Status Screens - Operational Mode

During normal operation pressing the external LCD light button turns on the LCD backlight. Additional presses display the following screens one after the other.

Initial Status

```
Vac[V]  Vdc[V]  Pac[W]
240.7   371.9   2349.3
P_OK:  XXX/YYY  <S_OK>
                    ON
```

- **Vac [V]**: The AC output voltage
- **Vdc [V]**: The DC input voltage
- **Pac [W]**: The AC output power
- **P_OK: XXX/YYY**: There is a connection to the power optimizers and at least one power optimizer is sending monitoring data. XXX is the number of power optimizers for which telemetries have been received in the last two hours. YYY is the number of paired power optimizers identified during the most recent pairing process. If XXX and YYY are not equal, there may be a problem in one or more power optimizers.
- **S_OK**: The connection to the SolarEdge monitoring portal is successful (appears only if the inverter is connected to the server).
- **ON/OFF**: Indicates the position of the inverter ON/OFF switch.

Main Inverter Status

```
Vac[V]  Vdc[V]  Pac[W]
240.7  371.9    3210.0
Fac[Hz]  OPs_Ok
Temp 50.0 11 28.2
```

- **Vac [V**: The AC output voltage.
- **Vdc [V]**: The DC input voltage.
- **Pac [W]**: The AC output power.
- **Fac [Hz]**: The AC output frequency.
- **OPs_Ok**: Number of optimizers sending telemetries (indicating that they are paired)
- **Temp [C or F]**: The inverter heat sink temperature

Energy Meter Status

Displays the total energy produced during the last day, month, year and since inverter installation.

```
Day[Wh]:         0.0
Month[KWh]:      0.0
Year[KWh]:       0.0
Total[KWh]:      0.0
```

If a revenue grade meter is preassembled in the inverter, the following status screen, showing the total energy reading, is displayed instead of the above screen:

```
Revenue Grade Meter
Status: <OK>
<Error Message>
Total[Wh]:XXXXXX
```

- **Status**: Displays OK if the meter is communicating with the communication board.
- **<Error message>**: If an internal meter error is displayed here, contact SolarEdge Support.
- **Total (Wh)**: The energy read by the meter. The value displayed in this line depends on the meter type connected to the inverter and its location:
  - If a bidirectional meter is connected at the consumption point, this value is the consumed energy.
  - If the meter is installed at the production connection point, this value is the energy produced by the site.
  - If the meter is installed at the grid connection point, this value is the energy fed into the grid.

  If the inverter is connected to the SolarEdge server, this value will also be displayed in the monitoring portal.

NOTE

This data is accumulated according to an internal real-time clock.

Telemetry Status

This window displays the last power optimizer telemetry received. The display changes as each power optimizer sends its telemetry.

In order to verify proper installation, the installer may view the Telemetry window for some time in order to observe the power optimizers' report process.

```
Module:  000C1ED9-03
Energy[Wh]:0  Vdc_O
[V]:40.5 Vdc_I
[V]:29.5
```

- **Module#**: Power optimizer serial number
- **Energy**: power optimizer energy
- **Vdc_O**: Power optimizer output voltage
- **Vdc_I**: Power optimizer input voltage (module voltage)

ID Status

This window displays the inverter software version and the country to which the inverter is configured.

```
ID: ######## ##
DSP1/2:1.0210/1.0034
CPU:0003.14xx
Country:USA1
```

- **ID**: The inverter ID.
- **DSP 1/2**: The DSP digital control board firmware version
- **CPU**: The communication board firmware version
- **Country**: the current country setting

Server Communication Status

```
Server:LAN   <S_OK>
Status:        <OK>
    xxxxxxx
<ERROR MESSAGE>
```

- **Server**: The method of connection to the SolarEdge monitoring portal.
- **S_OK**: The connection to the SolarEdge monitoring portal is successful (should appear only if the inverter is connected to the server).
- **Status**: Displays OK if the inverterestablished successful connection and communication with the specified server port/device (LAN, RS485 or ZigBee module).
- **xxxxxxxx**: Eight-bit Ethernet communication connection status: A string of 1s and 0s is displayed. 1 indicates OK, 0 indicates an error. For a list of the possible errors and how to troubleshoot them, refer to *Troubleshooting Communication - S_OK is Not Displayed* on page 83 .
- **Error message**, according to failure. Refer to *Errors and Troubleshooting* on page 83.

IP Status

This window describes the Ethernet configuration: IP, Mask, Gateway and MAC address (Media Access Control) of the Inverter.

```
I P   1 9 2 . 1 6 8 . 2 . 1 1 9
M S K   2 5 5 . 2 5 5 . 2 5 5 . 0
G W   1 9 2 . 1 6 8 . 2 . 1
M A C   0 - 2 7 - 0 2 - 0 0 - 3 9 - 3 6
```

ZigBee Status

This window describes the ZigBee configuration:

```
P A N : X X X X X
C H : X X / X X X X   R S S I : < L >
M I D : X X X X   X X
```

- **RSSI**: The receive signal strength indication of the closest ZigBee in the system. L = low, M = medium, H = high and
  (-) = no signal.
- **PAN ID**: The ZigBee transceiver PAN ID
- **Ch.**: The ZigBee transceiver channel
- **ID**: The ZigBee transceiver ID
- **MID**: The Master ID of the coordinator (master) ZigBee module. This field is shown only in devices with router (slave) ZigBee modules, and after a successful ZigBee association. If a ZigBee module is not connected, a **No ZigBee** message is displayed instead of the **MID** field.

Cellular Status

```
Server:Cell <S_OK>
Status: <OK> Sig:5
<Error message>
```

- **Server**: The method of communication to the SolarEdge monitoring portal. Should display Cell.

- **Status**: Displays OK if the inverter established a successful physical connection to the Cellular modem.

- **S_OK**: The last communication to the SolarEdge monitoring portal was successful (appears if the inverter is connected to the portal).

- **Sig**: The signal strength, received from the cellular modem. A value between 0-5, (0 = no signal, 5 = excellent signal).

- **Error message** per communication connection status failure

Communication Ports Status

```
         Dev Prot ##
RS485-1<SE><S > <-->
ZigBee <SE><MPS><-->
```

- **##:** The total number of slaves detected on the specific port

- **Dev**: The type of device that was configured to a specific port (based on the port's functionality), as follows:
    - **SE**: SolarEdge device (default)
    - **DM**: Revenue meter
    - **LGR**: Non-SolarEdge logger

- **PROT**: The protocol type to which the port is set:
    - For a SolarEdge device:
        - **S**: SolarEdge slave
        - **M**: SolarEdge master
        - **P2P**: ZigBee point-to-point
        - **MPM**: ZigBee multipoint master (for the SolarEdge ZigBee home gateway)
        - **MPS**: ZigBee multipoint slave (for a ZigBee router module)

- ○ For electricity meters, refer to the *application note - Connecting an Electricity Meter to SolarEdge Devices* at http://www.solaredge.us/files/pdfs/connecting-revenue-grade-meter-to-solaredge-devices.pdf.
- ○ **SS**: SunSpec - for a non-SolarEdge logger

Fan Status

This window is applicable to Three Phase Inverters and Single Phase 10 - 11.4 kW inverters and provides information about the status of the inverter external and internal fans:

```
Fan Status:
Fan1: Not Working
Fan2: Operating
```

or

```
Fan Status:
Int: Not Working
Ext: Operating
```

Each fan can have one of the following statuses:

- **Operating**: Fan OK
- **Not Working**: This status may indicate a system error and not necessarily a faulty fan. Turning AC OFF and ON again may clear this status. If the status does not change, replace the fan.

For more information, refer to *External Fan Maintenance and Replacement* on page 116

Power Control Status

Available from communication board (CPU) firmware version 2.7xx/3.7xx and later.

```
PWR CTRL: REMOTE
PWR Limit: 10.04 kW
CosPhi:    0.9
Power Prod: 7000W
```

- **PWR CTRL**: The power control status:
  - ○ **REMOTE** - Communication with the RRCR or smart energy manager is confirmed/validated.

- ○ **LOCAL** - The power is controlled locally (e.g. by a fixed limit), or this inverter limits the PV power production to its relative portion of the feed-in power limit, as a result of disconnected communication with the smart energy manager. If this status appears, check the communication to the smart energy manager or the communication to the meter.

- **PWR Limit**: The inverter maximum output power set by one of the power limiting options:
  - ○ RRCR
  - ○ Smart energy manager (Feed-in limitation)
  - ○ P(f)
  - ○ Q(U)

- **Cos Phi**: The ratio between active to reactive power
- **Power Prod**: The power produced by the inverter

For more information, refer to the following application notes:

- ○ *Power Control Application Note*, available on the SolarEdge website at http://www.solaredge.us/files/pdfs/application_note_power_control_configuration.pdf
- ○ *Feed-in Limitation Application Note*, available on the SolarEdge website at http://www.solaredge.us/files/pdfs/products/feed-in_limitation_application_note.pdf