

CC 100C • Installation Guide

The Extron® CC 100C is an IP intercom public address and paging device. It is designed for use in Extron classroom AV systems and facilities utilizing the Extron Global Viewer Campus Communication Suite software.

NOTE: Before installing this device, read the *Extron Safety and Regulatory Compliances Guide*, available at www.extron.com.

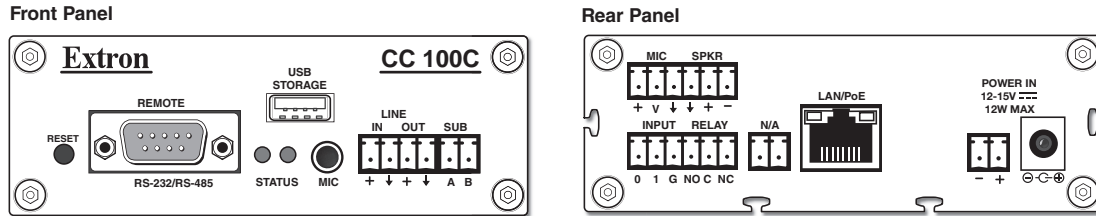


Figure 1. CC 100C Front and Rear Panels

CC 100C Front and Rear Panel Connectors

Front Panel Connections

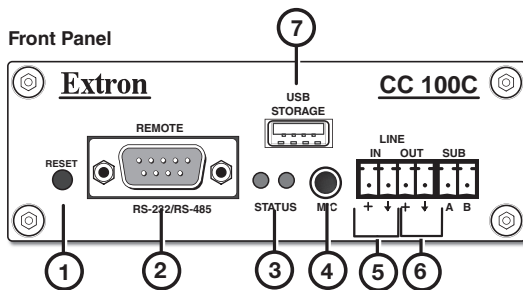
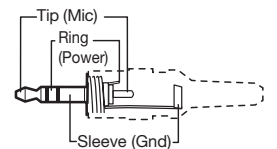


Figure 2. Front Panel Features and Connectors

Front panel connectors and features as shown in figure 2 are listed below.

- ① **Reset Button** — Press this reset button once to reset the unit to factory settings, with the exception of the network configuration settings.
To completely reset the unit to factory defaults, including the network configuration settings, press and hold the reset button for 10 seconds and then release.
 - ② **Remote Control** — Connect to this male 9-pin D-sub port for RS-232 or RS-485 serial control.
 - ③ **Status LEDs** — These LEDs indicate power and activity status of the unit. The left LED lights green when power is present, and the right LED flashes red with unit activity.
 - ④ **Mic Input** — Insert a 3.5 mm connector into this microphone input (TRS) audio jack. Audio received on this input may be encoded and streamed over the network.
Wire the TRS connector as tip = microphone audio, ring = power, sleeve = ground.
 - ⑤ **Line In** — Connect an unbalanced, line level, mono audio input to this 2-pole connector. Audio received on this input, when selected, is encoded and streamed across the network.
 - ⑥ **Line Out** — This 2-pole connector outputs unbalanced, line level, mono audio. Connect this port to the PoleVault or VoiceLift auxiliary input to amplify the audio for playback through the system speakers.
- Sub** — This connection port is not used.
- ⑦ **USB Storage** — Insert a flash memory USB storage drive with audio file(s) into this port. Audio files on the drive can be played back or streamed over the network.



3.5 mm Microphone Input Plug

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Rear Panel Connections

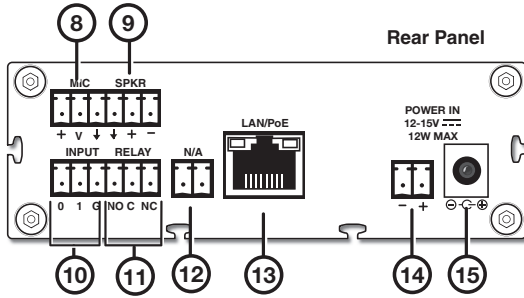
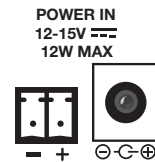
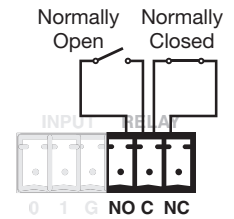
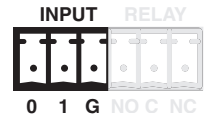


Figure 3. Rear Panel Connectors

Rear panel connectors as shown in figure 3 are listed below.

- ⑧ **Mic Input** — Microphone audio input is carried on this 3-pole connection. Input is encoded and streamed over the network. See "Cabling the CC 100C" section on page 3 for wiring details.
- ⑨ **Speaker output (2 watt, mono)** — For speaker output, connect a mono speaker to this 2-pole captive screw connector. See "Cabling the CC 100C" section on page 3 for wiring details.
- ⑩ **Configurable Input: Contact** — Connect to this 3-pole captive screw connection for contact input. When triggered the contact input initiates audio encoding for streaming over the network. Connect port 0 or 1 to ground (G) to trigger the port.
- ⑪ **Configurable Input: Relay** — Connect to this 3-pole captive screw connection for relay input. The connector has a normally open relay (NO), a common (C), and a normally closed relay (NC).
- ⑫ **N/A** — This port is not used.
- ⑬ **LAN/PoE** — For networking use, connect the LAN to this RJ-45 connector. This port supports Power over Ethernet standard up to 48 V. The two associated LEDs indicate connection and data activity. An optional PS PoE power injector (part number **70-828-01**) can be used.
- ⑭ or ⑮ **Power In** — Connect a power supply to either the 2-pole captive screw connector or to the coaxial connector for 12 V to 15 V power input. Observe the correct polarity.



NOTE: It is recommended to use Extron power supplies, such as the 12 V, 1 A PS 1210 C (part number **70-775-01**) or the 15 V, 0.8 A PS 1508 C (part number **70-776-01**).

Cabling the CC 100C

Connect the cables to the device as described below.

Step 1 — Connect the LAN Cable

⑬ **LAN/PoE** — Using a CAT 5e straight through network cable connect to a network. The LEDs light green for link status and blink amber during activity.

Step 2 — Connect the Mic Input and Speakers

⑧ **Mic input** — Using a 6-pin captive screw connector, wire a microphone audio input for insertion into the 3 poles labeled as MIC.

⑨ **Speaker** — Using a 6-pin screw block terminal, wire a mono speaker for insertion into the speaker outputs (+ and -) labeled as SPKR. Wire both connectors as shown in figure 4.

Alternatively, a mono line out connection is also available on the front panel ⑥.

NOTE: The length of the exposed wires in the stripping process is critical. The ideal length is 3/16 inches (5 mm). Any longer and the exposed wires may touch, causing a short circuit between them. Any shorter and the wires can be easily pulled out even if tightly fastened by the captive screws. Do not tin the wires. Tinned wire does not hold its shape and can become loose over time.

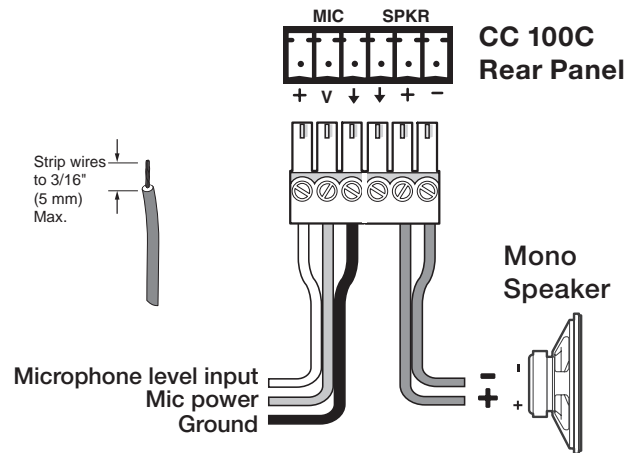


Figure 4. Wiring the Rear Panel MIC Input and Speaker Output

Step 3 — Connect the Power

⑭ or ⑮ **Power input** — Noting the correct polarity, wire a power cable to a 2-pole connector and insert into this 2-pole captive screw port ⑭.

Alternatively, insert a power cable into the DC input jack ⑮.

NOTE: Both of these are connected internally so one can be used as a power output for other devices.

Step 4 — Address the Unit

The CC 100C is now ready to acquire an IP address and announce it over the speaker output. If no DHCP server is available this can take up to 5 minutes.

If audio outputs were not connected in step 2 above, use the ARP command procedure below. Ensure that the Ethernet address (MAC) matches the CC 100C device (see label on the bottom of the device). Now that the IP address is known, the CC 100C is ready to be configured.

Setting a temporary IP address using the ARP command

This procedure will work only in a local network. After this procedure the temporary IP is active only until a restart or reboot. After a restart the procedure has to be repeated.

1. Either use a network cable to link the CC 100C and the PC directly, or connect the CC 100C to the PC via your network switch and power the device. Make sure that you have a valid static IP address configured on your PC (for example 192.168.0.2).
2. **Windows:** Click on **Start**, then type *Run* in the program search field, and click on Run Porgram. In the **Open** field type *cmd*. Click **OK**. A command window opens.
OSX / Linux: Open a terminal window.
3. If you linked the PC directly to the device in step 1, proceed to step 4.
To ensure that you use a free IP address (not already used by another device in the network) use the ping command. To verify availability in this example we assume the PC to have the IP address 192.168.0.2 and want to check if 192.168.0.6 address is available.
Type *ping 192.168.0.6* and press <Enter>. There should be no reply. This gives the reasonable assertion that the "pinged" IP is available.

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- Find the MAC address of the CC 100C that is printed on a label on the bottom of the device (12 hex digits, separated by a hyphen every 2 digits). Type into the Windows command window the following: `arp -s 192.168.0.6 <unit MAC address>`. Alternatively for an OSX or Linux system, type into the terminal: `arp -s 192.168.0.6 <unit MAC address>` and press the <Enter> key. You must have administrative rights to be able to do so (sudo on OSX / Linux).
- Use the Telnet command to get the CC 100C to recognize the IP address 192.168.0.6. To do this type into the command window `192.168.0.6 1` and press the <Enter> key.

NOTE: The number one (1) must be added after the address for this command to work correctly.

The device will immediately refuse the connection on port 1, but will be available for browser access as long as the device stays powered.

- To check if the CC 100C is responding you can use the ping command again. To do so type `ping 192.168.0.6` and press <Enter>. If you get a reply, then the IP address 192.168.0.6 can be used to access the CC 100C using a web browser. If you get a "**request timed out**" notice, repeat step 5 carefully or repeat the entire procedure.

Network Configuration by Web Browser

Normally this device requires no configuration but uses DHCP to configure network settings dynamically.

However, if static (fixed) network settings are needed, follow steps 1 to 3 below. If not, continue at step 4.

- Open a web browser on the connected PC.
- In the address field enter the IP address that was announced by the CC 100C (see Step 4 - Address the Unit on page 3), for example: 192.168.0.12, and press <Enter>. The software program opens.
- Select the **Configuration** tab at the top of the browser window.
- Select the **Advanced Settings** menu from the list at left (see image on page 4).
- In the Network Settings section, enter the static IP address, the subnet Netmask address, gateway address if applicable.

NOTE: The default 0.0.0.0 sets automatic discovery, BootP, DHCP.

The screenshot shows the web configuration interface for the Extron CC 100C. The top navigation bar includes tabs for HOME, CONFIGURATION (selected), STATUS, DEFAULTS, UPDATE, and REBOOT. The user information at the top right shows 'CC 100C MAC: 00:08:E1:03:7B:D4 FW VE4.06'. The main content area is titled 'CONFIGURATION' and features a sidebar menu with options like Basic Settings, Advanced Settings (selected), Network (selected), Audio, Streaming, I/O, Serial, Control & SNMP, Security, and Table Settings. The 'NETWORK SETTINGS' section is active, displaying fields for 'Use SonicIP' (radio buttons for Yes/No), 'IP Address' (10.13.196.166), 'Netmask' (255.255.255.0), 'Gateway IP Address' (0.0.0.0), 'DHCP Host Name' (empty), and 'Type of Service/DSCP' (0). A 'Apply' button and a 'Cancel' button are at the bottom left. On the right, a scrollable text box provides instructions for static IP configuration and SonicIP usage.

- Click **Apply**. The device reboots with the configured IP address.

To complete the application setup, download the firmware documentation from www.extron.com and follow the instructions.

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