

Connected Component Workbench Task-based Quick Start

QS# CN10 – Cabling the Controller for a 900-TC Temperature Controller and Testing Controller Program

LISTEN.
THINK.
SOLVE.®

 *Allen-Bradley • Rockwell Software*

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Hardware & Software Versions Used to Develop This Quick Start

- Connected Components Workbench (CCW) Release 1 software (prerelease build 47)
- 900-TC8 or 900-TC16
- Simple Temperature Control Connected Components Building Block. Publication CC-QS005A-EN-P
- Appropriate communication module for the 900-TC module as appropriate for the application.
 - 900-TC8COM
 - 900-TC16

Prerequisites

- CN09

Cabling the Controller for a 900-TC Temperature Controller and Testing the Controller Program.

This quick start will show you how to configure and program the Micro830 controller with the 2080-SERIALISOL and the 900-TC temperature controller.

1. For this quick start, program the 900-TC as listed in the Simple Temperature Control Connected Components Building Block, publication CC-QS005A and Temperature Controllers User Manual, 900-UM007D.

For the 900-TC communication setup:

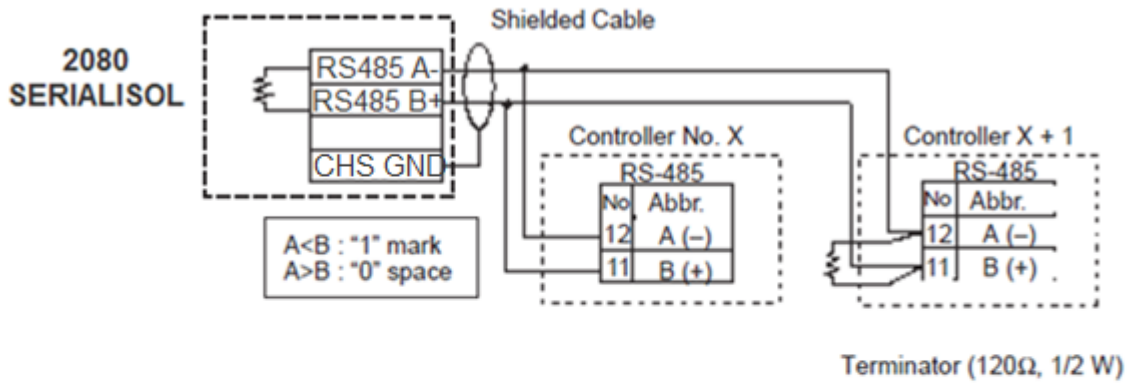
- Communication protocol: *Mod*
- Communications unit no.: *17*

This parameter sets a unique unit number for each temperature controller, letting the host identify the temperature controller during communication. When two or more temperature controllers are used, do not use the same unit number. This building block uses unit numbers (nodes) 17...24.

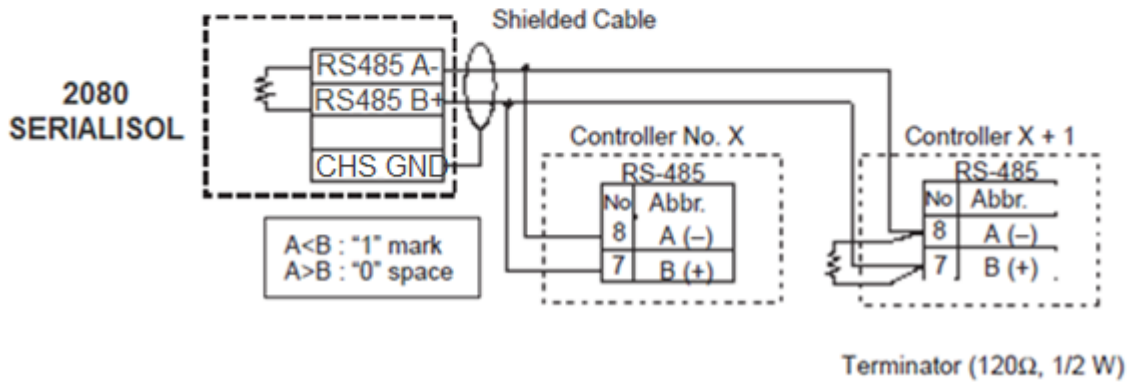
- Communication baud rate: *9.6* kbps
- Communications parity: *NONE*
- Send data wait time: *20*

- Follow these basic wiring connections, depending on the 900-TC you are using. When using the 2080 SERIALISOL module, ground the shield/drain to the chassis of the controller.

900-TC8 & 900-TC16

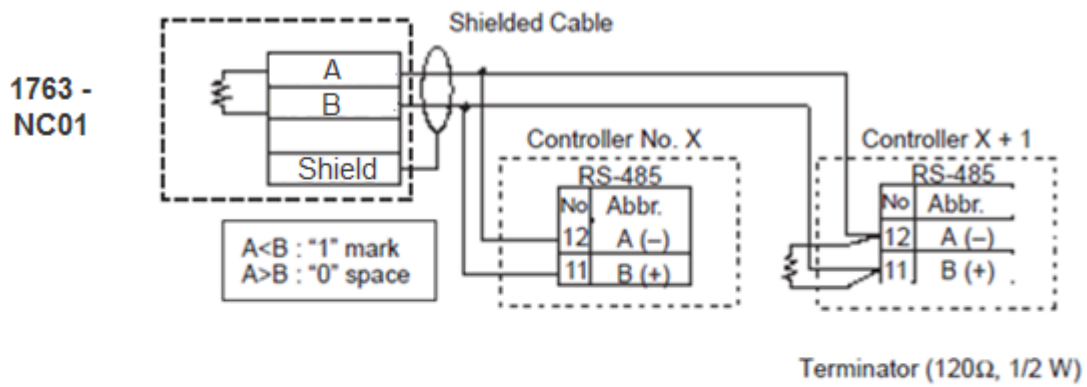


900-TC32

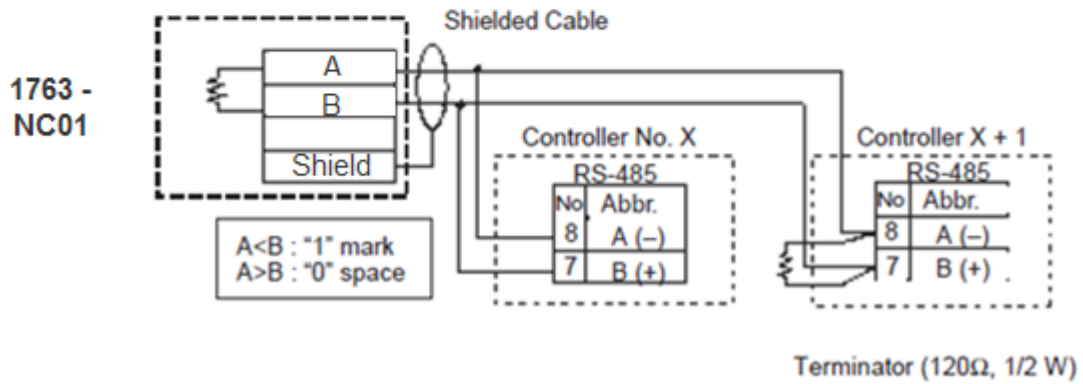


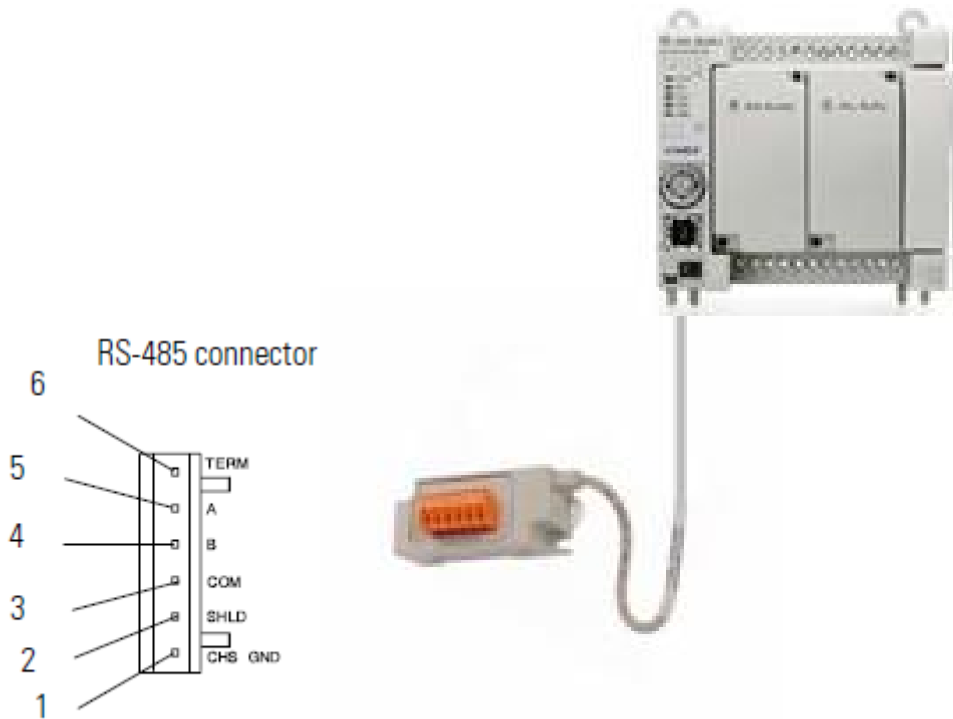
If using the 1763-NC01 cable, wire the same for the 900-TC, connect the following way.

900-TC8 & 900-TC16



900-TC32





Note:

Grounding Your Analog Cable

Use shielded communication cable, such as the Belden #3105A. The #3105A Belden cable has two signal wires (White/Blue Stripe and Blue/White Stripe), one drain wire, and a foil shield. The drain wire and foil shield must be grounded at end of the cable.

3. Assuming you have created the program from quick start CN08, built and downloaded the program on the Micro830, you can now proceed.

4. Verify the program by running the debug program.
5. View the variable tab. Energize input 1 on the Micro830. You should get something similar to this. LocalAddr(2) is the Process Variable. LocalAddr(3) is the lower status word. LocalAddr(4) is the upper status word. LocalAddr(6) is the set point.

UntitledLD-VAR Micro830 UntitledLD-POU						
Name	Logical Value	Physical Value	Lock	Initial Value	Data Type	
- MSG_MODBUS_1	<input type="checkbox"/>	...	MSG_MODBUS	
- LocalCfg	<input type="checkbox"/>	...	MODBUSLOCP/	
- TargetCfg	<input type="checkbox"/>	...	MODBUSTARP/	
▶ - LocalAddr	<input checked="" type="checkbox"/>	...	MODBUSLOCAL	
LocalAddr[1]	0	N/A	<input type="checkbox"/>		WORD	
LocalAddr[2]	82	N/A	<input type="checkbox"/>		WORD	
LocalAddr[3]	768	N/A	<input type="checkbox"/>		WORD	
LocalAddr[4]	24576	N/A	<input type="checkbox"/>		WORD	
LocalAddr[5]	0	N/A	<input type="checkbox"/>		WORD	
LocalAddr[6]	75	N/A	<input type="checkbox"/>		WORD	
LocalAddr[7]	0	N/A	<input type="checkbox"/>		WORD	