Overview

Charge Controller
(FLEXmax 80/FLEXmax 60)
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WARNING: SHOCK HAZARD

➤ This information is for use by qualified personnel who meet all local and governmental code requirements for licensing and training for the installation of electrical power systems with DC voltage up to 150 Vdc.

➤ Consult the FLEXmax Series Owner’s Manual for detailed information on safety and installation procedures.
Overview

Models:
- **FLEXmax 80**: 80 amps maximum continuous output current (up to 40°C without thermal derating)
- **FLEXmax 60**: 60 amps maximum continuous output current (up to 40°C without thermal derating)

Features:
- Supports 12, 24, 36, 48, and 60 Vdc battery voltages
- Backlit display screen (LCD) with 80 characters (4 lines, 20 characters per line)
- Last 128 days of operational data logging
- Voltage step-down capability allowing a higher PV array voltage configuration
- Manual and automatic equalization cycles

Screen Versions:
- English
- Spanish
- Australian (English with different default settings)

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**FLEXmax 80 Charge Controller**

**FLEXmax 60 Charge Controller**

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**Recommended Input PV Wattage per Charge Controller**

<table>
<thead>
<tr>
<th>Battery Bank Voltage</th>
<th>Maximum PV Input Wattage for the FLEXmax 80</th>
<th>Maximum PV Input Wattage for the FLEXmax 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Vdc</td>
<td>1000 W</td>
<td>750 W</td>
</tr>
<tr>
<td>24 Vdc</td>
<td>2000 W</td>
<td>1500 W</td>
</tr>
<tr>
<td>36 Vdc</td>
<td>3000 W</td>
<td>2250 W</td>
</tr>
<tr>
<td>48 Vdc</td>
<td>4000 W</td>
<td>3000 W</td>
</tr>
<tr>
<td>60 Vdc</td>
<td>5000 W</td>
<td>3750 W</td>
</tr>
</tbody>
</table>

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The interior design is identical in each model.
To change the Language, Screen Version or System Voltage:

1. Press the < – > soft key until “E2” is displayed on the LCD.
2. Press the ENTER or ENTRa soft key to accept the password and move forward to the Select Version Screen.

To access the Main Menu:

To select a menu from the Main Menu, press the < – > soft key to move the cursor (A). When the A is next to the desired menu, press GO.

- **Charger** — CHARGER SETUP
  Adjusts the Current Limit, Absorbing, and Float recharging voltage set points
- **Aux** — AUX OUTPUT CONTROL
  Secondary control circuit for a vent fan, AGS, error alarm, and other system-related additions
- **Light** — BACKLIGHT CONTROL
  Adjusts the backlighting of LCD screen and soft key buttons
- **EQ** — BATTERY EQUALIZE
  Activates battery equalization (manually or automatically)
- **Misc** — MISCELLANEOUS
  Additional settings and service information
- **Advanced** — ADVANCED MENU
  Optimizes/fine-tunes the charge controller
- **Logging** — DATA LOGGING
  Displays recorded power production information
- **Stats** — STATISTICS
  Displays recorded peak system information and cumulative kilowatt-hours and amp-hours

**End-of-Day (EOD) Summary Screens**

**Main Menu Screen**

**Charger** — CHARGER SETUP
Adjusts the Current Limit, Absorbing, and Float recharging voltage set points

**Aux** — AUX OUTPUT CONTROL
Secondary control circuit for a vent fan, AGS, error alarm, and other system-related additions

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Displays recorded power production information

**Stats** — STATISTICS
Displays recorded peak system information and cumulative kilowatt-hours and amp-hours

**Status Screen**

Today: 00:00 Ah 00.0 KWH
011 Vp, 00.0 Ap, 0.00 kWp
Max 29.4 V Abs 01:00
Min 29.2 V Flt 00:00

Continuing to press this soft key will cycle backwards by 1 day up to 128 days.
Press and hold the soft key to automatically scroll backwards through the available days.

**Charger Screen**

Continuing to press this soft key will cycle forward by 1 day up to 128 days.
Press and hold the soft key to automatically scroll forward through the available days.
### Configuration Modes and Data Logging

#### Main Menu Screens (continued)

<table>
<thead>
<tr>
<th>Backlight</th>
<th>Equalization</th>
<th>Miscellaneous</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charger</td>
<td>Light</td>
<td>Misc</td>
<td>Advanced</td>
</tr>
<tr>
<td>EQ</td>
<td>Stats</td>
<td>EQ</td>
<td>Stats</td>
</tr>
<tr>
<td>Backlight</td>
<td>Control</td>
<td>01 Hours</td>
<td>Battery</td>
</tr>
<tr>
<td>Auto</td>
<td>Time</td>
<td>2 Minutes</td>
<td>Auto</td>
</tr>
<tr>
<td>Exit</td>
<td>–</td>
<td>+</td>
<td>Exit</td>
</tr>
<tr>
<td>Range: 2-9 minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continued from the previous page...

**Advanced:**

When entering the Advanced Menu for the first time, pressing the <ESC> soft key advances to the Snooze Mode screen.

From inside the Advanced Menu, pressing the <ESC> key returns to the Main screen. If the <ESC> soft key is pressed at this point, it will return to the screen where the <ESC> key was pressed.

### Logging: End-of-Day (EOD) Screens

Continuing to press this soft key will cycle backwards by 1 day up to 128 days. Press and hold this soft key to automatically scroll backwards through the available days.

Continuing to press this soft key will cycle forward by 1 day up to 128 days. Press and hold this soft key to automatically scroll forward through the available days.

From the End-of-Day Summary Screen for the current day, pressing this soft key returns the display to 128 days past.

**NOTE:** The values shown in this illustration will vary depending on the model of the charge controller and/or the inverter.
About OutBack Power Technologies

OutBack Power Technologies is a leader in advanced energy conversion technology. Our products include true sine wave inverter/chargers, maximum power point tracking charge controllers, and system communication components, as well as circuit breakers, batteries, accessories, and assembled systems.

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OutBack Power Technologies warrants that the products it manufactures will be free from defects in materials and workmanship for a period of five (5) years subject to the conditions set forth in the warranty detail, found in the product manual.

OutBack Power Technologies cannot be responsible for system failure, damages, or injury resulting from improper installation of their products.

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