

Manual Scroll

Mode - **0**

When no mode is selected, press and hold [select] button for 2 sec. to enter manual scroll mode. Mode [0] will be displayed.
Press [Select] once to scroll thru individual phase current display starting from:



Press [Cancel] once to exit manual scroll mode.

Modes

Adjustable	Not adjustable
1 : I >	9 : Operation hr. x I000
2 : Characteristic I >	A : I Trip (most recent)
3 : TM ₁ > or t ₁ >	b : I Trip (Mem.)
4 : I >>	c : I Trip (Mem.2)
5 : t ₁ >> (sec)	
0 : Manual Scroll	

Special Setting Modes

L : Software lock setting - On /OFF
R : Relay K2 function - Lc/hLc/A90/A95/AA
S : Standby mode - On/OFF
F : Network frequency - 50 / 60 Hz

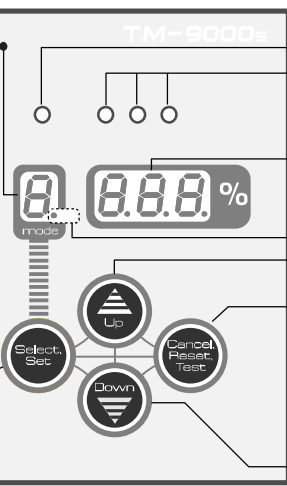
Single digit LED display
To display mode selection

Fault LED
Lit when fault detected

I > trip LED
Lit when tripped (low set)

I >> trip LED
Lit when tripped (high set)

Select / Set Button
To select mode or set parameter value (Hold 2 sec for manual scroll)



(X IO) LED
Lit when display value x IO

(L1 , L2 , L3) LED
Phase indicator

3 - digit LED display
To display current measurement

Flashing Decimal
Indicates standby mode enabled

Up Button
Set value increment

Cancel / Reset / Test Button

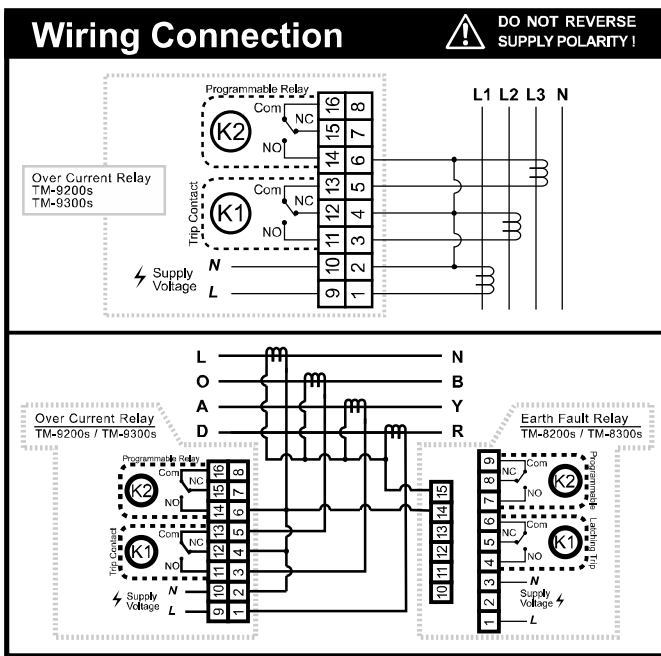
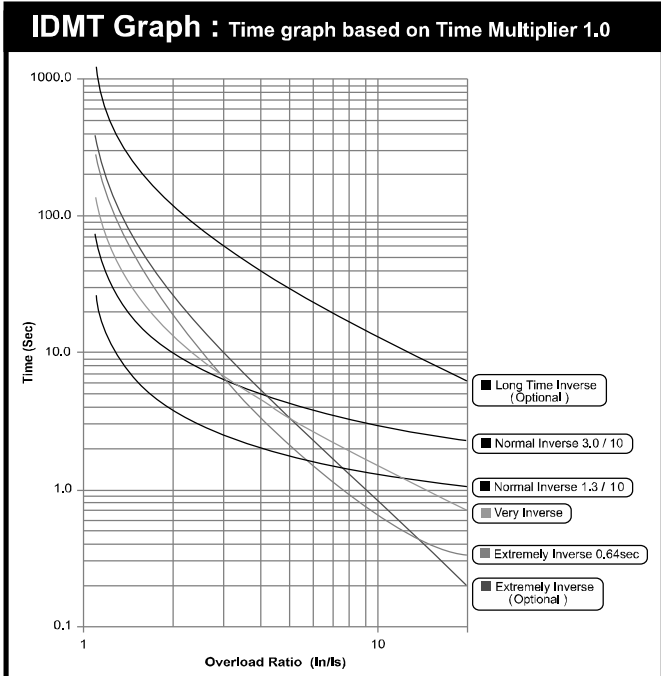
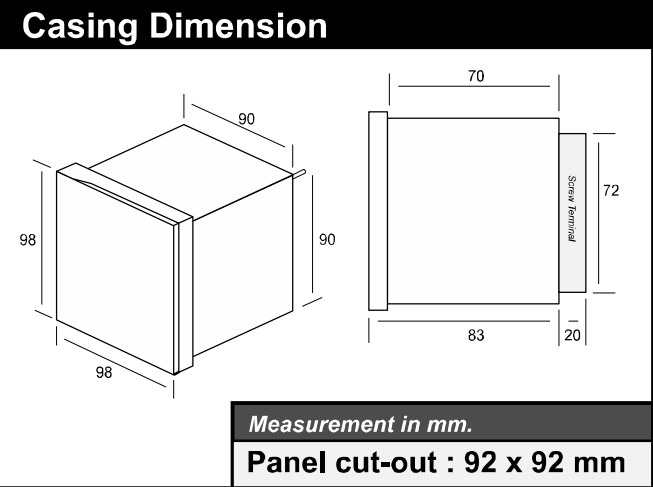
- Undo parameter setting
- Reset relay after tripped
- Test trip when hold for 5 seconds

When no mode is selected, press and hold [Test] button for 5 seconds, then release when 'L-L' is displayed. Mode starts count down from 5 seconds and trips at zero. To abort test, press the [Cancel] button once again when mode has not counted down to zero.

Down Button
Set value decrement

Technical Data	9200s	9300s
Measurement	True RMS	
Current Rating (In)	5A	
1 Current Setting (I >)	20% ~ 200% (1% step)	
2 Characteristic I > (IDMT Graph)	<ul style="list-style-type: none"> 1 Long Time Inverse 2 Definite Time 	<ul style="list-style-type: none"> 3 Normal Inverse (3.0 / 10) 4 Normal Inverse (1.3 / 10) 5 Very Inverse 6 Extremely Inverse 7 Extremely Inverse (0.64) 8 Long Time Inverse 9 Definite Time
3 Time Setting (TM ₁ > or t ₁ >)	0.05 ~ 10.0 (0.1 sec step)	
4 High Set (I >>)	1000 ~ 2000% (100% step) / OFF	
5 High Set Time Setting (t ₁ >>)	0.05 ~ 10.0 (0.1 sec step)	
Relay Operation Level	In / Is >= 1.10	
Display Range (In)	0.0% - 99.9% (0.1% res.) 100% - 999% (1.0% res.) 1000% - 2000% (10.0% res.) >2000% display 'out'	
Min. Sensitivity	approx. 2.0%	
Tripping Contact	SPDT 5A / 240V AC	
Power Supply	240V AC, 50/60 Hz	
C.T. Input / Burden	... / 5A / <1VA	
Weight	approx. 750g	
Ambient Temperature	0°C to +55°C	
Standard	IEC 61000-4-2, / 4-4 / 4-5 / 255-5:1	

* Specifications subject to change without prior notice.



Mode setting (TM-9200s/ 9300s)



00000
For setting of parameters

0000
To view info (not adjustable)

Press 'Select' button when mode display is blank to access to Parameter Setting mode.

mode 1 **Current setting (I >)**
To set over current

Step 1: Press [Select] once to enter mode **1**.
Display shows : ' 80 ' (Range : 20% ~ 200 %)

Step 2: To modify value, use the [Up / (+)] or [Down / (-)] button.
Newly selected value will flash.

Step 3: Press [Select] to store / confirm new value and advance to mode **2** or press [Cancel] to undo changes.

mode 2 **Characteristics I**
To select IDMT time graph based on time multiplier 1.0

Step 1: Press [Select] until mode **2** is displayed.
Display shows : ' n 3.0 ' - (See IDMT Graph diagram)

Step 2: Select time graph by using the [Up / (+)] or [Down / (-)] button.
Newly selected value will flash.

Step 3: Press [Select] to store / confirm new value and advance to mode **3** or press [Cancel] to undo changes.

mode 3 **Time Setting (TM₁ or t₁)**
To set over current trip time

Step 1: Press [Select] until mode **3** is displayed.
Display shows : ' 0.10 ' - (Range : 0.05 ~ 10.0 sec) refer to technical data

Step 2: Set the desired delay time (sec.) using the [Up / (+)] or [Down / (-)] button.
Newly selected value will flash.

Step 3: Press [Select] to store / confirm new value and advance to mode **4** or press [Cancel] to undo changes.

mode 4 **High-Set (I >>)**
To set high-set over current

Step 1: Press [Select] until mode **4** is displayed.
Display shows : * 100 ' - (Range : Off or 20 ~ 2000)
*(100 : Factory default value showing 1000)

Step 2: Set the desired value using the [Up / (+)] or [Down / (-)] button.
Newly selected value will flash.

Step 3: Press [Select] to store / confirm new value and advance to mode **5** or press [Cancel] to undo changes.

mode 5 **High-set trip time (t₁ >>)**
To set high-set over current trip time

Step 1: Press [Select] until mode **5** is displayed.
Display shows : ' 0.05 ' - (Range : 0.05 ~ 10.0 sec.)

Step 2: Set the desire value using the [Up / (+)] or [Down / (-)] button.
Newly selected value will flash.

Step 3: Press [Select] to store / confirm new value and advance to mode **6** or press [Cancel] to undo changes.

(Note: If High-set is set to 'OFF' in mode 4, the display will only shows : '-.-', no setting is allowed)

mode 6 **Operation hour x1000** **Not adjustable**
To view the device operated in hours

Press [Select] until mode **6** is displayed.
Display shows : ' 0.00 ' - (Indicates the no. of hours is in used.)
Press [Select] again to advance to mode **7**.

mode 8000 **View trip memory** **Not adjustable**
To view tripped memory

Press [Select] until mode **8** is displayed.
Display will show the most recent tripped value for L1.
Press [Select] button again to view L2 and so on. After phase L3 for memory **8** is viewed, pressing [Select] will go to memory **9**, then repeat as above.
Press [Cancel] button each time to back track each individual phase tripped value.

Phase **L1**, **L2** and **L3** will flash once or twice depending on the tripping conditions :-

No Flash	: Phase did not cause the tripping
Flash Once	: Phase cause a low-set trip
Flash Twice	: Phase cause a high-set trip

Special setting mode 0000

User can lock the keypad on the device to avoid unauthorized or accidental adjustment to the settings by following the steps below:

When **NO** mode is selected (single digit LED display mode display is blank), Press [Select] and [Cancel] button simultaneously and hold for 5 seconds.

0 - mode is displayed. **Lock mode**

Display shows : **OFF** - Factory Default Setting (OFF or ON).
Press [Up / (+)] or [Down / (-)] button to select .
Press [Set] button to confirm and proceed to next mode.

0n - To lock
0FF - To unlock

1 - mode is displayed. **Relay output alarm mode**

Display shows : **LC** - Factory Default Setting.
Press [Up / (+)] or [Down / (-)] button to select.
Press [Set] button to confirm and proceed to next mode.

nLC - Non-latching Trip
LC - Latching Trip
990 - I > 90 %
995 - I > 95 %
AA - I > 90% or tripped

2 - mode is displayed. **Standby mode**

Display shows : **ON** - Factory Default Setting.
Press [Up / (+)] or [Down / (-)] button to select.
Press [Set] button to confirm and and proceed to next mode.

0n - Enable
0FF - Disable

A flashing decimal on the mode display indicates standby mode is enabled. After about 3 minutes of idle and no fault is detected, running LED bar will be displayed instead of the real time fault current. Standby mode automatically exits on fault detection or when any button is pressed. When device trips, standby mode is temporarily de-activated until device is reset.

Alternatively, to enable / disable standby without entering standby programming mode, simply press [Reset] button when powering up the device.

3 - mode is displayed. **Frequency selection mode**

Display shows : **50** - Factory Default Setting.
Press [Up / (+)] or [Down / (-)] button to select.
Press [Set] button to confirm and and exit special setting mode.

50 - 50 Hz
60 - 60 Hz