RTI

CX7

Table Top Controller

Quick Reference Guide

CX7 Inverted

CX7 Rear View
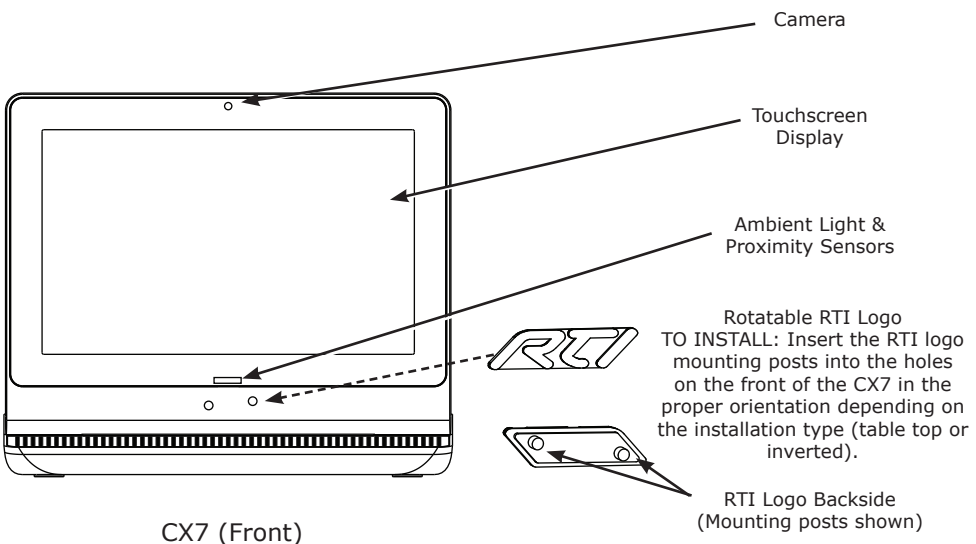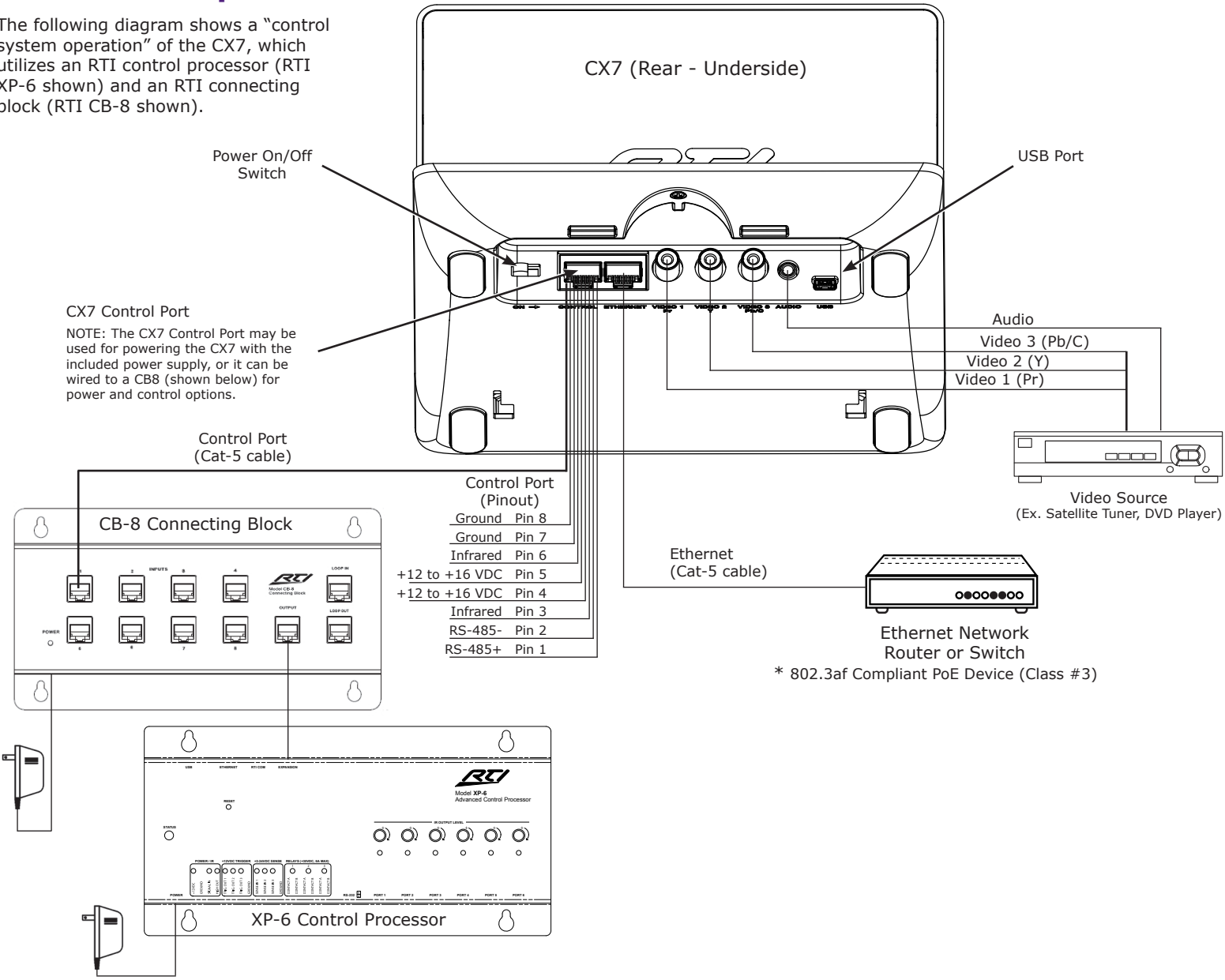

CX7 Display Tilted 10°

From the kitchen table top to the conference room, the hard wired CX7 is perfect wherever "always on", intuitive control is required. The 7" LCD touchpanel has adjustable tilt, allowing the display to be angled straight up to nearly flat. The CX7 can even be mounted inverted under a cabinet. Additional features include wired and wireless Ethernet for two-way control, digital video (motion JPEG) and web browsing, while analog audio/video inputs and stereo speakers provide video viewing from sources such as satellite TV or security cameras.

The CX7 provides superior quality and reliability as well as these features:

• 800x480 WVGA LCD with integrated multi-touch capacitive touchscreen.
• Composite, S-video and component input for viewing video at 480i, 576i, 480p or 576p.
• Analog audio input and stereo speakers.
• Integrated 10/100 Base-T and 802.11 Wireless Ethernet.
• Built-in high output IR for direct control of devices through an IR connecting block.
• Powered using power supply or PoE (Power over Ethernet).
• Proximity and ambient light sensors automatically wake the unit up and adjust the brightness upon being approached.
• Optional modules/processors provide advanced two-way control of electronics such as media servers, lighting and more.
• USB and Ethernet (hard-wired or wireless) software program updates.
• Adjustable tilt display (from 10°-90°) or CX7 can be mounted inverted under a cabinet.
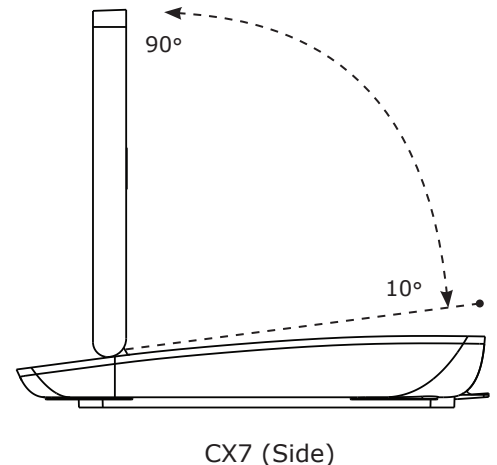
Connection Options

The following diagram shows a "control system operation" of the CX7, which utilizes an RTI control processor (RTI XP-6 shown) and an RTI connecting block (RTI CB-8 shown).

CX7 (Rear - Underside)

Power On/Off Switch

USB Port

CX7 Control Port

NOTE: The CX7 Control Port may be used for powering the CX7 with the included power supply, or it can be wired to a CB8 (shown below) for power and control options.

Audio
Video 3 (Pb/C)
Video 2 (Y)
Video 1 (Pr)

Control Port
(Cat-5 cable)

Control Port
(Pinout)
Ground   Pin 8
Ground   Pin 7
Infrared   Pin 6
+12 to +16 VDC   Pin 5
+12 to +16 VDC   Pin 4
Infrared   Pin 3
RS-485-   Pin 2
RS-485+   Pin 1

Video Source
(Ex. Satellite Tuner, DVD Player)

Ethernet
(Cat-5 cable)

CB-8 Connecting Block

Ethernet Network
Router or Switch
* 802.3af Compliant PoE Device (Class #3)

XP-6 Control Processor

Tilting the CX7 Display

The CX7 display tilts between 10° and 90° by simply pushing or pulling it into to the desired position.
NOTE: Forcing the display past these angles may result in damage to the unit.

Camera

Touchscreen Display

Ambient Light & Proximity Sensors

Rotatable RTI Logo
TO INSTALL: Insert the RTI logo mounting posts into the holes on the front of the CX7 in the proper orientation depending on the installation type (table top or inverted).

RTI Logo Backside
(Mounting posts shown)

90°

10°

CX7 (Front)

CX7 (Side)

Mounting

MOUNTING

The CX7 is designed to be hard-wired (with power, video, Ethernet etc) and installed upright on a table top or mounted inverted under a cabinet using the included mounting bracket.
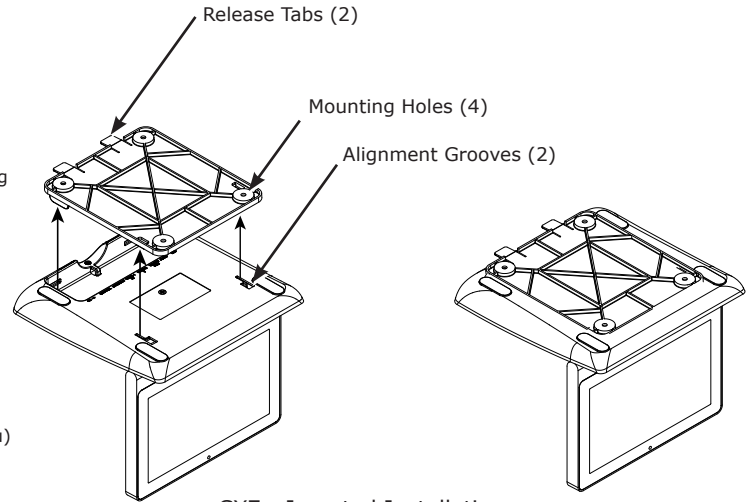
TABLE TOP INSTALLATION
1. Place CX7 on a table or table top - no mounting bracket required.
2. Install necessary wiring and the "RTI" logo in the proper orientation.

UNDER CABINET (INVERTED) INSTALLATION
1. Position the CX7 mounting bracket set back one inch from the front edge of a cabinet underside using the "Front" label/arrow for proper orientation.
2. Attach the bracket using four #8 pan head fasteners* installed through the four mounting holes. Tighten until snug - do not over tighten.
3. Place the CX7 bottom side up, screen facing out and orient the grooves on the underside of the unit over the mounting bracket alignment tabs.
4. Once aligned, push up on the CX7 to insert the mounting bracket tabs into the grooves then pull the unit forward (toward you) until the unit snaps into place.
5. Install necessary wiring and the "RTI" logo in the proper orientation.
* NOTE: Depending on the installation, the type and length of fastener used may vary.

INVERTED INSTALLATION - REMOVAL
1. Remove all wiring.
2. Press and hold up the two mounting bracket release tabs on the rear of the bracket.
3. With one hand supporting the weight of the CX7, push the unit backward (away from you) until it disengages from the bracket.

Release Tabs (2)

Mounting Holes (4)

Alignment Grooves (2)

CX7 - Inverted Installation

Installation & Operation

POWERING THE CX7
• **12VDC/1A Power Supply (Included):** Plug the CX7 power supply RJ45 connector into the CX7 Control Port and plug the power supply into a wall outlet.
* ***NOTE: DO NOT plug the power supply RJ45 connector into the Ethernet Port or damage to the CX7 may occur.***
Or
• **CB8 Connecting Block:** Wire a Cat-5 cable from the CX7 Control Port to the RTI CB8 Connecting Block (see diagram).
Or
• **Ethernet Port (Power over Ethernet):** Wire a Cat-5 cable from the CX7 Ethernet Port to an 802.3af compliant Power-over-Ethernet router/switch (Class #3).
* ***NOTE: Using a non-compliant PoE device may damage the CX7.***

CONNECTIONS
VIDEO INPUTS
The CX7 supports one Component video source, one S-Video source or up to three Composite video sources.
  • **VIDEO 1 - RED**
    This RCA jack functions as a Component (Pr) or a Composite video input.
  • **VIDEO 2 - GREEN**
    This RCA jack functions as an S-Video (Y), Component (Y), or a Composite video input.
  • **VIDEO 3 - BLUE**
    This RCA jack functions as an S-Video (C), Component (Pb) or a Composite video input.

AUDIO INPUT
This 3.5mm jack functions as a stereo audio input.

CONTROL PORT
The Control Port on the CX7 uses a Cat-5 cable with RJ-45 termination. When used in conjunction with an RTI control processor (e.g. RTI XP-6) and an RTI connecting block (e.g. RTI CB-8), this port serves as the power source for the CX7 in addition to infrared and RS-485 communication.

  NOTE: FERRITE RING INSTALLATION
  In order to comply with regulatory agency standards for EMI emissions, the included ferrite ring must be installed on Control Port.
  • To open the ferrite ring enclosure pry open the plastic latch.
  • Insert cable into the ferrite ring as close to the CX7 enclosure as possible - not inside the CX7 bottom cavity..
  • Close ferrite ring enclosure until the latch snaps in place.

Ferrite Ring

ETHERNET PORT
The CX7 is designed for connection to an Ethernet network via Cat-5 cabling with an RJ-45 termination. Additionally, the CX7 supports wireless Ethernet, which is configured in the CX7 properties during the programming process in the Integration Designer software.

USB PORT
RTI's Integration Designer data files and firmware can be downloaded to the CX7 using a USB cable (USB A to Mini B).

PROGRAMMING
THE TOUCHSCREEN DISPLAY
The CX7 touchscreen display is programmed using the RTI Integration Designer Programming Software. Normally it is organized into a series of pages containing objects (buttons, text, graphics, etc.) that are related to each other such as a music server, satellite TV, lighting, security etc.

ADJUSTING CX7 INTERNAL SPEAKER VOLUME
The CX7 internal speaker's volume level can be adjusted by programming buttons on the touchscreen with volume adjustment objects in Integration Designer.

UPDATING FIRMWARE
It is highly recommended that this and all RTI products have the latest firmware installed. The firmware can be found in the Dealer section of the RTI website (www.rticorp.com). Install the firmware using a USB cable (USB A to Mini B).

UPDATING SOFTWARE
RTI's Integration Designer data files can be downloaded to the CX7 using a USB cable (USB A to Mini B), or via hard-wired or wireless Ethernet. If the CX7 is hard-wired to a LAN and the router has DHCP enabled, the initial data file can be made over Ethernet.

THE CX7 CONTROL PANEL
The CX7 has many settings that can be adjusted directly on the unit through the control panel. Please note that changes made directly in the CX7 control panel will be overwritten by changes made in Integration Designer.
Adjustable settings: Display (Backlight Level/Inverted Mode) • Set Clock • Time Out • Sound • Calibrate Touchscreen • Network Information
Access the Control Panel page: Assign a "Control Panel" page link to a button in the Integration Designer® programming software.
Note: It is not possible to access the Control Panel by resetting the CX7 and pressing the touchscreen.

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received including interference that may cause undesired operation.

Contains FCC ID: MMURTI1600

Contains IC (Canada): 3166A-RTI1600

N27917

DECLARATION OF CONFORMITY (DOC)
The Declaration of Conformity for this product can be found on the RTI website at: www.rticorp.com/declaration

Safety Suggestions

Read and Follow Instructions. Read all safety and operating instructions before operating the unit.
Retain Instructions. Keep the safety and operating instructions for future reference.
Heed Warnings. Adhere to all warnings on the unit and in the operating instructions.
Heat. Keep the unit away from heat sources such as radiators, heat registers, stoves, etc., including amplifiers that produce heat.
Power Sources. Connect the unit only to a power supply of the type described in the operating instructions, or as marked on the unit.
Power Cord Protection. Route power supply cords so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to the cord plugs at power receptacles and at the point at which they exit from the unit.
Water and Moisture. Do not use the unit near water—for example, near a sink, in a wet basement, near a swimming pool, near an open window, etc.
Object and Liquid Entry. Do not allow objects to fall or liquids to be spilled into the enclosure through openings.
Servicing. Do not attempt any service beyond that described in the operating instructions. Refer all other service needs to qualified service personnel.
Damage Requiring Service. The unit should be serviced by qualified service personnel when:

- The power supply cord or the plug has been damaged.
- Objects have fallen or liquid has been spilled into the unit.
- The unit has been exposed to rain.
- The unit does not appear to operate normally or exhibits a marked change in performance.
- The unit has been dropped or the enclosure has been damaged.

Limited Warranty

RTI warrants its products for a period of one (1) year (90 days only for included battery packs); or for a period of time compliant with local laws when applicable from the date of purchase from RTI or an authorized RTI distributor.

This warranty may be enforced by the original purchaser and subsequent owners during the warranty period, so long as the original dated sales receipt or other proof of warranty coverage is presented when warranty service is required.

Except as specified below, this warranty covers all defects in material and workmanship in this product. The following are not covered by the warranty:

Damage resulting from:

1. Accident, misuse, abuse, or neglect.
2. Failure to follow instructions contained in this Guide.
3. Repair or attempted repair by anyone other than Remote Technologies Incorporated.
4. Failure to perform recommended periodic maintenance.
5. Causes other than product defects, including lack of skill, competence or experience of user.
6. Shipment of this product (claims must be made to the carrier).
7. Being altered or which the serial number has been defaced, modified or removed.

Product Contents

- One (1) CX7 Table Top Controller
- One (1) International power supply kit with RJ45 connector
- One (1) Rotatable RTI Logo
- One (1) Mounting bracket
- One (1) Ferrite clamp
- One (1) Quick reference guide
- One (1) Firmware update notification

Contacting RTI

For news about the latest updates, new product information, and new accessories, please visit our web site at:
www.rticorp.com

For general information, you can contact RTI at:
Remote Technologies Incorporated
5775 12th Ave. E Suite 180
Shakopee, MN 55379
Tel. (952) 253-3100
Fax (952) 253-3131
info@rticorp.com

Service & Support

If you are encountering any problems or have a question about your RTI product, please contact RTI Technical Support for assistance (see the Contacting RTI section of this guide for contact details).

RTI provides technical support by telephone, fax or e-mail. For the highest quality service, please have the following information ready, or provide it in your fax or e-mail.

- Your Name
- Company Name
- Telephone Number
- E-mail Address
- Product model and serial number (if applicable)

If you are having a problem with hardware, please note the equipment in your system, a description of the problem, and any troubleshooting you have already tried.
Please do not return products to RTI without a return authorization.