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1. Safety Warnings

Thoroughly read user manual before usage for safe use and to fully understand features of OCR Tester. Please keep user manual near the OCR Tester

Symbols used on product and in user manual represents following warnings:

- Warning** Appears when instructions are violated, and there is possibility of serious injury or death
- Caution** Appears when instructions are violated, and there is possibility of minor injury or product damage
- Appears under certain condition where there is risk of danger and user should pay attention

Warning

- Do not operate, check or install alone.
- Do not carry out a test when ACB is powered or while operating, -It may cause electric shock or malfunction of ACB.
- Do not carry out a test if the bus is in live-wire state, -It may cause electric shock and the charging voltage of current transformer may be damaged or cause fire.
- Do not carry out a test when OCR control is powered (not applied to marine product), -It may cause malfunction of OCR.
- Do not disassemble the product even when unpowered, -Internal charging current of the product may cause electric shock.
- Do not install or operate with wet hands, it may cause electric shock.
- Do not use if the sheath of cable is damaged, -It may cause electric shock.
- Please wear necessary protection for usage.
- Please attach safety caution before operating.
- After completing the OCR TESTER operation, press the STOP button of OCR TESTER for 3s to release the connected power between OCR and OCR TESTER. And then, remove the connector. -Disconnecting the connector without releasing the power may cause OCR malfunction.

Caution

- Precautions for installation and terminal wiring.
 - ▶ Please apply correct power which suits rating of power terminal
 - ▶ violation of this caution may cause product damage or fire.
- Do not allow screws or other metal materials, water, oil or other substances enter inside the product, -violation of this caution may cause product damage or fire.
- ▶ Please check the direction before connecting the connector to terminal input/output
- ▶ violation of this caution may cause product damage or fire.
- ▶ Please use the offered adapter
- ▶ violation of this caution may cause product damage or fire
- Checklist before inserting power,
 - ▶ Check voltage and polarity of control power
 - ▶ Check cable direction of tester and OCR.
 - ▶ Please change the battery if product fails to operate without additional power supply.
- Precautions for storage and handling,
 - ▶ Please store in area where there is no moisture or dust.
 - ▶ Do not throw or add strong force when moving.
- Precautions for disposal,
 - ▶ When disposing, treat it as industrial waste disposal

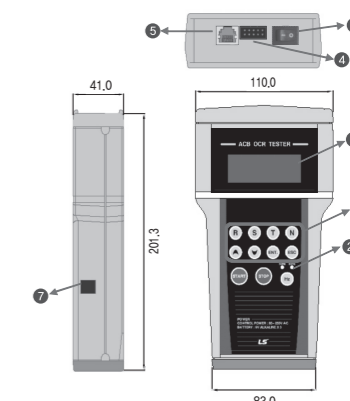
2. Product Feature

- Susol ACB OCR TESTER(shortened as TESTER) performs current relay test of Susol / Metasol ACB OCR(shortened as OCR).
- To perform relay test of OCR/ OCGR / PTA, TESTER can set current amplitude and phase.
- TESTER is equipped with built-in high-performance MCU to perform precise current relay test.
- TESTER displays Fault(accident) that may occur on ACB on LCD screen, as well as trip time/ trip type/ trip phase/ and current value of the trip.
- TESTER is portable-type powered by battery (except for marine-type), which offers convenient and simple testing at any place.

3. Product Components

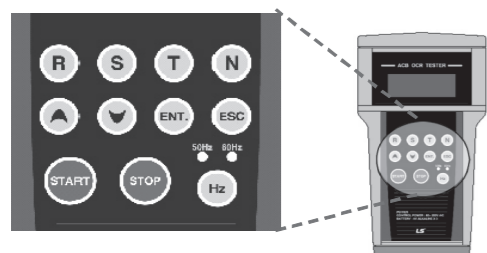


4. Product Appearance and Control Configuration



NO.	Content	Feature
1	LCD	Displays test current setting and test result
2	LED	Displays set frequency
3	BUTTON	Moving and setting of the menu
4	Signal Output Terminal	OCR connecting terminal
5	Program Download Terminal	Download terminal for program change
6	Power Switch	Power ON/OFF
7	Adapter Terminal	Control power terminal of the tester

4. Product Appearance and Control Configuration



NO.	Button Type	Feature
1	R	R-phase waveform output setting
2	S	S-phase waveform output setting
3	T	T-phase waveform output setting
4	N	N-phase waveform output setting
5	▲	Increases set value
6	▼	Decreases set value
7	ENT	Saves set value setting
8	ESC	Changes back to main screen
9	START	Begins waveform generation
10	STOP	Stops waveform generation
11	Hz	Changes frequency

5. OCR Connection and Battery Exchange Method

5-1. OCR Connecting Method

Connect Signal Cable to Signal Output Terminal on the upper area of the Tester, and connect the other end of the cable to OCR

-When connecting Signal Cable to OCR, please make sure to plug cable in right direction. (Refer to image below) If inserted in wrong direction, it may cause damage on OCR product



Note1) Standard Type

- Do not carry out a test when OCR control is powered.
- Do not turn on control power of OCR while connected to the Tester.
- After connecting OCR to the Tester, turn Tester on and press any button to start supply in power to OCR.
- When the test is complete, press STOP button for 3 seconds to discontinue supplying power to OCR, then turn off the Tester.

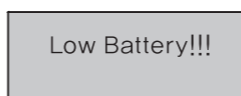
Note2) Marine Type

- OCR power control system has to be turned on to carry out a test.
- When OCR is connected to the Tester, do not plug adapter to the Tester.
- When power is supplied to control power system of OCR, it will also supply power to the Tester whilst two devices are connected.
- ACB can perform Trip at the instant when the power is supplied to the Tester. (1 beginning Trip is available every time after disconnecting and reconnecting).

5. OCR Connection and Battery Exchange Method

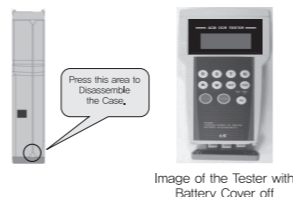
5-2. How to change the Battery

- When the Battery voltage drops under 6V, the test will stop and a message to turn OFF the control power system of OCR will appear. In order to continue the test, Battery has to be exchanged.



Low Battery Screen

- Disassemble the Case located on the bottom part of the Tester. (refer to the image below)
- Put 3 flat batteries out and firmly connect new batteries to the Tester.
- Place the batteries inside and reassemble the Case.



Note1)

- This product is portable type with battery operation only.(marine type varies)
- Battery may be discharged if operated for long hours without control power system. It is recommended to carry spare batteries.(when device is turned on with discharged batteries, the screen will display abnormally.)
- When device is discharged, it will not supply power to the OCR so please change the batteries immediately.

6. Product Rating

6-1. Standard Using Environment

This product should be used under standard conditions listed below, unless other specific condition is stated.

- Temperature
 - Standard using temperature: -10°C ~ 55°C
 - Storage temperature: -25°C ~ 70°C
- Humidity condition: below 80%. (area where it is dry.)
- Using environment condition
 - Altitude : below 2,000m,
 - area where there is no abnormal vibration or shock,
 - area where air contamination is not severe.

6-2. Product Input Rating

Classification	Applied Limits	Note
Rating Frequency	60Hz or 50Hz	
Rating Input	AC/DC 85~250V(Free Voltage)	
BATTERY	DC9V Alkaline Batteries x3	1" Battery
Energy Consumption	below 5W when still, below 10W while operating	

7. Operating Method

7-1. Output Signal Amplitude, Phase Setting and Testing Method

7-1-1. Main Screen

Current Base : In

1) Standard setting can be adjusted in multiples based on the size of each phase.

2) When in "In" mode, maximum rated current becomes standard.

▲ Press Up key once more

Current Base : Ir (0,00*In)

1) Standard setting can be adjusted in multiples based on the size of each phase.

2) When in "Ir" mode current set in Long Time mode becomes standard.

▲ Press Up key once

R ●:0,00∠0,0 IE
S ●:0,00∠240,0
T ●:0,00∠120,0
N ○:0,00∠0,0 In

1) Standard Setting Amplitude: Times In(Maximum Rating) of each phase
Phase : R-Phase 0Degrees, S-Phase 240Degrees, T-Phase 120Degrees.

▼ Press Down key once

OCR Type IEC/UL : UL Type

1) OCR Type setting can be adjusted.

2) "UL" Type.

▼ Press Down key once more

OCR Type IEC/UL : IEC Type

1) OCR Type setting can be adjusted.

2) "IEC" Type.

▼ Press Down key once more

