

Configuration Guide for the Ranger PM2000 & PM2000-300

Recommended

Read through this short guide before configuring
your PM2000.

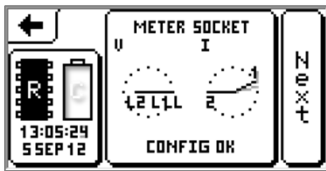


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Configuration Guide for the Ranger PM2000 & PM2000-300

1. Choose the best configuration for your needs

To help you set up your PM2000 as quickly and easily as possible we have pre-loaded **11 recording configurations** (configs) ready for your immediate use. The default config is on p. 11 of this booklet. If this measures all the parameters you need then you can **'Start Recording'** immediately. If not, choose another and continue to step 2.



2. Communicate with your PM2000

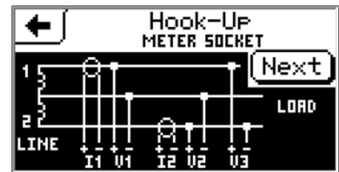
Once you have chosen your config, **open communications** between your portable device or your PC and your PM2000 using PMScreen*.

3. Load your chosen configuration

To **load your config** click on 'Continue', 'Next', 'Configure', 'Available Configs'. Scroll down and select your config then click on 'Load'.

4. Hook-up your logger

Next **hook-up your logger** using the hook-up visual in PMScreen for reference. To reach it, touch the 'back' arrow then 'Hook-up' for the hook-up visual.



5. Start recording

Once set up, on PMScreen, click the 'back' arrow, then 'Start Recording'. Name your session and then click **'Start'**, choosing whether to erase old sessions or not.

It's as easy as that!

Remember that if any of these configurations do not match your exact needs, you can either design a new config or tweak any factory config. and save it under a new name for future use.

*PMScreen is a program pre-installed on your portable device (if included in your kit) and can also be found in the Pronto4w directory, installed from the customer CD.

Configuration Options

Changes that can be made to any configuration, using PMScreen, are:

Physical Hook-up

- Input Channel Calibration

Timings / Memory Mode

- Length of recording (1 sec to as long as you like, 'FIFO')
- First In First Out (FIFO/Recycle) mode
- Delayed Start

Data to be Captured

- Detailed recording method (Adaptive Store/ Point Store)
- Detailed recording channels (functions to be recorded in detail)
- Flicker intervals (short term: 1 - 15 min, long term: 1 - 168 hrs)

Alarms

- High and Low alarms

N.B. the Hook-up selected will always be the 'Meter Socket' Hook-up, for which this PM2000 Meter Socket Logger was initially designed.

PM2000 Factory Configuration Summary Table

Configuration Name	Hook-up	Max Current	Adaptive Store Recording Channels	Detail
All Configurations are set to record for a 7 day period (unless otherwise stated) with FIFO recording mode off.				
2Ø I Hmncs 7day	Meter Socket	200 A	7 channels	p. 5
2Ø I only 7day	Meter Socket	200 A	5 channels	p. 6
2Ø V Hmncs 7day	Meter Socket	200A	6 channels	p. 7
2Ø V I 7day	Meter Socket	200A	5 channels	p. 8
2Ø V I Flkr 7day	Meter Socket	200A	8 channels	p. 9
2Ø V I Full Flkr 7day	Meter Socket	200A	16 channels	p. 10
2Ø V I Hmncs 7day (Default)	Meter Socket	200A	10 channels	p. 11
2Ø V I Pwr 7day	Meter Socket	200A	9 channels	p. 12
2Ø V I Pwr Flkr 7day	Meter Socket	200A	12 channels	p. 13
2Ø V I Pwr Hmncs 7day	Meter Socket	200A	14 channels	p. 14
2Ø V only 7day	Meter Socket	200A	3 channels	p. 15

2 ϕ I Hmncs 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6 Value all Harmonics of Signal I1 (Aac)
- 7 Value all Harmonics of Signal I2 (Aac)
- 8-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store

Recording Duration: 7 Days

FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ I only 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V Hmncs 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 % THD Traditional of Signal VI1 (%)
- 5 % THD Traditional of Signal VI2 (%)
- 6 % THD Traditional of Signal VII (%)
- 7-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V I 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V I Flkr 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6 Flicker short term VI1 10 mins (Pst)
- 7 Flicker short term VI2 10 mins (Pst)
- 8 Flicker short term VII 10 mins (Pst)
- 9-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V I Full Flkr 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1 Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2 Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6 Flicker sensation on VI1 (Pfs)
- 7 Flicker sensation on VI2 (Pfs)
- 8 Flicker sensation on VII (Pfs)
- 9 Flicker short term VI1 10 mins (Pst)
- 10 Flicker short term VI2 10 mins (Pst)
- 11 Flicker short term VII 10 mins (Pst)
- 12 Flicker long term VI1 2 hours (Plt)
- 13 Flicker long term VI2 2 hours (Plt)
- 14 Flicker long term VII 2 hours (Plt)
- 15 Flicker flag on VI1 (Flg)
- 16 Flicker flag on VI2 (Flg)

General Setup Values

Storage Mode: Adaptive Store

Recording Duration: 7 Days

FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V I Hmncs 7day (PM2000 Default)

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6 % THD Traditional of Signal VI1 (%)
- 7 % THD Traditional of Signal VI2 (%)
- 8 % THD Traditional of Signal VII (%)
- 9 Value all Harmonics of Signal I1 (Aac)
- 10 Value all Harmonics of Signal I2 (Aac)
- 11-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

3 ϕ 3el 11kV THD Flkr 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6 2 Phase 3 Wire Real Power (Inputs 1,2,3,4) (kW)
- 7 2 Phase 3 Wire Reactive Power (Inputs 1,2,3,4) (kVr)
- 8 2 Phase 3 Wire Apparent Power (Inputs 1,2,3,4) (kVA)
- 9 2 Phase 3 Wire Power Factor (Inputs 1,2,3,4) (PF)
- 10-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V I Pwr Flkr 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1 Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2 Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6 2 Phase 3 Wire Real Power (Inputs 1,2,3,4) (kW)
- 7 2 Phase 3 Wire Reactive Power (Inputs 1,2,3,4) (kVr)
- 8 2 Phase 3 Wire Apparent Power (Inputs 1,2,3,4) (kVA)
- 9 2 Phase 3 Wire Power Factor (Inputs 1,2,3,4) (PF)
- 10 Flicker short term VI1 10 mins (Pst)
- 11 Flicker short term VI2 10 mins (Pst)
- 12 Flicker short term VII 10 mins (Pst)
- 8-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V I Pwr Hmncs 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4 RMS of Signal I1 (Aac)
- 5 RMS of Signal I2 (Aac)
- 6 2 Phase 3 Wire Real Power (Inputs 1,2,3,4) (kW)
- 7 2 Phase 3 Wire Reactive Power (Inputs 1,2,3,4) (kVr)
- 8 2 Phase 3 Wire Apparent Power (Inputs 1,2,3,4) (kVA)
- 9 2 Phase 3 Wire Power Factor (Inputs 1,2,3,4) (PF)
- 10 % THD Traditional of Signal VI1 (%)
- 11 % THD Traditional of Signal VI2 (%)
- 12 % THD Traditional of Signal VII (%)
- 13 Value all Harmonics of Signal I1 (Aac)
- 14 Value all Harmonics of Signal I2 (Aac)
- 15-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None

2 ϕ V only 7day

Hook Up: Meter Socket

Channel Functions

Input Channels

- 1 VI1Vac 0 to 300 Vac
- 2 I1 Aac 0 to 200 Aac
- 3 VI2Vac 0 to 300 Vac
- 4 I2 Aac 0 to 200 Aac
- 5 VII Vac 0 to 300 Vac

Detailed (Math) Channels

- 1 RMS of Signal VI1 (Vac)
- 2 RMS of Signal VI2 (Vac)
- 3 RMS of Signal VII (Vac)
- 4-16 Unspecified

General Setup Values

Storage Mode: Adaptive Store
Recording Duration: 7 Days
FIFO / Recycle mode: Off

Input Calibration

Setup Values

- 1 VI1 300 Volts = 300.0
- 2 I1 200 Amps = 200.0
- 3 VI2 300 Volts = 300.0
- 4 I2 200 Amps = 200.0
- 5 VII 300 Volts = 300.0

Alarms: None