This drawing set is a guide for wiring for up to ten Radian inverter/chargers. PV charge controller wiring is also shown on its own sheet. Always check with AHJ for specific installation requirements.

**Notes:**

A) GSLCs:

A1) have breaker spaces for up to four charge controllers
A2) are used as a raceway for AC in and AC out conductors
A3) house each inverter's:
   - AC input breakers
   - AC output breakers
   - battery DC breakers

A4) house the FNDC battery monitor if the system has one

B) Bypass switch

B1) Rated for 50A x QTY of inverters.
B2) Requires a single pole for 230V systems and 3 poles for 230V/400V systems.
This is example system consists of:
- 3 battery banks
- 3 inverters
- 4 charge controllers

Class T fuses or CF/GJ breakers can be bolted to DC+ bar.
Notes:
1) The intent of this drawing is to show how DC circuits can be combined using DC rated panelboards. PV conductors, equipment ground and bonding and other elements are omitted for drawing clarity.
2) Indicated breaker sizes are a minimum. Due to voltage drop larger wires and consequently breakers may be required.
3) GFDIs can be mounted in any available breaker spaces within GSLCs.
Notes:
* Since neutral is not switched, it passes through input to loads, regardless of bypass switch position.
** For input panels, breakers distribute source power to inverters. For output panels, breakers consolidate inverter outputs into a single output.

3-phase systems must have inverter quantities in multiples of three.
Multi-Radian, Multi FM system diagrams

DC circuits shown on sheet 6

GSLC

Through Adjacent GSLC's to AC Out Panel

GFDI

50A

To AC Out Panel

GFDI

50A

GFDI

50A

From Breakers in AC input panel

GSLC

GSLC

GSLC

GSLC

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1) For document clarity, wiring for only 8 charge controllers shown.
2) Use PNL-GFD1-80 to add a single extra FM80.
3) Use PNL-GFD1-80D to add two extra GFD1’s.
4) Use PNL-GFD1-80Q to add three charge controllers, leaving one of the four poles unused.
5) Equipment grounding conductors omitted for drawing clarity.
Example system 1:
10 Radians
20 FM80s
3 battery banks

Example system 2:
3 Radians
6 FM80s
1 FNDC
3 battery banks

Notes:
A) Master inverter must be in port 1 of Hub.
B) RTS must be installed in port 1 device.
C) No more than three Radians can be used with an FNDC.