

# 1260 VXI SWITCHING CARD

# 1260-16 POWER SWITCHING MODULE

PUBLICATION NO. 980673-023

## 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>

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.

---

**PUBLICATION DATE: June 27, 1998**

Copyright 1997 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:	<a href="mailto:Helpdesk@racalinstruments.com">Helpdesk@racalinstruments.com</a>	
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](mailto: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 1260-16

The following information describes the control-register-to-relay-channel mapping for a 1260-16 Relay Module. This information may be used to control a 1260-16 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
Module Specification .....	1-1
Specifications .....	1-2
Ordering Information.....	1-3
Safety .....	1-3
Product Support.....	1-3
Pin Configuration .....	1-3

### Chapter 2

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

### Chapter 3

MODULE SPECIFIC SYNTAX.....	3-1
1260-16 Module Specific Syntax .....	3-1
Syntax .....	3-1
CLOSE and OPEN Command .....	3-1
PSETUP Command .....	3-2
PDATAOUT Command .....	3-2

### Chapter 4

MODULE CONFIGURATION .....	4-1
General .....	4-1
Connector Pin Configuration.....	4-2

Chapter 5  
DRAWINGS .....5-1

Chapter 6  
PARTS LIST .....6-1

Chapter 7  
OPTIONAL HARNESS ASSEMBLIES.....7-1

Chapter 8  
Product Support.....8-1  
Reshipment Instructions .....8-1



### List Of Figures

Figure 1-1, 1260-16 .....	1-1
Figure 1-2, 1260-16 Pin Configuration.....	1-4
Figure 4-1, 1260-16 Relay Diagram.....	4-1
Figure 4-2, 1260-16 J200-J202 Pin Configuration .....	4-3
Figure 4-3, 1260-16 Channel .....	4-4
Figure 4-4, 1260-16 Components Per Channel .....	4-5
Figure 4-5, 1260-16 Jumper Locations .....	4-7

### List Of Tables

Table 4-1, 1260-16 "COM, NO and NC" Assignments .....	4-2
Table 4-1, 1260-16 "COM, NO and NC" Assignments (continued) .....	4-2

This page was left intentionally blank.

## Chapter 1

# MODULE SPECIFICATION

---

### Module Specification

The 1260-16 Power Switching module provides 40 independent channels of SPDT switching. Each channel functions independently with all paths accessible through the front panel connectors. Every channel features mounting holes on the printed circuit board to allow for the addition of one series and two shunt elements. This permits components, such as fuses and arc suppressers (for contact protection), or resistors and capacitors (for filter circuits) to be installed. The circuit board also provides mounting holes for jumpers to allow up to eight common channels to be multiplexed. The module permits switching currents of up to 5 amps at 30 volts DC or 250 volts RMS per channel.

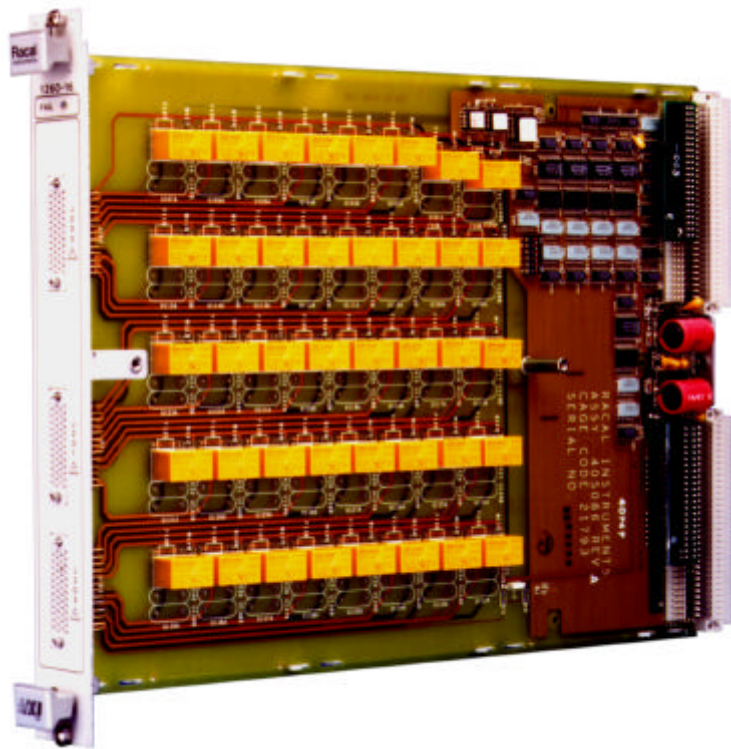


Figure 1-1, 1260-16

## Specifications

Switch Configuration	40 SPDT Relays
User Connector	Positronics SMPL 4 FOTO LB
Maximum Switchable Voltage	125 V DC, 250 VAC RMS
Maximum Switchable Current Per Channel	5 A DC or AC RMS
Maximum Switchable Power Per Channel	150 W or 1250 VA
Maximum Switchable Power Per Module	1500 W or 12500 VA
Path Resistance	< 200 milliohms
Capacitance Per Independent Channel Open Channel	< 100 pF
Bandwidth, 50Ω Termination	> 30 MHz
Isolation, 50Ω Termination	30 dB to 100 kHz 20 dB to 1 MHz 15 dB to 10 MHz
Crosstalk, 50Ω Termination	< -40 dB to 100 kHz < -35 dB to 1 MHz < -15 dB to 10 MHz
Switching Time	10 milliseconds
Cooling Requirements	
Airflow	1.0 liter/sec
Backpressure	0.05 mm of H <sub>2</sub> O
Cooling Requirements (With Option 01S/T)	
Airflow	2.0 liters/sec
Backpressure	0.2 mm of H <sub>2</sub> O
Power Requirements (I <sub>pm</sub> )	+5 V w/o Option 01 = 400 mA +5 V with Option 01 = 2.5A +24 V = 10 mA per relay
Weight	1.26 kg (2.77 lbs) without Option 01 1.41 kg (3.11 lbs) with Option 01

Minimum Firmware Revision  
Option 01 22.1

---

## Ordering Information

Module Number	Description	Part Number
1260-16	40-Channel SPDT Switch, 5 Amp	407348

---

## Safety

Refer to the "**FOR YOUR SAFETY**" page preceding the Table of Contents. Follow all **NOTES, CAUTIONS** and **WARNINGS** to ensure personal safety and prevent damage to the instrument.

---

## Product Support

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 for 1-714-859-8999 or via fax at 1-714-859-7309. We can be reached at: [helpdesk@racalate.com](mailto:helpdesk@racalate.com).

---

## Pin Configuration

The following diagram examines the pin configuration.

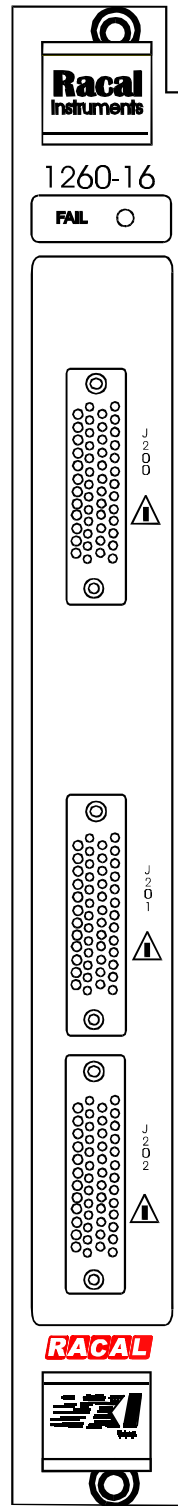


Figure 1-2, 1260-16 Pin Configuration

## 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 module from its carton, preserving the factory packaging as much as possible.
3. Inspect the 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.

---

#### **CAUTION**

**Proper ESD handling procedures must always be used when packing, unpacking or installing any 1260 Series cards. Failure to do so may cause damage to the unit.**

---

### Reshipment Instructions

1. Use the original packaging when returning the switching module to Racal Instruments for calibration or servicing. The original shipping carton and the module's foam will provide the necessary support for safe reshipment.
2. If the original packaging is unavailable, wrap the module in ESD protective sheeting and use sufficient cushioning material (non-static generating) to surround and protect the module.
3. Reship in either the original or a new shipping carton.

## **Option 01 Installation**

Installation of the Option 01 into the 1260-16 is described in the Installation section of the 1260 Series VXI Switching Cards Manual (RII P/N 980673-999).

## **Module Installation**

Installation of the 1260-16 Switching Module into a VXIbus mainframe, including the setting of DIP switches, is described in the Installation section of the 1260 Series VXI Switching Cards Manual (RII P/N 980673-999). The ID byte DIP switches, SW1-5 and SW1-6, should be set to OFF.



## MODULE SPECIFIC SYNTAX

---

### 1260-16 Module Specific Syntax

The module specific syntax for the 1260-16 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 1260-16 module is as follows:

<module address>.<channel>

where <module address> is the switch card address.

<channel> is the channel number to be switched; the range of values for <channel> is 00 to 39.

### CLOSE and OPEN Command

#### Example:

For switch card address 9; channel 2

CLOSE 9.02

OPEN 9.02

Note that channels remain closed until opened by an OPEN command, RESET command, VXI hand or soft reset, or power-off.

---

#### **NOTE**

The <module address> used here is not the VXibus defined logical address of the 1260 Master. It is particular 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.

---

## **PSETUP Command**

The PSETUP command causes the specified module setup to be displayed as a response. The syntax used is:

```
PSETUP <module address>[;<module address>][;<module address>].....
```

where <module address> is the address.

The responses to the PSETUP command for the 1260-16 Power Switching Module are as follows:

```
<module address>.1260-16 40 CHANNEL SPDT 5 AMP  
RELAY MODULE
```

```
<module address>.BBM
```

```
<module address>.END
```

The response to the PSETUP command begins with a header on the first line. The header describes the model number. The next line designates the setup mode for scanning, which, by default, is Break-Before-Make (BBM). The last line containing the "END" characters denotes no more information to report.

## **PDATAOUT Command**

The PDATAOUT command causes the specified module to transmit the state of the CLOSED relays (within the switching module) to the 1260 Controller. The syntax used is:

```
PDATAOUT <module address>[.<module address>][;<module address>].....
```

The responses to the PDATAOUT command are as follows:

```
<module address>.1260-16 40 CHANNEL SPDT 5 AMP  
RELAY MODULE
```

```
<module address>.<channel>[,<channel>][,<channel>].....
```

```
<module address>.END
```

The response to the PDATAOUT command consists of a header on the first line, as with the PSETUP response. The next line details the channels currently closed on the module, and is blank when no channels are closed. Again, the last line is denoted by the "END" string of characters.

# MODULE CONFIGURATION

## General

The 1260-16 Power Switching module provides 40 independent channels of SPDT switching. Each channel functions independently, with all paths accessible through the front panel connectors. Every channel features mounting holes on the printed circuit board to allow for the addition of one series and two shunt elements. This permits components, such as fuses and arc suppressers (for contact protection), or resistors and capacitors (for filter circuits) to be installed. The circuit board also provides mounting holes for jumpers to allow up to eight common channels to be multiplexed. This can save external wiring when several channels are switched to the common channel. The module permits switching currents of up to 5 amps at 30 volts DC or 250 volts RMS per channel.

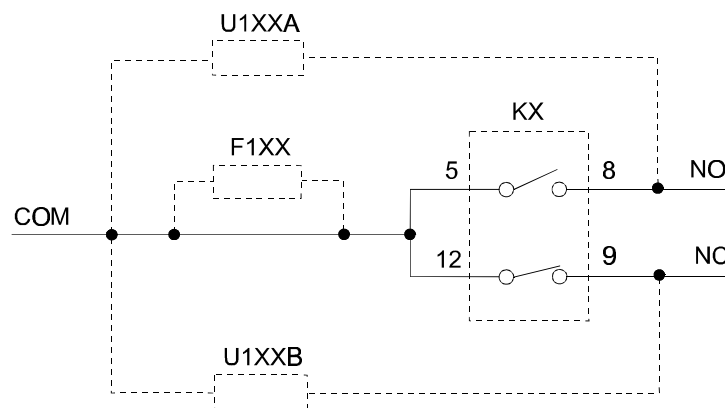
---

### Caution

**Open unit at an ESD static safe work station.**

---

A total of 150 pins are accessible through the front panel connectors, 18 of which are not used. Each channel is assigned 3 pins: COM, NO and NC, as shown in Figure 4-1.



**Figure 4-1, 1260-16 Relay Diagram**

The corresponding pin assignments of the 3 pins for each channel are shown in Table 4-1.

## Connector Pin Configuration

Refer to Figure 4-2 for pin configurations of the front panel connectors J200 to J202. J200 to J202 are 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.

**Table 4-1, 1260-16 "COM, NO and NC" Assignments**

CHANNEL NO.	COM	NO	NC
0	J200-a	J200-c	J200-Y
1	J200-b	J200-d	J200-Z
2	J200-U	J200-W	J200-S
3	J200-V	J200-X	J200-T
4	J200-M	J200-P	J200-K
5	J200-N	J200-R	J200-L
6	J200-E	J200-H	J200-C
7	J200-F	J200-J	J200-D
8	J201-E	J201-H	J201-C
9	J201-F	J201-J	J201-D
10	J200-BB	J200-DD	J200-z
11	J200-CC	J200-EE	J200-AA
12	J200-v	J200-x	J200-t
13	J200-w	J200-y	J200-u
14	J200-n	J200-r	J200-k
15	J200-p	J200-s	J200-m
16	J201-r	J201-t	J201-n
17	J201-s	J201-u	J201-p
18	J201-h	J201-k	J201-e
19	J201-j	J201-m	J201-f
20	J201-a	J201-c	J201-Y
21	J201-b	J201-d	J201-Z
22	J201-U	J201-W	J201-S
23	J201-V	J201-X	J201-T
24	J202-U	J202-W	J202-S
25	J202-V	J202-X	J202-T
26	J202-M	J202-P	J202-K
27	J202-N	J202-R	J202-L
28	J202-E	J202-H	J202-C
29	J202-F	J202-J	J202-D
30	J201-BB	J201-DD	J201-z
31	J201-CC	J201-EE	J201-AA
32	J202-BB	J202-DD	J202-z
33	J202-CC	J202-EE	J202-AA
34	J202-v	J202-x	J202-t
35	J202-w	J202-y	J202-u
36	J202-n	J202-r	J202-k
37	J202-p	J202-s	J202-m
38	J202-e	J202-h	J202-c
39	J202-f	J202-j	J202-d

**Table 4-1, 1260-16 "COM, NO and NC" Assignments (continued)**

### Multiplexer Channel Assignments

Multiplexer Channel	Pin
COM0_7	J200-A
COM8_15	J200-h
COM16_23	J201-x
COM24_31	J201-P
COM32_39	J202-Y

### Chassis Ground

J200-B	J200-HH
J201-B	J201-HH
J202-B	J202-HH

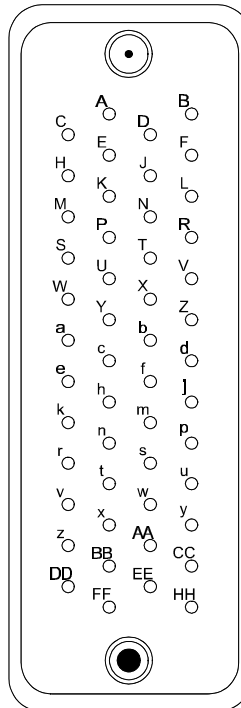
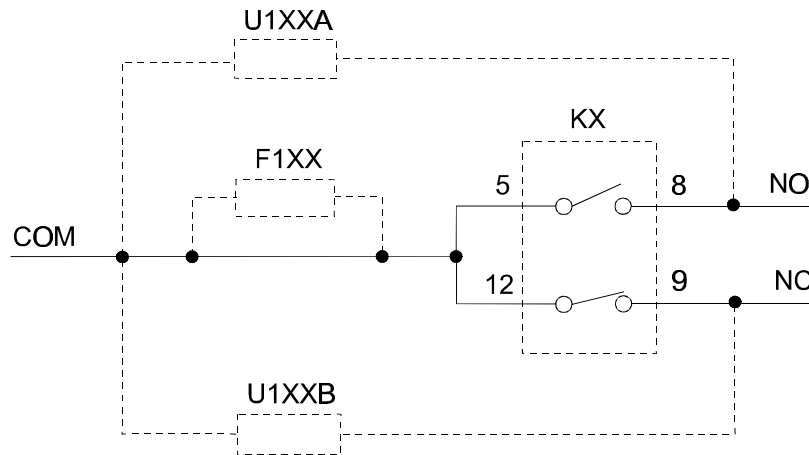


Figure 4-2, 1260-16 J200-J202 Pin Configuration

Figure 4-3 shows a 1260-16 channel with one series and two shunt elements associated with each channel. The series elements are designated F100 to F139, while the shunt elements are designated U100A/B to U139A/B. To allow immediate use of the module, a trace is provided on the printed circuit board (component side) in all positions for F100 to F139. No components are installed at U100A/B to U139A/B.



**Figure 4-3, 1260-16 Channel**

Series elements are installed at F100 to F139 positions. The "F" position has a numerical assignment that is one hundred and one (101) higher than the channel number. For example, the series elements associated with CH 8 will have the designation F109. At shipment, the module is provided with traces on the printed circuit board (component side) at the "F" positions. Installation of a series element will first require the removal of the trace at the location of interest. Only qualified personnel should attempt this procedure. Each trace is located above the channel relay. (See Figure 4-4.) The trace can be seen to narrow down for 0.10 inches. This 0.10-inch portion of the trace should be removed using a suitable tool such as a scalpel.

---

**ESD CAUTION**

**Open unit at an ESD static safe workstation.**

---

A fuse may be used in the "F" positions to protect the relay and associated connections. An example of a suitable fuse is the Littlefuse Pico II 250V (part number 263 005). Note that the fuse selected must be rated to the maximum voltage applied.

To install shunt elements at a particular channel, locate the "U" position which has a numerical assignment that is one hundred and one (101) higher than the channel number. For example, the shunt elements associated with CH 19 will have the designations

U120A and U120B. Note that each channel has two shunt elements: element "A" is connected between the NO channel and COM while element "B" is connected between the NC channel and COM

EXAMPLE: CHANNEL 7

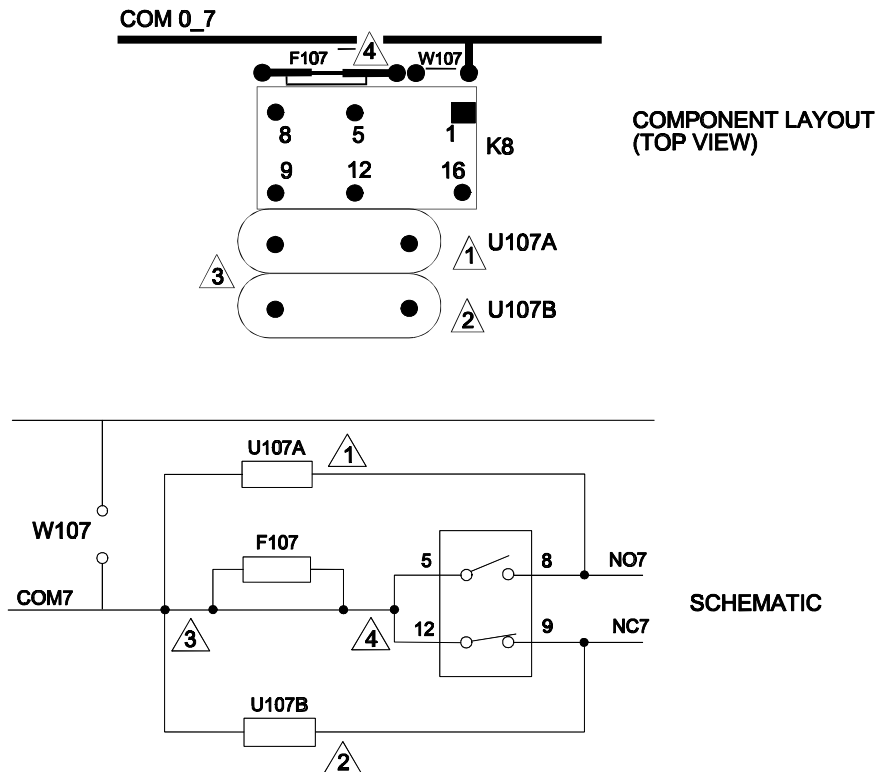


Figure 4-4, 1260-16 Components Per Channel

For the shunt elements, metal oxide varistors (MOVs) may be used to suppress voltage spikes. An example of a suitable MOV is Phillips-type 2322 592 A3006 for DC operation or Phillips-type 2322 592 G2516 for AC operation. The exact component selection will depend on the application.

Figure 4-4 summarizes the components associated with each channel and illustrates the trace to be cut. It also shows how the series and shunt elements are connected to the relay (refer to the numbered triangles and their respective positions). This may be useful when the elements being installed have associated polarities.

Multiplexers can be implemented by installing jumpers at the mounting holes above each relay. Referring to Figure 4-5, mounting holes are provided between the COM side of each relay and a single trace which runs alongside each row of 8 relays. This arrangement can be used to implement an 8 x 1 multiplexer, using the 8 adjacent relays. For example, to implement an 8 x 1

multiplexer using K1 to K8, use jumpers to connect W100 to W107 (see Figure 4-5). K1 to K8 now composes a single wire, 8 x 1 multiplexer with COM0\_7 as the common. Typically, for each relay, the NC path would be unconnected and the NO path used as the branch for the multiplexer. The other four rows 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 is shown on Table 4-1.

The relays used on the 1260-16 are designed to switch up to 5 amps at 30 volts DC or 250 volts RMS. The relay contacts are made of silver alloy and have a "gold flash" coating to prevent oxidation during storage. With frequent switching operation above 2 amps, it is normal for the gold flash to be removed from the contacts. Without the gold flash, oxidation may build up on the contacts if the relay is not operated for some time. On the next operation with currents above approximately 0.5 amps, the oxidation will be removed immediately. However, if the unit is operated with lower currents, the oxidation may not be removed and an open circuit condition may prevail. This scenario is typical with all brands of relays rated at this current. Racal Instruments recommends that the customer designate each 1260-16 module purchased as either a low current switch (less than 1 amp) or a high current switch (greater than 1 amp).



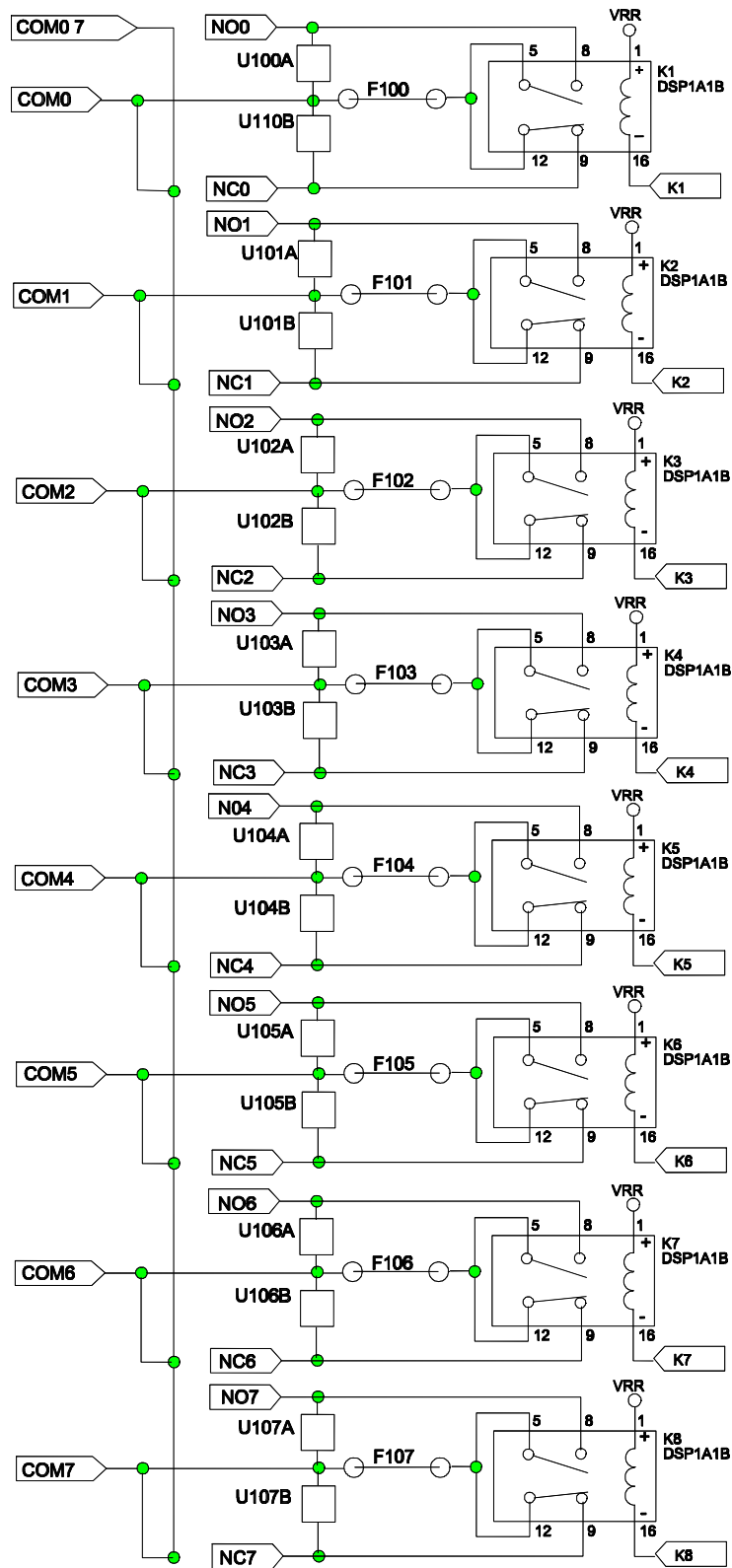


Figure 4-5, 1260-16 Jumper Locations

This page was left intentionally blank.

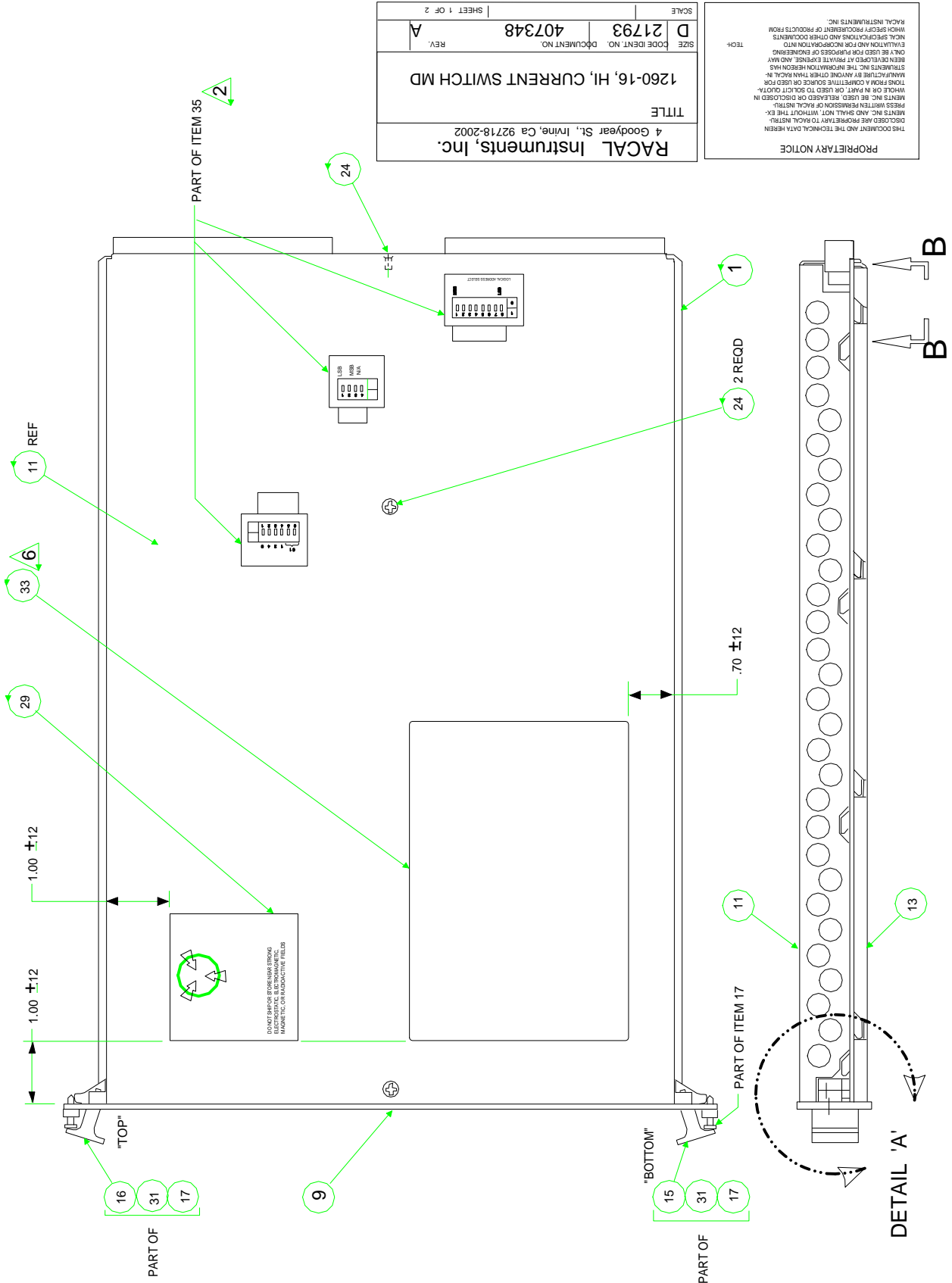
## Chapter 5

# DRAWINGS

---

407348	1260-16 Hi Current Switch	5-3
405086	PCB Assy, 1260-16	5-5
435086	Schematic, 1260-16	5-6

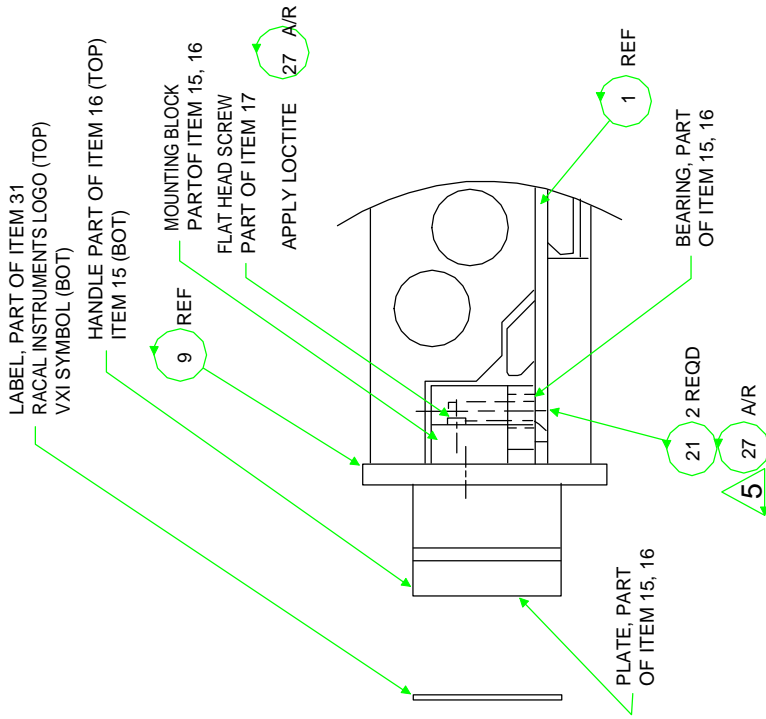
This page was left intentionally blank.



RACAL Instruments, Inc. 4 Goodyear St., Irvine, Ca 92718-2002		TITLE
1260-16, HI, CURRENT SWITCH MD		
REV: A	DOCUMENT NO. 407348	SIZE D
SHEET 1 OF 2		SCALE

PROPRIETARY NOTICE

THIS DOCUMENT AND THE TECHNICAL DATA HEREIN DISCLOSED ARE PROPRIETARY TO RACAL INSTRUMENTS AND SHALL NOT, WITHOUT THE EXPRESS WRITTEN PERMISSION OF RACAL INSTRUMENTS INC. BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER, IN WHOLE OR IN PART, ON ANY MEDIUM, WITHOUT THE WRITTEN PERMISSION OF RACAL INSTRUMENTS INC. THE PROPRIETARY DESIGN HAS BEEN DEVELOPED AT PRIVATE EXPENSE, AND WILL BE USED FOR PURPOSES OF ENGINEERING, MAINTENANCE AND FOR REPRODUCTION ONLY. RACAL INSTRUMENTS INC. MAKES NO WARRANTY, REPRESENTATION OR AGREEMENT, EXPRESS OR IMPLIED, IN CONNECTION WITH THE SALE OF THIS PRODUCT. RACAL INSTRUMENTS INC. SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM A CONTRACT, TORT OR OTHERWISE, IN CONNECTION WITH THE SALE OF THIS PRODUCT.

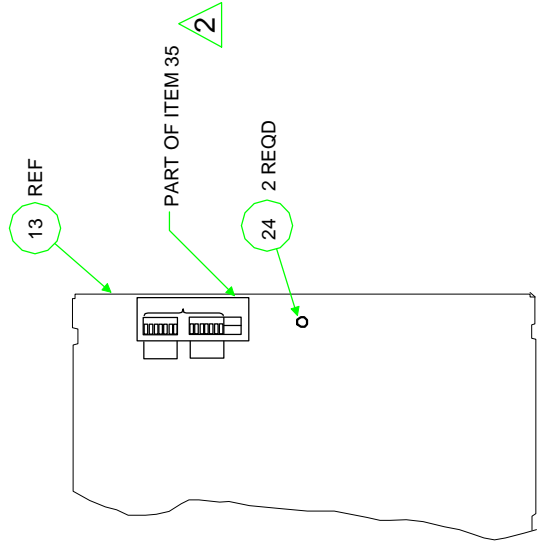


**DETAIL 'A'**

SCALE: 2/1

<b>RACAL Instruments, Inc.</b> 4 Goodyear St., Irvine, Ca 92718-2002	
TITLE <b>1260-16, HI. CURRENT SWITCH MD</b>	
SIZE <b>D 21793</b>	DOCUMENT NO. <b>407340</b>
SCALE	REV. <b>A</b>
SHEET 2 OF 2	

**PROPRIETARY NOTICE**  
THIS DOCUMENT AND THE TECHNICAL DATA HEREIN DISCLOSED ARE PROPRIETARY TO RACAL INSTRUMENTS INC. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF RACAL INSTRUMENTS INC. BE USED, RELEASED OR DISCLOSED IN ANY MANNER TO ANY OTHER PERSON OR ENTITY, INCLUDING COMPETITORS, WITHOUT THE WRITTEN PERMISSION OF RACAL INSTRUMENTS INC. THE INFORMATION HEREIN IS FOR EVALUATION AND FOR INCORPORATION INTO TECHNICAL SPECIFICATIONS AND OTHER DOCUMENTS AND IS NOT TO BE USED FOR THE PURPOSES OF ENGINEERING DESIGN OR FOR THE MANUFACTURE OF PRODUCTS FROM RACAL INSTRUMENTS INC.

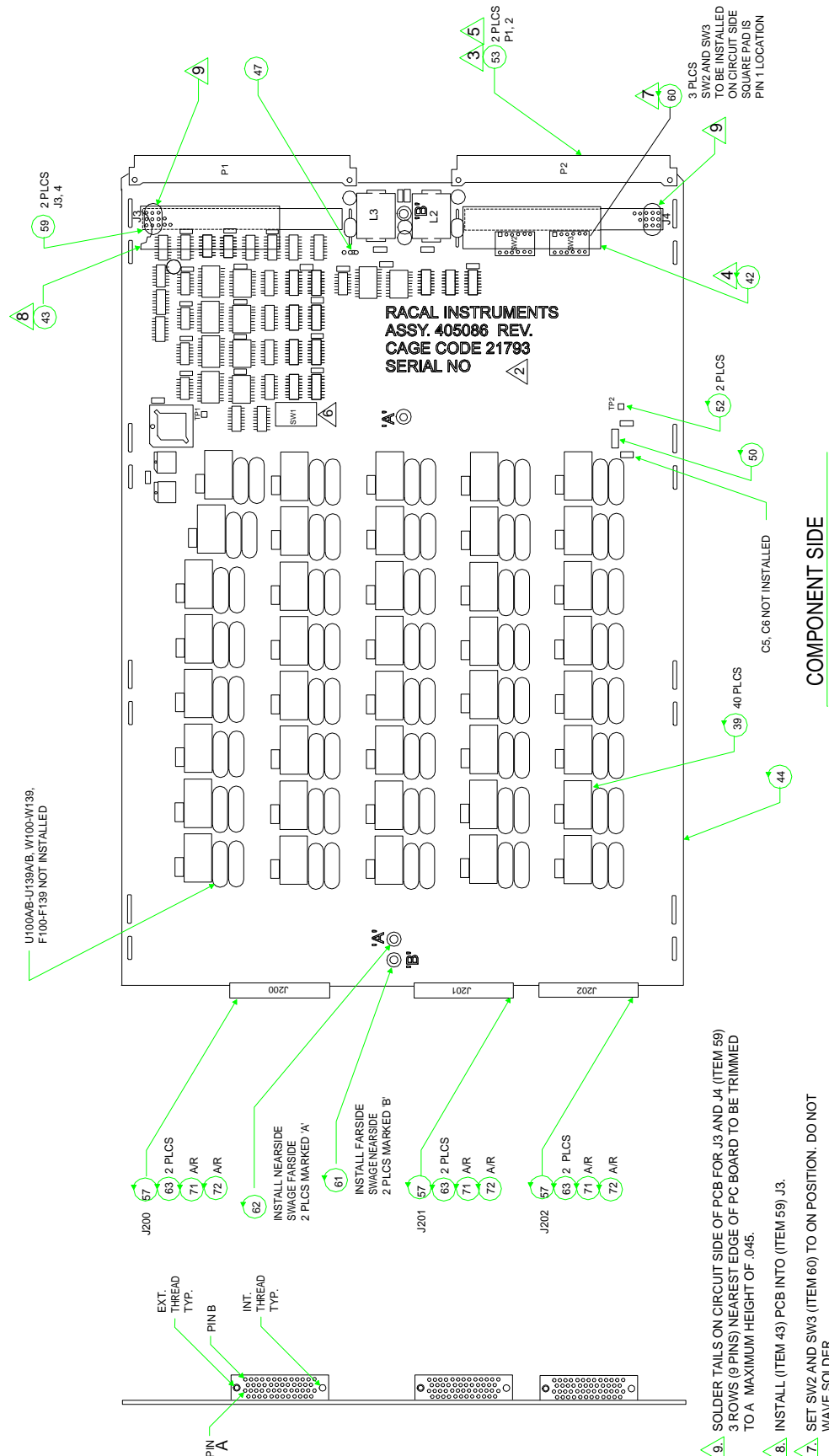


**VIEW B-B**

SCALE: 1/2  
BOTTOM VIEW

NOTES:

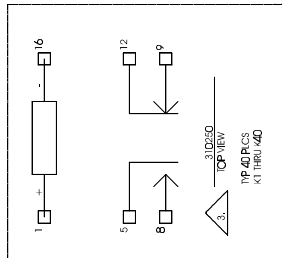
1. DISCARD UNUSED HARDWARE IN ITEM 17.
2. AFFIX LABELS AS SHOWN. ALIGN LABEL TEXT WITH APPROPRIATE SWITCH ACTUATORS.
3. INCLUDE SHIPPING KIT, ITEM 5 IN BOX WITH ASSY.
4. NOTE NOT ASSIGNED.
5. APPLY LOCTITE SPARINGLY. DO NOT ALLOW CONTACT WITH EJECTOR HANDLES ITEMS 15 (BOT) AND 16 (TOP).
6. TYPE PERTINENT INFORMATION ON LABEL ITEM 33 PRIOR TO AFFIXING LABEL TO PANEL.



RACAL Instruments, Inc. 4 Goodyear St., Irvine, Ca 92718-2002	
TITLE <b>PCB ASSY, 1260-16</b>	
SIZE D 21793	DOCUMENT NO. 405086
REV. A	SHEET 1 OF 3

COMPONENT SIDE

1. REFERENCE SCHEMATIC 435086.
2. INK STAMP SERIAL NUMBER AND CURRENT REVISION ON COMPONENT SIDE APPROX. WHERE SHOWN.
3. SOLDER TAILS ON CIRCUIT SIDE OF PCB FOR P1 AND P2 (ITEM 58) TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.
4. INSTALL (ITEM 42) PCB INTO (ITEM 59) J4.
5. P1 AND P2 MUST BE INSTALLED FLUSH AT RIGHT ANGLE TO PCB.
6. SET SW1 (ITEM 60) TO LOGICAL ADDRESS 1 PER TABLE 1. ALSO SET SW1 POSITION 5 TO OFF. DO NOT WAVE SOLDER.
7. SET SW2 AND SW3 (ITEM 60) TO ON POSITION. DO NOT WAVE SOLDER.
8. INSTALL (ITEM 43) PCB INTO (ITEM 59) J3.
9. SOLDER TAILS ON CIRCUIT SIDE OF PCB FOR J3 AND J4 (ITEM 59) 3 ROWS (9 PINS) NEAREST EDGE OF PCB BOARD TO BE TRIMMED TO A MAXIMUM HEIGHT OF .045.



1. COMPONENTS U1 THROUGH U40 ARE NOT INSTALLED. F100-F139 USES PCB TRACE. TRACE CAN BE REMOVED AND REPLACED BY A FUSE.
2. COMPONENTS U41 THROUGH U100 ARE NOT INSTALLED.
3. RELAYS K1 THRU K40 ARE RACAL INSTRUMENTS INC. P/N 310250. ALL RELAYS SHOWN IN DE-ENERGIZED POSITION.
4. RESISTOR NETWORKS ARE IN OHMS.
5. CAPACITOR VALUES ARE IN MICROFARADS. 10<sup>-4</sup> = +50% UNLESS OTHERWISE SPECIFIED.

REF. DES.	IC TYPE	IC PIN NO.	+5V PIN NO.	GND PIN NO.
U3, 21, 11, 15, 19	28D3			9
U2, 6, 10, 14, 18	74HC123		20	10
U56	74HC85		16	8
U54	74S138		16	8
U1, 5, 9, 13, 17, 61, 62	74HC164		14	7
U4, 8, 12, 16, 20, 40	74HC165		16	8
U57	LM339		3	12
U7, 3, 7, 4	74S32		16	8
U75	74S31		16	8
U71, 72	74HC253		16	8
U76	231154 (22V10H)		28	14
U53	231133 (16V4)		20	10
U70	231132 (16S30)		20	10

IC POWER AND GROUND CONNECTIONS

Z28	
W139	
U139A/B	
TP2	
SW3	
P2	
L5	
K40	
J002	
F139	
C140	
HIGHEST REF. DES.	

PROPRIETARY NOTICE  
 THIS DOCUMENT IS THE PROPERTY OF RACAL INSTRUMENTS INC. IT IS TO BE USED ONLY FOR THE PROJECT AND FOR THE CUSTOMER'S USE. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF RACAL INSTRUMENTS INC. ALL RIGHTS ARE RESERVED.

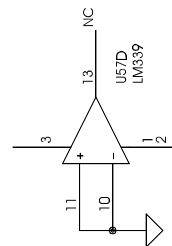
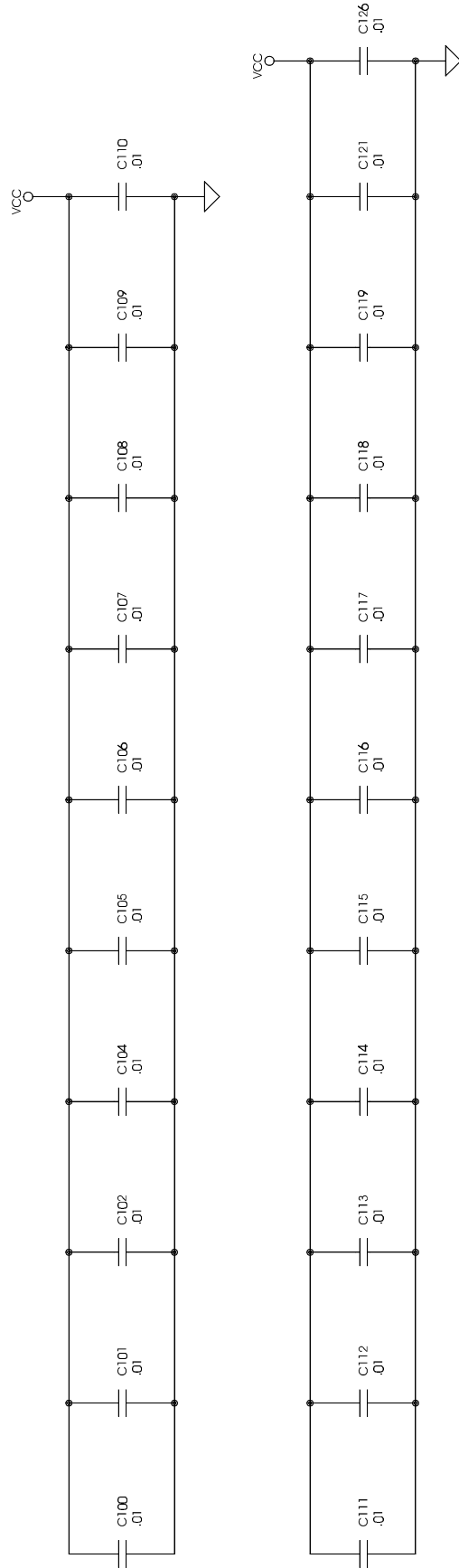
RACAL Instruments Inc.  
 4 Goodwin St., Irvine, Ca 92718-2202

TITLE  
**SCHEM, 1260-16**

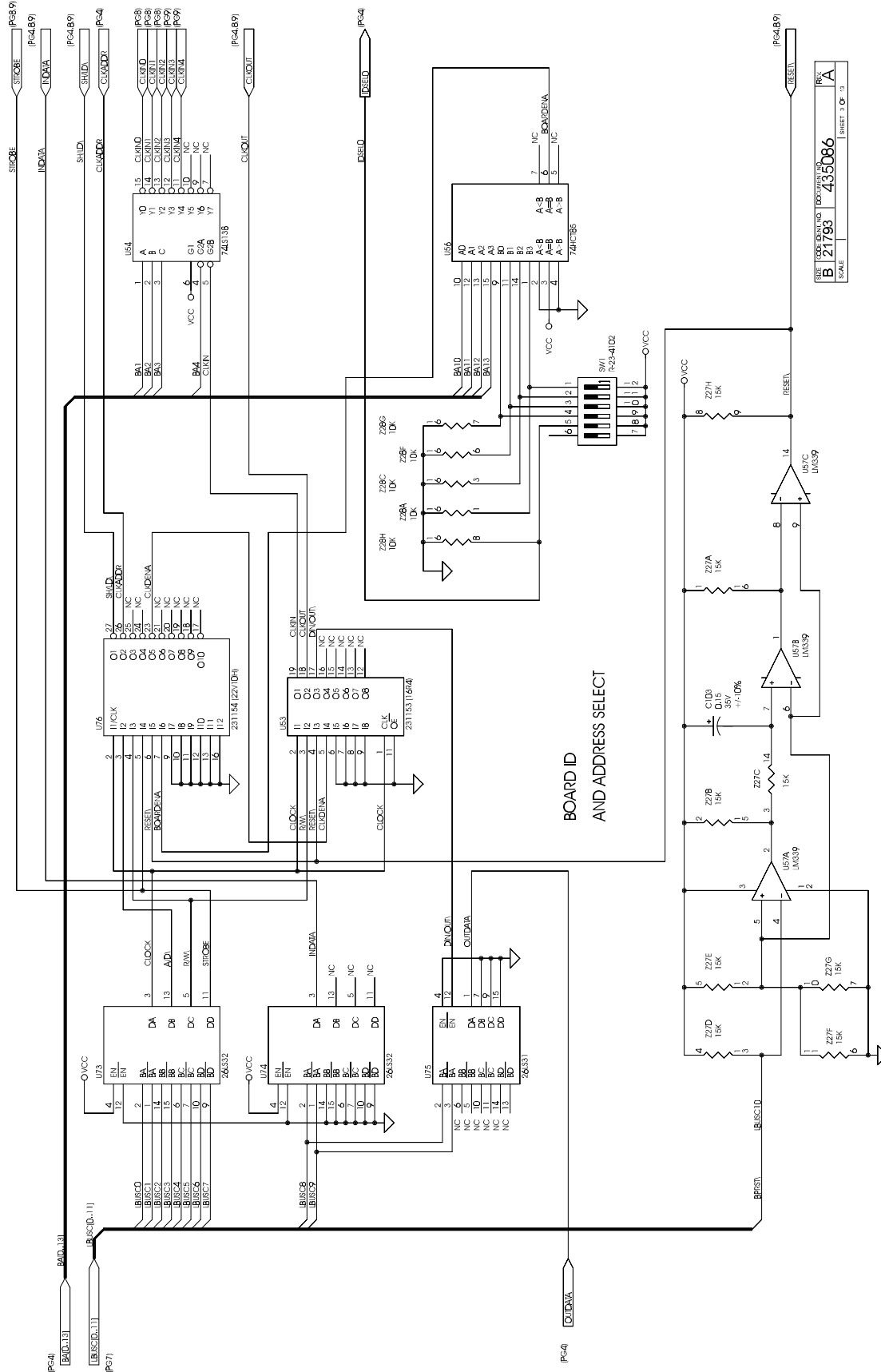
FILE: 1260-16-16.DWG | DD-CAM-1100  
**D 21793 435086**

SCALE: | SHEET 1 OF 13





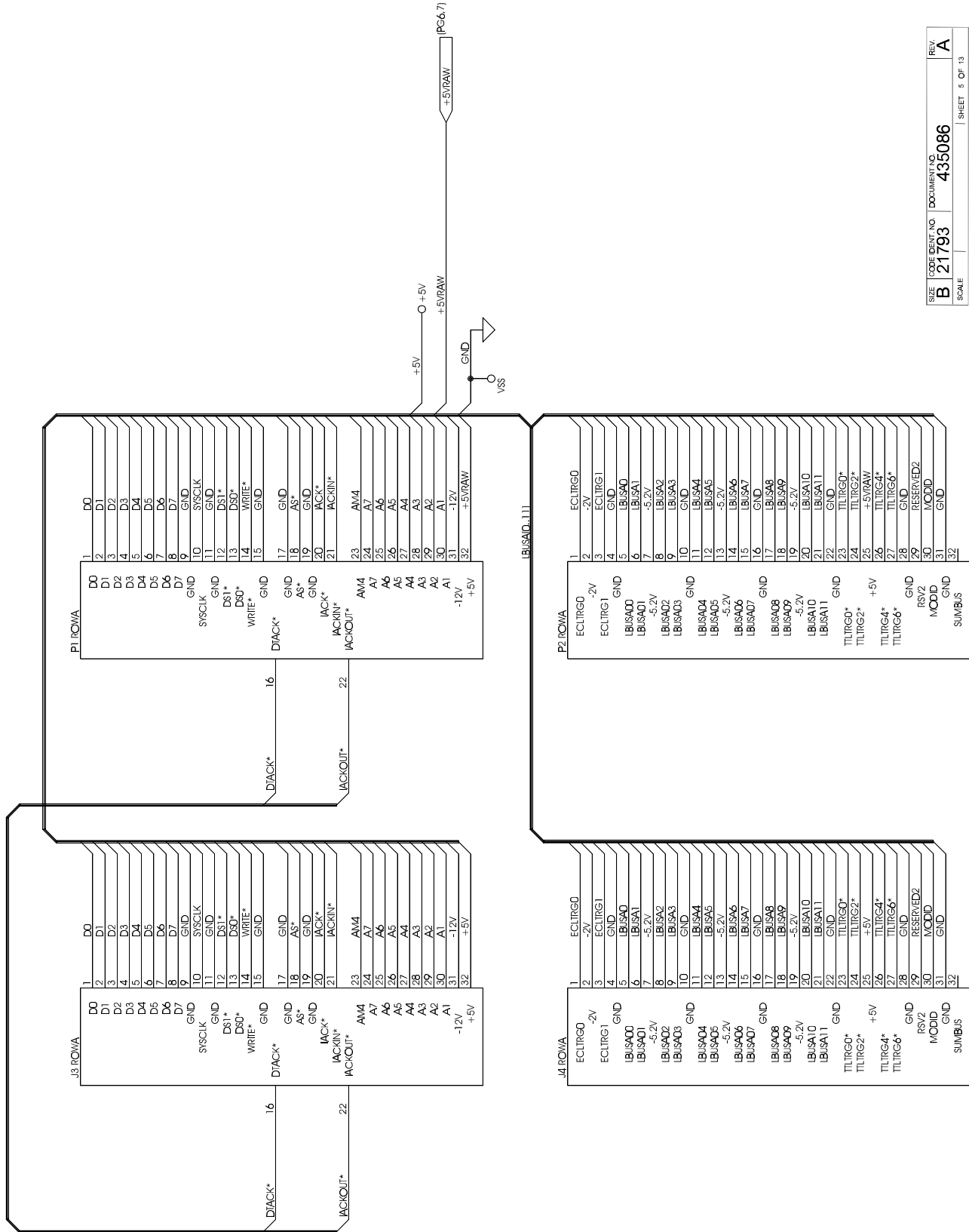
SIZE	CODE IDENT. NO.	DOCUMENT NO.	REV.
B	21793	435086	A
SCALE		SHEET 2 OF 13	



REV: 1.0  
 B 21793  
 435086  
 SCALE: 1:1  
 SHEET 1 OF 3

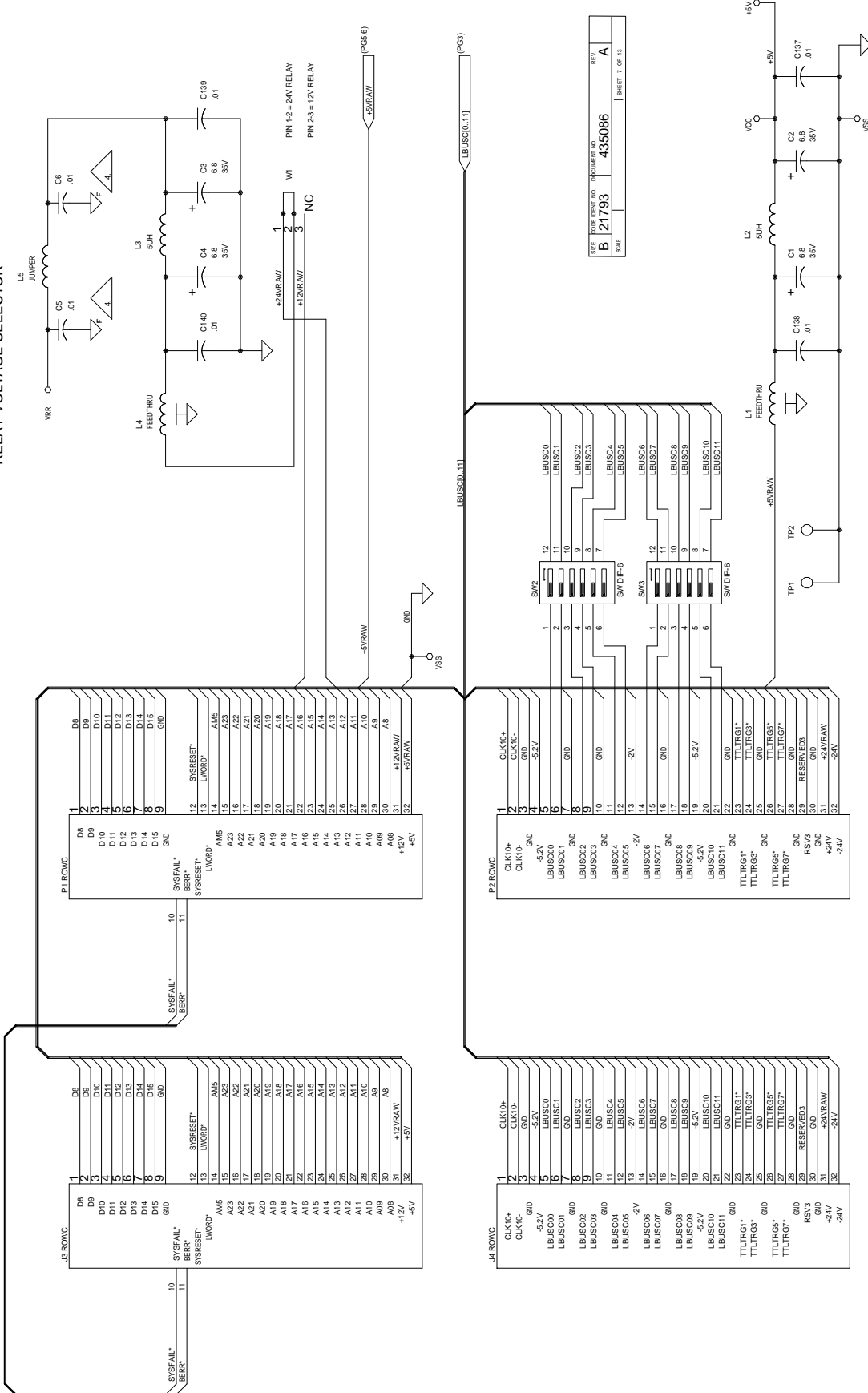


SIZE	CODE	REV.
B	21793	A
SCALE	DOCUMENT NO.	SHEET 5 OF 13
	435086	

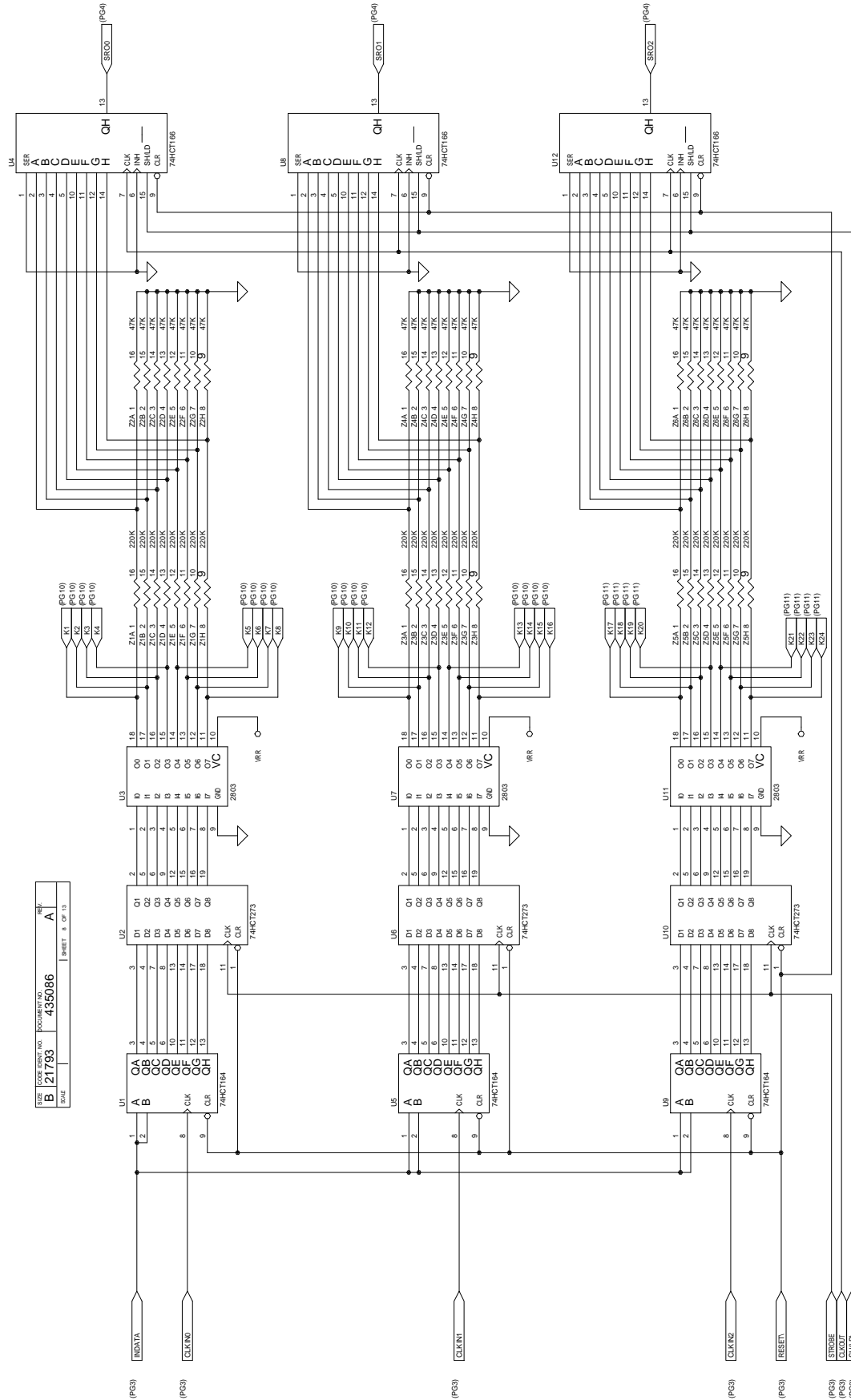


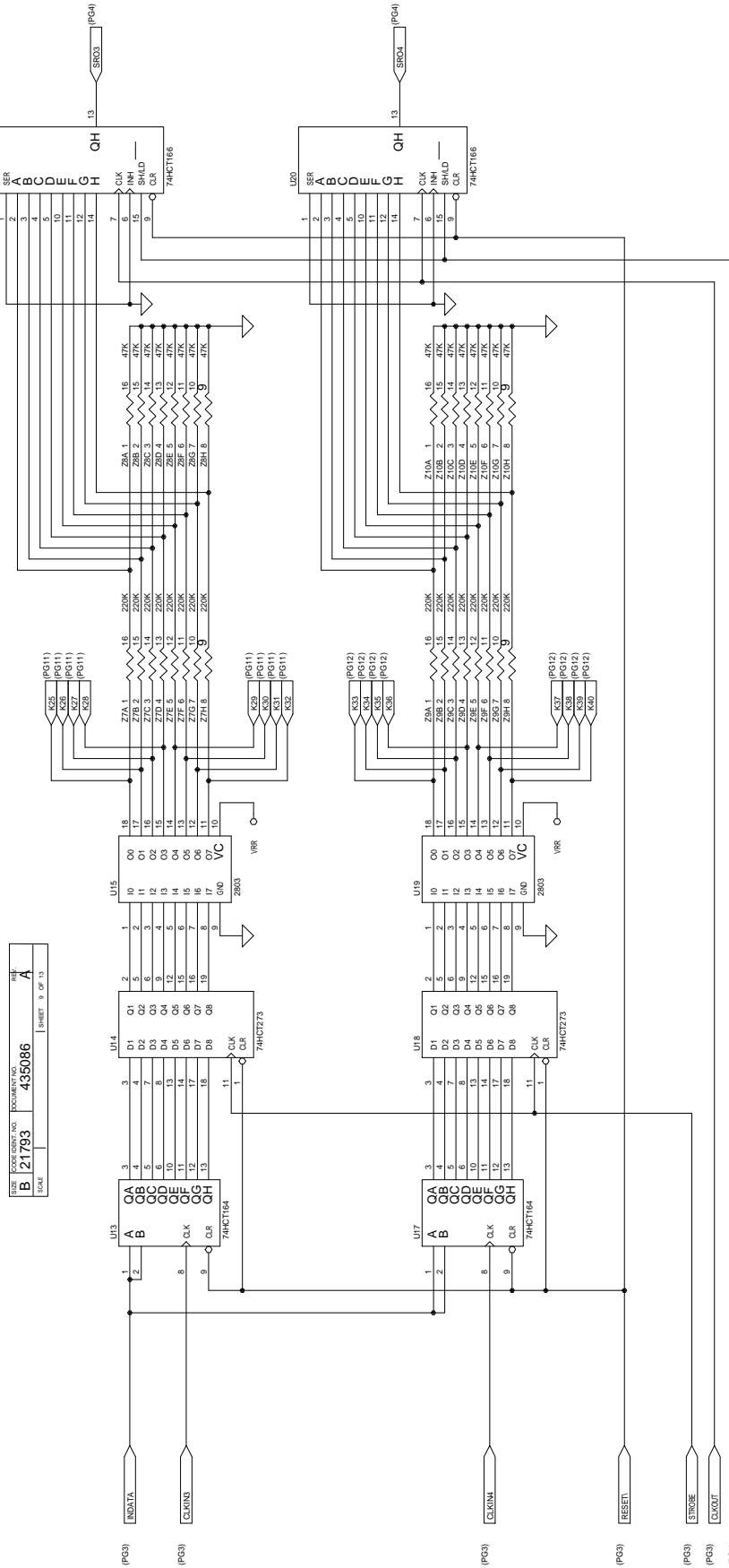


RELAY VOLTAGE SELECTOR



REV	A
DATE	
DRW	B 21793
CHKD	
APPD	
DESIGN NO.	435086
SHEET 7 OF 13	

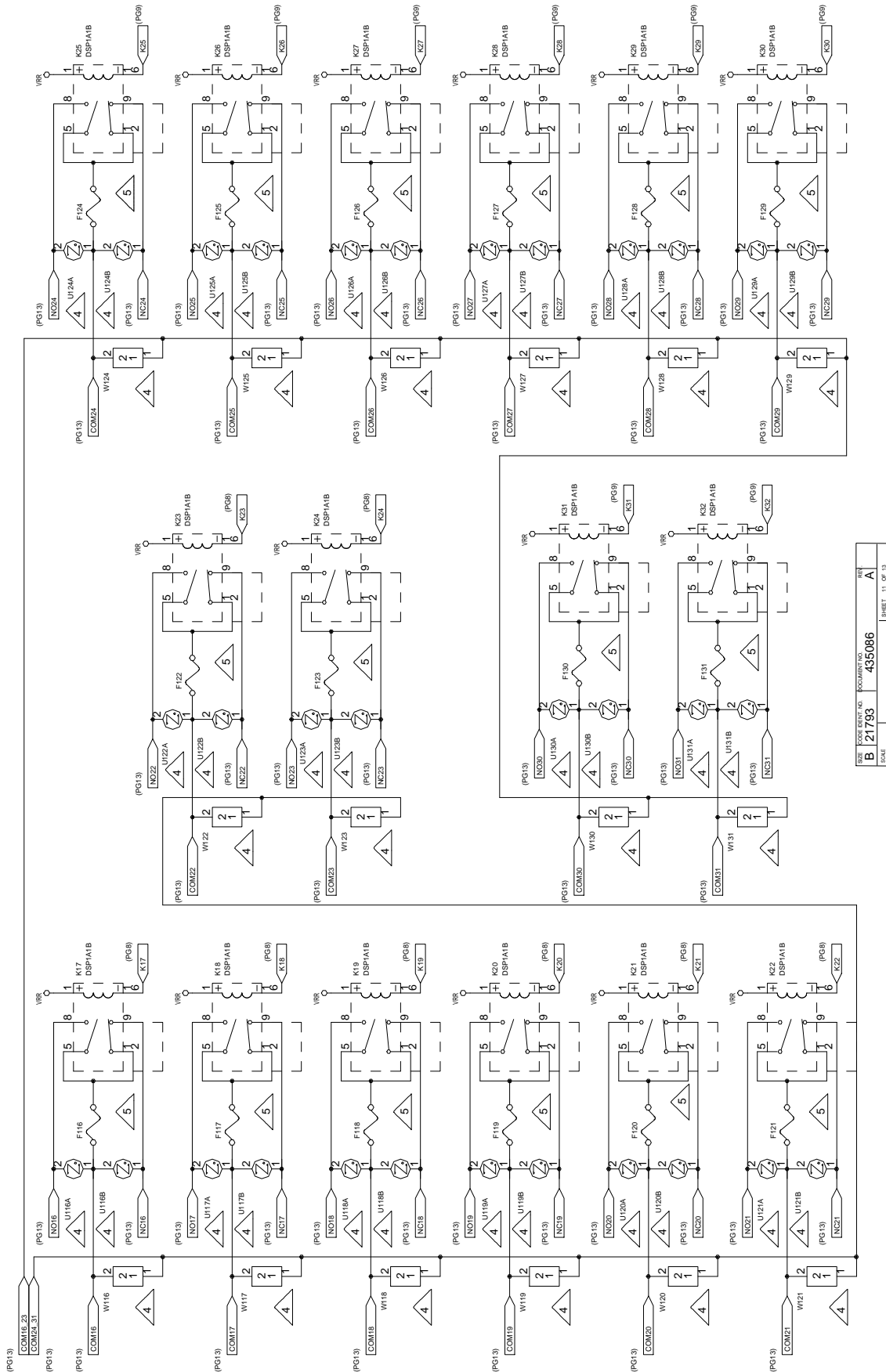




SIZE	CODE	NO. IN	NO.	NO.	NO.	NO.	NO.	NO.	NO.
B	21793	435086	DOCUMENT	NO.	NO.	NO.	NO.	NO.	NO.
SCALE	A	9	OF	13	SHEET				







SIZE	CODE	REV. NO.	DOCUMENT NO.	REV.
B	21793		435086	A
SCALE			SHEET 11 OF 13	





## Chapter 6

# PARTS LIST

---

407340	1260-16 Hi Current Switch.....	6-3
407349	Shipping Kit, 1260-16.....	6-3
405086	PCB Assy, 1260-16.....	6-4
	List of Suppliers.....	6-6

This page was left intentionally blank.

## User Manual 1260-16

407348-1260-16 , Hi Current Switch MD

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
(1)1	405086	PCB ASSY, 1260-16	21793	405086
(5)1	407349	SHIP KIT, 1260-16	21793	407349
(9)1	456270-002	PANEAL ASSY, FRONT, 1260-16	21793	456270-002
(11)1	456238-001	PANEL, RIGHT	21793	456238-001
(13)1	456239-001	PANEL, LEFT	21793	456239-001
(15)1	611264	HANDLE, EXTRACTOR, BOTTOM	62559	20817-327
(16)1	611265	HANDLE, EXTRACTOR, TOP	62559	20817-328
(17}.5	611266	MOUNTING HARDWARE, HANDLE	62559	21100-745
(21)2	616405	SCREW, PFH, M2.5-.45 X 12	-	-
(24)5	616414	SCREW, PFL, M3X.50X5	-	-
(27)A/R	920962	LOCTITE, 242, MED STR.	05972	272
(29)1	921059	LABEL, CAUTION, STATIC	21793	921059
(31)1	921148-001	LABEL SET VXI	21793	921148-001
(33)1	921212-017	LABEL, 1260 GENERIC	21793	921212-017
(35)1	921309	LABEL, VXI SWITCH ID	21793	921309

407349 - SHIPPING KIT, 1260-16

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)3	601855-050	CONNECTOR, SGM. CABLE PLUG	21793	601855-050
(7)150	601857	CONTACT, SGM. MALE	28198	M5422N
(9)3	615013	SCREW, PPF, 2-56 X .188	-	-
(10)1	980673-023	MANUAL 1260-16	21793	980673-023

405086-PCB ASSY, 1260-16

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-C102	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C103	110165	CAP, TANTA, .15 MF, 35V, 10PCT	05397	T355A154K035A5
C104-C11S	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C119	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C121	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C126	R-21-1801	CAP, CHIP, 10 NP	95275	VJ1206Y103MF
C137-C140	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-J202	601856-050	CONNECTOR, SMPL, PCB RECEPT	21793	601856-050
K1-K40	310250	RELAY IAIB, 250V, SA	61529	DSPIE-DC24V
L1	100164	CAP, FEED-THRU,800PF, s0V	00779	842448-2
L2	310193	CHOKE, SHIELDED, 5UH	91637	IH-5-5-10
L3	310193	CHOKE, SHIELDED, 5UH	91637	IH-5-5-i0
L4	100164	CAP, FEED-THRU,800PF, 50V	00779	842448-2
L5	600245	JUMPER, INSULATED	52210	L-2007-1
P1	601675	CONNECTOR, EUROCARD TYPE C, 96-PIN	00779	532505-1
P2	601675	CONNECTOR, EUROCARD TYPE C, 96-PIN	00779	532505-1
S1-S3	601969	SWITCH, DIP 6 P05, LOW PROFILE	65832	K4065
TP1	601197	POST, TEST, .025 SQ	00779	6-97022-6
TP2	601197	POST, TEST, .025 SQ	00779	6-87022-6
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-2 8 O3LW
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
U53	231153	IC, PROGRAMMED PLA	21793	231153
U54	231094	IC, DEMUX DECODER	18324	N74L5138D
U56	231135	IC, DIGITAL, 4-BIT COMPARATOR	18324	PC74HCT8SD
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
U73	231096	IC, QUAD DIFF RECEIVER	01295	AM26LS32ACD
U74	231096	IC, QUAD DIFF RECEIVER	01295	AM2 6LS32ACD
U75	231125	IC, DIGITAL, LINE DRIVER	27014	DS26LS31MN
U76	231154	IC, PROGRAMMED PLA	21793	231154
W1	500022	WIRE, BARE COPPER/TIN, 22 GA	21793	500022
Z1	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z2	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J



## User Manual 1260-16

---

405086-PCB ASSY, 1260-16

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
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, 15K	73138	628-AL-473J
Z27	080114	RES NETWORK, 16P8R,	73138	628-AL-153JI
Z28	080120	RES NETWORK, 10K	11236	767-161R10K
(42)1	401951	PCB ASSY., LBUS JUMPER	21793	401951
(43)1	401951-003	PCB ASSY., P3 JUMPER	21793	401951-003I
{44}1	415086	PCB, 1260-16 (UNLOADED)	21793	415086
(61)2	611367	STANDOFF, ROUND SWAGE, M3x0.5X4.3	06540	21003B-B-0350-28 (L4.3)
(62)2	611366	STANDOFF, ROUND SWAGE, M3x0.5X19	06540	21017-B-0350-28
(63)6	615012	SCREW, PPH, 2-56 X .125		
(71)A/R	921279	LOCQUIC, PRIMER	05972	174756
{72}A/R	921280	LOCTITE, HIGH STRENGTH	05972	127121

FSC	SUPPLIER
00779	AMP, INC. HARRISBURG, PA
01295	TEXAS INSTRUMENTS, INC. DALLAS, TX
02735	RCA (SOLID STATE DIV.) SOMERVILLE, NJ
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
06776	ROBINSON NUGENT INC. NEW ALBANY, IN
08261	SPECTRA-STRIP CORP. GARDEN GROVE, CA
11236	CTS OF BERNE, INC. BEPNE, IN
18324	SIGNETICS, INC. SUNNYVALE, CA
21793	RACAL INSTRUMENTS INC. IRVINE, CA
27014	NATIONAL SEMI-CONDUCTOR CORP. SANTA CLARA, CA
52072	CIRCUIT ASSY. CORP. COSTA MESA, CA
53387	THREE M (3M) CO. ST. PAUL, MN
55322	SAMTEC, INC NEW ALBANY, IN
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

## Chapter 7

# OPTIONAL HARNESS ASSEMBLIES

---

The following harness assemblies are used to connect Racal Instruments Model 1260-16 to Freedom Series Test Receiver Interfaces.

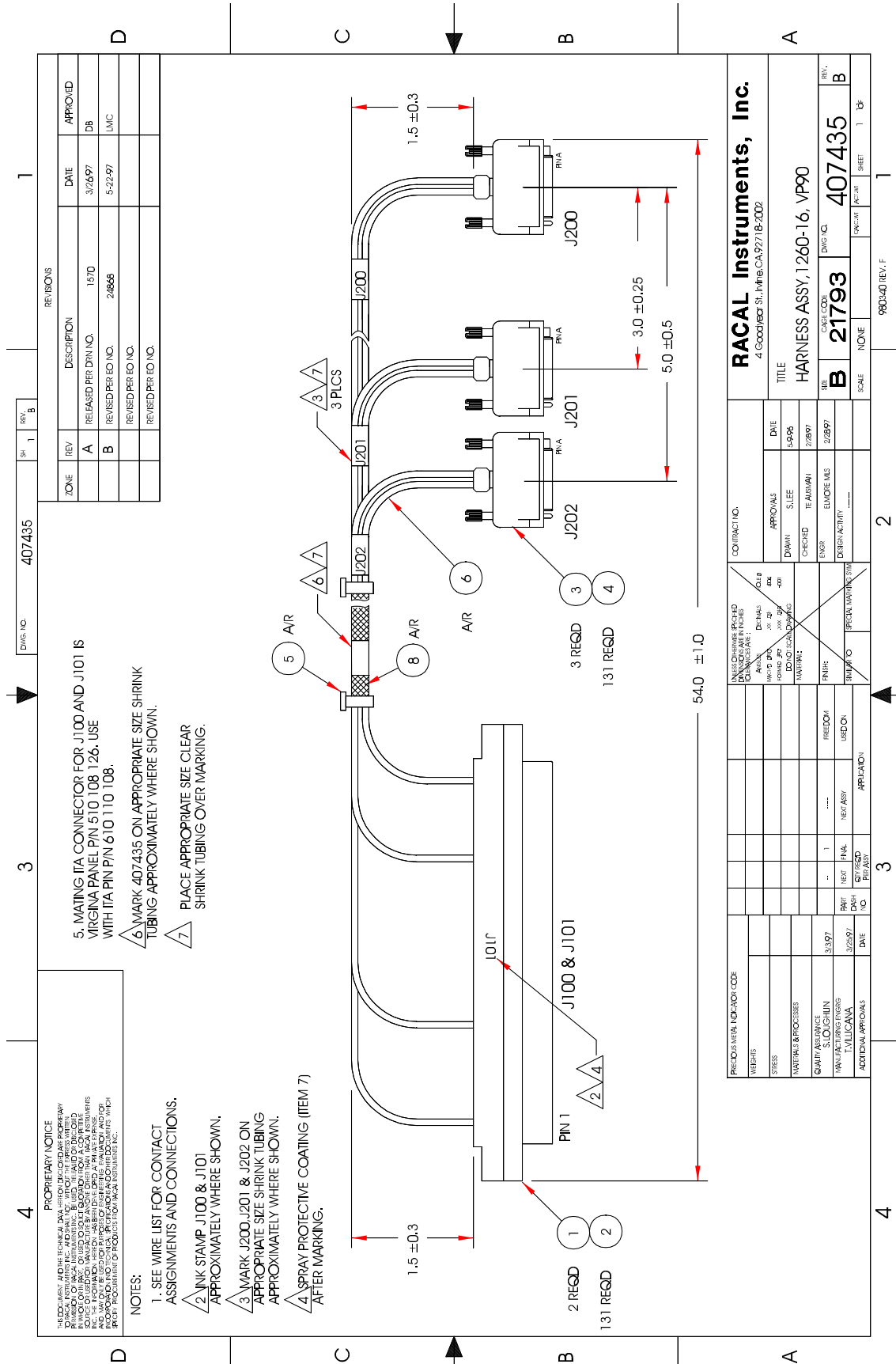
Each harness documentation consists of an assembly drawing, parts list, system wire list and wire list.

407435          Virginia Panel, Inc. Series VP90 Interface Harness

407436          TTI Testron, Inc. Interface Harness

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

This page was left intentionally blank.



ZONE	REV	DESCRIPTION	DATE	APPROVED
A	1	RELEASED PER DWN NO. 15170	3/28/97	DB
B	1	REVISED PER CO NO. 248658	5-22-97	LMC
		REVISED PER CO NO.		
		REVISED PER CO NO.		

5. MATING ITA CONNECTOR FOR J100 AND J101 IS VIRGINIA PANEL P/N 510 108 126. USE WITH ITA PIN P/N 610 110 108.

6. MARK 407435 ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.

7. PLACE APPROPRIATE SIZE CLEAR SHRINK TUBING OVER MARKING.

**PROPRIETARY NOTICE**  
 THIS DOCUMENT AND THE TECHNICAL DATA HEREON CONTAINED ARE PROPRIETARY RIGHTS OF RACAL INSTRUMENTS, INC. AND ARE TO BE KEPT CONFIDENTIAL. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF RACAL INSTRUMENTS, INC. THIS DOCUMENT IS THE PROPERTY OF RACAL INSTRUMENTS, INC. AND IS TO BE KEPT CONFIDENTIAL. IT IS TO BE RETURNED TO RACAL INSTRUMENTS, INC. UPON REQUEST. RACAL INSTRUMENTS, INC. IS NOT RESPONSIBLE FOR THE REPRODUCTION OF THIS DOCUMENT IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF RACAL INSTRUMENTS, INC.

**NOTES:**  
 1. SEE WIRE LIST FOR CONTACT ASSIGNMENTS AND CONNECTIONS.  
 2. INK STAMP J100 & J101 APPROXIMATELY WHERE SHOWN.  
 3. MARK J200, J201 & J202 ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.  
 4. SPRAY PROTECTIVE COATING (ITEM 7) AFTER MARKING.

ZONE	REV	DESCRIPTION	DATE	APPROVED
A	1	RELEASED PER DWN NO. 15170	3/28/97	DB
B	1	REVISED PER CO NO. 248658	5-22-97	LMC
		REVISED PER CO NO.		
		REVISED PER CO NO.		

REVISIONS		REVISIONS	
ZONE	REV	DESCRIPTION	DATE
A	1	RELEASED PER DWN NO. 15170	3/28/97
B	1	REVISED PER CO NO. 248658	5-22-97
		REVISED PER CO NO.	
		REVISED PER CO NO.	

ZONE	REV	DESCRIPTION	DATE	APPROVED
A	1	RELEASED PER DWN NO. 15170	3/28/97	DB
B	1	REVISED PER CO NO. 248658	5-22-97	LMC
		REVISED PER CO NO.		
		REVISED PER CO NO.		

CONTRACT NO.	RACAL Instruments, Inc.
4 Goodwood St, Irvine, CA 92718-2002	
TITLE	HARNASS ASSY, 1260-16, VP90
REV.	B
DWG NO.	407435
SCALE	NONE
SHEET	1
TOTAL SHEETS	1

ENGINEERING PARTS LIST

ITEM	REV	PART NO.	DESCRIPTION	QTY	REFERENCE
1		602201-003	CON-RCV-PLG096.---D	2	J100,J101
2		602201-906	CONTACT, SIGNAL, 22AW0, VP90	131	(J100,J101)
3		601855-050	CON-CAB-PLG50CP.	3	J200-J202
4		602092-001	CONT, SGMC MALE CRIMP	131	(J200-J202)
5		610777	TIE-CA-LKG-.062-.075	A/R	
6		523999	WRTEF, STR22G-999	A/R	
7		910541	POLYURETHANE CONF. COAT	A/R	
8		GRP-110-1/2	SLEEVING,BRAIDED POLY,1/2	A/R	

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
	DRN		SHEET 2 Of 11	

### ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
	BLK AA (J100)	Uxx-SLOT yy (J200,J20 1)	CABLE	407435		SYSTEM WIRE LIST
	BLK AA (J101)	Uxx-SLOT yy (J201,J202)	CABLE	407435		

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, 1260-16, VP90	A	21793	407435	B
	DRN			SHEET 3 Of 11

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
1	3100-1 602201-906	3200-A 602092-001	22AW0 WHT	523999	54"	COM0_7
2	3100-2 602201-906	J200-Y 602092-001	22AWG WRT	523999	54"	NC0
3	J100-3 602201-906	3200-Z 602092-001	22AWG WHT	523999	54"	NC1
4	3100-4					NO CONNECTION
5	3100-5 602201-906	3200-S 602092-001	22AWG WHT	523999	54"	NC2
6	3100-6 602201-906	3200-T 602092-001	22AWG WHT	523999	54"	NC3
7	3100-7					NO CONNECTION
8	3100-8 602201-906	3200-K 602092-001	22AW0 WRT	523999	54"	NC4
9	3100-9 602201-906	J200-L 602092-001	22AW0 WHT	523999	54~'	NC5
10	3100-10					NO CONNECTION
11	3100-11 602201-906	3200-C 602092-001	22AWG WHT	523999	54"	NC6
12	3100-12 602201-906	3200-D 602092-001	22AWG WHT	523999	54"	NC7
13	3100-13 602201-906	3200-h 602092-001	22AWG WHT	523999	54"	COM8_15
14	3100-14 602201-906	3201-C 602092-001	22AWG WHT	523999	54"	NC8
15	3100-15 602201-906	J201-D 602092-001	22AW0 WRT	523999	54"	NC9
16	3100-16					NO CONNECTION
17	3100-17 602201-906	J200-z 602092-001	22AW6 WHT	523999	54"	NC10
18	3100-18 602201-906	3200-AA 602092-001	22AW0 WHT	523999	54"	NC11
19	3100-19					NO CONNECTION
20	3100-20 602201-906	J200-t 602092-001	22AWG WRT	523999	54"	NC12
21	3100-21 602201-906	3200-u 602092-001	22AWG WRT	523999	54"	NC13
22	3100-22					NO CONNECTION
23	3100-23 602201-906	3200-k 602092-001	22AWG WHT	523999	54"	NC14
24	3100-24 602201-906	3200-m 602092-001	22AW0 WHT	523999	54"	NC15
25	3100-25 602201-906	3201-x 602092-001	22AWG WHT	523999	54"	COM16_23

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
DRN			SHEET	4 Of 11



**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
26	3100-26 602201-906	3201-n 602092-001	22AWG WHT	523999	54"	NC16
27	3100-27 602201-906	3201-p 602092-001	22AW6 WHT	523999	54"	NC17
28	3100-28					NO CONNECTION
29	3100-29 602201-906	3201-c 602092-001	22AW0 WHT	523999	54"	NC18
30	3100-30 602201-906	3201-f 602092-001	22AW0 WHT	523999	54"	NC19
31	1100-31					NO CONNECTION
32	3100-32					NO CONNECTION
33	3100-33					NO CONNECTION
34	310034 602201-906	3200-a 602092-001	22AWG WHT	523999	54"	COM0
35	3100-35 602201-906	3200-b 602092-001	22AW0 WHT	523999	54"	COM1
36	310036					NO CONNECTION
37	3100-37 602201-906	3200-U 602092-001	22AWG WHT	523999	54"	COM2
38	3100-38 602201-906	3200-V 602092-001	22AW6 WHT	523999	54"	COM3
39	3100-39					NO CONNECTION
40	3100-40 602201-906	3200-M 602092-001	22AW0 WHT	523999	54"	COM4
41	3100-41 602201-906	3200-N 602092-001	22AW0 WHT	523999	54"	COM5
42	3100-42					NO CONNECTION
43	3100-43 602201-906	3200-E 602092-001	22AW0 WHT	523999	54"	COM6
44	310044 602201-906	3200-F 602092-001	22AW0 WHT	523999	54"	COM7
45	3100-45					NO CONNECTION
46	310046 602201-906	3201-E 602092-001	22AW0 WHT	523999	54"	COM8
47	3100-47 602201-906	3201-F 602092-001	22AW0 WRT	523999	54"	COM9
48	3100-48					NO CONNECTION
49	3100-49 602201-906	3200-BB 602092-001	22AWG WHT	523999	54"	COM10
50	3100-50 602201-906	3200-CC 602092-001		523999	54"	COM11

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
DRN			SHEET	5 Of 11

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WJRE LEN	REFERENCE
51	3100-51					NO CONNECTION
52	3130-52 602201-906	3200-v 602092-001	22AW0 WHT	523999	54"	COM12
53	3100-53 602201-906	3200w 602092-001	22AW0 WHT	523999	54"	COM13
54	3100-54					NO CONNECTION
55	3100-55 602201-906	3200-n 602092-001	22AW0 WHT	523999	54"	COM14
56	3100-56 602201-906	3200-p 602092-001	22AWG WHT	523999	54"	COM15
57	3100-57					NO CONNECTION
58	3100-58 602201-906	3201-r 602092-001	22AW0 WHT	523999	54"	COM16
59	3100-59 602201-906	3201-s 602092-001	22AWG WHT	523999	54"	COM17
60	3100-60					NO CONNECTION
61	3100-61 602201-906	3201-h 602092-001	22AWG WHT	523999	54"	COM18
62	3100-62 602201-906	3201-j 602092-001	22AWG WHT	523999	54"	COM19
63	3100-63					NO CONNECTION
64	3100-64					NO CONNECTION
65	310065 602201-906	3200-B 602092-001	22AW0 WHT	523999	54"	CHASSIS GND
66	3100-66 602201-906	3200-c 602092-001	22AWG WHT	523999	54"	NO0
67	3100-67 602201-906	3200-d 602092-001	22AWG WHT	523999	54"	NO1
68	310068					NO CONNECTION
69	3100-69 602201-906	3200W 602092-001	22AWG WHT	523999	54"	NO2
70	3100-70 602201-906	3200-X 602092-001	22AW0 WHT	523999	54"	NO3
71	3100-71					NO CONNECTION
72	3100-72 602201-906	3200-P 602092-001	22AWG WHT	523999	54"	NO4
73	3100-73 602201-906	3200-R 602092-001	22AWG WHT	523999	54"	NO5
74	3100-74					NO CONNECTION
75	3100-75 602201-906	3200-H 602092-001	22AW6 WHT	523999	54"	NO6

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
DRN			SHEET 6 Of 11	

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
76	3100-76 602201-906	3200-J 602092-001	22AWG WHT	523999	54"	NO7
77	3100-77					NO CONNECTION
78	3100-78 602201-906	3201-H 602092-001	22AW0 WHT	523999	54"	NO8
79	3100-79 602201-906	3201-J 602092-001	22AW0 WHT	523999	54"	NO9
80	3100-80					NO CONNECTION
81	1100-81 602201-906	J200-DD 602092-001	22AW0 WHT	523999	54"	NO10
82	3100-82 602201-906	3200-EE 602092-001	22AWG WHT	523999	54"	NO11
83	1100-83					NO CONNECTION
84	3100-84 602201-906	3200-x 602092-001	22AW0 WHT	523999	54"	NO12
85	3100-85 602201-906	J200-y 602092-001	22AWG WHT	523999	54"	NO13
86	31()~86					NO CONNECTION
87	3100-87 602201-906	3200-r 602092-001	22AWG WHT	523999	54"	NO14
88	3100-88 602201-906	3200-s 602092-001	22AW0 WHT	523999	54"	NO15
89	3100-89					NO CONNECTION
90	3100-90 602201-906	3201-t 602092-001	22AW0 WHT	523999	54"	NO16
91	3100-91 602201-906	3201-u 602092-001	22AW0 WHT	523999	54"	NO17
92	3100-92					NO CONNECTION
93	3100-93 602201-906	3201-k 602092-001	22AW0 WHT	523999	54"	NO18
94	3100-94 602201-906	3201-rn 602092-001	22AWG WHT	523999	54"	NO19
95	3100-95					NO CONNECTION
96	3100-96 602201-906	J200-HH 602092-001	22AWG WHT	523999	54"	CHASSIS GND
97	NOT USED					
98	NOT USED					
99	NOT USED					
100	NOT USED					

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
	DRN		SHEET 7 Of 11	

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
101	3101-1 602201-906	3201-B 602092-001	22AWG WHT	523999	54"	CHASSIS GND
102	3101-2 602201-906	J201-Y 602092-001	22AWG WHT	523999	54"	NC20
103	3101-3 602201-906	3201-Z 602092-001	22AWG WHT	523999	54"	NC21
104	3101-4					NO CONNECTION
105	3101-5 602201-906	3201-S 602092-001	22AW0 WHT	523999	54"	NC22
106	3101-6 602201-906	3201-T 602092-001	22AW0 WHT	523999	54"	NC23
107	3101-7 602201-906	3201-P 602092-001	22AWG WHT	523999	54"	COM24_31
108	3101-8 602201-906	3202-S 602092-001	22AW0 WHT	523999	54"	NC24
109	3101-9 602201-906	3202-T 602092-001	22AWG WHT	523999	54"	NC25
110	3101-10					NO CONNECTION
111	3101-11 602201-906	3202-K 602092-001	22AW6 WHT	523999	54"	NC26
112	3101-12 602201-906	3202-L 602092-001	22AW0 WHT	523999	54"	NC27
113	3101-13					NO CONNECTION
114	3101-14 602201-906	3202-C 602092-001	22AW0 WHT	523999	54"	NC28
115	3101-15 602201-906	3202-D 602092-001	22AW6 WHT	523999	54"	NC29
116	3101-16					NO CONNECTION
117	3101-17 602201-906	3201-z 602092-001	22AWG WHT	523999	54"	NC30
118	3101-18 602201-906	3202-AA 602092-001	22AW0 WHT	523999	54"	NC31
119	3101-19					NO CONNECTION
120	3101-20 602201-906	3202-z 602092-001	22AW0 WHT	523999	54"	NC32
121	3101-21 602201-906	3202-AA 602092-001	22AW6 WHT	523999	54"	NC33
122	3101-22					NO CONNECTION
123	3101-23 602201-906	J202-t 602092-001	22AWG WHT	523999	54"	NC34
124	J101-24 602201-906	3202-u 602092-001	22AWG WHT	523999	54"	NC35
125	3101-25					NO CONNECTION

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
DRN			SHEET	8 Of 11

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
126	3101-26 602201-906	3202-k 602092-001	22AW0 WHT	523999	54"	NC36
127	3101-27 602201-906	3202-rn 602092-001	22AW0 WHT	523999	54"	NC37
128	3101-28					NO CONNECTION
129	3101-29 602201-906	3202-c 602092-001	22AW6 WHT	523999	54"	NC38
130	3101-30 602201-906	J202-d 602092-001	22AWG WHT	523999	54"	NC39
131	3101-31					NO CONNECTION
132	3101-32 -02201-906	J201-HH 602092-001	22AW6 WHT	523999	54"	CHASSIS ONE
133	3101-33					NO CONNECTION
134	3101-34 602201-906	3201-a 602092-001	22AW0 WHT	523999	54"	COM20
135	3101-35 602201-906	3201-b 602092-001	22AW0 WHT	523999	54"	COM21
136	3101-36					NO CONNECTION
137	3101-37 602201-906	3201-U 602092-001	22AWG WHT	523999	54"	COM22
138	3101-38 602201-906	3201-V 602092-001	22AW0 WHT	523999	54"	COM23
139	3101-39					NO CONNECTION
140	3101-40 602201-906	3202-U 602092-001	22AW0 WHT	523999	54"	COM24
141	3101-41 602201-906	3202-V 602092-001	22AW6 WHT	523999	54"	COM25
142	3101-42					NO CONNECTION
143	3101-43 602201-906	3202-M 602092-001	22AWG WHT	523999	54"	COM26
144	3101-44 602201-906	3202-N 602092-001	22AW0 WHT	523999	54"	COM27
145	3101-45					NO CONNECTION
146	3101-46 602201-906	3202-E 602092-001	22AW6 WHT	523999	54"	COM28
147	3101-47 602201-906	3202-F 602092-001	22AW6 WHT	523999	54"	COM29
148	3101-48					NO CONNECTION
149	3101-49 602201-906	J201-BB 602092-001	22AW0 WHT	523999	54"	COM30
150	3101-50 602201-906	3201-CC 602092-001	22AW6 WHT	523999	54"	COM31`

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
	DRN		SHEET 9 Of 11	

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
151	3101-51 602201-906	3202-Y 602092-001	22AW0 WHT	523999	54"	COM32_39
152	3101-52 602201-906	J202-BB 602092-001	22AWG WHT	523999	54"	COM32
153	3101-53 602201-906	3202-CC 602092-001	22AWG WHT	523999	54"	COM33
154	3101-54					NO CONNECTION
155	3101-55 602201-906	3202-v 602092-001	22AWG WHT	523999	54"	COM34
156	3101-56 602201-906	J202-w 602092-001	22AW0 WHT	523999	54"	COM35
157	3101-57					NO CONNECTION
158	3101-58 602201-906	3202-n 602092-001	22AW0 WHT	523999	54"	COM36
159	3101-59 602201-906	3202-p 602092-001	22AW0 WHT	523999	54"	COM37
160	3101-60					NO CONNECTION
161	3101-61 602201-906	3202-e 602092-001	22AWG WHT	523999	54"	COM38
162	3101-62 602201-906	3202-f 602092-001	22AW0 WHT	523999	54"	COM39
163	3101-63					NO CONNECTION
164	3101-64					NO CONNECTION
165	3101-65 602201-906	3202-B 602092-001	22AWG WHT	523999	54"	CHASSIS GND
166	3101-66 602201-906	3201-c 602092-001	22AWG WHT	523999	54"	NO20
167	3101-67 602201-906	J201-d 602092-001	22AWG WHT	523999	54"	NO21
168	3101-68					NO CONNECTION
169	3101-69 602201-906	3201-W 602092-001	22AWG WHT	523999	54"	NO22
170	3101-70 602201-906	3201-X 602092-001	22AW6 WHT	523999	54"	NO23
171	3101-71					NO CONNECTION
172	3101-72 602201-906	3202-W 602092-001	22AW0 WHT	523999	54"	NO24
173	3101-73 602201-906	3202-X 602092-001	22AW0 WHT	523999	54"	NO25
174	3101-74					NO CONNECTION
175	3101-75 602201-906	3202-P 602092-001	22AW6 WHT	523999	54"	NO26

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

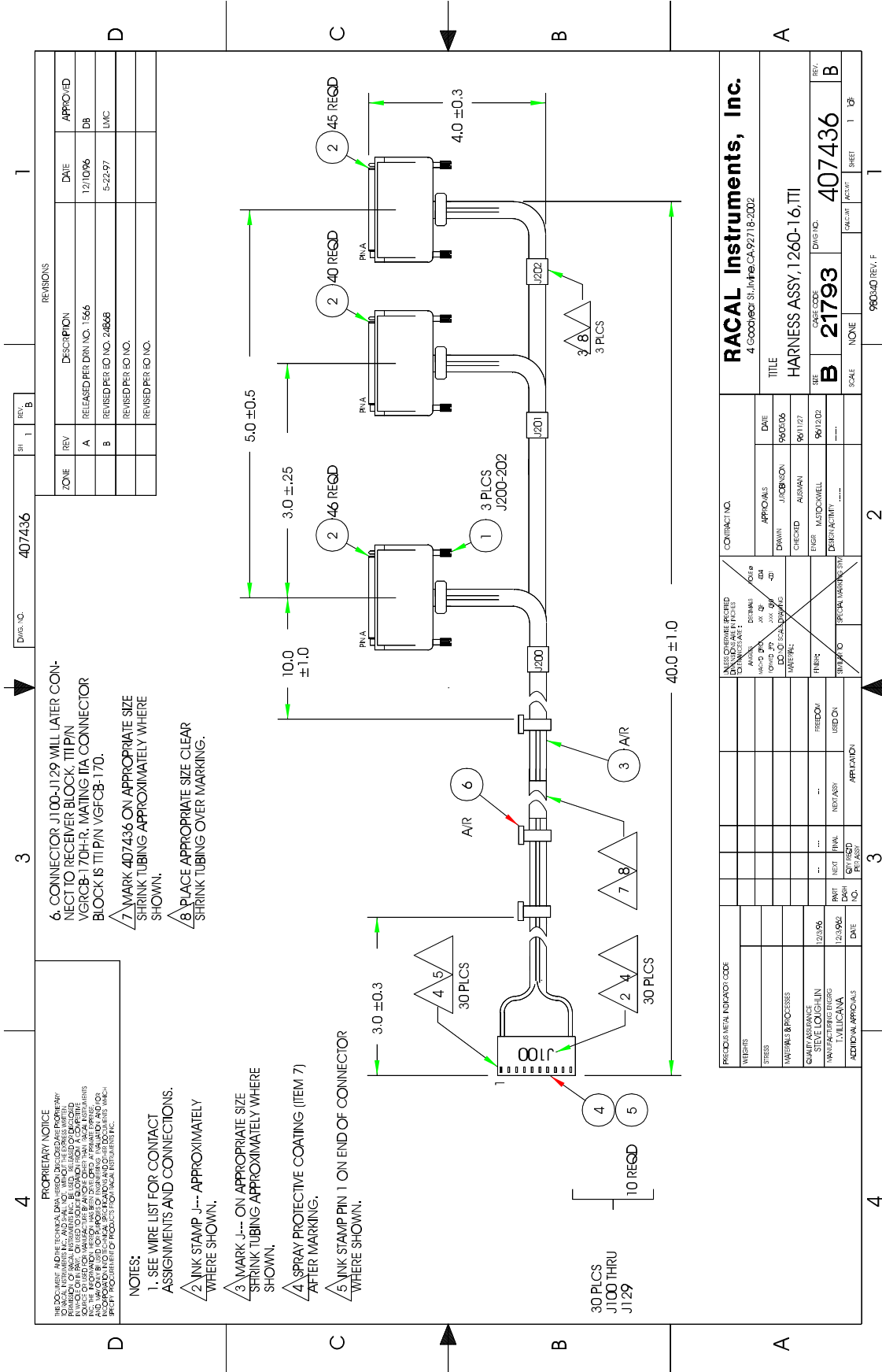
DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
	DRN		SHEET 10 Of 11	

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
176	3101-76 602201-906	J202-R 602092-001	22AW6 WHT	523999	54"	NO27
177	3101-77					NO CONNECTION
178	3101-78 602201-906	3202-H 602092-001	22AW0 WHT	523999	54"	NO28
179	3101-89 602201-906	3202-3 602092-001	22AW6 WHT	523999	54"	NO29
180	3101-80					NO CONNECTION
181	3101-81 602201-906	J201-DD 602092-001	22AWG WHT	523999	54"	NO30
182	3101-82 602201-906	J201-EE 602092-001	22AWG WHT	523999	54"	NO31
183	3101-83					NO CONNECTION
184	3101-84 602201-906	J202-DD 602092-001	22AW6 WHT	523999	54"	NO32
185	3101-85 602201-906	3202-EE 602092-001	22AW0 WHT	523999	54"	NO33
186	3101-86					NO CONNECTION
187	3101-87 602201-906	J202-x 602092-001	22AWG WHT	523999	54"	NO34
188	3101-88 602201-906	3202-y 602092-001	22AWG WHT	523999	54"	NO35
189	3101-99					NO CONNECTION
190	3101-90 602201-906	3202-r 602092-001	22AWG WHT	523999	54"	NO36
191	3101-91 602201-906	3202-s 602092-001	22AW0 WHT	523999	54"	NO37
192	3101-92					NO CONNECTION
193	3101-93 602201-906	3202-h 602092-001	22AW6 WHT	523999	54"	NO38
194	3101-94 602201-906	3202-j 602092-001	22AWG WHT	523999	54"	NO39
195	3101-95					NO CONNECTION
196	3101-96 602201-906	J202-HH 602092-001	22AW0 WHT	523999	54"	CHASSIS GND

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, VP90	A	21793	407435	B
	DRN		SHEET	11 Of 11



**407436**

REV. B			
ZONE	DESCRIPTION	DATE	APPROVED
A	RELEASED PER DRN NO. 1566	12/10/96	DB
B	REVISED PER DRN NO. 24868	5-22-97	LMC
	REVISED PER DRN NO.		

6. CONNECTOR J100-J129 WILL LATER CONNECT TO RECEIVER BLOCK. TIP/PIN VGRCB-170HR; MATING IFA CONNECTOR BLOCK IS TIP/PIN VGFCB-170.

7. MARK 407436 ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.

8. PLACE APPROPRIATE SIZE CLEAR SHRINK TUBING OVER MARKING.

**PROPRIETARY NOTICE**  
 THIS DOCUMENT IS THE PROPERTY OF RACAL INSTRUMENTS, INC. AND IS UNCLASSIFIED UNLESS INDICATED OTHERWISE. IT IS TO BE KEPT IN CONFIDENCE AND NOT TO BE DISCLOSED TO ANY OTHER PERSON OR ORGANIZATION WITHOUT THE WRITTEN PERMISSION OF RACAL INSTRUMENTS, INC. ANY UNAUTHORIZED DISCLOSURE OF THIS INFORMATION IS STRICTLY PROHIBITED.

**NOTES:**

1. SEE WIRE LIST FOR CONTACT ASSIGNMENTS AND CONNECTIONS.

2. 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.

30 PLCS J100 THRU J129

3.0 ± 0.3

10.0 ± 1.0

3.0 ± 0.25

5.0 ± 0.5

4.0 ± 0.3

40.0 ± 1.0

PRECEDING SERIAL INDICATOR CODE

DATE

EXAM

APPROVALS

CONTRACT NO.	<b>RACAL Instruments, Inc.</b>		
CONTRACT NO.	4 Goodrich St., Irvine, CA 92718-2002		
DRAWN	JOB/KON	DATE	TITLE
CHECKED	AUSMAN	9601127	HARNASS ASSY, 1260-16, ITI
DESIGNED	MASCOVILL	9601127	SEE
DESIGN ACTIVITY			DWG NO. <b>407436</b>
			REV. <b>B</b>
			SCALE: NONE
			SHEET: 1 OF 1



**ENGINEERING PARTS LIST**

ITEM	REV	PART NO.	DESCRIPTION	QTY	REFERENCE
1		601855-050	CON-CAB-PLG50CP.	3	J200-J202
2		602092-001	CONT, SGMC, MALE CRIMP	131	W/J200-J202
3		523999	WRTEF-STR22G-9-9-9	A/R	
4		602193-010	CON-CAB-RCP010C.100S	30	J100-J129
5		602199-001	CONTACT, CRIMP, RECEPT, 28-22GA	300	W/J100-J129
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, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 2 Of 17	

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
	BLK AAx RW 01 (J100)	Uxx-SLOT yy (J200)	CABLE	407436		SYSTEM WIRE LIST
	BLK AAx RW 02 (J101)	Uxx-SLOT yy (J200)	CABLE	407436		
	BLK AAx RW 03 (J102)	Uxx-SLOT yy (J200)	CABLE	407436		
	BLK AAx RW 04 (J103)	Uxx-SLOT yy (J200)	CABLE	407436		
	BLK AAx RW 05 (J104)	Uxx-SLOT yy (J200)	CABLE	407436		
	BLK AAx RW 06 (J105)	Uxx-SLOT yy (J200)	CABLE	407436		
	BLK AAx RW 07 (J106)	Uxx-SLOT yy (J200,J201)	CABLE	407436		
	BLK AAx RW 08 (J107)	Uxx-SLOT yy (J200,J201)	CABLE	407436		
	BLK AAx RW 09 (J108)	Uxx-SLOT yy (J200,J201)	CABLE	407436		
	BLK AAx RW 10 (J109)	Uxx-SLOT yy (J200,J201)	CABLE	407436		
	BLK AAx RW11 (J110)	Uxx-SLOTyy (J200,J201)	CABLE	407436		
	BLK AAx RW 12 (J111)	Uxx-SLOT yy (J200,J201)	CABLE	407436		
	BLK AAx RW 13 (J112)	Uxx-SLOT yy (J201)	CABLE	407436		
	BLK AAx RW 14 (J113)	Uxx-SLOT yy (J201)	CABLE	407436		
	BLK AAx RW 15 (J114)	Uxx-SLOT yy (J201,J202)	CABLE	407436		
	BLK AAx RW 16 (J115)	Uxx-SLOT yy (J201)	CABLE	407436		
	BLK AAx RW 17 (J116)	Uxx-SLOT yy (J201)	CABLE	407436		
	BLK AAx RW 18 (J117)	Uxx-SLOT yy (J201)	CABLE	407436		
	BLK AAx RW 19 (J118)	Uxx-SLOT yy (J201,J202)	CABLE	407436		
	BLK AAx RW 20 (J119)	Uxx-SLOT yy (J201,J202)	CABLE	407436		
	BLK AAx RW 21 (J120)	Uxx-SLOT yy (J200-J202)	CABLE	407436		
	BLK AAx RW 22 (J121)	Uxx-SLOT yy (J201,J202)	CABLE	407436		
	BLK AAx RW 23 (J122)	Uxx-SLOT yy (J201,J202)	CABLE	407436		
	BLK AAx RW 24 (J123)	Uxx-SLOT yy (J201,J202)	CABLE	407436		
	BLK AAx RW 25 (J124)	Uxx-SLOT yy (J202)	CABLE	407436		

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 3 Of	17

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
	BLK AAx RW 26 (J125)	Uxx-SLOT yy (J202)	CABLE	407436		
	BLK AAx RW 27 (J126)	Uxx-SLOT yy (J201,J202)	CABLE	407436		
	BLK AAx RW 28 (J127)	Uxx-SLOT yy (J202)	CABLE	407436		
	BLK AAx RW 29 (J128)	Uxx-SLOT yy (J202)	CABLE	407436		
	BLK AAx RW 30 (J129)	Uxx-SLOT yy (J202)	CABLE	407436		

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, 1260-16, TTI	A	21793	407436	B
DRN			SHEET	4 Of 17

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
1	3100-1 602199-001	J200-Y 602092-001	22AWG WHT	523999	40 "	N.C.0
2	3101-1 602199-001	J100-1 (w/WIRE 1)	22AWG WHT	523999	4 "	N.C.0
3	3100-2 602199-001	J200-Z 602092-001	22AWG WHT	523999	40 "	N.C.1
4	3101-2 602199-001	J100-2 (w/WIRE 3)	22AWG WHT	523999	4 "	N.C.1
5	3100-3 602199-001	J200-S 602092-001	22AWG WHT	523999	40 "	N.C.2
6	3101-3 602199-001	J100-3 (w/WIRE 5)	22AW6 WHT	523999	4 "	N.C.2
7	3100-4 602199-001	J200-T 602092-001	22AWG WHT	523999	40 "	N.C.3
8	3101-4 602199-001	J100-4 (w/WIRE 7)	22AW6 WHT	523999	4 "	N.C.3
9	3100-5 602199-001	J200-K 602092-001	22AWG WHT	523999	40 "	N.C.4
10	3101-5 602199-001	J100-5 (w/WIRE 9)	22AWG WHT	523999	4 "	N.C.4
11	3100-6 602199-001	J200-L 602092-001	22AWG WHT	523999	40 "	N.C.5
12	3101-6 602199-001	J100-6 (w/WIRE 11)	22AW6 WHT	523999	4 "	N.C.5
13	3100-7 602199-001	J200-C 602092-001	22AW6 WHT	523999	40 "	N.C.6
14	3101-7 602199-001	J100-7 (w/WIRE 13)	22AWG WHT	523999	4 "	N.C.6
15	3100-8 602199-001	J200-D 602092-001	22AWG WHT	523999	40 "	N.C.7
16	3101-8 602199-001	J100-8 (w/WIRE 15)	22AW6 WHT	523999	4 "	N.C.7
17	3100-9 602199-001	NO CONNECT				
18	3101-9 602199-001	NOCONNECT				
19	3100-10 602199-001	NOCONNECT				
20	3101-10 602199-001	NOCONNECT				
21	3102-1 602199-001	J200-a 602092-001	22AWG WHT	523999	40 "	COM.0
22	3103-1 602199-001	J102-1 (w/WIRE 21)	22AWG WHT	523999	4 "	COM.0
23	3102-2 602199-001	J200-b 602092-001	22AW6 WHT	523999	40 "	COM.1
24	3103-2 602199-001	J102-2 (w/WIRE 23)	22AWG WHT	523999	4 '	COM.1
RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718						
DOCUMENT TITLE			SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI			A	21793	407436	B
			DRN		SHEET	5 Of 17

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
25	J102-3 602199-001	J200-U 602092-001	22AW6 WHT	523999	40"	COM.2
26	J103-3 602199-001	J102-3 (w/WIRE 25)	22AW6 WHT	523999	4"	COM.2
27	J102-4 602199-001	J200-V 602092-001	22AWG WHT	523999	40"	COM.3
28	J103-4 602199-001	J102-4 (w/WIRE 27)	22AWG WHT	523999	4"	COM.3
29	J102-5 602199-001	J200-M 602092-001	22AWG WHT	523999	40"	COM.4
30	J103-5 602199-001	J102-5 (w/WIRE 29)	22AW6 WHT	523999	4"	COM.4
31	J102-6 602199-001	J200-N 602092-001	22AWG WHT	523999	40"	COM.5
32	J103-6 602199-001	J102-6 (w/WIRE 31)	22AW6 WHT	523999	4"	COM.5
33	J102-7 602199-001	J200-E 602092-001	22AWG WHT	523999	40"	COM.6
34	J103-7 602199-001	J102-7 (w/WIRE 33)	22AWG WHT	523999	4"	COM.6
35	J102-8 602199-001	J200-F 602092-001	22AWG WHT	523999	40"	COM.7
36	J103-8 602199-001	J102-8 (w/WIRE 35)	22AWG WHT	523999	4"	COM.7
37	J102-9 602199-001	J200-A 602092-001	22AW6 WHT	532999	40"	MUX. CH. 0-7
38	J103-9 602199-001	NO CONNECT				
39	J102-10 602199-001	J200-B 602092-001	22AW6 WHT	532999	40"	CHASSIS GND
40	J103-10 602199-001	NOCONNECT				
41	J104-1 602199-001	J200-c 602092-001	22AWG WHT	523999	40"	N.O.0
42	J105-1 602199-001	J104-1 (w/WIRE 41)	22AWG WHT	523999	4"	N.O.0
43	J104-2 602199-001	J200-d 602092-001	22AWG WHT	523999	40"	N.O.I
44	J105-2 602199-001	J104-2 (w/WIRE 43)	22AW6 WHT	523999	4"	N.O.1
45	J104-3 602199-001	J200-w 602092-001	22AW6 WHT	523999	40"	N.O.2
46	J105-3 602199-001	J104-3 (w/WIRE 45)	22AW6 WHT	523999	4"	N.O.2
47	J104-4 602199-001	J200-X 602092-001	22AW6 WHT	523999	40"	N.O.3
48	J105-4 602199-001	J104-4 (w/WIRE 47)	22AW6 WHT	523999	4"	N.O.3

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 6 Of 17	

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
49	J104-5 602199-001	J200-P 602092-001	22AWG WHT	523999	40 "	N.O. 4
50	J105-5 602199-001	J104-5 (w/WIRE 49)	22AWG WHT	523999	4 "	N.O. 4
51	J104-6 602199-001	J200-R 602092-001	22AW6 WHT	523999	40 "	N.O. 5
52	J105-6 602199-001	J104-6 (w/WIRE 51)	22AWG WHT	523999	4 "	N.O.S
53	J104-7 602199-001	J200-H 602092-001	22AW6 WHT	523999	40 "	N.O. 6
54	J105-7 602199-001	J104-7 (w/WIRE 53)	22AWG WHT	523999	4 "	N.O. 6
55	J104-8 602199-001	J200-3 602092-001	22AW6 WHT	523999	40 "	N.O. 7
56	J105-8 602199-001	J104-8 (w/WIRE 55)	22AWG WHT	523999	4 "	N.O. 7
57	J104-9 602199-001	NO CONNECT				
58	J105-9 602199-001	NO CONNECT				
59	J104-10 602199-001	NO CONNECT				
60	J105-10 602199-001	NO CONNECT				
61	J106-1 60219-901	J201-C 602092-001	22AW6 WHT	523999	40 "	N.C. 8
62	J107-1 602199-001	J106-1 (w/WIRE 61)	22AWG WHT	523999	4 "	N.C. 8
63	J106-2 602199-001	J201-D 602092-001	22AW6 WHT	523999	40 "	N.C. 9
64	J107-2 602199-001	J106-2 (w/WIRE 63)	22AW6 WHT	523999	4 "	N.C. 9
65	J106-3 602199-001	J200-z 602092-001	22AWG WHT	523999	40 "	N.C. 10
66	J107-3 602199-001	J106-3 (w/WIRE 65)	22AW6 WHT	523999	4 "	N.C. 10
67	J106-4 602199-001	J200-AA 602092-001	22AWG WHT	523999	40 "	N.C. 11
68	J107-4 602199-001	J106-4 (w/WIRE 67)	22AWG WHT	523999	4 "	N.C. 11
69	J106-5 602199-001	J200-t 602092-001	22AWG WHT	523999	40 "	N.C. 12
70	J107-5 602199-001	J106-5 (w/WIRE 69)	22AW6 WHT	523999	4 "	N.C. 12
71	J106-6 602199-001	J200-u 602092-001	22AWG WHT	523999	40 "	N.C. 13
72	J107-6 602199-001	J106-6 (w/WIRE 71)	22AWG WHT	523999	4 "	N.C. 13

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNES ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 7 Of 17	

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
73	J106-7 602199-001	J200-k 602092-001	22AWG WHT	523999	40 "	N.C.14
74	J107-7 602199-001	J106-7 (w/WIRE 73)	22AW6 WHT	523999	4 "	N.C.14
75	J106-8 602199-001	J200-m 602092-001	22AWG WHT	523999	40 "	N.C.15
76	J107-8 602199-001	J106-8 (w/WIRE 75)	22AWG WHT	523999	4 "	N.C.15
77	J106-9 602199-001	NO CONNECT				
78	J107-9 602199-001	NO CONNECT				
79	J106-10 602199-001	NO CONNECT				
80	J107-10 602199-001	NO CONNECT				
81	J108-1 602199-001	J201-E 602092-001	22AWG WHT	523999	40 "	COM.8
82	J109-1 602199-001	J108-1 (w/WIRE 81)	22AWG WHT	523999	4 "	COM.8
83	J108-2 602199-001	J201-F 602092-001	22AWG WHT	523999	40 "	COM.9
84	J109-2 602199-001	J108-2 (w/WIRE 83)	22AWG WHT	523999	4 "	COM.9
85	J108-3 602199-001	J200-BB 602092-001	22AWG WHT	523999	40 "	COM.10
86	J109-3 602199-001	J108-3 (w/WIRE 85)	22AWG WHT	523999	4 "	COM.10
87	J108-4 602199-001	J200-CC 602092-001	22AW6 WHT	523999	40 "	COM.11
88	J109-4 602199-001	J108-4 (w/WIRE 87)	22AWG WHT	523999	4 "	COM.11
89	J108-5 602199-001	J200-v 602092-001	22AWG WHT	523999	40 "	COM.12
90	J109-5 602199-001	J108-5 (w/WIRE 89)	22AWG WHT	523999	4 "	COM.12
91	J108-6 602199-001	J200-w 602092-001	22AWG WHT	523999	40 "	COM.13
92	J109-6 602199-001	J108-6 (w/WIRE 91)	22AWG WHT	523999	4 "	COM.13
93	J108-7 602199-001	J200-n 602092-001	22AWG WHT	523999	40 "	COM.14
94	J109-7 602199-001	J108-7 (w/WIRE 93)	22AWG WHT	523999	4 "	COM.14
95	J108-8 602199-001	J200-p 602092-001	22AW6 WHT	523999	40 "	COM.15
96	J109-8 602199-001	J108-8 (w/WIRE 95)	22AWG WHT	523999	4 "	COM.15

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
DRN			SHEET 8 Of 17	

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
97	J108-9 602199-001	J200-h 602092-001	22AWG WHT	532999	40 "	MUX. CH. 8-15
98	J109-9 602199-001	NO CONNECT				
99	J108-10 602199-001	J201-B 602092-001	22AWG WHT	532999	40 "	CHASSIS GND
100	J109-10 602199-001	NOCONNECT				
101	J110-1 602199-001	J201-H 602092-001	22AWG WHT	523999	40 "	N.O.8
102	J111-1 602199-001	J110-1 (w/WIRE 101)	22AWG WHT	523999	4 "	N.O.8
103	J110-2 602199-001	J201-3 602092-001	22AWG WHT	523999	40 "	N.O.9
104	J111-2 602199-001	J110-2 (w/WIRE 103)	22AWG WHT	523999	4 "	NO.9
105	J110-3 602199-001	J200-DD 602092-001	22AWG WHT	523999	40 "	N.O.10
106	J111-3 602199-001	J110-3 (w/WIRE 105)	22AWG WHT	523999	4 "	N.O.10
107	J110-4 602199-001	J200-EE 602092-001	22AWG WHT	523999	40 "	N.O.11
108	J111-4 602199-001	J110-4 (w/WIRE 107)	22AWG WHT	523999	4 "	N.O.11
109	J110-5 602199-001	J200-x 602092-001	22AWG WHT	523999	40 "	N.O.12
110	J111-5 602199-001	J110-5 (w/WIRE 109)	22AWG WHT	523999	4 "	N.O.12
111	J110-6 602199-001	J200-y 602092-001	22AWG WHT	523999	40 "	N.O.13
112	J111-6 602199-001	J110-6 (w/WIRE 111)	22AWG WHT	523999	4 "	N.O.13
113	J110-7 602199-001	J200-r 602092-001	22AWG WHT	523999	40 "	N.O.14
114	J111-7 602199-001	J110-7 (w/WIRE 113)	22AWG WHT	523999	4 "	N.O.14
115	J110-8 602199-001	J200-s 602092-001	22AWG WHT	523999	40 "	N.O.15
116	J111-8 602199-001	J110-8 (w/WIRE 115)	22AWG WHT	523999	4 "	N.O.15
117	J110-9 602199-001	NOCONNECT				
118	J111-9 602199-001	NOCONNECT				
119	J110-10 602199-001	NOCONNECT				
120	J111-10 602199-001	NOCONNECT				

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 9 Of 17	



**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
121	J112-1 60219-901	J201-n 602092-001	22AWG WHT	523999	40"	N.C.16
122	J113-1 602199-001	J112-1 (w/WIRE 121)	22AWG WHT	523999	4"	N.C.16
123	J112-2 602199-001	J201-p 602092-001	22AWG WHT	523999	40"	N.C.17
124	J113-2 602199-001	J112-2 (w/WIRE 123)	22AWG WHT	523999	4"	N.C.17
125	J112-3 602199-001	J201-e 602092-001	22AWG WHT	523999	40"	N.C.18
126	J113-3 602199-001	J112-3 (w/WIRE 125)	22AWG WHT	523999	4"	N.C.18
127	J112-4 602199-001	J201-f 602092-001	22AWG WHT	523999	40"	N.C.19
128	J113-4 602199-001	J112-4 (w/WIRE 127)	22AWG WHT	523999	4"	N.C.19
129	J112-5 602199-001	J201-y 602092-001	22AWG WHT	523999	40"	N.C.20
130	J113-5 602199-001	J112-5 (w/WIRE 129)	22AWG WHT	523999	4"	N.C.20
131	J112-6 602199-001	J201-z 602092-001	22AWG WHT	523999	40"	N.C.21
132	J113-6 602199-001	J112-6 (w/WIRE 131)	22AWG WHT	523999	4"	N.C.21
133	J112-7 602199-001	J201-s 602092-001	22AWG WHT	523999	40"	N.C.22
134	J113-7 602199-001	J112-7 (w/WIRE 133)	22AWG WHT	523999	4"	N.C.22
135	J112-8 602199-001	J201-t 602092-001	22AWG WHT	523999	40"	N.C.23
136	J113-8 602199-001	J112-8 (w/WIRE 135)	22AWG WHT	523999	4"	N.C.23
137	J112-9 602199-001	NOCONNECT				
138	J113-9 602199-001	NOCONNECT				
139	J112-10 602199-001	NOCONNECT				
140	J113-10 602199-001	NOCONNECT				
141	J114-1 602199-001	J201-r 602092-001	22AWG WHT	523999	40"	COM.16
142	J115-1 602199-001	J114-1 (w/WIRE 141)	22AWG WHT	523999	4"	COM.16
143	J114-2 602199-001	J201-s 602092-001	22AWG WHT	523999	40"	COM.17

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 10 Of 17	

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
144	J115-2 602199-001	J114-2 (w/WIRE 143)	22AWG WHT	523999	4 "	COM.17
145	J114-3 602199-001	J201-h 602092-001	22AWG WHT	523999	40 "	COM.18
146	J115-3 602199-001	J114-3 (w/WIRE 145)	22AWG WHT	523999	4 "	COM.18
147	J114-4 602199-001	J201-j 602092-001	22AWG WHT	523999	40 "	COM.19
148	J115-4 602199-001	J114-4 (w/WIRE 147)	22AWG WHT	523999	4 "	COM.19
149	J114-5 602199-001	J201-a 602092-001	22AWG WHT	523999	40 "	COM.20
150	J115-5 602199-001	J114-5 (w/WIRE 149)	22AWG WHT	523999	4 "	COM.20
151	J114-6 602199-001	J201-b 602092-001	22AWG WHT	523999	40 "	COM.21
152	J115-6 602199-001	J114-6 (w/WIRE 151)	22AWG WHT	523999	4 "	COM.21
153	J114-7 602199-001	J201-U 602092-001	22AWG WHT	523999	40 "	COM.22
154	J115-7 602199-001	J114-7 (w/WIRE 153)	22AWG WHT	523999	4 "	COM.22
155	J114-8 602199-001	J201-V 602092-001	22AWG WHT	523999	40 "	COM.23
156	J115-8 602199-001	J114-8 (w/WIRE 155)	22AWG WHT	523999	4 "	COM.23
157	J114-9 602199-001	J201-x 602092-001	22AWG WHT	532999	40 "	MUX. CH. 16-23
158	J115-9 602199-001	NO CONNECT				
159	J114-10 602199-001	J202-B 602092-001	22AWG WHT	532999	40 "	CHASSIS GND
160	J115-10 602199-001	NO CONNECT				
161	J116-1 602199-001	J201-t 602092-001	22AWG WHT	523999	40 "	N.O.16
162	J117-1 602199-001	J116-1 (w/WIRE 161)	22AWG WHT	523999	4 "	N.O.16
163	J116-2 602199-001	J201-u 602092-001	22AWG WHT	523999	40 "	N.O.17
164	J117-2 602199-001	J116-2 (w/WIRE 163)	22AWG WHT	523999	4 "	N.O.17
165	J116-3 602199-001	J201-k 602092-001	22AWG WHT	523999	40 "	N.O.18
166	J117-3 602199-001	J116-3 (w/WIRE 165)	22AWG WHT	523999	4 "	N.O.18
167	J116-4 602199-001	J201-m 602092-001	22AWG WHT	523999	40 "	N.O.19
RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718						
DOCUMENT TITLE			SIZE	CODE NO	DOCUMENT NO	REV
HARNES ASSEMBLY, 1260-16, TTI			A	21793	407436	B
DRN					SHEET	11 Of 17

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
168	J117-4 602199-001	J116-4 (w/WIRE 167)	22AWG WHT	523999	4"	N.O. 19
169	J116-5 602199-001	J201-c 602092-001	22AWG WHT	523999	40"	N.O. 20
170	J117-5 602199-001	J116-5 (w/WIRE 169)	22AWG WHT	523999	4"	N.O. 20
171	J116-6 602199-001	J201-d 602092-001	22AWG WHT	523999	40"	N.O. 21
172	J117-6 602199-001	J116-6 (w/WIRE 171)	22AWG WHT	523999	4"	N.O. 21
173	J116-7 602199-001	J201-W 602092-001	22AWG WHT	523999	40"	N.O. 22
174	J117-7 602199-001	J116-7 (w/WIRE 173)	22AWG WHT	523999	4"	N.O. 22
175	J116-8 602199-001	J201-X 602092-001	22AWG WHT	523999	40"	N.O. 23
176	J117-8 602199-001	J116-8 (w/WIRE 175)	22AWG WHT	523999	4"	N.O. 23
177	J116-9 602199-001	NO CONNECT				
178	J117-9 602199-001	NO CONNECT				
179	J116-10 602199-001	NO CONNECT				
180	J117-10 602199-001	NO CONNECT				
181	J118-1 60219-901	J202-S 602092-001	22AWG WHT	523999	40"	N.C. 24
182	J119-1 602199-001	J118-1 (w/WIRE 181)	22AWG WHT	523999	4"	N.C. 24
183	J118-2 602199-001	J202-T 602092-001	22AWG WHT	523999	40"	N.C. 25
184	J119-2 602199-001	J118-2 (w/WIRE 183)	22AWG WHT	523999	4"	N.C. 25
185	J118-3 602199-001	J202-K 602092-001	22AWG WHT	523999	40"	N.C. 26
186	J119-3 602199-001	J118-3 (w/WIRE 185)	22AWG WHT	523999	4"	N.C. 26
187	J118-4 602199-001	J202-L 602092-001	22AWG WHT	523999	40"	N.C. 27
188	J119-4 602199-001	J118-4 (w/WIRE 187)	22AWG WHT	523999	4"	N.C. 27
189	J118-5 602199-001	J202-C 602092-001	22AWG WHT	523999	40"	N.C. 28
190	J119-5 602199-001	J118-5 (w/WIRE 189)	22AWG WHT	523999	4"	N.C. 28
191	J118-6 602199-001	J202-D 602092-001	22AWG WHT	523999	40"	N.C. 29

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 12 Of 17	

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
192	J119-6 602199-001	J118-6 (w/WIRE 191)	22AWG WHT	523999	4 "	N.C. 29
193	J118-7 602199-001	J201-z 602092-001	22AWG WHT	523999	40 "	N.C. 30
194	J119-7 602199-001	J118-7 (w/WIRE 193)	22AWG WHT	523999	4 "	N.C. 30
195	J118-8 602199-001	J101-AA 602092-001	22AWG WHT	523999	40 "	N.C. 31
196	J119-8 602199-001	J118-8 (w/WIRE 195)	22AWG WHT	523999	4 "	N.C. 31
197	J118-9 602199-001	NO CONNECT				
198	J119-9 602199-001	NO CONNECT				
199	J118-10 602199-001	NO CONNECT				
200	J119-10 602199-001	NO CONNECT				
201	J120-1 602199-001	J202-U 602092-001	22AWG WHT	523999	40 "	COM. 24
202	J121-1 602199-001	J120-1 (w/WIRE 201)	22AWG WHT	523999	4 "	COM. 24
203	J120-2 602199-001	J202-V 602092-001	22AWG WHT	523999	40 "	COM. 25
204	J121-2 602199-001	J120-2 (w/WIRE 203)	22AWG WHT	523999	4 "	COM. 25
205	J120-3 602199-001	J202-M 602092-001	22AWG WHT	523999	40 "	COM. 26
206	J121-3 602199-001	J120-3 (w/WIRE 205)	22AWG WHT	523999	4 "	COM. 26
207	J120-4 602199-001	J202-N 602092-001	22AWG WHT	523999	40 "	COM. 27
208	J121-4 602199-001	J120-4 (w/WIRE 207)	22AWG WHT	523999	4 "	COM. 27
209	J120-5 602199-001	J202-E 602092-001	22AWG WHT	523999	40 "	COM. 28
210	J121-5 602199-001	J120-5 (w/WIRE 209)	22AWG WHT	523999	4 "	COM. 28
211	J120-6 602199-001	J202-F 602092-001	22AWG WHT	523999	40 "	COM. 29
212	J121-6 602199-001	J120-6 (w/WIRE 211)	22AWG WHT	523999	4 "	COM. 29
213	J120-7 602199-001	J201-BB 602092-001	22AWG WHT	523999	40 "	COM. 30
214	J121-7 602199-001	J120-7 (w/WIRE 213)	22AWG WHT	523999	4 "	COM. 30
215	J120-8 602199-001	J201-CC 602092-001	22AWG WHT	523999	40 "	COM. 31

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
DRN			SHEET 13 Of 17	

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
216	J121-8 602199-001	J120-8 (w/WIRE 215)	22AWG WHT	523999	4"	COM. 31
217	J120-9 602199-001	J201-P 602092-001	22AWG WHT	532999	40"	MUX. CH. 24-31
218	J121-9 602199-001	NO CONNECT				
219	J120-10 602199-001	J200-HH 602092-001	22AWG WHT	532999	40"	CHASSIS GND
220	J121-10 602199-001	NO CONNECT				
221	J122-1 602199-001	J202-W 602092-001	22AWG WHT	523999	40"	N.O. 24
222	J123-1 602199-001	J122-1 (w/WIRE 221)	22AWG WHT	523999	4"	N.O. 24
223	J122-2 602199-001	J202-X 602092-001	22AWG WHT	523999	40"	N.O. 25
224	J123-2 602199-001	J122-2 (w/WIRE 223)	22AWG WHT	523999	4"	N.O. 25
225	J122-3 602199-001	J202-P 602092-001	22AWG WHT	523999	40"	N.O. 26
226	J123-3 602199-001	J122-3 (w/WIRE 225)	22AWG WHT	523999	4"	N.O. 26
227	J122-4 602199-001	J202-R 602092-001	22AWG WHT	523999	40"	N.O. 27
228	J123-4 602199-001	J122-4 (w/WIRE 227)	22AWG WHT	523999	4"	N.O. 27
229	J122-5 602199-001	J202-H 602092-001	22AWG WHT	523999	40"	N.O. 28
230	J123-5 602199-001	J122-5 (w/WIRE 229)	22AWG WHT	523999	4"	N.O. 28
231	J122-6 602199-001	J202-3 602092-001	22AWG WHT	523999	40"	N.O. 29
232	J123-6 602199-001	J122-6 (w/WIRE 231)	22AWG WHT	523999	4"	N.O. 29
233	3122-7 602199-001	J201-DD 602092-001	22AWG WHT	523999	40"	N.O. 30
234	3123-7 602199-001	J122-7 (w/WIRE 233)	22AWG WHT	523999	4"	N.O. 30
235	3122-8 602199-001	J201-EE 602092-001	22AWG WHT	523999	40"	N.O. 31
236	3123-8 602199-001	J122-8 (w/WIRE 235)	22AWG WHT	523999	4"	N.O. 31
237	3122-9 602199-001	NO CONNECT				
238	3123-9 602199-001	NO CONNECT				
239	3122-10 602199-001	NO CONNECT				

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNES ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET	14 Of 17

## ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
240	J123-10 602199-001	NO CONNECT				
241	J124-1 60219-901	J202-z 602092-001	22AWG WHT	523999	40"	N.C.32
242	J125-1 602199-001	J124-1 (w/WIRE 241)	22AWG WHT	523999	4"	N.C.32
243	J124-2 602199-001	J202-AA 602092-001	22AWG WHT	523999	40"	N.C.33
244	J125-2 602199-001	J124-2 (w/WIRE 243)	22AWG WHT	523999	4"	N.C.33
245	J124-3 602199-001	J202-t 602092-001	22AWG WHT	523999	40"	N.C.34
246	J125-3 602199-001	J124-3 (w/WIRE 245)	22AWG WHT	523999	4"	N.C.34
247	J1244 602199-001	J202-u 602092-001	22AWG WHT	523999	40"	N.C.35
248	J125-4 602199-001	J124-4 (w/WIRE 247)	22AWG WHT	523999	4"	N.C.35
249	J124-5 602199-001	J202-k 602092-001	22AWG WHT	523999	40"	N.C.36
250	J125-5 602199-001	J124-5 (w/WIRE 249)	22AWG WHT	523999	4"	N.C.36
251	J124-6 602199-001	J202-m 602092-001	22AWG WHT	523999	40"	N.C.37
252	J125-6 602199-001	J124-6 (w/WIRE 251)	22AWG WHT	523999	4"	N.C.37
253	J124-7 602199-001	J202-c 602092-001	22AWG WHT	523999	40"	N.C.38
254	J125-7 602199-001	J124-7 (w/WIRE 253)	22AWG WHT	523999	4"	N.C.38
255	J124-8 602199-001	J202-d 602092-001	22AWG WHT	523999	40"	N.C.39
256	J125-8 602199-001	J124-8 (w/WIRE 255)	22AWG WHT	523999	4"	N.C.39
257	J124-9 602199-001	NO CONNECT				
258	J125-9 602199-001	NO CONNECT				
259	J124-10 602199-001	NO CONNECT				
260	J125-10 602199-001	NO CONNECT				
261	J126-1 602199-001	J202-BB 602092-001	22AWG WHT	523999	40"	COM.32
262	J127-1 602199-001	J126-1 (w/WIRE 261)	22AWG WHT	523999	4"	COM.32

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
DRN			SHEET 15 Of 17	

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
263	J126-2 602199-001	J202-CC 602092-001	22AWG WHT	523999	40"	COM.33
264	J127-2 602199-001	J126-2 (w/WIRE 263)	22AWG WHT	523999	4"	COM.33
265	J126-3 602199-001	J202-v 602092-001	22AWG WHT	523999	40"	COM.34
266	J127-3 602199-001	J126-3 (w/WIRE 265)	22AWG WHT	523999	4"	COM.34
267	J126-4 602199-001	J202-w 602092-001	22AWG WHT	523999	40"	COM.35
268	J127-4 602199-001	J126-4 (w/WIRE 267)	22AWG WHT	523999	4"	COM.35
269	J126-5 602199-001	J202-n 602092-001	22AWG WHT	523999	40"	COM.36
270	J127-5 602199-001	J126-5 (w/WIRE 269)	22AWG WHT	523999	4"	COM.36
271	J126-6 602199-001	J202-p 602092-001	22AWG WHT	523999	40"	COM.37
272	J127-6 602199-001	J126-6 (w/WIRE 271)	22AWG WHT	523999	4"	COM.37
273	J126-7 602199-001	J202-e 602092-001	22AWG WHT	523999	40"	COM.38
274	J127-7 602199-001	J126-7 (w/WIRE 273)	22AWG WHT	523999	4"	COM.38
275	J126-8 602199-001	J202-f 602092-001	22AWG WHT	523999	40"	COM.39
276	J127-8 602199-001	J126-8 (w/WIRE 275)	22AWG WHT	523999	4"	COM.39
277	J126-9 602199-001	J202-Y 602092-001	22AWG WHT	532999	40"	MUX. CH. 32-39
278	J127-9 602199-001	NO CONNECT				
279	J126-10 602199-001	J201-HH 602092-001	22AWG WHT	532999	40"	CHASSIS GND
280	J127-10 602199-001	NO CONNECT				
281	J128-1 602199-001	3202-DD 602092-001	22AWG WHT	523999	40"	N.O.32
282	J129-1 602199-001	3128-1 (w/WIRE 281)	22AWG WHT	523999	4"	N.O.32
283	J128-2 602199-001	3202-EE 602092-001	22AWG WHT	523999	40"	N.O.33
284	J129-2 602199-001	3128-2 (w/WIRE 283)	22AWG WHT	523999	4"	N.O.33
285	J128-3 602199-001	3202-x 602092-001	22AWG WHT	523999	40"	N.O.34
286	J129-3 602199-001	3128-3 (w/WIRE 285)	22AWG WHT	523999	4"	N.O.34

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

DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
	DRN		SHEET 16 Of 17	

**ENGINEERING WIRE LIST**

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
287	J128-4 602199-001	J202-y 602092-001	22AWG WHT	523999	40 "	N.O. 35
288	J129-4 602199-001	J128-4 (w/WIRE 287)	22AWG WHT	523999	4 "	N.O. 35
289	J128-5 602199-001	J202-r 602092-001	22AWG WHT	523999	40 "	N.O. 36
290	J129-5 602199-001	J128-5 (w/WIRE 289)	22AWG WHT	523999	4 "	N.O. 36
291	J128-6 602199-001	J202-s 602092-001	22AWG WHT	523999	40 "	N.O. 37
292	J129-6 602199-001	J128-6 (w/WIRE 291)	22AWG WHT	523999	4 "	N.O. 37
293	J128-7 602199-001	J202-h 602092-001	22AWG WHT	523999	40 "	N.O. 38
294	J129-7 602199-001	J128-7 (w/WIRE 293)	22AWG WHT	523999	4 "	N.O. 38
295	J128-8 602199-001	J202-j 602092-001	22AWG WHT	523999	40 "	N.O. 39
296	J129-8 602199-001	J128-8 (w/WIRE 295)	22AWG WHT	523999	4 "	N O. 39
297	J128-9 602199-001	NO CONNECT				
298	J129-9 602199-001	NO CONNECT				
299	J128-10 602199-001	J202-HH 602092-001	WHT 22AWG	523999	40 "	CHASSIS GND
300	J129-10 602199-001	NO CONNECT				

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO	DOCUMENT NO	REV
HARNESS ASSEMBLY, 1260-16, TTI	A	21793	407436	B
DRN			SHEET	17 Of 17



## Chapter 8

# 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 1260-16 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