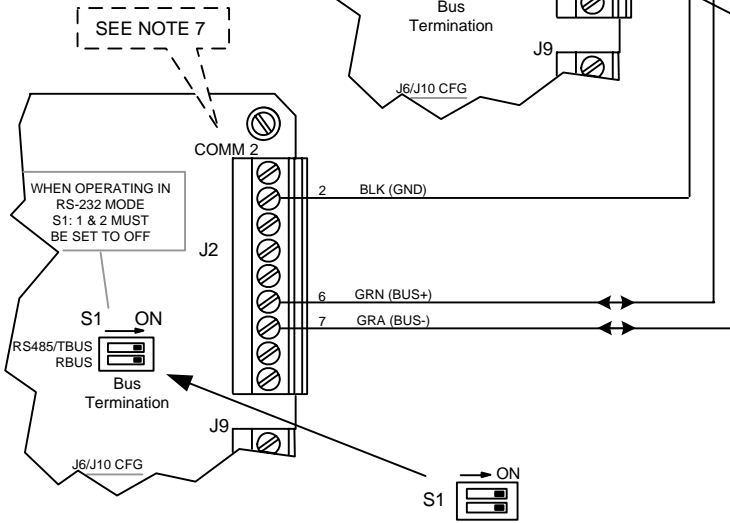


NOTES:

1. **WARNING:** This drawing does not illustrate the installation methods required for hazardous locations. Prior to any installation in a Classified Hazardous Location, verify installation methods by the Control Drawing referenced on the product's name tag and national and local codes.
2. **WARNING!** Using a non-factory RS485 data cable may result in damage and may void system warranty.
3. Zero-second Listen Time is required.
4. Maximum length of RS485 bus is 4000 Ft. @9600 baud using Totalflow cable P/N 2011648-001 or equivalent.
5. No Star Configurations.

LAST UNIT



To Terminate the RS-485 Bus:
If this is the last unit, or if it is the only unit, Set S1 to "ON"
Set all others to "OFF"

6. Cable Shielding – Cable segments between units should have their shields terminated on one end only. The RS-485 Cable (P/N 2011648-001) has two shields, each with its own drain wire. When connecting multiple units together, connect the two drain wires on the first unit to one of the two ground screws on the bottom left-hand side of the enclosure. Cut the cable and terminate the wiring on the second unit but do not connect the drain wires. On the next segment between the second and third units, connect the two drain wires to the second unit but not to the third unit. Repeat this process until all units are wired.

7. The Jumper at J16 of the UFLO^{G4} motherboard (Not shown on this page) sets the Power Options on the I/O board:

On the motherboard:

For Solar & Battery Power, Jumper Pin 1 to Pin 2

Note: Power to J17 by ABB approved charging source.

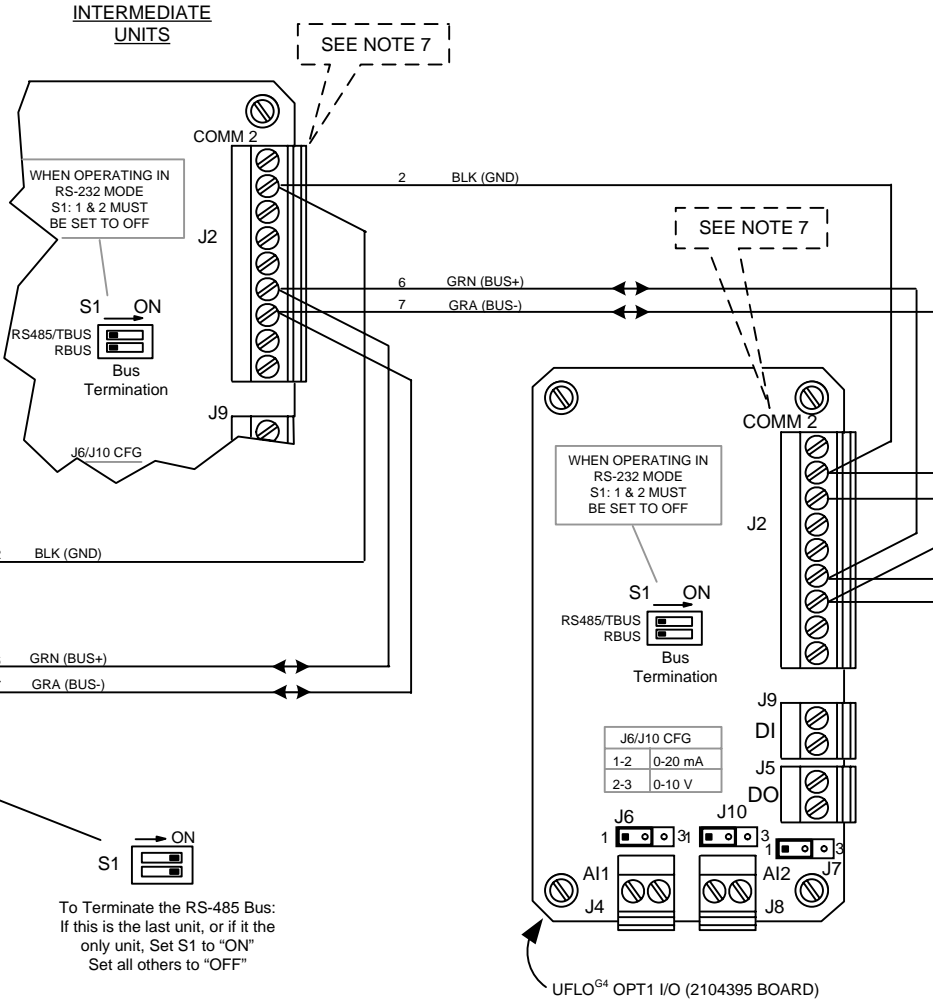
For External Power Source: Jumper Pin 2 to Pin 3.

Note: DO NOT CONNECT A BATTERY TO J15.

Wire external power (9 - 30 Vdc) to charger connector J17.

WARNING: Power at J17 (up to 30 Vdc) is applied to the Communication connector terminals as power for radios, etc. Radio operation and the Inhibit feature may not work properly if other than a nominal 12 Vdc power source is utilized.

INTERMEDIATE UNITS



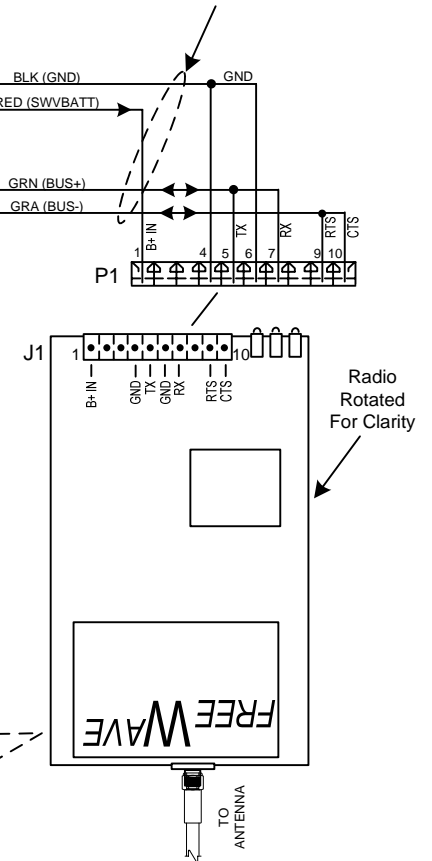
FIRST UNIT

PRIMARY SETUP ITEMS FOR FREEWAVE RS-485 RADIOS:

1. Modem Mode = 3 (Point to MultiPoint Slave).
2. Modem Baud = 6 (9600) - (other baud rates can be used but needs to match flow computer's baud rate).
3. RS232/485 = 2 (RS485)
4. Number Repeaters (Enter number of repeaters)
5. Network ID (Enter address ID of radio which is also the same as the Master Radio's ID.

Note: Typically, all other setup items can be left in their default state.

Totalflow Cable
P/N 2100759-004
or
Pre-Spliced
2100759-001
Note: The FreeWave radio is a 12 Volt device. This cables is valid only when using a 12 V battery powered system.



REF: N/A

	TOTALFLOW	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	Products	D31819	UD	UFLO ^{G4} OPT1 I/O (2104395 BOARD) COMM2 TO FREEWAVE RADIO (RS-485)	2104572	AB	1 OF 1