

# PowerPad® III Model 8336

## Field Guide

A step-by-step guide to Trend Recording, Alarms,  
and Transient Capture



**DataView®**

*This Field Guide provides brief instructions for setting up and operating the Model 8336 on-site, via the instrument front panel. It is the companion document to the PowerPad III Model 8336 Handbook, which provides more detailed instructions including how to perform tasks on the instrument using DataView.*

# 1. CONFIGURATION

## 1.1. Instrument Time and Date

1. Press the  button to display the Configuration Options screen.
2. By default, the Date/Time option is selected; if not use the arrow buttons to highlight it. Then press the  button to display the Date/Time screen.
3. Check the displayed date and time. If it differs from the current date and time, press  to select the settings. Then use the arrow buttons to change the date and/or time. When finished, press .
4. The Date/Time screen also lets you select the date and time formats. To change these, use the arrow and  buttons to highlight, select, and change the settings, as explained in step 3. When finished, press  to return to the Configuration Options screen.

## 1.2. Hookup Type

1. At the Configuration Options screen, use the arrows to navigate to and highlight Electrical Hook-up, then press . This displays the Electrical Hook-Up screen. The hook-up type field appears at the top of the screen, along with a diagram of the hook-up in the middle of the display. Use the left and right arrows to change the hook-up type. As you select the hook-up, the diagram in the center of the screen changes to match the selection.  
For some hookups (such as 3-phase 5-wire), a set of options appear on the right side of the display. These allow you to select the connections for the hook-up. Use the up and down arrows to change this setting.
2. When finished selecting the hook-up and connections, press . You are returned to the Configuration Options screen.

## 1.3. Voltage and Ratios

1. At the Configuration Options screen, use the arrows to navigate to Probes and Ratios, and press .
2. The instrument automatically detects the type of probes/sensors connected to the instrument and displays them on this screen. Press the first yellow function button on the left (under the  icon) to display the Voltage Ratios screen. The Ratio Set-up field is highlighted by default. Press .
3. Use the Up and Down arrows to select how the voltage ratios should be applied. Options are:
  - **4V 1/1**: No ratios, none of the fields is active.
  - **4V**: Same ratio for all; the value you enter applies to all phases and neutral.
  - **3V+VN**: One field sets the ratio for 1, 2, and 3; another sets the ratio for N.
  - **V1+V2+V3+VN**: Separate ratios, all four fields (1, 2, 3, and N) are active.

When you have made your selection, press .

4. Press the Up and Down arrows to highlight the displayed voltage ratios (except if 4V 1/1 is selected). Spend a few moments adjusting the voltage ratios and observing how the measurement reacts. For example, set a voltage ratio, then press  and observe the RMS measurements at the top of the display.

## 1.4. Quantities to Record

1. Press  to return to the Configuration Options screen, then select Trend Mode and press . This displays the Trend Mode screen. This shows all of the available quantities the instrument can measure during a recording session. A red indicator to the left of each quantity signifies that the quantity is selected for inclusion in the recording.
2. Use the arrows to navigate through the displayed quantities. Select or deselect a quantity to record by pressing . You can select all the quantities by pressing the  button, or deselect all by pressing .

There are two pages of quantities. Use the  and  buttons to browse the pages in the recording. You can set up to four different recording configurations. The configuration number appears at the bottom center of the screen. Use the  and  to cycle through the configurations. Selected quantities will be included in subsequent trend recordings.

## 2. TREND RECORDING

### 2.1. Scheduling Trend Recording

1. Press the  button.
  - If there are no recordings stored in the instrument, the Recording Schedule screen appears.
  - If there are recordings in the instrument, the Recording List screen is displayed. In this case, press the  button to display the Recording Schedule screen.This screen displays five input fields:
  - **Set-up** identifies the configuration preset, 1 through 4. Configuration presets allow you to select one of four sets of quantities to include in the recording. (See also Section 1.4.)
  - **Start** defines the time and date when the recording starts. This must be later than the current date and time.
  - **Stop** specifies when the recording ends. This must be later than the start date and time.
  - **Period** is the time interval over which measurements are aggregated. Options are 1s, 5s, 20s, 1min, 2min, 5min, 10min (default), and 15min. Note that the recording duration defined by the Start and Stop fields must be longer than the Period setting.
  - **Name** allows you to name the test. This can be 8 characters long.
2. Use the arrow and  buttons to highlight, select, and edit the Period and Name fields.
3. To start a recording immediately, press the  button and skip to Step 5 below.  
To schedule the recording, use the arrow and  buttons to highlight, select, and edit the Start and Stop fields.
4. Press the  button to write the settings to the instrument.
5. If not enough memory is available, an error message appears informing you of this. Otherwise, the recording will begin, either immediately (if started via ) or at the scheduled start time and date. If a recording is scheduled but not yet started, the message RECORDING ON STANDBY appears on the screen until the start time is reached, at which point the message changes to RECORDING IN PROGRESS. If the recording is started by pressing , all measurements are recorded every second until the recording is manually stopped or the memory is full. During this recording the Set-up field displays . When the recording is active, the  icon blinks at the top of the screen, next to a status bar showing the progress of the recording. In addition, the  (stop) button appears in place of . The recording will continue until you press  or until the stop time/date is reached.
6. When the recording is finished, it appears in the Recording List screen. You can now open the recording and view its contents, as explained in Section 2.2).

### 2.2. Viewing a Trend Recording

When your recording is finished, you can view it in the instrument's recording list. To do this:

1. **At Recording Schedule screen**, press the  button.  
**For all other displayed screens**, press the  button.
2. If more than one recording is stored, use the arrows to select the desired recording, then press  to open it.  
The function button icons at the bottom of the screen now represent different recorded measurements. Pressing  cycles through the pages in the recording. Each press of  displays the next set of measurements.
3. When you find a measurement of interest, use the corresponding yellow function button to select it and view the data. The displayed screen will vary depending on the selected measurement type.

## 3. ALARMS

### 3.1. Alarm Configuration

1. Press the  button.
  - If there are no alarm recordings stored in the instrument, the Detection Schedule screen appears.
  - If there are alarm recordings in the instrument, the Detection List screen is displayed. In this case, press the  button to display the Detection Schedule screen.
2. Press the  function button under the  icon to display the Alarm Mode screen. This defines the alarms used by the Alarm mode function. Unassigned alarms are identified by a question mark. To edit an alarm field, highlight it using the up and down arrow buttons, then confirm the selection by pressing . To activate an alarm, highlight its number in the left-most column and press . A red dot indicates the alarm is active. The other fields (left to right) are as follows. Use the up and down arrows to change the selected setting, then press  to confirm. Note that not all fields appear for all alarm types:
  - Type (42 types of alarms can be configured)
  - Harmonic order
  - Target (4L, 3L, N,  $\Sigma$ )
  - Direction (> or <)
  - Trigger threshold
  - Trigger delay
  - Hysteresis

The Alarm Mode screen consists of 8 pages, each listing 5 alarms. Use the  and  buttons to browse through the pages.

3. When finished editing alarms, press  to return to the Detection Schedule screen.

### 3.2. Scheduling Alarm Detection

1. Press the  button.
  - If there are no alarm recordings stored in the instrument, the Detection Schedule screen appears.
  - If there are alarm recordings in the instrument, the Detection List screen is displayed. In this case, press the yellow function button under the  icon to display the Detection Schedule screen.

This screen displays three input fields:

- **Start** defines the time and date when the recording starts. This must be later than the current date and time.
  - **Stop** specifies when the recording ends. This must be later than the start date and time.
  - **Name** allows you to name the test. This can be 8 characters long.
2. Use the arrow and  buttons to highlight, select, and edit the Start, Stop, and Name fields.
  3. Press the  button to write the settings to the instrument.

4. If not enough memory is available, an error message appears informing you of this. Otherwise, the alarm detection session will begin at the scheduled start time and date.

If a session is scheduled but not yet started, the message DETECTION ON STANDBY appears on the screen until the start time is reached, at which point the message changes to DETECTION IN PROGRESS.

5. When the session is active, the  icon blinks at the top of the screen, along with a status bar showing the progress of the session. In addition, the  (stop) button appears in place of . The session will continue until you press  or until the stop time/date is reached.
6. When the alarm detection session is finished, it appears in the Detection List screen. You can now open the session and view its contents, as explained in Section 3.3 below.

### **3.3. Viewing an Alarm Detection Session**

1. **At Detection Schedule screen**, press the  button.  
**For all other displayed screens**, press the  button.
2. If more than one recording is stored, use the arrows to select the desired recording, then press  to open it.

## 4. TRANSIENTS

### 4.1. Transient Recording Configuration

1. Press the  button to display the Waveform Capture screen.
2. Ensure  Transient is highlighted, then press 
  - If there are no transient detection sessions stored in the instrument, the Detection Schedule screen appears.
  - If there are recordings in the instrument, the Detection List screen is displayed. In this case, press  to display the Detection Schedule screen.
3. Press the  function button under the  icon to display the Voltage Thresholds screen. At the top of the screen is the Threshold Set-up field. Options are:
  - **4V**: The same voltage difference threshold applies to all phases and the neutral in the electrical hook-up
  - **3V+VN**: One threshold applies to the phases and one applies to neutral
  - **V1+V2+V3+V4**: Each phase and neutral has its own assigned threshold

Depending on the electrical hook-up currently under measurement, not all these options may be available.

4. The setting in this field determines which of the four fields below it (1, 2, 3, and N) are editable:
  - **4V**: a single field is active for 1, 2, 3, and N.
  - **3V+VN**: one field is active for 1, 2, and 3; and another is active for N.
  - **V1+V2+V3+N**: each field is active.

To edit a voltage threshold field, highlight it using the up and down arrow buttons, then confirm the selection by pressing . Use the left and right arrows to select a digit, and the up and down arrows to change it. You can also use these buttons to select units (V or kV). Press  to confirm the edited field.

5. Press the **A** button to display the Current Thresholds screen. This is similar to the Voltage Threshold screen. You can select which thresholds apply to which phases, and specify the value of the threshold (1 through 9999A). As with the voltage thresholds, not all these options may apply to all electrical hook-up types.

Note that current transients typically occur frequently. We recommend performing a current transient search only when looking for a specific type of transient. At other times, you can effectively disable transient searching by setting the threshold to its maximum value.

## 4.2. Scheduling Transient Detection

1. Press the  button to display the Waveform Capture screen.
2. Ensure  Transient is highlighted, then press 
  - If there are no transient detection sessions stored in the instrument, the Detection Schedule screen appears.
  - If there are recordings in the instrument, the Detection List screen is displayed. In this case, press the  button to display the Detection Schedule screen.
3. This screen displays four input fields:
  - **Start** defines the time and date when the recording starts. This must be later than the current date and time.
  - **Stop** specifies when the recording ends. This must be later than the start date and time.
  - **Transient Count** defines the maximum number of transients that you want to capture before stopping the session.
  - **Name** allows you to name the test. This can be 8 characters long.
4. Use the arrow and  buttons to highlight, select, and edit these fields.
5. Press the  button to write the settings to the instrument and start the session.
6. If not enough memory is available, an error message appears informing you of this. Otherwise, the transient detection session will begin at the scheduled start time and date.  
If a session is scheduled but not yet started, the message DETECTION ON STANDBY appears on the screen until the start time is reached, at which point the message changes to DETECTION IN PROGRESS.

When the session is active, the  icon blinks at the top of the screen, along with a status bar showing the progress of the session. In addition, the  (stop) button appears in place of .

During the session, the Transient Count number is reduced by 1 every time a transient is recorded. If this number counts down rapidly and appears as though it will reach zero well before stop time is reached, we recommend stopping the session and setting the threshold to a higher, less sensitive value.

The session will continue until:

- you press 
  - the Transient Count limit is reached (see Step 3)
  - the stop time/date is reached
7. When the transient detection session is finished, it appears in the Detection List screen. You can now open the session and view its contents, as explained in Section 4.3.

## 4.3. Viewing a Transient Detection Session

1. **At the Detection Schedule screen**, press the  button.  
**For all other displayed screens**, press the  button, and then select  Transient. Either action displays the Detection List screen.
2. If more than one transient detection recording is stored, use the arrows to select the desired recording, then press  to open it.