
**User's
Manual**

YEW SERIES 80

**Model SDBT (Style R)
Distributor**

IM 01B04T01-02E

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Model SDBT (Style R) Distributor

IM 01B04T01-02E 12th Edition

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1. INTRODUCTION

This manual describes the functions and operations of the SDBT Distributor.

■ Intended Readers

This manual is intended for personnel in charge:

- Installation and wiring
- Instrumentation and setup of the function
- Operation and monitoring of the controller
- Maintenance of equipment

■ Related Documents

The following documents all relate to the SDBT Distributor. Read them as necessary. The codes enclosed in parentheses are the document numbers.

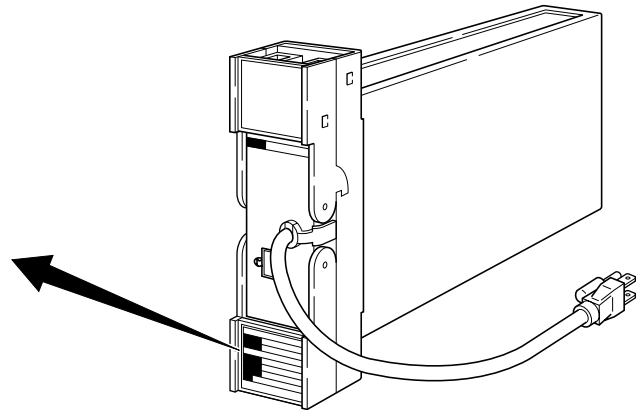
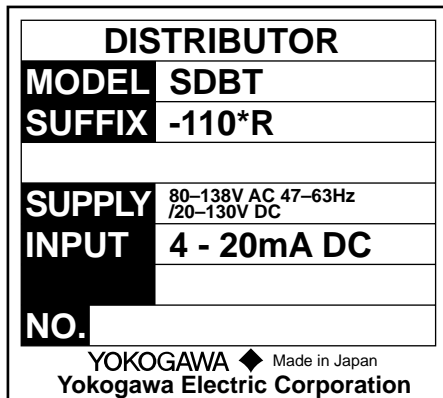
- Rack-Mounted Instruments (IM 1B4F2-01E)
Describes mounting and wiring for the YS80 rack-mounted instruments.
- Model JHT200 Handy Terminal (IM JF81-02E)
Describes operation of JHT200.
- YEW SERIES 80 Installation Manual (TI 1B4A9-01E)
Describes the installation conditions of YS80 instruments.

1.1 Inspection

The SDBT distributor is shipped only after stringent inspection at the factory. Visually inspect the product upon delivery to make sure it is not damaged in any way. Store the box and inner packing material of the package in a safe place - they may be needed if there is a problem with the product and it needs to be sent back for repair.

■ Check of Model and Suffix Codes

The model and suffix codes are indicated on the Name plate attached to the front cover of the instrument. Crosscheck this information with the model and suffix codes of Section 2.2 to ensure that the product is as specified in the order.



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Figure 1-1 Name plate for Loop Isolation Type

■ Confirmation of the Package Contents

Check the package contents against the list below. If anything is missing or damaged, immediately contact the sales office from which you purchased the product or your nearest Yokogawa representative.

- SDBT Distributor..... 1
- Fuse (Parts No. : S9510VK).....1
- Instruction Manual (This manual).....1

1.2 Documentation Conventions

This manual uses the following notational conventions.

■ Symbols

The following symbols are used in this manual.



WARNING

Indicates that operating the hardware or software in a particular manner may damage it or result in a system failure.



NOTE

Draws attention to information that is essential for understanding the operation and/or features of the product.



TIP

Gives additional information to complement the present topic and/or describe terms specific to this document.



See Also

Gives reference locations for further information on the topic.

■ Description of Displays

Some of the representations of product displays shown in this manual may be exaggerated, simplified, or partially omitted for reasons of convenience when explaining them.

1.3 Notice

■ This Instruction Manual

- This manual should be passed on to the end user. Keep at least one extra copy of the manual in a safe place.
- Read this manual carefully to gain a thorough understanding of how to operate this product before you start using it.
- This manual is intended to describe the functions of this product. Yokogawa Electric Corporation (hereinafter simply referred to as Yokogawa) does not guarantee that these functions are suited to the particular purpose of the user.
- Under absolutely no circumstances may the contents of this manual, in part or in whole, be transcribed or copied without permission.
- The contents of this manual are subject to change without prior notice.
- Every effort has been made to ensure accuracy in the preparation of this manual. Should any errors or omissions come to your attention however, please contact your nearest Yokogawa representative or our sales office.

■ Protection, Safety, and Prohibition against Unauthorized Modification

- 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 document are strictly adhered to. Yokogawa does not guarantee safety if products are not handled according to these instructions.
- The following safety symbols are used on the product and in this manual.



If this symbol is indicated on the product, the operator should refer to the explanation given in the instruction manual in order to avoid personal injury or death to either themselves or other personnel, and/or damage to the instrument. The manual describes that the operator should exercise special care to avoid shock or other dangers that may result in injury or loss of life.



Protective ground terminal:

This symbol indicates that the terminal must be connected to ground prior to operating the equipment.



Function ground terminal:

This symbol indicates that the terminal must be connected to ground prior to operating the equipment.



AC voltage:

This symbol indicates that AC voltage is present.



DC voltage:

This symbol indicates that DC voltage is present.

- Do not turn off the power of the product during adjustment.
- Be sure to confirm the parameters referring to “5.4 Parameter List” before installing the product in a system or plant. After confirming them, install the product in a system or plant and turn on the power.
- If protection/safety circuits are to be used for the product or the system controlled by it, they should be externally installed on the product.
- When you replace the parts or consumables of the product, only use those specified by Yokogawa.
- Do not modify the product.

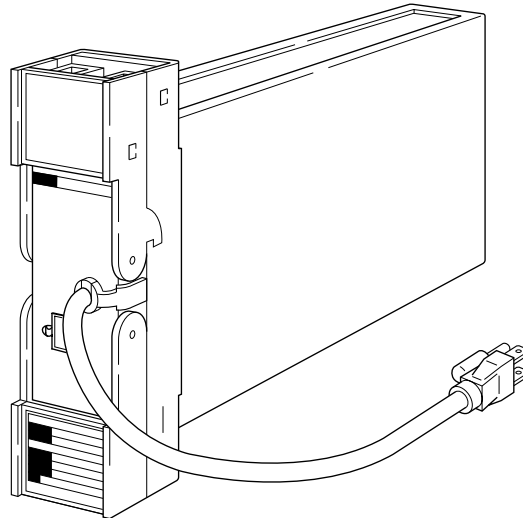
■ Force Majeure

- Yokogawa does not make any warranties regarding the product except those mentioned in the WARRANTY that is provided separately.
- Yokogawa assumes no liability to any party for any loss or damage, direct or indirect, caused by the use or any unpredictable defect of the product.

2. GENERAL

The SDBT distributor is designed to supply operating power to two-wire type transmitter and convert 4 to 20 mA DC current signals from this transmitter into output signals.

The SDBT distributor has Loop isolation type (SDBT-11 type) and Filed isolation type (SDBT-21 type). The SDBT-11 prepares two 1 to 5 V DC output signals, and SDBT-21 prepares one 4 to 20 mA DC output signal in addition to two 1 to 5 V DC output signals. The SDBT-11 and SDBT-21 have built-in current limiters allowing normal operation even when a short-circuit occurs on the transmitter side.



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Figure 2-1 External View

2.1 Standard Specifications

Item	Description
Trasmitter Used	Operates on nominal 24 V DC, outputs 4 to 20 mA DC signal, 2-wire transmitter.
Number of Unit	1
Number of Output	2 points for SDBT-11, and 3 points for SDBT-21
Output Signal	1 to 5 V DC and 4 to 20 mA DC (for SDBT-21 only)
Load Resistance	<ul style="list-style-type: none"> • 1 to 5 V DC output load resistance: at least 2k Ω • 4 to 20 mA DC output load resistance: up to 750 Ω
Lead wire resistance between transmitters	Calculate from the following equation. $\text{Lead wire Resistance}(\Omega) = \frac{(20^* - E_T - E_B) V}{0.02 A}$ Note*: Minimum supply voltage – Maximum no-load voltage drop E _T : Voltage drop when safety barrier is connected E _B : Maximum voltage drop of transmitter
Low cut Characteristic	Output is proportional to input when input is below 1 %
Isolation type	(1) Loop isolation type Not isolated between input and output Isolated between input/output and power supply (2) Filed isolation type Isolated between input and output Isolated between input/output and power supply
Accuracy	± 0.2 % of span (± 0.5 % of span for version with square root characteristic)
Trasmitter Supply	25.0 to 25.5 V DC
Power Supply	AC or DC (No change to instrument) 100 V version DC: 20 to 130 V (polarity reversible) AC: 80 to 138 V, 47 to 63 Hz 220 V version DC: 120 to 340 V (polarity reversible) AC: 138 to 264 V, 47 to 63 Hz
Power Consumption	<ul style="list-style-type: none"> • SDBT-11 type: 24 V DC 60 mA, 100 V AC 5.4 VA, 220 V AC 8.4 VA • SDBT-21 type: 24 V DC 115 mA, 100 V AC 9.5 VA, 220 V AC 12.4 VA
Ambient Temperature	0 to 50°C
Ambient Humidity	5 to 90% R.H. (non-condensing)
Mounting	Indoor, rack mounting
Weight	1.7 kg

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2.2 Model and Suffix Codes

Model	Suffix Codes	Description
SDBT -----	-----	Distributor
Isolation and	-11 -----	Loop isolation type, 1 point
Number of Input	-21 -----	Field isolation type, 1 point
Square Root Function	0 -----	Not provided
	1 -----	Provided (for SDBT-21)
Style Code	*R -----	Style R
Option	/A2ER	220 V power supply
	/NHR	Without case
	/TB	Power supply terminal
	/FBP	Power supply fuse bypass
	/WSW	With spring washers
	/LOCK	With special lock

2.3 Accessory

Fuse 1 A: 1



NOTE

The fuse (S9510VK) is the dedicated fuse. Do not use it for other products.

3. INSTALLATION

For details of the installation procedure and wiring precautions, refer to the technical information “YEW SERIES 80 Installation Manual” (TI 1B4A9-01E) or the instruction manual “Installation of Rack-Mounted Instruments” (IM 1B4F2-01E).

3.1 External Wiring

- (a) To prepare cables for connection to each terminal, install crimp-on solderless lugs for 4 mm screw on the end of each cable.
- (b) Draw the internal unit out from the rack case.
- (c) Connect the cables to the correct terminals referring to Table 3-1.
- (d) Replace the internal unit into the rack case after completing the wiring.
- (e) Always replace the terminal cover after completing the wiring.



NOTE

The terminal cover cannot be replaced if the internal unit is not installed in the rack case. The terminal cover should be securely replaced because it has the function of locking the internal unit.

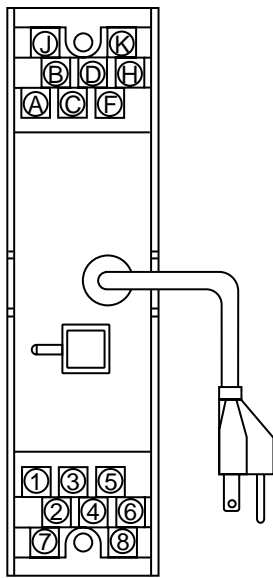


Figure 3-1 Terminal Layout

Table 3-1 Terminal Wiring

Terminal Designation	Description
1	+ > Transmitter (Input) - >
2	
3	
4	
5	
6	
7	COM (Note1)
8	

Terminal Designation	Description
A	+ > Output 1 (1 to 5 V DC) - >
B	
C	+ > Output 3 (4 to 20 mA DC) Note2 - >
D	
F	+ > Output 2 (1 to 5 V DC) - >
H	
J	
K	

Note1: When safety barrier is connected.

Note2: For SDBT-21 type only. When not used, terminals remain opened.

3.2 Applicable Cables

(1) Signal circuit wiring

- Cross-sectional area of the cable conductor: 0.5 to 0.75 mm²
- Examples of applicable cables: Single core PVC insulated flexible cable (VSF) stranded wires (JIS C 3306); heat-resistant vinyl-insulated cable (UL style 1007)
- Solderless lugs: All cable ends must be furnished with crimp-on solderless lugs for 4 mm screw.

(2) Power supply wiring

- Cross-sectional area of the cable conductor: 1.25 to 2.00 mm²
- Examples of applicable cables: 600 V PVC insulated cable (1 V) stranded wires (JIS C 3307); PVC insulated cable for electrical apparatus (KIV) stranded wires (JIS C 3316)
- Solderless lugs: All cable ends must be furnished with crimp-on solderless lugs for 4 mm screw. The cable used should fulfill the amperage requirement of each instrument, and should also be small in voltage drop.

4. PRINCIPLES OF OPERATION

4.1 Loop Isolation Type (for SDBT-11 Type)

The SDBT-11 supplies 25.0 to 25.5 V DC to two-wire transmitter through a current limiter, and receives 4 to 20 mA DC current signals. The current signals are converted into 1 to 5 V DC signals, then are output through output amplifier.

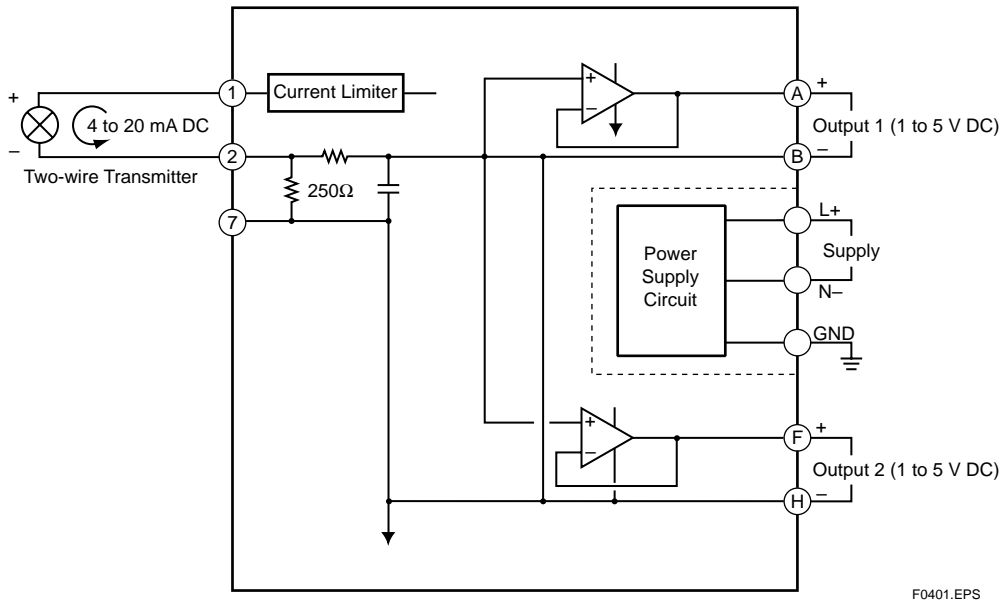
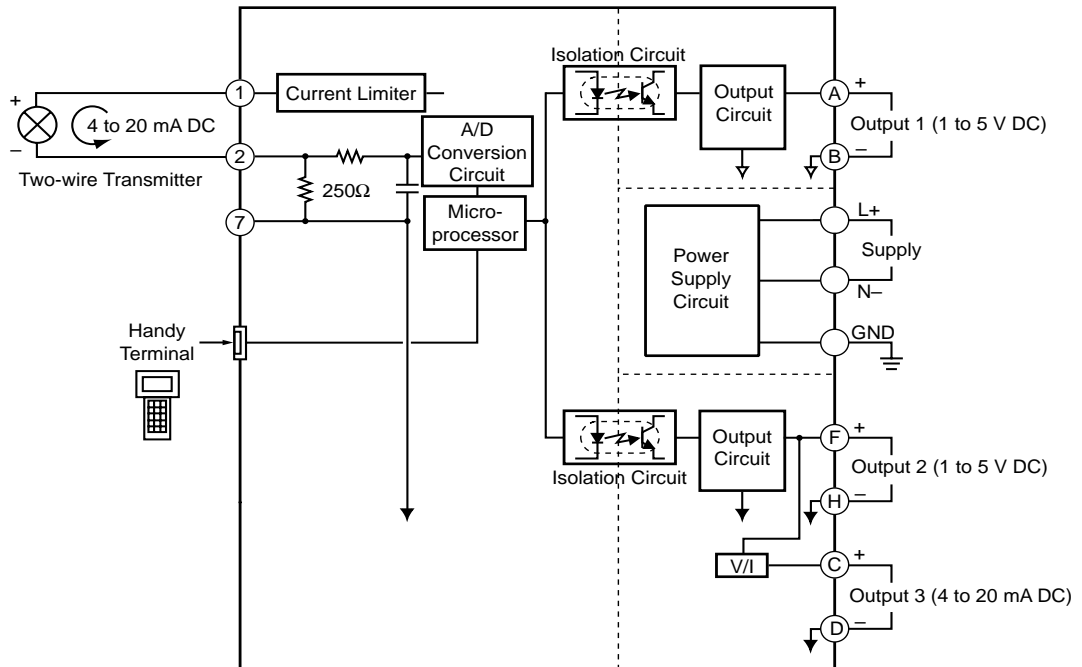


Figure 4-1 Functional Block Diagram for Loop Isolation Type

4.2 Filed Isolation Type (for SDBT-21 Type)

The SDBT-21 supplies 25.0 to 25.5 V DC to two-wire transmitter through a current limiter, and receives 4 to 20 mA DC current signals. The current signals are converted into 1 to 5 V DC signals, then are converted into digital data in A/D conversion circuit. The digital data has signal processing (square root characteristic etc.) in microprocessor to be Pulse Width Modulation (PWM), then is converted into 1 to 5 V DC or 4 to 20 mA DC signals in output circuit through optical-isolation circuit.



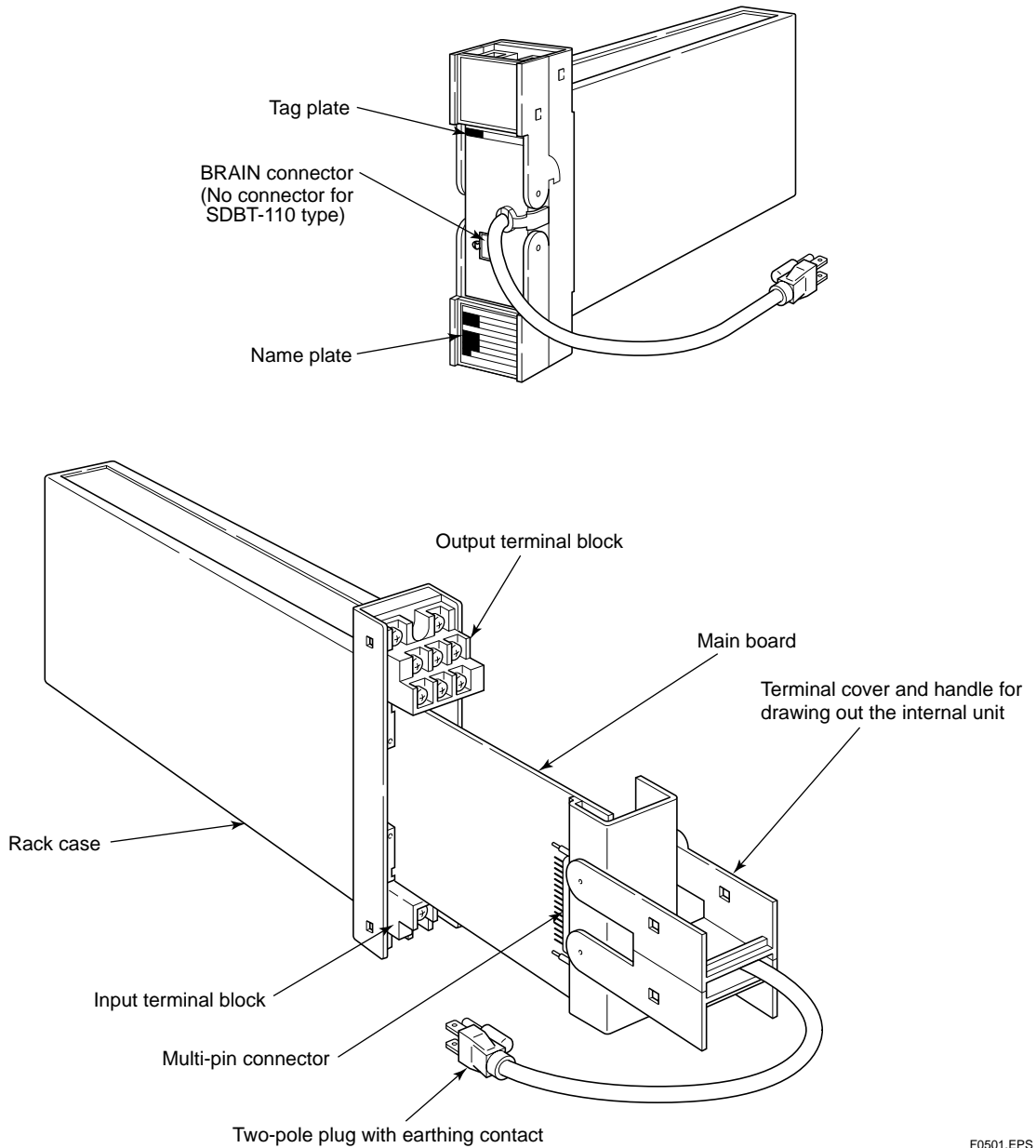
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Figure 4-2 Functional Block Diagram for Field Isolation Type

5. SETTING

The SDBT distributor is made ready for operation by simply turning on the power once the installation and wiring are completed. The distributor does not require parameter settings and the like if there is no change in the specifications at order.

5.1 Names of Components



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Figure 5-1 Names of Components

5.2 Setting Jumper (for SDBT-21 Type)

This instrument has the following setting jumper:

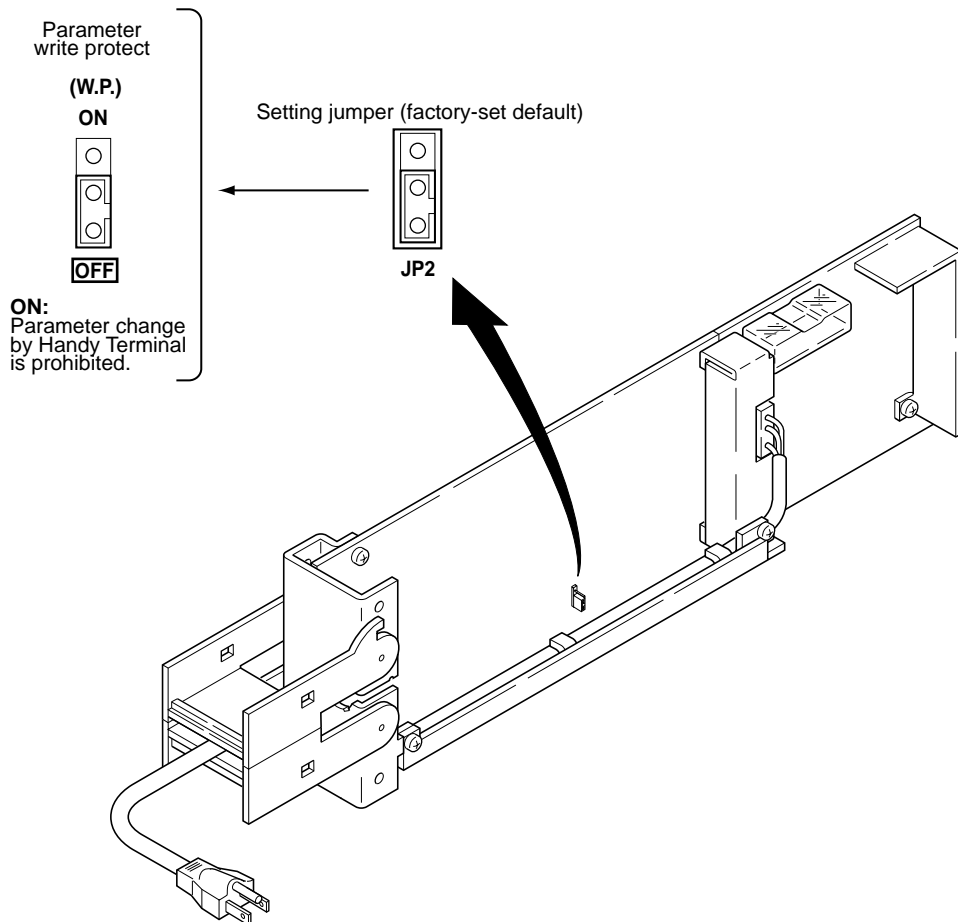
- Parameter Write Protect (JP2): ON/OFF

5.2.1 Check of Setting Jumper and Its Position

Setting jumper is on the main board of the internal unit. Check the setting jumper in the following procedure.

- Pull forward the terminal cover, and draw the internal unit out from the rack case.
- Check that the jumper on the main board of the internal unit is set to obtain the desired action.
- Use the tweezers to change the position of jumper.
- Put the internal unit back into the rack case.
- Replace the terminal cover.

Position and function of setting jumper



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Figure 5-2 Function and Set Point of Jumper

5.3 Setting of Parameters (for SDBT-21 Type)

This instrument has BRAIN communication parameters for specifying functions and adjusting input. Connect JHT200 Handy Terminal (Note1) to the instrument to display or set parameters.

Note 1: BT200 BRAIN Terminal of YOKOGAWA ELECTRIC Corporation can also be used.



NOTE

For details of operation and adjusting procedures of JHT200 Handy Terminal, refer to the instruction manual "JHT200 Handy Terminal" (IM JF81-02E).

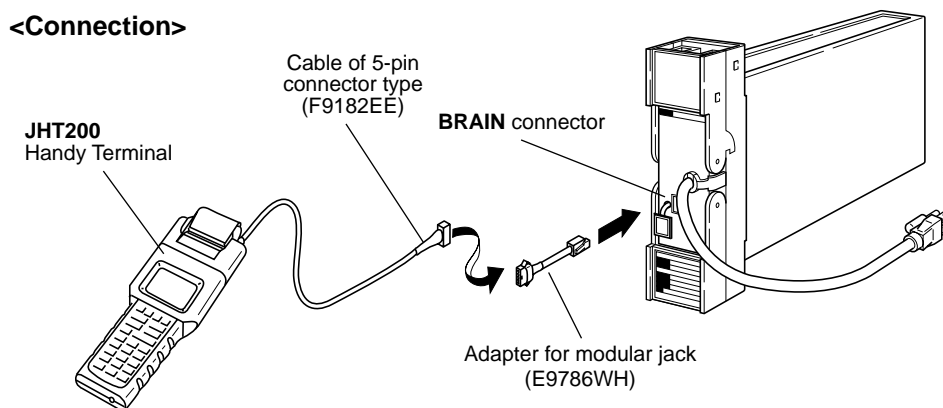


Figure 5-3 Connection

5.3.1 Configuration of Parameters

BRAIN communication parameters consist of the following parameters.

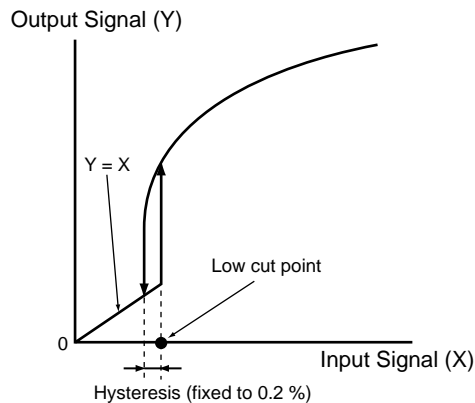
- Display (A & B parameters)
- Settings of Input and output (D parameters)
- Adjustment (P parameters)
- Test (Q parameters)

5.3.2 Description of Parameters

The description of main parameters is as follows.

- Input/output-related parameters

- (1) D21: LINEARIZE1 (for SDBT-211 Type)
Sets the available/unavailable of square-root characteristic.
- (2) D23: LOW CUT1 (for SDBT-211 Type)
Sets the low cut point.
The input signal and output signal are shown in the figure below.



- (3) D33: OUT1 DR and D34: OUT2 DR
Sets the action direction for output 1 and output 2.

- Adjustment-related parameters

- (1) P03: ZERO ADJ1
Performs Zero adjustment of input.
- (2) P04: SPAN ADJ1
Performs Span adjustment of input.
- (3) P13: OUT1 0% (Note1)
Adjusts 0% of output 1.
- (4) P14: OUT1 100% (Note1)
Adjusts 100% of output 1.
- (5) P15: OUT2 0% (Note1)
Adjusts 0% of output 2.
- (6) P16: OUT2 100% (Note1)
Adjusts 100% of output 2.

- Test-related parameters

- (1) Q02: OUT1 TEST (Note1)
Outputs the set value forcibly regardless of input condition.
Q03 has the same function.

Note1: After completing adjustment and test, press the [F4] (OK) key of the Handy Terminal to return to normal condition (release of forced output).

5.4 Parameter List (for SDBT-21 Type)

BRAIN communication parameters for SDBT-21 type are as follows.

No.	Symbol	Parameter Name	Setting Range	Unit	Default	Setting Type
01	MODEL	Model Name		—	unfixed	Display
02	TAG NO	Tag Number		—	unfixed	Display
03	SELF CHK	Self Check	GOOD/ERROR	—	unfixed	Display
<Display Parameters>						
A	DISPLAY1	Menu Name				
A01	INPUT1	Input Display		mA	unfixed	Display
A09	OUTPUT1	Output1 Display		%	unfixed	Display
A10	OUTPUT2	Output2 Display		%	unfixed	Display
A54	STATUS	Status Display (Note1)	0000 to FFFF	—	unfixed	Display
A55	WRT PROTECT	Parameter Write Protect	ON/OFF	—	OFF	Display
A56	REV NO	Revision number		—	unfixed	Display
A58	MENU REV	Menu Revision number		—	unfixed	Display
A60	SELF CHK	Self Check	GOOD/ERROR	—	unfixed	Display
<Setting Parameters>						
B	DISPLAY2	Menu Name				
B01	INPUT1	Input Display		mA	unfixed	Display
B09	OUTPUT1	Output1 Display		%	unfixed	Display
B10	OUTPUT2	Output2 Display		%	unfixed	Display
B60	SELF CHK	Self Check	GOOD/ERROR	—	unfixed	Display
<Adjustment Parameters>						
D	SET(I/O)	Menu Name				
D01	TAG NO.1	Tag Number1	Up to 8-single-byte	—	unfixed	Alphanumeric
D02	TAG NO.2	Tag Number2	Up to 8-single-byte	—	unfixed	Alphanumeric
D03	COMMENT1	Comment1	Up to 8-single-byte	—	unfixed	Alphanumeric
D04	COMMENT2	Comment2	Up to 8-single-byte	—	unfixed	Alphanumeric
D21	LINEARIZE1	Linearize (Note2)	OFF/SQR	—	SQR	Selection
D22	LOW CUT1	Low Cut (Note2)	0.3 to 100.0	%	1.0	Real Number
D33	OUT1 DR	Output1 Direction	DIRECT/REVERSE	—	DIRECT	Selection
D34	OUT2 DR	Output2 Direction	DIRECT/REVERSE	—	DIRECT	Selection
D60	SELF CHK	Self Check	GOOD/ERROR	—	unfixed	Display
<Test Parameters>						
P	ADJUST	Menu Name				
P03	ZERO ADJ1	Zero Adjustment		Note3	00.00	Selection
P04	SPAN ADJ1	Span Adjustment		Note3	00.00	Selection
P13	OUT1 0%	Output1 0%	-20.0 to 20.0	%	00.00	Real Number
P14	OUT1 100%	Output1 100%	-20.0 to 20.0	%	00.00	Real Number
P15	OUT2 0%	Output2 0%	-20.0 to 20.0	%	00.00	Real Number
P16	OUT2 100%	Output2 100%	-20.0 to 20.0	%	00.00	Real Number
P60	SELF CHK	Self Check	GOOD/ERROR	—	unfixed	Display
<Test Parameters>						
Q	TEST	Menu Name				
Q02	OUT1 TEST	Output1 Test	-25.0 to 125.0	%	000.0	Real Number
Q03	OUT2 TEST	Output2 Test	-25.0 to 125.0	%	000.0	Real Number
Q60	SELF CHK	Self Check	GOOD/ERROR	—	unfixed	Display

Note 1: The condition of the instrument is displayed.

Note 2: Not displayed for SDBT-210 type.

Note 3: mA RST/mA INC/mA HINC/mA HDEC/mA DEC

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6. MAINTENANCE

This chapter describes the calibration procedures and part replacements that can be done in the instrument room or service shop.

6.1 Test Equipment

For efficient maintenance of this distributor, it is recommended that the user have the following test equipment manufactured by Yokogawa or their equivalent.

- DC Voltage/Current Standard, Type 7651..... 1 set
- Digital Voltmeter, Type 7562.....1 set
- Calibration Booster, Type JY0690.....1 set
- Precision Resistor, Z9229FG.....1 unit
(250 Ω ± 0.05 % for current check)

6.2 Adjustment (for SDBT-21 Type)



NOTE

- For details of operation and adjusting procedures of JHT200 Handy Terminal, refer to the instruction manual "JHT200 Handy Terminal" (IM JF81-02E).
- Do not turn off the power of the instrument during adjustment.

Adjust SDBT-21 type using JHT200 Handy Terminal.

- (a) Connect the equipment as illustrated in Figure 6-2.
- (b) Set the Parameter Write Protect (W.P.) of setting jumper to OFF. (Refer to "5.2 Setting Jumper".)
- (c) Turn on the power, and allow the equipment to warm up for about 5 minutes under this condition.
- (d) Connect JHT200 Handy Terminal.

<Connection>

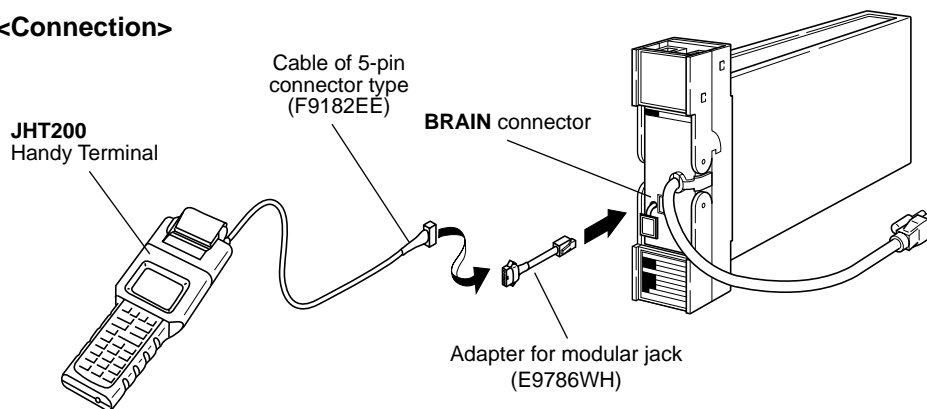


Figure 6-1 Connection

- (e) Call the adjustment item (P: ADJUST) .
- (f) P03: ZERO ADJ1 is displayed.
- (g) Apply an input equivalent to 0 % of the input range. Check the input value and the input display of P03: ZERO ADJ1. If the input value does not correspond to the display value , select P03: ZERO ADJ1 to enter the adjustment mode. Mainly select INC (addition) or DEC (subtraction) for adjustment. (Selecting RST resets the adjusted value and retrieves the factory-set default.) Selecting HINC or HDEC performs adjustment using a value ten times as large as INC or DEC.
- (h) Apply an input equivalent to 100 % of the input range. Check the input value and the input display of P04: SPAN ADJ1. If the input value does not correspond to the display value, select P04: SPAN ADJ1 to enter the adjustment mode. Mainly select INC (addition) or DEC (subtraction) for adjustment. (Selecting RST resets the adjusted value and retrieves the factory-set default.) Selecting HINC or HDEC performs adjustment using a value ten times as large as INC or DEC.
- (i) After completing the adjustment, set the parameter write protect (W.P.) of setting jumper to ON. (Refer to “5.2 Setting Jumper”.)

Table 6-1 Inpu/Output Characteristic Table

%	Input	Output	
		Without square root characteristic	With square root characteristic
0	4 mA	1 ± 0.008 V	1.000 ± 0.02 V
25	8 mA	2 ± 0.008 V	3.000 ± 0.02 V
50	12 mA	3 ± 0.008 V	3.828 ± 0.02 V
75	16 mA	4 ± 0.008 V	4.464 ± 0.02 V
100	20 mA	5 ± 0.008 V	5.000 ± 0.02 V

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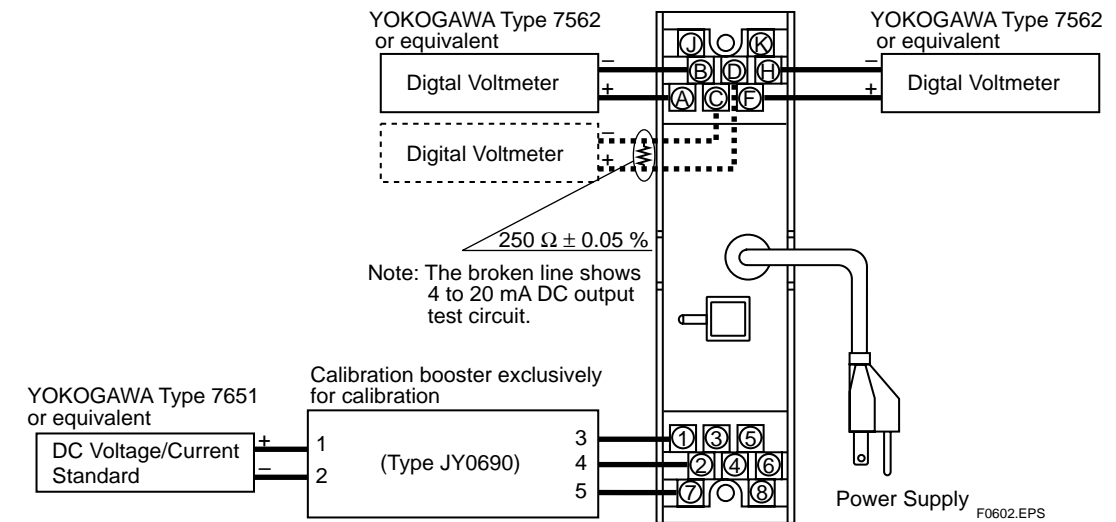


Figure 6-2 Adjustment

6.3 Replacement of Fuse

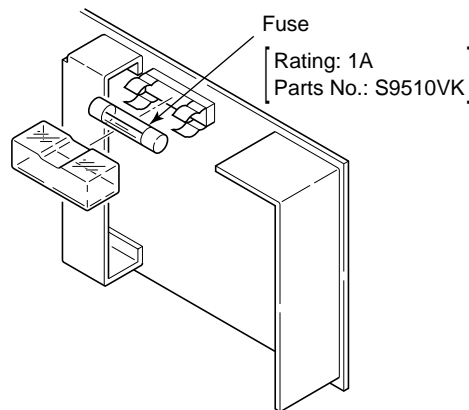
When the fuse blows or requires replacement, replace it according to the following procedure. Recommended replacement interval: About 3 years.



NOTE

- When the fuse below, first check for the case because the fuse itself may not be responsible for the problem. Then change the fuse.
- Use the dedicated fuse (S9510VK). Do not use a fuse for other products.

- (1) To remove the fuse holder cap, then pull the fuse out in the direction shown in Figure 6-3.
- (2) When installing a new fuse, use a fuse with the correct rating. Fasten the cap securely.



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Figure 6-3 Replacement of Fuse

6.4 Replacement of Capacitor

Degradation of the aluminum electrolytic capacitor used in the power supply unit depends on operating temperature condition or operating environment. Recommended replacement interval: 5 to 10 years.



NOTE

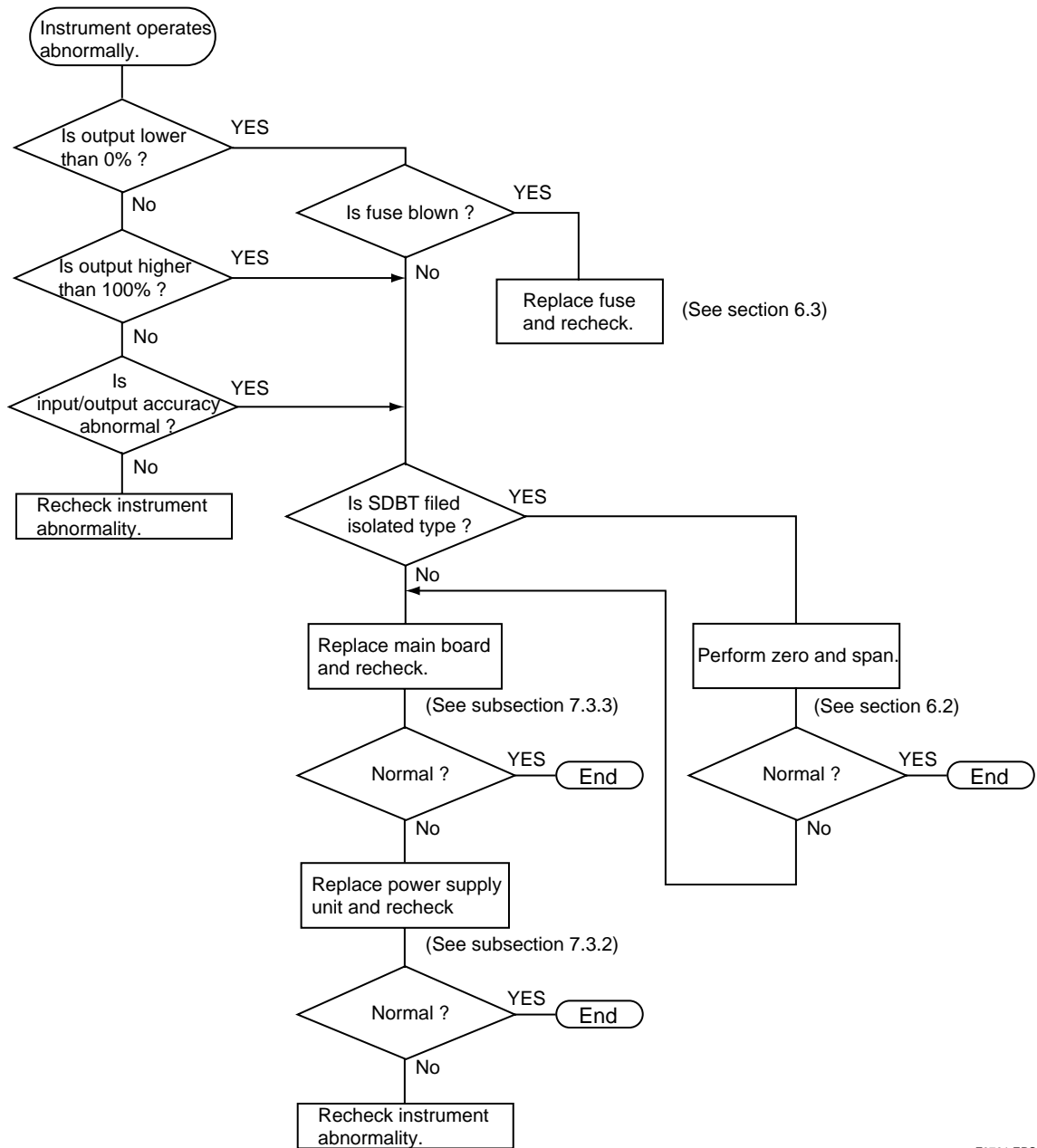
Ask your nearest Yokogawa sales staff for replacing the capacitor. Do not replace the capacitor by yourself, because the parts number of power supply unit (refer to CMPL 01B04T01-02E) and capacitor to be used are different according to the power supply specifications.

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7. TROUBLESHOOTING

If any fault occurs in the instrument, note the symptoms, and follow Section 7-1 Troubleshooting Flowchart. To find the fault, first wire the instruments according to Figure 6-2, apply an input signal, and note the symptoms. If the fault is difficult to find, contact your nearest Yokogawa sales staff.

7.1 Troubleshooting Flowchart



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Figure 7-1 Troubleshooting Flowchart

7.2 Action in Fault Condition

The output condition and error codes (BRAIN communication parameters) in fault condition are shown in the table below.



NOTE

- STATUS is displayed in A54 of A: DISPLAY (display), and SELF CHK is displayed in 60 of each item.
- STATUS error code is to be the addition display (hexadecimal number) when two errors or more occur.

(Note1)

STATUS	SELF CHK	Error Information (Note2)	Output Condition	Description of Error	Remedy
0001	ERROR	EEPROM ERROR	0 % or less	EEPROM error	Replace a main board.
0002	ERROR	EEPROM SUM ERROR	0 % or less	EEPROM sum check error	Reset the parameter showing an error. (Note4)
0004	GOOD	LOW_CUT	Normal action (Note3)	Input below the square root characteristic with low-cut	Apply the input greater than the low-cut point.
0008	ERROR	INPUT OVER RANGE	Normal action	Excessive input, out of -25 to 125 %	Set the input within the range.
0040	GOOD	None	Normal action	Check power failure during operation	Write "0" to clear.

Main board error, Power supply board error, and RAM error other than the errors mentioned above may occur. Each output state of these errors is 0 % or less, and the error information can not be called using JHT200 Handy Terminal.

T0701.EPS

Note1: Displays for the BRAIN communication parameters, ■60: SELF CHK and A54: STATUS.

Note2: Displayed when calling ■60: SELF CHK.

Note3: Linear for the input below the low-cut point.

Note4: After checking the action, write "0" in STATUS to clear.

7.3 Replacement of Parts



WARNING

Nobody except members of Yokogawa service staff is allowed to replace the parts. Never replace the parts by yourself because there is a possibility of damage to the instrument or of danger.

7.3.1 Replacement Procedure

- (1) Replacement of Power Supply Unit
- (2) Replacement of Main Board



NOTE

- Disassemble only those parts that disassembly is required at parts replacement.
- Disassemble the instrument carefully.

7.3.2 Replacement of Power Supply Unit

- (a) Pull the terminal cover (13) outward to draw the internal unit out from the rack case.
- (b) Unplug the connector (1) from the power supply unit (2).
- (c) Remove two screws (3) to separate the power supply unit (2) from the bracket (10).



NOTE

- Use the power supply unit for style R for replacement (refer to CMPL).
- The power supply unit of former style without compatibility can not be used.

7.3.3 Replacement of Main Board

- (a) Remove the power supply unit (2).
(Refer to Subsection 7.3.2 for operating procedure.)
- (b) Remove two screws (8) to separate the bracket (9).
- (c) Remove four screws (4) to separate the bracket (10) and the front bracket (5) from the main board (6).

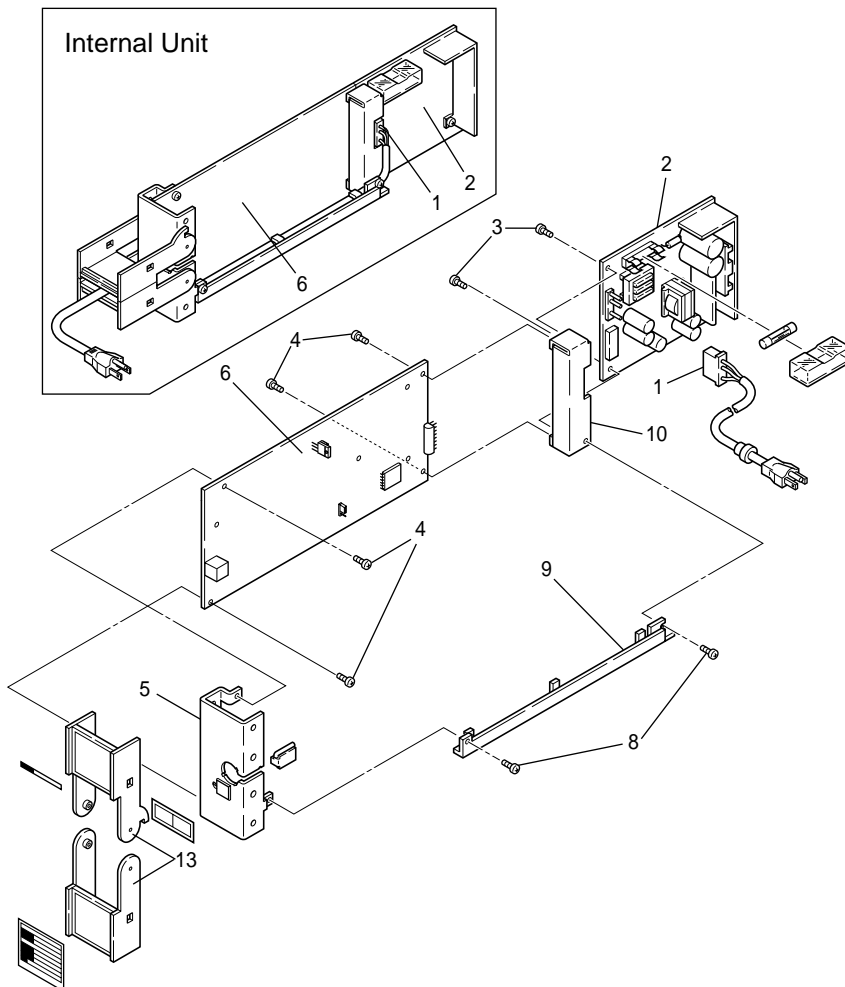


Figure 7-2 Disassemble View

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

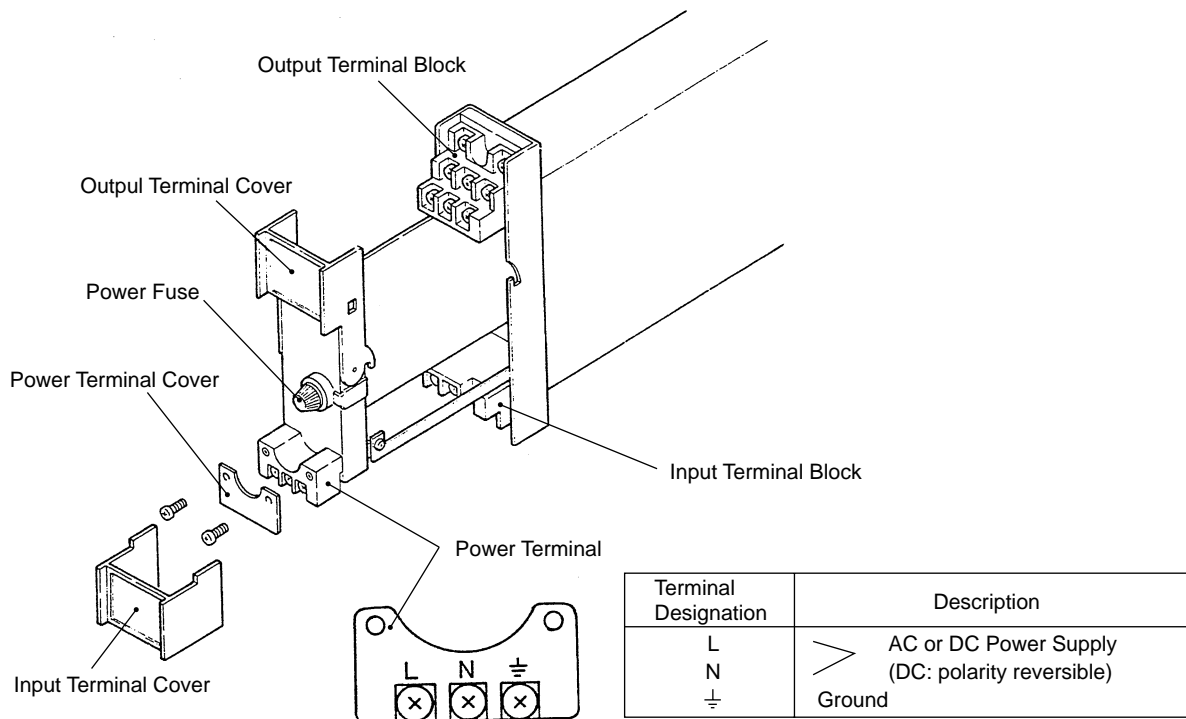
Appendix-1 GENERAL

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

Appendix-2 APPLICABLE INSTRUMENTS

Model	Description
STED	mV, Temperature and Potentiometer/Voltage Converters
SKYD	Alarm Unit
SALD	Emf- and RTS- input Alarm Unit
SPLR	Programmable Computing Unit
SIND	Integrator
SISD	Isolator
SDBT	Distributor (for 1 point)
SDBS	Distributor (for 4 points)
SDBU-21	Distributor (for single loop)

Appendix-3 EXTERNAL VIEW AND NAMES OF COMPONENTS



Appendix-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 mm². *

Applicable cable: 600 V vinyle insulated cable (IV) stranded wires, conforming to JIS C3307.

Vinyle sheathed cables for electric appliances (KIV) stranded wires, conforming to JIS C3316.

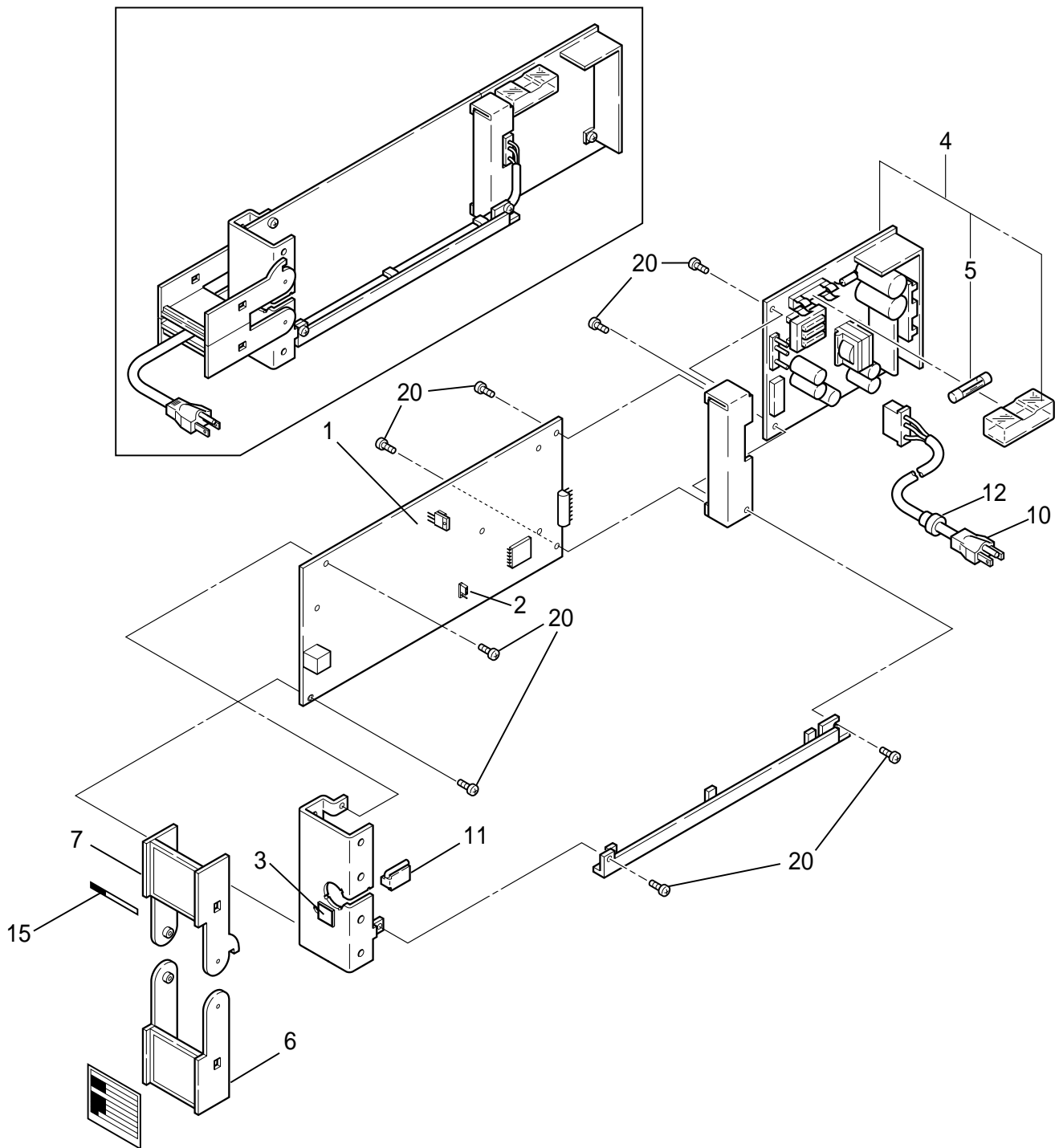
Note *: Power supply cables should be determined from the instrument power consumption-they must have conductors with cross-sectional area of at least 1.25mm².

- (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 unit 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.

Customer Maintenance Parts List

Model SDBT (Style R)
Distributor

YEW SERIES 80

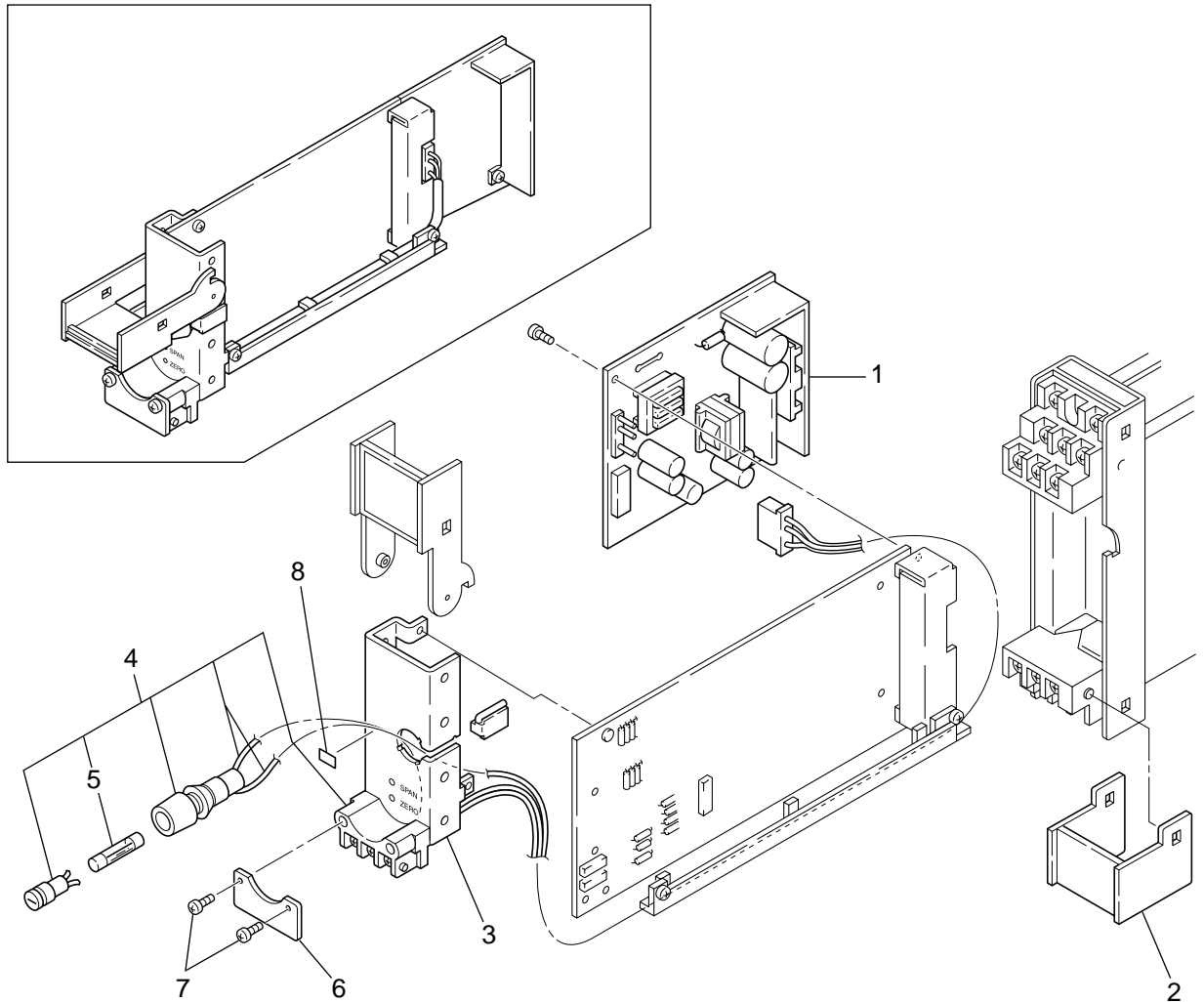


Item	Part No.	Model	Qty			Description
			SDBT-110	SDBT-210	SDBT-211	
1	L3040AA		1			Main Board Assembly
	L3040AB			1	1	Main Board Assembly
2	A1211JS		1	1	1	Socket & Holder
3	L4040EA		1	1	1	Cap
4	L3040YA		1	1	1	Power Supply Unit (for 100V Version)
	L3040YR		1	1	1	Power Supply Unit (for 220V Version)
5	S9510VK		1	1	1	Fuse(1A)
6	E9713CA		1	1	1	Cover
7	E9713CK		1	1	1	Cover
10	E9713EG		1	1	1	Cable Assembly(for 100V Version)
	E9713FS		1	1	1	Cable Assembly(for 220V Version)
11	E9713CE		1	1	1	Cover
12	S9079PB		1	1	1	Bushing
15	Y9422NP		1	1	1	Tag No. Label (blank)
20	Y9306JB		8	8	8	Pan H. Screw, M3x6

Customer Maintenance Parts List

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

YEW SERIES 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 (1A)
6	E9713CV	1	Cover
7	Y9306JB	2	Pan H. Screw, M3 × 6
8	E9714DM	1	Label (1A/250V)

Table 1. Power Supply Unit Part Number.

Applicable Instruments Model	Power Supply Unit Part No.	
	100 V Version	200 V Version
SPLR	E9715YH	/
STED, SISD, SDBT	L3040YH	
SALD, SKYD, SIND, SDAU	L3040YJ	
SDBS, SDBU-21	E9715YK	
SPCM	E9715YL	

Table 2. Bracket Part Number.

Applicable Instruments Model	Bracket Part No.
STED-110/310/410	L4040CA
STED-210	L4040CB
STED-710	L4040CC
SISD,SIND-100/200, SDBT-21	L4040CE
SKYD-200/201/302	L4040CG
SKYD-100/101,SALD-110/310	L4040CH
SKYD-204/304	L4040CL
SKYD-104	L4040CM
SALD-210/710	L4040CQ
SALD-724	L4040CS
SALD-214/714	L4040CT
SIND-104/204	L4040CX
SDBS	E9713DR
SDBT-11	E9713DL
SDAU-xxx/TB	L4040DA
SDAU-100/RLY4/TB	L4040DB
SDAU-270/RLY4/TB	
SDAU-xxx/TB/COM	L4040DE
SDAU-100/RLY4/TB/COM	L4040DF
SDAU-270/RLY4/TB/COM	

Revision Information

- Manual Title : Model SDBT (Style R) Distributor
- Manual No. : IM 01B04T01-02E

12th Edition/May 2004

Change of the company name.

Written by Yokogawa Electric Corporation

Published by Yokogawa Electric Corporation
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