

NOTES:

- 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.
- WARNING:** Using a non-factory cables may result in damage and may void system warranty.
- Jumper is not part of the 210339-001 cable; it must be supplied separately.
- For switched power or to enable Power Scheduler for UC12, remove the jumper from 1 to 9 on P1 of UC12.

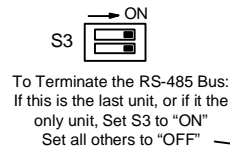
LAST UNIT

INTERMEDIATE UNITS

FIRST UNIT

VBATT on first unit only

Totalflow Cable Assy
P/N 2012535-004
(for battery configuration only)
Note: The UCI and the MDS radio are 12 Volt devices. These cables are valid only when using 12 V battery powered systems.



UFLO^{G4} Board
2104356

UFLO^{G4} Board
2104356

UFLO^{G4} Board
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Totalflow Cable Assy
P/N 2011648-001
(for battery configuration only)
Note: The UCI and the MDS radio are 12 Volt devices. These cables are valid only when using 12 V battery powered systems.

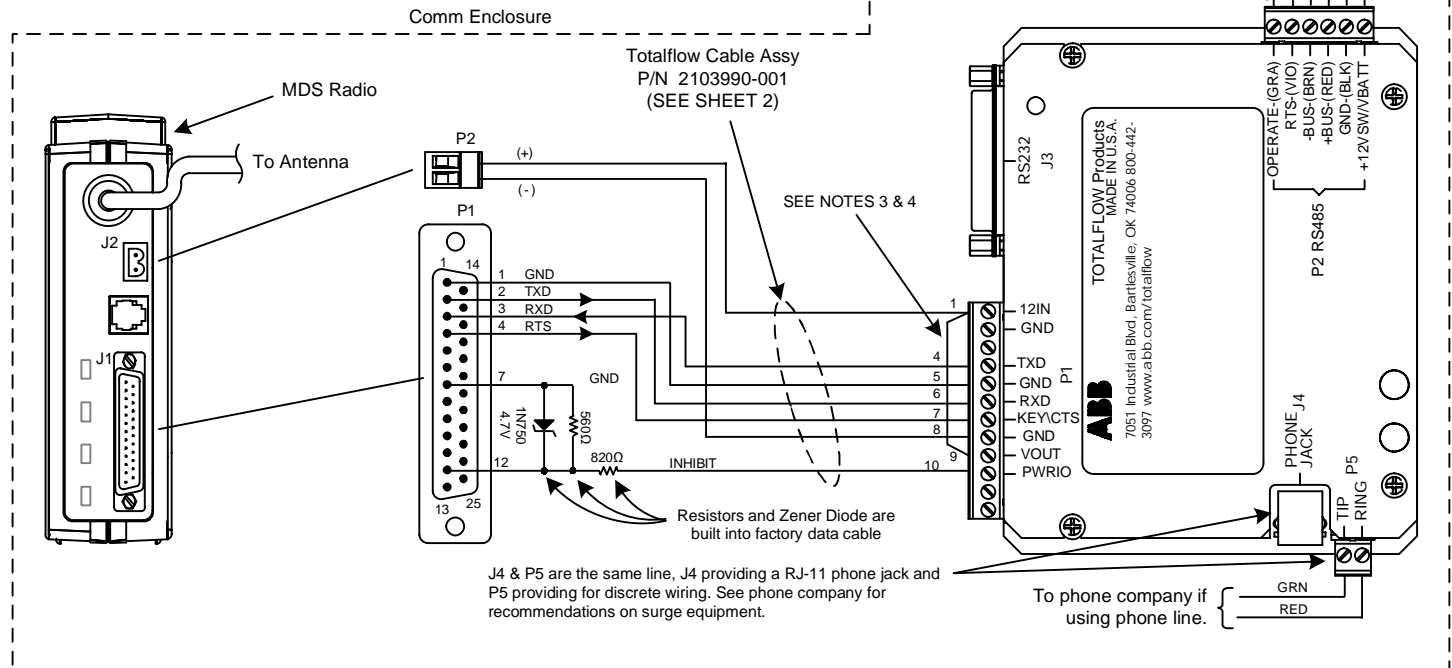
- Maximum length of RS485 bus is 4000 Ft. @9600 baud using Totalflow cable P/N 2011648-001 or equivalent.
- No Star Configurations.
- Cable Shielding – Cable segments between units should have their shields terminated on one end only. The RS-485 Cable (P/N 2011648-001) has two shields, each with its 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.
- 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.



REF: NA

ABB TOTALFLOW Products	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	L31580	UD	COMM ENCLOSURE TO G4 MICROFLO COMM1 WFCU PWR & UC12 (RS-485) TO MDS 4710/9710B/9810 RADIO (RS-232)	2104578	AA	1 OF 2

PRIMARY SETUP ITEMS FOR THESE MDS RADIOS:

1. Mode R.
2. ADDR XXXX - where (xxxx) is radio's address, which is also the same as the Master Radio's Address.
3. SLEEP ON.
4. BAUD 9600 8n1 - (other baud rates can be used but needs to match flow computer's baud rate).

Note: Typically, all other setup items can be left in their default state, except for the following radio-specific changes:

Recommended changes for X710 "A" model GE MDS radios

Remove Request to Send (RTS) wire from the Totalflow connected device. RTS is not required on "A" radios and could be a source for spurious unintended transmissions (chirping). Tie this wire back and tape so that it doesn't make electrical contact with any other electrical wiring or ground source.

GE MDS software setting changes:

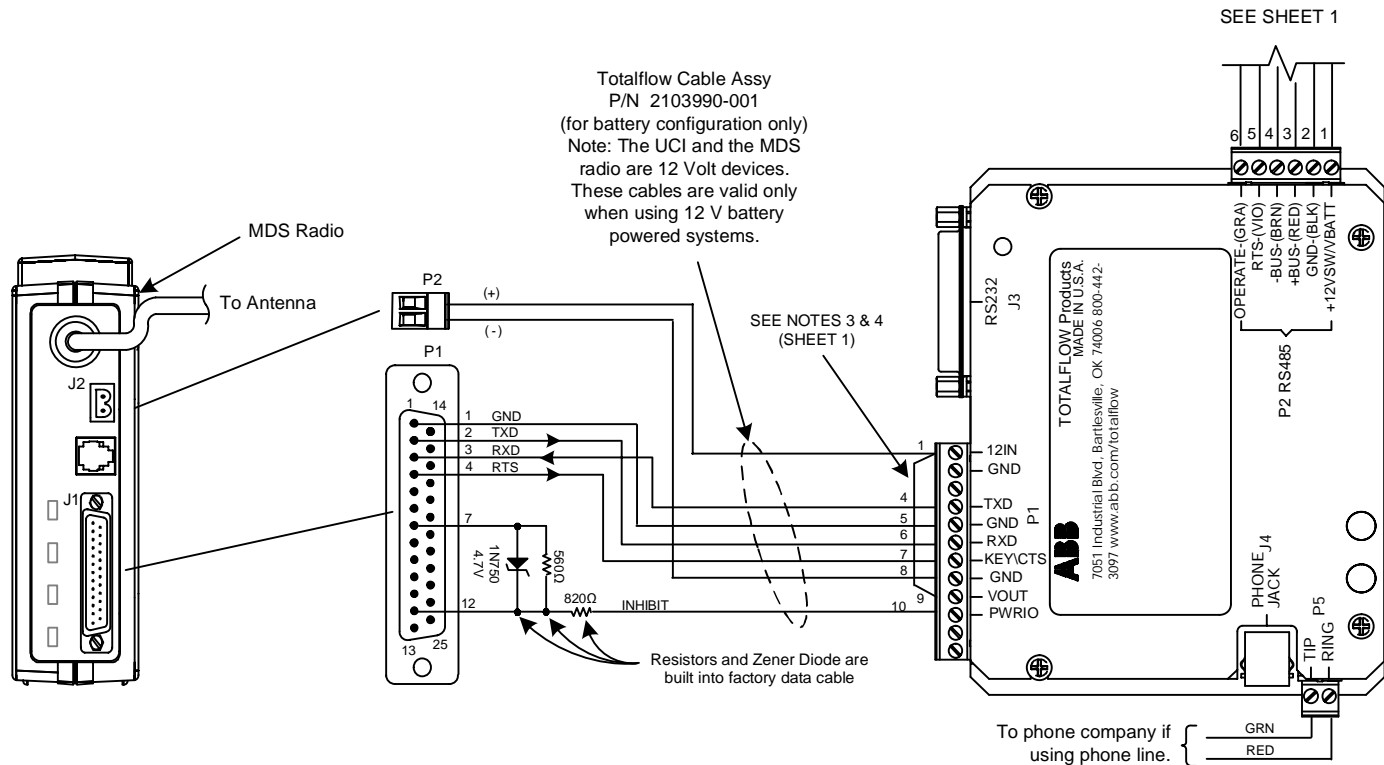
DATAKEY = ON, set to on so that the radio will key on data without the need for RTS from the Totalflow device.
PTT delay = 30 milliseconds, defaults to 0, change to 30 to eliminate the spurious unintended transmissions (fast chirping) in the 5-25 milliseconds range.

Recommended changes for X710 "B" model GE MDS radios

GE MDS software setting changes:

PTT delay = 30 milliseconds, defaults to 0, change to 30 to eliminate the spurious unintended transmissions (fast chirping) range in duration from 5-25 milliseconds

NOTE: Request to Send (RTS) must be utilized on all "B" radios for proper operations.



REF: N/A

ABB TOTALFLOW Products	ACTION	DOC TYPE	TITLE	DWG NO.	REV	SHEET
	L31580	UD	COMM ENCLOSURE TO G4 MICROFLO COMM1 W/FCU PWR & UCI2 (RS-485) TO MDS 4710/9710B/9810 RADIO (RS-232)	2104578	AA	2 OF 2