

Crestron MT-1000C
3.8 Inch RF Remote
Operations Guide



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3.8 Inch RF Remote: MT-1000C

Introduction

Features and Functions

The MT-1000C MiniTouch provides an eye-catching 3.8” active matrix touchscreen with 16 backlit hard buttons (including the 4-way thumbpad) in a sleek, stylish RF wireless handheld package. Its lightweight ergonomic design affords comfortable and intuitive handheld or tabletop use with a perfect combination of tactile pushbutton control and touchpanel versatility. Stunning 16-bit Isys® color graphics and WAV file audio feedback make the MT-1000C both highly functional and fun to use for a host of control applications.

Long-range 418 MHz One-way RF communications enables compatibility with any Crestron® control system via the CNRFGWA-418 gateway (sold separately), or with the MC2W, a 2-Series control system with integrated RF gateway. A fast-charging lithium ion battery pack provides long-lasting wireless operation and eliminates “memory” issues typical of other rechargeable batteries. Recharging the MT-1000C is made easy using the included docking station.

Other convenience features include an integral movement sensor to automatically turn on the touchpanel backlight without having to touch the screen or buttons. Like all Crestron touchpanels, the MT-1000C is fully programmable using the Crestron VisionTools® Pro-e (VT Pro-e) graphical user interface design software, supporting 64K colors and Synapse™ image rendering for crisp, sharp anti-aliased objects and text, high-resolution images, and 3D effects.

Functional Summary

- Easy-to-use 16 bit color graphics
- WAV file audio feedback
- LCD touchscreen and intuitive interface for user programming
- Up to 999 digital joins available
- 100-foot RF wireless range (depending on environment)
- Thirteen programmable backlit push buttons
- Programming USB cable included
- Battery and recharging docking station included

Specifications

Specifications for the MT-1000C are given in the following table.

MT-1000C Specifications

SPECIFICATION	DETAILS
Power Requirements for Docking Station	100 – 250 VAC, 50/60 Hz, 0.3 A
Battery	Lithium Ion battery pack included ¹
Microprocessor	206 MHz RISC
Memory	16 Megabytes of User RAM (for user configuration)
Graphics	Isys [®] engine, 16 Bit non-palette graphics, 65,536 colors, Synapse image rendering algorithm
Display Type	Active Matrix Color LCD
Display Size	3.8 inch (9.65 cm) diagonal
Display Resolution	320 x 240 pixels
Display Illumination	Backlit fluorescent with movement sensor
Touchscreen	Resistive Membrane
Connectors	Power (+5 VDC @ 2.0 A) input from docking station Programming (USB port)
Buttons	
VOL and CH	(2) Programmable backlit up/down toggle function buttons
MUTE, INFO, MENU and EXIT	(4) Programmable backlit function buttons
Thumbpad	(5) Programmable backlit buttons: select, up/down, and left/right navigation thumbpad
PAGE	(2) backlit buttons, step forward or backward through touchpanel page list (not programmable)
MAIN	(1) backlit button, reverts to first touchpanel page (not programmable)
Audio WAV Files	8 & 16 bit PCM, mono & stereo, 8 – 22 kHz sampling rates
RF Transmitter	418 MHz 1-way RF ²
Operating Temperature and Humidity	41° to 104° F (5° to 40° C) 10 to 90% relative humidity (non-condensing)
Dimensions and Weight (Does not include Docking Station)	Width: 7.15 in (18.16 cm) Height: 1.23 in (3.12 cm) Depth: 4.74 in (12.04 cm) Weight: 10.4 oz (0.30 kg) with battery pack
Docking Station Dimensions	Width: 5.16 in (13.09 cm) Height: 1.21 in (3.07 cm) Depth: 5.25 in (13.33 cm) Weight: 5.6 oz (0.16 kg)
Available Accessories	CNRFGWA-418 1-way RF Gateway/Receiver MC2W Control System with Integrated RF Gateway

1. Expected battery life is approximately seven days in an inactive state, and approximately four hours with backlight and display on continuously at full intensity. Results will vary with settings and usage.

2. CNRFGWA-418 or MC2W gateway/receiver required (maximum 15 touchpanels per gateway).

NOTE: Crestron software and any files on the website are for Authorized Crestron dealers and Crestron Authorized Independent Programmers (CAIP) only. New users are required to register to obtain access to certain areas of the site (including the FTP site).

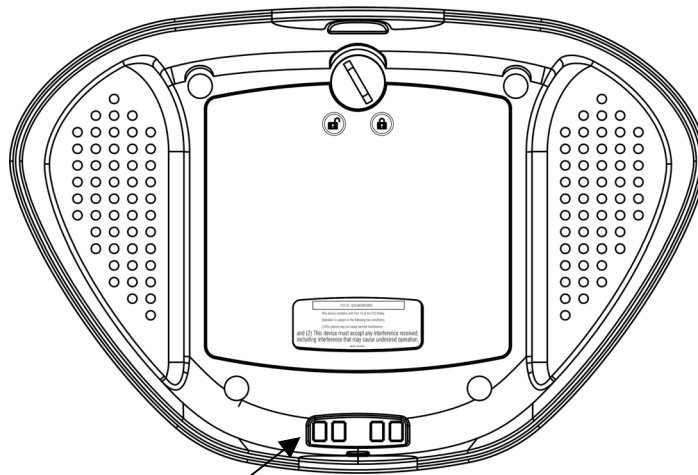
Physical Description

Refer to the following physical views. The touchpanel and buttons are available on the top of the MT-1000C. The battery compartment and battery charge contacts are located on the bottom. The programming port is on the rear side.

MT-1000C Top View

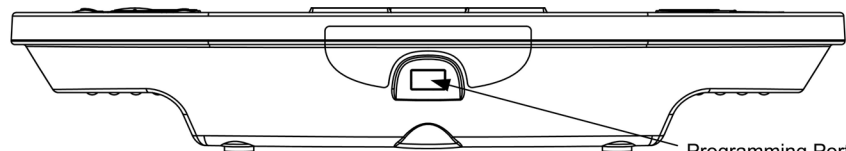


MT-1000C Bottom View



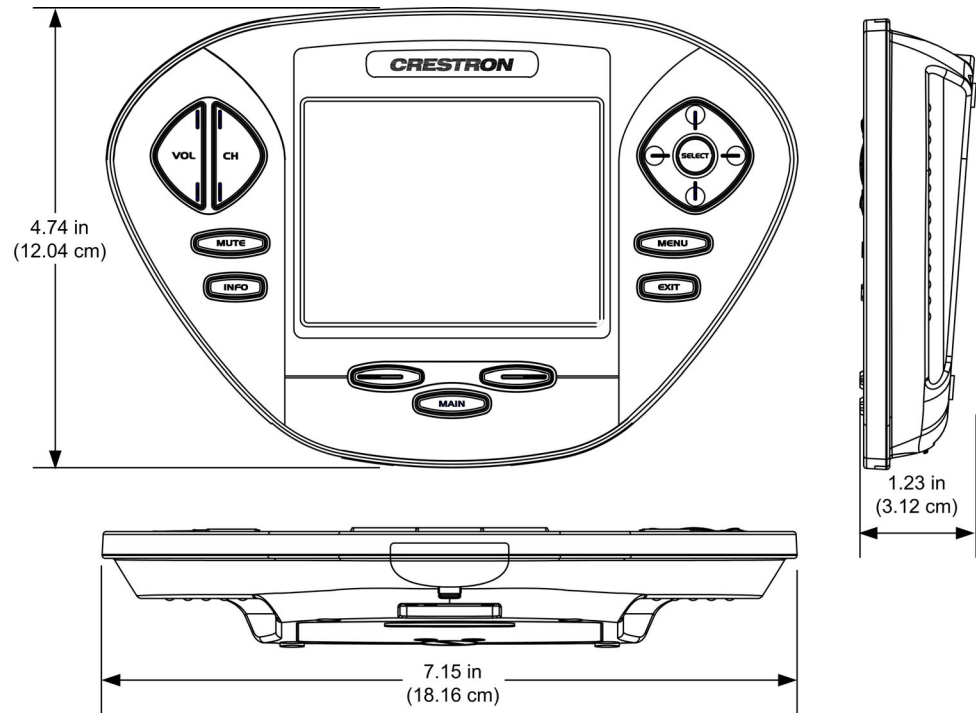
Battery Charge Contacts

MT-1000C Rear View

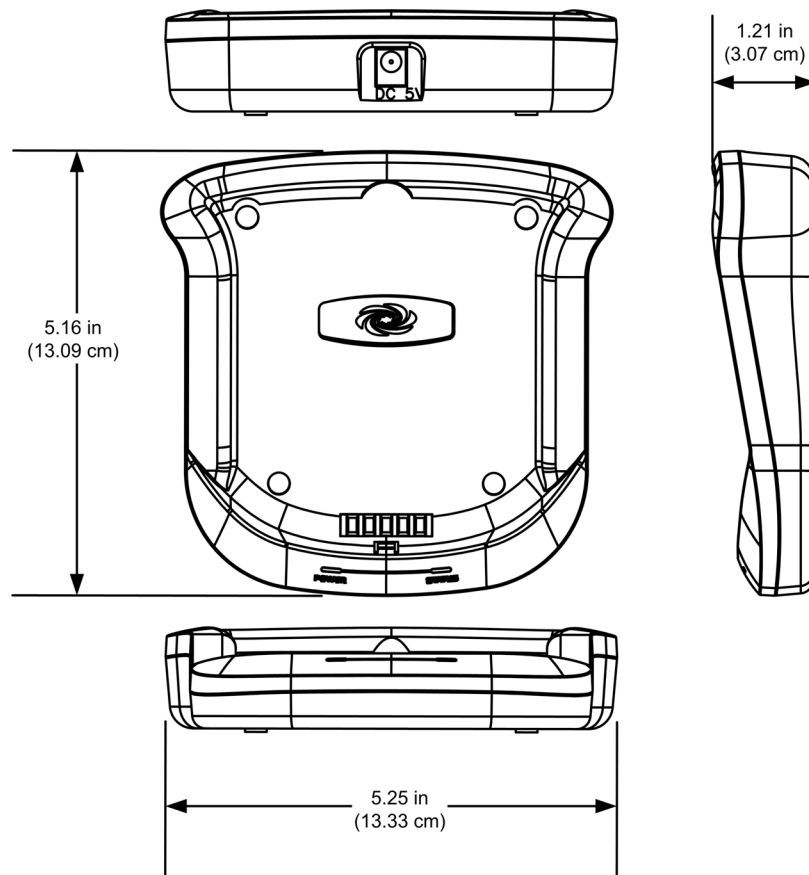


Programming Port

Physical Dimensions – MT-1000C Top, Side and Front Views



Physical Dimensions – Docking Station

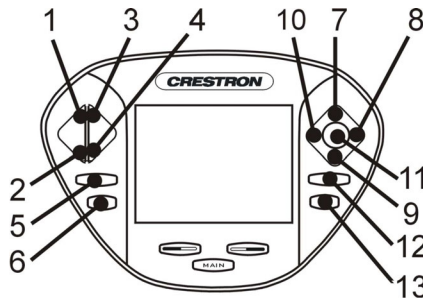


MT-1000C Controls and Ports

Programmable Buttons

The MT-1000C has 13 programmable buttons.

Programmable Button Locations





- VOL Up/Down (1 and 2)
- CH Up/Down (3 and 4)
- MUTE (5)
- INFO (6)
- Thumb pad with UP (7), RIGHT (8), DOWN (9), LEFT (10), and SELECT (11)
- MENU (12)
- EXIT (13)

NOTE: Button numbers are for programming purposes only. Refer to the latest version of the MT-1000C Programming Guide (Doc. 6330), available from the Crestron website (<http://www.crestron.com/manuals>) for programming details.

Non-Programmable Buttons

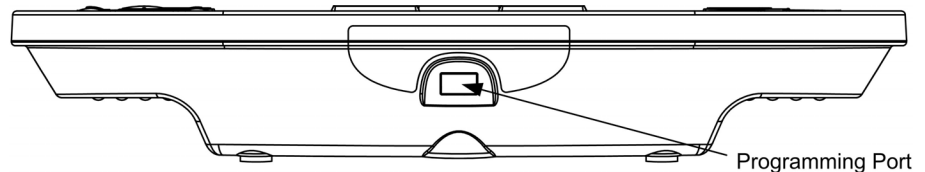
The MT-1000C has three non-programmable buttons.

- MAIN – Returns to the main page.
-  PAGE FORWARD – Advances one page.
-  PAGE BACK – Goes back one page.

USB Programming Port

Located on the rear side, this port connects to a computer with a USB cable (included) for loading a touchpanel project.

MT-1000C Rear View



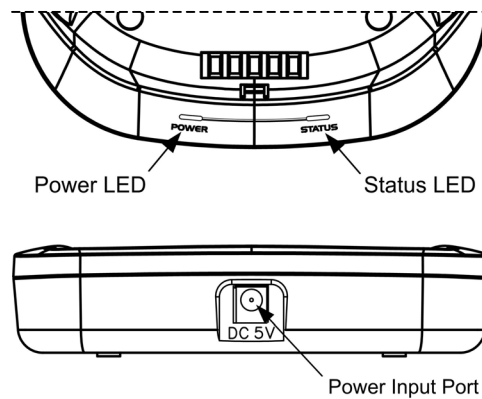
NOTE: For detailed programming information, refer to the latest version of the MT-1000C Programming Guide (Doc. 6330), which is available from the Crestron website.

MT-1000C Docking Station Indicators and Port

The MT-1000C has two indicators and one port on the docking station.

- POWER Indicator – Red LED indicates power is applied to docking station input.
- STATUS Indicator – Red LED indicates charging, blue LED indicates fully charged.
- Power Input Port – Connects the power supply to docking station.

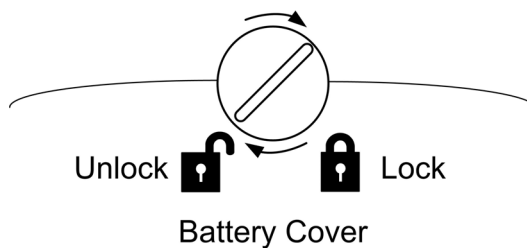
Docking Station Top and Rear Views



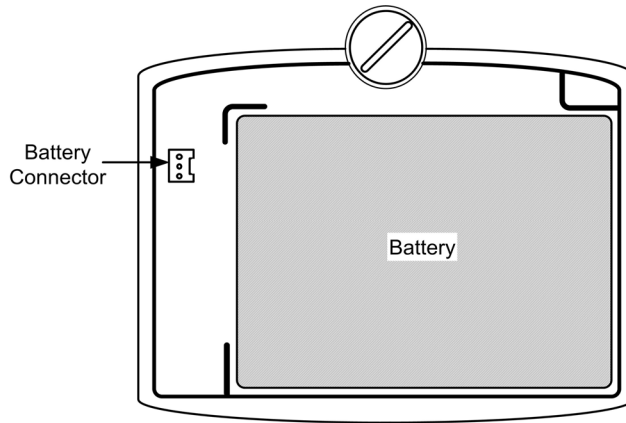
Setup

Battery Installation and Replacement

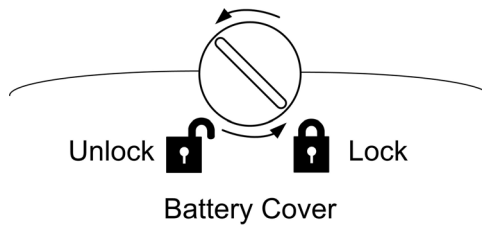
1. Unlock the rear battery cover by rotating the locking screw clockwise.



2. Lift out the battery and disconnect the plug from the battery connector.
3. Connect the new battery. The connector is keyed so that it will only insert one way.



4. Place the battery in the opening, ensuring that the battery wires will not be pinched when you replace the battery cover.
5. Replace the battery cover and rotate the locking screw counterclockwise to lock.

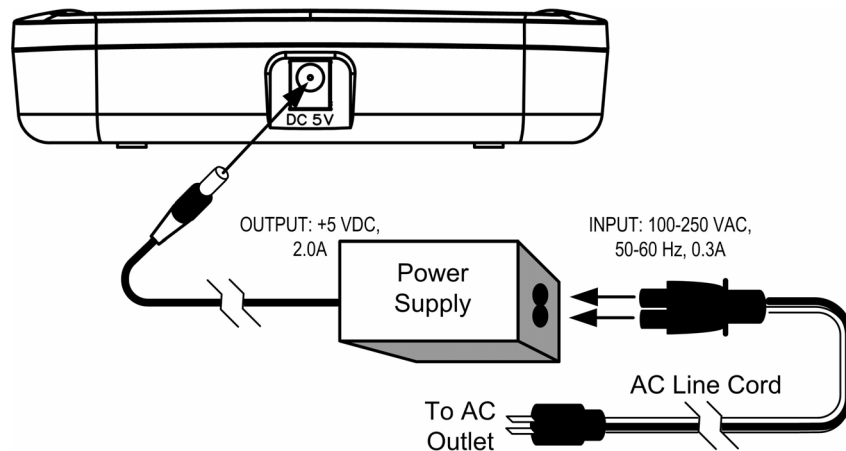


NOTE: A replacement battery may be ordered from Creston. Use part number 6002767.

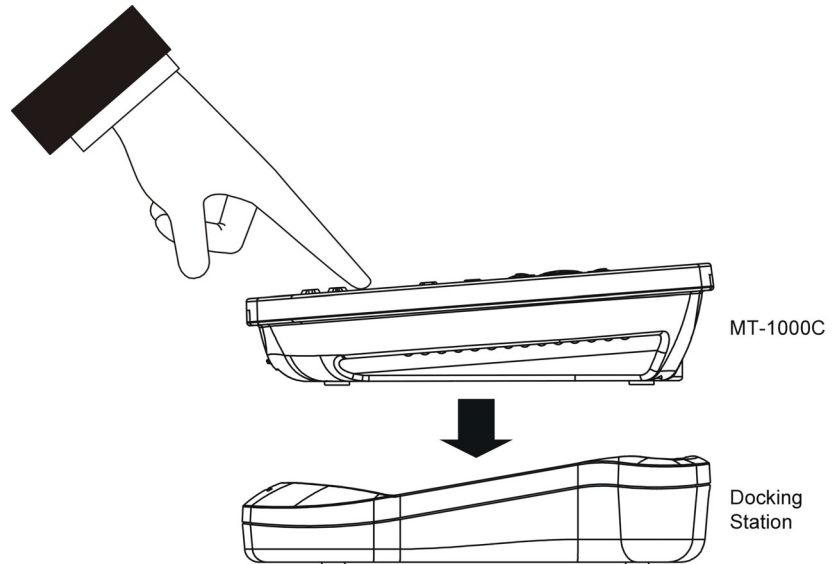
Docking Station Setup

Plug the power supply (included) into an AC power outlet using the AC line cord provided. Plug the cord from the power supply into the port provided on the back of the docking station labeled “DC 5V”. The red Power LED should turn on.

Docking Station Power Supply Hookup



Place the MT-1000C in the cradle of the docking station and press down until you hear a click.



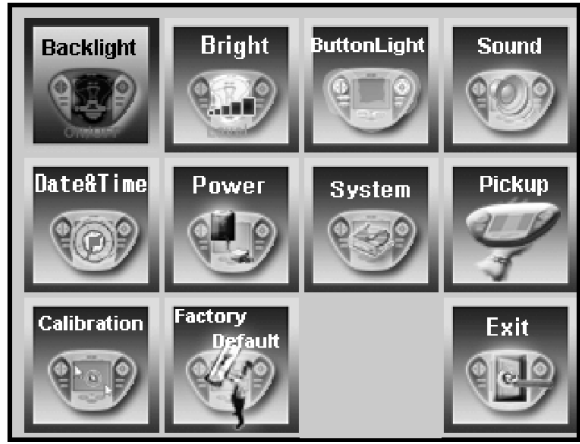
When the MT-1000C is properly seated on the docking station, the Status LED lights up red while the battery is charging. The status LED turns blue when the battery is fully charged.

MT-1000C on Docking Station



User Configuration Menus

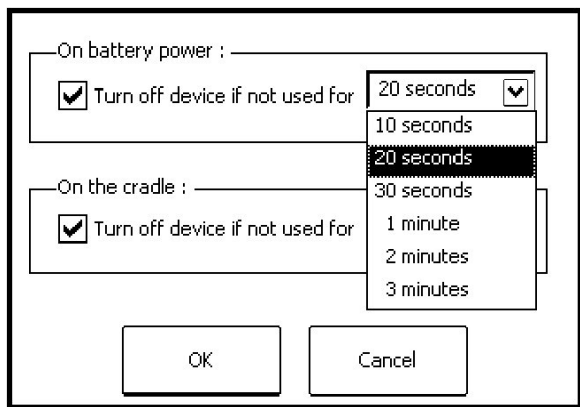
To display the User Configuration screens, press and hold the **MAIN** button for five seconds. The following menus are displayed in the settings screen.



NOTE: The configuration screen automatically times out after 30 seconds of inactivity and returns to normal operation.

Backlight

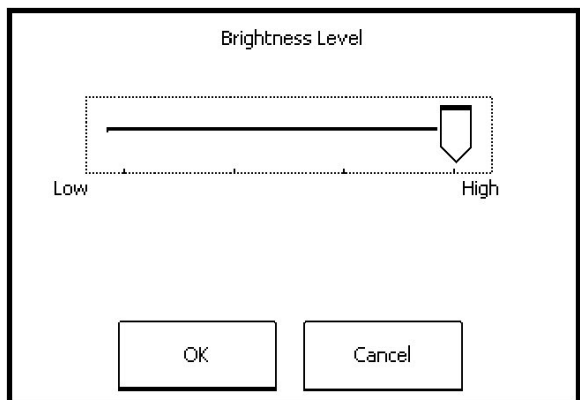
Adjust the timeout of the backlight both on and off the docking station (cradle). You can select up to three minutes for on the battery operation and up to four minutes for on the docking station operation.



Bright

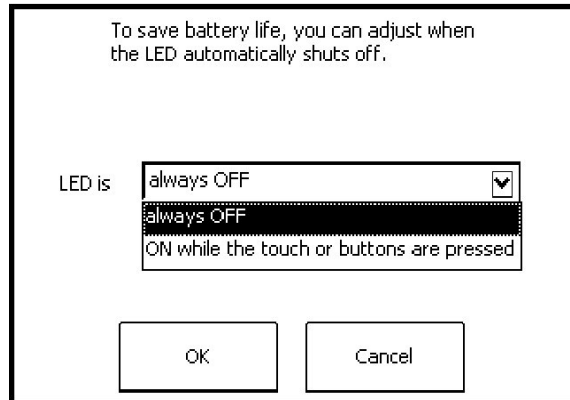
Adjust the display brightness slider.

NOTE: A brighter display reduces battery life.



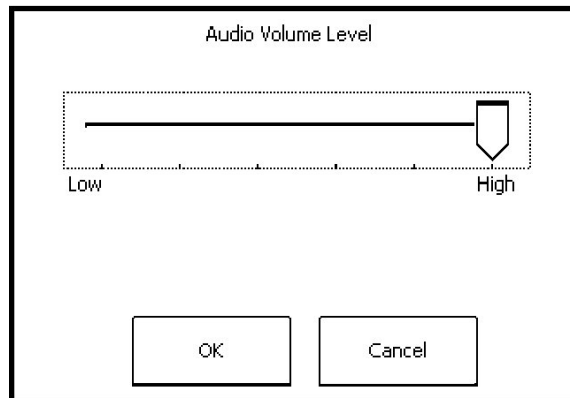
Button Light

Buttons can be backlit when touched, or always off to conserve battery life.



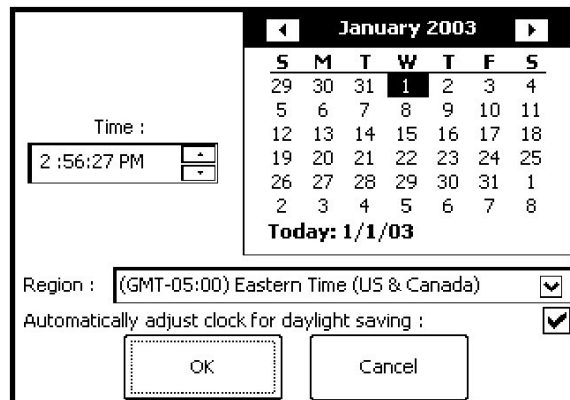
Sound

Adjust the volume of programmed audio.



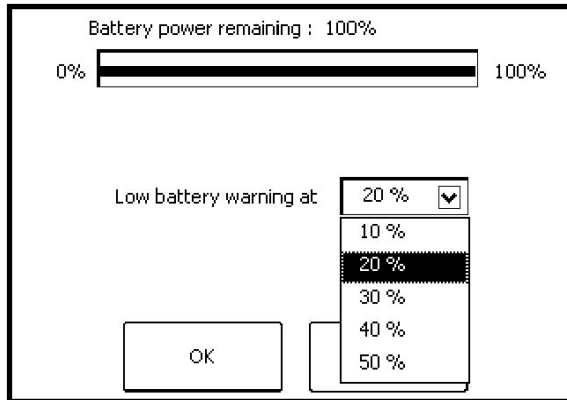
Date & Time

Set the date and time.



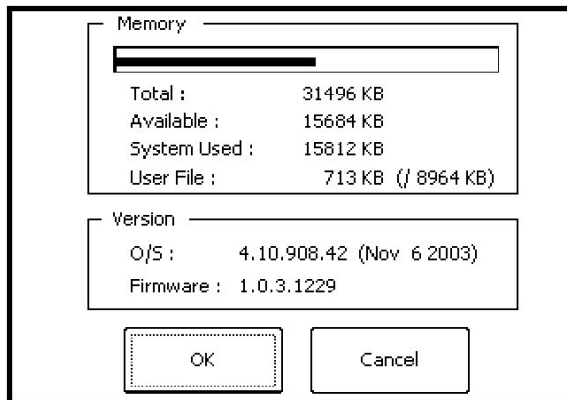
Power

Displays the remaining charge and sets the low battery indication level.



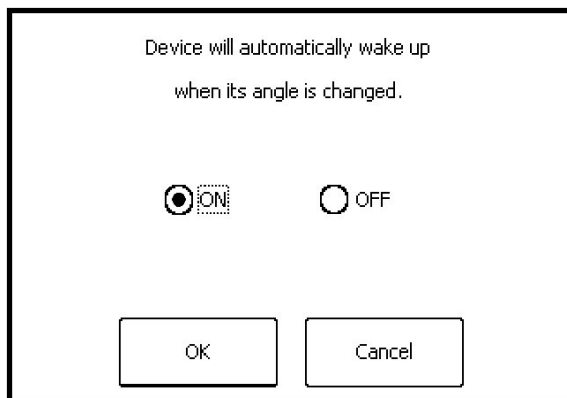
System

Displays system memory and version information.



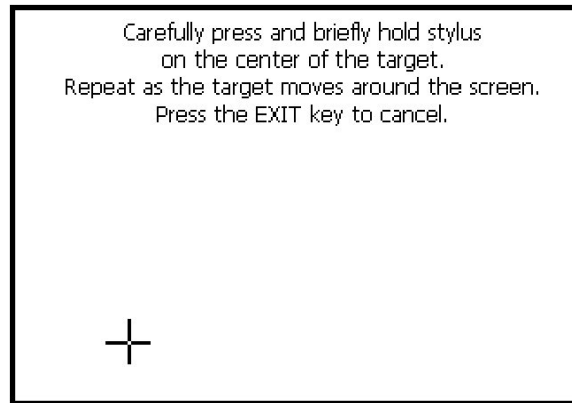
Pickup

Sets the MT-1000C to turn on when picked up or moved.



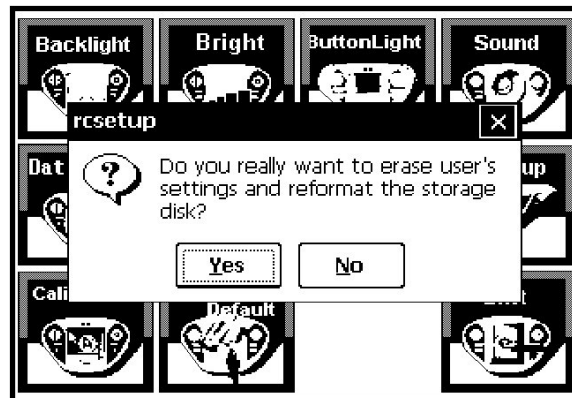
Calibration

Calibrates the touchscreen. Use a stylus or pen top (not a finger) and follow the directions on the screen.

**Factory Default**

Resets the memory to the factory condition.

WARNING: All programming will be lost. Do not use this button unless directed to do so by technical support personnel.

**Exit**

The Exit button returns the MT-1000C to normal operation.

Industry Compliance

As of the date of manufacture, the MT-1000C has been tested and found to comply with specifications for CE marking and standards per EMC and Radiocommunications Compliance Labelling.



NOTE: 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Care and Maintenance

- To avoid scratching the touchscreen, do not use a pen, pencil, or any sharp object. Use a plastic pen top, PDA stylus, or your finger.
- The MT-1000C is not waterproof. Avoid using it in damp or wet locations.
- Keep the MT-1000C away from extreme heat or cold.
- The touchscreen contains a glass element; avoid dropping or impacting against anything.
- If water is spilled on the MT-1000C, remove the battery pack and allow the MT-1000C to dry for 48 hours before using.
- Clean the outside with a cloth dampened with diluted non-ammonia glass cleaner. Ensure that no moisture enters the MT-1000C. Never use an abrasive to clean the outside.

Problem Solving

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

MT-1000C Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Docking Station Power LED not illuminated	Power supply not connected properly	Check connection to back of Docking Station
		Check connection to Power Supply
		Check connection to wall outlet
Docking Station Status LED not illuminated	MT-1000C not properly seated in cradle	Gently press down on the MT-1000C until you hear a click
Display is black	Battery pack not properly installed	Refer to "Battery Installation and Replacement" in this guide for battery instructions
	Battery pack not charged	
Brightness too low or too high	Adjust brightness	Refer to "User Configuration Menus" in this guide for brightness adjustment instructions
Touchscreen buttons do not respond properly	Touchscreen out of calibration	Refer to "User Configuration Menus" in this guide for touchscreen calibration instructions

Continued on the following page

MT-1000C Troubleshooting (Continued)

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Devices do not respond	Devices not powered up	Check power to devices and check that devices are on
	Battery charge is low	Recharge battery
	RF Gateway not functioning	Check power to RF Gateway
	Out of RF range	Distance to Gateway/Receiver too far
	Control system not programmed properly	Check control system program
Battery pack will not charge	Battery pack not properly installed	Refer to " Battery Installation and Replacement " in this guide for proper installation instructions
	MT-1000C not placed properly in docking station	Make sure unit is mounted properly in docking station
	Connection for MT-1000C in docking station is dirty or has an obstruction	Clean contacts, remove obstruction
	Power supply problem	Replace docking station power supply (part number 6002768)

Further Inquiries

If you cannot locate specific information or have questions after reviewing this guide, please take advantage of Crestron's award winning customer service team by calling the Crestron corporate headquarters at 1-888-CRESTRON [1-888-273-7876]. For assistance in your local time zone, refer to the Crestron website (www.crestron.com) for a listing of Crestron worldwide offices.

You can also log onto the online help section of the Crestron website to ask questions about Crestron products. First-time users will need to establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features, and extends the capabilities of the MT-1000C, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an "Addendum" in the Download column.

Return and Warranty Policies

Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange, or service without prior authorization from CRESTRON. To obtain warranty service for CRESTRON products, contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number, and return address.
2. Products may be returned for credit, exchange, or service with a CRESTRON Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to CRESTRON, 6 Volvo Drive, Rockleigh, N.J. 07647, or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. CRESTRON reserves the right in its sole and absolute discretion to charge a 15% restocking fee, plus shipping costs, on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by CRESTRON, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

CRESTRON Limited Warranty

CRESTRON ELECTRONICS, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from CRESTRON, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touchscreen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from CRESTRON or an authorized CRESTRON dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

CRESTRON shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended, or if it has been subjected to misuse, accidental damage, modification, or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced, or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall CRESTRON be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. CRESTRON is not liable for any claim made by a third party or made by the purchaser for a third party.

CRESTRON shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, CRESTRON makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supercedes all previous warranties.

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Specifications subject to
change without notice.