

## 1. PRECAUTION

Please read through this Manual before use the instrument for correct handling. Please keep this Manual carefully after use. This instrument has been thoroughly tested at the factory before shipment. When you receive it, visually inspect it for damage and check the accessories.

- ① Model number and specification check  
Check to see the model number and specifications on the nameplate attached to the front face of the instrument are as ordered.
- ② Contents of instruction manual  
This instruction manual provides instructions on handling, external wiring and safety use of Alarm Setter.

## 2. GENERAL

This compact plug-in type TC Alarm Setter inputs thermo-electromotive force of thermocouple and after compares it with internal set value, it outputs relay contact of independent 2 alarms. This instrument not only has lamp to check relay operation, but has function to prevent relay chattering when stop, recovery or instantaneous stop of electric power. It also has feature of AC/DC use power supply and equips with one touch select switch for alarm functions. (See Fig.2)

Accessories:

- Spacer ..... 1  
(Use for DIN rail mounting)
- Tag Number Label ..... 2
- Alarm Indicating Plate (H,HH,L,LL) .... 1

## 3. MOUNTING METHOD

JUXTA M Series signal conditioners can be mounted on wall or DIN rail.

### 3.1 Wall mounting

Unlock stoppers and remove main body from socket as shown in Fig.1. Then, fix the socket on the wall. Take installation gap as shown in Fig.4. (Refer Fig.4 for mounting dimensions).

### 3.2 DIN rail mounting

Insert DIN rail into upper section of DIN rail groove on rear of socket of alarm trip and fix the rail with slidelock at the base of alarm trip as shown in Fig.3. Use furnished spacer and take 5mm gap between alarm trips.

### 3.3

If wiring duct is used, install it aparting more than 20mm from top of main body.

## 4. SETTING OF ALARM OPERATING POINT

- ① See Table below for relation between alarm operations and Output-1, Output-2.

Alarm	Output-1	Output-2
HI, HI limit (*)	HI, HI limit (HH)	HI limit (H)
HI, LOW limit	HI limit (H)	LOW limit (L)
LOW, LOW limit(*)	LOW limit (L)	LOW, LOW limit(LL)

(\*) When use at HH or LL limits, attach furnished alarm indicating plate on H,L indication section in front of main body panel.

Fig.1 Wall Mounting

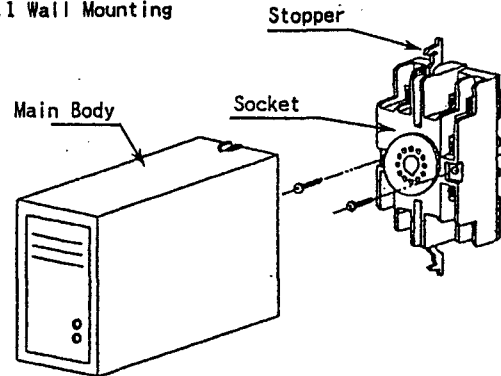


Fig.2 Select Switch.

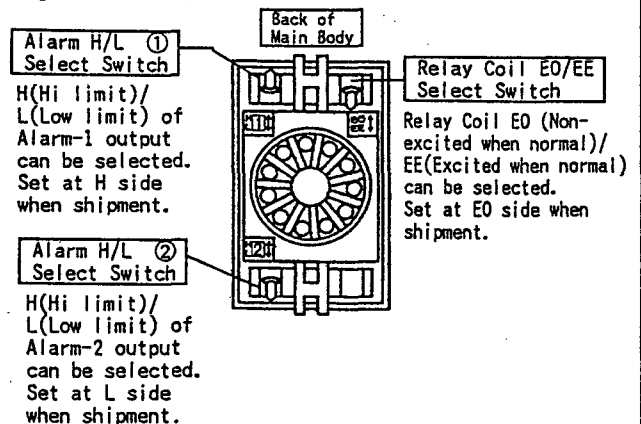
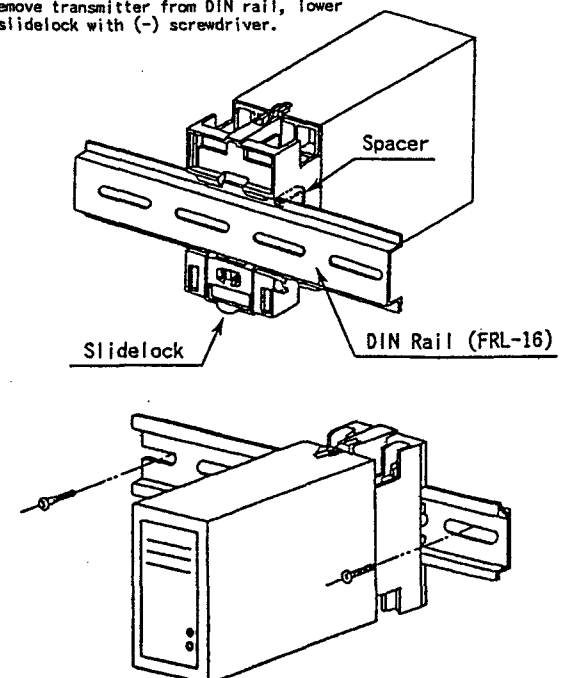


Fig.3 DIN Rail Mounting

To remove transmitter from DIN rail, lower the slidelock with (-) screwdriver.



- ② See Table below for relation between alarm and relay coil operations.

Alarm Relay coil	LOW limit (L)		HI limit (H)		Input
	Non-Excited	Excited	Non-Excited	Excited	
Non-excited when normal operation (EO)	HI limit alarm relay	Non-Excited	Non-Excited	Excited	Excited
	LOW limit alarm relay	Excited	Non-Excited	Non-Excited	Non-Excited
Excited when normal operation (EE)	HI limit alarm relay	Excited	Excited	Non-Excited	Non-Excited
	LOW limit alarm relay	Non-Excited	Excited	Excited	Excited

a contact : OFF when relay coil non-excited  
b contact : ON when relay coil non-excited

- ③ Set alarm setting ADJ at maximum (clockwise) when HI limit alarm and at minimum (counter-clockwise) when LOW limit alarm. Also, set hysteresis width variable ADJ at minimum (counter-clockwise).
- ④ Warm up the instrument for about 10 minutes and apply input signal equivalent required set value.
- ⑤ Turn alarm set dial ADJ and set it to the point where relay operation check lamp be changed over.
- ⑥ Following procedures should be taken to change hysteresis width to optional value (1~100%)
- When HI limit alarm, set input signal higher than operating point.  
When LOW limit alarm, set input signal lower than operating point.
  - Turn hysteresis variable ADJ to maximum (clockwise).
  - Apply input signal according to formula below:  
In case of HI limit alarm :  
(input signal) = (operating point) - (hysteresis width)  
In case of LOW limit alarm :  
(input signal) = (operating point) + (hysteresis width)
  - Turn hysteresis width variable ADJ slowly to minimum (counter-clockwise) and set it to the point where relay operation check lamp be changed over.

## 5. EXTERNAL WIRING

**CAUTION** Wiring should be done after ensuring power break of each cable.  
See Fig.5 for terminal arrangement.  
Wires should be connected to M3.5 screw terminal of socket. For wiring, flexible twisted wires and good contact of durable round crimp-on terminals are recommended to be used.

- Signal cable should has more than 0.5mm<sup>2</sup> and power cable should has more than 1.25mm<sup>2</sup> of nominal cross-sectional area of conductor.

### 5.1 Wiring

- Connect input signal cable to alarm trip terminals 4(+), 6(-).
- Connect Alarm-1 output cable to terminals 1(NO), 2(NO) and Alarm-2 output cable to 10(NO), 11(NO).
- Connect power cable to terminals 7(L+), 8(N-), 9(GND).

NOTE : Apart wiring of power and input/output cables from noise source. Otherwise, accuracy may not be warranted.

## 6. INSTALLATION AND HANDLING

- Avoid installation in such environments as shock, vibration, corrosive gas, dust, water oil, solvent, direct sunlight, radiation, powerful electric and magnetic fields.

Fig.4 Mounting Dimension Unit : mm

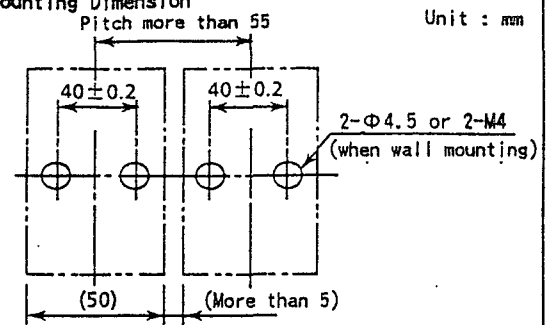
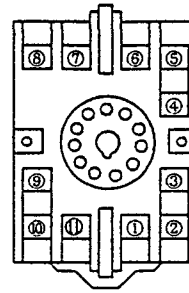
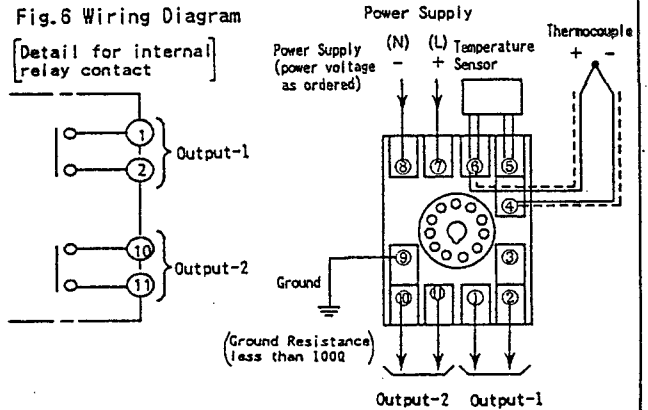


Fig.5 Terminal Arrangement



T.M.L.		
1	Alarm-1 Output	NO
2		
3		
4	Input Signal	+
5		
6	Input Signal	-
7	Power Supply	L+
8	Power Supply	N-
9	Ground	
10	Alarm-2 Output	NO
11		

Fig.6 Wiring Diagram



- ② To protect instrument from inducement of thunder surges in power and signal cables, use arrester between alarm trip and equipment installed in the field.

## 7. SAFETY USE

Following caution for safety should be taken for handling of instrument. We are not responsible for damage incurred by use contrary to caution.

### CAUTION

- Be sure to lock the stoppers (top and bottom) after inserting main body into socket.
- Following items should be checked before turning power on. Use of instrument ignoring specifications may cause overheat or burning
  - Voltage of power supply and input value be applied to the instrument should meet with required specifications.
  - External wiring to terminals should be connected correctly. (See preceding Article 4)
- Do not use the instrument in such dangerous places where exist inflammable and explosive gas or steam.

Subject to change without notice for grade up quality and performance.