

# USING MODEL 485DRCi IN PLACE OF Allen-Bradley® 1761-NET-AIC Advanced Interface Converter (AIC+)

The B+B SmartWorx Model 485DRCi is an industrial RS-232 to RS-422/485 converter. While it is often used in Modbus applications, it may be configured for use in the DH-485 environment as a limited replacement for the 1761-NET-AIC. For this application, you may need some additional equipment, as follows:

1. Allen-Bradley 1761-CBL-AP00 cable (8-pin DIN to 9-pin D-shell), available from your Rockwell Automation distributor.
2. A DB9 male/male null modem adapter, part number 31D1-28100 will work, available from B+B SmartWorx.
3. 24 VDC Power. The 485DRCi must be supplied with external 10 to 48 VDC. B+B SmartWorx Model MDR-20-24 or any industrial power supply will work.

The RS-232 signals on the 485DRCi connect via a DB9 female DCE connector (see Figure 1). This connector will need to be changed to a DTE port using the null modem adapter Model 31D1-28100, available from B+B SmartWorx. Note that there is no provision for powering the 485DRCi via the RS-232 port. Power should be connected via the terminal block. It accepts 10 to 48 VDC.

The 485DRCi has a 5-pin pluggable terminal block with slightly different wiring. You will need to adapt the DH485 Trunk Cable using Table 1. Termination is selected via a DIP switch (see Table 2).

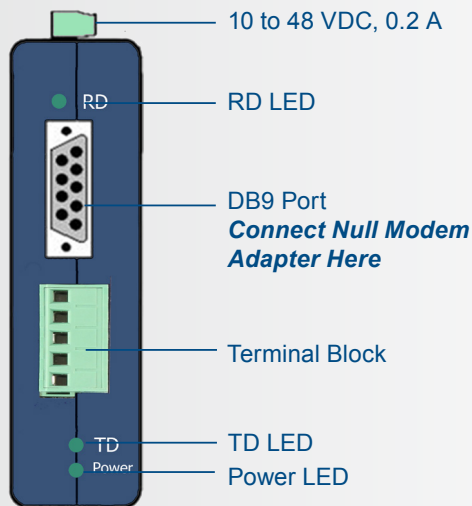


Figure 1.

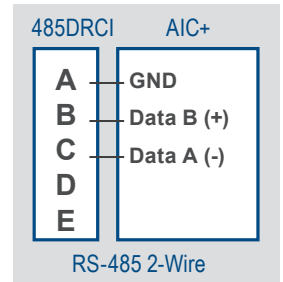
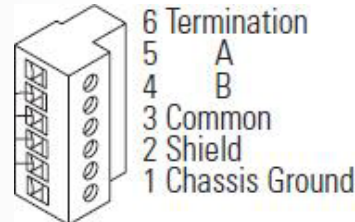


Table 1.

SIGNAL	AIC+ Terminal Block	485DRCi Terminal Block
Termination	6	*
Data A (-)	5	C
Data B (+)	2	B
Common	3	A
Shield	2	**
Chassis Ground	1	**

\* Termination on 485DRCi is configured via dip switch #5 (ON terminated, OFF not terminated)

\*\* No terminals for grounding the shield – connect shield to another ground point in cabinet if necessary.



Table 2.

DIP SWITCH SETTINGS*					
1	2	3	4	5	6
OFF	OFF	ON	ON	ON	ON
7	8	9	10	11	12
OFF	OFF	OFF	OFF	ON	OFF

\* See Model 485DRCi Quick Start Guide for more information about switch settings.

**B+B SMARTWORX**

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