



Direct USB to Temperature / Process Controller Configuration Cable 900-CPOEM1

Rockwell Automation

41063-238-01 (1)
Printed In Japan

For detailed Temperature / Process Controller operating instructions, please refer to the 900-TC16 and 900-TC8 User's Manual (900-UM007A-EN-E). It can be found online at: <http://www.ab.com/manuals/>.

Significance of ATTENTION



Indicates information that, if not heeded, could result in injury, damage to property, or faulty operation.

Warning Symbols

ATTENTION

- Do not leave the cable connected to the Temperature Controller. A malfunction may occur due to electrical noise in the cable.
- Do not use any devices or cables that show signs of damage. Minor electric shock or fire may occur.
- Never disassemble, modify, or repair the product or touch any of the internal parts. Minor electric shock, fire, or malfunction may occur.
- Do not allow metal particles or wires to enter the connector. Minor electric shock, fire, or malfunction may occur.
- Keep the connector pins free of dust and dirt.



Precautions for Safety Use

- Be sure to check the orientation of the connector before inserting it into the device. Do not force the connector if it cannot be inserted easily. Doing so may result in damage.
- Do not place objects on top of the cable, pull on the cable, or bend the cable beyond their natural bending limit.
- Do not connect or disconnect the cable during communications. Doing so will cause malfunction or failure.
- Allow as much space as possible between the controller and devices that generate powerful high-frequency electrical noise or surge.
- Use this product within the rated load and power supply.
- Make sure that the device's metal components are not touching the external power terminals.
- Do not touch the connectors with wet hands. Electric shock may occur.

Precautions for Correct Use

- Do not use this product in the following places.
 - Places directly subject to heat radiated from electrical or heat generating equipment.
 - Places subject to splashing liquid or oil atmosphere.
 - Places subject to direct sunlight.
 - Places subject to dust or corrosive gas (in particular, sulfide gas and ammonia gas).
 - Places subject to intense temperature change.
 - Places subject to icing and condensation.
 - Places subject to vibration and large shocks.
- Use/store within the rated temperature and humidity ranges.
- Do not connect or disconnect the USB connectors repeatedly over a short period of time. The personal computer may malfunction.
- After you download the driver from the A-B website (refer to Installing the Driver) and insert the USB connector into the personal computer, check the COM port number before starting communications. The personal computer requires time to recognize the cable connection. This delay does not indicate failure.
- Do not connect the USB cable through a USB hub. Doing so may damage the cable.
- Do not use an extension cord to extend the USB cable length when connecting to the personal computer. Doing so may damage the cable.
- Do not use paint thinner or similar chemical to clean the cable or its connectors. Use standard grade alcohol.

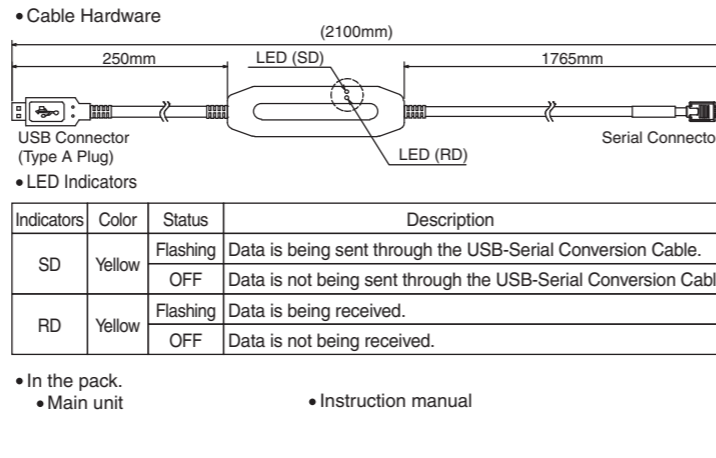
Specifications

- Compatible Operating Systems: Windows 2000/XP
 - Compatible Software Applications: 900 BuilderLite
 - Compatible models: The following Allen-Bradley Temperature Controllers, which support the compatible software: Refer to Table A.
- Conforms to USB Specification 1.1
- USB Interface rating: Personal computer: USB (type A plug)
 - DTE speed: Temperature Controller: Serial
 - Connector specifications: 38400 bps
 - Power supply: Bus power (supplied from USB host controller)
 - Power supply voltage: DC 5V
 - Current consumption: 70 mA
 - Ambient temperature: 0 to 55 °C (Avoid freezing or condensation)
 - Ambient humidity: RH10 to 80 %
 - Storage temperature: -20 to 60 °C (Avoid freezing or condensation)
 - Storage humidity: RH10 to 80 %
 - Altitude: Max. 2,000 m
 - Weight: Approx. 100 g

System Requirements

- The personal computer must have the following.
 - USB Port
 - Access to Web
 - Windows2000/XP

Cable Components



Cable Configuration to PC and Controller

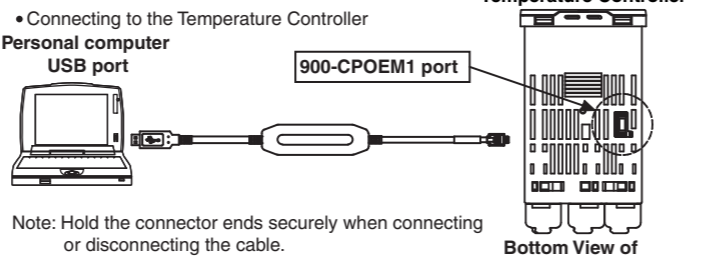
Use the following procedure to connect the Temperature Controller to the personal computer using the 900-CPOEM1 USB Cable. The cable is used for communications with the COM port of the personal computer. To perform communications using the 900-CPOEM1, set the communications port (COM port) number used by the software to the communications port (COM port) number that has been assigned to the 900-CPOEM1 USB Cable.

1. First, turn ON the power to the Temperature Controller and DC.

Note: If power is not turned on to the PC and Temperature Controller first before connecting the cable, damage may result to the Temperature Controller communication port.

2. Connect the USB Cable

Connect one end of the cable to the personal computer's USB port and the other end to the Setting Tool port on the Temperature Controller.



Note: Hold the connector ends securely when connecting or disconnecting the cable.

3. Install the Driver

Install the driver to enable using the 900-CPOEM1 USB Cable with the personal computer. Refer to using Windows 2000 and using Windows XP, next column to right.

- Installation: After the driver is installed, when the cable is connected to the personal computer, the operating system will detect the 900-CPOEM1 as a new device. Install the driver. Refer to Installing the Driver.

Installing the Driver

Using Windows 2000

- To use the 900-CPOEM1 cable you must first download the USB Driver from the 900 Temperature website located at: www.ab.com/industrialcontrols/products/relays_timers_and_temp_controllers/single_loop_temp-heater_controllers/900tc.html.
- Go to "Get Software" (upper right of screen), click on 900-CDOEM1 Driver and follow the instruction for downloading the driver to your PC.
- Insert the 900-CPOEM1 USB Cable into the USB port of the personal computer. The *Found New Hardware Wizard* will start. Click the **Next** Button.
- Select **Search for a suitable driver for my device (recommended)** and click the **Next** Button.
- When the driver file is found, click the **Next** Button.
- The *Completing Found New Hardware Wizard* Dialog Box will be displayed. Click the **Finish** Button.
- The *Found New Hardware Wizard* will be displayed again. Click the **Next** Button. Select **Search for a suitable driver for my device (recommended)** and click the **Next** Button.
- When the driver file is found, click the **Next** Button. The *Completing Found New Hardware Wizard* Dialog Box will be displayed. Click the **Finish** Button to complete installation.
- After installation is completed, the COM port number will be automatically assigned. For details on checking the assigned COM port number, refer to 4. *Confirming Automatically Assigned COM Port Numbers*.

Using Windows XP

- To use the 900-CPOEM1 cable you must first download the USB Driver from the 900 Temperature website located at: www.ab.com/industrialcontrols/products/relays_timers_and_temp_controllers/single_loop_temp-heater_controllers/900tc.html.
- Go to "Get Software" (upper right of screen), click on 900-CPOEM1 Driver and follow the instruction for downloading the driver to your PC.
- The *Found New Hardware Wizard* will start. Select **Install the software automatically (Recommended)** and click the **Next** Button. A message will be displayed stating that the software you are installing for this hardware has not passed Windows Logo testing to verify its compatibility with Windows XP. Click the **Continue Anyway** Button.
- The *Completing Found New Hardware Wizard* Dialog Box will be displayed. Click the **Finish** Button.
- The *Found New Hardware Wizard* will start again. Select **Install the software automatically (Recommended)** and click the **Next** Button.
- A message will be displayed stating that the software you are installing for this hardware has not passed Windows Logo testing to verify its compatibility with Windows XP. Click the **Continue Anyway** Button.
- The *Completing Found New Hardware Wizard* Dialog Box will be displayed. Click the **Finish** Button to complete installation.
- After installation is completed, the COM port number will be automatically assigned. For details on checking the assigned COM port number, refer to 4. *Confirming Assigned COM Port Numbers*.

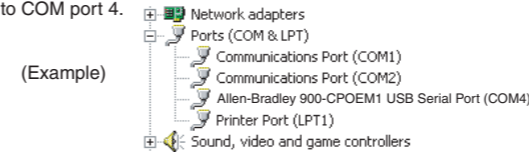
Note1: This product is compatible with Windows XP and Allen-Bradley's operation inspection has verified normal operation. If driver installation is cancelled before it has been completed, the driver will not be completely installed, which will result in abnormal communications. If this occurs, uninstall the driver and then reinstall the driver correctly.

Note2: Allen-Bradley recommends installing the driver separately for each USB port when using the 900-CPOEM1 for the first time. The 900-CPOEM1 will be assigned a COM port number for each USB port of the personal computer. The same COM port number can be used even if a different cable is connected to the USB port.

Confirming Automatically Assigned COM Port Numbers

Using Windows 2000

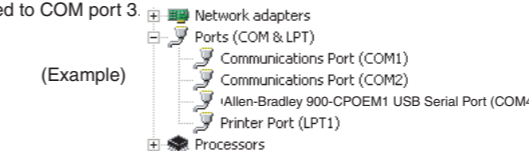
- Select **My Computer - Control Panel** and then double-click the **System** icon to display the *System Properties* Window. Click the **Hardware** Tab and then click the **Device Manager** Button. Select **Devices by Type** from the View Menu. For example, if *Allen-Bradley 900-CPOEM1 USB Serial Port (COM4)* is displayed under the *Ports (COM & LPT)* heading in the directory tree, the device is assigned to COM port 4.



- Exit the Device Manager.

Using Windows XP

- Select **My Computer - View System Information** to display the *System Properties* Window. Click the **Hardware** Tab and then click the **Device Manager** Button. Select **Devices by Type** from the View Menu. For example, if *Allen-Bradley 900-CPOEM1 USB Serial Port (COM3)* is displayed under the *Ports (COM & LPT)* heading in the directory tree, the device is assigned to COM port 3.



- Exit the Device Manager.

Note: In the software communications settings, select the COM port number that was confirmed in the device manager and then start communications.

Uninstalling the Driver

Using Windows 2000

- Select **Start - Control Panel** and double-click the **Add/Remove Programs** icon.
- The *Add/Remove Programs* Window will be displayed. Select **Allen-Bradley 900-CPOEM1 Drivers** and click the **Change/Remove** Button.
- Click the **Continue** Button to start uninstallation.
- Click the **Finish** Button to complete uninstallation.

Using Windows XP

- Select **Start - Control Panel** and double-click the **Add or Remove Programs** icon.
- The *Add or Remove Programs* Window will be displayed. Select **Allen-Bradley 900-CPOEM1 Drivers** and click the **Change/Remove** Button.
- Click the **Continue** Button to start uninstallation.
- Click the **Finish** Button to complete uninstallation.

Table A

900-TC8 Controllers	900-TC16 Controllers
900-TC8RGTH1Z25	900-TC16RGTZ25
900-TC8RGTZ25	900-TC16YGTZ25
900-TC8RVGTZ25	900-TC16VGTZ25
900-TC8RGTH3Z25	900-TC16ACGTZ25
900-TC8VGTZ25	900-TC16RGTU25
900-TC8VGTZ25	900-TC16VGTU25
900-TC8VYGTZ25	900-TC16ACGTU25
900-TC8VVGZ25	900-TC16RABZ25
900-TC8VGT3Z25	900-TC16YABZ25
900-TC8ACGTZ25	900-TC16VABZ25
900-TC8ACYGTZ25	900-TC16ACABZ25
900-TC8ACVGTZ25	900-TC16RABU25
900-TC8RGTH1U25	900-TC16VABU25
900-TC8RGTU25	900-TC16ACABU25
900-TC8VGT1U25	
900-TC8VGTU25	
900-TC8ACGTU25	
900-TC8RABH1Z25	
900-TC8RABZ25	
900-TC8VABH1Z25	
900-TC8VABZ25	
900-TC8VYABZ25	
900-TC8ACABZ25	