Sensor+ SP12 Portable Pack

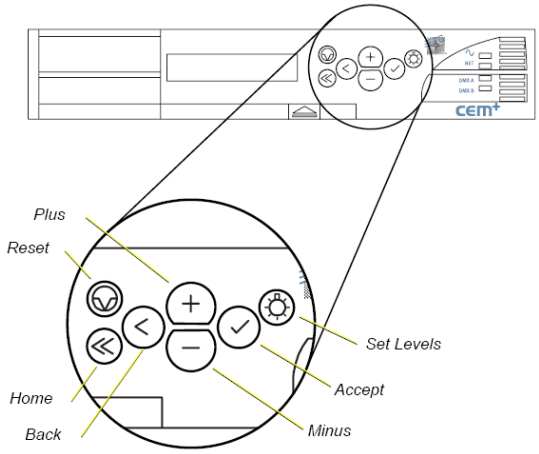
CEM+ Quick Guide — Basic / Portable Mode

The CEM+ Dimmer Pack is shipped in **Basic/Portable mode**, which intentionally limits functionality for ease of use. It uses a truncated menu structure focused on the functions portable pack users need most often, allowing quicker navigation and easier configuration.

> **NOTE** If you need features that are not available in this mode, request **Full Feature mode**.

1 The CEM+ User Interface

All of the menus described in this guide are accessed with the buttons on the face of the CEM+ module. Menus and messages are shown on the built-in 2×20 LCD display.



Button	Function
Home	Return to the main menu at any time.
Plus	Scroll through menus, and through digits and letters on screens that need input.
Minus	Scroll through menus, and through digits and letters on screens that need input.
Accept	Accept settings and view the error list.
Back	Step back through menus.
Set Levels	Go directly to the Set Levels menu.
Reset	Reset the CEM+.

2 Power Up & Start Address

After the Dimmer Pack powers up, the CEM+ will load. Once loaded, the display should read:

```
SP12  D20  Rack Ok
DMX Start  # to ###
```

“Rack Ok” may read “error” if there is no valid DMX signal.

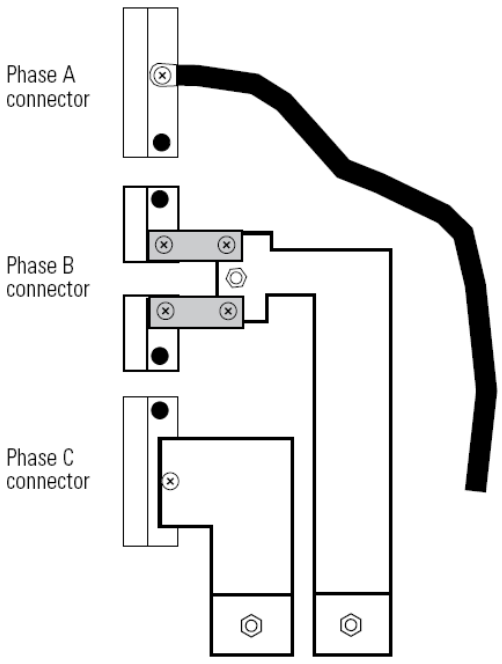
Changing the start address

1. Press ⊘ **Accept** to enter address edit mode.
2. Press ⊕ **Plus** or ⊖ **Minus** to reach the desired start number.
3. Press ⊘ **Accept** to save changes and exit.

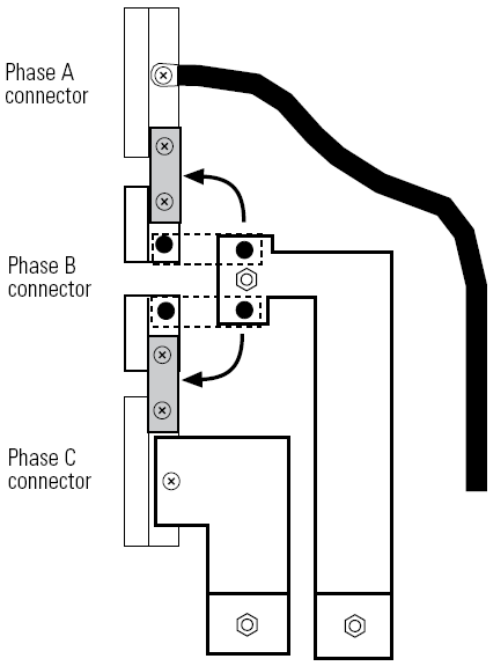
3 Setting Up the SP12 for Single Phase Operation

The CEM+ Sensor Dimmer Pack ships configured for **3 phase** unless otherwise requested. To change a Sensor SP12 Portable Pack from three phase to single phase operation:

1. Disconnect power from all Cam-Loks.
2. Remove all dimmer modules from the Portable Pack, exposing the bus bars and connectors.
3. Remove the screws at both ends of the two-inch copper bars that connect the phase B connector to the phase B bus bar. Loosen the screws at the left end of the bars.
4. Use the **top bar** to connect the phase A connector to the phase B connector (see diagram).
5. Use the **bottom bar** to connect the phase B connector to the phase C connector (see diagram).
6. Tighten all screws to **40 in-lb** of torque.
7. Replace the dimmer modules.
8. Connect power to the **A and C** phase Cam-Loks. **Do not** connect power to the B phase Cam-Lok.



Phase connectors wired for three phase operation



Phase connectors wired for single phase operation

IMPORTANT The CEM+ Dimmer Pack must be **re-configured** whenever it is changed to single phase operation, and again when changed back to 3 phase. See Section 4.

4 Configuring the CEM+ for Single Phase

After changing the internal bus bars to single phase (Section 3), power up the dimmer pack. After start-up the CEM+ should read:

```
SP12  D20  Rack Ok
DMX Start  # to ###
```

"Rack Ok" may read "error" if there is no valid DMX signal.

1. From this screen, press ⊕ until **Configure Rack** appears, then press ✓.
2. Enter PIN **3/3/3/3** by pressing ⊕⊕⊕✓ four times.
3. The configure scheme **[basic/portable]** will appear. Press ✓ — there will be a short pause.
4. Work through the settings below, confirming each with Accept.

	Screen	Set to	Press
a	Set Input Power	`[120] Volts`	✓
b	Set Phase Balance	`straight - 1 phase`	✓
c	Set Rack Type	`SP12`	⊕ then ✓
d	Set Module Type	`Module = [D20]`	✓
e	Set Dimmer Double	`Double off`	✓
f	Set DMX Start	`Start at 1`	✓ (short pause)
g	Save Changes?	`yes`	⊕ then ✓ (short pause)

Let the CEM+ load. The display should again read:

```
SP12  D20  Rack Ok
DMX Start  # to ###
```

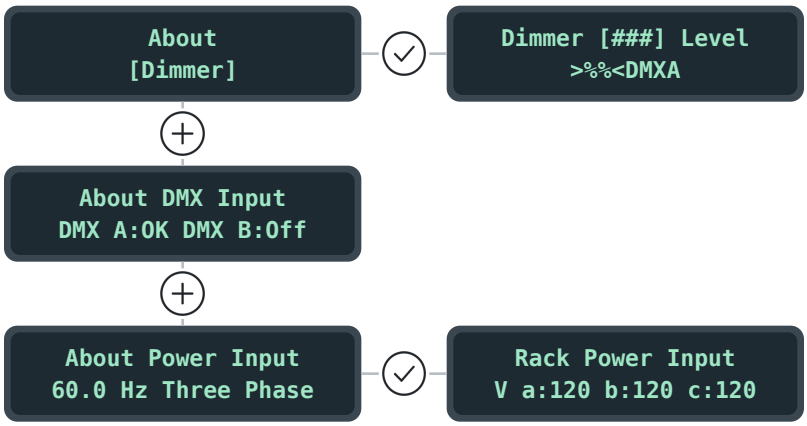
"Rack Ok" may read "error" if there is no valid DMX signal.

> **CAUTION** Changing any other configuration may render this pack inoperable and require returning it to Christie Lites.

5 About Menu

The About menu shows status information for the dimmers, DMX input, power input and software. It is available to all users and is **view-only** — no settings can be changed here.

To enter the About menu, press ⊕⊕⊕✓.



6 Set / Release Levels

The Set Levels menu lets you set (or release) a dimmer or range of dimmers to a specified level at the CEM+. Levels set here **take priority over all other level inputs**, such as control consoles. Once released, those dimmers are available to other control inputs again. The ✳ **Set Levels** button opens this menu directly.



To clear a set level, choose `[Release]` as the level.

7 Dimmer Check

The Dimmer Check menu lets you set an output level, then step through the dimmers from a selected starting point.

