Connections to ESP DC Breaker Panel

**WARNING:** Ensure all cables are correctly sized for the fuse or circuit breaker protecting them.

0V from ESP System Panel (allows System Panel to control backlight)

OR 0V from Boat supply

To 12V or 24V consumer (Battery +)

Note:
Undo 2 x nuts to remove backlight PCB to allow fitting of Custom Window Label

9V from ESP System Panel (allows System Panel to control backlight)

OR 9 - 30V from Boat supply

To 12V or 24V consumer (Battery -)

Negative Busbar (not supplied)
Connections to ESP Breaker Panel - with single AC group

The installer must ensure that the rear of the panel and live bus bar is inaccessible once installed.

Ensure all cables are correctly sized for the fuse or circuit breaker protecting them.
Connections to ESP AC Breaker Panel - with two AC groups

- 0V from ESP System Panel (allows System Panel to control backlight) OR 0V from Boat supply
- 9V from ESP System Panel (allows System Panel to control backlight) OR 9 - 30V from Boat supply

To high load 230V consumer (live)
- To inverter load 230V consumer (live)
- 9V from ESP System Panel (allows System Panel to control backlight) OR 9 - 30V from Boat supply

WARNING:
- The installer must ensure that the rear of the panel and live bus bar is inaccessible once installed.
- Ensure all cables are correctly sized for the fuse or circuit breaker protecting them.

Note:
- Undo 2 x nuts to remove backlight PCB to allow fitting of Custom Window Label
- Cut busbar to separate high load and inverter load groups. A gap of at least 5mm is required.

WARNING:
- To 230V consumers (earth)
Control Panel

9V from ESP System Panel (allows System Panel to control backlight)

OR 9 - 30V from Boat supply

0V from ESP System Panel (allows System Panel to control backlight)

OR 0V from Boat supply

Note:
A connection PCB is supplied loose. This allows alternate switch actions to be fitted prior to the connection PCB being soldered onto the switch. Your distributor can fit the PCB and switch at time of ordering.

Switch capacity is 4 Amps max.

Switch supplied is centre off momentary either way.

Alternative switch actions can be purchased separately

Note:
Undo 4 x nuts to remove backlight PCB to allow fitting of Custom Window Label
Connections to ESP System Control Panel using Mark 2 DC Link Box

ESP System Control Panel

9V+ for ESP DC & AC Breaker Panel backlight

0V- for ESP DC & AC Breaker Panel backlight

ESP System Control Panel

DC Link Box

System Panel A

System Panel B

I+ (c) shunt - bat end
I- (d) shunt + load end
+VS (e) voltage sense
-VS voltage sense
+(f) +VE supply
-(g) -VE supply

Multi voltage sense
Multi voltage sense

Latch batt. isolator
Latch batt. isolator
Battery 2+

Connections to ESP System Control Panel using Mark 2 DC Link Box

9V+ for ESP DC & AC Breaker Panel backlight

0V- for ESP DC & AC Breaker Panel backlight

ESP PowerMan

RJ12

RJ45

RJ45

RJ12
System Accessories

ESP PowerMan

The system panel acquires its AC voltage and current from the ESP PowerMan Unit. These provide automatic switching between shore power, generator and MultiPlus. In addition, high load circuits are disconnected when only Inverter power is available.

ESP PowerMan 20A
Designed for systems with up to 5Kw generator and one MultiPlus unit.

ESP PowerMan 32A
Designed for systems with up to 8Kw generator and one or two MultiPlus units.

ESP PowerMan 64A
Designed for systems with up to 16Kw generator and two to four MultiPlus units.

DC Link Box

The system panel acquires its DC voltage and current from the DC Link Box.

The Link Box provides primary protection for heavy DC consumers and avoids “spaghetti junction” wiring at the battery terminal.

Labelling

Custom window labels

The Breaker and Control Panels are designed to accept custom legends, to suit your needs.

Easy to use MS Word templates for these are available for download at: www.victronenergy.com

Simply fill these in, print on Laser Film and cut to size. To install the label, remove the backlight PCB by undoing the securing nuts. Lay the label onto the rear of the window and reassemble.
System In A Box™ schematic wiring diagrams

**SYSTEM IN A BOX™ with MultiPlus**

- Generator Max 5kW (option)
- DC Link Box
- Alternator (option)
- Cyrix battery separator (option)
- Service Battery (option)
- Starter Motor (not included)
- DC MONITORING
- AC MONITORING
- MULTIP PLUS CONTROL
- SYSTEM MONITORING
- 888
- AC SYSTEM CONTROL
- DC SYSTEM CONTROL
- High Loads
- Low Loads

**SYSTEM IN A BOX™ with Multi EasyPlus**

- Generator Max 3.6kW (option)
- DC Link Box
- Alternator (option)
- Cyrix battery separator (option)
- Service Battery (option)
- Starter Motor (not included)
- DC MONITORING
- AC MONITORING
- MULTIP PLUS CONTROL
- SYSTEM MONITORING
- 888
- AC SYSTEM CONTROL
- DC SYSTEM CONTROL
- High Loads
- Low Loads
Product Dimensions

ESP Panels:

**Full size panels:**
- System monitoring panel
  ESP-SYSTEM
- AC circuit breaker panel
  ESP-AC-20A-11
- DC circuit breaker panel
  ESP-DC-20A-11
- All panels:
  160mm(W) x 260mm(H)

**Half size panels:**
- ESP VE-Net Blue Power panel
  ESP-VE.NET BLUE
- VE.Net Panel
  ESP-VE.NET
- AC circuit breaker panel
  ESP-AC-20A-04
- DC circuit breaker panel
  ESP-DC-20A-04
- Control panel
  ESP-CONTROL
- Blank panel
  ESP-BLANK-HALF SIZE
- All panels:
  160mm(W) x 130mm(H)

**Quarter size panels:**
- ESP VE-Net panel
  ESP-VE.NET
- ESP Phoenix Multi Control panel
  ESP-MULTI
- Blank panel
  ESP-BLANK- QUARTER SIZE
- All panels:
  160mm(W) x 65mm(H)

**ESP PowerMan:**
- ESP PowerMan 20A - 250mm(L) x 200mm(W) x 95mm(H)
- ESP PowerMan 32A - 380mm(L) x 300mm(W) x 120mm(H)
- ESP PowerMan 64A - 460mm(L) x 380mm(W) x 180mm(H)

**DC Link Box:**
- DC Link Box - 380mm(L) x 300mm(W) x 120mm(H)