

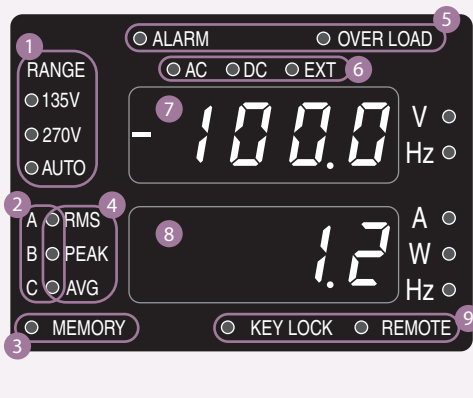
PCR-M Series

Quick Reference



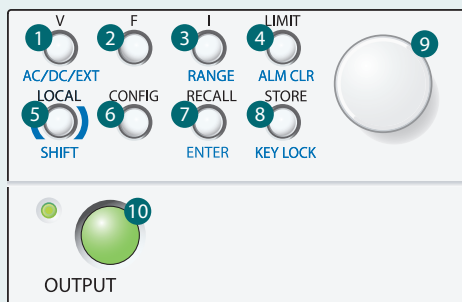
Display

Operation Panel



1	Voltage range	The selected voltage range illuminates.	P13
2	Memory ABC	The selected memory illuminates.	P18
3	Memory	Illuminates when saving settings and blinks when recalling settings.	P18
4	RMS/PEAK/AVG	RMS, PEAK, AVG(average) illuminates according to the type of value shown on the numeric display.	P16
5	ALARM/OVER LOAD	Illuminates when and alarm or overload occurs.	P20
6	Output mode	The selected mode illuminates (AC, DC, or EXT).	P13
7	Upper num. disp.	Displays voltage or frequency.	-
8	Lower num. disp.	Displays current or power, the alarm/error number, the frequency when the memory is used.	P16
9	Key lock/remote	Illuminates when the key is locked or when in remote mode.	P19

Display



1	V key	Sets the voltage. The key illuminates when active.	P14
2	F key	Sets the frequency. The key illuminates when active. The key is disabled in DC mode.	P14
3	I key	Selects the type of value shown on the lower numeric display (RMS, PEAK, AVG, or W).	P16
4	LIMIT key	Sets the limit value. The key illuminates when active. Press the key to select the destination limit value.	P17
5	LOCAL key	Switches to local mode.	P19
6	CONFIG key	Sets the configuration. Press the key to select the destination setting.	P22
7	RECALL key	Recalls from memory. Press the key to select the memory you wish to recall.	P18
8	STORE key	Saves to the memory. Press the key to select the destination memory.	P18
9	Rotary knob	Changes the settings.	-
10	OUTPUT key	Turns the output on/off. The LED lights on when the output is on, and lights off when the output is off.	P15

Operation Panel

The newest version of the operation manual can be downloaded from Kikusui website.

<http://www.kikusui.co.jp>

The "User's Manual" on the accompanying CD-ROM describes the following information.

- Attachment to the Rack Mount Frame..P43
- Attachment of the Optional Interface Board..P42
- Controlling the Output Using External Analog Signals (Option)..P24
- Maintenance..P46
- Troubleshooting..P48
- Specifications..P27
- The Appendix of this "User's Manual" describes the "Output and the Load", "Over load protection function", "AC + DC mode", and the "Glossary".
- For details of remote control, see the Communication Interface manual on the accompanying CD-ROM.



While holding down SHIFT key...

1	AC/DC/EXT key	Selects the output mode. The key is disabled when the OUTPUT is turned on.	P13
3	RANGE key	Sets the voltage range. The key is disabled when the OUTPUT is turned on.	P13
4	ALM CLR key	Clears alarms. When you press this key again, the alarm number will be displayed.	P20
7	ENTER key	Confirms memory recall or storage.	P18
8	KEY LOCK key	Locks the keys. When the panel is locked, all keys other than the OUTPUT and KEY LOCK key are disabled.	P19

PCR-M series	Input rating	PCR500M	PCR1000M	PCR2000M	PCR4000M
Output voltage waveform distortion ratio *1	Nominal input rating (AC input)	100 V to 120 V/ 200 V to 240 V, 50 Hz/ 60 Hz, single phase			
Output voltage response time *2	Apparent power	800 VA or less	1600 VA or less	3200 VA or less	6400 VA or less
Measured value display					

Output rating for AC mode	PCR500M	PCR1000M	PCR2000M	PCR4000M
Rated voltage range *3	1 V to 135 V/ 2 V to 270 V (resolution: 0.1 V)			
Preset voltage range *3	0 V to 137.5 V/ 0 V to 275 V (resolution: 0.1 V)			
Maximum current *4	5 A/ 2.5 A	10 A/ 5 A	20 A/ 10 A	40 A/ 20 A
Maximum peak current *5	15 A/ 7.5 A	30 A/ 15 A	60 A/ 30 A	120 A/ 60 A
Power capacity	500 VA	1000 VA	2000 VA	4000 VA
Frequency setting range	40 Hz to 500 Hz (resolution: 0.1 Hz)			

Output rating for DC mode	PCR500M	PCR1000M	PCR2000M	PCR4000M
Rated voltage range *3	1.4 V to 190 V/ 2.8 V to 380 V (resolution: 0.1 V)			
Preset voltage range *3	-194 V to 194 V/ -388 V to 388 V (resolution: 0.1 V)			
Maximum current *6	4 A/ 2 A	8 A/ 4 A	16 A/ 8 A	32 A/ 16 A
Maxim instantaneous current *7	12 A/ 6 A	24 A/ 12 A	48 A/ 24 A	96 A/ 48 A
Power capacity	400 W	800 W	1600 W	3200 W

*1. At an output voltage of 50 V to 135 V/100 V to 270 V, a load power factor of 1, and in AC mode. *2. For an output voltage of 100 V/200 V, a load power factor of 1, with respect to stepwise change from an output current of 0 A to the maximum current (or its reverse). *3. 135 V/270 V range. *4. For an output voltage of 1 V to 100 V/2 V to 200 V. Limited by the power capacity when the output voltage is 100 V to 135 V/200 V to 270 V. *5. With respect to the capacitor-input rectifying load. Limited by the maximum current. *6. For an output voltage of 1.4 V to 100 V/2.8 V to 200 V. Limited by the power capacity when the output voltage is 100 V to 190 V/200 V to 380 V. *7. Limited by the maximum current.

Specification (principal)

To setup output on

1. Switching the output mode.

It can be switched by the **AC/DC/EXT** key. It can not be set when the output is on.

2. Setting the voltage range.

It can be switched by the **RANGE** key. It can not be set when the output is on.

3. Setting the voltage.

Press the **V** key, then set by the rotary knob.

4. Setting the frequency.

(AC mode/ AC+DC mode only)

Press the **F** key, then set by the rotary knob.

5. Turning the OUTPUT on.

Press the **OUTPUT** key.

The OUTPUT on phase can be set in AC mode.

Measured value display



The upper numeric display indicates the current measured voltage.

The lower numeric display indicates the current measured current or power. Type of displayed value is changed by pressing the **I** key.

Using Memories



Saving to the memory

Configure the PCR-M to the setting you wish to store. Select the memory to be saved by the **STORE** key, and press the **ENTER** key to save.

Recalling the memory

Select the memory to be recalled by the **RECALL** key, and press the **ENTER** key to recall.

Factory Default Settings



Turn the **POWER** switch on while holding down the **RECALL** key.

Setting the limit value



1. Press the **LIMIT** key until the display shows the desired limit setting.

2. Turn the rotary knob to set the condition.

3. To set other limit values, press the **LIMIT** key. If you wish to abort setting of the limit value, press the **V/F/I** key.

Cur V Hz Current limit

OCP V Hz Select the current limit operation (The operation to be carried out when the current limit is exceeded.)

TRIP TRIP: Turn the OUTPUT off when an overload occurs.

LIMIT CONTROL:
CC Decreased the output voltage when an overload occurs.

U UP A W Hz Voltage upper limit

U LO A W Hz Voltage lower limit

F UP A W Hz Frequency upper limit*

F LO A W Hz Frequency lower limit*

*: Not displayed in DC mode.

Steps to be taken if the circuit breaker trips (PCR2000M only)



Turn off the **POWER** switch, then press the **BREAKER** button. Set the output current at less than 10 A for the load, and turn on the **POWER** switch.

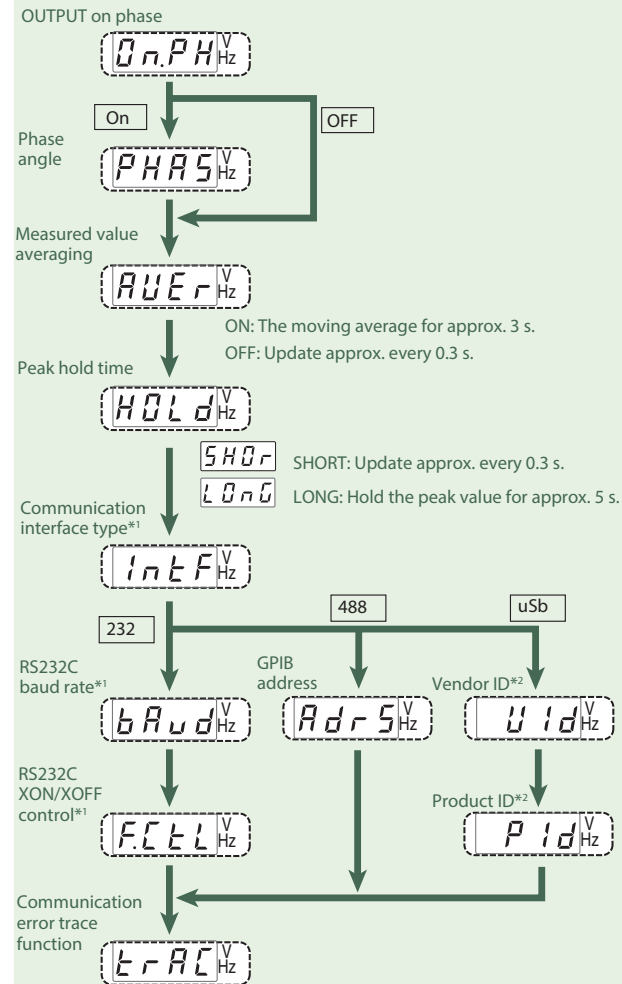
Setting the Configuration



1. Press the **CONFIG** key until the display shows the desired operating condition.

2. Turn the rotary knob to set the condition.

3. To set other operating conditions, press the **CONFIG** key. If you wish to abort setting of the operating condition, press the **V/F/I** key.



*1: Turn the **POWER** switch off and on, then the settings are applied.

*2: Display only

Alarms and Errors



After releasing the alarm, remove the cause of the alarm/error.

Clearing Alarms

Press the **ALM CLR** key.

Clearing Errors

Turn the **POWER** switch off.

Alarm or error number, description

A-00

Detected more than 8 V of measured voltage against the setting voltage or the external signal which exceeds maximum value of the range is applied.

A-01

The overload protection function tripped.

A-02

The overload protection function tripped.

A-03

Power protection function tripped.

A-04

The overheat protection function tripped.

A-06

Detected less than 8 V of measured voltage against the setting voltage.

E-09

An error is occurring in the internal communication.

E-10

The input voltage is outside the rated range when the power is turned on.

E-11

A voltage error occurred in the internal power unit.

E-12

While the operation, the error has been occurred either the input voltage becomes out of the rated range or the abnormal state is detected in the input circuit.

E-13

An error occurred inside the PCR-M. Reset to the state of the factory default.

E-15

An error occurred in the calibration data. The error cannot be cleared.