

# 4 Specifications

## 7 Other Accessories

### OCR checker, type ANU-1

The OCR checker allows easy checking of the long time-delay trip, short time-delay trip, instantaneous trip, ground fault trip functions and the pre-trip alarm function of the OCR in the field.

#### ■ Ratings and specifications

Power supply	<ul style="list-style-type: none"> <li>• AC100–110V, 50/60Hz or AC100–240V, 50/60Hz with type C plug</li> <li>• 4×AA alkaline cells</li> </ul>
Power consumption	7VA
Dimensions	101 (W) × 195 (H) × 44 (D) mm
Weight	400 g



#### ■ Measurement output

- Long time delay trip pickup current
- Long time delay trip pickup time
- Short time delay trip pickup current
- Short time delay trip pickup time
- Instantaneous trip pickup current
- MCR trip pickup current
- Ground fault trip pickup current
- Ground fault trip pickup time
- N-phase protection trip pickup current
- N-phase protection trip pickup time
- Pre-trip alarm pickup current
- Pre-trip alarm pickup time

For the checking of Reverse power protection, use the following OCR test interface unit, ANU-2.

### OCR test interface unit, type ANU-2

OCR test interface unit ANU-2 is a testing tool designed for checking the functionality of type AGR OCR (overcurrent release). Using this tool in conjunction with a commercial constant-current generator allows easy on-site testing of the OCR. The reverse power trip function of the OCR can also be tested using the tool.

OCR test interface unit ANU-2 is a device that converts current into voltage. In addition to the unit, a constant-current generator is needed to test the OCR. Use a generator with a continuous rating of 5A (50/60Hz) and a short-time rating of 50A (50/60 Hz) for 10 seconds (500 VA).



#### ■ Ratings and Specifications

Power supply	Input	External power supply (through power cable with AC adapter) 100 to 240 VAC (50/60 Hz)
	Output	9 VDC
Power consumption	7VA	
Outline dimensions	W160×H90×D220 (mm)	
Mass of main unit	2kg	

#### ■ Measurement output

- Long time delay trip pickup current
- Short time delay trip pickup current
- Instantaneous trip pickup current \*1
- Instantaneous trip operation
- MCR trip pickup current \*1
- Ground fault trip pickup current
- N-phase protection trip pickup current
- Pre-trip alarm pickup current \*2
- Reverse power protection trip pickup current \*4
- Long time delay trip pickup time (simplified testing) \*3
- Reverse power protection trip pickup time (simplified testing) \*3 \*4
- Pre-trip alarm pickup time (simplified testing) \*3

#### ■ Accessories

- Power cable with AC adaptor (2m)
- Plug adaptor
- Signal cable (3m)
- Operation manual

\*1 Can be measured only when the input current does not exceed 50 A.

\*2 Not applicable for types AGR-11 or AGR-11B.

\*3 A stopwatch is required for measurement.

\*4 Applicable for types AGR-22BS-PR and AGR-31BS-PR only.



### Usage instruction

Function: Checking the current and time settings for an overcurrent tripping relay

- Long time delay trip      ■ Ground fault trip
- Short time delay trip    ■ Pre-trip alarm
- Instantaneous trip

Applicable models: All models of OCRs for AR type ACBs

- Since an OCR can be powered from the checker, the OCR can be measured even if no control power is applied to the OCR.
- The connection with an OCR can be made easily using a single connector.
- The function, output phase, output voltage, and trip signal for the OCR during the testing are indicated on the LCD and with the LEDs. All the operations can be performed easily using pushbutton switches.

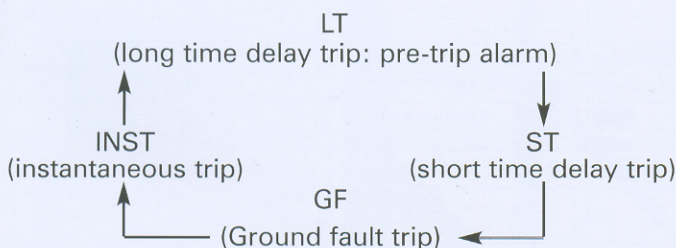
### Function of each switch

The function of each switch is described below: Fig. 1 illustrates the front panel of the checker. The number preceding each switch corresponds to the number indicated in this figure.

#### ① POWER switch

This switch is used to turn ON/OFF the checker. When the built-in battery is active, the switch is automatically turned OFF (auto-OFF function) after it has not been pressed for 1 minute or more.

#### ② SELECT FUNCTION switch



This switch is used to select a measurement mode. Pressing this pushbutton switch toggles in the above order and each measurement mode is indicated both on the LCD screen and corresponding LEDs on the OCR checker. (fig. 1).

If the measurement mode is changed, the output phase is maintained, but the output voltage becomes 0 V.

#### ③ SELECT PHASE switch

This switch is used to select a signal output phase. It is not valid during signal output. Even if the output phase is changed, the directly previous output voltage is maintained. This feature is convenient when the same measurement is performed continuously.

#### ④ and ⑤ SIG. ADJUST UP/DOWN switches

These switches are used to increase/decrease the output voltage value. A rough adjustment can be made by holding down each switch and fine tuning can be performed by pressing each switch. The output value can be adjusted during output.

#### ⑥ OUTPUT switch

This switch is used to turn ON/OFF the voltage output. When a voltage value is output, the voltage value indicated on the LCD changes from a blinking state to an illumination state.

### 4.2 Measurement procedure in the ST mode

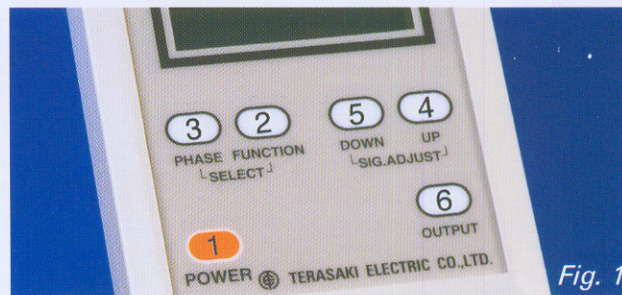


Fig. 1

Note: Picture of whole OCR checker - refer page 51.

The setting value and measurement procedure in the ST mode are given below.

#### Measurement of pickup current setting in the ST mode

- I. Press the SELECT FUNCTION ( ② in Fig.1) and select "ST P.U" on the LCD and with the LED.
- II. Using the SELECT PHASE switch ( ③ in Fig.1) select the phase to be measured.
- III. Press the OUTPUT switch ( ⑥ in Fig. 1) to output the voltage.
- IV. Press the SIG. ADJUST UP ( ④ in Fig.1 ) to increase the voltage until tripping occurs. When tripping occurs, the LED changes from a blinking state to an illumination state and "TRIP" appears on the LCD indicating the voltage value at which tripping has occurred. The output is automatically cut with the trip signal.

#### Measurement of time delay in the ST mode

- I. Press the SELECT FUNCTION switch ( ② in Fig. 1 ) and select "ST T" on the LCD and with the LED.
- II. Using the SELECT PHASE switch ( ③ in Fig. 1 ) select the phase to be measured.
- III. Press the SIG. ADJUST UP/DOWN switch ( ④ and ⑤ in Fig. 1) to adjust the output voltage value at 1.2 times the setting value.
- IV. Press the OUTPUT switch ( ⑥ in Fig. 1) to output voltage for tripping. When tripping occurs, the LED changes from a blinking state to an illumination state and "TRIP" appears on the LCD indicating the time delay at which tripping has occurred. The output is automatically cut with the trip signal.