



# WRC-CANR-DF-xx Series 4 Quick Start Guide

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Use this Quick Start Guide to quickly and easily install your CAN-Bus Fiber Optic Extenders in your system, follow the instructions below. For more details please see the WRC-CANR User's Manual at [www.prosoft-technology.com](http://www.prosoft-technology.com).

**WARNING: Series IV F/W Revision 4.002 is not backward compatible.**

**NOTE: CANR-DF units are sold in identical pairs, including two (2) extenders. You will need two (2) multi-mode fiber cable lengths for use with a CANR-DF-DN pair, or two (2) single-mode fiber cable lengths for use with a CANR-DF-SM pair, terminated with ST male connectors.**

1. Leave the DIP switches in the factory setting on both units in the FF or all OPEN positions for **Autobaud** for DeviceNet baud rates (125K, 250K or 500K). If you are not using a DeviceNet baudrate, or you desire to manually set a fixed baudrate, set the switches (matching on both units) according to the table below. For more on switch settings see the WRC-CANR User's Manual.

Baudrate	Switch setting (numerical)	Position 1 Position 5	Position 2 Position 6	Position 3 Position 7	Position 4 Position 8	Meaning
125K	0	CLOSED	CLOSED	CLOSED	CLOSED	Fixed
250K	1	CLOSED	CLOSED	CLOSED	<b>OPEN</b>	Fixed
500K	2	CLOSED	CLOSED	<b>OPEN</b>	CLOSED	Fixed
Autobaud	3	CLOSED	CLOSED	<b>OPEN</b>	<b>OPEN</b>	Autobaud for DeviceNet Bauds (125k, 250k, 500k)
9.6K	4	CLOSED	<b>OPEN</b>	CLOSED	CLOSED	Fixed
10K	5	CLOSED	<b>OPEN</b>	CLOSED	<b>OPEN</b>	Fixed
20K	6	CLOSED	<b>OPEN</b>	<b>OPEN</b>	CLOSED	Fixed
40K	7	CLOSED	<b>OPEN</b>	<b>OPEN</b>	<b>OPEN</b>	Fixed
50K	8	<b>OPEN</b>	CLOSED	CLOSED	CLOSED	Fixed
100K	9	<b>OPEN</b>	CLOSED	CLOSED	<b>OPEN</b>	Fixed
800K	10	<b>OPEN</b>	CLOSED	<b>OPEN</b>	CLOSED	Fixed
1M	11	<b>OPEN</b>	CLOSED	<b>OPEN</b>	<b>OPEN</b>	Fixed
Remote	15	<b>OPEN</b>	<b>OPEN</b>	<b>OPEN</b>	<b>OPEN</b>	Takes baud rate from the opposite end device. If both sides are remote, Autobaud from either side.
Autobaud	12-14	ALL OTHER SWITCH POSITIONS				Autobaud

2. Using on-board jumper W1, terminate each side of the CAN-Bus network, as appropriate. (This is especially critical at the higher baud rates.)
  - For trunk lines, install W1 on both units.
  - For a drop line install only the W1 jumper on the unit on the opposite network side of the trunk line.
3. **Connect the fiber cables** to the fiber connectors on one unit. Make sure they are clearly marked on both ends to differentiate between the two lines.
4. Make sure that there is power on the CAN-Bus Network and **plug in the Network cable (a 5-pin round female MINI connector)** into the CAN-Bus Extender.
5. The CANR-DF Extender will undergo its initialization sequence, flashing the LEDs. After approximately 5 seconds, the Module Status LED (labeled "MS") will go on solid green and network LEDs (labeled "NSA" and "NSB") will flash green. The DGN LED will be solid red until the fiber cables are connected to the other CANR and both CANRs are powered up.
6. **Repeat steps 1-5 above for the second CANR-DF. Note: Be sure to connect the fiber from the TX port on one device to the RX port on the other.**
7. Connect the desired network devices to both sides of the copper CAN bus.
8. Both Network A and B Status LEDs (NSA and NSB) will go on solid on each unit once a valid CAN message is received into either side of the Extender and the baudrate auto-detect has been successfully performed.
9. You may observe that the small green LEDs marked RXF and TXF, next to the fiber ports, illuminate when data is received or transmitted.

The CAN-Bus Extender is now operating on the network and is ready to repeat messages from either Network A or Network B.