User's Manual

Model SDBU Distributor

YEWSERIES 80

IM 1B4T3-01E

YOKOGAWA
Yokogawa Electric Corporation

IM 1B4T3-01E
3rd Edition

Notices

■ Regarding This User's Manual

(1) This manual should be passed on the end user. Keep at least one extra copy of the manual in a safe place.

(2) Read this manual carefully and fully understand how to operate this product before you start operation.

(3) This manual is intended to describe the functions of this product. Yokogawa Electric Corporation (hereinafter simply referred to as Yokogawa) does not guarantee that the functions will suit a particular purpose of the user.

(4) Under absolutely no circumstances may the contents of this manual in part or in whole be transcribed or copied without permission.

(5) The contents of this manual are subject to change without prior notice.

(6) Every effort has been made to ensure accuracy in the preparation of this manual. Should any error or omissions come to your attention however, please contact your nearest Yokogawa representative or our sales office.

■ Regarding Protection, Safety, and Prohibition against Unauthorized Modification

(1) In order to protect the product and the system controlled by it against damage and ensure its safe use, make certain that all of the instructions and precautions relating to safety contained in this manual are strictly adhered to. Yokogawa does not guarantee safety if products are not handled according to these instructions.

(2) Be sure to use the spare parts approved by Yokogawa when replacing parts or consumables.

(3) Modification of the product is strictly prohibited.

(4) Reverse engineering such as the disassembly or decompilation of software is strictly prohibited.

(5) No portion of the software supplied by Yokogawa may be transferred, exchanged, leased or sublet for use by any third party without the prior permission of Yokogawa.

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(1) Yokogawa does not make any warranties regarding the product except those mentioned in the WARRANTY that is provided separately.

(2) Yokogawa assumes no liability to any party for any loss or damage, direct or indirect, caused by the user or any unpredictable defect of the product.

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- Customer Maintenance Parts List ..... CMPL 1B4T3-01E
  CMPL 1B4T3-02E
- **POWER SUPPLY TERMINALS (Option /TB)** ... IM 1B4F2-11E, **CMPL 1B4F2-11E**

1. INTRODUCTION.

This distributor was thoroughly tested at the factory before shipment. However, when you receive it, you should inspect for visible damage to confirm that it was not damaged in transit. You should also confirm that you have received a spare fuse supplied as standard accessory.

Read this chapter before commencing to use this instrument. For other information, check the index and other chapters of this manual.

1-1. Model and Suffix Codes.

The model and suffix codes are marked on a nameplate attached to the instrument front panel. Confirm that these model and suffix codes on the nameplate and those listed in section 2-2 are the same as the order sheet. If you have any questions about this instrument please contact your nearest Yokogawa Sales/Service Office or the dealer from whom the recorder was purchased.

1-2. Instruction Manual Contents.

This instruction manual deals with operation, external wiring and rutine maintenance and trouble-shooting procedures for the SDBU-21□ distributors (for a single loop) and SDBU-24□ (for four loops).

For installation details and wiring cautions, refer to instruction manual IM 1B4F2-01E "Installation of Rack-Mounting Instruments".

1-3. Input Current Selector Switch Check.

- This distributor may be used with transmitters of output current either 10 to 50 mA DC or 4 to 20 mA DC.
- The input current selector switch of the instrument was set to 10 to 50 mA DC at the factory before shipment.
- If the instrument is used together with a transmitter whose output current is 4 to 20 mA DC, set the input current selector switch to the 4 to 20 mA position (refer to section 5-2 for details).

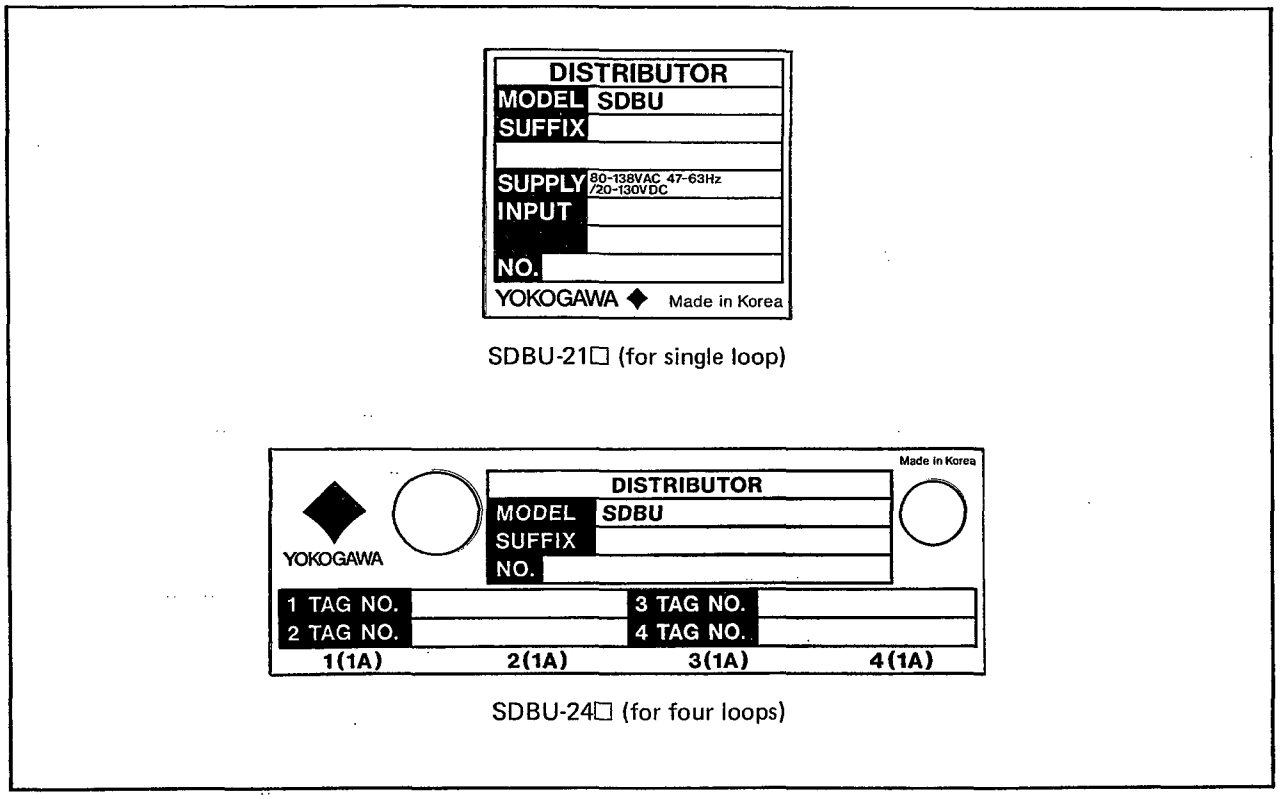


Figure 1-1. Nameplate.

2. GENERAL.

The distributors SDBU-21□ (for a single loop) and SDBU-24□ (for four loops) are both designed to supply operating power to two-wire type transmitters and convert 10 to 50 mA or 4 to 20 mA DC (selectable by internal switch) current signal from these transmitters into voltage output signals (1 to 5 V DC). Input and output circuits, power supply units and loops of both distributors SDBU-21□ and SDBU-24□ are mutually isolated.

Both SDBU-21□ and SDBU-24□ distributors have built-in current limiters which prevent damage if a short-circuit occurs on the transmitter side. In addition, for both models, a square root extraction function may be provided with each loop. Terminal screws are used for wiring power supply to the SDBU-24□ distributor.

External views of both models are shown in Figure 2-1.

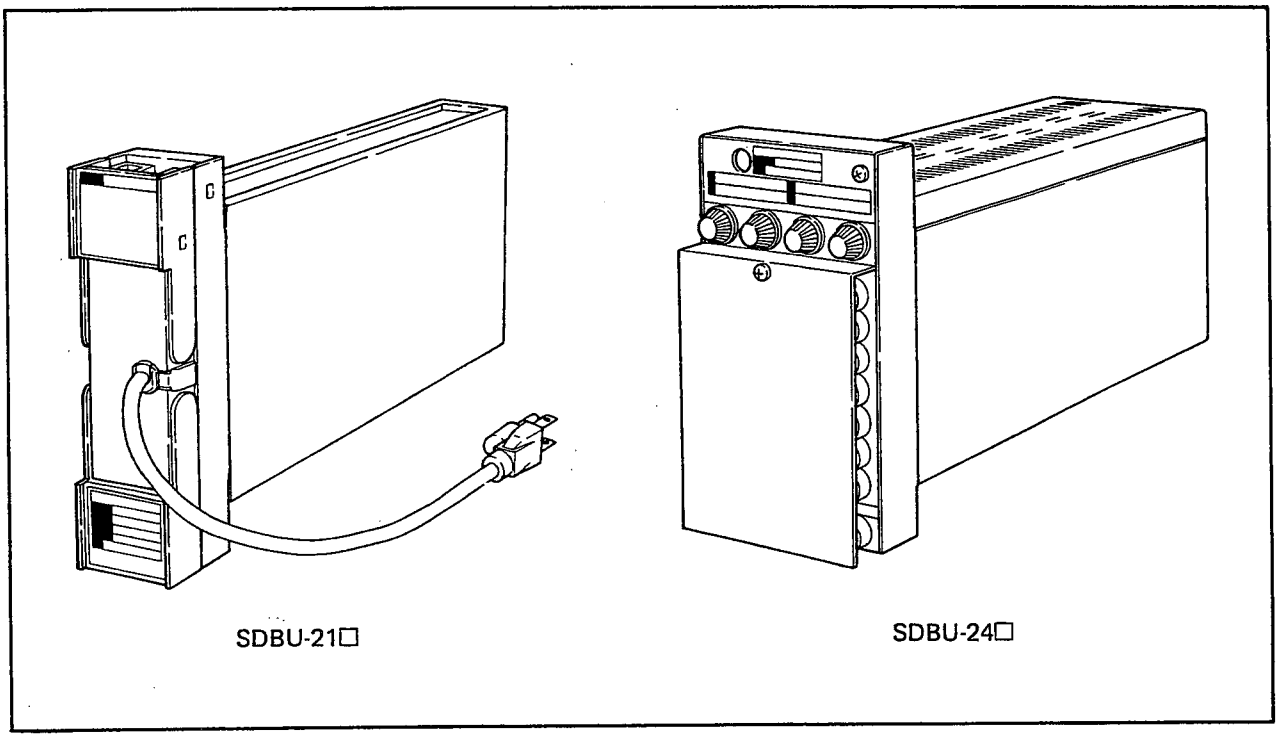


Figure 2-1. External View.

2-1. Standard Specifications.

Item	SDBU-21□ (for single loop)	SDBU-24□ (for four loops)
Number of Inputs	1	4
Input Signal	10 to 50 mA or 4 to 20 mA DC (selectable with built-in switch)	
Input Resistance	100 Ω (for 10 to 50 mA input) or 250 Ω (for 4 to 20 mA input)	
Number of Outputs	2	2/loop
Output Signal	1 to 5 V DC	
Transmitter Driving Power (Supply Voltage)	48 to 60 V DC (for 10 to 50 mA DC input) 25 to 28 V DC (for 4 to 20 mA DC input)	
Accuracy	±0.2% of span (without square-root-extraction function) ±0.5% of span (with square-root-extraction function)	
Power Supply	20 to 130 V DC (polarity reversible) 80 to 138 V AC, 47 to 63 Hz	
Current Consumption (Power)	150 mA (24 V DC)	600 mA (24 V DC)
Mounting	Indoor rack mounting	
Weight	1.7 kg	3.5 kg

2-2. Model and Suffix Codes.

Model	Suffix Code	Description
SDBU	. . . . .	Distributor
Isolation	-2	Field isolation
Number of Loops	1	Single loop
	4	Four loops
Square Root Extract Computation Function*	0	Not provided
	1	Provided with 1st loop
	2	Provided with 1st and 2nd loops
	3	Provided with 1st, 2nd and 3rd loops
	4	Provided with all four loops
Style Code	*A	Style A
Common Option (applies to single loop version only)	/NHR	Without case

Note *: For single loop version specify 0 or 1.

2-3. Accessories.

SDBU-21□ (for single loop): 1 A fuse, quantity 1 pc.
SDBU-24□ (for four loops): 1 A fuse, quantity 4 pcs.
Note: The fuse (S9510VK) is the dedicated fuse, Do not use it for other products.

3. INSTALLATION.

For general information about installation and wiring, refer to instruction manual IM 1B4F2-01E "Installation of Rack-Mounting Instruments".

3-1. External Wiring.

(1) When wiring the terminals, install round solderless crimp-on lugs on the ends of each wire.
(2) The wiring to each terminal should be done according to Table 3-1.
(3) After completing the wiring, replace the terminal cover.

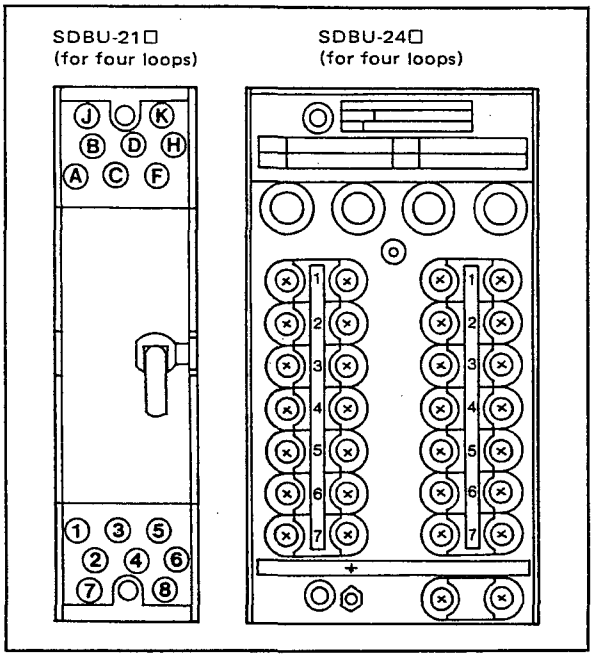


Figure 3-1. Terminal Layout.

Table 3-1. Terminal Wiring.

SDBU-21□ (for single loop)		SDBU-24□ (for four loops)	
Terminal Designation	Description	Terminal Designation	Description
1	+ To transmitter wiring terminals	1	+ Output signal 1 (1 to 5 V DC)
2	− (10 to 50/4 to 20 mA)*1	2	−
3		3	+ Output signal 2 (1 to 5 V DC)
4		4	−
5		5	+ To transmitter wiring terminals
6		6	− (10 to 50/4 to 20 mA)*2
7		7	
8			
A	+ Output signal 1 (1 to 5 V DC)	L	Power supply (DC: non-polarity)*3
B	−	N	
C		⏚	Ground
D			
F	+ Output signal 2 (1 to 5 V DC)		
H	−		
J			
K			

Note
*1 : Input current may be selected with built-in switch.
Two-pole plug with grounding contact is used for power supply and ground connections.
*2 : Input current may be selected with built-in switch.
*3 : ISO M4 (4 mm) terminal screws are used for power supply and ground connections.
The same terminal designation is used for each loop in this instrument.

4. PRINCIPLES OF OPERATION.

The functional block diagrams of the Model SDBU-21□ (for single loop) and Model SDBU-24□ (for four loops) distributor circuits are shown in Figures 4-1 and 4-2 respectively.

FEATURES

- Input, output and power supply circuits are mutually isolated (and loops are also isolated).
- The instrument is provided with a current limiter circuit so as to prevent excessive current flowing through the input circuit if a short-circuit should occur in the field wiring.
- Input cirrent may be selected with a built-in switch.

PRINCIPLE

The current signal from a two-wire type transmitter is converted into a 1 to 5 V DC voltage signal and applied to a square-root-extraction circuit (optional) and converted into a pulse-width signal.

The pulse-width signal is isolated by a photocoupler and reconverted into a voltage signal to output two 1 to 5 V DC signals (two points) from the output terminals.

In the Model SDBU-24□ (for four loops), contains four independent loops.

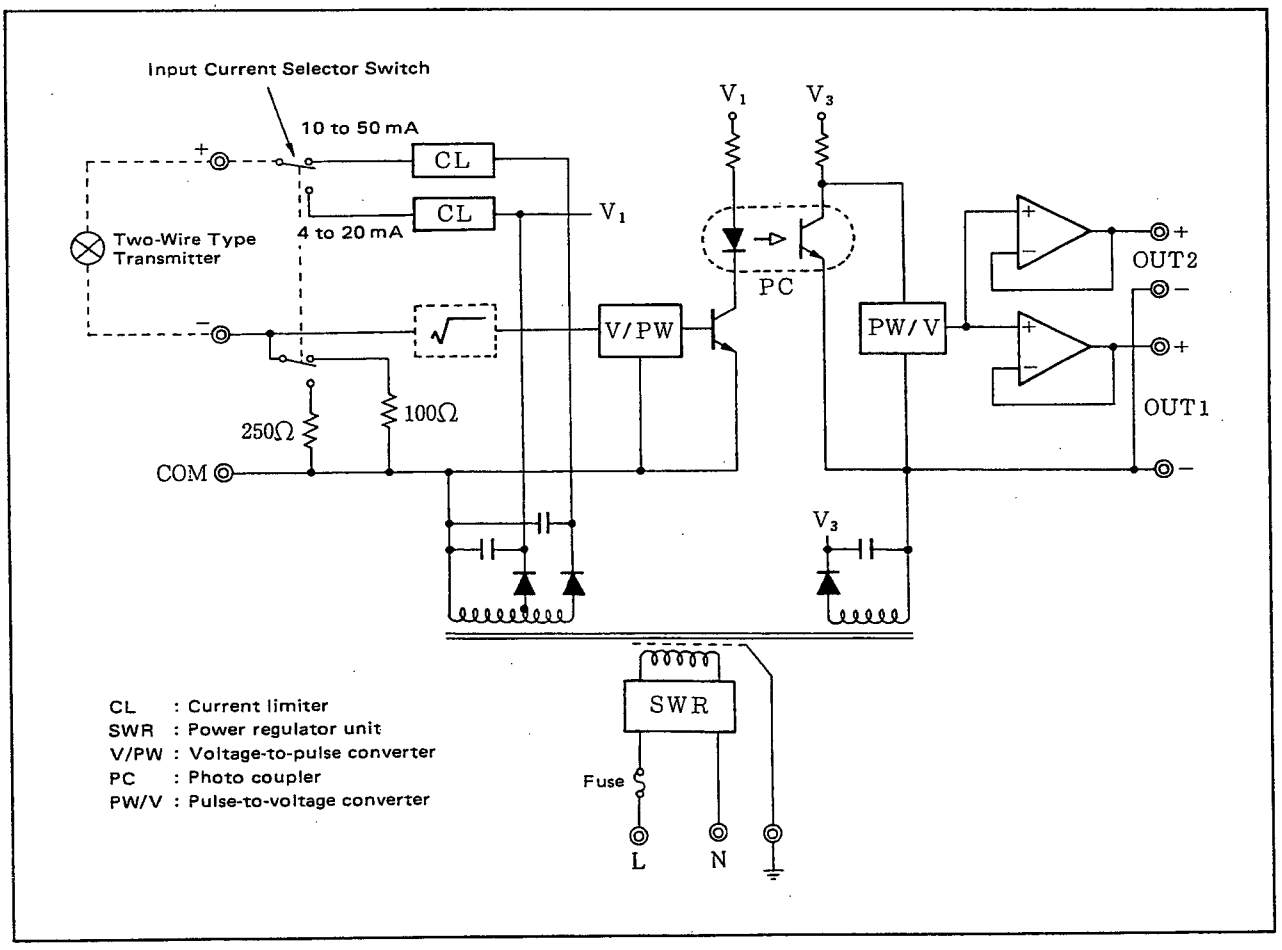


Figure 4-1. Functional Block Diagram (SDBU-211).

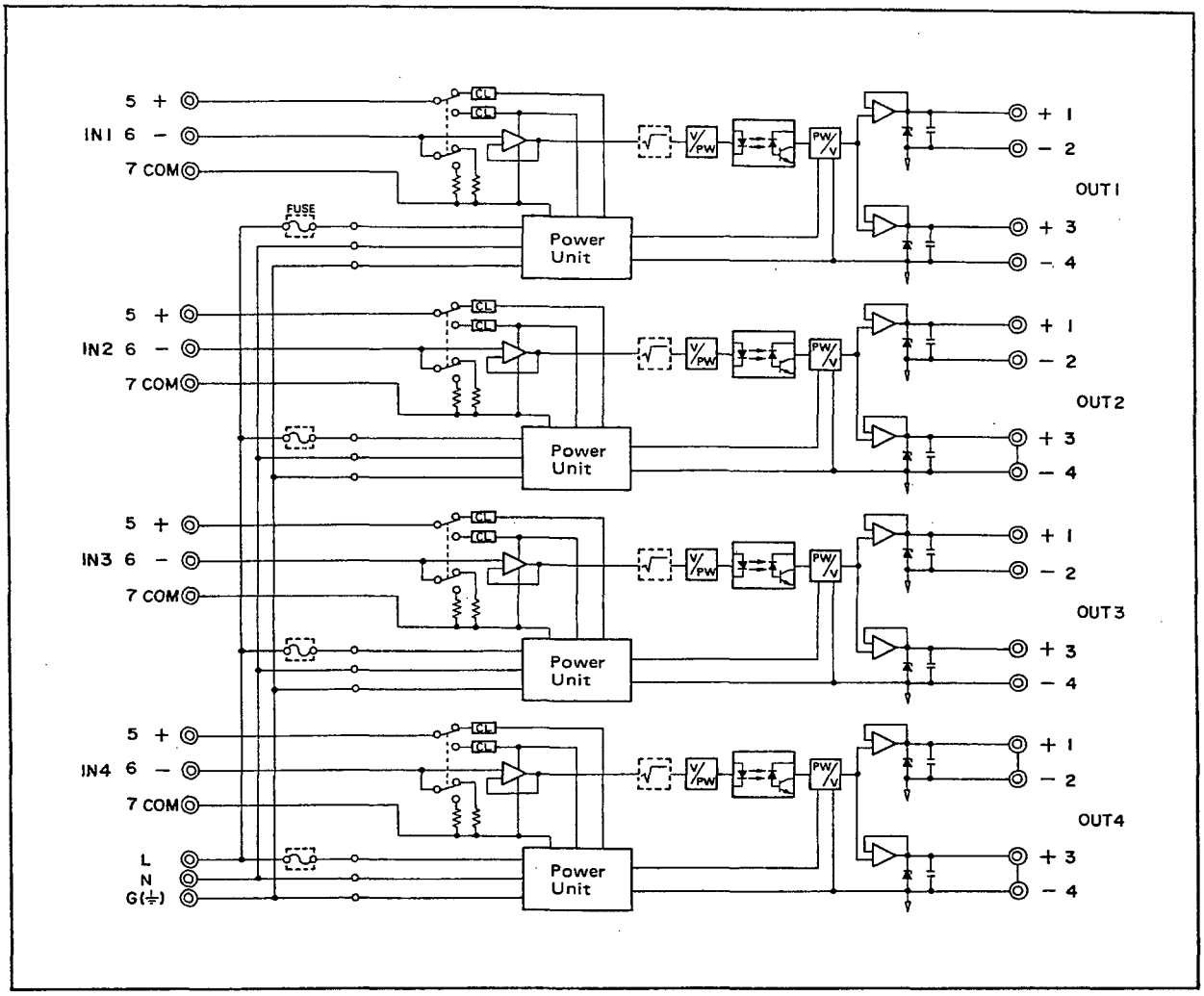


Figure 4-2. Functional Block Diagram (SDBU-244).

5. OPERATION.

Once the installation and wiring are completed, this distributor can be placed in operation by simply turning on the power switch. This distributor does not require any adjustment, but the inspection and checks described in Section 5-2 should be made before the unit is placed in operation.

5-1. Names of Components.

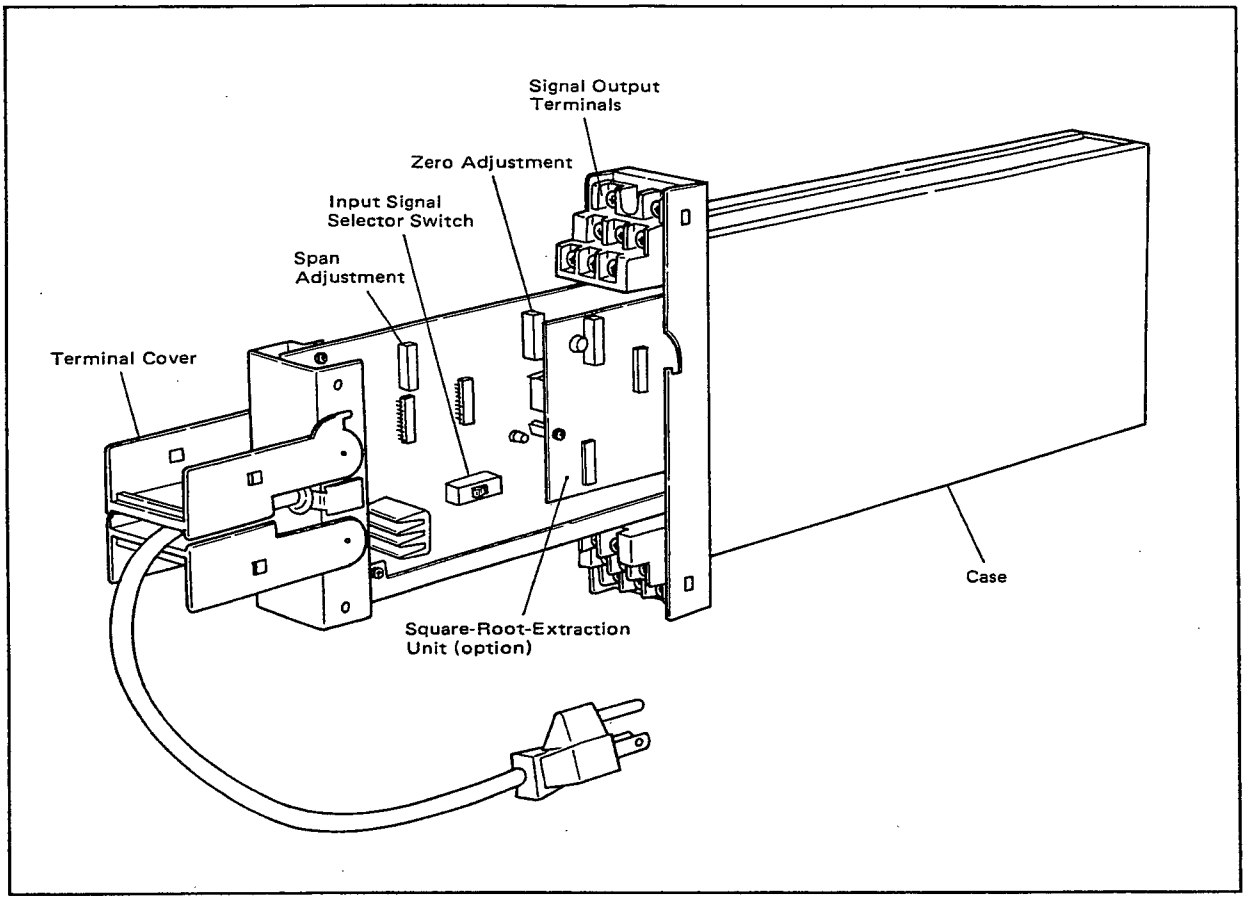


Figure 5-1. Names of Various Components – SDBU-21□ (for single loop).

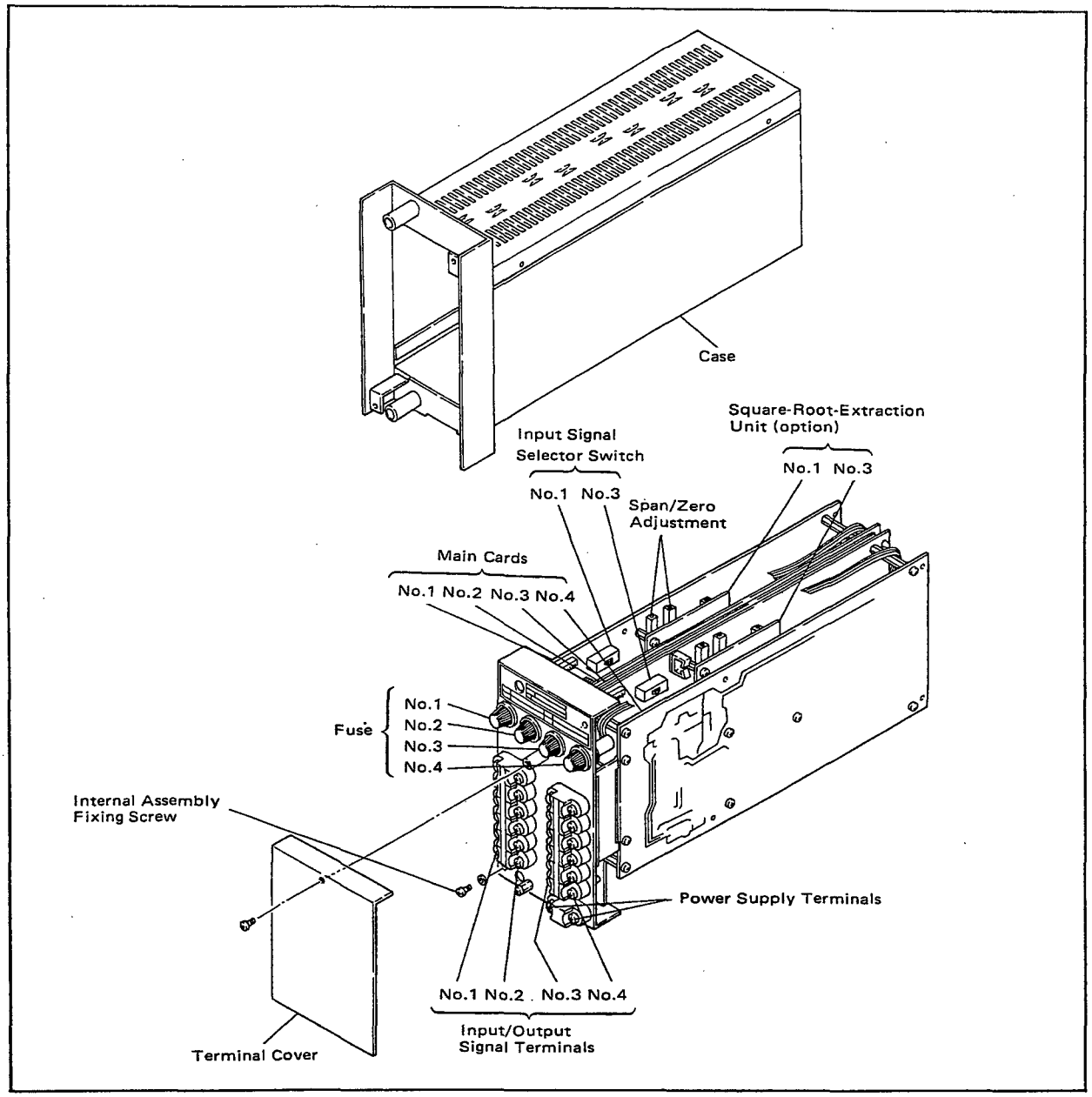


Figure 5-2. Names of Various Components – SDBU-24□ (for four loops).

5-2. Pre-Operational Checks.

Inspect and check the following points before entering the unit into normal operation.

1. Check of Input Current Selector Switch.

Draw the internal assembly out from the rack case and insure that the input current selector switch is switched to the position matching to the transmitter output current.

For the Model SDBU-24□ distributor, check all four loops. Refer to Chapter 6 for removing the internal assembly and switching the input current.

2. Check of Fuse.

Insure that the specified fuse is installed in the fuse holder. The fuse holder is located as the following positions:

SDBU-24□ . . . . . Instrument front panel
(check all four loops)
SDBU-21□ . . . . . Instrument rear panel

3. Other Items.

Check the following items:

- o Is external wiring correct?
- o Is power supply wired securely?
- o Is connection between internal assembly and case secure?

6. MAINTENANCE.

This chapter covers the simple calibration procedure and the replacement of parts to be conducted in the instrument room or the service shop.

6-1. Test Equipment.

For efficient maintenence of this distributor, the user is advised to use the following test equipment manufactured by Yokogawa Hokushin or equivalents.

- DC Voltage/Current Standard
  Model 2554 1 set
- Digital Multimeter (Voltmeter)
  Model 2502A 2 sets
- Calibration Booster (included in Model SSKD service kit) Type JY0690 1 set

6-2. Wiring.

Wire the instruments as per Figure 6-1 or 6-2.

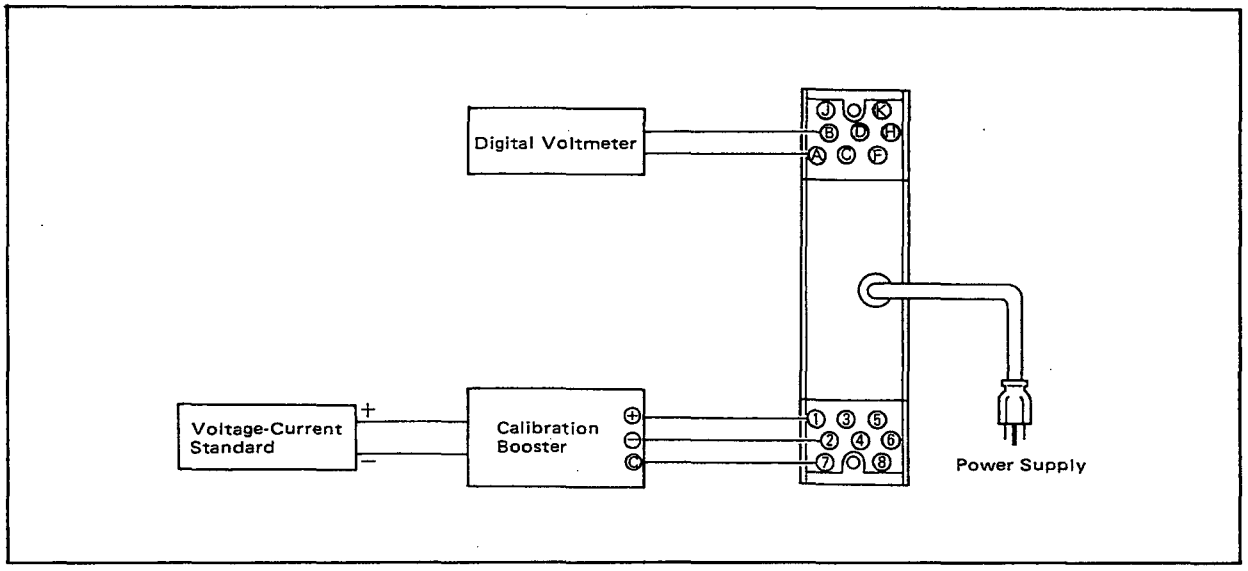


Figure 6-1. Calibration Wiring (SDBU-21□).

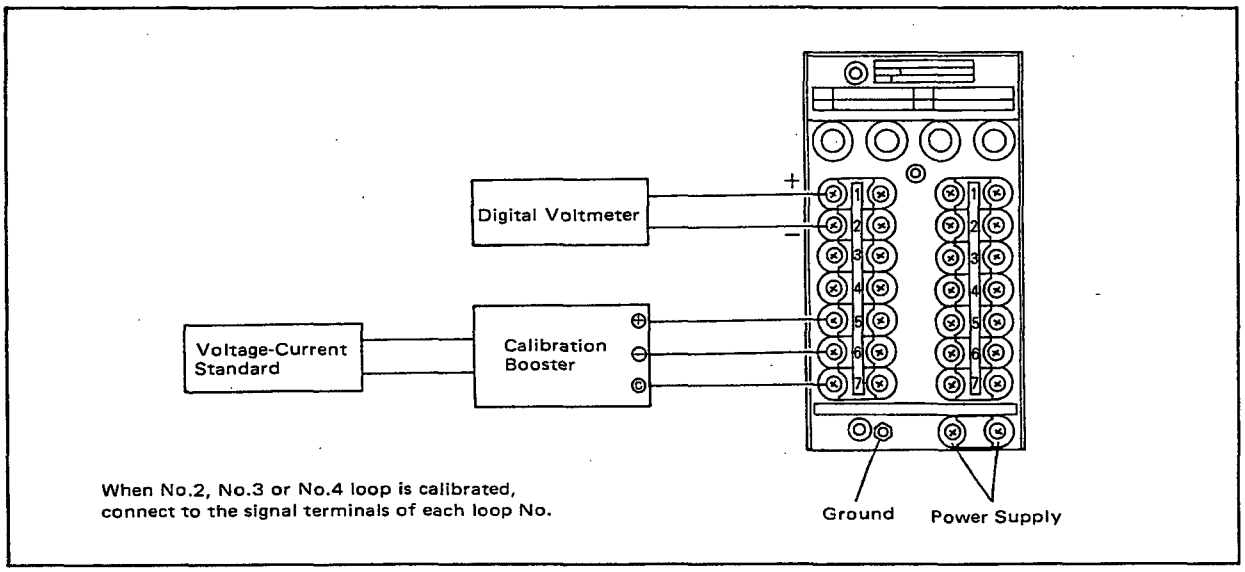


Figure 6-2. Calibration Wiring (SDBU-24□).

6-3. Internal Assembly Removal.

- SDBU-21□

Lift off the terminal covers located on the instrument front panel top and bottom and draw out the internal assembly (see Figure 6-3).

- SDBU-24□

1. Remove the terminal cover.
2. Remove two internal assembly fixing screws located on the front panel top right and bottom left (see Figure 6-4), and draw out the internal assembly toward you.

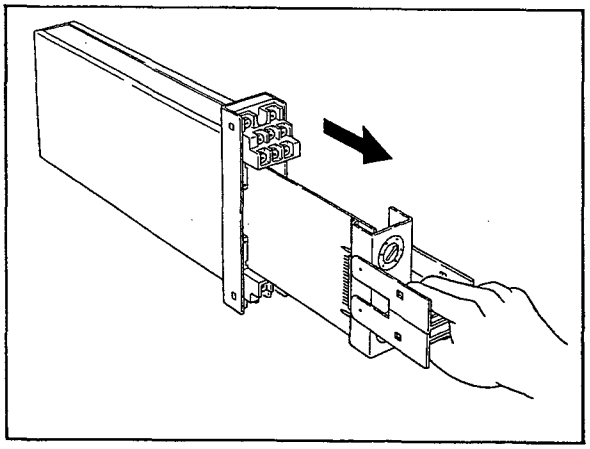


Figure 6-3. Removing the Internal Assembly (SDBU-21□).

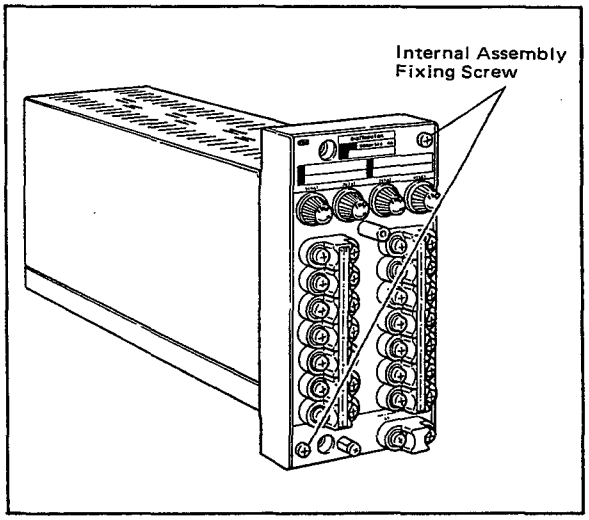


Figure 6-4. Removing the Internal Assembly (SDBU-24□).

6-4. Calibration.

(1) Connect the instrument as illustrated in Figure 6-1 or 6-2 and turn the power switch on. Allow the instrument to warm up for about 5 minutes.
(2) Draw out the internal assembly and set the input current selector switch to the desired input current position (see Figure 6-5 or 6-6).
(3) Set the output current of the calibration booster to the desired current.
(4) Apply inputs corresponding to 0, 25, 50, 75 and 100% of the input range and confirm that the input/output relationships shown in Table 6-1 are satisfied by reading the output at each of these points with a digital multimeter. If the accuracy of input/output is outside the standard, carry out zero adjustment and span adjustment (refer to Section 7-3 or 7-4).
(5) The four distributor circuits are installed in the SDBU-24□. Calibrate each circuit in the same manner as (4) described above.

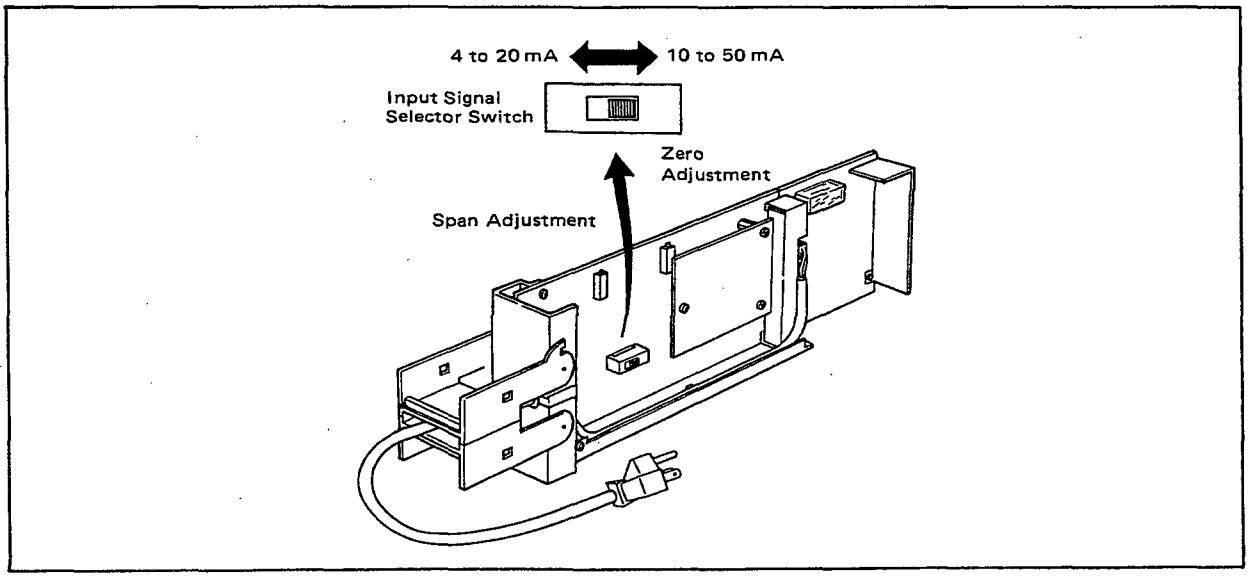


Figure 6-5. Input Current Selector Switch, Zero Adjustment and Span Adjustment.

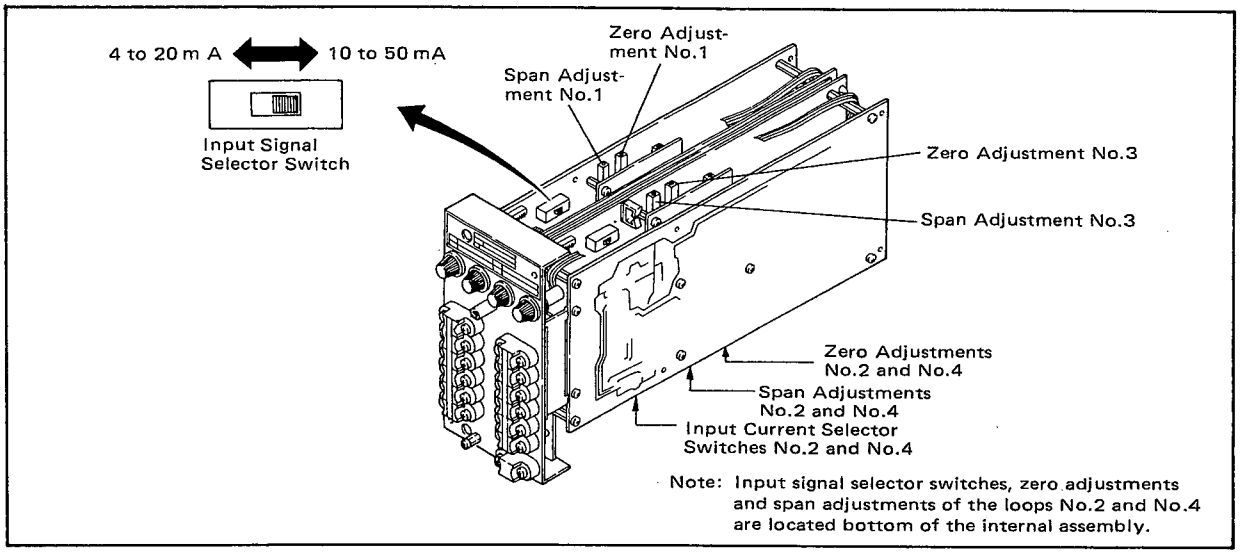


Figure 6-6. Input Current Selector Switch, Zero Adjustment and Span Adjustment.

Table 6-1. Input/Output Characteristics.

%	Input	Output	
		SDBU without square-root-extraction function	SDBU with square-root-extraction function
0	1 V (4 mA)	1 ± 0.008 V	1.000 ± 0.02 V
25	2 V (8 mA)	2 ± 0.008 V	3.000 ± 0.02 V
50	3 V (12 mA)	3 ± 0.008 V	3.828 ± 0.02 V
75	4 V (16 mA)	4 ± 0.008 V	4.464 ± 0.02 V
100	5 V (20 mA)	5 ± 0.008 V	5.000 ± 0.02 V

6-5. Parts Replacement.

- **Replacing the Fuse.**

When the fuse blows, first check the cause and then change it as described below. When the fuse itself is responsible for the problem, check the inside of the fuse holder for any contamination that might cause poor contact.

(1) Remove the fuse holder cap by turning it counter-clockwise in the direction of the arrow.

(2) When installing a new fuse, always check that its rating is correct. Replace the fuse holder cap securely.

Note: The fuse of the Model SDBU-24□ is located on the front panel of the instrument.

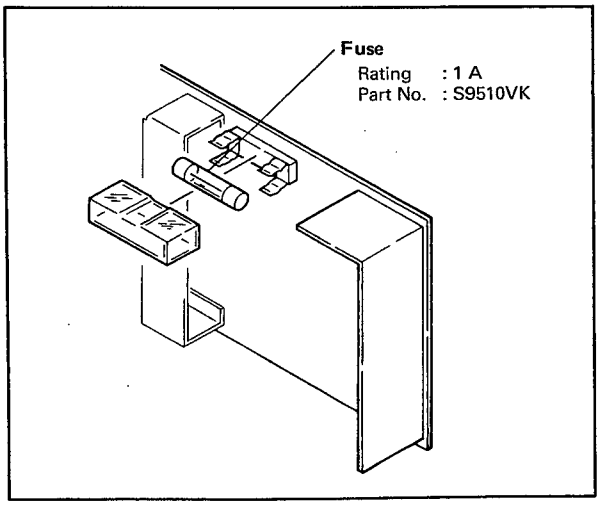


Figure 6-7. Changing the Fuse (SDBU-21□).

Note: Use the dedicated fuse (S9510VK). Do not use a fuse for other products.

7. TROUBLESHOOTING.

If operational problems occur in the SDBU distributor, identify the problems fully and resolve them according to the troubleshooting flowcharts shown in Section 7-1 or 7-2. To find the problems, wire the instruments according to Figure 6-1 or 6-2, and apply an input signal.

If the problems are difficult to find, contact your nearest YEW service center.

7-1. Troubleshooting Flowchart (SDBU-21□: for single loop).

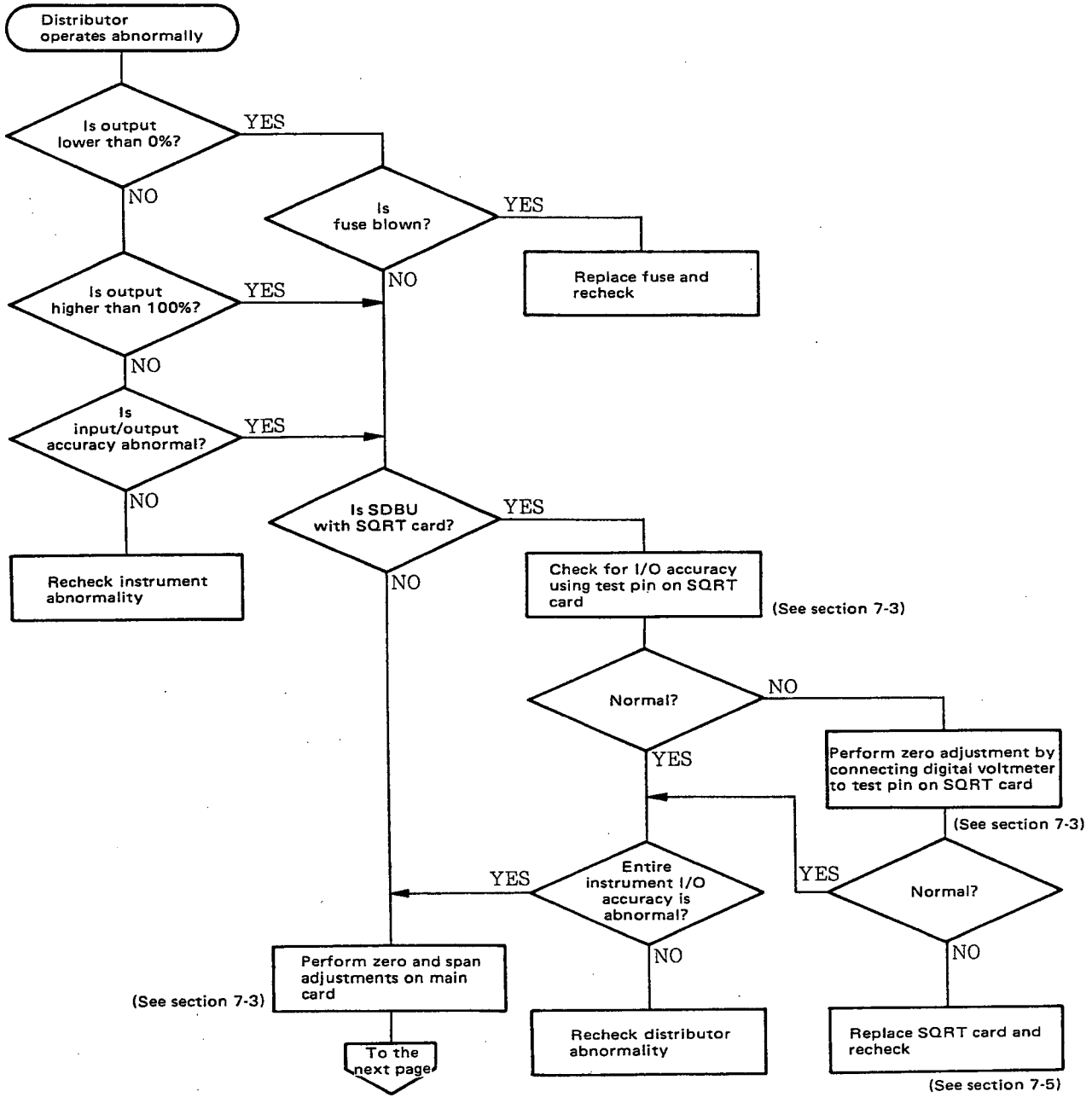


Figure 7-1. Troubleshooting Flowchart for SDBU-21□ Distributor.

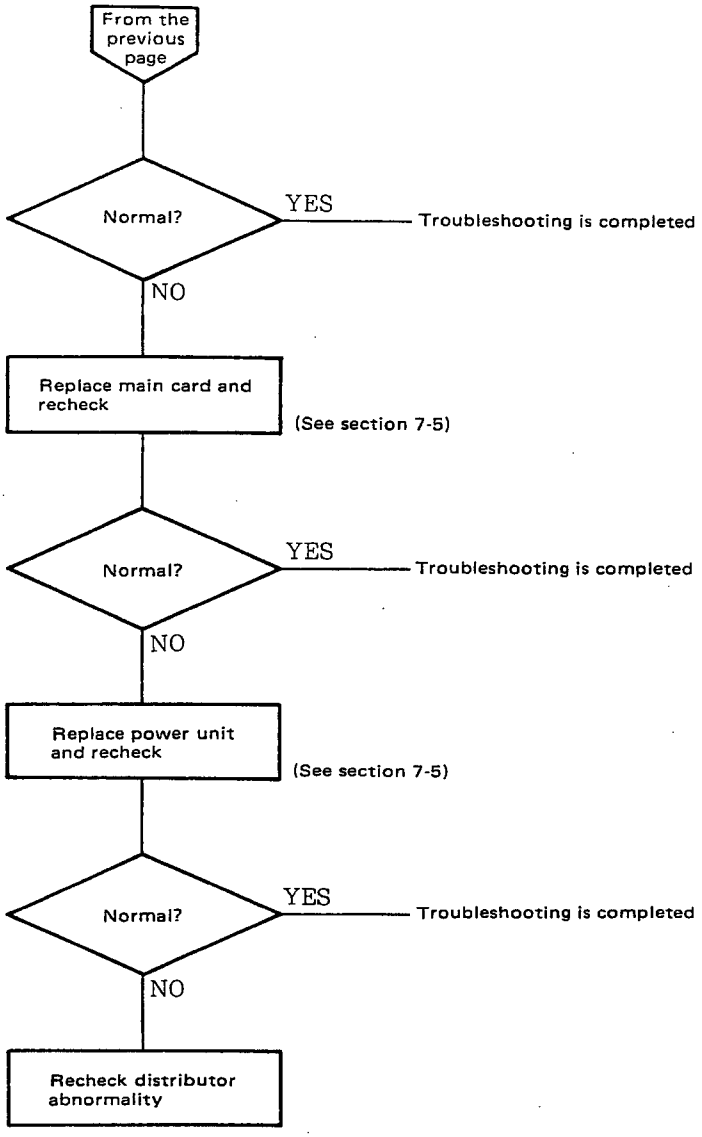


Figure 7-1. Troubleshooting Flowchart for SDBU-21□ Distributor (continued).

7-2. Troubleshooting Flowchart (SDBU-24□: for four loops).

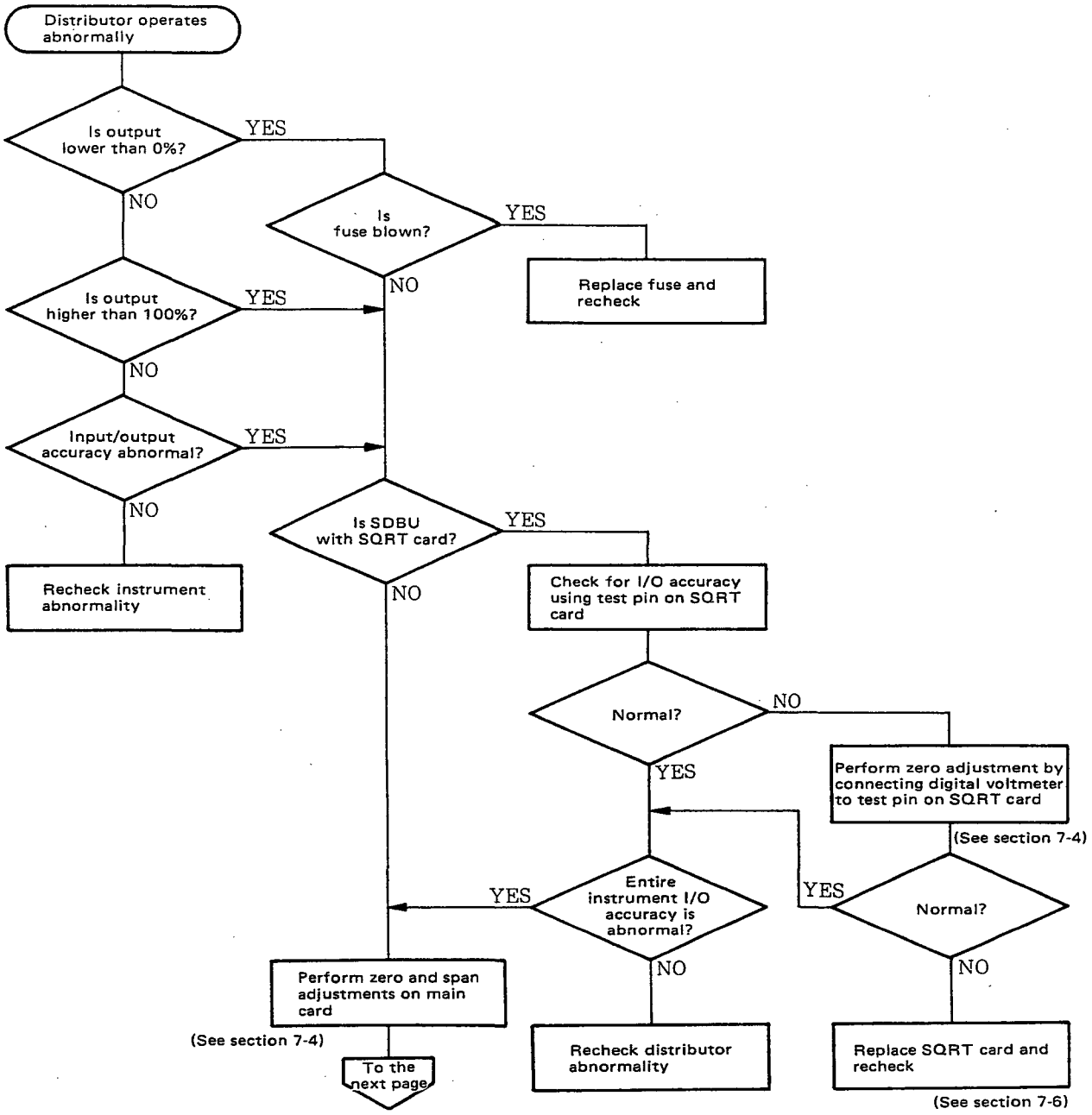


Figure 7-2. Troubleshooting Flowchart for SDBU-24□ Distributor.

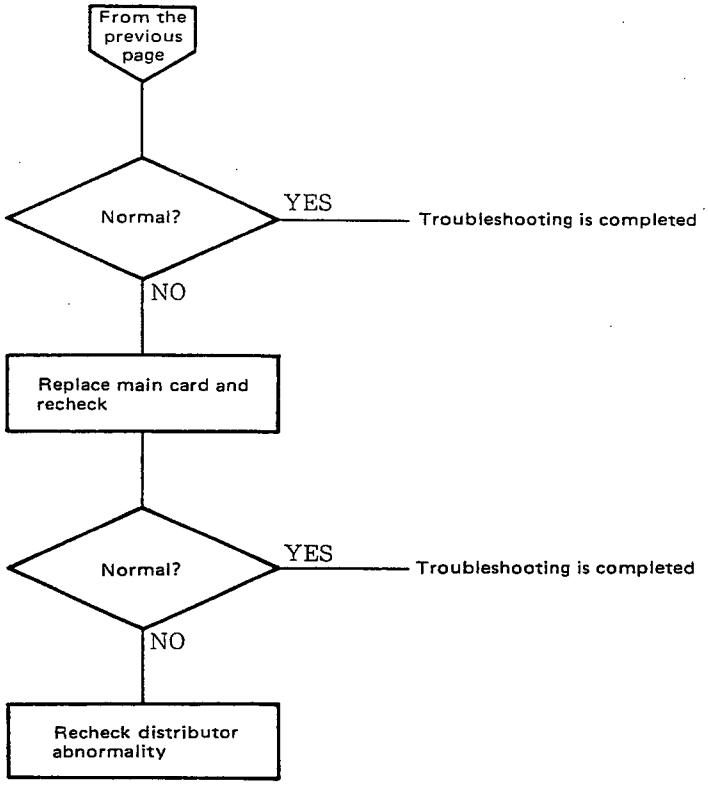


Figure 7-2. Troubleshooting Flowchart for SDBU-24□ Distributor (continued).

7-3. Zero and Span Adjustments (SDBU-21□).

7-3-1. Preparation.

(1) Withdraw the internal assembly from the case and connect the extension card between the internal assembly and the case as shown in Figure 7-3.

Note: Use the extension card in Model SSKD YEW-SERIES 80 service kit.

(2) Set the input current selector switch to desired input current.

(3) Connect the instruments as illustrated in Figure 6-1. Turn the power switch ON and allow the instruments to warm up for at least 5 minutes.

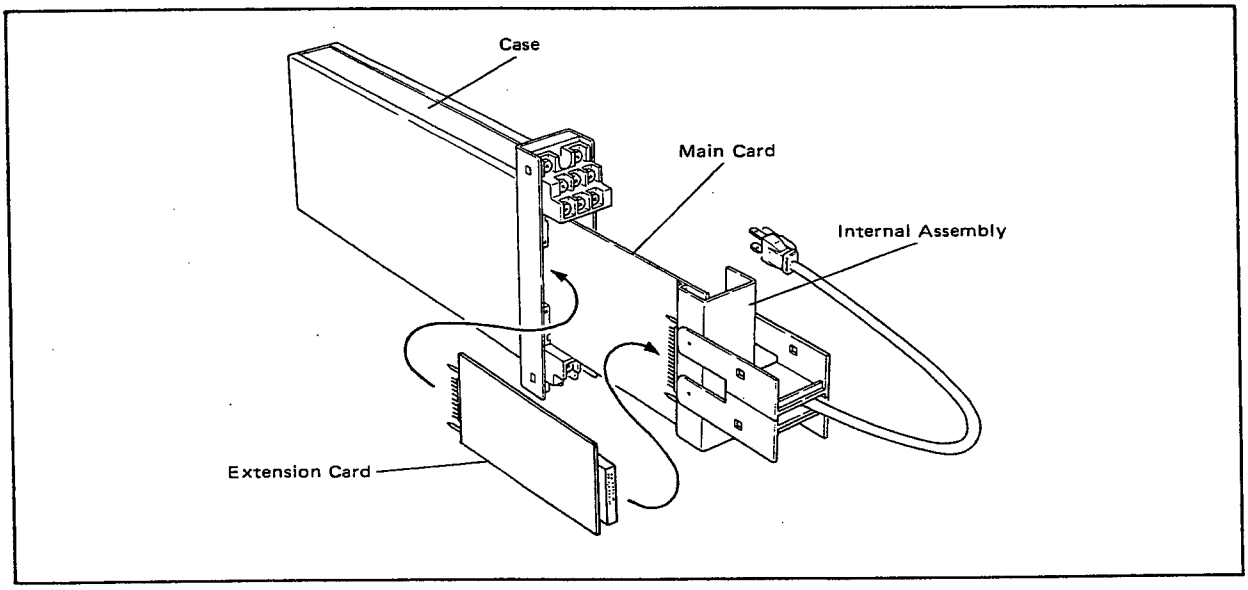


Figure 7-3. Connection of Extension Card.

7-3-2. Main Card Zero and Span Adjustments (without square-root-extraction function).

(1) Perform the preparation described in paragraph 7-3-1.

(2) Using a DC voltage standard, apply a voltage of 1 to 5 V DC to the instrument and adjust instrument zero and span so that the I/O value is within the values listed in Table 7-1 (see Figure 7-4 for the mounting positions of zero and span adjustments).

Note: For the distributor with square-root-extraction function, first remove the SQRT card from the main card, next perform input/output zero and span adjustments only for the main card.

7-3-3. SQRT Card Removal and Attachment.

(1) SQRT card removal.

- Remove three screws fixing the SQRT card to the main card (see Section 7-5).
- Multi-pin connector is used to connect the SQRT card to the main card, so be careful not to damage the connector when removing the connector.

(2) SQRT card attachment.

- Connect the SQRT card to the multi-pin connector on the main card.
- Using three screws fix the SQRT card to the stads attached to the main card.

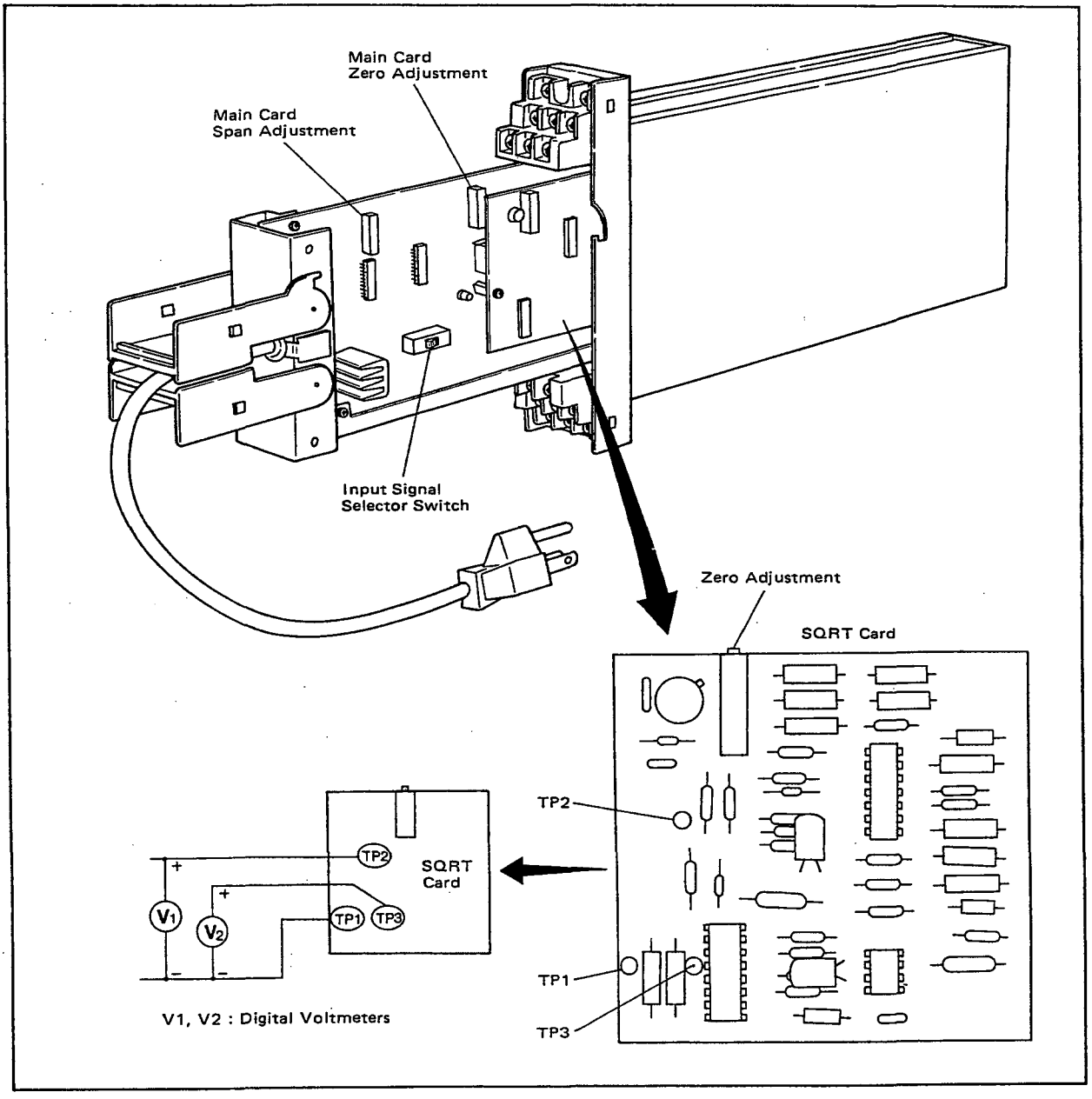


Figure 7-4. Connection of Digital Voltmeter, Zero Adjustment and Span Adjustment (SDBU-21□).

7-3-4. Voltage Check and Zero Adjustment on the SQRT Card (only for the distributor with square-root-extraction function).

The voltage check and zero adjustment on the SQRT card should be performed after completing the adjustments described in paragraph 7-3-2 and mounting the SQRT card on the main card.

(1) Connect two digital voltmeters between the test points TP1 and TP2 and between TP1 and TP3 on the SQRT card as shown in Figure 7-4.
(2) Using a DC voltage standard, apply a voltage of 1 to 5 V DC to the input terminals as shown in Figure 6-1.
(3) Confirm that the readings of the digital voltmeters (V1) and (V2) which are connected test points between TP1 and TP2 and between TP1 and TP3 respectively are within the values listed in Table 7-1.
(4) If the readings of (V1) and (V2) are outside the range listed in Table 7-1, perform zero adjustment on the SQRT card.

Table 7-1. Input/Output Characteristics.

%	Input	Output	
		SDBU without square-root-extraction function	SDBU with square-root-extraction function
0	1 V (4 mA)	1 ± 0.008 V	1.000 ± 0.02 V
25	2 V (8 mA)	2 ± 0.008 V	3.000 ± 0.02 V
50	3 V (12 mA)	3 ± 0.008 V	3.828 ± 0.02 V
75	4 V (16 mA)	4 ± 0.008 V	4.464 ± 0.02 V
100	5 V (20 mA)	5 ± 0.008 V	5.000 ± 0.02 V

7-4. Zero and Span Adjustments (SDBU-24□).

7-4-1. Preparation.

(1) Separation of internal assembly from case.
Remove the two screws fixing the internal assembly to separate the case and internal assembly.
(2) Input current check and switch setting.
Set the input current selector switch to desired input current (carry out for all four loops).
(3) Connect the instruments as illustrated in Figure 6-2. Turn the power on and allow the instruments to warm up for five minutes.

7-4-2. Main Card Zero and Span Adjustments (without square-root-extraction function).

(1) Perform the preparation described in paragraph 7-4-1.
(2) Using a DC voltage standard, apply a voltage of 2 to 5 V DC to the instrument and adjust instrument zero and span so that the I/O value is within the values listed in Table 7-1 (see Figure 7-5 for the mounting positions of zero and span adjustments).

Note:
- For the distributor with square-root-extraction function, first remove the SQRT card from the main card, next perform input/output zero and span adjustment only for the main card.
- Refer to Section 7-6 for disassembling or reassembling the SQRT card.

7-4-3. Voltage Check and Zero Adjustment on the SQRT Card (only for the distributor with square-root-extraction function).

The voltage check and zero adjustment on the SQRT card should be performed after completing the adjustments described in paragraph 7-3-2 and mounting the SQRT card on the main card.

(1) Connect two digital voltmeters between the test points TP1 and TP2 and between TP1 and TP3 on the SQRT card.
(2) Using a DC voltage standard, apply a voltage of 1 to 5 V DC to the input terminals as shown in Figure 6-2.
(3) Confirm that the readings of the digital voltmeters (V1) and (V2) which are connected test points between TP1 and TP2 and between TP1 and TP3 respectively are within the values listed in Table 7-1.
(4) If the readings of (V1) and (V2) are outside the range listed in Table 7-1, perform zero adjustment on the SQRT card.

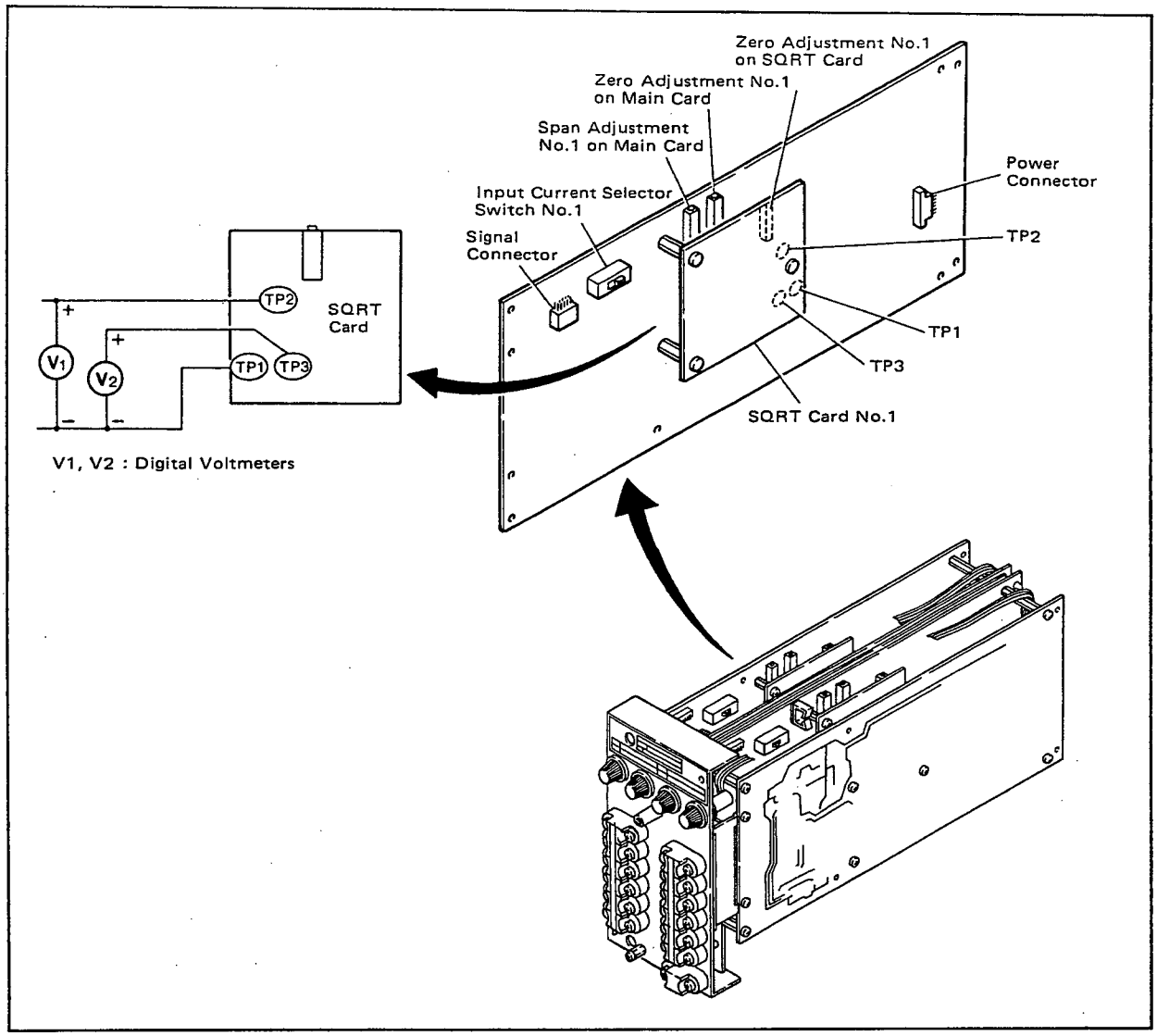


Figure 7-5. Connection of Digital Voltmeters.

7-5. Parts Replacement (SDBU-21□).

The disassembly procedures for replacing parts are shown below:

Be careful to remove or disassemble only those parts which need to be removed or disassembled in order to replace faulty parts.

Reassemble the unit, after parts replacement, in the reverse order of the disassembly procedure (described below).

7-5-1. Disassembly Procedure (see Figure 7-6).

(1) Disassembling the SQRT card (only for distributor with square-root-extraction function).
(2) Disassembling the power unit.
(3) Disassembling the main card.

7-5-2. Disassembling SQRT Card (only for distributor with square-root-extraction function).

(1) Remove the three screws ⑨.
(2) Remove the SQRT card ⑧ from the main card ⑥ (⑧ and ⑥ are connected with a connector).

7-5-3. Disassembling the Power Unit (② in Figure 7-6).

(1) Unplug the connector ① from the board ②.
(2) Remove the two screws ③ to separate the board ② from the main card.

7-5-4. Disassembling Main Card.

Carry out this procedure after the SQRT card and power unit described above are disassembled.

(1) Remove the two screws ⑦.
(2) The main board ⑥ can be separated from the bracket.

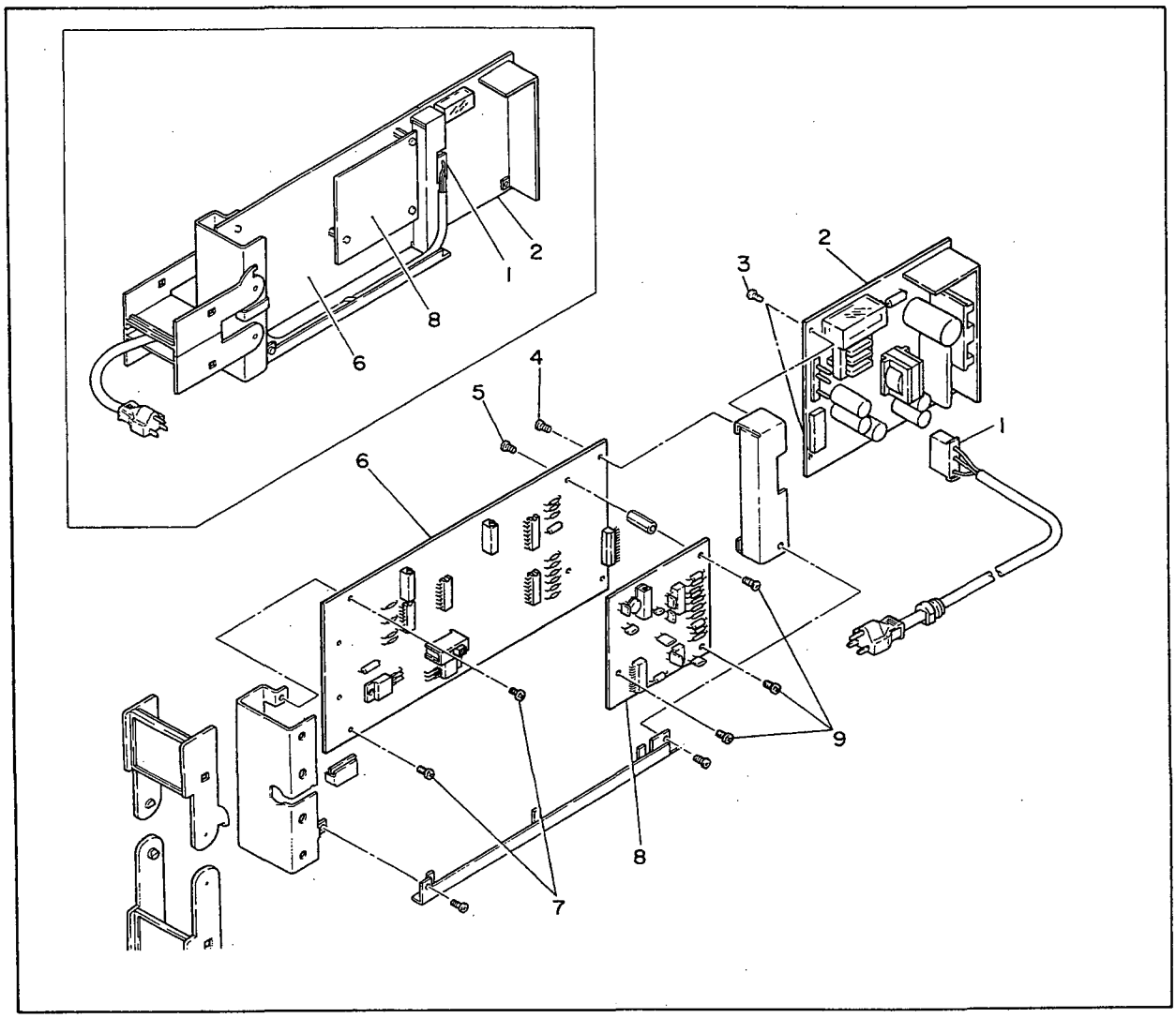


Figure 7-6. Disassembled View (SDBU-21□).

7-6. Parts Replacement (SDBU-24□).

The disassembly procedures for replacing parts are shown below:

Be careful to remove or disassemble only those parts which need to be removed or disassembled in order to replace faulty parts.

7-6-1. Disassembly Procedure (see Figure 7-7).

(1) Disassembling the case and internal assembly.
(2) Disassembling the main cards.
(3) Disassembling the SQRT card.

7-6-2. Disassembling the Case and Internal Assembly.

(1) Remove the screw (18) to remove the terminal cover (17).
(2) Remove the two screws (16).
(3) Draw the internal assembly (15) out from the case (1) carefully.

7-6-3. Disassembling the Main Cards.

Four main cards ((2), (5), (6) and (10)) are installed in the distributor. The outside card ((1) or (10)) should be removed firstly.

(1) Unplug the power connectors ((3), (4), (8) and (9)).
(2) Unplug the signal connectors ((19), (20) and two connectors located below).
(3) Remove the screws 14 or two screws located on opposite side panel.
(4) Separate the cards (5) and (6) fixed by stud (7).

7-6-4. Disassembling the SQRT Card (only for the distributor with square-root-extraction function).

The SQRT card is attached to the main card with three screws and multi-pen connector. Remove the SQRT card after removing the main card from the mainframe.

o Remove the screws (12) located at the SQRT card side.

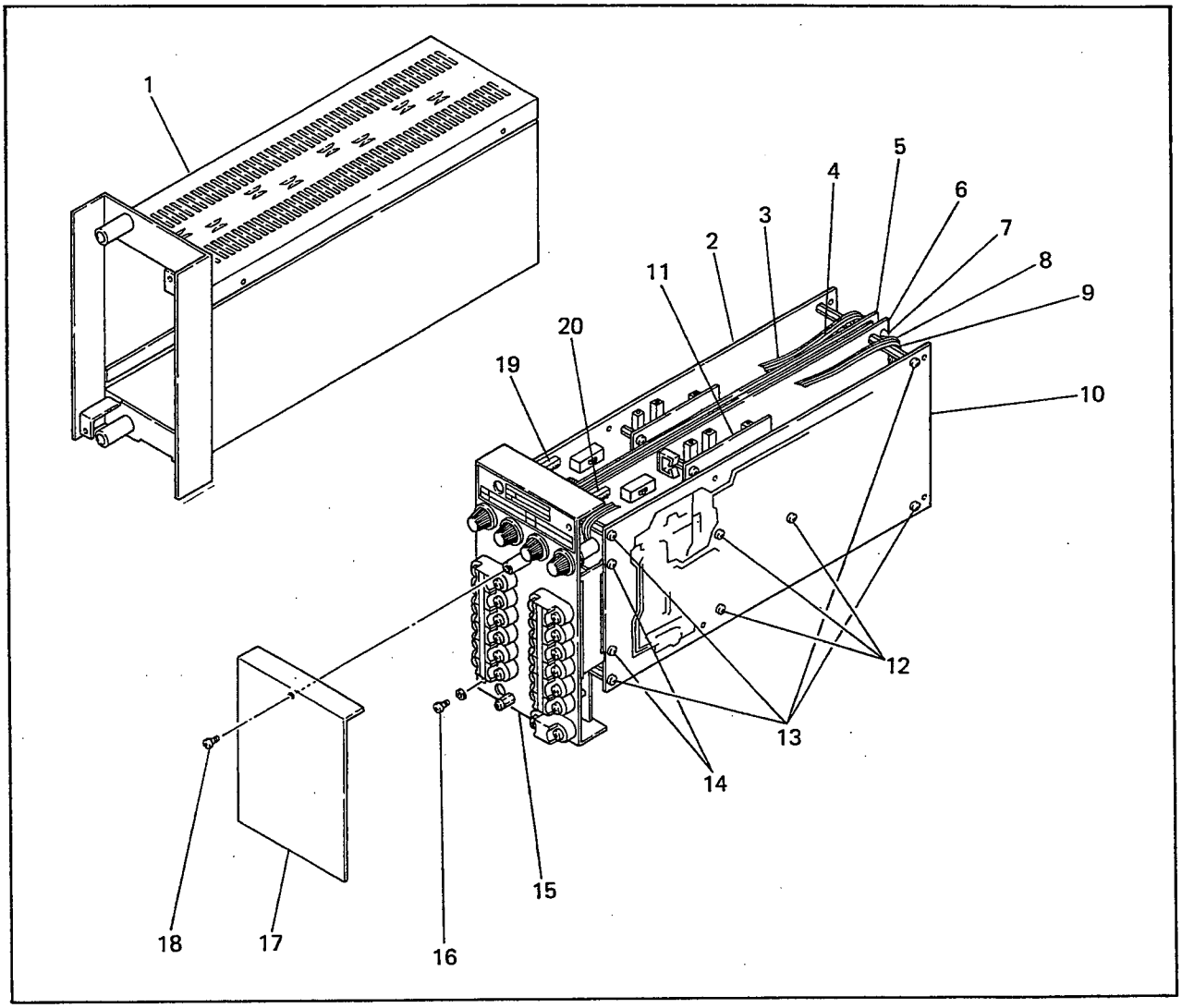
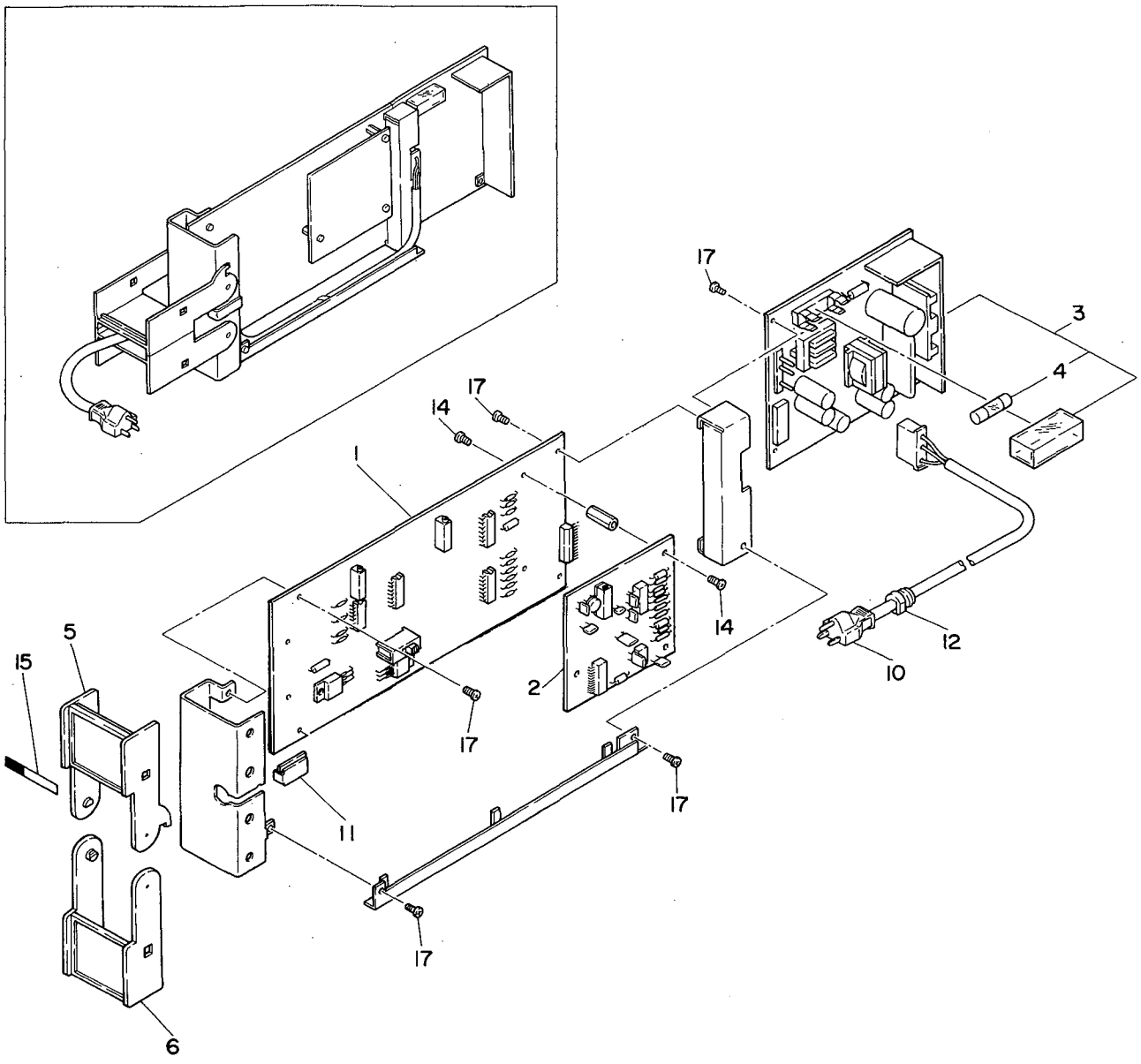


Figure 7-7. Disassembled View (SDBU-24□).

Customer Maintenance Parts List

Model SDBU
Power Distributor (For 1 Point)

YEWSERIES 80

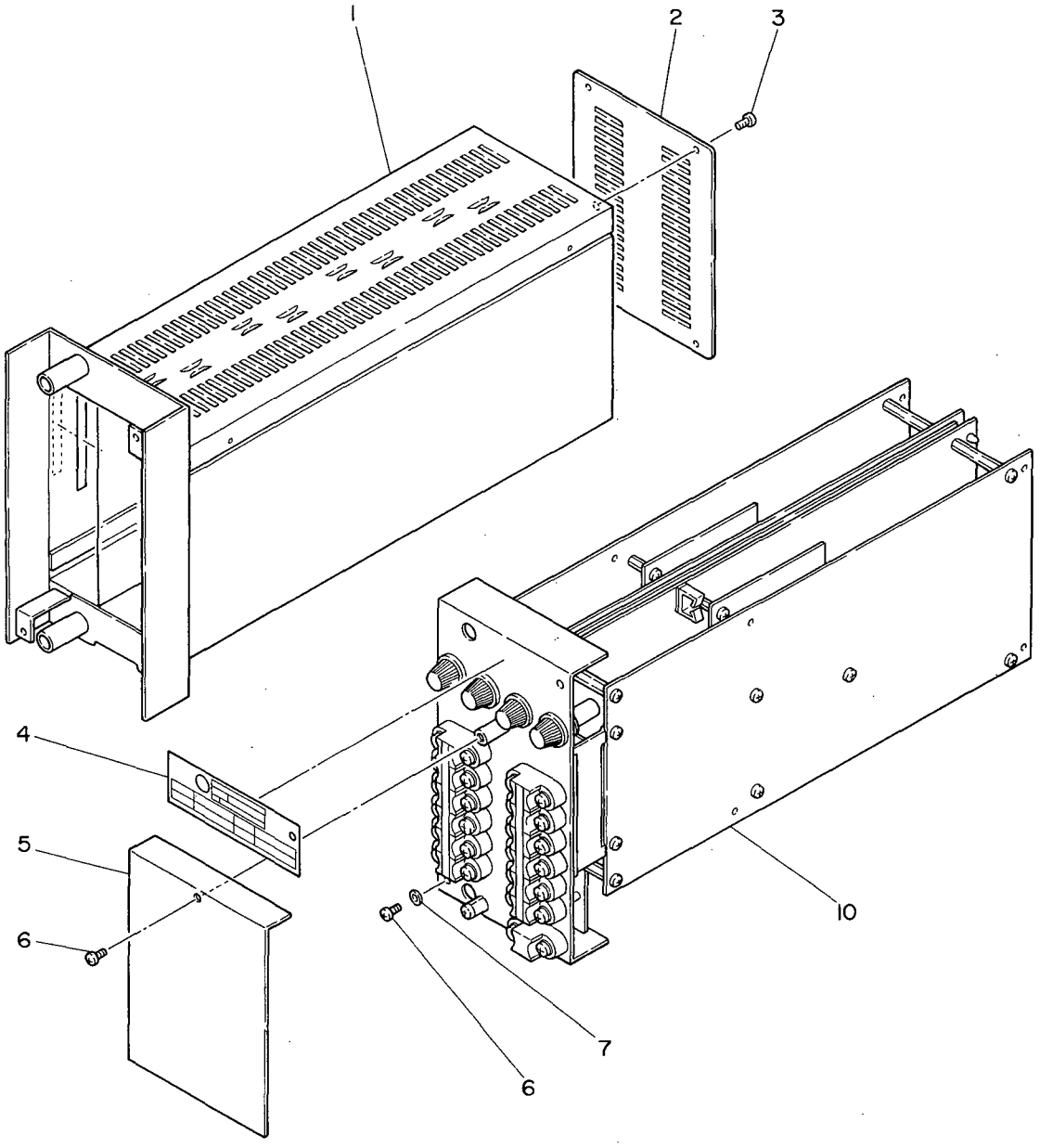


Item	Part No.	Qty Model SDBU-210	Qty Model SDBU-211	Description
1	E9715LC	1	1	Main Card
2	E9715AE		1	SQRT Card
3	E9715YC	1	1	Power Supply Unit (for 80 to 138 V AC 47–63 Hz and 20 to 130 V DC power supplies)
4	S9510VK	1	1	Fuse – 1A
5	E9713CK	1	1	Cover
6	E9713CA	1	1	Cover
10	E9713EG	1	1	Cable Assembly
11	E9713CE	1	1	Cover
12	S9079PB	1	1	Bushing
14	Y9306JB		6	Pan H. Screw, M3 x 6
15	Y9422NP	1	1	Tag No. Label (blank)
17	Y9306JB	8	8	Pan H. Screw, M3 x 6

Customer Maintenance Parts List

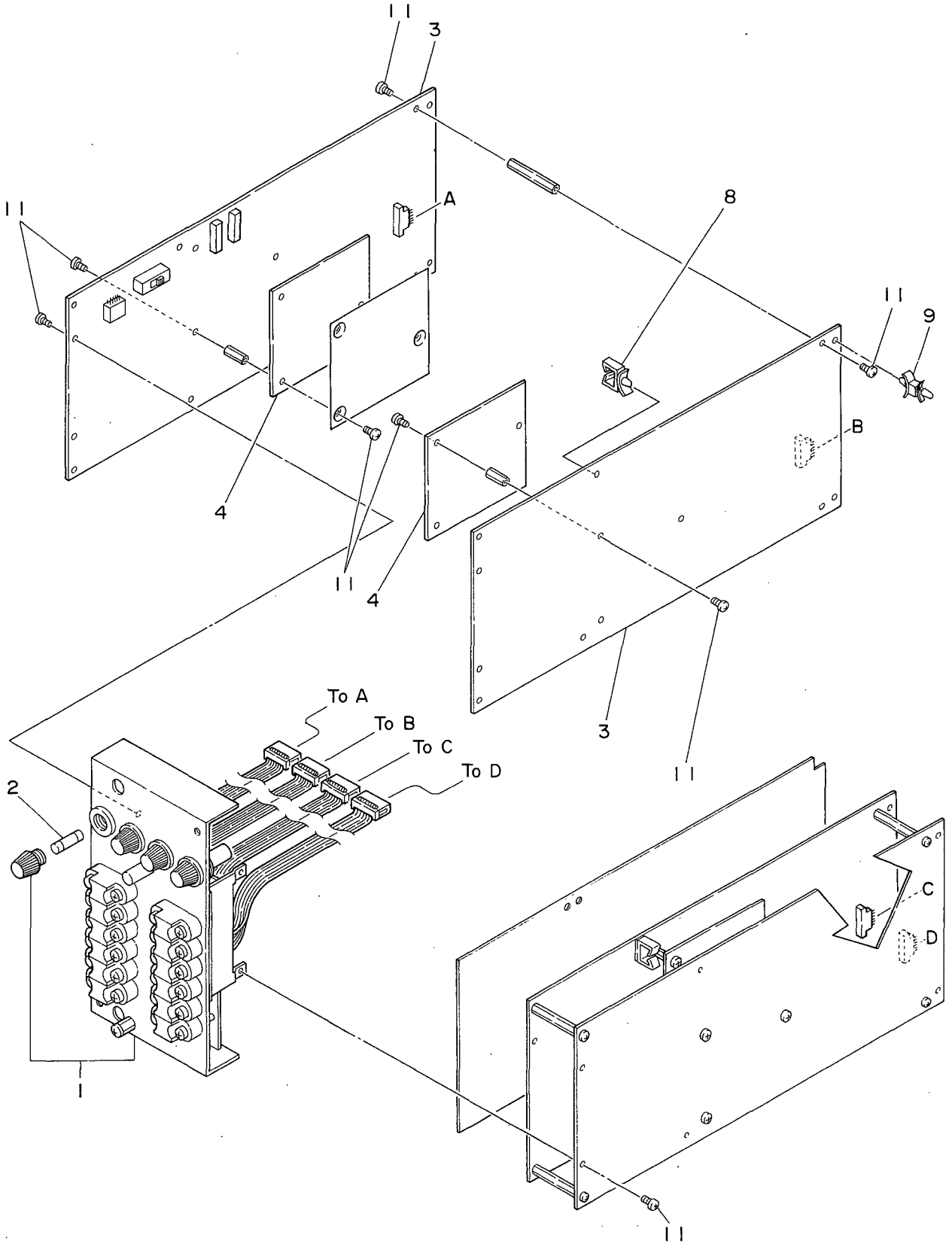
Model SDBU-24□
Distributor with Selectable Input (10 to 50 mA/4 to 20 mA DC)

YEWSERIES 80



Item	Part No.	Qty	Description
1	E9713JA	1	Case Assembly
2	E9713JG	1	Cover
3	Y9306JB	4	Pan H. Screw, M3 x 6
4	E9713JP	1	Nameplate
5	E9713JN	1	Cover
6	Y9405LB	3	B.H. Screw, M4 x 5
7	Y9401WL	2	Washer
10	—	1	Main Unit Assembly (see page 2)

Main Unit Assembly



Item	Part No.	Qty / Model SDBU-240*A	SDBU-241*A	SDBU-242*A	SDBU-243*A	SDBU-244*A	Description
1	E9713JS	1	1	1	1	1	Terminal Assembly
2	G9001ZF	4	4	4	4	4	Fuse (1A)
3	E9715LA	4	4	4	4	4	Main Card Assembly
4	E9715AF		1	2	3	4	SQRT Card
8	G9320EZ	2	2	2	2	2	Clamp
9	G9320KH	2	2	2	2	2	Stud
11	Y9306JB	20	26	32	38	44	Pan H. Screw, M3 x 6

Instruction Manual

/TB
Power Supply Terminal Connections for Rack-mounted Instruments(Option)

YEWSERIES 80

1. GENERAL.

If you specify the terminal board to which the power source is directly connected (suffix code /TB), the external wiring to the terminal board is necessary; therefore, drawing out of the inner chassis requires previous turning off of the power source and disconnection of the wiring from the terminal board.

2. APPLICABLE INSTRUMENTS.

Model	Description
STED	Emf- and RTS-to-Voltage Converter
SKYD	Alarm Unit
SALD	Emf- and RTS-Input Alarm Unit
SPLR	Programmable Computing Unit
SIND	Integrator
SISD	Isolator
SDBT	Power Distributor
SDBS	Power Distributor
SDBU-21	Power Distributor

3. EXTERNAL VIEW AND NAMES OF COMPONENTS.

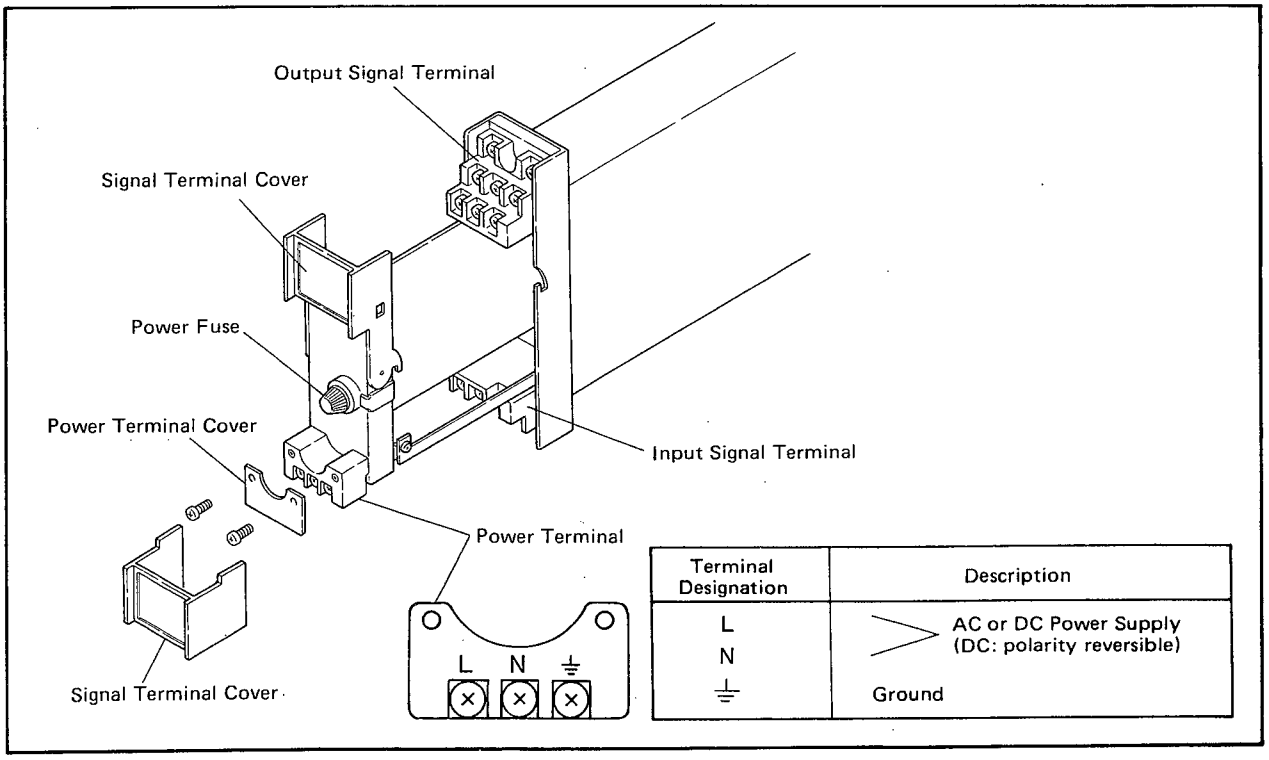
4. POWER SUPPLY AND GROUND WIRING.

(1) All cable ends must be furnished with crimp-on type solderless lugs (for 4 mm screw).

(2) Examples of applicable cables.
Cross-sectional area of the cable conductor: 2.0 mm^2.*
Applicable cable:
600 V vinyle insulated cable (IV), conforming to JIS C3307.
Vinyle sheathed cables for electric appliances (KIV), conforming to JIS C3316.
Note *: Power supply cables should be determined from the instrument power consumption – they must have conductors with cross-sectional area of at least 1.25 mm^2.

(3) Wirings to power supply and ground terminals should be made after completion of signal terminal wirings. (To facilitate connecting input signal, pull the internal instrument module approximately half way out of the housing. Do not remove the power terminal block.)

(4) After completing the power supply and ground wiring, mount the power terminal cover.



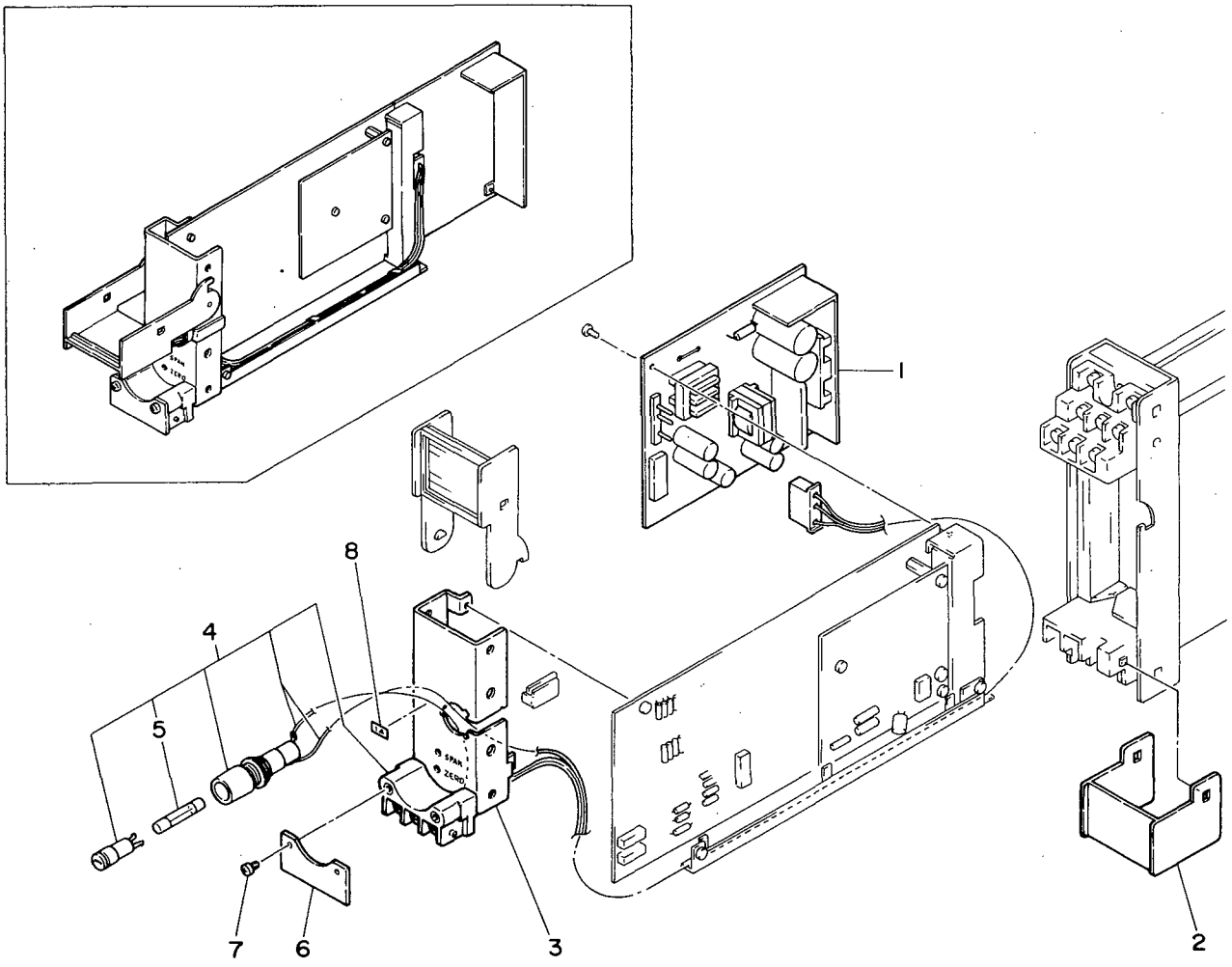
Terminal Designation	Description
L	AC or DC Power Supply (DC: polarity reversible)
N	
⏚	Ground

IM 1B4F2-11E

Customer Maintenance Parts List

/TB
Power Supply Terminals For Rack-Mounted Instruments (Option)

YEWSERIES 80



Item	Part No.	Qty	Description
1	—	1	Power Supply Unit (see Table 1)
2	E9713CJ	1	Cover
3	—	1	Bracket (see Table 2)
4	E9713ET	1	Terminal Assembly
5	S9510VK	1	Fuse (1 A)
6	E9713CV	1	Cover
7	Y9306JB	2	Pan H. Screw, M3 x 6
8	G9325EM	1	Label (1 A)

Table 1. Power Supply Unit Part Number.

Applicable Instruments	Power Supply Unit Part No.	
Model	100 V Version	220 V Version
SPLR, SIND	E9715YH	W9092JM
STED, SKYD, SALD SISD, SDBT	E9715YJ	W9092JN
SDBS	E9715YK	W9092JP
SDBU-21	E9715YK	—
SPCM	E9715YL	W9092SK

Table 2. Bracket Part Number.

Applicable Instruments Model	Bracket Part No.
STED	E9713DS
SKYD, SPLR	E9713DN
SKYD-100	E9713DP
SALD	E9713DT
SDBT, SIND, SISD SDBU-21	E9713DL
SDBS	E9713DR
SPCM	E9714KB

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YOKOGAWA ◆

Yokogawa Electric Corporation

YOKOGAWA ELECTRIC CORPORATION
Network Solutions Business Div.
2-9-32, Nakacho, Musashino-shi, Tokyo, 180-8750 JAPAN
Phone: +81-422-52-7179 Facsimile: +81-422-52-6793
Sales Branch Offices
Tokyo, Nagoya, Osaka, Hiroshima, Fukuoka

YOKOGAWA CORPORATION OF AMERICA
Headquaters
2 Dart Road, Newnan, GA. 30265-1094 U.S.A.
Phone: +1-770-253-7000 Facsimile: +1-770-251-0928
Sales Branch Offices / Texas, Chicago, Detroit, San Jose

YOKOGAWA EUROPE B. V.
Headquaters
Databankweg 20, 3821 AL Amersfoort THE NETHERLANDS
Phone: +31-334-64-1611 Facsimile: +31-334-64-1610
Sales Branch Offices / Houten (The Netherlands), Wien (Austria), Zaventem (Belgium), Ratingen (Germany), Madrid (Spain), Bratislava (Slovakia), Runcorn (United Kingdom), Milano (Italy), Velizy villacoublay(France), Johannesburg(Republic of South Africa)

YOKOGAWA AMERICA DO SUL S.A.
Headquarters & Plant
Praca Acapulco, 31-Santo Amaro, Sao Paulo/SP, BRAZIL CEP-04675-190
Phone: +55-11-5681-2400 Facsimile: +55-11-5681-4434

YOKOGAWA ENGINEERING ASIA PTE. LTD.
Head office
5 Bedok South Road, Singapore 469270 SINGAPORE
Phone: +65-6241-9933 Facsimile: +65-6241-2606

YOKOGAWA ELECTRIC KOREA CO., LTD.
Seoul Sales office
395-70, Shindaebang-dong, Dongjak-gu, Seoul,156-010, KOREA
Phone: +82-2-3284-3000 Facsimile: +82-2-3284-3019

YOKOGAWA TAIWAN CORPORATION
Head office
17F, No.39, Sec. 1, Chung Hwa Road Taipei, 100 TAIWAN
Phone: +886-2-2314-9166 Facsimile: +886-2-2314-9918

YOKOGAWA AUSTRALIA PTY. LTD.
Head office
Centrecourt D1, 25-27 Paul Street North, North Ryde, N. S. W. 2113, AUSTRALIA
Phone: +61-2-9805-0699 Facsimile: +61-2-9888-1844

YOKOGAWA INDIA LTD.
Head office
40/4 Lavelle Road, Bangalore, 560 001, INDIA
Phone: +91-80-227-1513 Facsimile: +91-80-227-4270

LTD. YOKOGAWA ELECTRIC
Grokholskiy per. 13, Build. 2, 4th Floor, 129010, Moscow, RUSSIA FEDERATION
Phone: +7-095-737-7868 Facsimile: +7-095-737-7869