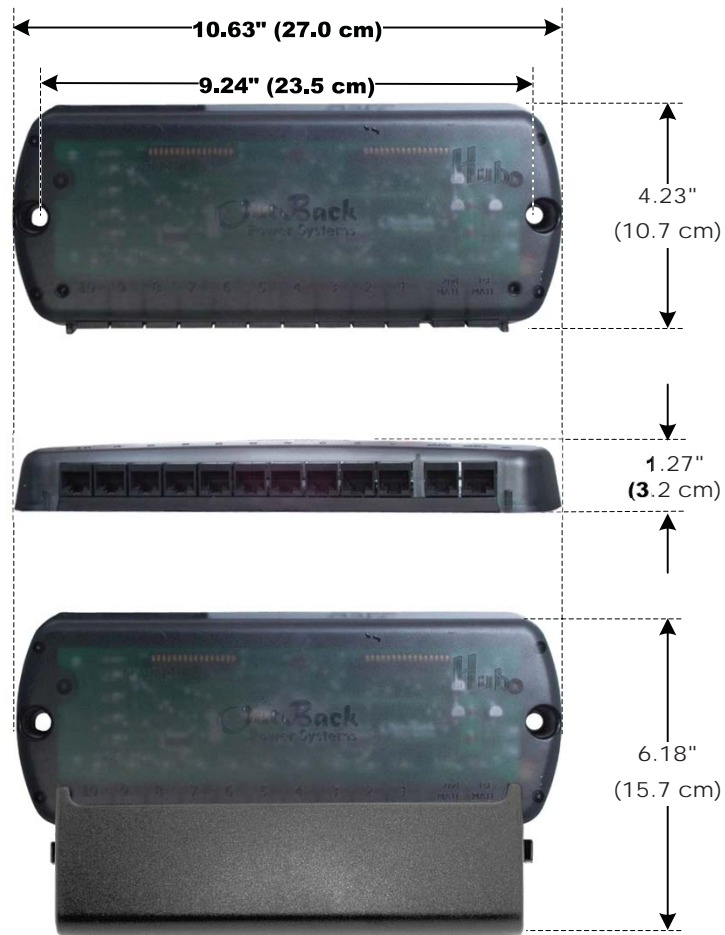


## HUB10.3 Communications Manager

Figure 1 Dimensions



Contact Technical Support:  
 Telephone: +1.360.618.4363  
 Email: Support@outbackpower.com  
 Website: www.outbackpower.com



**IMPORTANT:**  
 Not intended for use with life support equipment.

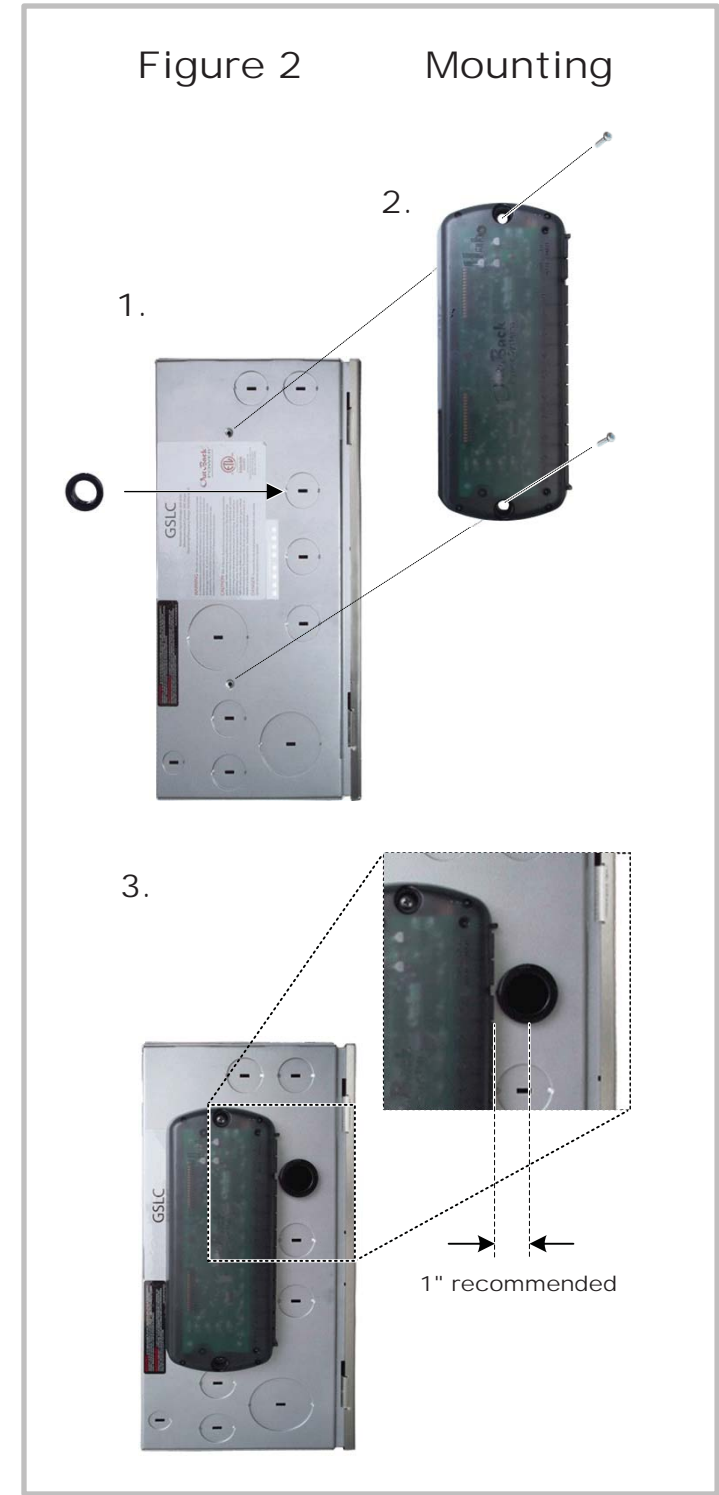
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### Date and Revision

July 2016, Revision E

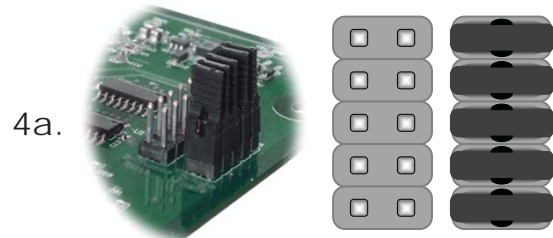
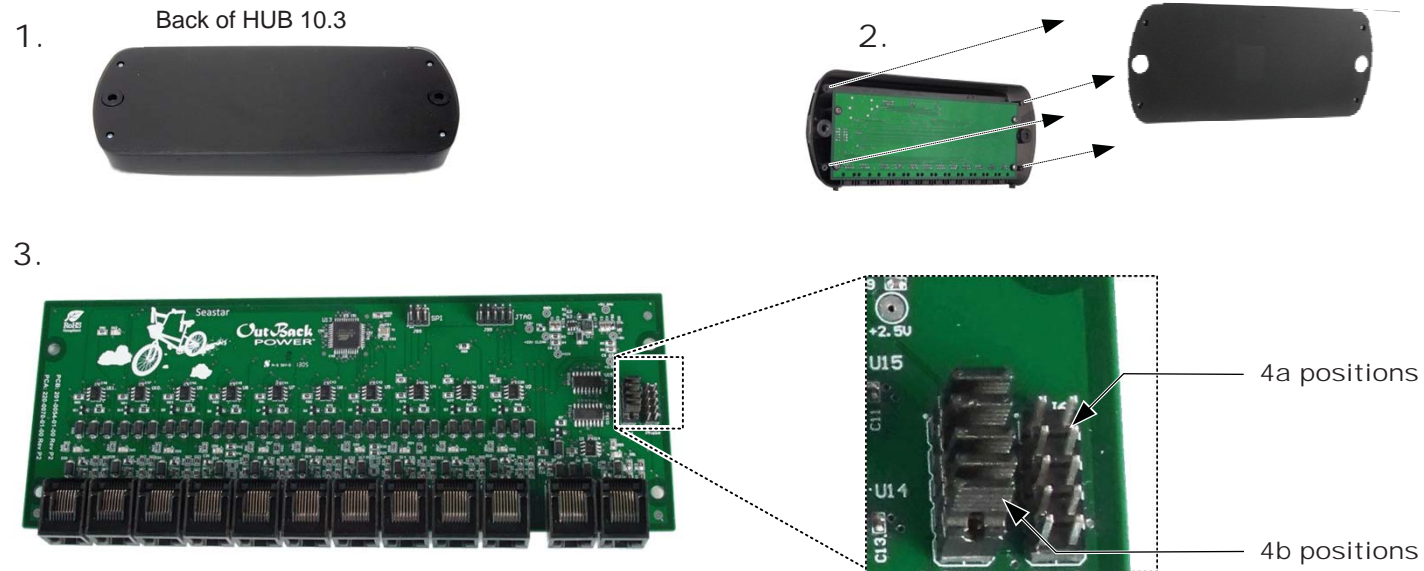
Parts List	
HUB10.3	HUB Wiring Cover
#10 x 1/2" Screws x 2	Cable, CAT5e, 3' (1 m) x 2
Shutter Bushing x 2	Cable, CAT5e, 6' (2 m) x 3
Snap Bushing x 2	Cable, CAT5e, 10' (3 m) x 4

NOTE: See inverter literature for more information on stacking modes and designations.



# Jumper Configurations

Figure 3 Changing Jumpers



This is the factory-installed initial position.

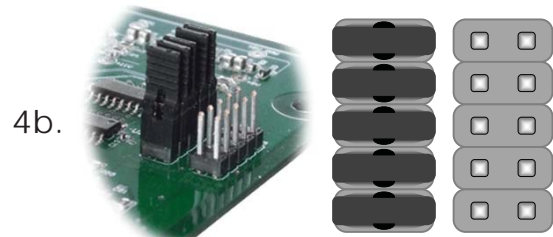
- Used for parallel stacking in all models. See Figure 4.
- Used for classic or OutBack series stacking. See Figures 8 and 9.
- Used for three-phase OutBack stacking with models GVFX(E) and GTFX(E). See Figure 6.

Jumper position identified by MATE3 on power-up:

Searching for Devices

Found

HUB10.3



Used for Subphase Master stacking in FXR, GS, and GFX inverters (both series and three-phase configurations). See Figures 7 and 8.

For these applications, place all jumpers in the positions noted in the photograph and the diagram.

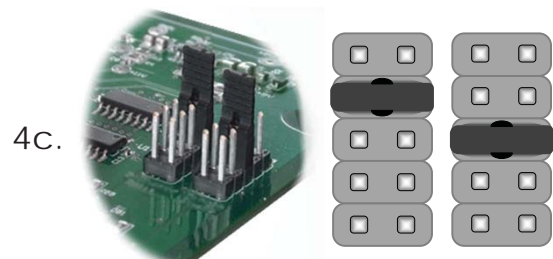
NOTE: This option requires MATE3 firmware revision 002.013.000 or higher.

Jumper position identified by MATE3 on power-up:

Searching for Devices

Found

HUB10.3



Used for three-phase OutBack stacking with FX, VFX, FX(E) or VFX(E) inverters. See Figure 5.

For this application, place *only two jumpers* in the positions noted in the photograph and the diagram.

Remove all remaining jumpers. No others are used for this configuration.

Jumper position identified by MATE3 on power-up:

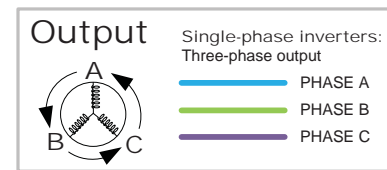
Searching for Devices

Found

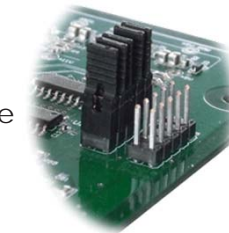
HUB10.3 Sub-phase Master

Figure 8 Three-Phase Stack (Subphase Master)

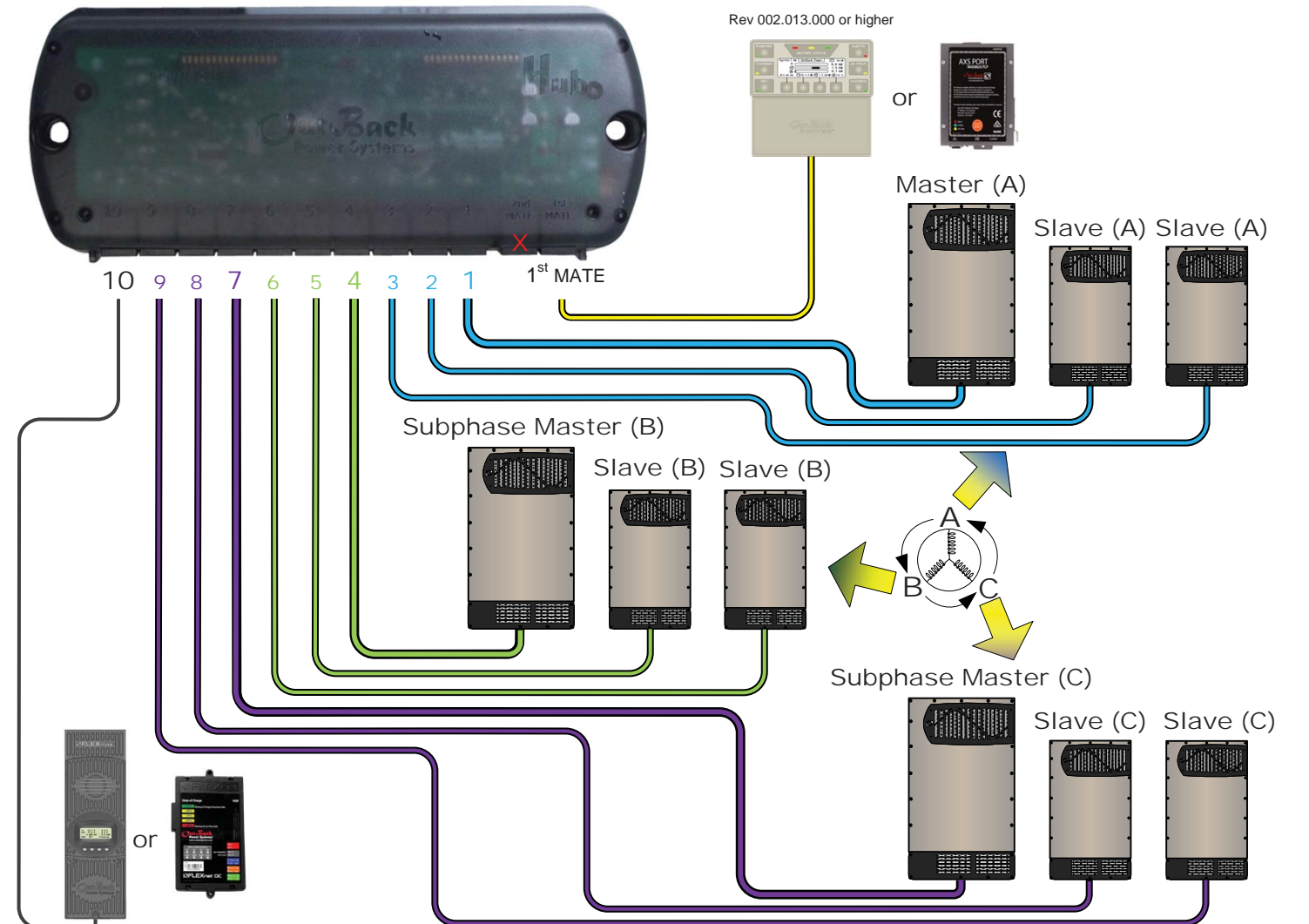
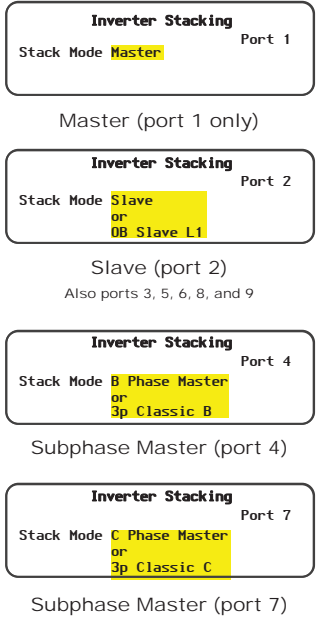
Models
FXR (A series)
FXR (E series)
GS (E Series)
GFX
GFX (E Series)



Jumper position (see Figure 3)



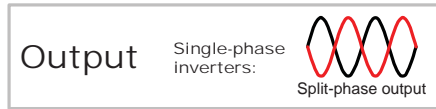
- Up to 9 inverters (ports 1 to 9); 1 other device (port 10); MATE3 only
- Master inverter (required on port 1) and up to two Slaves (ports 2 & 3) use Phase A output AC bus
- Subphase Master (required on port 4) and up to two Slaves (ports 5 & 6) use Phase B output AC bus
- Subphase Master (required on port 7) and up to two Slaves (ports 8 & 9) use Phase C output AC bus
- Phase A, B, and C Slave inverters should be equal in number; Slave selection screen may display Slave but could display OB Slave L1 depending on model
- Master and Subphase Masters are always active; each Master regulates output based on its own load
- Slave inverters remain in Power Save mode; the Master activates Phase A Slave inverters based on its load, while the Subphase Masters independently activate Phase B or C Slave inverters based on their own loads
- Port 10 not used for inverters; this and any unused slave ports can host other devices



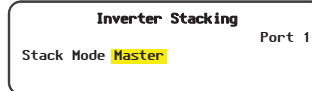
# Stacking (Subphase Master)

Figure 7 Series Stack (Subphase Master)

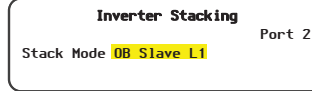
Models
FXR (A Series)
GFX



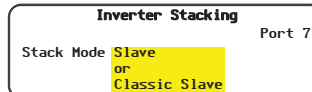
- Up to 8 inverters (ports 1 to 4, 7 to 10); balancing transformer is not used
- Master inverter and half of the Slave inverters use common output AC bus (L1); ports 2 to 4 are L1 slaves
- Subphase Master inverter and half of the Slave inverters use a separate common AC bus (2); ports 8 to 10 are L2 Slave inverters despite the screen selection (OB Slave L1)
- Port 7 is the L2 Subphase Master despite the screen selection (Classic Slave); this port is required regardless of the number of Slave inverters
- Master and Subphase Master are always active; each Master regulates output based on its own load
- Slave inverters remain in Power Save mode; Master activates L1 Slave inverters based on its load, while the Subphase Master independently activates L2 Slave inverters based on its own load
- Ports 5 and 6 not used for inverters; these and any unused slave ports can host other devices



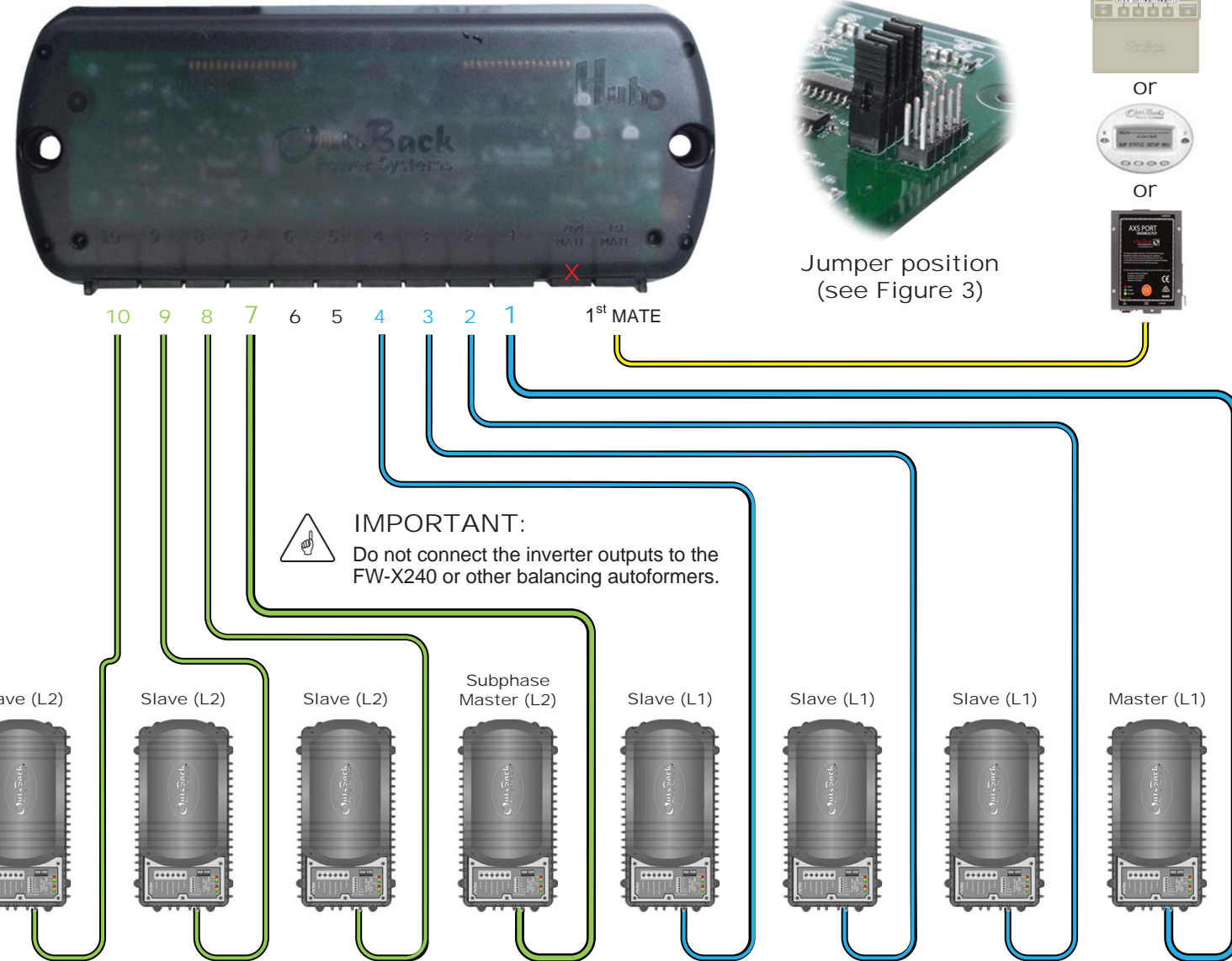
Master (port 1 only)



Slave (port 2)  
Also ports 3, 4, 8, 9, and 10



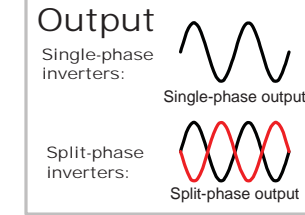
Subphase Master (port 7)



# Stacking (Parallel)

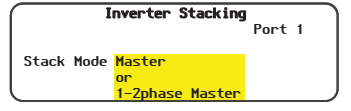
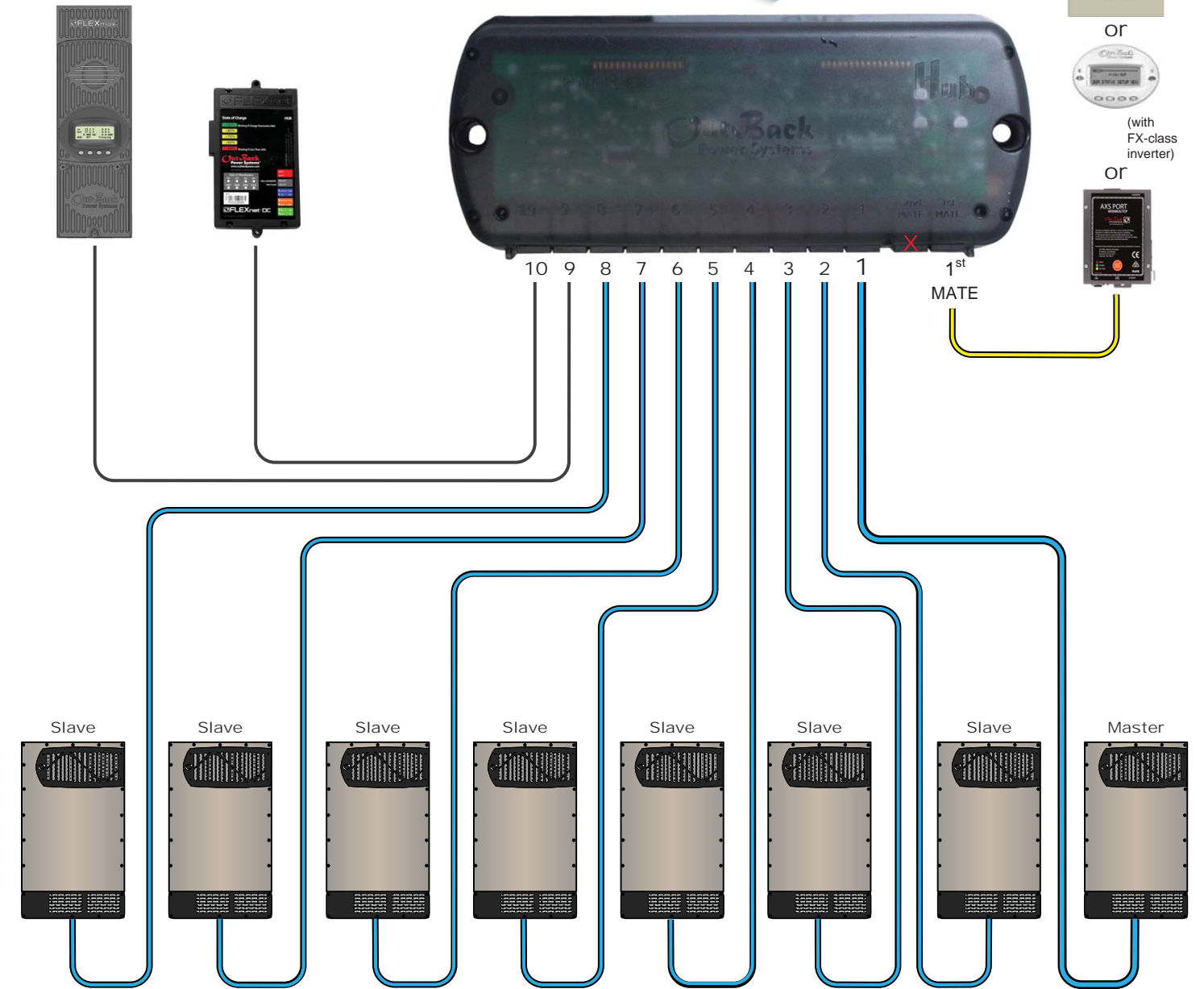
Figure 4 Parallel Stack

Models
FXR (A Series)
FXR (E Series)
GS (A Series)
GS (E Series)
GS8048
FX / VFX (all series, including E, J, M, N, and W)
GFX
GFX (E Series)
GTFX / GVFX (E Series)

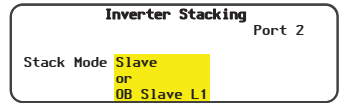


- Up to 10 inverters or other devices
- All inverters use common AC output bus
- Master inverter always active; regulates power output based on load
- Slave inverters remain in Power Save mode; Master activates Slave inverters based on load
- Any unused port can host other devices (ports 9 and 10 shown here)

Jumper position  
(see Figure 3)



Master (port 1 only)



Slave (port 2, port 3, etc.)



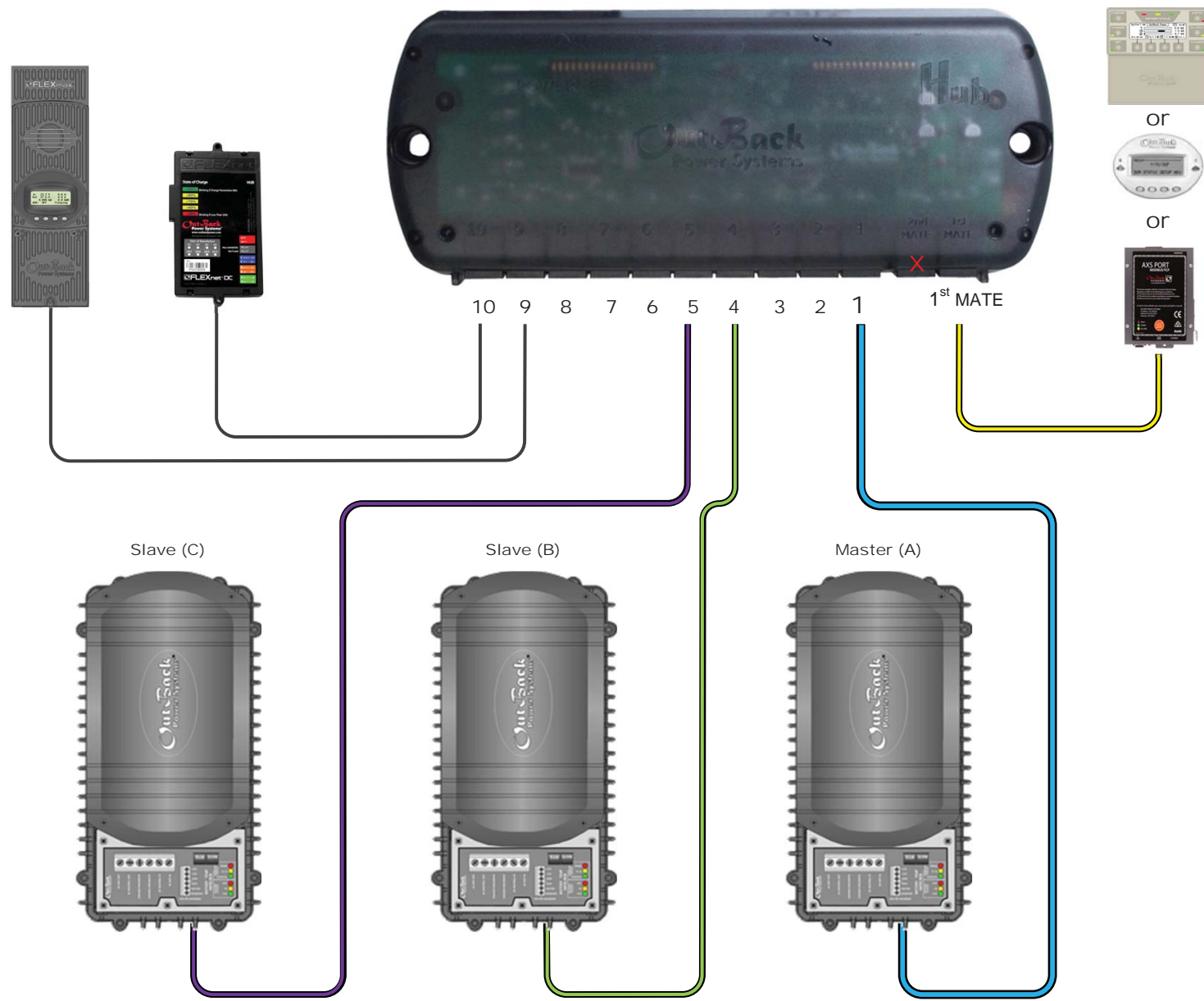
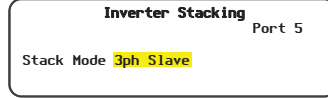
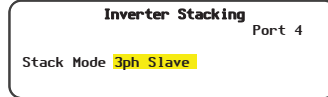
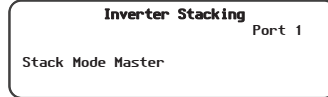
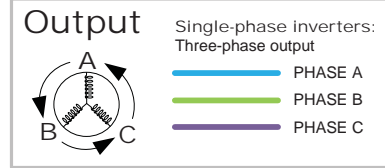
# Stacking (Three-Phase)

Models
FX / VFX (all series, including E, J, M, N, and W)

Figure 5 Three-Phase Stack (all series FX)

- 3 inverters; up to 7 other devices
- Master and two Slave inverters use separate output AC buses (A, B, and C)
- All inverters always active (no Power Save mode); outputs are loaded independently but output regulation is controlled by load on Master
- Ports 2,3, and 6 through 10 can host other devices (ports 9 and 10 shown here)

Jumper position (see Figure 3)

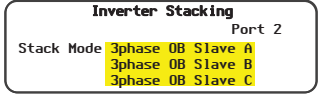
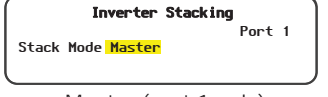
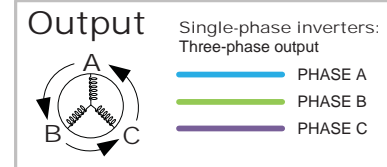
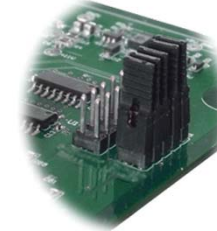


Models
GTFX (E Series)
GVFX (E Series)

Figure 6 Three-Phase Stack (E series FX)

- Up to 9 inverters; 1 other device
- Master and two Slave inverters use separate output AC buses (A, B, and C)
- All inverters always active (no Power Save mode); outputs are loaded independently but output regulation is controlled by load on Master
- Any unused port can host other devices (port 10 shown here)

Jumper position (see Figure 3)



Slave A, B, or C (port 2, port 3, etc.)  
Ports 2 to 10 can be assigned any 3phase OB Slave stack mode; no more than 3 inverters per mode

