



 **FLEXmax™**

Charge Controller **(FLEXmax 80/FLEXmax 60)** **Overview**

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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.

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)

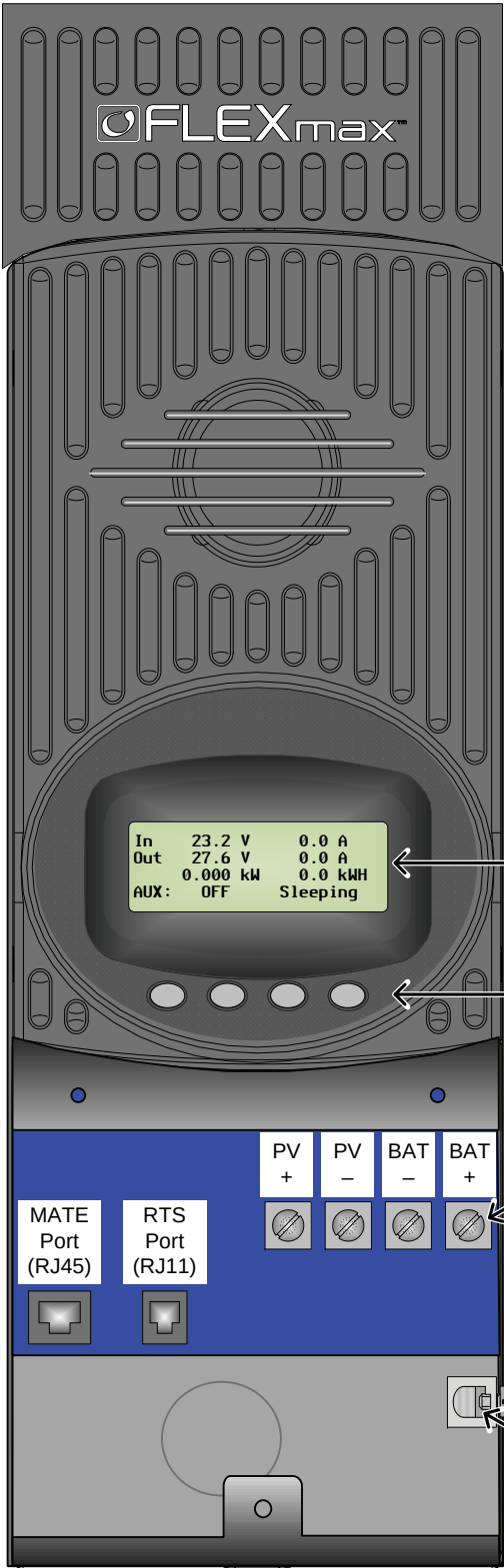
Features:

- 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

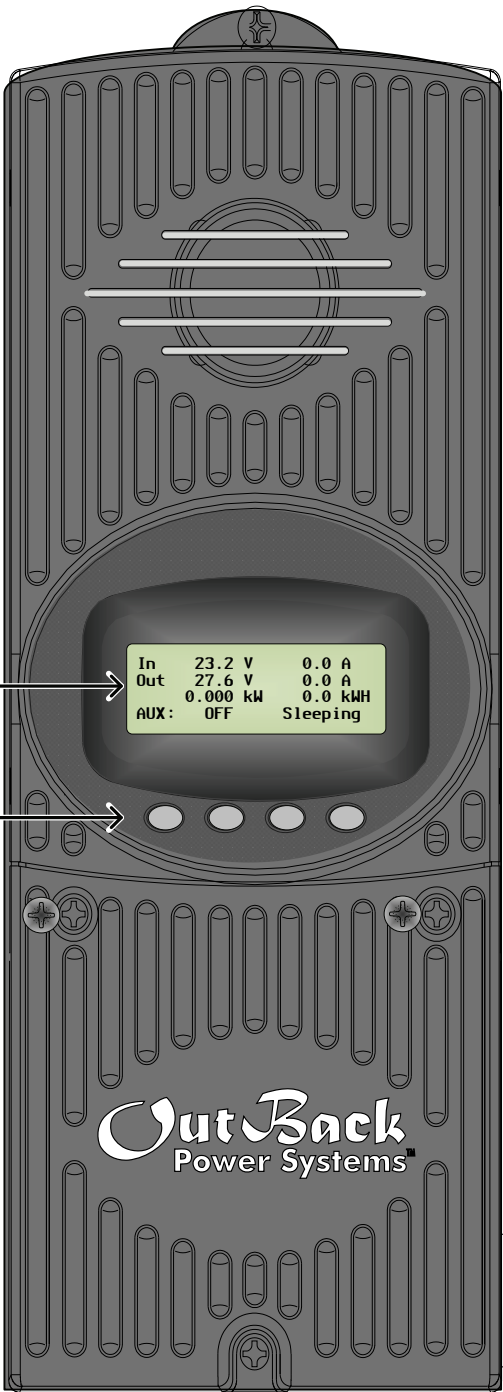
Screen Versions:

- **English**
- **Spanish**
- **Australian** (English with different default settings)

FLEXmax 80 Charge Controller



FLEXmax 60 Charge Controller



Recommended Input PV Wattage per Charge Controller*		
Battery Bank Voltage	Maximum PV Input Wattage for the FLEXmax 80	Maximum PV Input Wattage for the FLEXmax 60
12 Vdc	1000 W	750 W
24 Vdc	2000 W	1500 W
36 Vdc	3000 W	2250 W
48 Vdc	4000 W	3000 W
60 Vdc	5000 W	3750 W

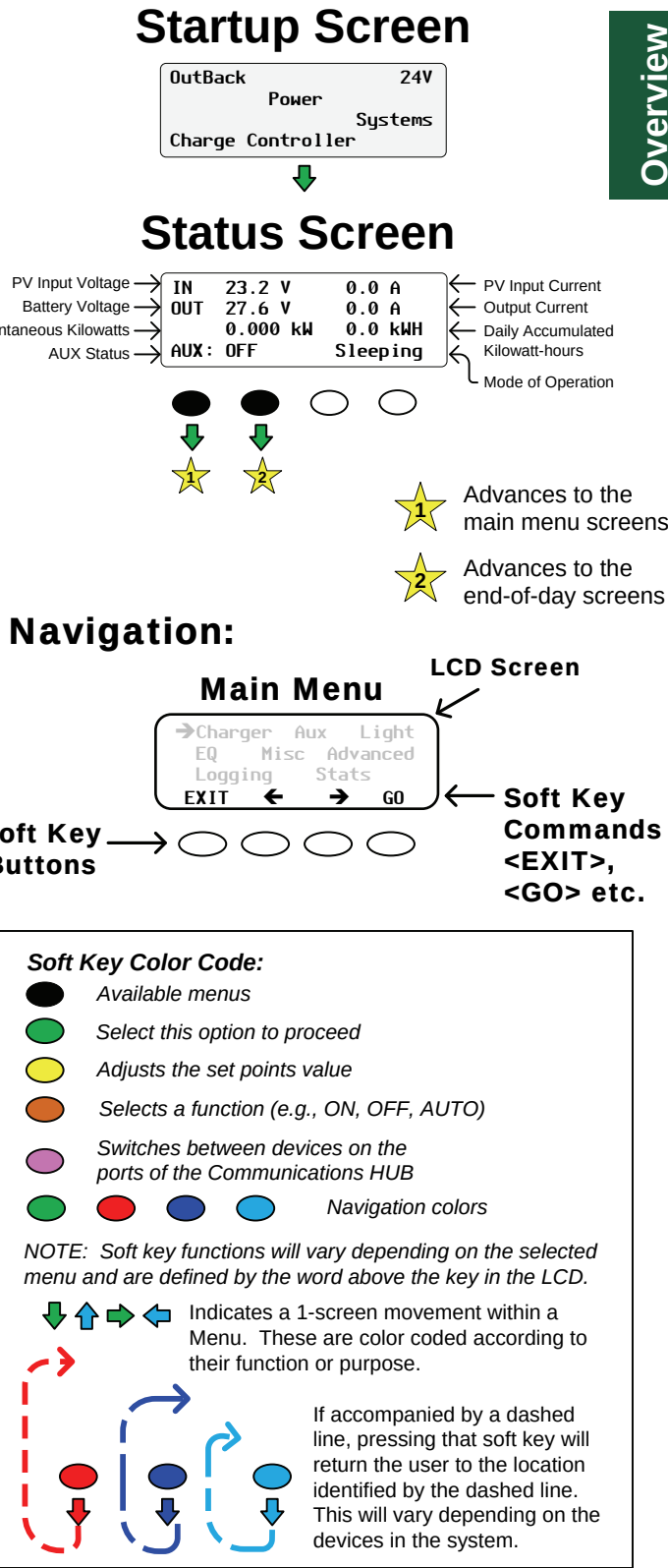
*Standard Test Conditions

LCD Screen

Soft Keys

Terminals

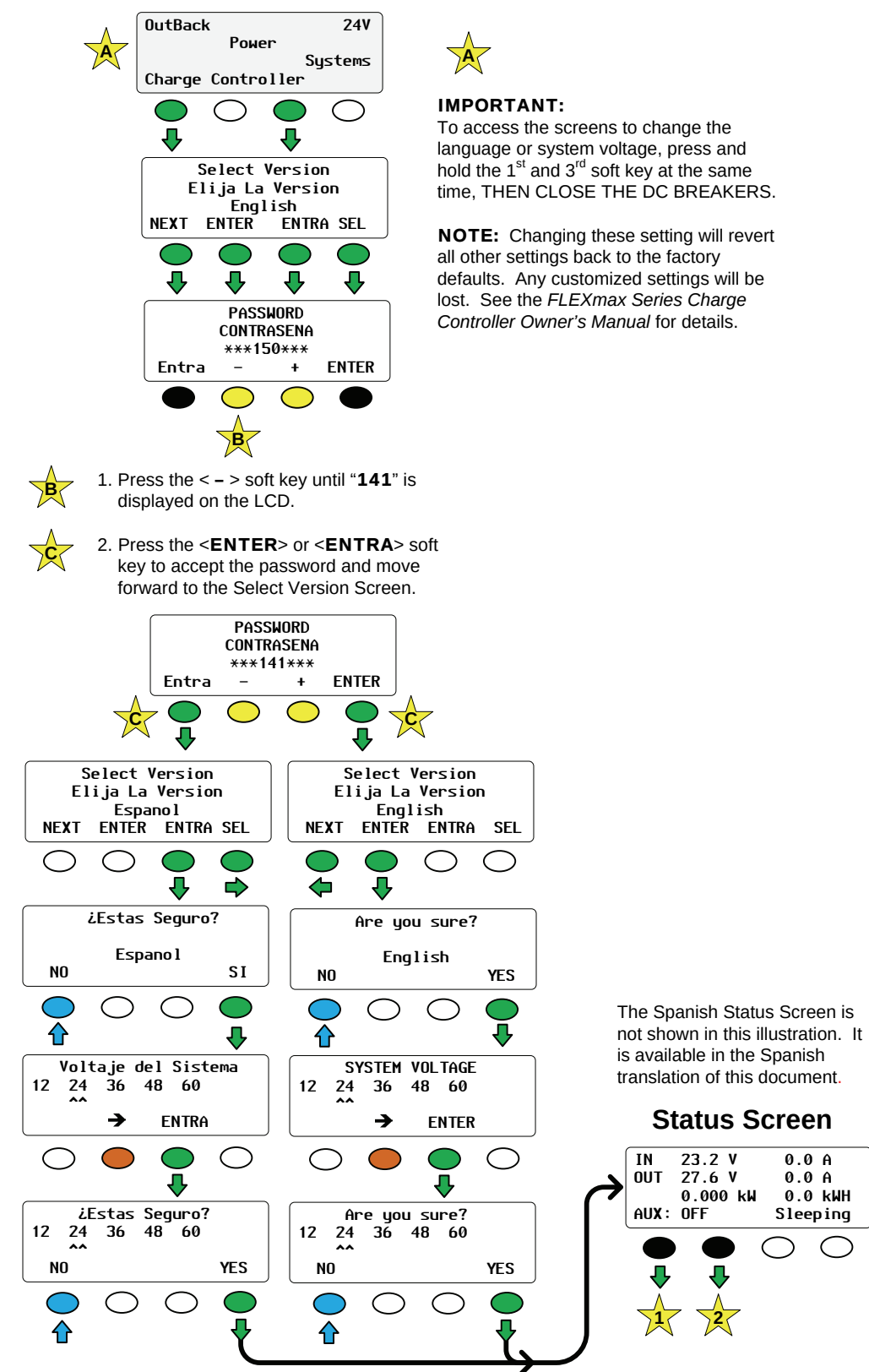
Torque = 4 Nm (35 in-lb)



NOTE: See page 2-4 of this guide for menu maps for setting the versions, changing the language of the screens, and accessing the main menu.

See the *FLEXmax Series Owner's Manual* for details on the settings available in the main menu.

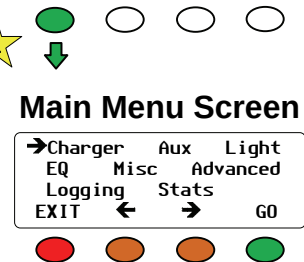
To change the Language, Screen Version or System Voltage:



To access the Main Menu:

Status Screen

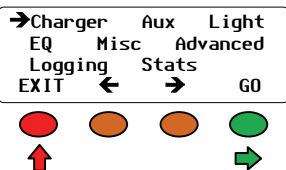
IN	23.2 V	0.0 A
OUT	27.6 V	0.0 A
	0.000 kW	0.0 kWh
AUX:	OFF	Sleeping



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

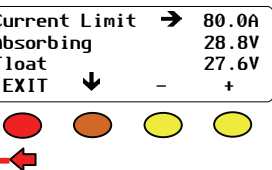
- **Charger**—CHARGER SETUP
Adjusts the Current Limit, Absorbing, and Float recharging voltage set points
- **Aux**—AUX OUTPUT CONTROL
Secondary control circuit for a vent fan, AGS, error alarm, and other system-related additions
- **Light**—BACKLIGHT CONTROL
Adjusts the backlighting of LCD screen and 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

Main Menu Screen



Press <↓> to move the → next to the desired setting.
Press <-> or <+> to adjust the setting.
Press <EXIT> to return to the main menu.

Charger Screen

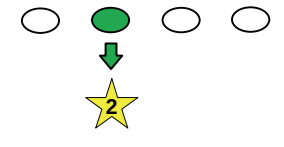


End-of-Day (EOD) Summary Screens

NOTE: The values shown in this illustration will vary depending on the nominal DC voltage.

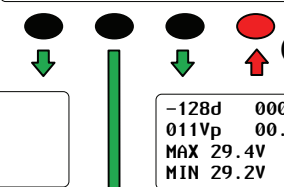
Status Screen

IN	23.2 V	0.0 A
OUT	27.6 V	0.0 A
	0.000 kW	0.0 kWh
AUX:	OFF	Sleeping



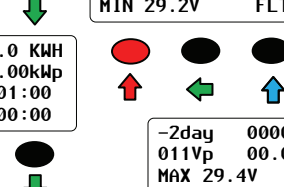
End-of-Day (EOD) Summary Screen (current day)

Today	0000Ah	00.0 KWH
011Vp	00.0Ap	0.00kWh
MAX	29.4V	ABS 01:00
MIN	29.2V	FLT 00:00



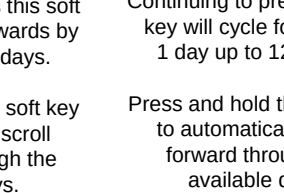
End-of-Day (EOD) Summary Screen (previous day)

-1day	0000Ah	00.0 KWH
011Vp	00.0Ap	0.00kWh
MAX	29.4V	ABS 01:00
MIN	29.2V	FLT 00:00



End-of-Day (EOD) Summary Screen (2 days past)

-2day	0000Ah	00.0 KWH
011Vp	00.0Ap	0.00kWh
MAX	29.4V	ABS 01:00
MIN	29.2V	FLT 00:00



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.

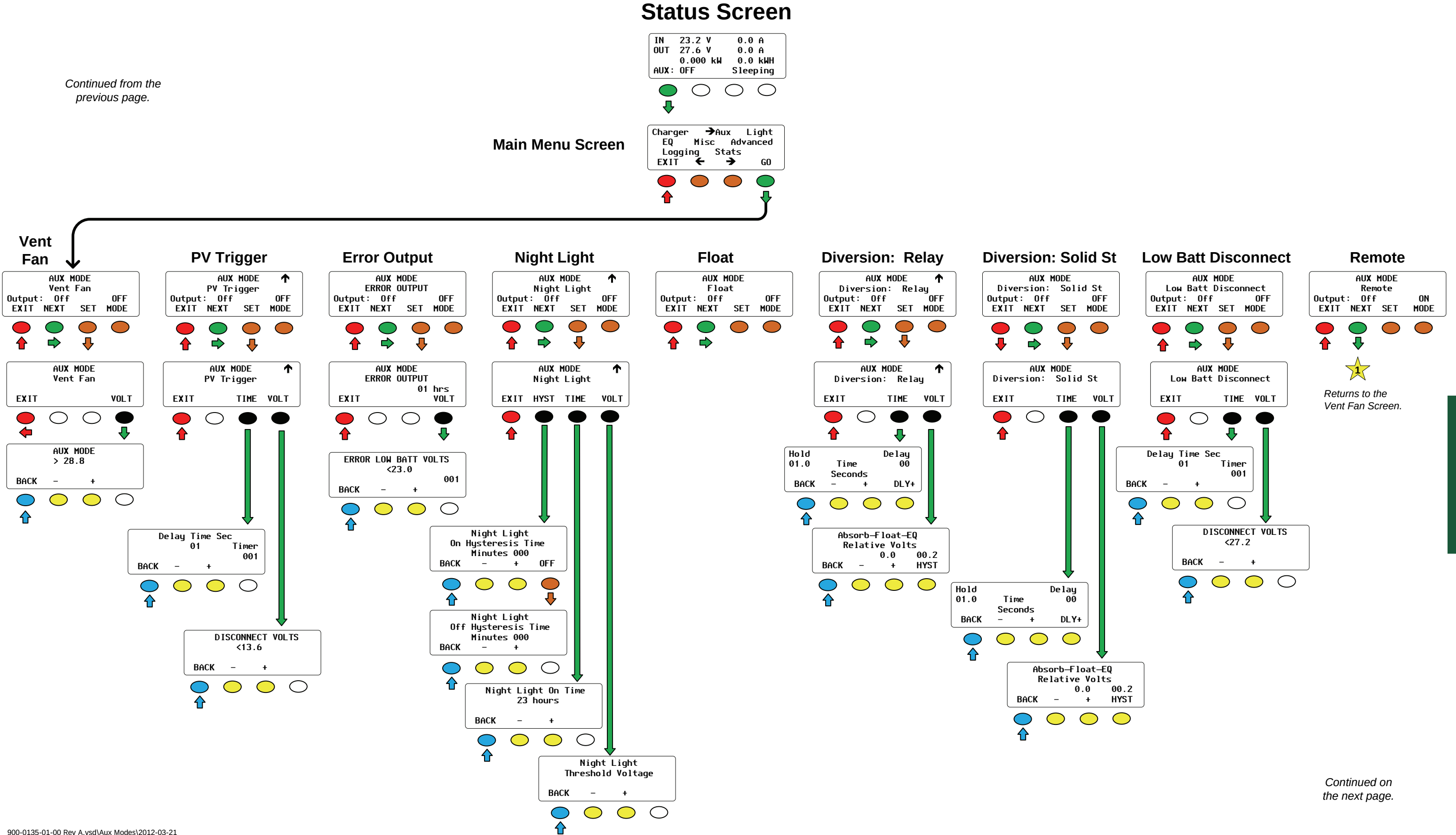
Continuing to press this soft key will cycle forward by 1 day up to 128 days.

Press and hold this soft key to automatically scroll forward through the available days.

Continued on the next page.

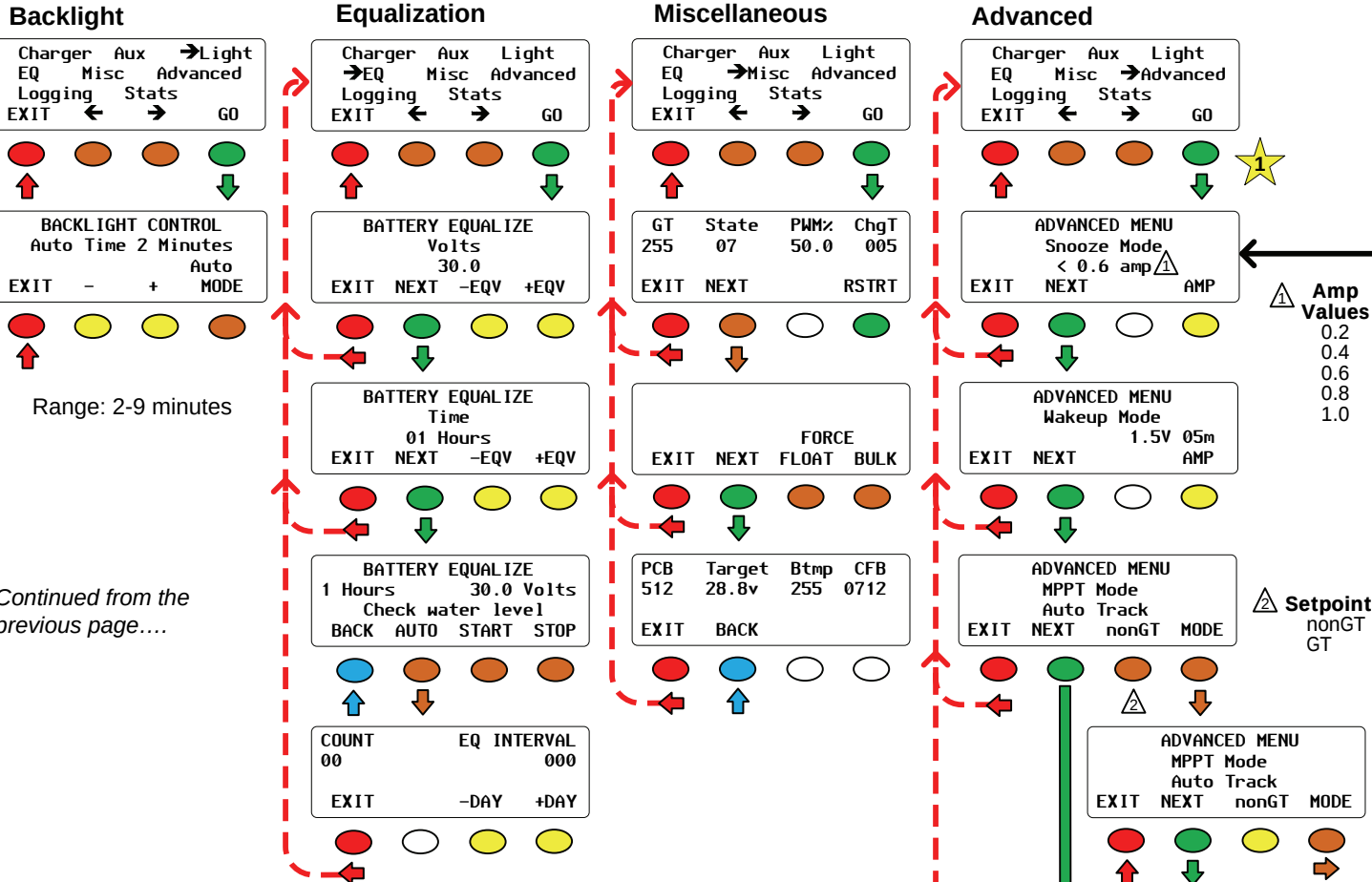
Aux Modes

Continued from the previous page.



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Main Menu Screens (continued)



Continued from the previous page....

Advanced:

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

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

Disclaimer

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Warranty Summary

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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