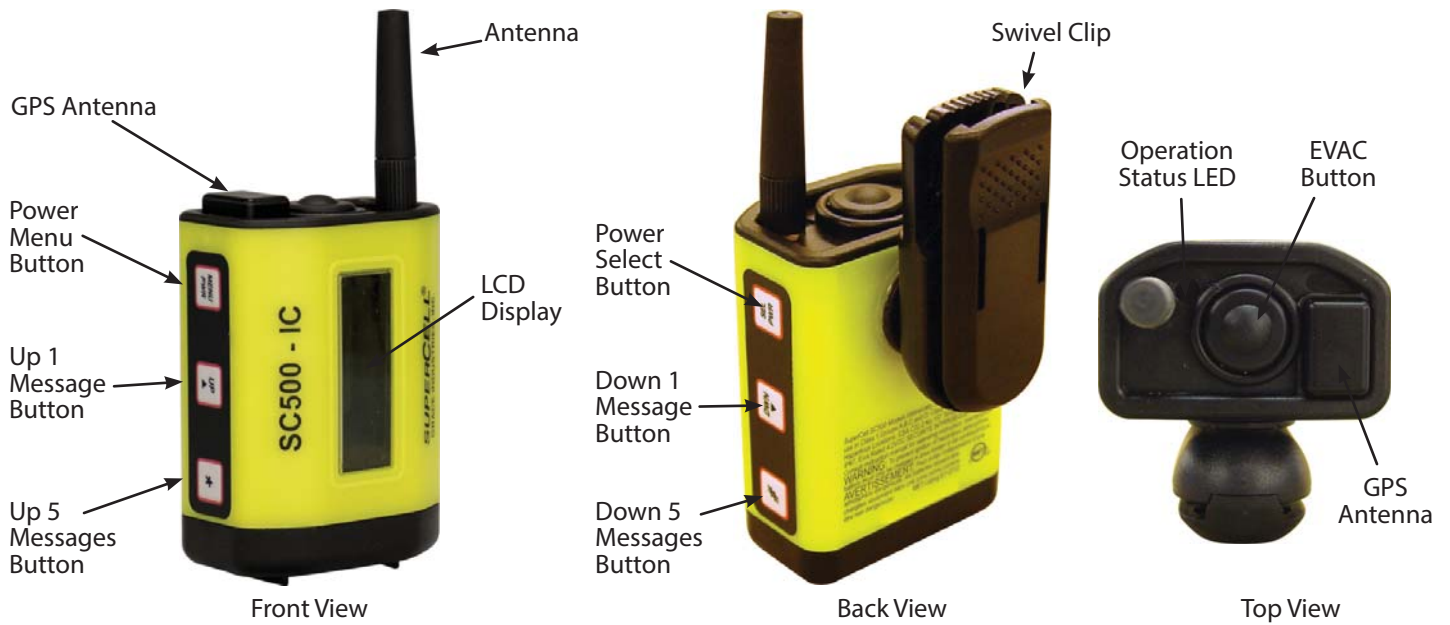


# SuperCELL® Model SC500-IC-GPS User's Information



## Introduction


SuperCELL® Model SC500-IC-GPS is an intrinsically safe, high performance, RF-wireless, emergency signaling and monitoring device, critical for Incident Commanders. A self-contained GPS continuously tracks location and transmits this location along with the user's status to other Grace Telemetry products, including the MX900H.

SuperCELL® monitors distress alarm signals of fire fighters equipped with GRACE TPASS® devices. SuperCELL® can also transmit Evacuate signals to all fire fighter's TPASS® devices.

## Features

- **Top Button EVAC:** Pressing the top button sends an Evacuate command to all other GRACE TPASS® and SuperCELL® devices.
- **Alarm Monitoring:** Alerts the Incident Commander that a GRACE Man-Down telemetry device, within signaling range, is transmitting an alarm message.
- **Panic ALARM:** Manually activated Emergency Alarm.
- **Man Down Alarm:** An optional safety monitoring feature which provides the Incident Commander with motion sensing protection.
- **Alarm Acknowledgment:** When a SuperCELL® is in an alarm condition, an Alarm Acknowledgment message can be sent from an MX900 transceiver. This will clear the alarm condition and display the Alarm Ack message.
- **Canned Text Messaging:** Allows Incident Commander to send and receive pre-set Canned Text Messages to other SuperCELL® devices and In-Command® monitoring systems.

## Specifications

- **Model:** SC500-IC-GPS, Incident Commander.
- **Dimensions:** 2-3/16" wide, 1-3/8" deep (without clip), 5" high (with antenna).
- **Weight:** 5.6 oz.
- **Internal Battery:** 3.7 V nominal, 1960 mAh, intrinsically safe, lithium-ion rechargeable.
- **Device Run Time:** Approximately 24 hrs. in Sensing Mode, and 8 hrs. in Alarm Mode.
- **Radio Frequency:** ISM license free, spread spectrum.
- **Battery Charger Operational Voltage:** 120VAC or 12VDC. Available international power adapters rated for 100-240VAC input, with UL, FCC, CE,  safety ratings.
- **Battery Charge Time:** 6 - 8 hrs.
- **Certifications:**
  - Intrinsically Safe UL913, CSA C22.2 No. 157
  - IP67
- **Radio Certifications:**
  - FCC ID: J5XT3HEP
  - IC: 5916A-T3HEP
  - Australia / New Zealand: Compliant to ACMA AS/NZS CISPR22:2006, Class A Digital Apparatus | AS/NZS 4268:2017 for Intentional Radiators
  - EMC93142A-ACMA
  - EMC93142A-AS/NZS 4268



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## Quick-Start Guide

### Always test SuperCELL® prior to use

**TURN ON:** Simultaneously pressing both side PWR buttons turns the SuperCELL® ON.

**TURN OFF:** Simultaneously pressing and holding both side PWR buttons turns the SuperCELL® OFF.

**PAGE NAVIGATION:** Pressing the MENU/PWR button cycles through the pages on the SuperCELL®.

**MOTION ALARM:** If the SuperCELL® remains motionless for the preset length of time, the SuperCELL® will sound a repeating alarm tone and transmit man-down alarm messages. Motion Alarm can be enabled/disabled and the timing can be adjusted in the Setup Menu. To clear Alarm and reset the SuperCELL®, simultaneously press the MENU/PWR and SEL/PWR buttons.

**PANIC ALARM:** Activate the Emergency Alarm by pressing and holding the # and \* buttons for 3 seconds. When the countdown timer reaches zero, a Panic Alarm signal will be sent and ALARM will be displayed. To clear Alarm and reset the SuperCELL®, simultaneously press the MENU/PWR and SEL/PWR buttons.

**TOP BUTTON EVACUATION:** To send a Global EVACUATION signal to compatible Grace Telemetry devices (in the same family of ID's) Press and hold top button for 3 seconds. When the timer reaches zero (0), and Evacuation Signal will be sent and ||| EVAC ||| will be displayed. SuperCELL® will continue sending the Evacuation Signal until the unit is reset by simultaneously pressing MENU/PWR and SEL/PWR buttons.

**EVACUATION ACKNOWLEDGMENT:** If an Evacuate message is received by the SuperCELL®, it can be manually acknowledged by simultaneously pressing the MENU/PWR and SEL/PWR buttons.

**ALARM MONITORING:** Alerts the Incident Commander that a GRACE Man-Down telemetry device, within signaling range, is transmitting an alarm message. This alert can be cleared from SuperCELL® by simultaneously press the MENU/PWR and SEL/PWR buttons.

**NOTE:** If an alarm has been received, SuperCELL® will not turn off until the alarm has been cleared or reset. To force SuperCELL® to turn off (even with an active alarm) hold down the **Up** button along with both side **PWR** buttons.

### Low Battery Indication / Battery Charging

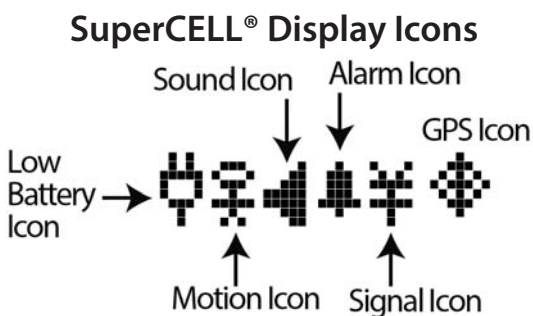
When approximately 3 hours of operating time remain in standby mode, the SuperCELL® will display a plug icon on the display status screen. The power-on tones are not emitted when SuperCELL® has a low battery. Low battery is also indicated by the Operational Status LED changing to a periodic Red strobe. A double chirp sounds once every five minutes with audio enabled. **Warning: There are no audible low battery sounds with audio tones disabled.**

When low battery is indicated, less than 3 hours of operating time remain and the battery should be charged immediately.

With the charger provided, recharge time is approximately 6 hours from a low battery warning and 9 hours for a dead battery. Due to current limits imposed by Intrinsic Safety requirements, a unit that has gone completely dead will have to be removed from the charging base and reinserted when the charging light turns Red. Typical operation time between recharging is approximately 40 hours in standby/ready mode.

Plug the charger into an outlet. It takes approximately 20 seconds for the Green charger LED to light up. If it does not turn on or a Red LED turns on, then the battery is either too hot or cold, or has a fault.

Charging is complete when the Green charge LED starts to slowly flash.



## Menu Pages

Pressing MENU button brings up menu pages in the following order:

- Page 1 - Send Message
- Page 2 - Latitude / Longitude Display
- Page 3 - Alarm History Display
- Page 4 - Event Counters Display
- Page 5 - Device Name and Run Time Display
- Page 6 - Setup Mode

### Page 1 - Send Message

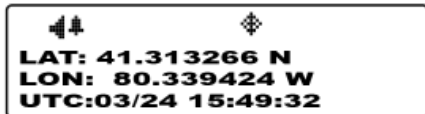


The Send Message function may be used to send one of 80 user-programmed, canned text messages. These messages are programmed into the SuperCELL® device through the SuperCELL® Database Manager Utility Program via the ACTISYS IrDA USB Adapter, available for the SuperCELL® device. This process is explained in the IrDA Transfer section, on pg 4.

To send a message, proceed to the Send Message page by pressing the MENU/PWR button. Next, cycle through the messages stored on the SuperCELL® by pressing the UP, DWN, \*, or # buttons until you find the desired message you wish to send. UP and DWN cycle the message count by one, \* and # cycle the count by five. Once you have the desired message displayed, pressing the SEL button transmits the message, and a Message Sent acknowledgment is displayed on the screen. Other messages can be selected and sent by pressing the UP, DWN, \*, or #, and then pressing SEL to send.

Pressing MENU/PWR will navigate away from the Send Message page. Resetting the device will return the SuperCELL® to the home page.

### Page 2 - Latitude / Longitude Display



Press the Up/Dwn buttons to cycle through four Latitude / Longitude display formats:

#### Degrees

LAT: 41.313266 N  
LON: 80.339424 W

#### Degrees Minutes (DD mm.mmmm)

LAT: 41 18.7969' N  
LON: 80 20.3736' W

#### Degrees Minutes Seconds (DD mm ss.ss)

LAT: 41 18'47.677" N  
LON: 80 20'22.366" W

#### Raw Data

LAT: 00E2F0E6  
LON: FE46AE73

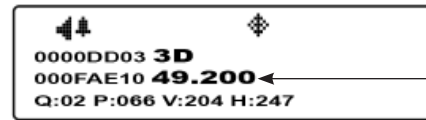
Press the \*/# buttons to view Quality of Fix Screen and the Time to First Fix



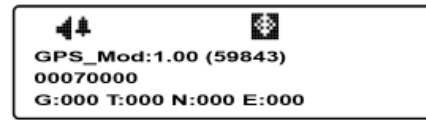
#### Quality of Fix:

- 00: No Fix
- 01: Ideal (01.00 -> 01.50); Icon is Solid
- 02: Excellent (01.51 -> 02.50); Icon is Solid
- 03: Good (02.51 -> 05.00); Icon is Solid

- 04: Moderate (05.01 -> 09.99); Icon will Flash
- 05: Fair (10.00 -> 19.99); Icon is Inverted and will Flash
- 06: Poor ( $\geq 20.00$ ); Icon is Inverted and Solid



Time to First Fix (in Seconds)



GPS Hardware Version

Pressing MENU/PWR will navigate away from the Alarm History Display page. Resetting the device will return the SuperCELL® to the home page.

### Page 3 - Alarm History Display



The Alarm History Display page displays the name and unit ID of any Grace Industries telemetry product that has transmitted an alarm message received by the SuperCELL®.

Proceed to the Alarm History Display page by pressing the MENU/PWR button. On the Alarm History Display page, the UP and DWN buttons cycle through the stored alarm messages that were received by the SuperCELL®. The 32 most recent, unique, alarms are stored on the SuperCELL® in the order they were received. Turning the SuperCELL® off clears the Alarm History.

Pressing MENU/PWR will navigate away from the Alarm History Display page. Resetting the device will return the SuperCELL® to the home page.

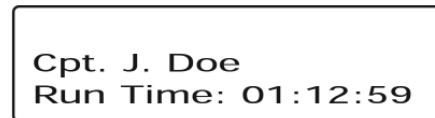
### Page 4 - Event Counters Display

Event Counters Display page shows the number of Page (Evacuate), Par, and Roll Call events received by the SuperCELL® device since it was last turned on.

Navigate to the Event Counters Display page by pressing the MENU/PWR button.

Pressing MENU/PWR will navigate away from the Event Counters Display page. Resetting the device will return the SuperCELL® to the home page. Turning the SuperCELL® device off resets each counter to zero.

### Page 5 - Device Name and Run Time Display



The Device Name and Run Time Display page displays the SuperCELL® device name which has been programmed onto the device through the SuperCELL® Database Manager Utility Program via the ACTISYS IrDA USB Adapter, available for the SuperCELL®. This page also displays the length of time the SuperCELL® has been running (turned on), in days/hours/minutes.

Navigate to the Device Name and Run Time Display page by pressing the MENU/PWR button.

Pressing MENU/PWR will navigate away from the Device Name and Run Time Display page. Resetting the device will return SuperCELL® to the home page.

## Page 6 - Setup Mode



The Setup Mode page allows the user to put the SuperCELL® into Setup Mode, where the various user preferences of the device can be changed.

To enter Setup Mode, proceed to the Setup Mode page by pressing the MENU/PWR button. Next, press and hold the SEL/PWR button for three seconds. The SuperCELL® device is now in Setup Mode. Press the MENU/PWR button while in Setup Mode to cycle through the Setup Mode pages.

**WARNING:** While in Setup Mode, Alarm, Page, Par, and Roll Call messages CANNOT be monitored or be logged in the SuperCELL® devices Event Counter. Any Alarm, Page, Par, or Roll Call messages received, while in Setup Mode, will be subject to the SuperCELL® device's inhibit timer.

Resetting the device or waiting two minutes without a button press will exit out of Setup Mode and return the SuperCELL® to the home page.

- Setup Mode Page 1 - Alarm Disabled Notification
- Setup Mode Page 2 - Firmware Versions
- Setup Mode Page 3 - IrDA Transfer Mode
- Setup Mode Page 4 - View Adjust
- Setup Mode Page 5 - Motion Sensing
- Setup Mode Page 6 - Signal Lost Timer
- Setup Mode Page 7 - SysTest TMR Set
- Setup Mode Page 8 - Radio Range Test
- Setup Mode Page 9 - Sound
- Setup Mode Page 10 - Location Change Chirp
- Setup Mode Page 11 - Alarm Button Sound
- Setup Mode Page 12 - Constant Alarm Vibration
- Setup Mode Page 13 - Backlight
- Setup Mode Page 14 - Charger Auto Off
- Setup Mode Page 15 - Alarm Inhibit Timer
- Setup Mode Page 16 - Enable GPS

## Setup Mode Page 1 - Alarm Disabled Notification



The Alarm Disabled Notification page acts as a reminder the SuperCELL® will not monitor Alarm, Page, Par, or Roll Call transmissions while in Setup Mode.

Pressing MENU/PWR will navigate away from the Alarm Disabled Notification page. Resetting the device will exit out of Setup Mode and return the SuperCELL® to the home page.

## Setup Mode Page 2 - Firmware Versions

The Firmware Versions page displays the model number, CPU firmware version, and radio firmware version found on the SuperCELL® device.

Navigate to the Firmware Versions page by pressing the MENU/PWR button.

The top text line displays the model number of the device.

The middle text line displays the CPU firmware version found on the device.

The Bottom text line displays the creation date of this firmware version.

Press the SEL/PWR button to display the radio firmware version.

Pressing MENU/PWR will navigate away from the Firmware Versions page;

resetting the device will exit out of Setup Mode and return SuperCELL® to the home page.

## Setup Mode Page 3 - IrDA Transfer Mode



The IrDA Transfer Mode allows the SuperCELL® device to be loaded with over 60,000 names (254 groups of 255 names) of 16 characters each. The SuperCELL® can also be loaded with 80 user-programmed canned text messages, plus the unit ID. This information is programmed into the SuperCELL® through the SuperCELL® Database Manager Utility Program via the ACTISYS IrDA USB Adapter, available for the SuperCELL®.

To enter the IrDa Transfer Mode, navigate to the IrDA Transfer page by pressing the MENU/PWR button. Once arriving on the IrDA Transfer page, press and hold the SEL/PWR button for three seconds to enter the IrDA Transfer Mode. In the IrDA Transfer Mode, the SuperCELL® will only respond to commands from the host computer running the SuperCELL® Database Manager Utility Program.

**WARNING:** While in IrDA Transfer Mode, the device CANNOT monitor or send Alarm, Page, Par, or Roll Call messages, nor will these messages be logged in the SuperCELL® device's Event Counter. Any Alarm, Page, Par, or Roll Call messages received, while in IrDA Transfer Mode, will be subject to the SuperCELL® device's inhibit timer.

Interrupting an IrDA transfer while in progress may corrupt the SuperCELL® device's name database. If this should occur, the SuperCELL® name database will need to be reloaded.

Pressing the MENU/PWR button navigates away from the IrDA Transfer page. Resetting the device exits out of IrDA Transfer Mode and returns the SuperCELL® to the home page.

## Setup Mode Page 4 - View Adjust



The View Adjust page allows the display contrast to be adjusted for easier viewing of the SuperCELL® device's display. Adjusting the display contrast may be necessary if the SuperCELL® is used in extreme temperatures.

To adjust the display contrast, navigate to the View Adjust page by pressing the MENU/PWR button. At the View Adjust page, press the UP and DWN buttons to increase (or decrease) the display contrast by 1, and the \* and # to increase (or decrease) the display contrast by 10.

Pressing MENU/PWR will navigate away from the View Adjust page. Resetting the device will exit out of Setup Mode and return the SuperCELL® to the home page.

## Setup Mode Page 5 - Motion Sensing



The Motion Sensing capability of SuperCELL® is intended to alert personnel that the wearer of the device has stopped moving.

SuperCELL® is shipped with Motion Sensing timer set to 120 seconds. To enable or disable Motion Sensing, and to adjust the length of time the device must remain motionless before going into alarm mode - proceed to the Motion Sensing page by pressing the MENU/PWR button. Once on the Motion Sensing page, press the UP and DWN buttons to increase (or decrease) the motion sensing timer by 15 seconds and the \* and # buttons

increase (or decrease) the motion sensing timer by 1 minute (15 minutes maximum).

Pressing the MENU/PWR button navigates away from the Motion Sensing page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

With **Motion Sensing enabled**, the Motion Sensing Activation Icon appears on the icon line of the SuperCELL® device's home page, accompanied by a countdown timer in the center of the page. The timer indicates (in minutes and seconds) how much time of motionlessness remains before the SuperCELL® enters alarm mode. Moving the SuperCELL® resets the timer.

Approximately 12 seconds before the SuperCELL® enters alarm mode, a pre-alert warning tone will sound, alerting the user that the device will enter alarm mode if it continues to remain motionless. Upon entering Alarm Mode, the SuperCELL® will sound a repeating alarm tone and transmit alarm messages.

Resetting the device exits Alarm Mode, returns device to home page, and resets motion sensing timer.

## Setup Mode Page 6 - Signal Lost Timer

The Signal Lost Timer is intended to alert user of the SuperCELL® that he has drifted out of the detection range of the monitoring base.

NOTE: The Signal Lost Timer may only be used in conjunction with compatible Grace Industries monitoring bases. Enabling the Signal Lost Timer without the proper monitoring base will result in the SuperCELL® continually alerting the user that the device is out of detection range. Without a compatible monitoring base, the Signal Lost Timer should be disabled.

SuperCELL® is shipped with the Signal Lost Timer disabled. To enable the Signal Lost Timer and adjust the length of time the SuperCELL® can be out of detection range before alerting the user, navigate to the Signal Lost Timer page by pressing the MENU/PWR button. At the Signal Lost Timer page, press the UP and DWN buttons to increase (or decrease) the Signal Lost Timer by 1 minute (15 minutes maximum).

Pressing the MENU/PWR button navigates away from the Signal Lost Timer page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

With the Signal Lost Timer enabled, the Signal Loss Activation Icon appears on the icon line of the SuperCELL® home page, accompanied by a countdown timer beside the icon. The timer indicates (in minutes) how much time remains before the SuperCELL® alerts the user that he is no longer in detection range of the monitoring base. With one minute remaining, the timer counts down in seconds.

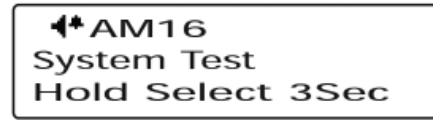


When a signal loss event occurs, Signal Lost will be displayed on the screen, the SuperCELL® will vibrate, and three alert tones will sound. The alert tones will be repeated every 30 seconds while the SuperCELL® remains out of detection range. The alert tones can be momentarily silenced by resetting the device. Doing so resets the signal lost timer, which will now be displayed in reverse contrast to indicate the SuperCELL® is still out of detection range. Once communication between the SuperCELL® and the monitoring base is re-established, the Signal Lost Timer is reset and the timer is displayed in normal contrast.

## Setup Mode Page 7 - System Link Test



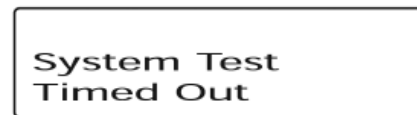
When used in conjunction with other compatible Grace Lone Worker products, a complete system test may be initiated by pressing and holding the Select button for three seconds. After Select has been held for three seconds a Link Query message is transmitted, and the SuperCELL® display shows a round trip timer, used to measure the complete system path test time:



The display will show the following when a Link Status message is received, in conjunction with a power-up sound sequence:



If no Link Status Acknowledgment message is received after five minutes, this will be indicated via a simple audio beep and a message similar to the one below:



Note: The complete system path may contain items beyond the control of Grace Industries, such as satellite delays. System Test times could vary considerably.

## Setup Mode Page 8 - Radio Range Test



The Radio Range Test mode of the SuperCELL® device is used to test radio signal propagation during on-site testing and system installation.

To enable or disable the Radio Range Test mode, proceed to the Radio Range Test page by pressing the MENU/PWR button. On the Radio Range Test page, press SEL/PWR button to enable or disable Radio Range Test mode. Once the Range Test Mode is enabled, resetting the device IS NOT REQUIRED - doing so disables the Radio Range Test mode and returns the device to the home page.

Any radio signal that can be monitored by the SuperCELL® (and is within the device's detection range) will be displayed on the screen as it is received by the device. Each received signal is accompanied by an audio chirp and blinking of the Operation Status LED.

Pressing the MENU/PWR button navigates away from the Radio Range Test page. Resetting the device disables Radio Range Test mode and returns the SuperCELL® to the home page.

## Setup Mode Page 9 - Sound



The Sound page allows the majority of the audio tones emitted from the SuperCELL® device to be enabled or disabled.

NOTE: Disabling the Sound DOES NOT disable the Power On or Power Off audio tones. The Power On and Power Off audio tones are permanently enabled.

To enable or disable Sound, proceed to the Sound page by pressing the MENU/PWR button. At on the Sound page, the SEL/PWR button enables (or disables) the audio tones emitted from the SuperCELL®.

Pressing the MENU/PWR button navigates away from the Sound page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

When Sound is enabled, the Sound Icon appears solid; when Sound is disabled, the Sound Icon appears empty.

### Setup Mode Page 10 - Location Change Chirp

The Location Change Chirp page (displayed as Loc.Change Chirp) allows the enabling or disabling of the audio chirp emitted from the SuperCELL® whenever the device receives a new location transmission.

To enable or disable Location Change Chirp, proceed to the Loc. Change Chirp page by pressing the MENU/PWR button. At the Loc. Change Chirp page, the SEL/PWR button enables/disables the audio tones emitted from the SuperCELL® when the device receives a new location transmission.

Pressing the MENU/PWR button navigates away from the Loc.Change Chirp page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

### Setup Mode Page 11 - Alarm Button Sound



The Alarm Button Sound page enables/disables the alarm audio tone emitted from the SuperCELL® when the Alarm Button is pressed.

**NOTE:** If the master Sound control is disabled (Setup Mode Page 9 - Sound), the SuperCELL® will not emit an alarm audio tone, even if the Alarm Button Sound is enabled.

To enable or disable Alarm Button Sound, proceed to the Alarm Button Sound page by pressing the MENU/PWR button. On the Alarm Button Sound page, the SEL/PWR button enables or disables the audio tones emitted from the SuperCELL® device.

Pressing the MENU/PWR button navigates away from the Alarm Button Sound page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

### Setup Mode Page 12 - Constant Alarm Vibration

The Constant Alarm Vibration page (displayed as AlarmVibConstant) allows the vibration notification emitted from the SuperCELL® device to be toggled between a single burst or a continuous series of bursts.

To enable or disable Constant Alarm Vibration, proceed to the Alarm-VibConstant page by pressing the MENU/PWR button. At the AlarmVib-Constant page, the SEL/PWR button enables or disables the Constant Alarm Vibration setting.

Pressing the MENU/PWR button navigates away from the AlarmVibConstant page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

### Setup Mode Page 13 - Backlight



The Backlight page allows the SC500 display Backlight to be enabled or disabled.

To enable or disable the Backlight, proceed to the Backlight page by pressing the MENU/PWR button. On the Backlight page, the SEL/PWR button enables or disables the SuperCELL® device display Backlight.

Pressing the MENU/PWR button navigates away from the Backlight page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

### Setup Mode Page 14 - Auto ON/Off

The Auto ON/OFF page allows the Auto ON/OFF function to be enabled or disabled.

To enable or disable the Auto ON/OFF function, proceed to the Auto ON/OFF page by pressing the MENU/PWR button. At the Auto ON/OFF page, the SEL/PWR button enables or disables the Auto ON/OFF function.

Pressing the MENU/PWR button navigates away from the Auto ON/OFF page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

With the Auto ON/OFF function *disabled*, the SuperCELL® is turned on and off by simultaneously pressing and holding the MENU/PWR and the SEL/PWR buttons.

With Auto ON/OFF function *enabled*, the SuperCELL® is turned on and off by removing or inserting the device into the Charging Base. Simultaneously pressing the MENU/PWR and the SEL/PWR buttons cannot turn the SuperCELL® on and off with the Charger Auto Off function enabled.

### Setup Mode Page 15 - Alarm Inhibit Timer



The Inhibit Timer page allows the Alarm Inhibit Timer to be enabled or disabled.

The SuperCELL® is shipped with the Alarm Inhibit Timer enabled.

To enable or disable the Alarm Inhibit Timer, proceed to the Inhibit Timer page by pressing the MENU/PWR button. At the Inhibit Timer page, the SEL/PWR button enables or disables the Alarm Inhibit Timer function.

**NOTE:** With the Alarm inhibit Timer enabled, the SuperCELL® will not respond to the same alarm message for 30 seconds after that alarm message has been acknowledged. This allows the user of the SuperCELL® time to operate the menu system of the device during an alarm event.

Pressing the MENU/PWR button navigates away from the Inhibit Timer page. Resetting the device exits out of Setup Mode and returns the SuperCELL® to the home page.

When the Alarm Inhibit Timer is enabled and no alarm messages have been received and acknowledged within the 30 second inhibit time, the Alarm Inhibit Timer Icon will be displayed as solid on the Icon Line of the SuperCELL® display. If an alarm message HAS been received and acknowledged, the Alarm Inhibit Timer Icon will be displayed as empty. This indicates that the device will not respond to an alarm that had been acknowledged until the 30 second Alarm Inhibit Timer expires.

### Setup Mode Page 16 - Enable GPS



Use the SEL/PWR button to enable or disable the GPS.

## End of Setup Mode Screens

## Safety Certifications

### Intrinsically Safe, Sécurité Intrinsèque

SuperCell® SC500 Models Intrinsically Safe per ANSI/UL913 For use in Class 1, Groups A, B, C and D; Class II, Groups E, F, G; Div. 1 Hazardous Locations. CSA C22.2 No.157.

Temperature Code T6. IP67. Exia Rated 4.2VDC.

### Radio Certifications

- FCC ID: J5XT3HEP
- IC: 5916A-T3HEP
- Australia / New Zealand: Compliant to ACMA AS/NZS CISPR22:2006, Class A Digital Apparatus | AS/NZS 4268:2012 for Intentional Radiators
- EMC93142C-ACMA
- EMC93142C-AS/NZS 4268



## WARNINGS, AVERTISSEMENTS

**WARNING!** To prevent ignition of hazardous atmosphere, battery must only be charged in area known to be nonhazardous.

**AVERTISSEMENT!** Pour éviter l'inflammation d'une atmosphère dangereuse, les batterie doivent être chargées seulement dans une zone connu comme être non dangereuse.

## FCC Statements

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Industry Canada Statements

This Class A digital apparatus complies with Canadian ICES-003.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.(select the class for your device)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## Warranty Information

Grace industries, Inc. warrants SuperCELL® & related Grace telemetry products to be free from defects in workmanship and materials for a period of one year from the date of purchase. This warranty is valid only when the returned product is accompanied by a sales slip or other proof of purchase that states the date and location of purchase. Grace Industries, Inc. will not repair or replace any merchandise under warranty which has been damaged because of accident, misuse or abuse while in possession or control of the consumer. This warranty is void if any attempt to repair or replace parts was made or attempted by other than qualified Grace Industries, Inc. personnel. This warranty is void if any of the sealed compartments are opened or tampered with. Send all returned merchandise, prepaid and accompanied by proof of purchase to: Grace Industries, Inc., Repair Division, 305 Bend Hill Road, Fredonia, PA 16124 USA. Grace Industries, Inc. shall not be liable for any direct, incidental or other consequential loss or damage arising out of the failure of the product to operate. End-user or customer is responsible for return shipping/freight charges.

The sole and exclusive remedy under all guarantees or warranties, express or implied, is strictly limited to repair or replacement as herein provided. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF FITNESS AND MERCHANTABILITY, ARE HEREBY LIMITED IN DURATION TO A PERIOD ENDING ONE (1) YEAR FROM THE DATE OF PURCHASE. The warranty and liability set forth in the prior paragraphs are in lieu of all other warranties, expressed or implied, in law or in fact, including implied warranties of merchantability and fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

This information is believed to be accurate and reliable. Grace Industries, Inc. provides this information as a guide only.

Technical assistance is available by contacting Grace Industries, Inc. by telephone at 724-962-9231, M – F, 8:00 am – 4:30 pm.

For training purposes a copy of User's Information is available by contacting Grace Industries, Inc. at [www.graceindustries.com](http://www.graceindustries.com) or by mail to: 305 Bend Hill Rd, Fredonia, PA 16124 U.S.A.

## Definition of Terms

**Alarm Inhibit Timer:** When the SuperCELL® receives an alarm message from another device, and that alarm is cleared, the Alarm Inhibit Timer provides a 30 second period of time where the SuperCELL® will not receive another alarm message from that same device.

**Alarm Message:** A radio transmitted signal sent from a SuperCELL®, or other GRACE Industries telemetry device, when the panic button is pressed for the purpose of notifying monitoring personnel that an emergency situation is present and rescue action is requested.

**Alarm Mode:** A SuperCELL®, or other GRACE Industries telemetry device, is placed in alarm mode by pressing the device's panic button. When this occurs, the device transmits an alarm signal and emits a loud alarm audio tone.

**Canned Text Message:** Canned Text Messages are pre-programmed, text based messages that can be sent from one SuperCELL® to another.

**Device Name:** The Device Name is a pre-programmed name assigned to the SuperCELL® device that can be viewed on the Device Name and Run Time Display page.

**Dilution of Precision:** A term used in satellite navigation to express the positioning accuracy of a GPS device.

**GPS Status Icon:** The GPS Status Icon appears on the Icon Line of the Home Page when the GPS Location feature is active. The icon changes based on the satellite fix quality.

**Home Page:** The Home Page is the main page of the SuperCELL® that is displayed on startup and any time the device is reset. Displayed on this page is the status icons, motion sensing timer, device OEM and ID numbers, and the firmware versions loaded on the device.

**Icon Line:** The Icon Line is the display line at the top of the home page that displays the device status icons.

**Man-Down Alarm Mode:** A SuperCELL, or other GRACE Industries telemetry device, enters Man-Down Alarm Mode when the Motion Sensing Timer counts down to zero.

**Monitoring Authority:** The Monitoring Authority is the person/people responsible for monitoring the status of the telemetry devices used by the various on-scene personnel, usually from a centralized base location.

**Motion Sensing Activation Icon:** The Motion Sensing Activation Icon appears on the Icon Line of the Home Page when the Motion Sensing feature is active. The icon changes as the device senses motion.

**Motion Sensing Timer:** The Motion Sensing Timer indicates the seconds of lack-of-motion required before the SuperCELL® enters the Man-Down Alarm mode.

**Radio Signal Propagation:** Radio Signal Propagation is the behavior radio waves exhibit when they are transmitted. Radio Signal Propagation can be affected by structural, environmental, and atmospheric conditions.

**Resetting the Device:** Simultaneously pressing the MENU/PWR and SEL/PWR resets the SuperCELL® and returns the display to the Home Page.

**Sensing Mode:** When the SuperCELL® is turned on, it is in Sensing Mode. In Sensing Mode, the device is monitoring radio traffic for alarm messages and canned text messages. The SuperCELL® is also sensing motion, if enabled.

**Setup Mode:** Setup Mode allows certain characters and functions on the SuperCELL® to be activated, deactivated, or modified.

**Signal Loss:** Signal Loss is an event that occurs when the SuperCELL® is out of the communication range of a base monitor for a preset length of time.

**Signal Loss Activation Icon:** The Signal Loss Activation Icon appears on the Icon Line of the Home Page when the Signal Loss feature is active.

**Unit ID:** The Unit ID is the unique ID number assigned to the SuperCELL® device for purposes of radio communication. It can be viewed on the device's home page.

**Unit OEM:** The Unit OEM is a number assigned to the SuperCELL® device, similar to the Unit ID. The key difference is the Unit OEM is not a unique number to each device. In most applications all of the SuperCELL® devices will have the same OEM number; from the factory this number will usually be 9090.



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