



TOTALFLOW®

Technical Bulletin 54

**MDS-2310 Wiring to Reduce
Current Consumption**

Totalflow Technical Bulletin

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MDS-2310 Wiring to Reduce Current Consumption

1. Purpose:

To document how to field wire a MDS-2310 transceiver with internal 4800 baud modem to reduce current consumption.

2. Description:

Microwave Data Systems (MDS) made a modification in 1995 which allows the Totalflow Flow Computer Unit (FCU) to completely duty cycle power on the MDS-2310 radio. Before this date, part of the receiver had to be continuously powered and the rest of the receiver was powered up every 1,2, or 4 seconds using the radio's inhibit (Pin 12 on radio's DB-25 connector) line. See attached drawing for details. Below you will find a 6413/6414 wiring example showing the existing wiring diagram (Item 3) and the modified wiring diagram (Item 4).

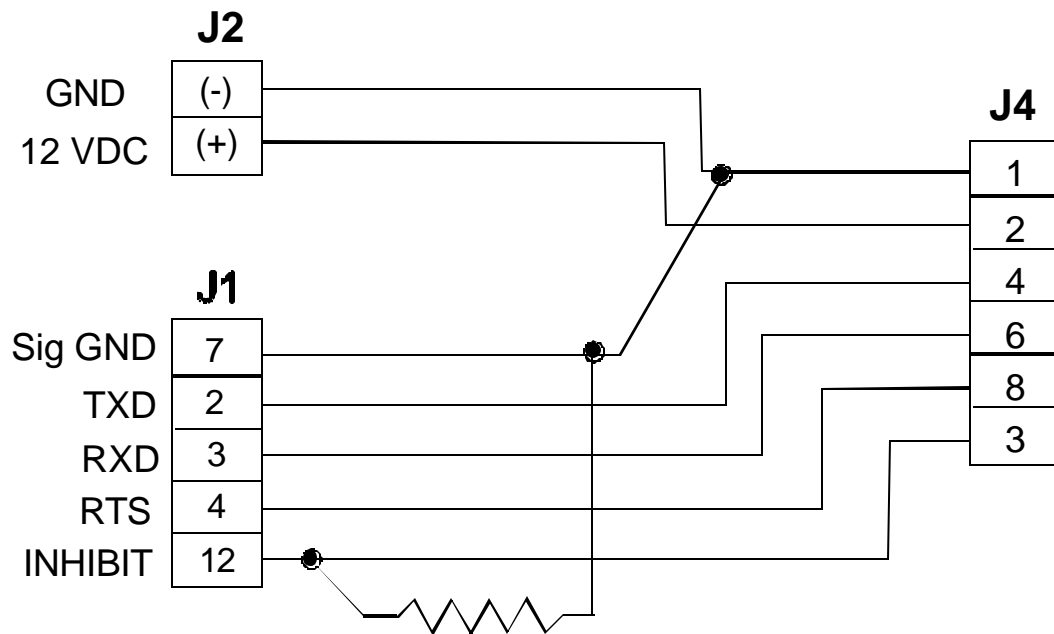
Other AAI wiring diagrams can be modified to take advantage of this power consumption savings. We have elected to only show one wiring diagram as an example.



3. Existing Wiring for MDS-2310 with 4800 baud modem to 6413 or 6414 FCU:

Radio MDS2310 W/4800
Baud Modem

FCU Model 6413/6414



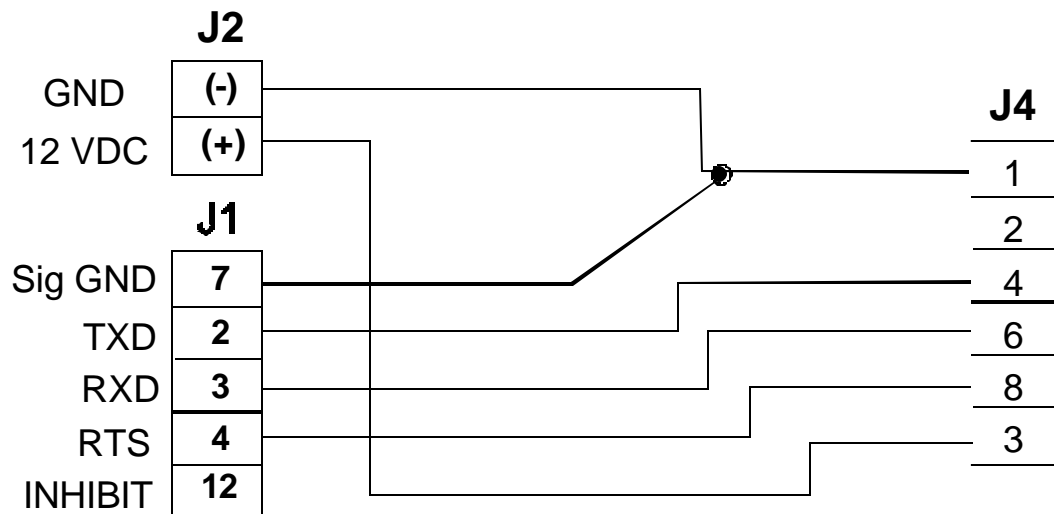
AAI Cable Part# 2015026-005



1. Modified Wiring to Support Complete Duty Cycling MDS-2310 with 4800 Baud Modem:

Radio MDS2310 W/4800
Baud Modem

FCU Model 6413/6414



Modifications required to completely duty cycle MDS-2310 with FCU battery power. Can only be wired this way if MDS 2310 has internal 4800 baud modem with part # 031831 AO2 or 031831A11.

Advantage: Will reduce radio current consumption by 10-15 milli-amps. Part number is located on the modem board along with the Revision level.



5. Conclusion:

This modification will reduce the overall receiver current consumption by 10-15 milli-amps. This is an optional wiring diagram for sites where it is important to reduce the overall current consumption of the system. Other wiring harnesses for devices (i.e. 6713 FCU, 6790 RTU) can be modified to reduce current consumption. To modify other cables:

- 1) Remove the 1.5 K ohm resistor
- 2) Remove the wire which is connected from Inhibit (Pin 12) of the radio to Switched 12 Volts of FCU
- 3) Remove the existing wire from +12 Volt of the radio to Vbatt of FCU
- 4) Connect +12 Volts of the radio to Switched 12 Volt of the FCU