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.

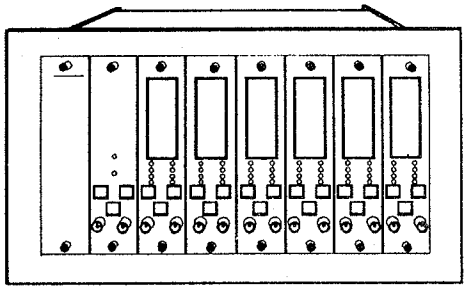
Find the *GE / Bently Nevada 3300/10-01-02-00* at our website: *Click HERE*

DOCUMENT NO. 80174

REV.	DATE

3300/10 POWER SUPPLY

BENTLY NEVADA



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

NOTICE

READ THE FOLLOWING BEFORE INSTALLING OR OPERATING EQUIPMENT.

Bently Nevada Corporation has attempted to identify areas of risk created by improper installation and/or operation of this product. These areas of information are noted as CAUTION or WARNING for your protection and for the safe and effective operation of this equipment. Read all instructions before installing or operating this product. Take particular attention to those areas designated by the following symbols.

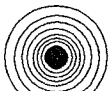
WARNING Hazardous Voltage

CAUTION Machine Protection Could Be Lost

SYMBOLS

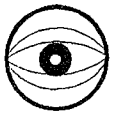
Special symbols are used in the manual to illustrate specifics in the step-by-step process. For example:


PRESS


FLASHING


CONNECT


DISCONNECT

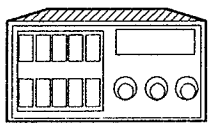

OBSERVE


SCREWDRIVER

TEST EQUIPMENT (Recommended)

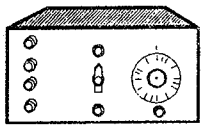
Digital Multimeter

4 1/2-Digit Display
0 to 1000 Vac/Vdc
0 to 10 megohms



Function Generator

Frequency Range
0.1 to 3 MHz
Offset= 10 Vdc



PSSYMPG

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

FOREWORD

This document is for maintenance personnel who install or maintain the 3300/10 Power Supply in a 3300 Instrument Rack. The information includes description, disassembly instructions, performance tests, recommended spare parts, field changeable options, specifications, and schematics. The procedure are presented in step-by-step graphic format.

RELATED DOCUMENTS

- 3300 Installation Instructions, 80172
- 3300 Troubleshooting Guide, 80173
- 3300 System Monitor, 80175
- Data Manager System, 43119-01
- Dynamic Data Manager System, 46390-01

Keyphasor® is a registered trademark of Bently Nevada Corporation

Proximitor® is a registered trademark of Bently Nevada Corporation

Document No. 80171 • First Printing: January 1988

Copyright © 1987 Bently Nevada Corporation

All Rights Reserved

No part of this publication may be reproduced, transmitted, stored in a retrieval system nor translated into any human or computer language, in any form or by any means, electronic, mechanical, magnetic optical, chemical, manual, or otherwise, without the prior written permission of the copyright owner,

Bently Nevada Corporation
P.O. Box 157
Minden, Nevada 89423 USA
Telephone 702-782-3611
Toll Free 800-227-5514
Telex 1561105

Copyright infringement is a serious matter under United States of America and Foreign Copyright Laws

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Blank Page

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

CONTENTS

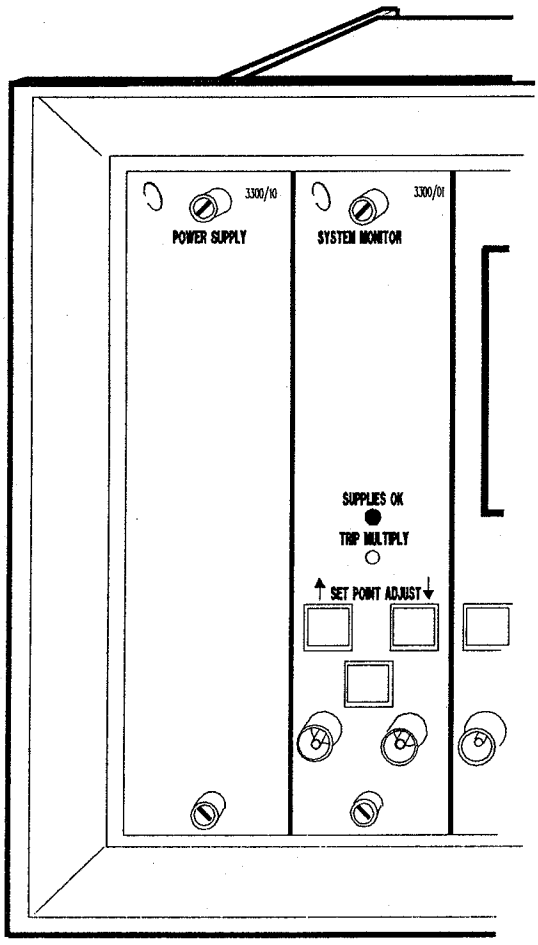
TITLE	SECTION
POWER SUPPLY ASSEMBLY	1
OPTIONS	2
DISASSEMBLY PROCEDURE	3
FUSES	4
PERFORMANCE TESTING	5
INPUT VOLTAGE OPTION	6
PROGRAMMABLE OPTIONS	7
RECOMMENDED SPARE PARTS	8
SPECIFICATIONS	9
SCHEMATICS & DRAWINGS	10

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Blank Page

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

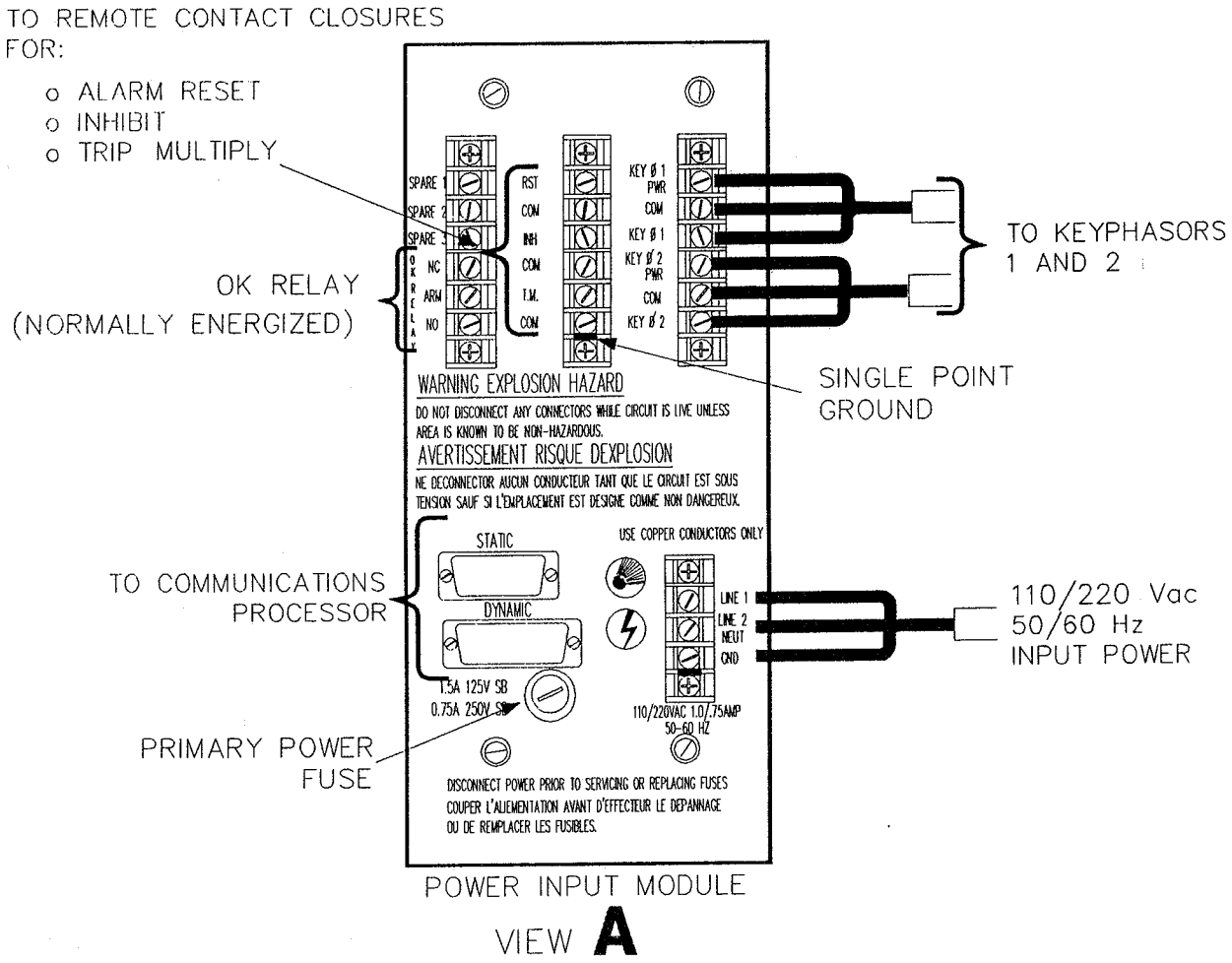
1 POWER SUPPLY ASSEMBLY

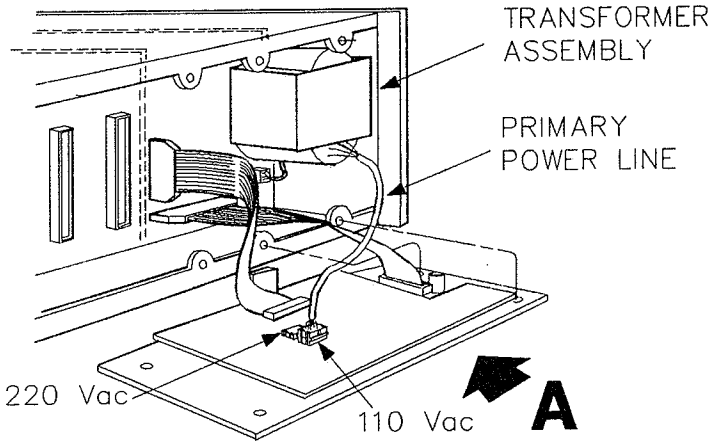


PSSYS2

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

1 POWER SUPPLY ASSEMBLY [CONT.]





PSSYS

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

2 OPTIONS

POWER SUPPLY PART NUMBER 3300/10	INPUT VOLTAGE AA	OK RELAY BB	APPROVALS CC	BARRIERS USED DD
	01=95 to 125 Vac, 50 TO 60 Hz 02=190 TO 250 Vac, 50 TO 60 Hz	01=5A EPOXY SEALED RELAY 02=5A HERMETICALLY SEALED RELAY	00=NONE 01=CSA 02=BASEEFA 03=CITY OF LA	00=NO 01=YES

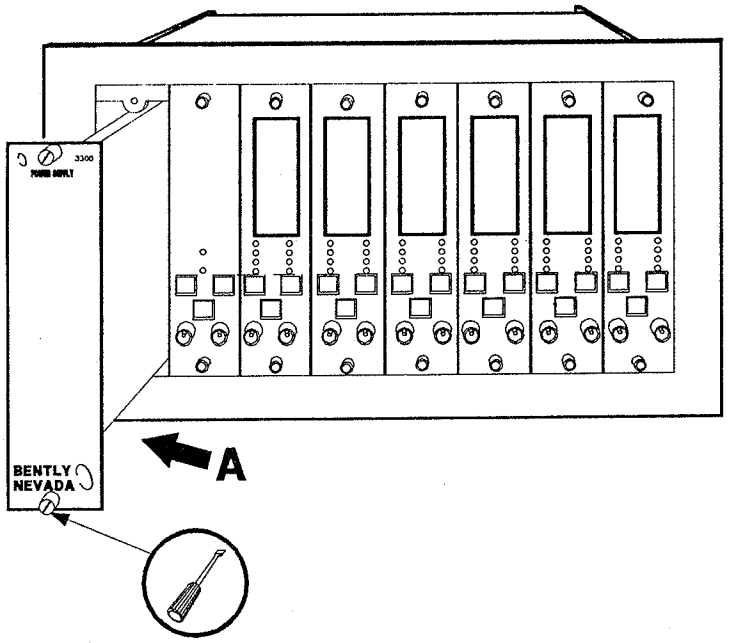
FIELD PROGRAMMABLE OPTIONS

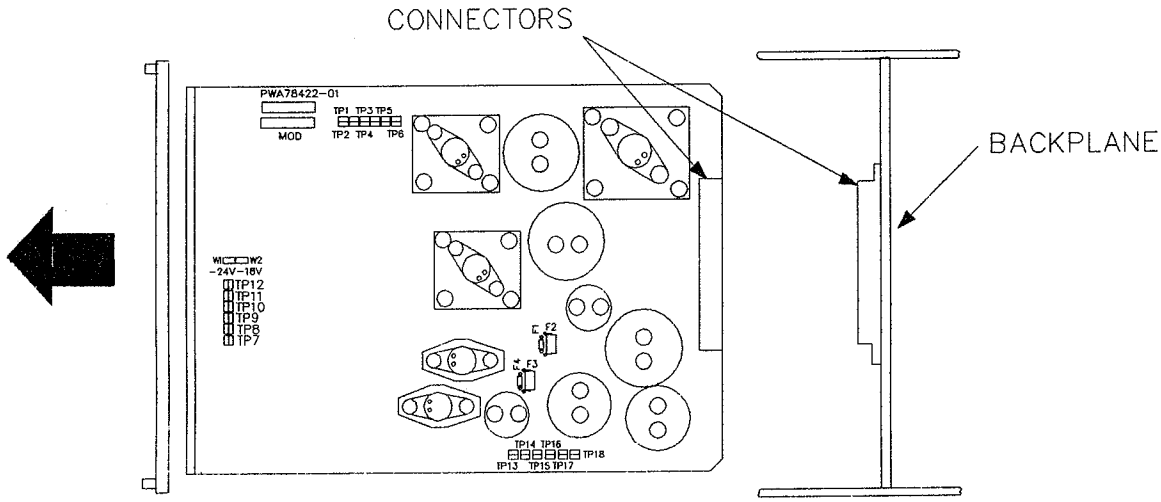
TRANSDUCER OUTPUT VOLTAGE: SHIPPED AS −24 Vdc, FIELD PROGRAMMABLE TO −18 Vdc (SEE [7]).

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

3 DISASSEMBLY PROCEDURE

1. LOOSEN SCREWS AND PULL REGULATOR BOARD FROM RACK.





POWER SUPPLY REGULATOR BOARD

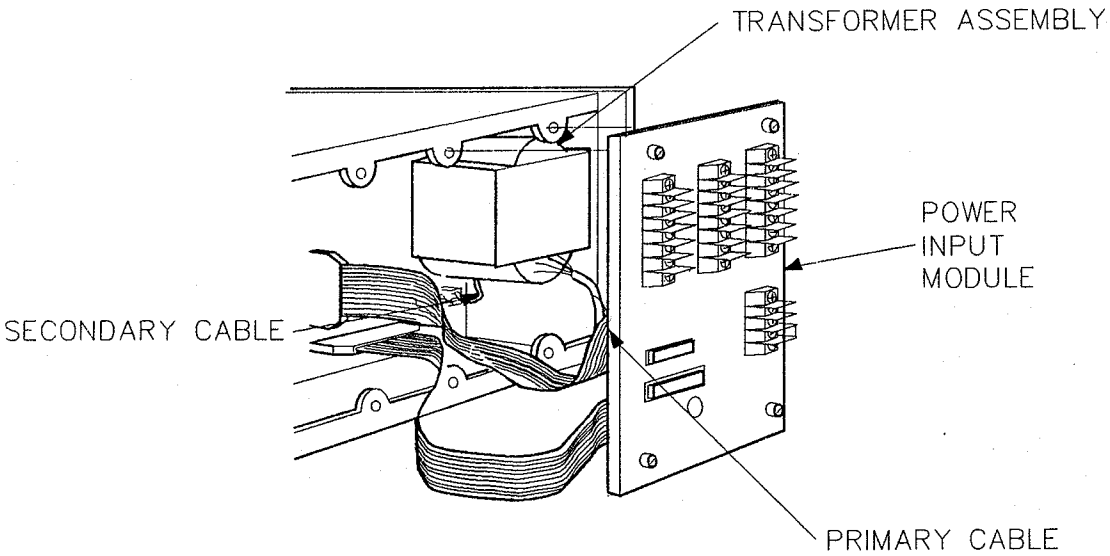
VIEW **A**

PSASS

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

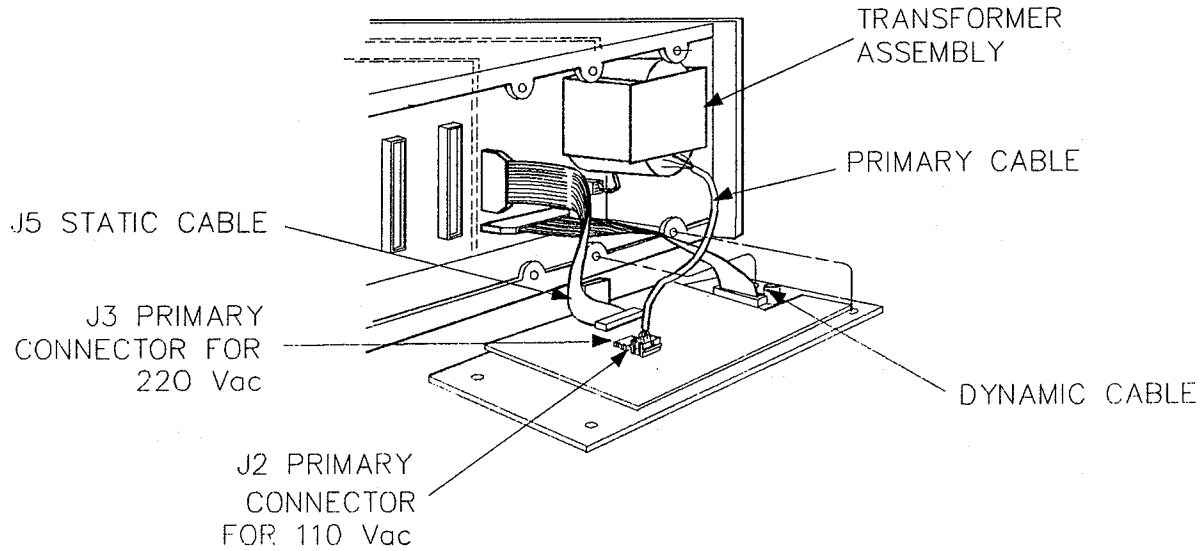
3 DISASSEMBLY PROCEDURE [CONT.]

2. TO GET TO TRANSFORMER ASSEMBLY AND CABLING, LOOSEN 4 SCREWS AND PULL POWER INPUT MODULE OUT FROM RACK.



WARNING

HIGH VOLTAGE IS PRESENT AT REAR OF RACK. ACCIDENTAL CONTACT WITH EXPOSED WIRING AND TERMINALS COULD CAUSE SERIOUS INJURY TO PERSONNEL.

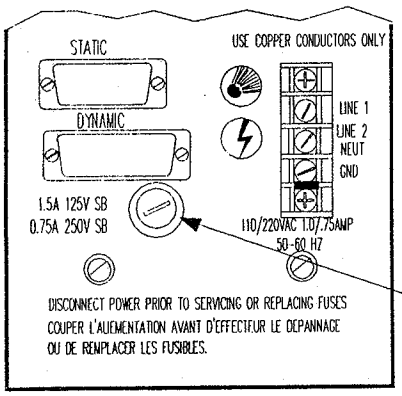


PSINSTL

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

4 FUSES

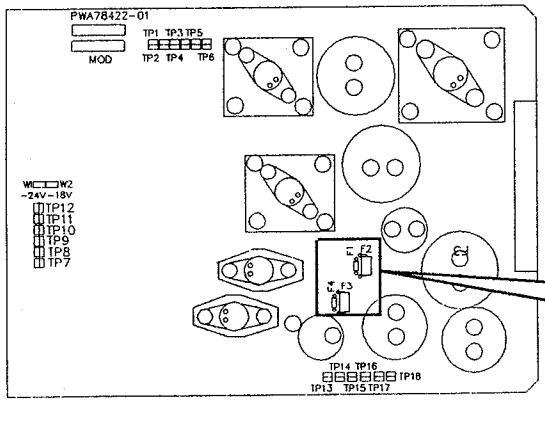
1. PRIMARY POWER FUSE IS LOCATED ON POWER INPUT MODULE.



- FOR 95 TO 125 Vac, 50 to 60 Hz, USE 1.5A, SB FUSE (PART NUMBER 01701500)
- FOR 190 TO 250 Vac, 50 TO 60 Hz, USE 0.75A, SB FUSE (PART NUMBER 01703118)

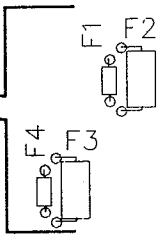
PRIMARY POWER FUSE (SEE 6)

2. TWO SECONDARY FUSES ARE LOCATED ON THE POWER REGULATOR BOARD. TO GET TO THE REGULATOR BOARD SEE 3.



SECONDARY FUSES (SEE 2)

- FOR CC=00, 01, OR 03 INSTALL F1 FOR +VRA AND F4, FOR −VRA .
- FOR CC=02, REMOVE F1 AND F4 AND INSTALL F2 FOR +VRA AND F3 FOR −VRA.



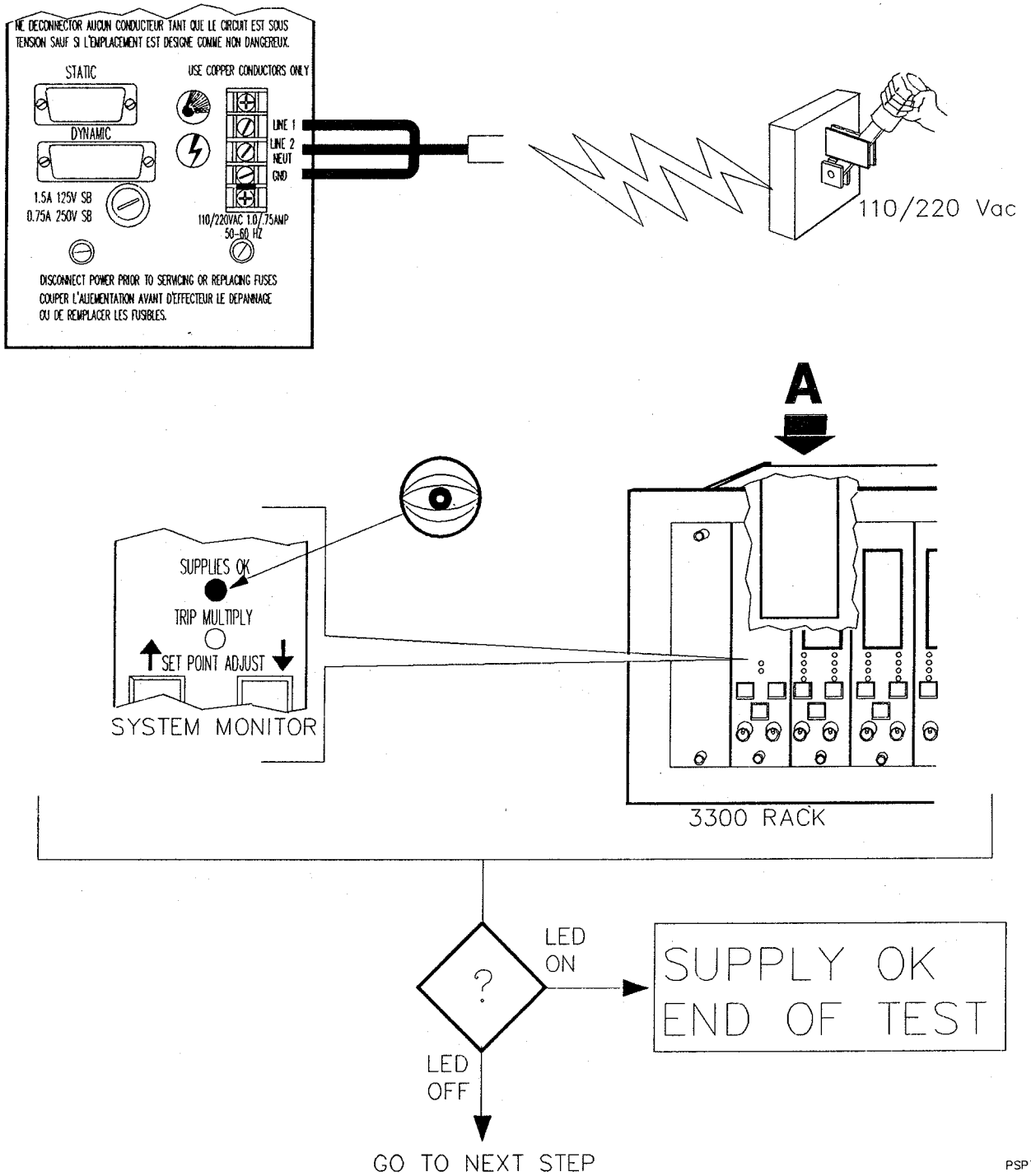
FUSE USAGE TABLE	
F1=	01710222
F2=	01710239
F3=	01710239
F4=	01710222

FUSLOCA

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

5 PERFORMANCE TESTING

1. APPLY POWER TO RACK AND OBSERVE **SUPPLIES OK** LED ON SYSTEM MONITOR.

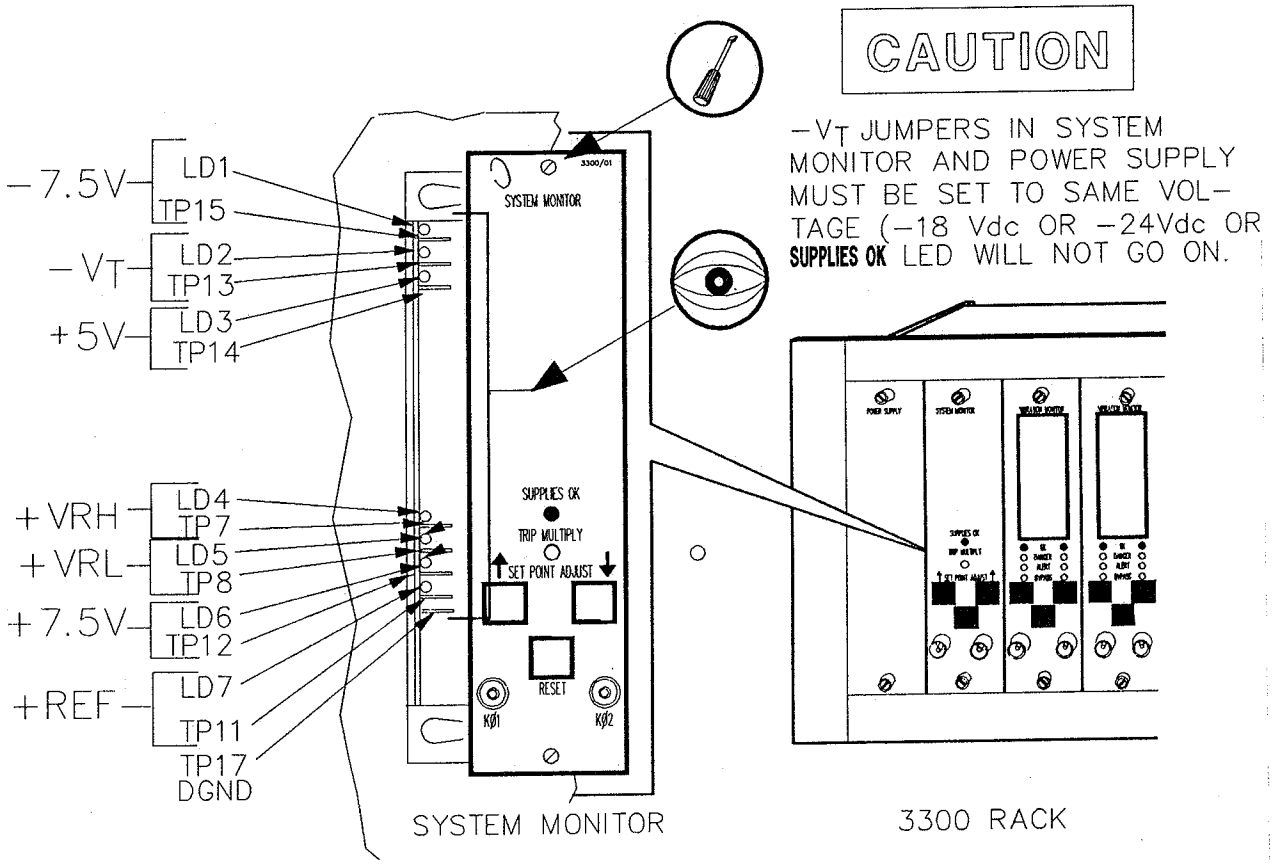


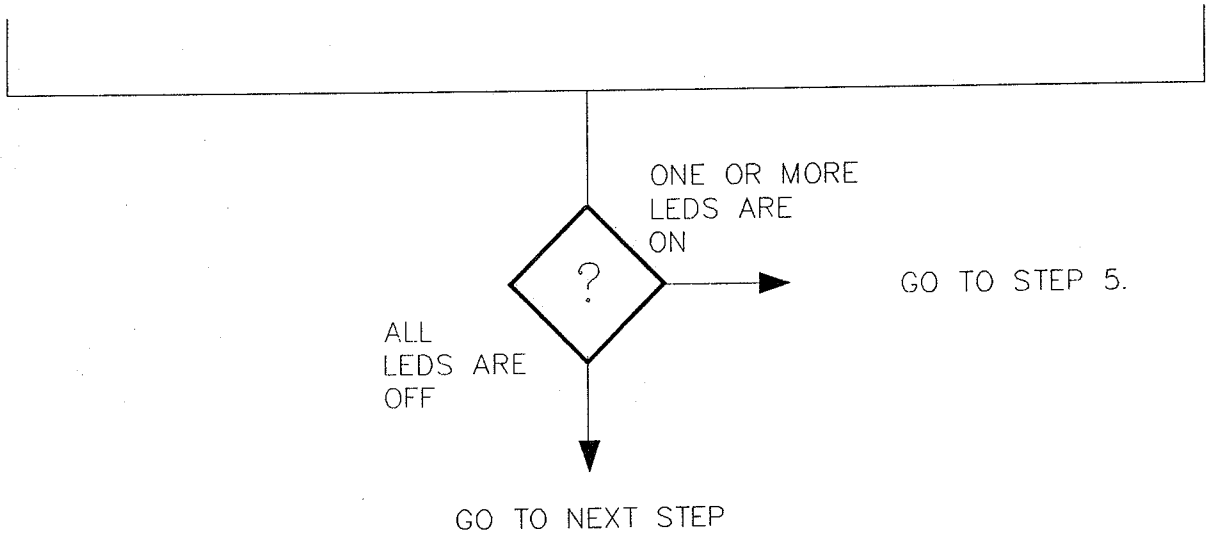
PSPT1

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

5 PERFORMANCE TESTING [CONT.]

2. LOOSEN SYSTEM MONITOR FRONT PANEL SCREWS AND MOVE PANEL TO THE RIGHT. OBSERVE LEDS 1 THROUGH 7 ON SYSTEM MONITOR CIRCUIT BOARD.



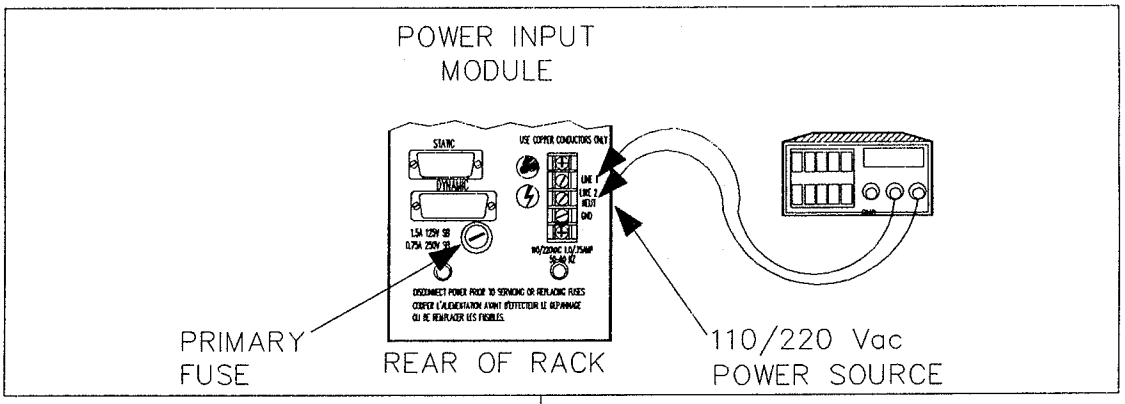


PSPT2

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

5 PERFORMANCE TESTING [CONT.]

3. CHECK PRIMARY INPUT POWER AND PRIMARY POWER FUSE.



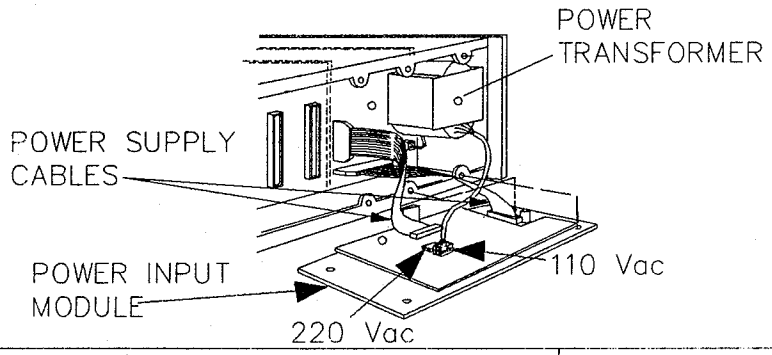
CAUTION

DISCONNECT PRIMARY POWER BEFORE REPAIRS OR FUSE REPLACEMENT !

? NOT OK → REPAIR PRIMARY POWER SOURCE OR REPLACE FUSE

OK

4. DISCONNECT RACK FROM PRIMARY AC POWER. LOOSEN POWER INPUT MODULE SCREWS AND PULL MODULE AWAY FROM RACK AS FAR AS CABLES WILL ALLOW (SEE [3]). ENSURE THAT CABLING BETWEEN MODULE, POWER TRANSFORMER AND BACKPLANE IS CORRECT AND PROPERLY SECURED. ALSO CHECK THAT CORRECT INPUT VOLTAGE PLUG IS SELECTED.



CAUTION

DISCONNECT PRIMARY POWER BEFORE REMOVING OR CHECKING POWER INPUT MODULE !

? NO CABLING ERRORS → REPLACE TRANSFORMER

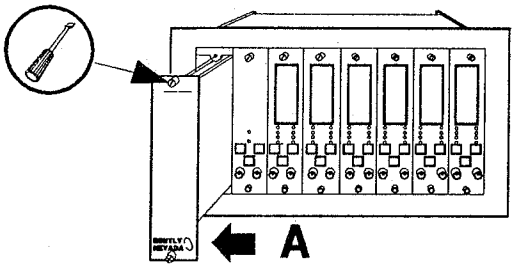
CABLING ERROR → REPAIR CABLING

PSPT3

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

5 PERFORMANCE TESTING [CONT.]

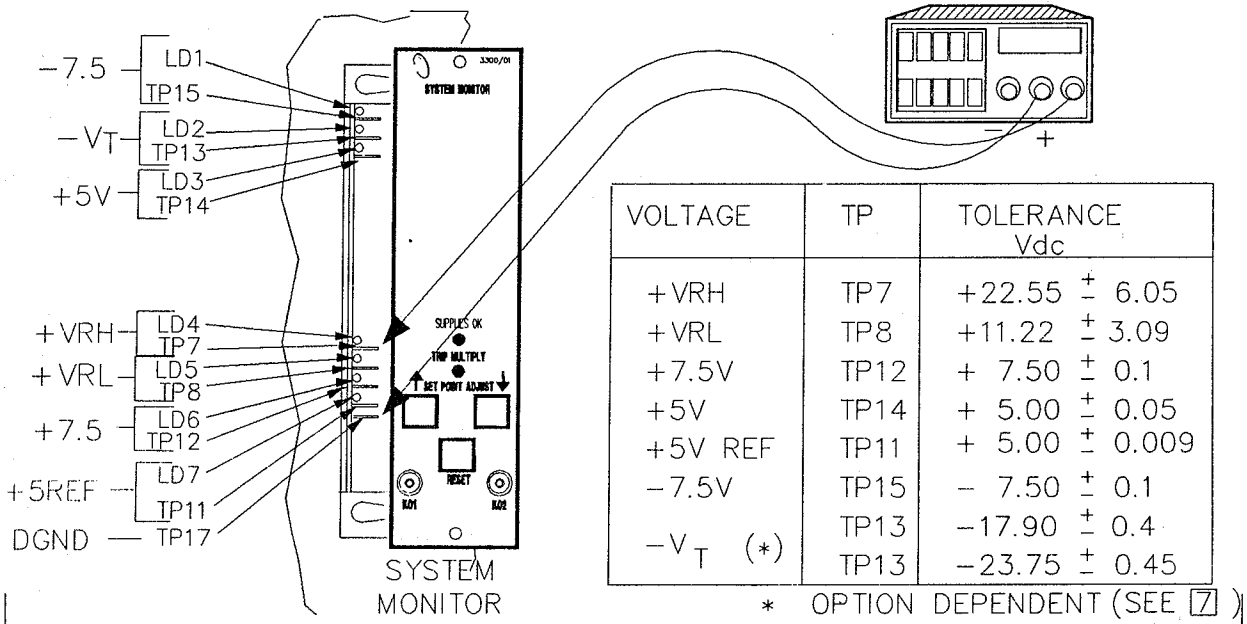
5. REMOVE REGULATOR BOARD FROM RACK (SEE [3]) AND EXAMINE THE TWO SECONDARY FUSES. (SEE [4].)



? FUSE BAD → REPLACE DEFECTIVE SECONDARY FUSE

FUSES OK

6. MEASURE DC VOLTAGE AT TEST POINTS ON SYSTEM MONITOR BOARD. ALL VOLTAGES SHOULD MEET LISTED TOLERANCES.



VOLTAGE	TP	TOLERANCE Vdc
+VRH	TP7	+22.55 ± 6.05
+VRL	TP8	+11.22 ± 3.09
+7.5V	TP12	+ 7.50 ± 0.1
+5V	TP14	+ 5.00 ± 0.05
+5V REF	TP11	+ 5.00 ± 0.009
−7.5V	TP15	− 7.50 ± 0.1
$-V_T$ (*)	TP13	−17.90 ± 0.4
	TP13	−23.75 ± 0.45

* OPTION DEPENDENT (SEE [7])

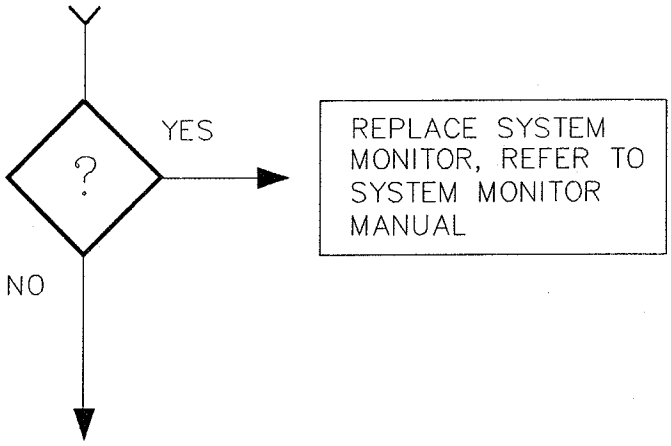
GO TO NEXT STEP

PSPT4

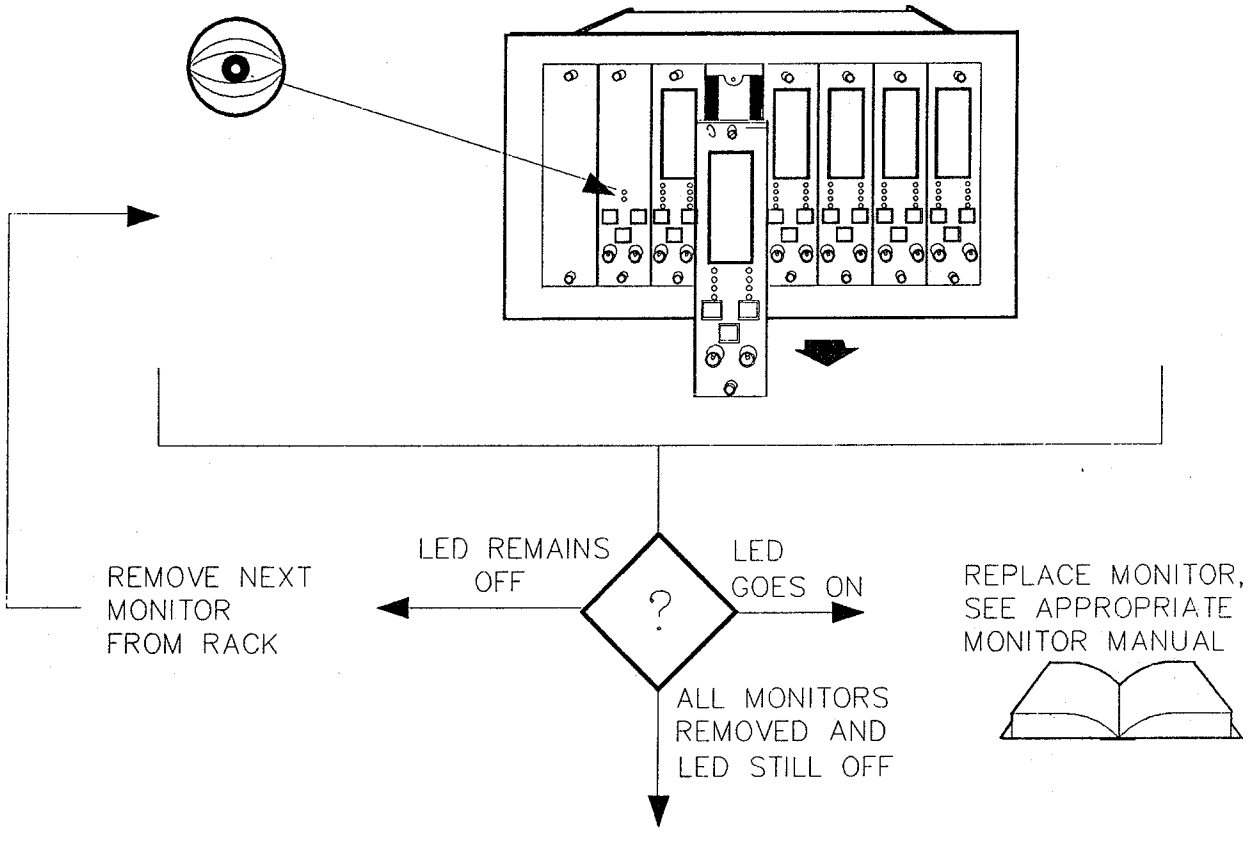
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

5 PERFORMANCE TESTING [CONT.]

7. ALL SYSTEM MONITOR TEST POINT VOLTAGES MEET TOLERANCES LISTED IN STEP 6.



8. PULL ONE MONITOR AT A TIME OUT FROM RACK TO DISENGAGE MONITOR FROM BACKPLANE (APPROXIMATELY 2 INCHES). OBSERVE SYSTEM MONITOR **SUPPLIES OK** LED AFTER REMOVING EACH MONITOR FROM RACK.



PSPT5

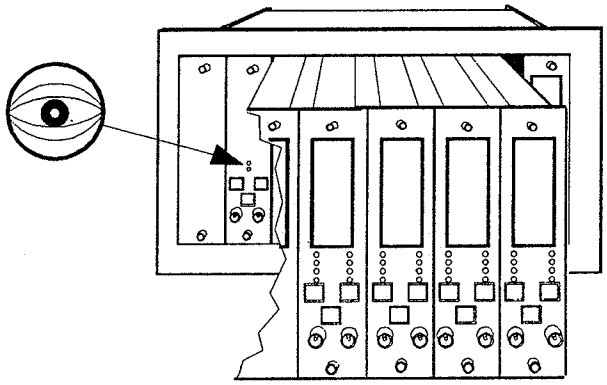
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

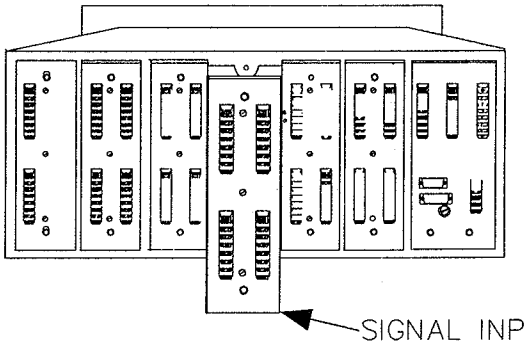
5 PERFORMANCE TESTING [CONT.]

9. REMOVE ONE SIGNAL INPUT MODULE AT A TIME FROM REAR OR RACK. OBSERVE SYSTEM MONITOR **SUPPLIES OK** LED AFTER REMOVING EACH MODULE FROM RACK. (DO NOT REINSTALL MONITORS REMOVED IN STEP 8 UNTIL PROBLEM HAS BEEN ISOLATED TO A PARTICULAR MODULE.)

WARNING

HIGH VOLTAGE PRESENT. ACCIDENTAL CONTACT WITH TERMINALS OR EXPOSED WIRING COULD CAUSE INJURY TO PERSONNEL.





PSPT6

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

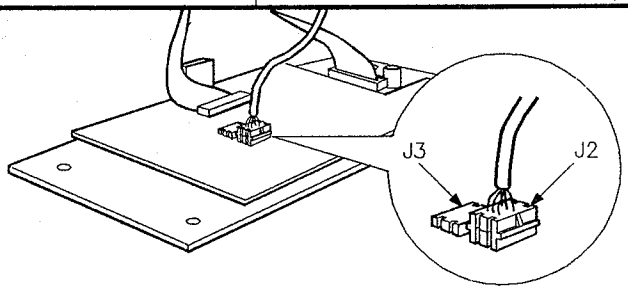
6 INPUT VOLTAGE OPTION

1. TO CHANGE INPUT VOLTAGE OPTION, DISENGAGE POWER INPUT MODULE FROM RACK (SEE [3]). CONNECT CABLE FROM TRANSFORMER TO APPROPRIATE CONNECTOR ON CIRCUIT BOARD AS INDICATED IN FOLLOWING TABLE.

WARNING

HIGH VOLTAGE LEVELS ARE PRESENT AT REAR OR RACK. ACCIDENTAL CONTACT WITH EXPOSED WIRING AND TERMINALS COULD CAUSE SERIOUS INJURY TO PERSONNEL.

VOLTAGE	CONNECTOR	FUSE
110 Vac, 50 TO 60 Hz	J2	SEE [4]
220 Vac, 50 to 60 Hz	J3	SEE [4]

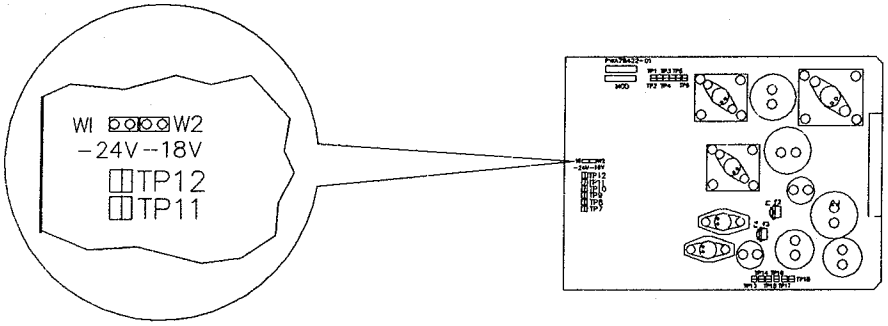


7 PROGRAMMABLE OPTIONS

TRANSDUCER VOLTAGE ($-V_T$)

TO CHANGE TRANSDUCER VOLTAGE ($-V_T$) ON POWER SUPPLY REGULATOR BOARD, DISENGAGE REGULATOR BOARD FROM RACK (SEE [3]) AND CHANGE JUMPER AS FOLLOWS:

VOLTAGE (VT)	JUMPER
−24 VDC	W1
−18 VDC	W2



NOTE

REFER TO SYSTEM MONITOR MANUAL FOR $-V_T$ JUMPER REQUIREMENTS ON SYSTEM MONITOR CIRCUIT BOARD.

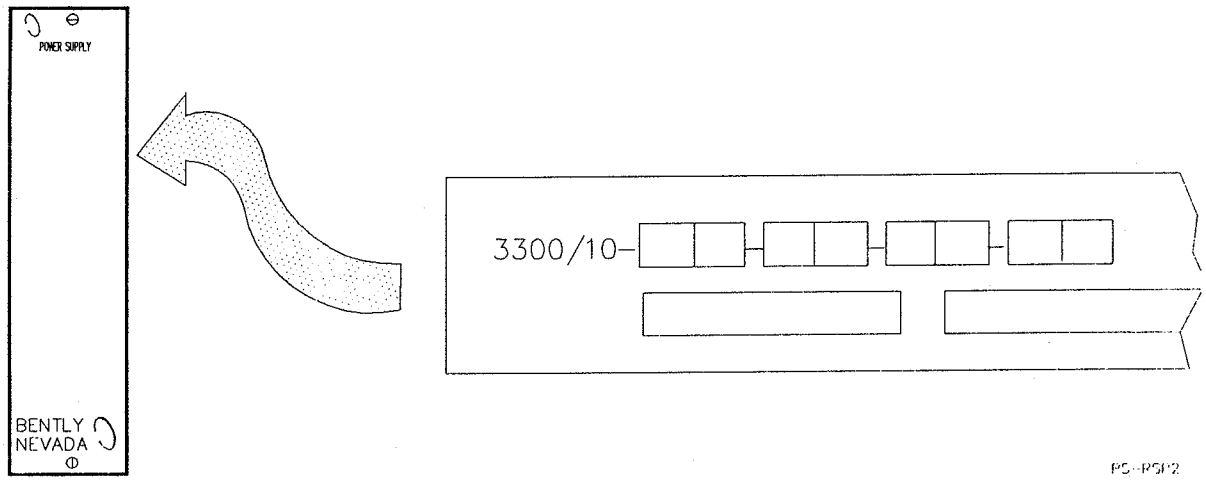
FLDCHOP

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

8 RECOMMENDED SPARE PARTS

QTY PER MON	DESCRIPTION	PART NUMBER
	POWER SUPPLY	3300/10-[ ][ ]-[ ][ ]-[ ][ ]-[ ][ ]
1	FUSE	01701500 [0][1] 01703118 [0][2]
1	REGULATOR BOARD	78422-01 [0][1] 78422-01 [0][2] 78422-02 [0][3] 78422-01 [0][4]
1	POWER INPUT MODULE EPOXY SEALED RELAY HERMETICALLY SEALED RELAY	78432-01 [0][1] 78432-02 [0][2]
1	TRANSFORMER	79687-01

TO ORDER REPLACEMENT PARTS; SPECIFY THE COMPLETE PART NUMBER ACCORDING TO THIS TABLE AS INDICATED ON IDENTIFICATION DECAL. IF THE POWER SUPPLY HAS BEEN MODIFIED, SPECIFY THE MODIFICATION NUMBER ON THE PARTS ORDER. CUSTOMER MUST SET PROGRAMMABLE OPTIONS. POWER SUPPLY SHIPPED AS SHOWN IN [2]. IF IN DOUBT ABOUT THE PART NUMBER, CALL YOUR BENTLY NEVADA CORPORATION REPRESENTATIVE BEFORE ORDERING THE PART.



PS-RSP2

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

9 SPECIFICATIONS

POWER INPUT

110 Vac Option	95 to 125 Vac, Single Phase, 50 to 60 Hz, @0.6 A, maximum
220 Vac Option	190 to 250 Vac, Single Phase, 50 to 60 Hz, @0.3 A, maximum
Maximum Start Up Surge	26 A Peak, or 12 A rms for one cycle
Surge Suppression	Clamp Voltage 285 to 300 rms Peak Surge Current 100 A maximum for 6 msec
Average Power Dissipation	60 W

ENVIRONMENTAL

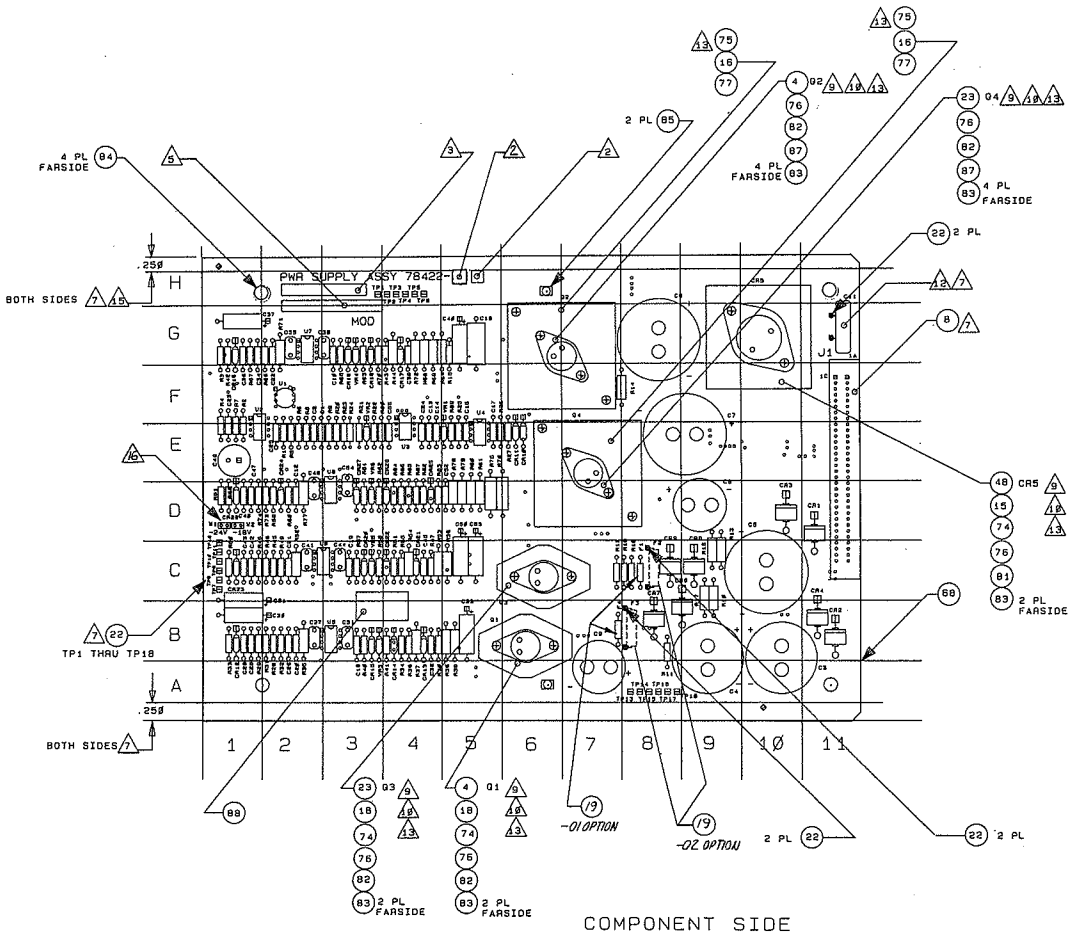
Operating Temperature	+32°F to +149°F (0°C to +65°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)
Humidity	0 to 95%, noncondensing

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

10 SCHEMATICS & DRAWINGS

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

PROPRIETARY NOTICE - THE DATA CONTAINED HEREIN IS PROPRIETARY TO BENTLY NEVADA CORPORATION AND SHALL NOT BE DUPLICATED, USED OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS FURNISHED WITHOUT THE EXPRESS PERMISSION OF BENTLY NEVADA CORP.



COMPONENT SIDE

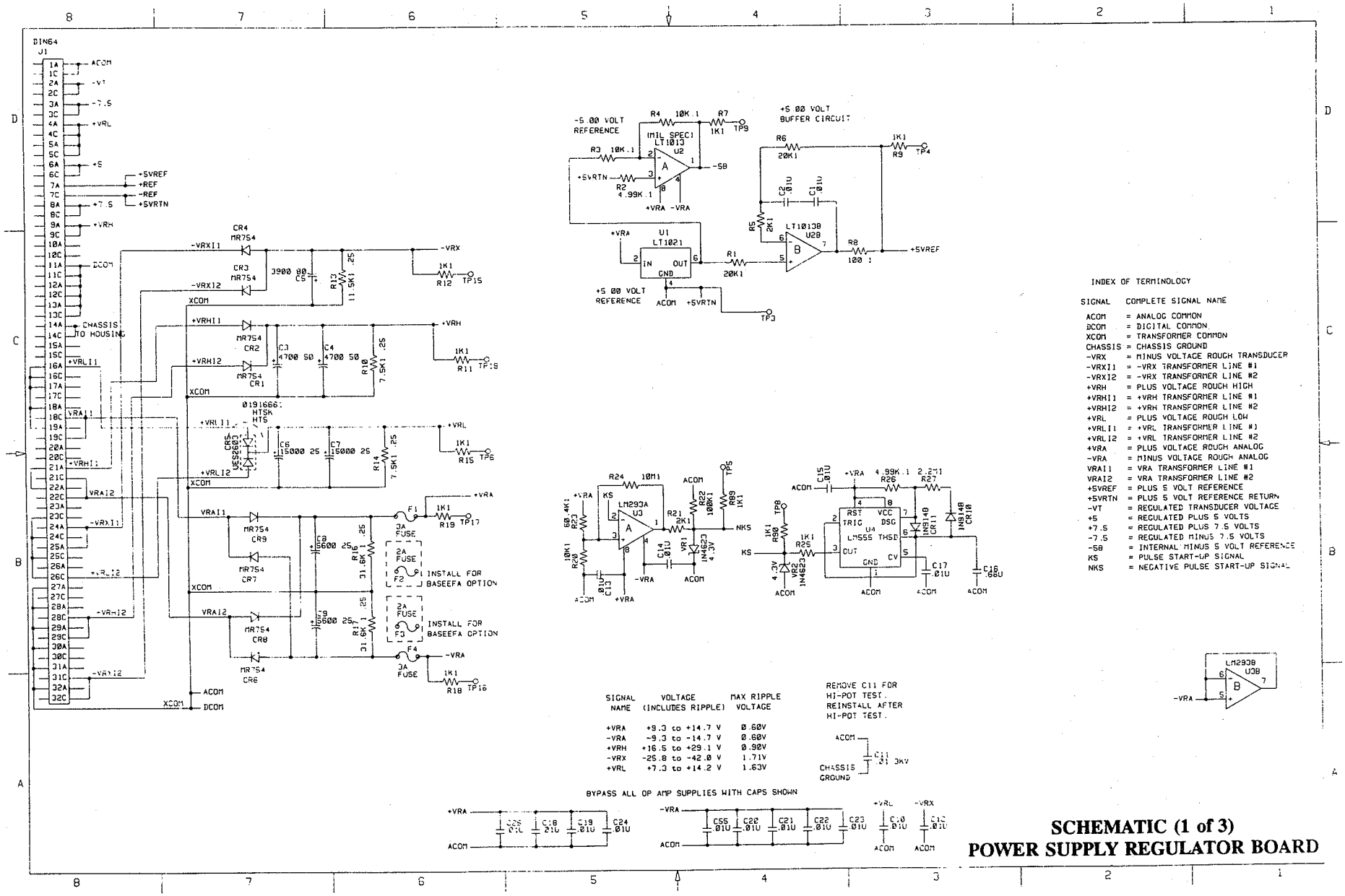
ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE
DEVICES

PRINTED WIRING ASSEMBLY
POWER SUPPLY REGULATOR BOARD

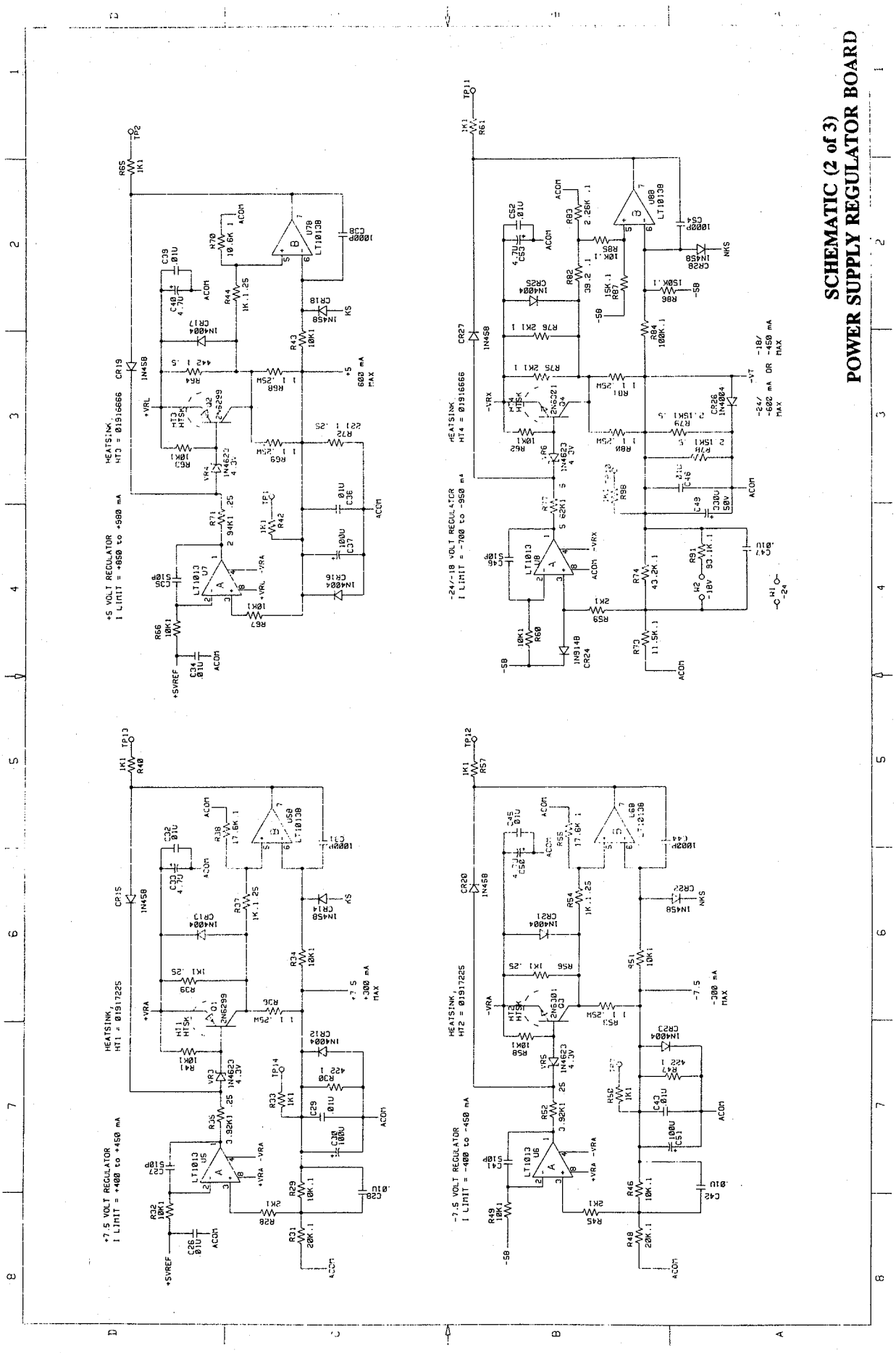
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

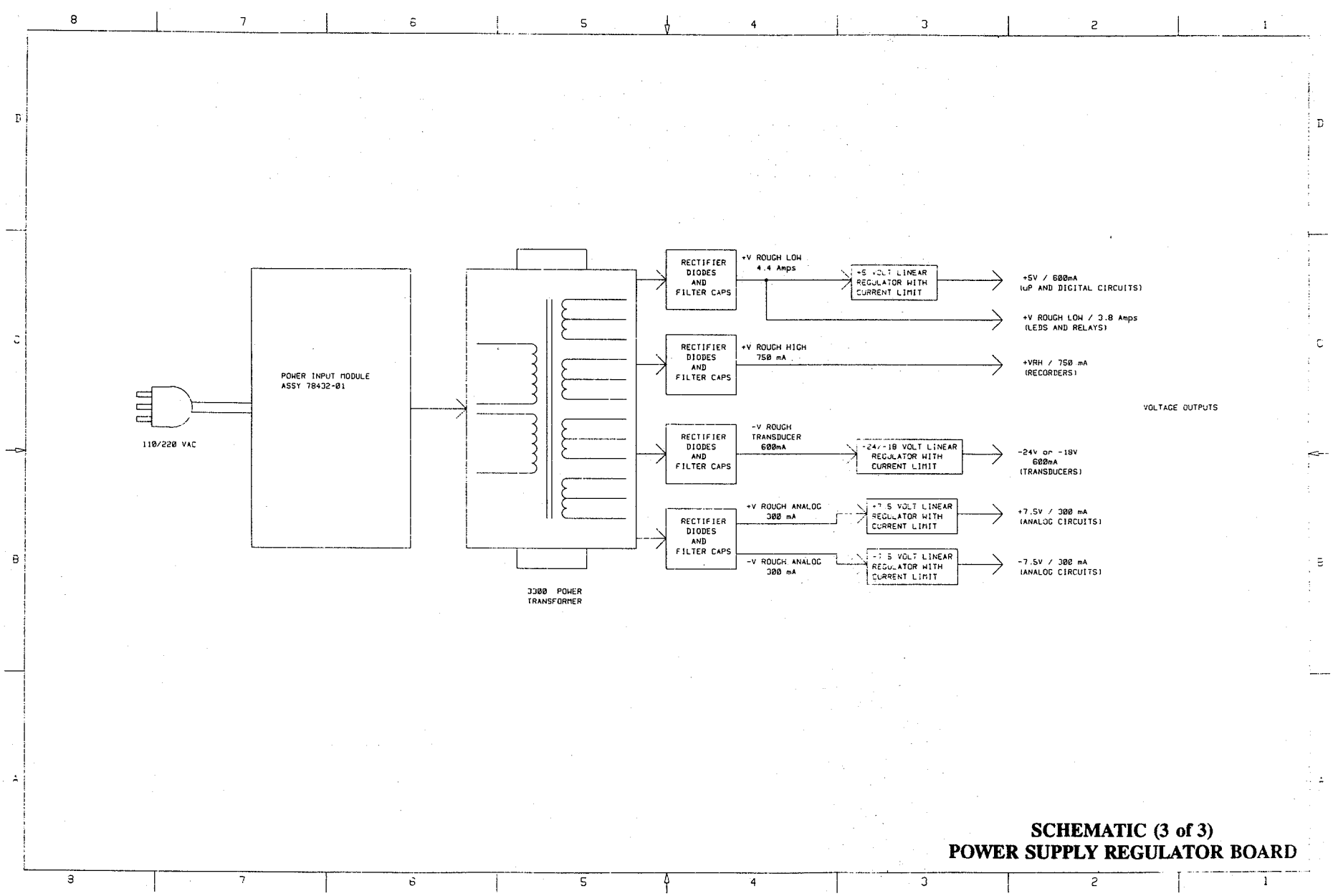
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



SCHEMATIC (2 of 3)
POWER SUPPLY REGULATOR BOARD

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

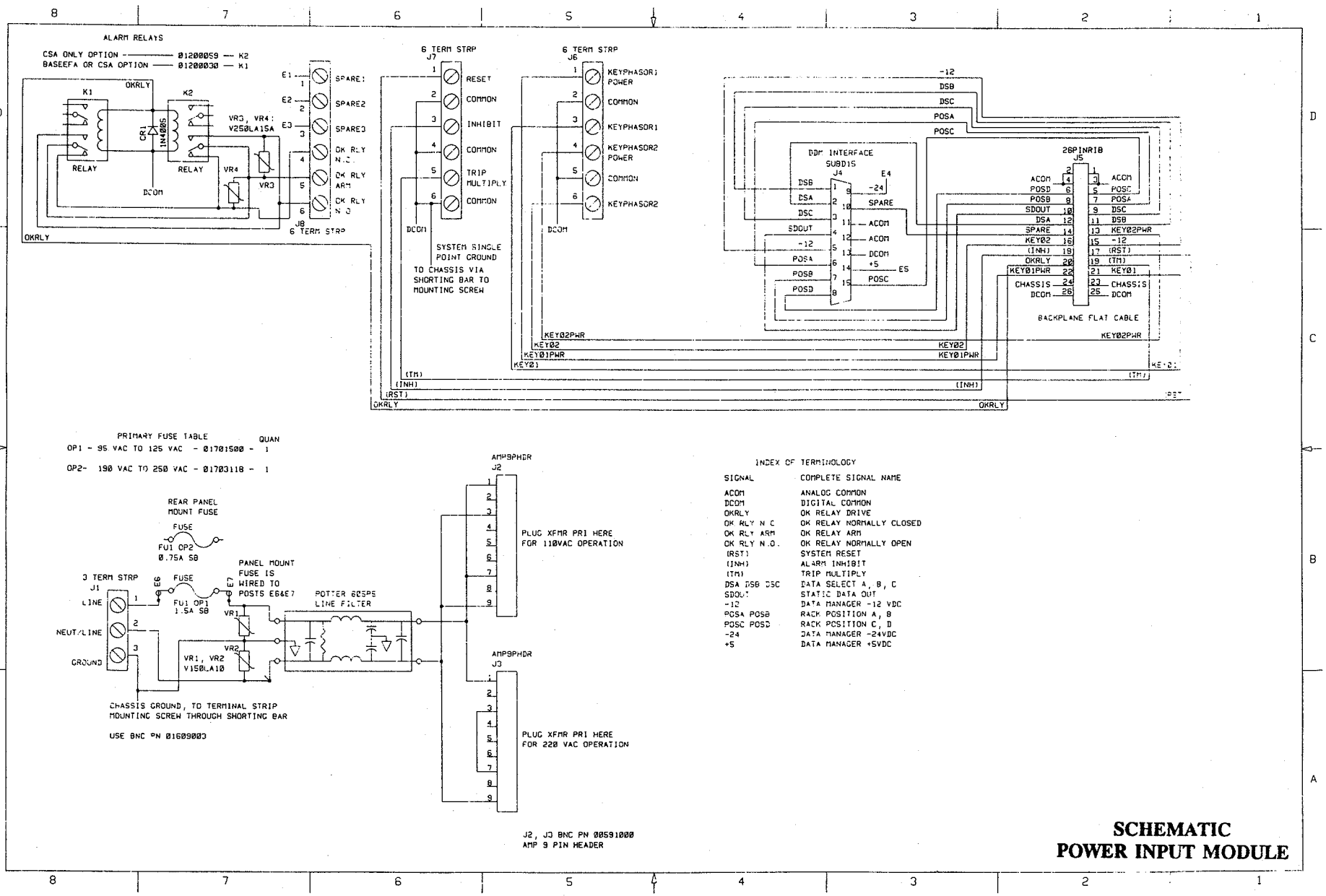
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



SCHEMATIC (3 of 3)
POWER SUPPLY REGULATOR BOARD

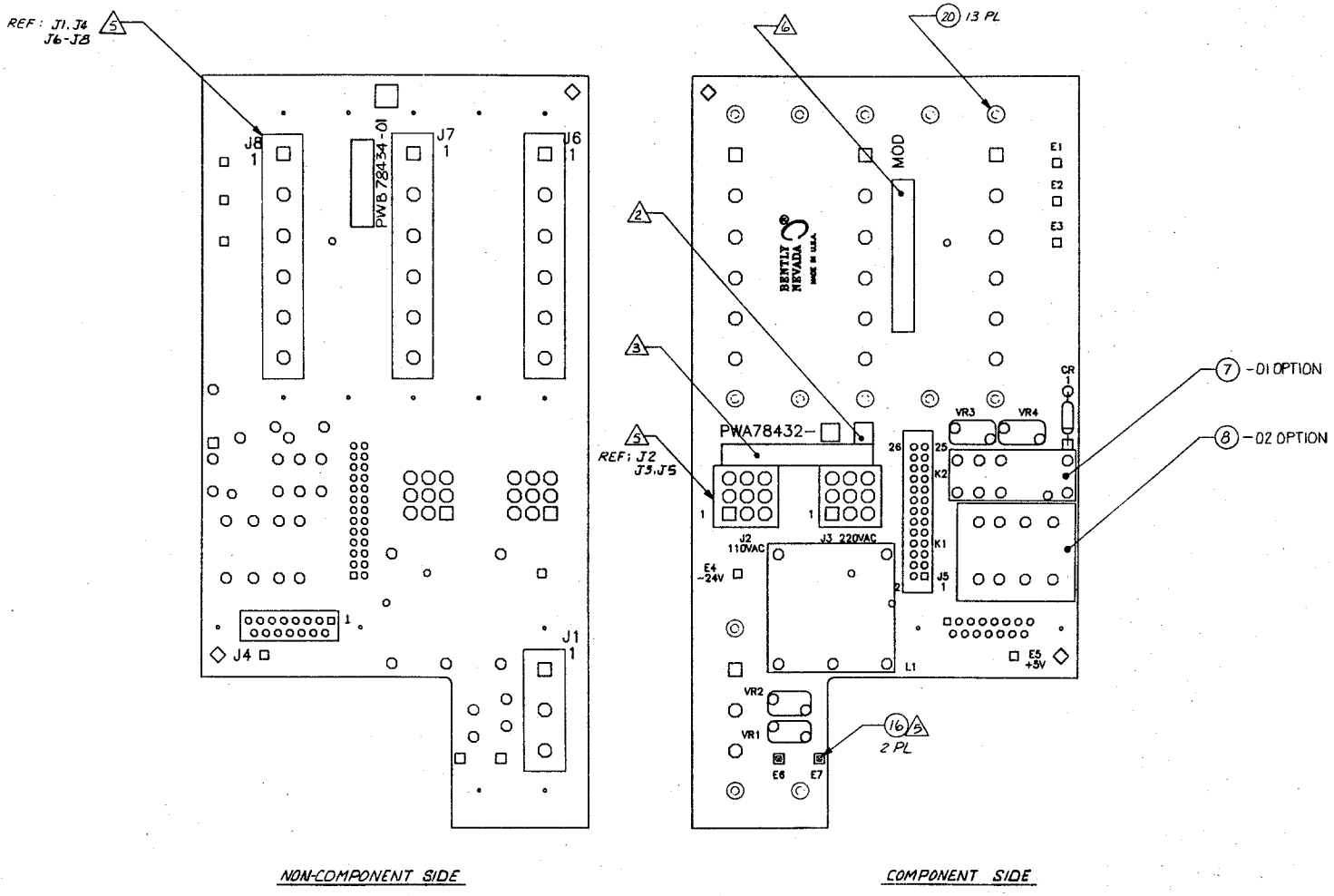
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



PRINTED WIRING ASSEMBLY
POWER INPUT MODULE

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

INDEX

D

Disassembly Procedure 4
Drawings 16

F

Fuses 6

I

Input Voltage Option 13

O

Options 3
Programmable Options 13

P

Performance Testing 7
Power Supply Assembly 1
Programmable Options 13

R

Recommended Spare Parts 14

S

Schematics 16
Specifications 15

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

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