
	(602201-003)	602092-001	WHT	806		
122	J101-10	J202-DD	24 AWG	602201-	54"	CHANNEL 26 LO IN
	(602201-003)	602092-001	WHT	806		
123	J101-41	J202-CC	24 AWG	602201-	54"	CHANNEL 26 HI OUT
	(602201-003)	602092-00 I	WHT	806		
124	J101-42	J202-BB	24 AWG	602201-	54"	CHANNEL 26 LO OUT
	(602201-003)	602092-001	WHT	806		
125	J101-11	J202-AA	24 AWG	602201-	54"	CHANNEL 27 HI IN
	(602201-003)	602092-001	WHT	806		

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 8 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
126	J101-12	J202-z	24 AWG	602201-	54"	CHANNEL 27 LO IN
	(602201-003)	602092-001	WHT	806		
127	J101-43	J202-y	24 AWG	602201-	54"	CHANNEL 27 HI OUT
	(602201-003)	602092-001	WHT	806		
128	J101-44	J202-x	24 AWG	602201-	54"	CHANNEL 27 LO OUT
	(602201-003)	602092-001	WHT	806		
129	J101-73	J202-w	24 AWG	602201-	54"	CHANNEL 28 HI IN
	(602201-003)	602092-001	WHT	806		
130	J101-74	J202-v	24 AWG	602201-	54"	CHANNEL 28 LO IN
	(602201-003)	602092-001	WHT	806		
131	J101-75	J202-u	24 AWG	602201-	54"	CHANNEL 28 HI OUT
	(602201-003)	602092-001	WHT	806		
132	J101-76	J202-t	24 AWG	602201-	54"	CHANNEL 28 LO OUT
	(602201-003)	602092-001	WHT	806		
133	J101-13	J202-s	24 AWG	602201-	54"	CHANNEL 29 HI IN
	(602201-003)	602092-001	WHT	806		
134	J101-14	J202-r	24 AWG	602201-	54"	CHANNEL 29 LO IN
	(602201-003)	602092-001	WHT	806		
135	J101-45	J202-p	24 AWG	602201-	54"	CHANNEL 29 HI OUT
	(602201-003)	602092-001	WHT	806		
136	J101-46	J202-n	24 AWG	602201-	54"	CHANNEL 29 LO OUT
	(602201-003)	602092-001	WHT	806		
137	J101-15	J202-m	24 AWG	602201-	54"	CHANNEL 30 HI IN
	(602201-003)	602092-001	WHT	806		
138	J101-16	J202-k	24 AWG	602201-	54"	CHANNEL 30 LO IN
	(602201-003)	602092-001	WHT	806		
139	J101-47	J202-j	24 AWG	602201-	54"	CHANNEL 30 HI OUT
	(602201-003)	602092-001	WHT	806		
140	J101-48	J202-h	24 AWG	602201-	54"	CHANNEL 30 LO OUT
	(602201-003)	602092-001	WHT	806		
141	J101-77	J202-f	24 AWG	602201-	54"	CHANNEL 31 HI IN
	(602201-003)	602092-001	WHT	806		
142	J101-78	J202-e	24 AWG	602201-	54"	CHANNEL 31 LO IN
	(602201-003)	602092-001	WHT	806		
143	J101-79	J202-d	24 AWG	602201-	54"	CHANNEL 31 HI OUT
	(602201-003)	602092-001	WHT	806		
144	J101-80	J202-c	24 AWG	602201-	54"	CHANNEL 31 LO OUT
	(602201-003)	602092-001	WHT	806		
145	J101-17	J203-EE	24 AWG	602201-	54"	CHANNEL 32 HI IN
	(602201-003)	602092-001	WHT	806		
146	J101-18	J203-DD	24 AWG	602201-	54"	CHANNEL 32 LO IN
	(602201-003)	602092-001	WHT	806		
147	J101-49	J203-CC	24 AWG	602201-	54"	CHANNEL 32 HI OUT
	(602201-003)	602092-001	WHT	806		
148	J101-50	J203-BB	24 AWG	602201-	54"	CHANNEL 32 LO OUT
	(602201-003)	602092-001	WHT	806		
149	J101-19	J203-AA	24 AWG	602201-	54"	CHANNEL 33 HI IN
	(602201-003)	602092-001	WHT	806		
150	J101-20	J203-z	24 AWG	602201-	54"	CHANNEL 33 LO IN
	(602201-003)	602092-001	WHT	806		

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 9 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
151	J101-51	J203-y	24 AWG	602201-	54"	CHANNEL 33 HI OUT
	(602201-003)	602092-001	WHT	806		
152	J101-52	J203-x	24 AWG	602201-	54"	CHANNEL 33 LO OUT
	(602201-003)	602092-001	WHT	806		
153	J101-81	J203-w	24 AWG	602201-	54"	CHANNEL 34 HI IN
	(602201-003)	602092-001	WHT	806		
154	J101-82	J203-v	24 AWG	602201-	54"	CHANNEL 34 LO IN
	(602201-003)	602092-001	WHT	806		
155	J101-83	J203-u	24 AWG	602201-	54"	CHANNEL 34 HI OUT
	(602201-003)	602092-001	WHT	806		
156	J101-84	J203-t	24 AWG	602201-	54"	CHANNEL 34 LO OUT
	(602201-003)	602092-001	WHT	806		
157	J101-21	J203-s	24 AWG	602201-	54"	CHANNEL 35 HI IN
	(602201-003)	602092-001	WHT	806		
158	J101-22	J203-r	24 AWG	602201-	54"	CHANNEL 35 LO IN
	(602201-003)	602092-001	WHT	806		
159	J101-53	J203-p	24 AWG	602201-	54"	CHANNEL 35 HI OUT
	(602201-003)	602092-001	WHT	806		
160	J101-54	J203-n	24 AWG	602201-	54"	CHANNEL 35 LO OUT
	(602201-003)	602092-001	WHT	806		
161	J101-23	J203-m	24 AWG	602201-	54"	CHANNEL 36 HI IN
	(602201-003)	602092-001	WHT	806		
162	J101-24	J203-k	24 AWG	602201-	54"	CHANNEL 36 LO IN
	(602201-003)	602092-001	WHT	806		
163	J101-55	J203-j	24 AWG	602201-	54"	CHANNEL 36 HI OUT
	(602201-003)	602092-001	WHT	806		
164	J101-56	J203-h	24 AWG	602201-	54"	CHANNEL 36 LO OUT
	(602201-003)	602092-001	WHT	806		
165	J101-85	J203-f	24 AWG	602201-	54"	CHANNEL 37 HI IN
	(602201-003)	602092-001	WHT	806		
166	J101-86	J203-e	24 AWG	602201-	54"	CHANNEL 37 LO IN
	(602201-003)	602092-001	WHT	806		
167	J101-87	J203-d	24 AWG	602201-	54"	CHANNEL 37 HI OUT
	(602201-003)	602092-001	WHT	806		
168	J101-88	J203-c	24 AWG	602201-	54"	CHANNEL 37 LO OUT
	(602201-003)	602092-001	WHT	806		
169	J101-25	J203-b	24 AWG	602201-	54"	CHANNEL 38 HI IN
	(602201-003)	602092-001	WHT	806		
170	J101-26	J203-a	24 AWG	602201-	54"	CHANNEL 38 LO IN
	(602201-003)	602092-001	WHT	806		
171	J101-57	J203-Z	24 AWG	602201-	54"	CHANNEL 38 HI OUT
	(602201-003)	602092-001	WHT	806		
172	J101-58	J203-Y	24 AWG	602201-	54"	CHANNEL 38 LO OUT
	(602201-003)	602092-001	WHT	806		
173	J101-27	J203-X	24 AWG	602201-	54"	CHANNEL 39 HI IN
	(602201-003)	602092-001	WHT	806		
174	J101-28	J203-W	24 AWG	602201-	54"	CHANNEL 39 LO IN
	(602201-003)	602092-001	WHT	806		
175	J101-59	J203-V	24 AWG	602201-	54"	CHANNEL 39 HI OUT
	(602201-003)	602092-001	WHT	806		

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

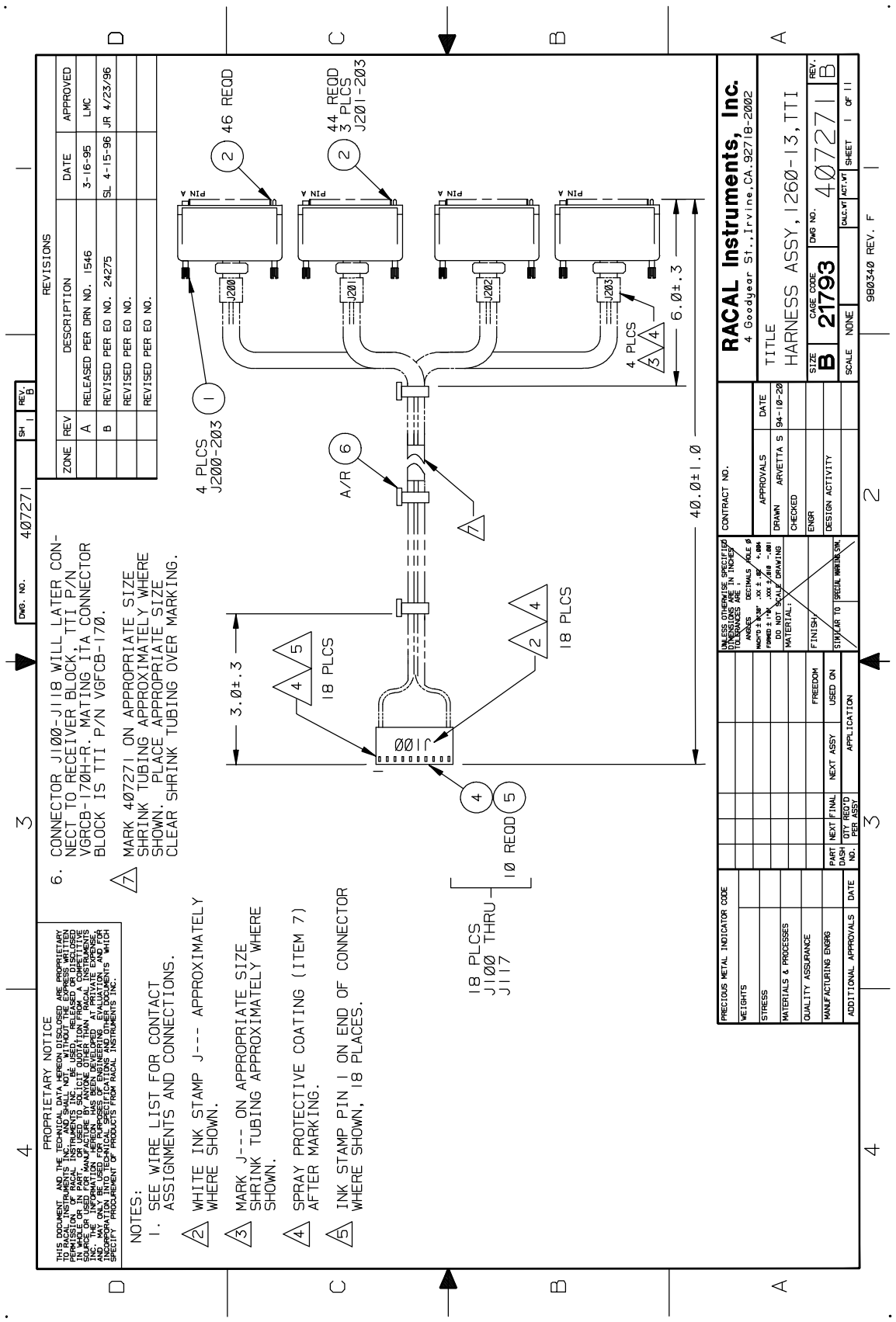
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 10 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
176	J101-60	J203-U	24 AWG	602201-	54"	CHANNEL 39 LO OUT
	(602201-003)	602092-001	WHT	806		
177	J101-89					
	NO CONNECT					
178	J101-90					
	NO CONNECT					
179	J101-91					
	NO CONNECT					
180	J101-92					
	NO CONNECT					
181	J101-29	J202-b	24 AWG	602201-	54"	COMMON 03 HI
	(602201-003)	602092-001	WHT	806		
182	J101-30	J202-a	24 AWG	602201-	54"	COMMON 03 LO
	(602201-003)	602092-001	WHT	806		
183	J101-61	J203-T	24 AWG	602201-	54"	COMMON 04 HI
	(602201-003)	602092-001	WHT	806		
184	J101-62	J203-S	24 AWG	602201-	54"	COMMON 04 LO
	(602201-003)	602092-001	WHT	806		
185	J101-31	J202-A	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
186	J101-32	J202-FF	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
187	J101-63	J203-A	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
188	J101-64	J203-FF	24 AWG	602201-	54"	GROUND
	(602201-003)	602092-001	WHT	806		
189	J101-93					
	NO CONNECT					
190	J101-94					
	NO CONNECT					
191	J101-95					
	NO CONNECT					
192	J101-96					
	NO CONNECT					

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, VP-90	A	21793	407270	D
	DRN		SHEET 11 of 11	


REVISIONS
ZONE REV DESCRIPTION DATE APPROVED
A RELEASED PER DRN NO. 1546 3-16-95 LMC
B REVISED PER EO NO. 24275 SL 4-15-96 JR 4/23/96
REVISED PER EO NO.
REVISED PER EO NO.
DWG. NO. 407271 SH 1 REV. B
PROPRIETARY NOTICE
NOTES:
1. SEE WIRE LIST FOR CONTACT ASSIGNMENTS AND CONNECTIONS.
2 WHITE INK STAMP J--- APPROXIMATELY WHERE SHOWN.
3 MARK J--- ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.
4 SPRAY PROTECTIVE COATING (ITEM 7) AFTER MARKING.
5 INK STAMP PIN 1 ON END OF CONNECTOR WHERE SHOWN, 18 PLACES.
6. CONNECTOR J100-J118 WILL LATER CONNECT TO RECEIVER BLOCK, TTI P/N VGRCB-170H-R. MATING ITA CONNECTOR BLOCK IS TTI P/N VGFCB-170.
7 MARK 407271 ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN. PLACE APPROPRIATE SIZE CLEAR SHRINK TUBING OVER MARKING.
46 REQD
44 REQD 3 PLCS J201-203
4 PLCS J200-203
4 PLCS
A/R
3.0±.3
18 PLCS
18 PLCS
10 REQD
18 PLCS J100 THRU J117
40.0±1.0
6.0±.3
J200
J201
J202
J203
PIN 1
RACAL Instruments, Inc.
4 Goodyear St., Irvine, CA. 92718-2002
TITLE
HARNESS ASSY, 1260-13, TTI
SIZE B
CAGE CODE 21793
DWG NO. 407271
REV. B
SCALE NONE
SHEET 1 OF 11
980340 REV. F
CONTRACT NO.
APPROVALS DATE
DRAWN ARVETTA S 94-10-20
CHECKED
ENGR
DESIGN ACTIVITY
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS ANGLES DECIMALS .XX ± .01 .XXX ± .005
MATERIAL:
DO NOT SCALE DRAWING
FINISH
SIMILAR TO SPECIAL MARKING
PRECIOUS METAL INDICATOR CODE
WEIGHTS
STRESS
MATERIALS & PROCESSES
QUALITY ASSURANCE
MANUFACTURING ENGRG
ADDITIONAL APPROVALS DATE
PART DASH NO. NEXT FINAL
QTY REQ'D PER ASSY
NEXT ASSY USED ON
APPLICATION
FREEDOM

ENGINEERING PARTS LIST

ITEM	BIN	PART NO.	DESCRIPTION	QTY	REFERENCE
1		601855-050	CON-CAB-PLG50CP.	4	J200-J203
2		602092-001	CONT,SGMC,MALE CRIMP	178	W/J200-J203
3		524999	WRTEF-STR24G-9-9-9	A/R	
4		602193-010	CON-CAB-RCP010C.100S	18	J100-J117
5		602199-001	CONTACT,CRIMP,RECPT,28-22GA	180	W/J100-J117
6		610777	TIE-CA-LKG-.062-.075	A/R	
7		910541	POLYURETHANE CONF. COAT	A/R	

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 2 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
	BLK AAx RW 01 (J100)	Uxx-SLOT yy (J200)	CABLE	407271		SYSTEM WIRE LIST
	BLK AAx RW 02 (J101)	Uxx-SLOT yy (J200)	CABLE	407271		
	BLK AAx RW 03 (J102)	Uxx-SLOT yy (J200)	CABLE	407271		
	BLK AAx RW 04 (J103)	Uxx-SLOT yy (J200-J201)	CABLE	407271		
	BLK AAx RW 05 (J104)	Uxx-SLOT yy (J201)	CABLE	407271		
	BLK AAx RW 06 (J105)	Uxx-SLOT yy (J200-J201)	CABLE	407271		
	BLK AAx RW 07 (J106)	Uxx-SLOT yy 202	CABLE	407271		
	BLK AAx RW 08 (J107)	Uxx-SLOT yy (J202)	CABLE	407271		
	BLK AAx RW 09 (J108)	Uxx-SLOT yy (J200-J201)	CABLE	407271		
	BLK AAx RW 10 (J109)	Uxx-SLOT yy (J201)	CABLE	407271		
	BLK AAx RW I I (J110)	Uxx-SLOT yy (J201,J203)	CABLE	407271		
	BLK AAx RW 12 (J111)	Uxx-SLOT yy (J202,J203)	CABLE	407271		
	BLK AAx RW 13 (J112)	Uxx-SLOT yy (J202)	CABLE	407271		
	BLK AAx RW 14 (J113)	Uxx-SLOT yy (J202-J203)	CABLE	407271		
	BLK AAx RW 15 (J114)	Uxx-SLOT yy (J203)	CABLE	407271		
	BLK AAx RW 16 (J115)	Uxx-SLOT yy (J203)	CABLE	407271		
	BLK AAx RW 17 (J116)	Uxx-SLOT yy (J203)	CABLE	407271		
	BLK AAx RW 01 (J117)	Uxx-SLOT yy (J202-J203)	CABLE	407271		

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.

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 3 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
1	J100-1	J200-s	24 AWG	524999	40"	CHANNEL 00 HI IN
	602199-001	602092-001	WHT			
2	J100-2	J200-r	24 AWG	524999	40"	CHANNEL-00-LO-IN
	602199-001	602092-001	WHT			
3	J100-3	J200-p	24 AWG	524999	40"	CHANNEL-00-HI-OUT
	602199-001	602092-001	WHT			
4	J100-4	J200-n	24 AWG	524999	40"	CHANNEL 00 LO OUT
	602199-001	602092-001	WHT			
5	J100-5	J200-m	24 AWG	524999	40"	CHANNEL 01 HI IN
	602199-001	602092-001	WHT			
6	J100-6	J200-k	24 AWG	524999	40"	CHANNEL 01 LO IN
	602199-001	602092-001	WHT			
7	J100-7	J200-j	24 AWG	524999	40"	CHANNEL 01 HI OUT
	602199-001	602092-001	WHT			
8	J100-8	J200-h	24 AWG	524999	40"	CHANNEL 01 LO OUT
	602199-001	602092-001	WHT			
9	J100-9	J200-f	24 AWG	524999	40"	CHANNEL 02 HI IN
	602199-001	602092-001	WHT			
10	J100-10	J200-e	24 AWG	524999	40"	CHANNEL 02 LO IN
	602199-001	602092-001	WHT			
11	J101-10	J200-d	24 AWG	524999	40"	CHANNEL 02 HI OUT
	602199-001	602092-001	WHT			
12	J101-9	J200-c	24 AWG	524999	40"	CHANNEL 02 LO OUT
	602199-001	602092-001	WHT			
13	J101-8	J200-b	24 AWG	524999	40"	CHANNEL 03 HI IN
	602199-001	602092-001	WHT			
14	J101-7	J200-a	24 AWG	524999	40"	CHANNEL 03 LO IN
	602199-001	602092-001	WHT			
15	J101-6	J200-Z	24 AWG	524999	40"	CHANNEL 03 HI OUT
	602199-001	602092-001	WHT			
16	J101-5	J200-Y	24 AWG	524999	40"	CHANNEL 03 LO OUT
	602199-001	602092-001	WHT			
17	J101-4	J200-X	24 AWG	524999	40"	CHANNEL 04 HI IN
	602199-001	602092-001	WHT			
18	J101-3	J200-W	24 AWG	524999	40"	CHANNEL 04 LO IN
	602199-001	602092-001	WHT			
19	J101-2	J200-V	24 AWG	524999	40"	CHANNEL 04 HI OUT
	602199-001	602092-001	WHT			
20	J101-1	J200-U	24 AWG	524999	40"	CHANNEL 04 LO OUT
	602199-001	602092-001	WHT			
21	J102-1	J200-T	24 AWG	524999	40"	CHANNEL 05 HI IN
	602199-001	602092-001	WHT			
22	J102-2	J200-S	24 AWG	524999	40"	CHANNEL 05 LO IN
	602199-001	602092-001	WHT			
23	J102-3	J200-R	24 AWG	524999	40"	CHANNEL 05 HI OUT
	602199-001	602092-001	WHT			
24	J102-4	J200-P	24 AWG	524999	40"	CHANNEL 05 LO OUT
	602199-001	602092-001	WHT			
25	J102-5	J200-N	24 AWG	524999	40"	CHANNEL 06 HI IN
	602199-001	602092-001	WHT			

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 4 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
26	J102-6	J200-M	24 AWG	524999	40"	CHANNEL 06 LO IN
	602199-001	602092-001	WHT			
27	J102-7	J200-L	24 AWG	524999	40"	CHANNEL 06 HI OUT
	602199-001	602092-001	WHT			
28	J102-8	J200-K	24 AWG	524999	40"	CHANNEL 06 LO OUT
	602199-001	602092-001	WHT			
29	J102-9	J200-J	24 AWG	524999	40"	CHANNEL 07 HI IN
	602199-001	602092-001	WHT			
30	J102-10	J200-H	24 AWG	524999	40"	CHANNEL 07 LO IN
	602199-001	602092-001	WHT			
31	J103-10	J200-F	24 AWG	524999	40"	CHANNEL 07 HI OUT
	602199-001	602092-001	WHT			
32	J103-9	J200-E	24 AWG	524999	40"	CHANNEL 07 LO OUT
	602199-001	602092-001	WHT			
33	J103-8	J201-f	24 AWG	524999	40"	CHANNEL 08 HI IN
	602199-001	602092-001	VVHT			
34	J103-7	J201-e	24 AWG	524999	40"	CHANNEL 08 LO IN
	602199-001	602092-001	WHT			
35	J103-6	J201-d	24 AWG	524999	40"	CHANNEL 08 HI OUT
	602199-001	602092-001	WHT			
36	J103-5	J201-c	24 AWG	524999	40"	CHANNEL 08 LO OUT
	602199-001	602092-001	WHT			
37	J103-4	J201-b	24 AWG	524999	40"	CHANNEL 09 HI IN
	602199-001	602092-001				
38	J103-3	J201-a	24 AWG	524999	40"	CHANNEL 09 LO IN
	602199-001	602092-001	WHT			
39	J103-2	J201-Z	24 AWG	524999	40"	CHANNEL 09 HI OUT
	602199-001	602092-001	WHT			
40	J103-1	J201-Y	24 AWG	524999	40"	CHANNEL 09 LO OUT
	602199-001	602092-001	WHT			
41	J104-1	J201-X	24 AWG	524999	40"	CHANNEL 10 HI IN
	602199-001	602092-001	WHT			
42	J104-2	J201-W	24 AWG	524999	40"	CHANNEL 10 LO IN
	602199-001	602092-001	WHT			
43	J104-3	J201-V	24 AWG	524999	40"	CHANNEL 10 HI OUT
	602199-001	602092-001	WHT			
44	J104-4	J201-U	24 AWG	524999	40"	CHANNEL 10 LO OUT
	602199-001	602092-001	WHT			
45	J104-5	J201-T	24 AWG	524999	40"	CHANNEL 11 HI IN
	602199-001	602092-001	WHT			
46	J104-6	J201-S	24 AWG	524999	40"	CHANNEL 11 LO IN
	602199-001	602092-001	WHT			
47	J104-7	J201-R	24 AWG	524999	40"	CHANNEL 11 HI OUT
	602199-001	602092-001	WHT			
48	J104-8	J201-P	24 AWG	524999	40"	CHANNEL 11 LO OUT
	602199-001	602092-001	WHT			
49	J104-9	J201-N	24 AWG	524999	40"	CHANNEL 12 HI IN
	602199-001	602092-001	WHT			

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 5 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
50	J104-10	J201-M	24 AWG	524999	40”	CHANNEL 12 LO IN
	602199-001	602092-001	WHT			
51	J105-10	J201-L	24 AWG	524999	40"	CHANNEL 12 HI OUT
	602199-001	602092-001	WHT			
52	J105-9	J201-K	24 AWG	524999	40"	CHANNEL 12 LO OUT
	602199-001	602092-001	WHT			
53	J105-8	J201-J	24 AWG	524999	40"	CHANNEL 13 HI IN
	602199-001	602092-001	WHT			
54	J105-7	J201-H	24 AWG	524999	40"	CHANNEL 13 LO IN
	602199-001	602092-001	WHT			
55	J105-6	J201-F	24 AWG	524999	40"	CHANNEL 13 HI OUT
	602199-001	602092-001	WHT			
56	J105-5	J201-E	24 AWG	524999	40"	CHANNEL 13 LO OUT
	602199-001	602092-001	WHT			
57	J105-4	J200-EE	24 AWG	524999	40"	CHANNEL 14 HI IN
	602199-001	602092-001	WHT			
58	J105-3	J200-DD	24 AWG	524999	40"	CHANNEL 14 LO IN
	602199-001	602092-001	WHT			
59	J105-2	J200-CC	24 AWG	524999	40"	CHANNEL 14 HI OUT
	602199-001	602092-001	WHT			
60	J105-1	J200-BB	24 AWG	524999	40"	CHANNEL 14 LO OUT
	602199-001	602092-001	WHT			
61	J106-1	J200-AA	24 AWG	524999	40"	CHANNEL 15 HI IN
	602199-001	602092-001	WHT			
62	J106-2	J200-z	24 AWG	524999	40"	CHANNEL 15 LO IN
	602199-001	602092-001	WHT			
63	J106-3	J200-y	24 AWG	524999	40"	CHANNEL 15 HI OUT
	602199-001	602092-001	WHT			
64	J106-4	J200-x	24 AWG	524999	40"	CHANNEL 15 LO OUT
	602199-001	602092-001	WHT			
65	J106-5	J202-X	24 AWG	524999	40"	CHANNEL 16 HI IN
	602199-001	602092-001	WHT			
66	J106-6	J202-W	24 AWG	524999	40"	CHANNEL 16 LO IN
	602199-001	602092-001	WHT			
67	J106-7	J202-V	24 AWG	524999	40"	CHANNEL 16 HI OUT
	602199-001	602092-001	WHT			
68	J106-8	J202-U	24 AWG	524999	40"	CHANNEL 16 LO OUT
	602199-001	602092-001	WHT			
69	J106-9	J202-T	24 AWG	524999	40"	CHANNEL 17 HI IN
	602199-001	602092-001	WHT			
70	J106-10	J202-S	24 AWG	524999	40"	CHANNEL 17 LO IN
	602199-001	602092-001	WHT			
71	J107-10	J202-R	24 AWG	524999	40"	CHANNEL 17 HI OUT
	602199-001	602092-001	WHT			
72	J107-9	J202-P	24 AWG	524999	40"	CHANNEL 17 LO OUT
	602199-001	602092-001	WHT			

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 6 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
73	J107-8	J202-N	24 AWG	524999	40"	CHANNEL 18 HI IN
	602199-001	602092-001	WHT			
74	J107-7	J202-M	24 AWG	524999	40"	CHANNEL 18 LO IN
	602199-001	602092-001	WHT			
75	J107-6	J202-L	24 AWG	524999	40”	CHANNEL 18 HI OUT
	602199-001	602092-001	WHT			
76	J107-5	J202-K	24 AWG	524999	40"	CHANNEL 18 LO OUT
	602199-001	602092-001	WHT			
77	J107-4	J202-J	24 AWG	524999	40"	CHANNEL 19 HI IN
	602199-001	602092-001	WHT			
78	J107-3	J202-H	24 AWG	524999	40"	CHANNEL 19 LO IN
	602199-001	602092-001	WHT			
79	J107-2	J202-F	24 AWG	524999	40"	CHANNEL 19 HI OUT
	602199-001	602092-001	WHT			
80	J107-1	J202-E	24 AWG	524999	40"	CHANNEL 19 LO OUT
	602199-001	602092-001	WHT			
81	J108-1	J200-D	24 AWG	524999	40"	COMMON 00 HI
	602199-001	602092-001	WHT			
82	J108-2	J200-C	24 AWG	524999	40"	COMMON 00 LO
	602199-001	602092-001	WHT			
83	J108-3	J200-w	24 AWG	524999	40"	COMMON 01 HI
	602199-001	602092-001	WHT			
84	J108-4	J200-v	24 AWG	524999	40"	COMMON 01 LO
	602199-001	602092-001	WHT			
85	J109-5	J200-A	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
86	J108-6	J200-FF	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
87	J109-7	J201-A	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
88	J108-8	J201-FF	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
89	J108-9	J201-m	24 AWG	524999	40"	COMMON 02 HI
	602199-001	602092-001	WHT			
90	J108-10	J201-k	24 AWG	524999	40"	COMMON 02 LO
	602199-001	602092-001	WHT			
91	J109-10	J201-EE	24 AWG	524999	40"	CHANNEL 20 HI IN
	602199-001	602092-001	WHT			
92	J109-9	J201-DD	24 AWG	524999	40"	CHANNEL 20 LO IN
	602199-001	602092-001	WHT			
93	J109-8	J201-CC	24 AWG	524999	40"	CHANNEL 20 HI OUT
	602199-001	602092-001	WHT			
94	J109-7	J201-BB	24 AWG	524999	40"	CHANNEL 20 LO OUT
	602199-001	602092-001	WHT			
95	J109-6	J201-AA	24 AWG	524999	40"	CHANNEL 21 HI IN
	602199-001	602092-001	WHT			

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 7 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
96	J109-5	J201-z	24 AWG	524999	40"	CHANNEL 21 LO IN
	602199-001	602092-001	WHT			
97	J109-4	J201-y	24 AWG	524999	40"	CHANNEL 21 HI OUT
	602199-001	602092-001	WHT			
98	J109-3	J201-x	24 AWG	524999	40"	CHANNEL 21 LO OUT
	602199-001	602092-001	WHT			
99	J109-2	J201-w	24 AWG	524999	40"	CHANNEL 22 HI IN
	602199-001	602092-001	WHT			
100	J109-1	J201-v	24 AWG	524999	40"	CHANNEL 22 LO IN
	602199-001	602092-001	WHT			
101	J110-1	J201-u	24 AWG	524999	40"	CHANNEL 22 HI OUT
	602199-001	602092-001	WHT			
102	J110-2	J201-t	24 AWG	524999	40"	CHANNEL 22 LO OUT
	602199-001	602092-001	WHT			
103	J110-3	J201-s	24 AWG	524999	40"	CHANNEL 23 HI IN
	602199-001	602092-001	WHT			
104	J110-4	J201-r	24 AWG	524999	40"	CHANNEL 23 LO IN
	602199-001	602092-001	WHT			
105	J110-5	J201-p	24 AWG	524999	40"	CHANNEL 23 HI OUT
	602199-001	602092-001	WHT			
106	J110-6	J201-n	24 AWG	524999	40"	CHANNEL 23 LO OUT
	602199-001	602092-001	WHT			
107	J110-7	J203-N	24 AWG	524999	40"	CHANNEL 24 HI IN
	602199-001	602092-001	WHT			
108	J110-8	J203-M	24 AWG	524999	40"	CHANNEL 24 LO IN
	602199-001	602092-001	WHT			
109	J110-9	J203-L	24 AWG	524999	40"	CHANNEL 24 HI OUT
	602199-001	602092-001	WHT			
110	J110-10	J203-K	24 AWG	524999	40"	CHANNEL 24 LO OUT
	602199-001	602092-001	WHT			
111	J111-10	J203-J	24 AWG	524999	40"	CHANNEL 25 HI IN
	602199-001	602092-001	WHT			
112	J111-9	J203-H	24 AWG	524999	40"	CHANNEL 25 LO IN
	602199-001	602092-001	WHT			
113	J111-8	J203-F	24 AWG	524999	40"	CHANNEL 25 HI OUT
	602199-001	602092-001	WHT			
114	J111-7	J203-E	24 AWG	524999	40"	CHANNEL 25 LO OUT
	602199-001	602092-001	WHT			
115	J111-6	J202-EE	24 AWG	524999	40"	CHANNEL 26 HI IN
	602199-001	602092-001	WHT			
116	J111-5	J202-DD	24 AWG	524999	40"	CHANNEL 26 LO IN
	602199-001	602092-001	WHT			
117	J111-4	J202-CC	24 AWG	524999	40"	CHANNEL 26 HI OUT
	602199-001	602092-001	WHT			
118	J111-3	J202-BB	24 AWG	524999	40"	CHANNEL 26 LO OUT
	602199-001	602092-001	WHT			

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 8 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
119	J111-2	J202-AA	24 AWG	524999	40"	CHANNEL 27 HI IN
	602199-001	602092-001	WHT			
120	J111-1	J202-z	24 AWG	524999	40"	CHANNEL 27 LO IN
	602199-001	602092-001	WHT			
121	J112-1	J202-y	24 AWG	524999	40"	CHANNEL 27 HI OUT
	602199-001	602092-001	WHT			
122	J112-2	J202-x	24 AWG	524999	40"	CHANNEL 27 LO OUT
	602199-001	602092-001	WHT			
123	J112-3	J202-w	24 AWG	524999	40"	CHANNEL 28 HI IN
	602199-001	602092-001	WHT			
124	J112-4	J202-v	24 AWG	524999	40"	CHANNEL 28 LO IN
	602199-001	602092-001	WHT			
125	J112-5	J202-u	24 AWG	524999	40"	CHANNEL 28 HI OUT
	602199-001	602092-001	WHT			
126	J112-6	J202-t	24 AWG	524999	40"	CHANNEL 28 LO OUT
	602199-001	602092-001	WHT			
127	J112-7	J202-s	24 AWG	524999	40"	CHANNEL 29 HI IN
	602199-001	602092-001	WHT			
128	J112-8	J202-r	24 AWG	524999	40"	CHANNEL 29 LO IN
	602199-001	602092-001	WHT			
129	J112-9	J202-p	24 AWG	524999	40"	CHANNEL 29 HI OUT
	602199-001	602092-001	WHT			
130	J112-10	J202-n	24 AWG	524999	40"	CHANNEL 29 LO OUT
	602199-001	602092-001	WHT			
131	J113-10	J202-m	24 AWG	524999	40"	CHANNEL 30 HI IN
	602199-001	602092-001	WHT			
132	J113-9	J202-k	24 AWG	524999	40"	CHANNEL 30 LO IN
	602199-001	602092-001	WHT			
133	J113-8	J202-j	24 AWG	524999	40"	CHANNEL 30 HI OUT
	602199-001	602092-001	WHT			
134	J113-7	J202-h	24 AWG	524999	40"	CHANNEL 30 LO OUT
	602199-001	602092-001	WHT			
135	J113-6	J202-f	24 AWG	524999	40"	CHANNEL 31 HI IN
	602199-001	602092-001	WHT			
136	J113-5	J202-e	24 AWG	524999	40"	CHANNEL 31 LO IN
	602199-001	602092-001	WHT			
137	J113-4	J202-d	24 AWG	524999	40"	CHANNEL 31 HI OUT
	602199-001	602092-001	WHT			
138	J113-3	J202-c	24 AWG	524999	40"	CHANNEL 31 LO OUT
	602199-001	602092-001	WHT			
139	J113-2	J203-EE	24 AWG	524999	40"	CHANNEL 32 HI IN
	602199-001	602092-001	WHT			
140	J113-1	J203-DD	24 AWG	524999	40"	CHANNEL 32 LO IN
	602199-001	602092-001	WHT			
141	J114-1	J203-CC	24 AWG	524999	40"	CHANNEL 32 HI OUT
	602199-001	602092-001	WHT			
142	J114-2	J203-BB	24 AWG	524999	40"	CHANNEL 32 LO OUT
	602199-001	602092-001	WHT			

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 9 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
143	J114-3	J203-AA	24 AWG	524999	40"	CHANNEL 33 HI IN
	602199-001	602092-001	WHT			
144	J114-4	J203-z	24 AWG	524999	40"	CHANNEL 33 LO IN
	602199-001	602092-001	WHT			
145	J114-5	J203-y	24 AWG	524999	40"	CHANNEL 33 HI OUT
	602199-001	602092-001	WHT			
146	J114-6	J203-x	24 AWG	524999	40"	CHANNEL 33 LO OUT
	602199-001	602092-001	WHT			
147	J114-7	J203-w	24 AWG	524999	40"	CHANNEL 34 HI IN
	602199-001	602092-001	WHT			
148	J114-8	J203-v	24 AWG	524999	40"	CHANNEL 34 LO IN
	602199-001	602092-001	WHT			
149	J114-9	J203-u	24 AWG	524999	40"	CHANNEL 34 HI OUT
	602199-001	602092-001	WHT			
150	J114-10	J203-t	24 AWG	524999	40"	CHANNEL 34 LO OUT
	602199-001	602092-001	WHT			
151	J115-10	J203-s	24 AWG	524999	40"	CHANNEL 35 HI IN
	602199-001	602092-001	WHT			
152	J115-9	J203-r	24 AWG	524999	40"	CHANNEL 35 LO IN
	602199-001	602092-001	WHT			
153	J115-8	J203-p	24 AWG	524999	40"	CHANNEL 35 HI OUT
	602199-001	602092-001	WHT			
154	J115-7	J203-n	24 AWG	524999	40"	CHANNEL 35 LO OUT
	602199-001	602092-001	WHT			
155	J115-6	J203-m	24 AWG	524999	40"	CHANNEL 36 HI IN
	602199-001	602092-001	WHT			
156	J115-5	J203-k	24 AWG	524999	40"	CHANNEL 36 LO IN
	602199-001	602092-001	WHT			
157	J115-4	J203-j	24 AWG	524999	40"	CHANNEL 36 HI OUT
	602199-001	602092-001	WHT			
158	J115-3	J203-h	24 AWG	524999	40"	CHANNEL 36 LO OUT
	602199-001	602092-001	WHT			
159	J115-2	J203-f	24 AWG	524999	40"	CHANNEL 37 HI IN
	602199-001	602092-001	WHT			
160	J115-1	J203-e	24 AWG	524999	40"	CHANNEL 37 LO IN
	602199-001	602092-001	WHT			
161	J116-1	J203-d	24 AWG	524999	40"	CHANNEL 37 HI OUT
	602199-001	602092-001	WHT			
162	J116-2	J203-c	24 AWG	524999	40"	CHANNEL 37 LO OUT
	602199-001	602092-001	WHT			
163	J116-3	J203-b	24 AWG	524999	40"	CHANNEL 38 HI IN
	602199-001	602092-001	WHT			
164	J116-4	J203-a	24 AWG	524999	40"	CHANNEL 38 LO IN
	602199-001	602092-001	WHT			
165	J116-5	J203-Z	24 AWG	524999	40"	CHANNEL 38 HI OUT
	602199-001	602092-001	WHT			
166	J116-6	J203-Y	24 AWG	524999	40"	CHANNEL 38 LO OUT
	602199-001	602092-001	WHT			
167	J116-7	J203-X	24 AWG	524999	40"	CHANNEL 39 HI IN
	602199-001	602092-001	WHT			

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 10 of 11	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART#	WIRE LEN	REFERENCE
168	J116-8	J203-W	24 AWG	524999	40"	CHANNEL 39 LO IN
	602199-001	602092-001	WHT			
169	J116-9	J203-V	24 AWG	524999	40"	CHANNEL 39 HI OUT
	602199-001	602092-001	WHT			
170	J116-10	J203-U	24 AWG	524999	40"	CHANNEL 39 LO OUT
	602199-001	602092-001	WHT			
171	J117-10	J202-b	24 AWG	524999	40"	COMMON 03 HI
	602199-001	602092-001	WHT			
172	J117-9	J202-a	24 AWG	524999	40"	COMMON 03 LO
	602199-001	602092-001	WHT			
173	J117-8	J203-T	24 AWG	524999	40"	COMMON 04 HI
	602199-001	602092-001	WHT			
174	J117-7	J203-S	24 AWG	524999	40"	COMMON 04 LO
	602199-001	602092-001	WHT			
175	J117-6	J202-A	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
176	J117-5	J202-FF	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
177	J117-4	J203-A	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
178	J117-3	J203-FF	24 AWG	524999	40"	GROUND
	602199-001	602092-001	WHT			
179	J117-2	NO CONNECT				
	602199-001					
180	J117-1	NO CONNECT				
	602199-001					

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-13, TTI	A	21793	407271	A
	DRN		SHEET 11 of 11	

This page was left intentionally blank.

Chapter 7
PRODUCT SUPPORT

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 closest to your facility, refer to the Support Offices section on the following page.

Reshipment Instructions

Use the original packing material when returning the 1260-13 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) 722-3262, FAX: (949) 859-7309

Racal Instruments, Ltd.
480 Bath Road, Slough, Berkshire, SL1 6BE, United Kingdom
Tel: +44 (0) 8706 080134; FAX: +44 (0) 1753 791290

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 (02) 5750 1796; FAX +39 (02) 5750 1828

Racal Elektronik System GmbH.
Frankenforster Strasse 21, 51427 Bergisch Gladbach, Germany
Tel:+49 2204 92220; FAX: +49 2204 21491

Racal Australia Pty. Ltd.
3 Powells Road, Brookvale, NSW 2100, Australia
Tel: +61 (2) 9936 7000, FAX: +61 (2) 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

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP