US

GEMS
Safety Monitoring System
User's Manual

Model SMS-H

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Solutions for Life Safety

MADE IN USA

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GEMS SMS-H
BASE TRANSCEIVER SYSTEM
Contents

Introduction

The **GEMS Safety Monitoring System**, consists of two primary components: a **Base/Transceiver** and a **Transmitting Personal Alert Safety System** or **TPASS®** man-down alarm. Other equipment such as T3 Repeaters and Remote Enhanced Receivers may also be used to enhance system effectiveness in challenging environments

NOTE: The Safety Monitoring System will be referred to as **SMS-H or SMS Base**, and the **Transmitting Personal Alert Safety or Man-down devices** will be referred to as **TPASS®** or **SuperCELL®**. All Grace Transmitting Personal Safety devices may be used with SMS Base. Compatible telemetry devices include: TPASS® 3, TPASS® 3-R, LTX200, LTX200-R, SC500.

The **SMS-H Base/Transceiver** is the heart of the system. The SMS Base receives Emergency Alarm signals, check-in signals and other status signals from the TPASS® devices continuously. SMS Base provides electronic accountability for all TPASS® devices in the immediate area and displays their current status on the LCD Display Screen. This information provides supervisory personnel with details of who is active, their status and immediate notification of any Emergency Alarm conditions.

TPASS® is a generic term for the **Transmitting Personal Alert Safety System**. **TPASS®** will automatically call for help if the wearer becomes motionless for a predetermined period of time. Preset times to Alarm are available in 30, 60, 90 and 120 seconds. Personnel may also manually activate the emergency call for help by pressing the Alarm button at any time.

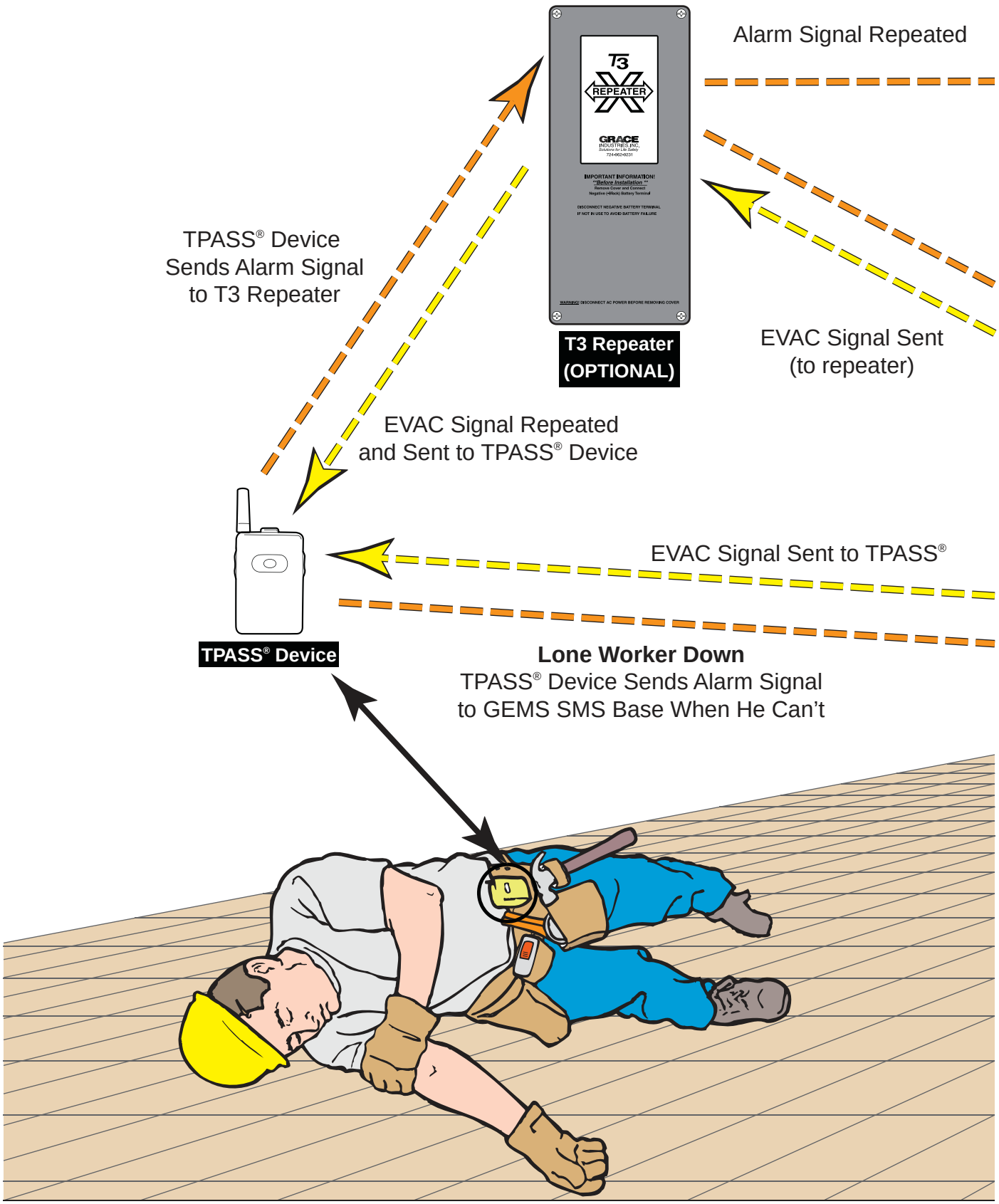
When a TPASS® Alarm is activated (manually or through lack of motion) the TPASS® will sound a loud audio alarm and transmit an emergency radio signal to the SMS Base.

When the SMS Base receives an Alarm signal, the red Alarm Status Indicator will flash and the TPASS® device in Alarm is displayed in the top line of the SMS Base LCD Display. This allows supervisory personnel the opportunity to take appropriate action in a timely manner. When an Alarm is received, the SMS Base can also be used to activate an Automatic Telephone Dialer.

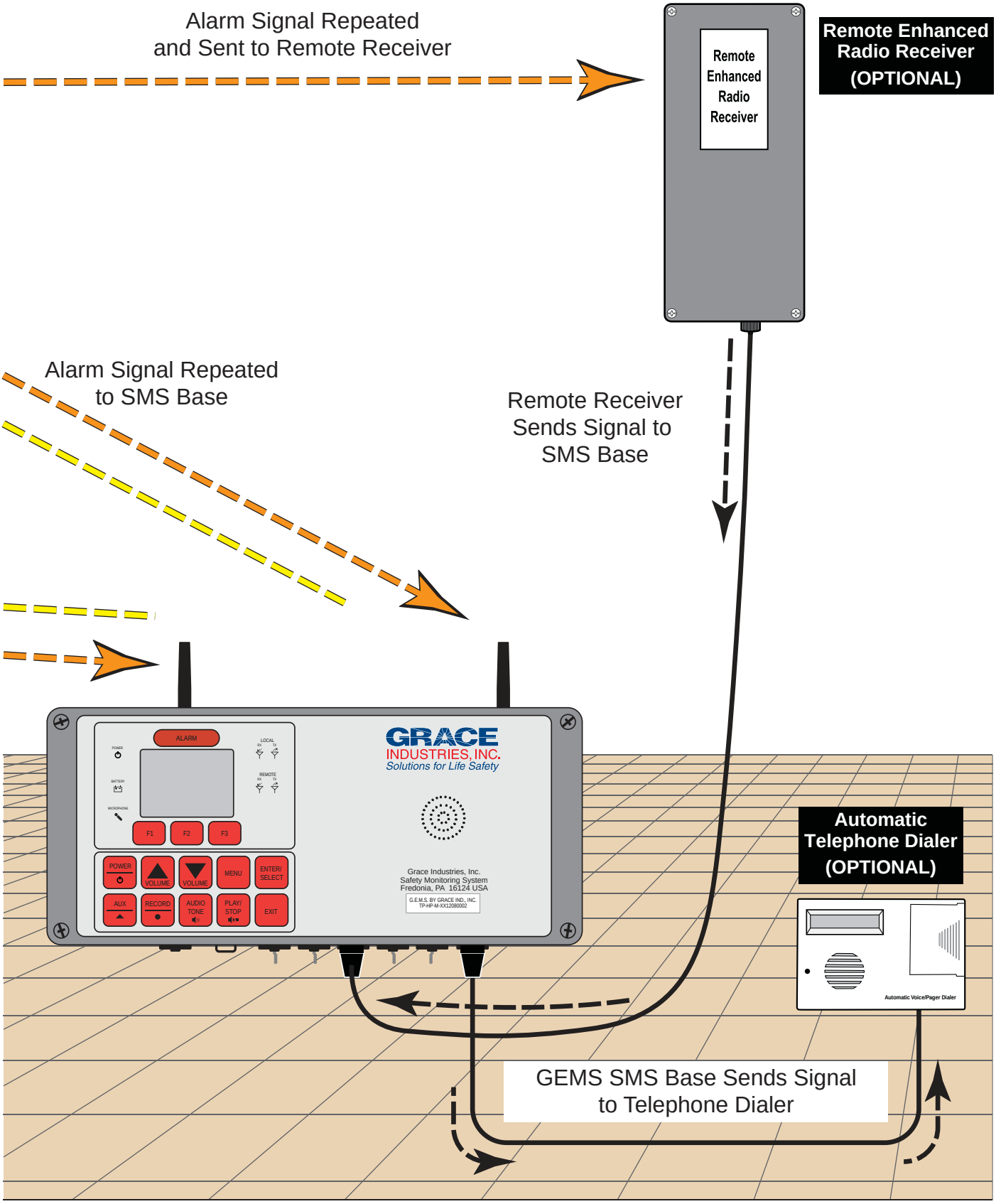
The SMS Base provides the supervisor with the ability to EVACUATE or callback personnel from unsafe or deteriorating conditions. The Evacuation process involves a sending a signal to one person, a group, or all personnel as needed.

Effective radio signal range is typically one mile and can be enhanced with optional equipment such as the T3 Repeater and Remote Enhanced Receiver. No FCC License is required for operation.

GEMS SMS-H
SYSTEM OPERATION



GEMS SMS-H
SYSTEM OPERATION



Safety Monitoring System

NOTE: Always Test the SMS Base Prior to Each Use. It is important to be thoroughly familiar with system operation and screen information before attempting field use.

The SMS-H Base/Transceiver is the heart of the system. The SMS Base receives Emergency Alarm signals, check-in signals and other status signals from TPASS® devices continuously. The SMS Base provides electronic accountability for all properly programmed Grace Telemetry devices in the immediate area and displays their current status on the LCD Display Screen. This information provides management personnel with the details of who is active, their status and immediate notification of any Emergency Alarm conditions.

When situations become unsafe or deteriorate rapidly, the SMS Base has the ability to EVACUATE or callback personnel. The Evacuation process involves a signal being sent to TPASS® from the SMS Base. When the TPASS® receives the signal, it automatically sends an electronic acknowledgement back to the SMS Base - this lets the supervisor know the Evacuation signal was successfully received by the TPASS®. When the TPASS® receives the Evacuate signal, a loud chirping audio alarm tone is accompanied by rapidly flashing Amber LEDs. This alerts and notifies personnel that he is being ordered to evacuate. The TPASS® user manually acknowledges the Evacuation signal by pressing both side buttons simultaneously - the operational tones will be heard and the flashing LEDs and loud chirping audio tones will cease. This manual acknowledgement lets the supervisor know the Evacuation signal was received and understood by the TPASS® user.

Versatility of SMS Base

The SMS Base is designed for desktop use but can be converted for mounting on a wall or other appropriate non-metallic, vertical surface. By removing the four screws on the triangular desktop brackets, the SMS Base is released for mounting on a wall or other surface. Appropriate anchors and stainless steel screws should used be when mounting to any surface or structure. As noted earlier, the SMS Base should not be mounted on a metallic surface as it may interfere with radio signal effectiveness.

Positioning of SMS Base

The SMS Base should be positioned approximately 4-5 feet off the ground on a non-metallic surface. Restrict operation of high-power radio transmitters or other devices within 3’ of the SMS Base.

Power System

The SMS Base incorporates a rechargeable lead acid battery. The system may be used for approximately 16 hours on a full charge, without auxiliary power. A 120 VAC power cord is provided for extended use or permanent installation. Battery recharging can be accomplished in approximately 16 hours by attaching the 120 VAC power cord to the base. A 12 VDC power adapter is also provided for use with most vehicle 12 VDC systems. This allows for extended use in the field where battery life has been exceeded and 120 VAC is not available.

Battery Maintenance

If not used on a regular basis or if stored for an extended period of time, connect the SMS Base to 120 VAC Power for 4 hours every month to ensure battery is fully charged and ready for use.

OPERATION

Monitor Personnel

Press the POWER button to turn SMS Base ON. The LCD screen will light up and display the telemetry devices programmed to the base. The SMS Base is ready to monitor personnel.

LCD Display

The number of TPASS® or telemetry devices showing on a single screen is user-selectable and can be changed to display 2, 4, 6 or 8 devices per screen by pressing the F3 button located under the LCD Display.

Nine (9) different fields of information are provided for each of the TPASS® or telemetry devices displayed. The fields are: User Name, Unit ID number, ON/OFF status, Alarm, EVAC Status, Signal Timer, Signal Indicator, Location information and Low Battery Indicator.

These fields are automatically displayed as the TPASS® communicate with the SMS Base.

The TPASS® Username is matched with a TPASS® User ID and entered into the system memory through downloading with the SMS Configuration Tool or the keypad data entry process.

TPASS® User Name

This field is used to display names, assignment locations or other means of identifying the personnel associated with a specific User ID Number. The field consists of 15 character locations.

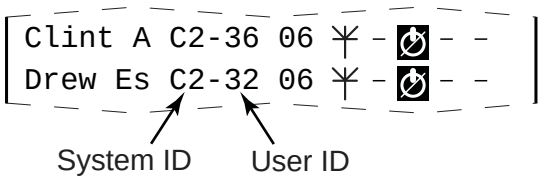
User ID

Individual TPASS® devices are programmed to a specific User ID number. The User ID number is used to identify the specific TPASS® and the personnel associated with the corresponding TPASS® Username or location.

User ID can be viewed by pressing and holding the Aux button.

The System ID - User ID will be displayed over the Usernames.

Release the Aux button when finished viewing User ID and the screen will return to normal.



TPASS ON / OFF

TPASS® ON/OFF field displays the current ON or OFF status of TPASS® in the immediate area. An OFF symbol is displayed in this field until the TPASS® is turned ON. When a TPASS® is activated, the TPASS® ON/OFF field displays an ON symbol. When a TPASS® is turned OFF, the OFF symbol will be displayed.

OPERATION
(Continued)

ALARM

When the SMS Base receives an Alarm signal, the red Alarm Status Indicator will flash and the pre-recorded audio alarm message will play. The TPASS® device in Alarm is displayed at the top of the Monitoring screen and the Alarm Bell symbol will appear in the User's status line. The audio alarm message can be silenced by pressing the PLAY/STOP button. The Alarm Condition can be cleared easily by holding the AUX button and pressing the Menu button to open the Clear Alarm Condition submenu - use the Volume Up/Down keys to select the Username in Alarm and press Enter/Select to clear the Alarm.

When an Alarm Condition is received by the SMS Base, a heart symbol or man-down symbol will also appear beside the Alarm symbol. The heart symbol appears when the TPASS® User has manually pressed the Emergency Alarm Button. The man-down symbol is displayed when Lack-of-Motion by the TPASS® User causes the Alarm Condition.

Clear Alarms

To clear an Alarm Condition hold down the AUX key and Press the Menu key. The Clear Alarm Condition Screen will appear. Use the volume Up or Down keys to select and highlight the Alarm to be cleared. Press the Enter/Select key to clear the Alarm Condition chosen. Please note that the Alarm Condition may only be cleared if the TPASS® has been reset and no longer sending emergency transmissions. As needed, select another Alarm Condition to clear or press the Exit key twice to return to the PASS View Screen.

Evacuating Personnel

When a situation becomes unsafe or deteriorates rapidly, the SMS Base gives supervisors the ability to Evacuate or callback one person, a group, or all personnel as needed.

Press the **F1** key to open the **"EVAC Selected Passes"** screen. The list displayed is all personnel in the area with their TPASS® turned ON.

Use the **Volume Up/Down keys** to highlight the TPASS®. Press the **ENTER** key to select the highlighted TPASS® device – an "**S**" will appear to the left of selected devices.

NOTE: F1 clears the EVAC Status of selected devices; **F2** selects all devices at once.

When finished selecting devices, press **F3** to send the Evacuation Signal.

As the Evacuation signal is transmitted, received and acknowledged, the EVAC Status of each TPASS® device is indicated by the following:

S: Selected for EVAC
T: Transmitting EVAC signal
E: Automatic Electronic Acknowledgement has been received by SMS Base
e: Manual Acknowledgement by the TPASS® user

EVAC Status is also seen on PASS View Screen. Press Exit twice to return to PASS View Screen.

OPERATION
(Continued)

Signal Timer and Signal Field

Signal Timer countdown and the Signal Field display the status of communications between the TPASS® device and SMS Base. Each TPASS® device periodically transmits a check-in message to let the SMS Base know it is in range and operational. The SMS Base uses a countdown or signal timer to determine if an individual TPASS® device has timed out. If the SMS Base does not receive a check-in message within the pre-set amount of time, the TPASS® device will be declared as Timed-Out and the No-Signal symbol will be displayed on the PASS View Screen.

NOTE: Signal Timeout Blinking between received Signal Received and No-Signal symbols - this signifies that the TPASS® or SuperCell® device is currently communicating with the SMS Base but at some point since powering up, it lost and regained communication with the SMS Base.

This will be cleared by:

1. Turning the TPASS® or SuperCell® OFF; then turning the device back ON.
2. Entering the “Clear Signal Timeout” Menu and manually clearing the Timeout flag.

Location

Personnel wearing location-enabled TPASS® can be tracked and located throughout a facility by using Locator Beacon (**LT100-H**). When a TPASS® or SuperCell® is detected by an **LT100-H**, the **LT100-H** updates the location status of the TPASS®.

The SMS Base receives the new location status from the TPASS® and will display location status of each TPASS® when viewing 2 or 4 Passes per page.

Location Names may be configured using the SMS Configuration Tool. (See appendix A3 for screenshot and configuration instructions).

For location addresses 1-50, the Location Name can be up to 16 characters long. For example: “Chem Lab1” or “Mach Shop2”. For location addresses over 50, the Location Name will be displayed on the SMS Base as **“Location# xxx”** where xxx is the location address in hexidecimal. (See pages 9-10 for examples in the illustrations).

Low Battery

When a TPASS® device sends a Low-Battery signal to the SMS Base, a battery symbol will appear in the status line. This indicates the battery in the specific device needs replaced or (for rechargeable units) the device needs charged.

Turn Base OFF

To turn SMS Base **OFF**, press and release the AUX and POWER buttons. The SMS Base will power down and the LCD screen will go dark in approximately two seconds.

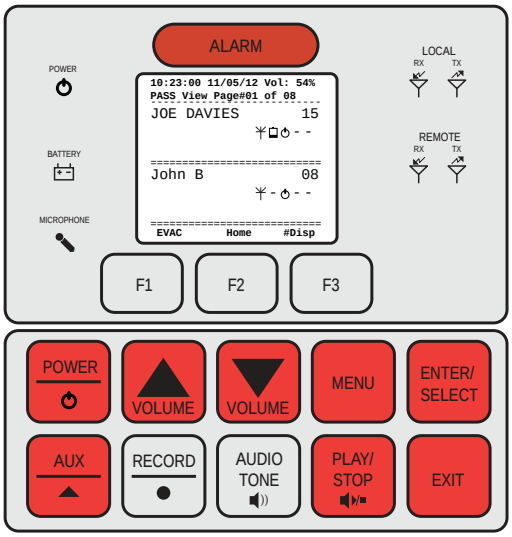
In the OFF mode, the SMS Base no longer monitors personnel.

GEMS SMS BASE - Quick Start Guide

Turn SMS Base ON / OFF

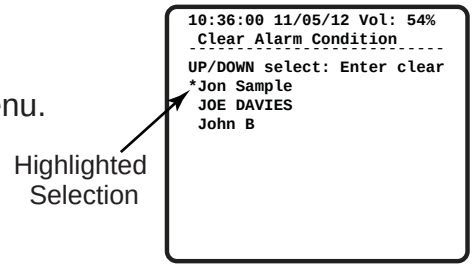
1. Press POWER to turn SMS Base **ON**.
2. LCD Screen will display status of TPASS® Devices in use.
3. To turn SMS Base **OFF**: Hold down AUX and press POWER

   Release both buttons to turn SMS OFF
4. LCD Screen and Indicator lights will shut off.



Clear an ALARM

1. Press PLAY/ STOP to silence the Alert Message.
2. Hold down AUX and press MENU to go to Alarm Menu.



To Clear an Alarm Condition:

3. Use VOLUME and VOLUME keys to highlight/select the Alarm you want to Clear.
4. Press ENTER/ SELECT to clear the Alarm Condition.
5. Press EXIT button twice to return to PASS View Screen.

GEMS SMS BASE - Quick Start Guide

PASS View Screen / Monitoring Personnel

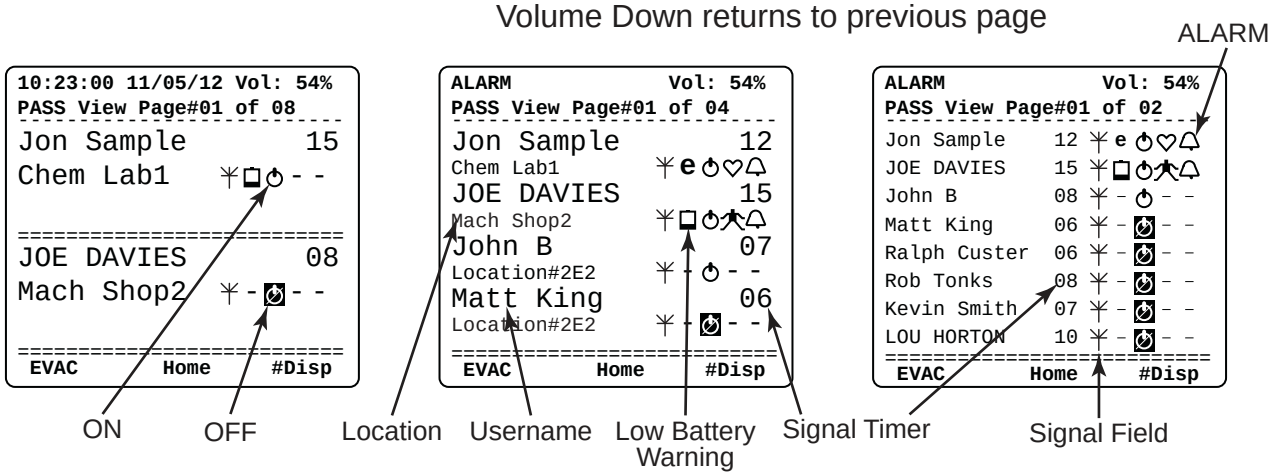
F1 F2 F3

F1 Is a shortcut to enter “EVAC Selected Passes” Sub-Menu.

F2 Returns to the home screen (page 1).

F3 Changes number of lines displayed on screen.
Pressing **F3** will let you see 2, 4, 6, or 8 devices at once.

Page Navigation: Volume Up advances screen to next page
Volume Down returns to previous page



TPASS® ON
When a TPASS® is activated, the **TPASS® ON** symbol is displayed.

TPASS® OFF
When a TPASS® is turned **OFF**, the **TPASS® OFF** symbol will be displayed.

TPASS® ON / OFF Field
Displays the current **ON** or **OFF** status of TPASS® in the immediate area.

Alarm Condition
Alarm Symbol is displayed in TPASS® user status when any **Alarm Condition** is received

Manual Emergency Alarm
When the Alarm Condition is initiated by a TPASS® user **manually activating** his TPASS® Alarm, the **Manual-Alarm** symbol is displayed with the Alarm symbol

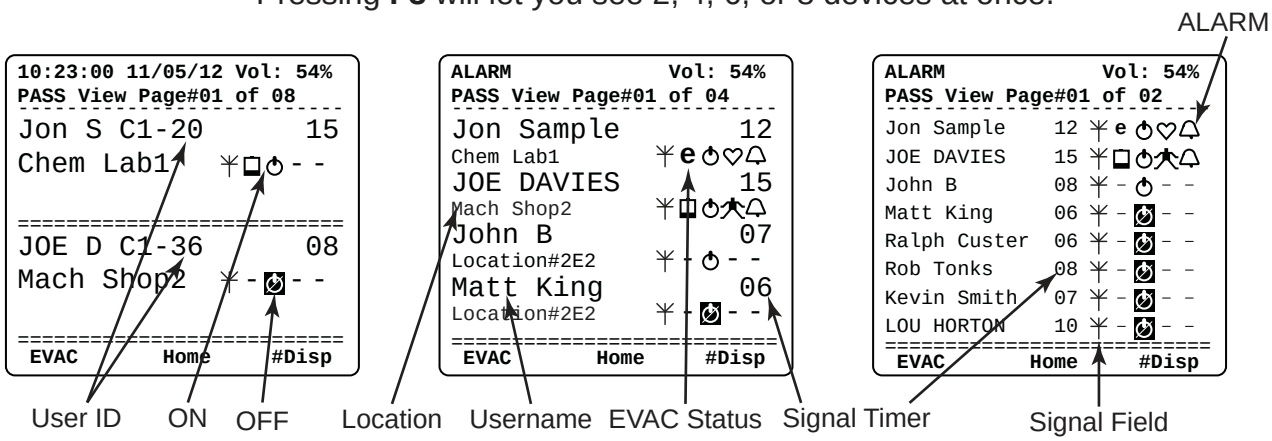
Lack-of-Motion Emergency Alarm
When an Alarm Condition is caused by a **Lack-of-Motion** of the TPASS user, the **Lack-of-Motion** symbol is displayed with the Alarm symbol

Low Battery Warning
TPASS® devices will send a **Low Battery Warning** to the SMS Base. When a Low-Battery Warning is received, the **Low-Battery** symbol is displayed in the TPASS® User’s status.

GEMS SMS BASE - Quick Start Guide

PASS View Screen / Monitoring Personnel

F1 Is a shortcut to enter “EVAC Selected Passes” Sub-Menu.
F2 Returns to the home screen (page 1).
F3 Changes number of lines displayed on screen.
Pressing **F3** will let you see 2, 4, 6, or 8 devices at once.



E **EVAC Status:**
As the EVAC signal is transmitted, received and acknowledged, the EVAC Status of each TPASS® device is indicated by the following:

S - Selected for EVAC
T - Transmitting EVAC
E - Automatic Acknowledgement has been received by SMS Base
e - Manual Acknowledgement by the TPASS® user

EVAC Status is also displayed on the **EVAC Selected Passes** screen.

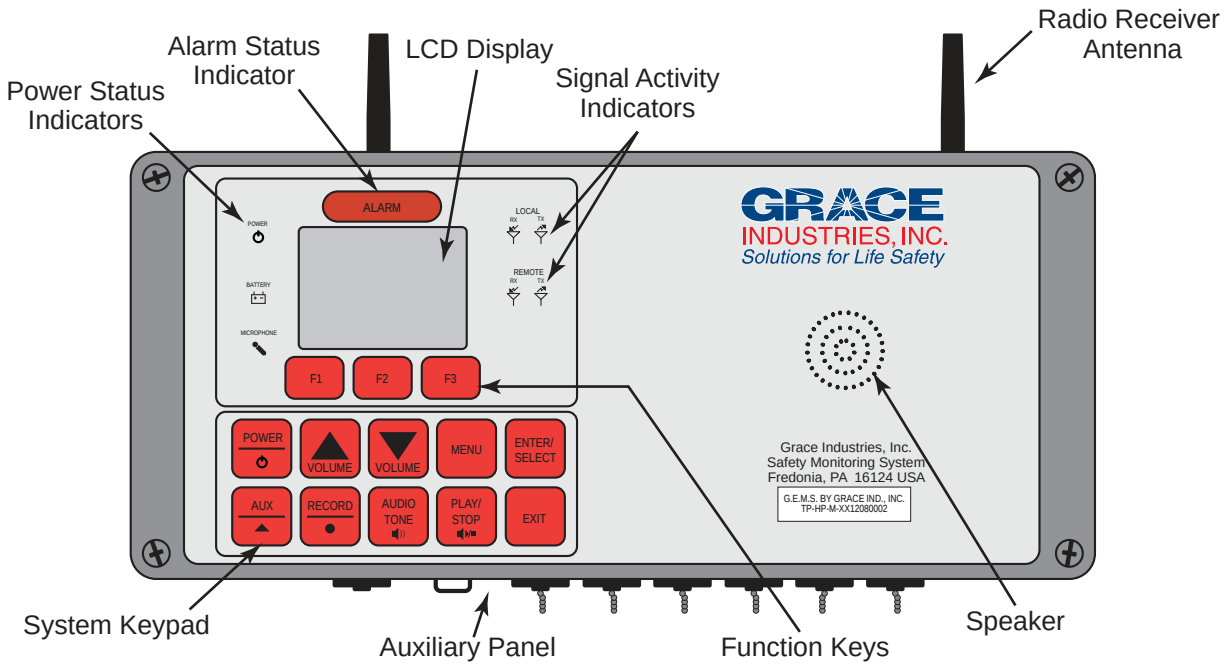
Signal Field
Signal Field displays the status of communications between the TPASS® device and SMS Base. The field will show a **Signal Received** or a **No-Signal** symbol.
Note: Signal Field blinking between Signal Received and Signal Timeout indicates communication between TPASS® device and SMS Base was lost and regained.

Signal Received
The **Signal Received** symbol is displayed when the SMS Base is receiving check-in signals from the TPASS® device.

Signal Timeout
The **No-Signal** symbol is displayed when communication between a TPASS® device and the SMS Base has been disrupted for longer than a preset amount of time.

User ID
Press and hold Aux button to view User ID of devices on screen. Release when finished.

SMS Base Familiarization



ALARM **Alarm Status Indicator flashes Red when an Alarm is received.**

POWER

Power Indicator will **glow Green** when running on AC Power, and **glows Red** when running on Battery Power.

Power Indicator will **flash Red** when running on **LOW Battery**, and will **flash Green** when running on external 12V power.

BATTERY

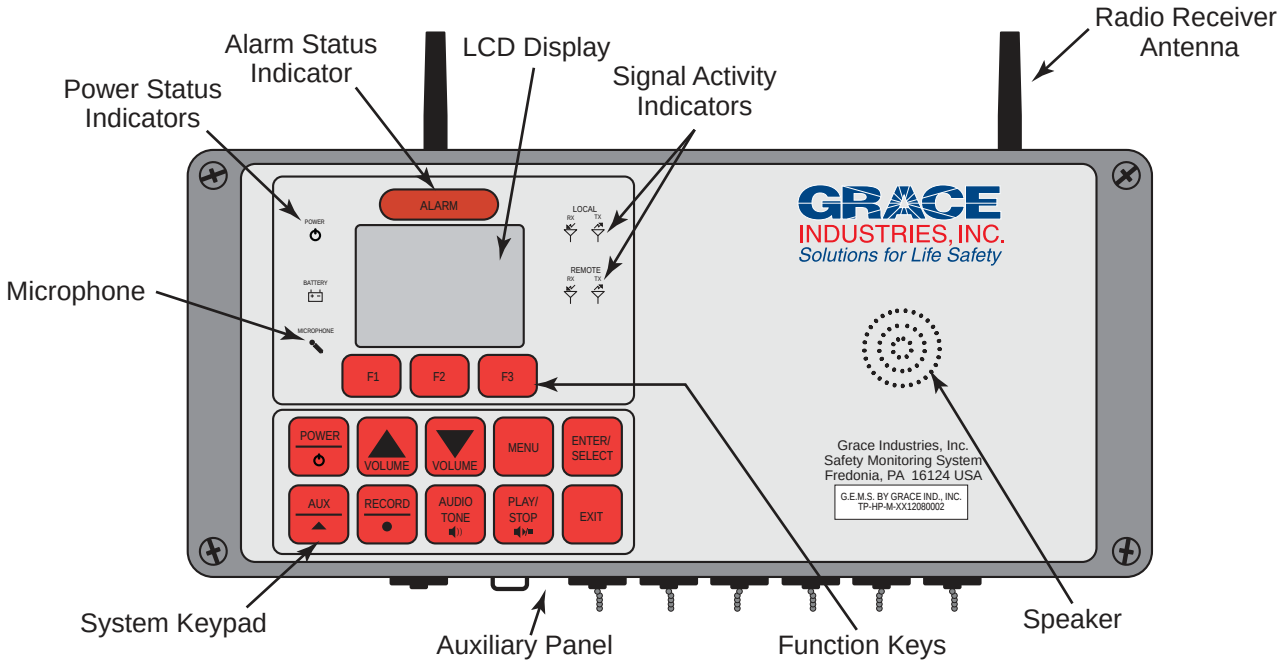
Battery Indicator glows when running on battery power.

1. **Glows RED** when running on **LOW Battery. Charge Immediately**.
2. **Glows Green** when running on greater than 20% battery power.

Battery Indicator flashes when the SMS Base is Charging.

1. **Flashes RED** while charging a **Battery** with less than 80% charge.
2. **Flashes Green** when charge reaches 80% of battery power.

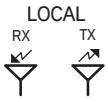
SMS Base Familiarization



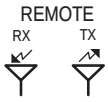
Signal Activity Indicators:

Rx flashes Yellow when radio data is received.

Tx flashes Red when radio data is sent.



Local refers to the SMS Base Radio Receiver Antennas.



Remote refers to an optional External Receiver which would be plugged into the Auxiliary Panel.

Microphone:

Used to record Audio Alert Messages.

To record a new Alert Message:

1. Press and hold the AUX and RECORD keys on the System Keypad.
   Do Not Relase AUX and RECORD keys.
2. **"ERASING"** will appear in the top-left of the LCD Display.
3. SMS Base will beep and **"RECORD"** will appear in top-left of LCD Display.
   Begin recording a new Alert Message.
   AUDIO TONE key may be pressed during the recording of a message as an attention getting alert signal.
   Release AUX and RECORD keys when finished recording new message.

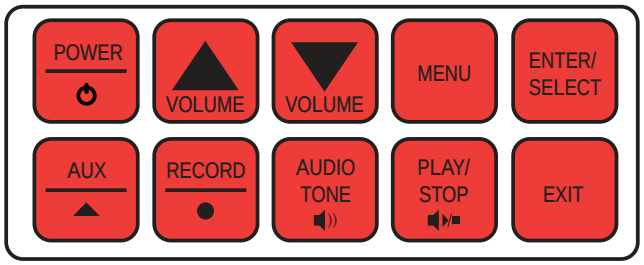
To verify recording, press PLAY/STOP key.

Hold Aux and press Volume UP/Down keys to adjust volume level of Alert Message.

Alert Message may be reset or silenced at any time by pressing PLAY/STOP key.

SMS Base Familiarization

System Keypad



Power: Press to turn power **ON**.

Hold down Aux and press Power and release both buttons to turn SMS Base **OFF**.

Volume UP/Down: Volume control, page and menu navigation.

Hold Aux and Press Volume Up/Down to adjust volume.

In Pass View Screen:
Press Volume Down to advance to next page.
Press Volume Up to return to previous page.

In Menu Screens, use Volume Up/Down to make selections.

Menu: Press to access the Menu.

Enter/Select: Press to enter data and select Menu options.

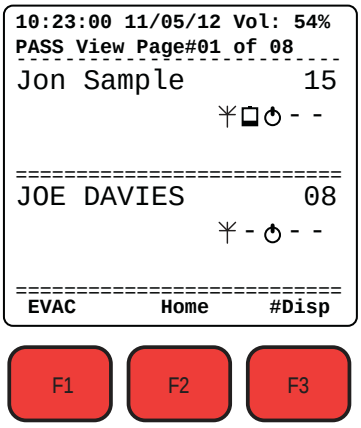
Aux: Press and hold to display User ID of devices shown on screen.

Record: Used with Aux to record an Alert Message.

Audio Tone: Press to play Audio Tone.

Play/Stop: Press to play or stop playing the Alert Message.

Exit: Press to exit Menu or Sub-Menu.



Function Keys

Actions for each Function key (F1, F2, and F3) are shown on the LCD Display, directly above each function key.

For example: in the PASS View Screen shown here

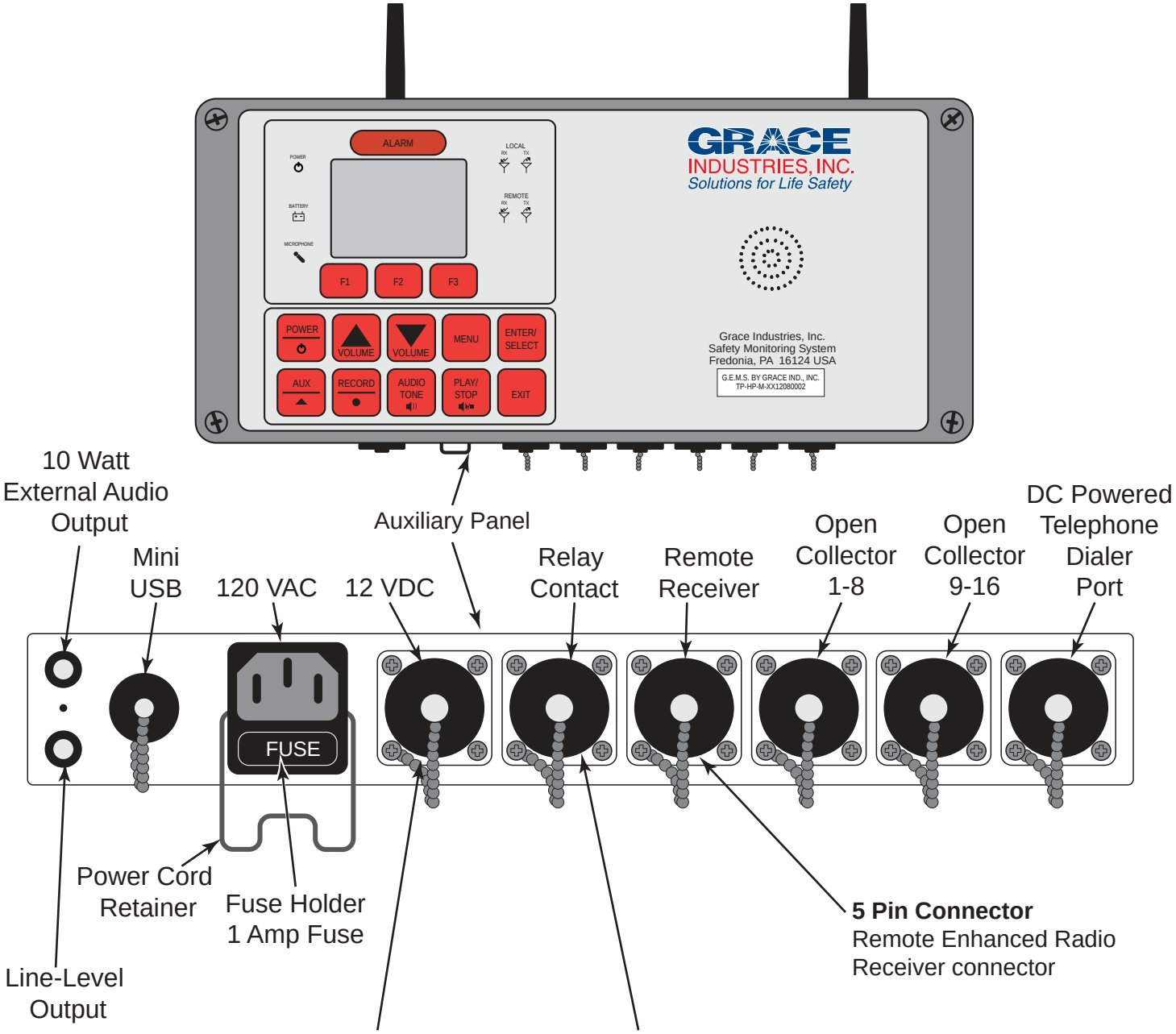
F1 is shortcut to enter **"EVAC Selected Passes"** Sub-Menu.

F2 Returns to the Home Screen (page 1).

F3 Changes number of lines displayed on screen.
Pressing F3 will let you see 2, 4, 6, or 8 devices at once.

SMS Base Familiarization

Auxiliary Panel Components



Auxiliary Receptacle Pin Assingments

Max 12V 5Amp	Pin 1:	Relay Normally Open ..... Green
	Pin 2:	Relay Common ..... White
	Pin 5:	Relay Normally Closed ... Orange
12V 1Amp Fused on Alarm	Pin 3:	+12 volts DC Output ..... Red
	Pin 7:	Ground ..... Black

SMS-H Base Specifications

Range:

1 mile depending on environmental conditions.

Receiver:

Spread spectrum serial
902-928 Mhz
Monitor up to 72 devices

Display:

LCD graphics display with auto backlight on any button press
Programmable auto backlight off/sleep time
Selectable monitoring of 2, 4, 6, or 8 Pass devices per page
Optional auto page-scrolling.

Alarm Condition Display:

User recordable Audio Alert Message
Strobing Red lights
1 Form-C alarm relay output
User selectable Open Collector output closures

Power Options:

12 Volt rechargeable sealed lead-acid battery providing 16 hours continuous operation.
Recharging time of 12-16 hours for the internal battery.
External 12VDC supply
120/240VAC line voltage

Controls:

Sealed membrane switch

Case:

Rugged, Industrial, Fiberglass, Water-resistant enclosure
Color: Medium Gray
Dimensions: 10.25” W x 6.25” H x 3.5” Deep
Weight: 9 pounds

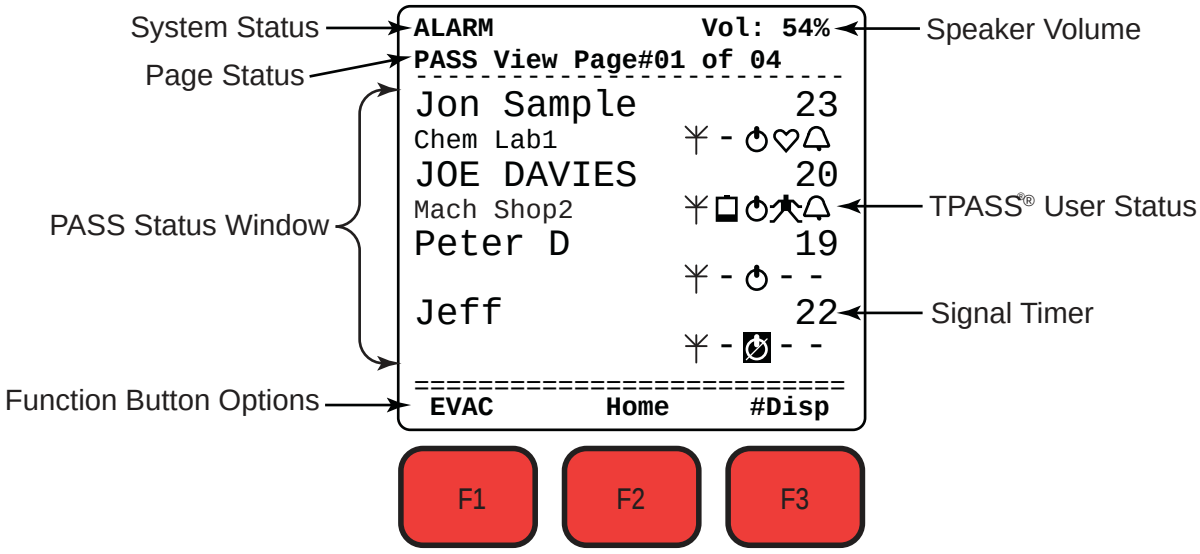
Operation Environment:

0-140 degrees F

Mounting:

Desk/Table Brackets (Standard)
Wallmount Brackets (Optional, provided)

PASS View Screen
Monitoring Personnel



Speaker Volume:

0 - Off, 1-100% Volume

System Status Window:

Shows the active status and current system Time and Date.

Possible active statuses to display: Alarm, Play, Record, Low Battery

Page Status Window:

Shows what System Page or Menu you are viewing.

In PASS View, this window shows how many pages of TPASS® data exist.

PASS Status Window:

This section displays the status of TPASS® devices.

The display can be adjusted to show 2, 4, 6, or 8 devices on a single page.

Press Volume Down to advance to next page. Press Volume Up to return to previous page.

When display is set for 2 PASS per page:

Status window will show the Username,

Signal Timer

Character status display: Low Battery, EVAC Status, On/Off, Alarm Condition (Manual or Lack-of-Motion).

And location data, if PASS is equipped with Locator option.

Function Button Options:

Press F1 Button to enter “EVAC Selected Passes” Sub-Menu

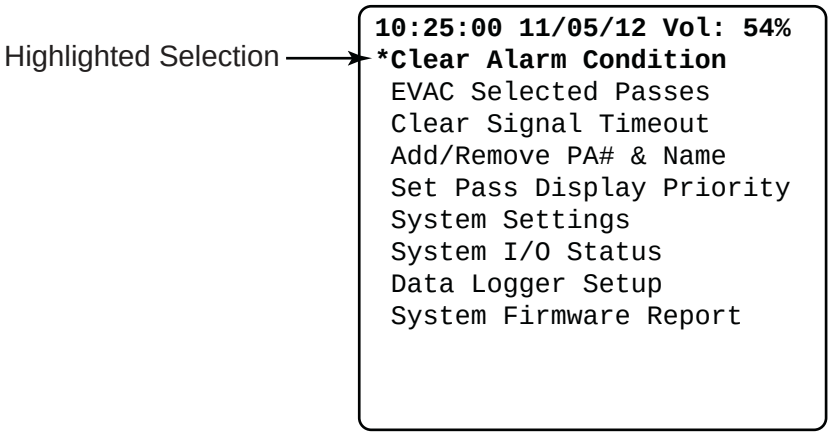
Pressing F2 Button will take you to the Home Screen (Page 1)

Pressing F3 Button will let you choose to display 2, 4, 6 or 8 devices on the PASS View Screen.

Press the Menu Button to open the Main Menu

Main Menu

Press the Menu Button to open the Main Menu



Entering Main Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu shown above.

Navigating the Menu:

The Main Menu is a list of available Sub-Menus

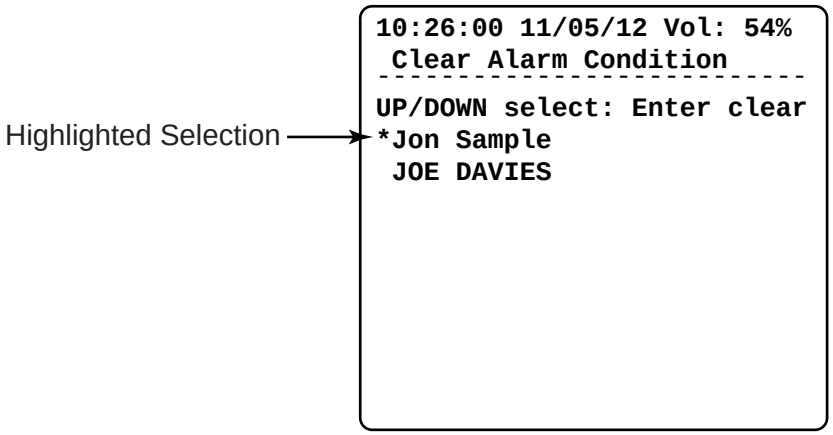
One line will be highlighted in bold and starred with an asterisk *

Use the Volume Up/Down keys to select a Sub-Menu

Press Enter/Select to open the selected Sub-Menu

To Exit this Menu page,
Press the EXIT button

Clear Alarm Condition



Entering "Clear Alarm Condition" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Clear Alarm Condition"** and press ENTER/SELECT.

Shortcut to Enter "Clear Alarm Condition" Sub-Menu:

Hold down **AUX** button and press the **MENU** button.

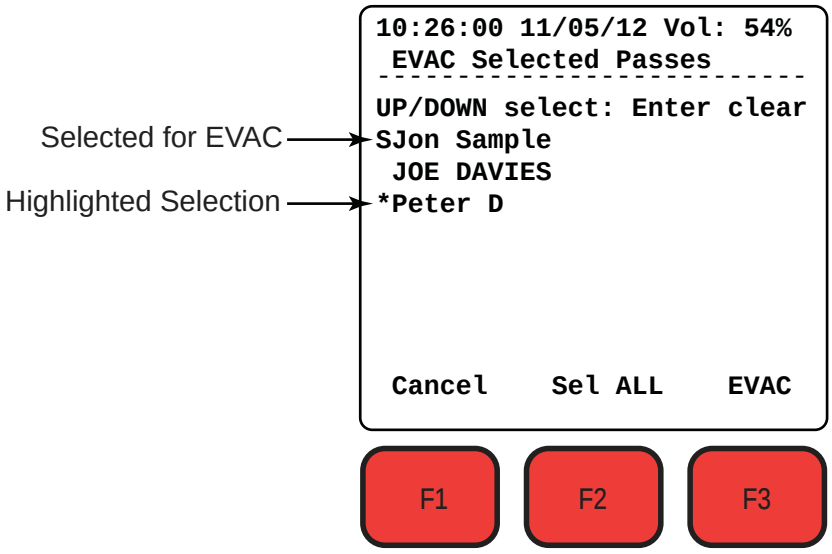
Clearing Alarm Conditions:

The Clear Alarm Sub-Menu will list all TPASS® devices with Alarm Conditions.
One line will be highlighted with an asterisk * to the left.
Use the Volume Up/Down keys to highlight/select the TPASS® device you want to clear.
Press ENTER/SELECT key to clear the selected TPASS® device from the Alarm Condition list.

NOTE: TPASS Alarm Condition can only be cleared if TPASS® device is no longer in Alarm

To Exit this Sub-Menu page,
Press the EXIT button

EVACUATING Selected Passes



Entering "EVAC Selected Passes" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"EVAC Selected Passes"** and press ENTER/SELECT.

Evacuating Selected Passes:

The EVAC Selected Passes Sub-Menu will list all ON TPASS® devices.
One line will be highlighted with an asterisk * to the left.
Use the Volume Up/Down keys to highlight the TPASS® device you want to EVAC.
Press ENTER/SELECT key to select the highlighted TPASS® device. - an "S" will appear to left of selected devices.
F1 (Cancel) clears Evac status of selected device
F2 (Sel All) selects all devices for EVAC - an "S" will appear to left of all devices.
F3 (EVAC) - When finished selecting devices - Press F3 (EVAC) to send the EVAC Signal.

EVAC Status:

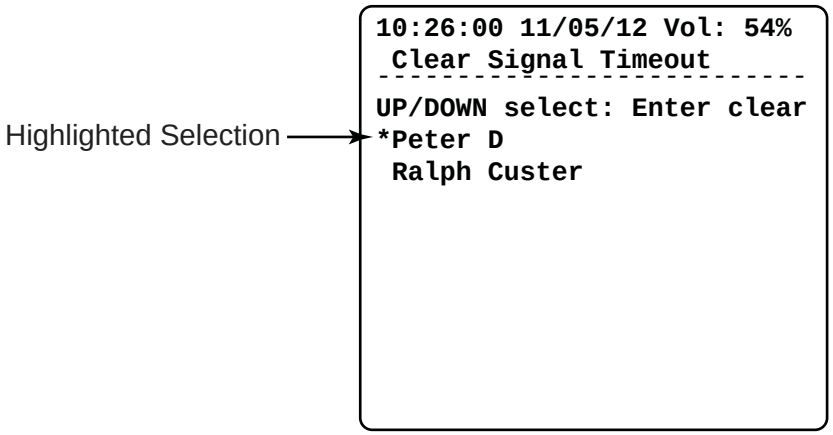
As the EVAC signal is transmitted, received and acknowledged, the EVAC Status of each TPASS® device is indicated by the following.
S - Selected for EVAC
T - Transmitting EVAC
E - Automatic Acknowledgement has been received by SMS Base
e - Manual Acknowledgement by the TPASS® user

EVAC Status is shown on the **EVAC Selected Passes** screen and on the **PASS View Screen**.

NOTE: TPASS® device can only be EVACUATED if TPASS® is ON

To Exit this Sub-Menu page,
Press the EXIT button

Clear Signal Timeout



Entering "Clear Signal Timeout" Sub-Menu:

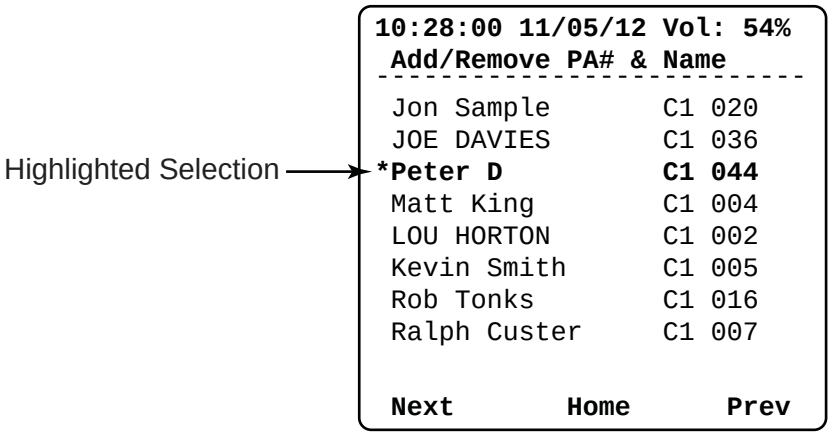
Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Clear Signal Timeout"** and press ENTER/SELECT.

Clearing Signal Timeouts:

This sub-menu will list all TPASS® devices with Signal Timeout Conditions.
One line will be highlighted with an asterisk * to the left.
Use the Volume Up/Down keys to highlight/select the TPASS® device you want to clear.
Press ENTER/SELECT key to clear the selected TPASS® device from the Signal Timeout list.

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name



Entering "Add/Remove PASS Device & Name" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.

Navigating the Sub-Menu:

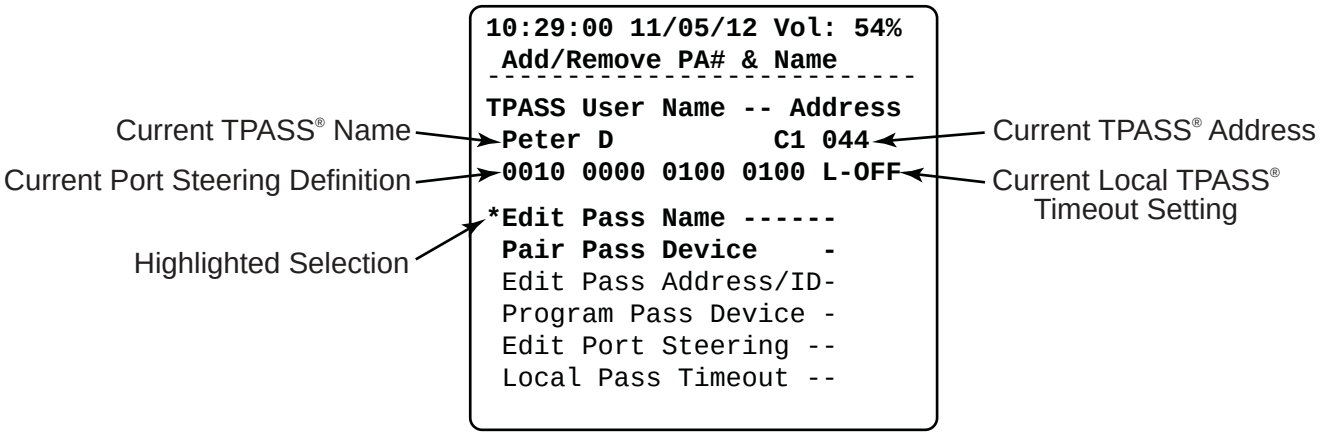
One line will be highlighted in bold and starred with an asterisk *
Use the Volume Up/Down keys to highlight/select the TPASS® device you want to edit.
Only 8 devices can be displayed on each screen.
Press the F1 key to go to the next page.
Pressing F2 will return you to the first page of devices.
Press the F3 key to go to previous page.
Press the ENTER/SELECT key to Edit the selected TPASS® device.

(**Continue to next page of this manual for instructions on Editing the selected TPASS® device)**

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name

Edit Pass Device & Name



Entering "Edit Pass Device & Name" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,

Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.

Select the desired TPASS® device and press ENTER/SELECT.

Navigating the Sub-Menu:

One line will be highlighted in bold and starred with an asterisk *

Use the Volume Up/Down keys to highlight the TPASS® Information you want to edit.

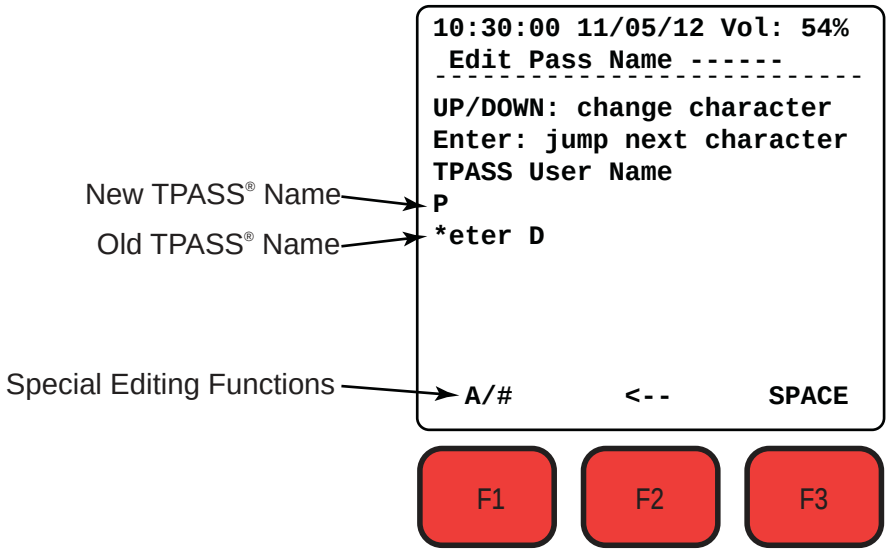
Press the ENTER/SELECT key to edit the highlighted TPASS® Information.

(Continue to next pages of this manual for instructions on editing the selected information)

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name

Edit Pass Name



Entering "Edit Pass Name" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.
Select the desired TPASS® device and press ENTER/SELECT.
Select **"Edit Pass Name"** and press ENTER/SELECT.

Editing the TPASS® Name:

To change the TPASS® Name, you must edit each individual character.
The asterisk (*) denotes the character you are currently editing.
Use the Volume Up/Down keys to change the character.
Press ENTER/SELECT to select the chosen character and move on to the next character space.

The Function keys F1-F3 will allow special editing functions.

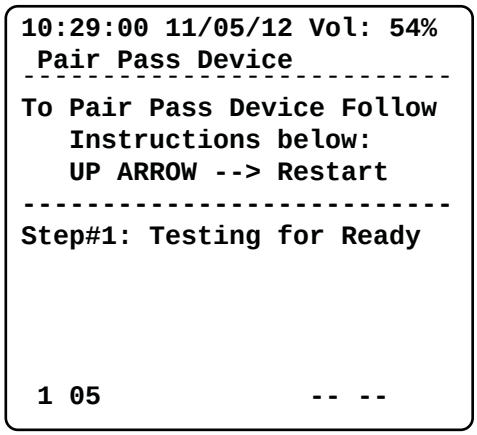
- **F1 --** To change between Character Mode (A-Z) and # Mode (0-9).
- **F2 --** Is Backspace and will allow you to edit a character you have already entered.
- **F3 --** Places a space in the name and when finished entering the name, can be used to fill the remaining characters with spaces.

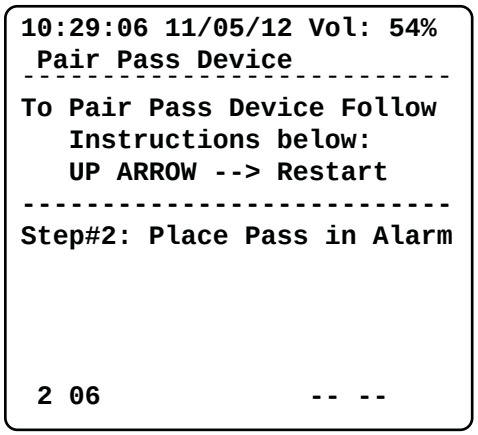
Once you have filled all 16 character spaces you are done and can exit by pressing EXIT.

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name

Pair Pass Device





Entering "Pair Pass Device" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.
Select the desired TPASS® device and press ENTER/SELECT.
Select **"Pair Pass Device"** and press ENTER/SELECT.

To Pair a Pass Device with the SMS Base:

Step#1: Testing for Ready

Before pairing a Pass device, the SMS Base will display **"Step#1: Testing for Ready"** while it checks the area for Alarms.

If **"Error: Detecting Alarms"** appears on LCD Display, find and **clear** any Pass devices in Alarm in the immediate area.

When Step #1 is successful, the SMS Base will move on to Step #2

Step#2: Place Pass in Alarm

When SMS Base displays **"Step#2: Place Pass in Alarm"** - manually press the Alarm Button on the Pass device.

If **"Error: Alarm Not Detected"** appears, clear Alarm by simultaneously pressing both side buttons on the Pass device, then press Up on the SMS Base to restart with Step #1.

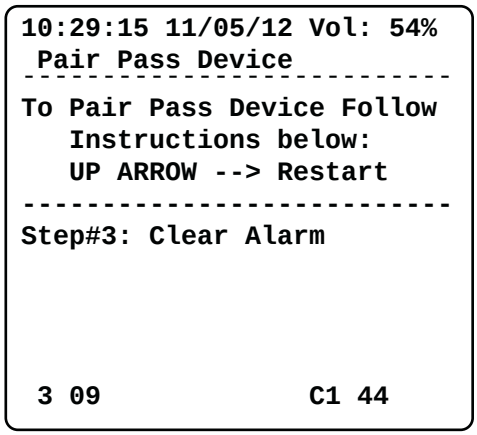
NOTE: *The SMS Base will indicate an Alarm Condition and this error will occur if you are attempting to pair a device that is already paired with the SMS Base*

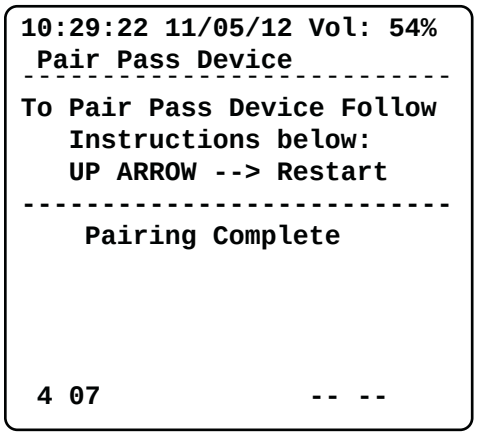
When Step #2 is successful, the SMS Base will move on to Step #3

(Continued on next page)

Add/Remove PASS Device & Name

Pair Pass Device





Pair Pass Device (continued):

Step#3: Clear Alarm

When SMS Base displays **“Step#3: Clear Alarm”**, simultaneously press both side buttons of the Pass device to clear the Alarm.

If **“Error: Alarm Still Detected”** appears, make sure there are no other Pass devices in Alarm in the immediate area. Clear any Alarms and press Up on the SMS Base to restart at Step #1.

Pairing Complete

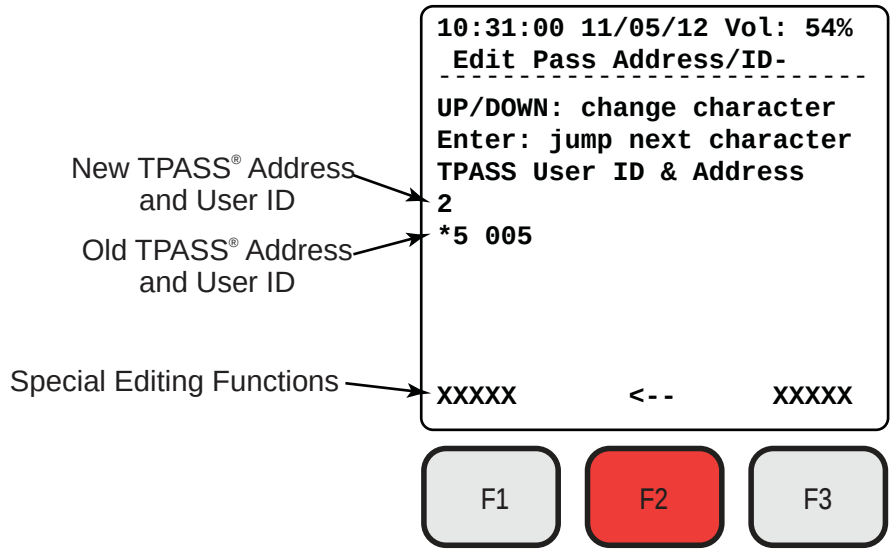
When Step #3 is successful, the SMS Base will display **“Pairing Complete”**.

The Pass device is now paired with the SMS Base.

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name

Edit PASS Address & User ID



Entering "Edit Pass Address/ID" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.
Select the desired TPASS® device and press ENTER/SELECT.
Select **"Edit Pass Address/ID"** and press ENTER/SELECT.

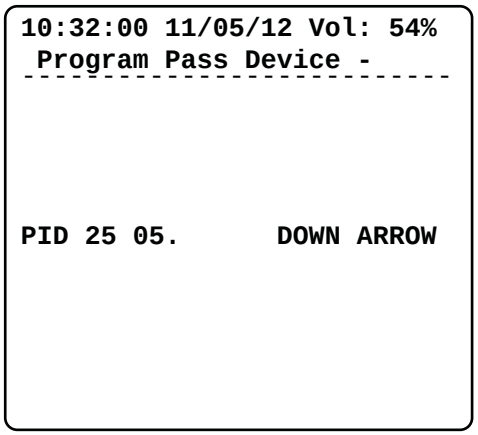
Editing the TPASS® Address and User ID:

To change the TPASS® Address and User ID, you must edit each individual digit.
The asterisk (*) denotes the character you are currently editing.
Use the Volume Up/Down keys to change the character.
The F2 key is Backspace and will allow you to edit a character you have already entered.
Press ENTER/SELECT to select the chosen character and move on to the next character space.
Once you have filled all spaces you are done and can exit by pressing EXIT.

NOTE: User ID is entered in hex (0-9, A-F)
TPASS® Address is decimal (0-9)

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name
Program PASS Device



Entering "Program Pass Device" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.
Select the desired TPASS® device and press ENTER/SELECT.
Select **"Program Pass Device"** and press ENTER/SELECT.

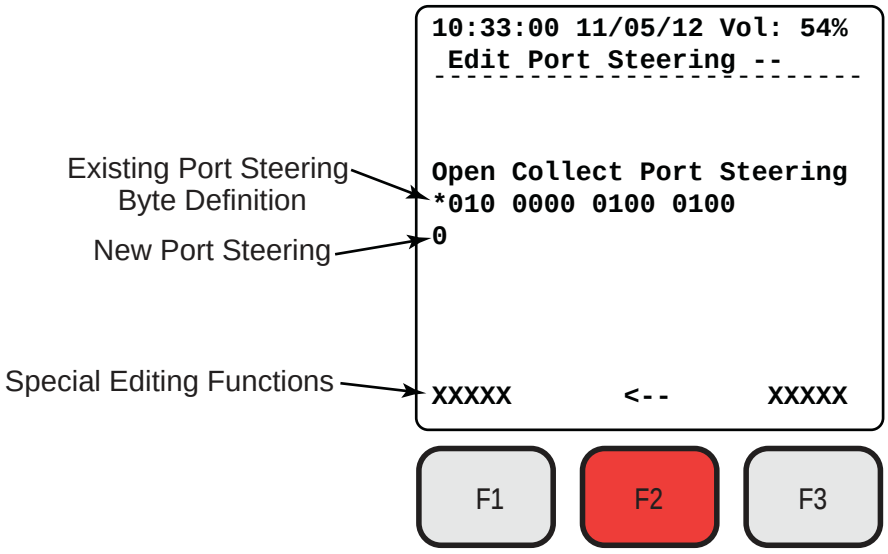
To Program PASS Device:

1. Turn PASS device ON and place within one (1) foot of the SMS Base.
2. Ensure NO other PASS devices are ON and within 6' of the SMS Base - this prevents inadvertent reprogramming of those devices.
3. Press the Volume Down key.
4. PASS device should beep within a second, denoting it has received the updated address.
5. If PASS device does not beep - press the Volume Down key again.

NOTE: After PASS device is programmed - cycle power to the PASS device (turn OFF, then turn back ON) to verify the newly progammed PASS connects with the SMS Base.

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name
Edit Port Steering



Entering "Edit Port Steering" Sub-Menu:

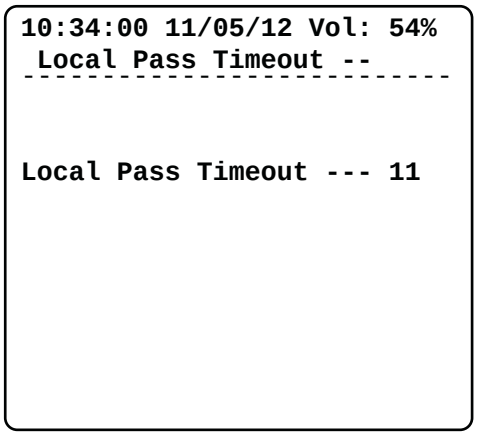
Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.
Select the desired TPASS® device and press ENTER/SELECT.
Select **"Edit Port Steering"** and press ENTER/SELECT.

Editing the Port Steering:

To change the port steering, you must edit each of the 16 bits.
The asterisk (*) denotes the character you are currently editing.
Use the Volume Up/Down keys to change the bit.
The F2 key is Backspace and will allow you to edit a bit you have already entered.
Press ENTER/SELECT to select the chosen bit and move on to the next bit.
Once you have filled all 16 bits, you are done and can exit by pressing EXIT.

To Exit this Sub-Menu page,
Press the EXIT button

Add/Remove PASS Device & Name
Local PASS Timeout



Entering "Local Pass Timeout" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Add/Remove PA# & Name"** and press ENTER/SELECT.
Select the desired TPASS® device and press ENTER/SELECT.
Select **"Local Pass Timeout"** and press ENTER/SELECT.

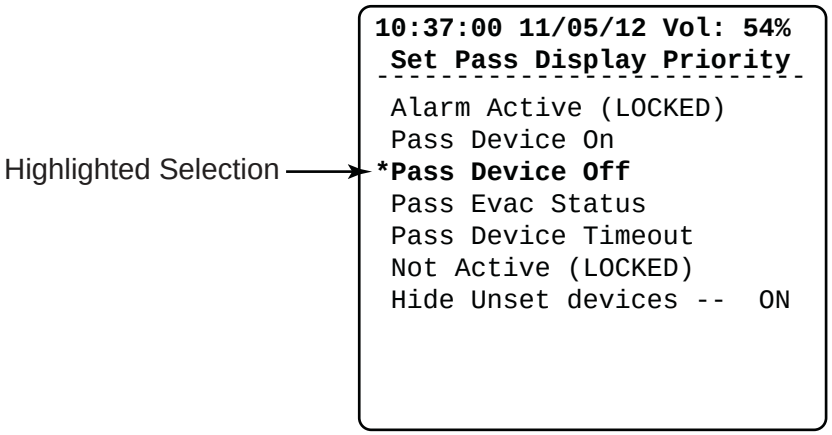
Editing the Local PASS Timeout Setting:

To change the PASS Timeout:

Use the Volume Up/Down keys to select the desired Timeout (in minutes).
Setting the value to zero (0) turns Local Timeout Off for this PASS device.
PASS with a 0/OFF Local Timeout will use the Global Timeout value.

To Exit this Sub-Menu page,
Press the EXIT button

Set PASS Display Priority



Entering "Set Pass Display Priority" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Set Pass Display Priority"** and press ENTER/SELECT.

Set PASS Display Priority:

Note: This menu controls the order PASS devices are displayed in the PASS View Screen.
PASS device status can be rearranged to highest or lowest priority.
Active Alarm is locked into the top priority position.
Not Active and Hide Unset Devices are locked into the lowest priority positions.

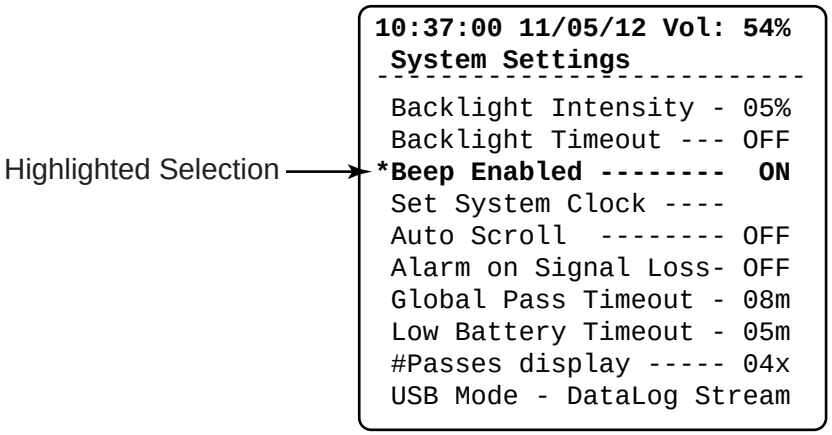
Active Alarm: PASS devices in ALARM (is always the top display priority).
PASS Device On: PASS devices ON and communicating with SMS Base
PASS Device Off: PASS devices OFF and communicating with SMS Base
PASS Device Timeout: Communication between device and SMS Base has timed out
Pass Evac Status: EVAC Status of PASS device (Selected, Transmitting and Acknowledged).
Not Active: Username and ID is programmed into SMS Base but not active.
Hide Unset Devices: Hide PASS devices in list that have a * (star) as first character of their name

To change PASS Display Priority:

Use the Volume Up/Down keys to highlight/select the priority you want to edit.
Press ENTER/SELECT to edit the selected priority
Use Volume Up/Down keys to move selection Up or Down on the list.
Press exit to set new priority
Use Volume Up/Down keys to set Hide Unset Devices to On or Off.

To Exit this Sub-Menu page,
Press the EXIT button

System Settings



Entering "System Settings" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"System Settings"** and press ENTER/SELECT.

System Settings:

Backlight Intensity: (Off - 100%)

Controls brightness of LCD Backlight.

Backlight Timeout: (Off, 1-30 seconds)

Power saving feature. Turns Backlight Off after set time of no SMS Base buttons being pressed.
Backlight Timeout Off will mean the Backlight stays On as long as the SMS Base is turned ON.

Beep Enabled: (On / Off)

Enables beep during key presses and status changes.

Set System Clock:

Edit System Time and Date.

Auto Scroll: (Off, 1-20 seconds)

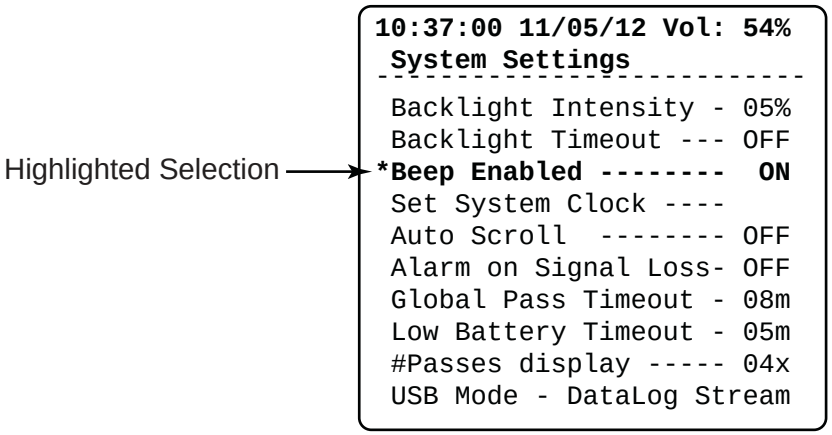
Enables auto-scrolling of PASS View display pages. Sets how frequently the pages scroll.

Alarm on Signal Loss: (On / Off)

Enabling causes Global Alarm when a PASS device signal is lost.

(Continued on next page)

System Settings
(continued)



System Settings (continued):

Global PASS Timeout: (minutes)

Sets the maximum time/minutes allowed for a PASS to not communicate with the SMS Base before being declared disconnected.

Low Battery Timeout: (minutes)

How long the SMS Base will run on a Low Battery before automatically turning SMS Base OFF

#Passes display: (2, 4, 6, or 8)

Sets the default number of units to display in PASS View screen when SMS Base is turned ON

USB Mode: Defines the mode the USB port will operate in

No Data -- USB Disabled

Receiver Data -- outputs receiver serial messages to the USB port

DataLog Stream -- outputs data being received as it is stored on the system DataLogger

DataLogger Data -- download DataLogger data

System Config -- communicate with SMS PC config tool for system setup

To change System Settings:

Use the Volume Up/Down keys to highlight/select the setting you want to edit.

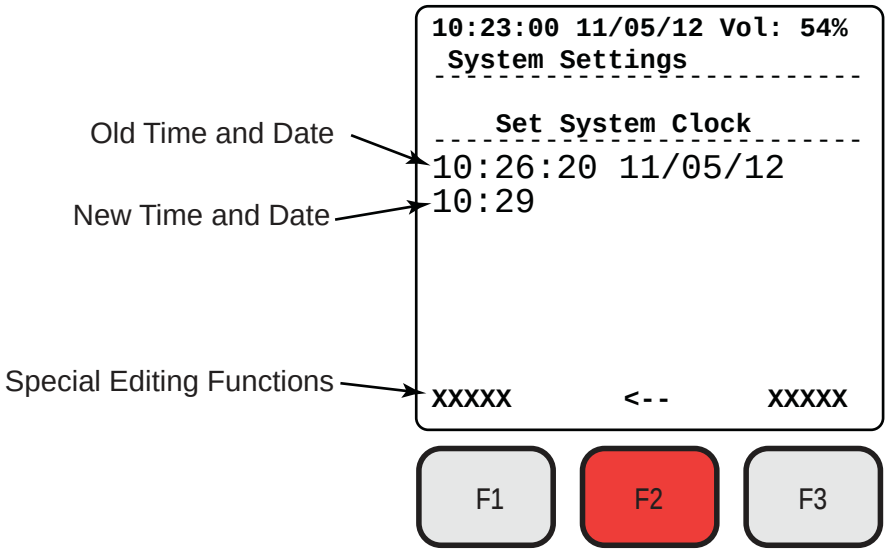
Press ENTER/SELECT to edit the selected setting.

Use Volume Up/Down keys to change the setting and press exit to confirm the new setting.

NOTE: See next page for details on Setting System Clock.

To Exit this Sub-Menu page,
Press the EXIT button

System Settings
Set System Time and Date



Entering "System Settings" Sub-Menu:

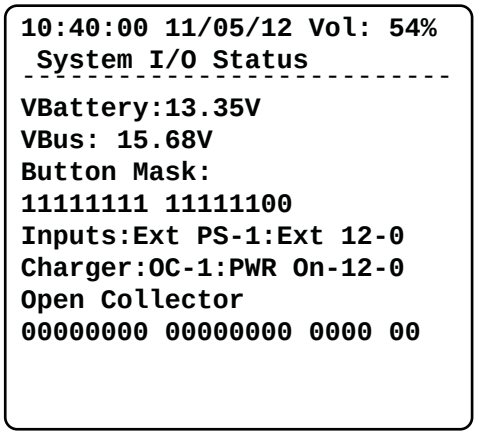
Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"System Settings"** and press ENTER/SELECT.
Select **"Set System Clock"** and press ENTER/SELECT.

Editing the System Time and Date:

To change the time and date, you must edit the hour/minutes/seconds and month/day/year.
Use the Volume Up/Down keys to change the number.
Press ENTER/SELECT to select the chosen number and move on to the next space.
The F2 key is Backspace and will allow you to edit a number you have already entered.
Once you have completed the time and date, you are done and can exit by pressing EXIT.

To Exit this Sub-Menu page,
Press the EXIT button

System I/O Status



Entering "System I/O Status" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,

Select **"System I/O Status"** and press ENTER/SELECT.

System I/O Status:

VBattery:

Displays the internal battery voltage

If SMS Base is plugged in, this line will display the charging voltage.

VBus:

Display of Bus (control voltage) the SMS Base is running on. This will be from 1 of 3 sources:

AC line power -- Bus will display the power supply's output

External 12 VDC batter power

Internal SMS Base battery

Button Mask:

Displays the state of front panel buttons

Note: the last two positions will always be 00

Inputs: 1 = detected, 0 = disconnected

Ext PS: AC Line power detected

Ext 12: External 12 VDC supply detected

OC-1: Internal Battery Charge 90%+

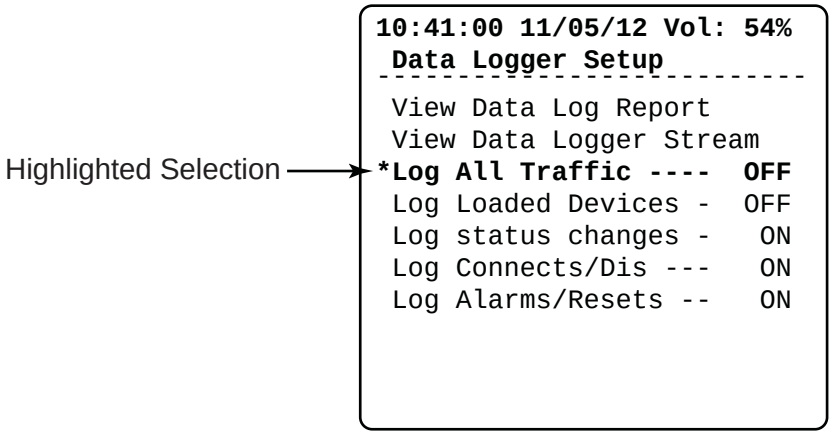
PWR On-12: operating on internal battery

Open Collector:

Displays the bit status of the 16 open collector outputs.

To Exit this Sub-Menu page,
Press the EXIT button

Data Logger Setup



Entering "Data Logger Setup" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu,
Select **"Data Logger Setup"** and press ENTER/SELECT.

Data Logger Setup:

View Data Log Report:

View datalogger data

View Data Logger Stream:

View data stream as it is stored into the data logger

Log All Traffic:

Enables logging of all TPASS® radio traffic to the data logger.
NOTE: Enabling this feature will fill the data logger quickly - use only if neccessary.

Log Loaded Devices:

Enables logging of all TPASS® radio traffic from TPASS® devices programmed to SMS Base.
NOTE: Enabling this feature will fill the data logger quickly - use only if neccessary.

Log Status Changes:

Logs any status/state-change of a programmed TPASS® device.

Log Connects / Disconnects:

Logs any time a programmed TPASS® device Disconnects or Connects to the SMS Base.

Log Alarms / Resets:

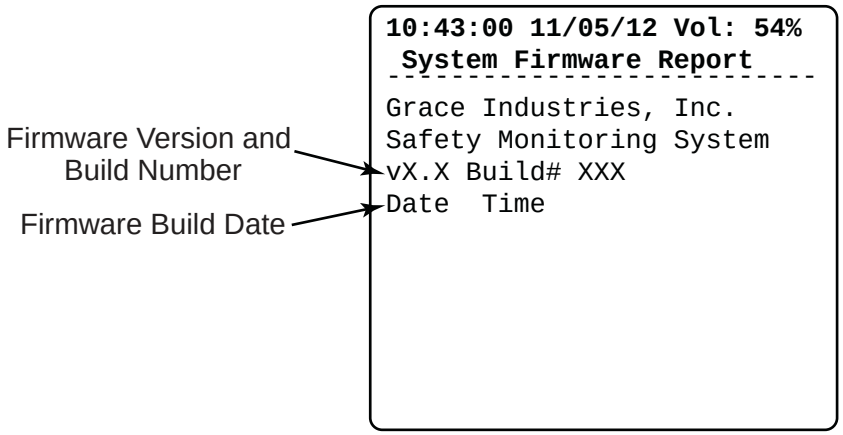
Logs any time a programmed TPASS® device goes into or is reset from an Alarm condition.

To change settings:

Use the Volume Up/Down keys to highlight/select the setting you want to edit.
Press ENTER/SELECT to edit the selected setting.
Use Volume Up/Down keys to change the setting and press exit to confirm the new setting.

To Exit this Sub-Menu page,
Press the EXIT button

System Firmware



Entering "System Firmware" Sub-Menu:

Pressing Menu (from the PASS View Screen) will open the Main Menu, Select **"System Firmware"** and press ENTER/SELECT.

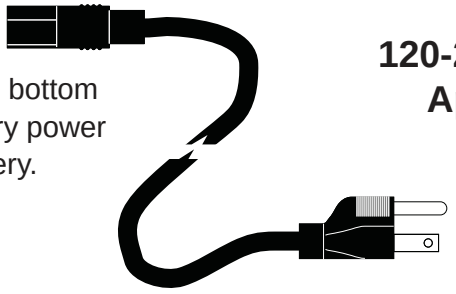
System Firmware:

Firmware version and build number

Firmware build date

To Exit this Sub-Menu page,
Press the EXIT button

Auxiliary Components
Power Cords and Relay Options Cord



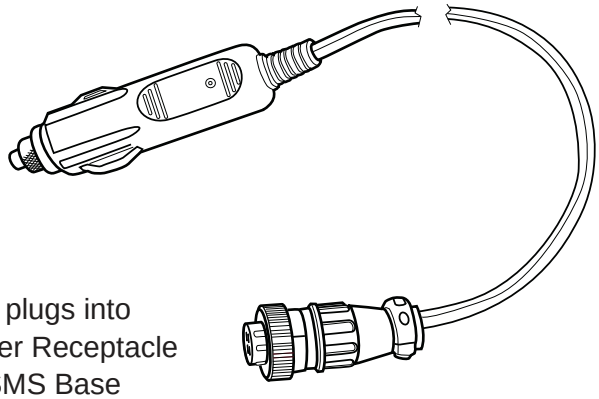
Plug into power receptacle on bottom of SMS Base to supply auxiliary power and charge internal battery.

120-240 Volt AC Power Cord
Approximately 6' Long

Plug into 120-240 VAC outlet for power. Also used for charging internal battery.

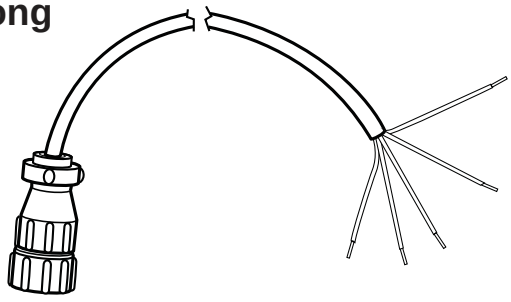
12 Volt DC Adapter Cord
Approximately 46" Long

Plug into 12VDC vehicle power adapter/outlet



2 Pin connector plugs into 2-Pin Auxiliary Power Receptacle on bottom of SMS Base

Relay Options Cord
Approximately 10' Long



5 Pin connector plugs into 5-Pin Auxiliary Power Receptacle on bottom of SMS Base

Auxiliary 5 Pin Receptacle Outputs

Max 12V 5Amp
- Pin 1: Relay Normally Open ..... Green
- Pin 2: Relay Common ..... White
- Pin 5: Relay Normally Closed ... Orange

12V 1Amp Fused on Alarm
- Pin 3: +12 volts DC Output ..... Red
- Pin 7: Ground ..... Black

TPASS® 3 Rechargeable

Two-way Emergency Signaling Personal Safety Alarm

TPASS® 3 Rechargeable is a two-way signaling, man-down alarm which transmits and receives encrypted signals for reliable and secure operation. Protection provided by intrinsic safety certification allows for use in almost any hazardous environment. The **TPASS® 3 Rechargeable** is compatible with existing Grace Industries' Telemetry Systems.

TPASS® 3 Specifications

- **Dimensions:** 2-1/8" wide, 2-1/4" deep (with clip), 5" high (with antenna).
- **Weight:** 7.3 ounces.
- **Alarm Audio Output:** Approximately 92 dBA @ 10 feet.
- **Case:** Rugged, high temperature, impact resistant, translucent, Apache Yellow polycarbonate.
- **Methods of Attachment:** Rugged Grip Clip and D-ring for versatility in attaching to clothing.
- **Antenna:** Small, rugged and replaceable.
- **Radio Frequency:** 902-928MHz, License Free Spread Spectrum.
- **Battery:** Intrinsically safe Lithium-ion.
- **Battery Life:** Estimated 80 hours in Sensing mode or 4 to 6 hours in Alarm mode.
- **Battery Charging:** 6 to 8 hours at 12VDC or 120 VAC
- **Certifications:**
  Intrinsically Safe, Sécurité Intrinséque.
  CE 1258. TRAC11ATEX1129X. -40°C < TA < 40°C Um(max) 250VAC
  IP67
  FCC ID: J5XT3HEP -- Meets FCC Part 15
  IC: 5916A-T3HEP -- Complies with Canadian ICES-003

TPASS® LTX200 Rechargeable

One-way Emergency Signaling Personal Safety Alarm

TPASS® LTX200 Rechargeable is a one-way signaling, man-down alarm which transmits encrypted signals for reliable and secure operation. Protection provided by intrinsic safety certification allows for use in almost any hazardous environment. The **TPASS® LTX200 Rechargeable** is compatible with existing Grace Industries' Telemetry Systems.

TPASS® LTX200 Specifications

- **Dimensions:** 2-1/8" wide, 2-1/4" deep (with clip), 5" high (with antenna).
- **Weight:** 7.3 ounces.
- **Alarm Audio Output:** Approximately 92 dBA @ 10 feet.
- **Case:** Rugged, high temperature, impact resistant, translucent, Apache Orange polycarbonate.
- **Methods of Attachment:** Rugged Grip Clip and D-ring for versatility in attaching to clothing.
- **Antenna:** Small, rugged and replaceable.
- **Radio Frequency:** 902-928MHz, License Free Spread Spectrum.
- **Battery:** Intrinsically safe Lithium-ion.
- **Battery Life:** Estimated 80 hours in Sensing mode or 4 to 6 hours in Alarm mode.
- **Battery Charging:** 6 to 8 hours at 12VDC or 120 VAC
- **Certifications:**
  Intrinsically Safe, Sécurité Intrinséque.
  CE 1258. TRAC11ATEX1129X. -40°C < TA < 40°C Um(max) 250VAC
  IP67
  FCC ID: J5XT3HEP -- Meets FCC Part 15
  IC: 5916A-T3HEP -- Complies with Canadian ICES-003

SuperCELL® SC500

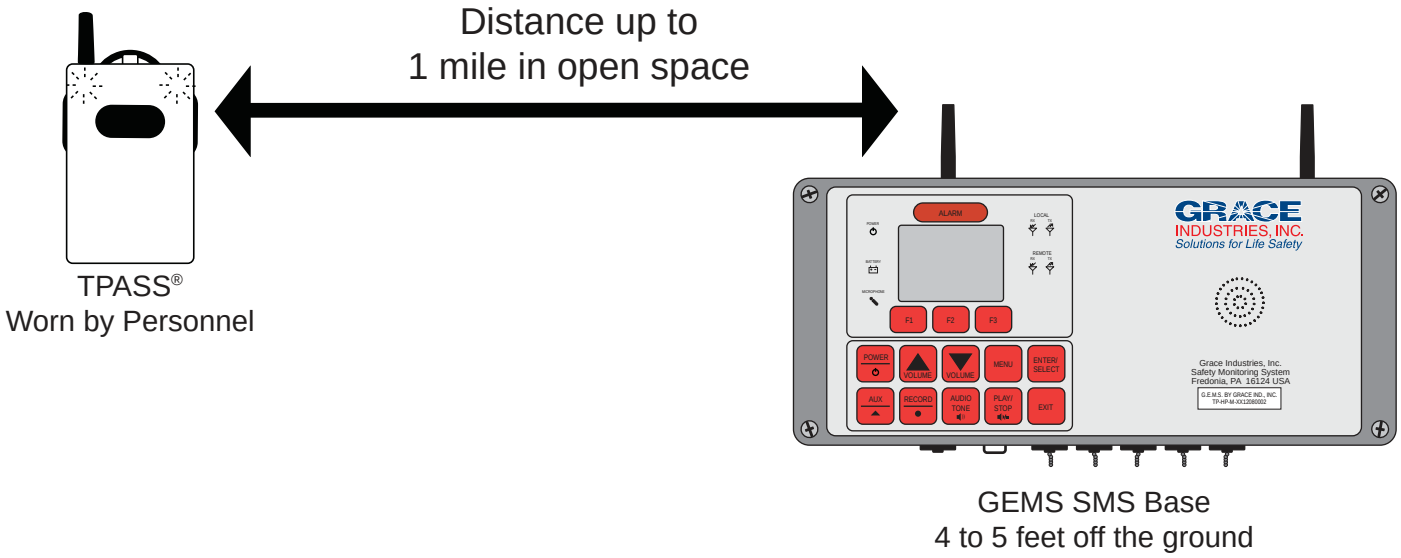
Two-way Emergency Signaling Personal Safety Alarm

SuperCELL® SC500 is a two-way signaling, man-down alarm which transmits and receives encrypted signals for reliable and secure operation. Protection provided by intrinsic safety certification allows for use in almost any hazardous environment. The **SuperCELL® SC500** is compatible with existing Grace Industries' Telemetry Systems.

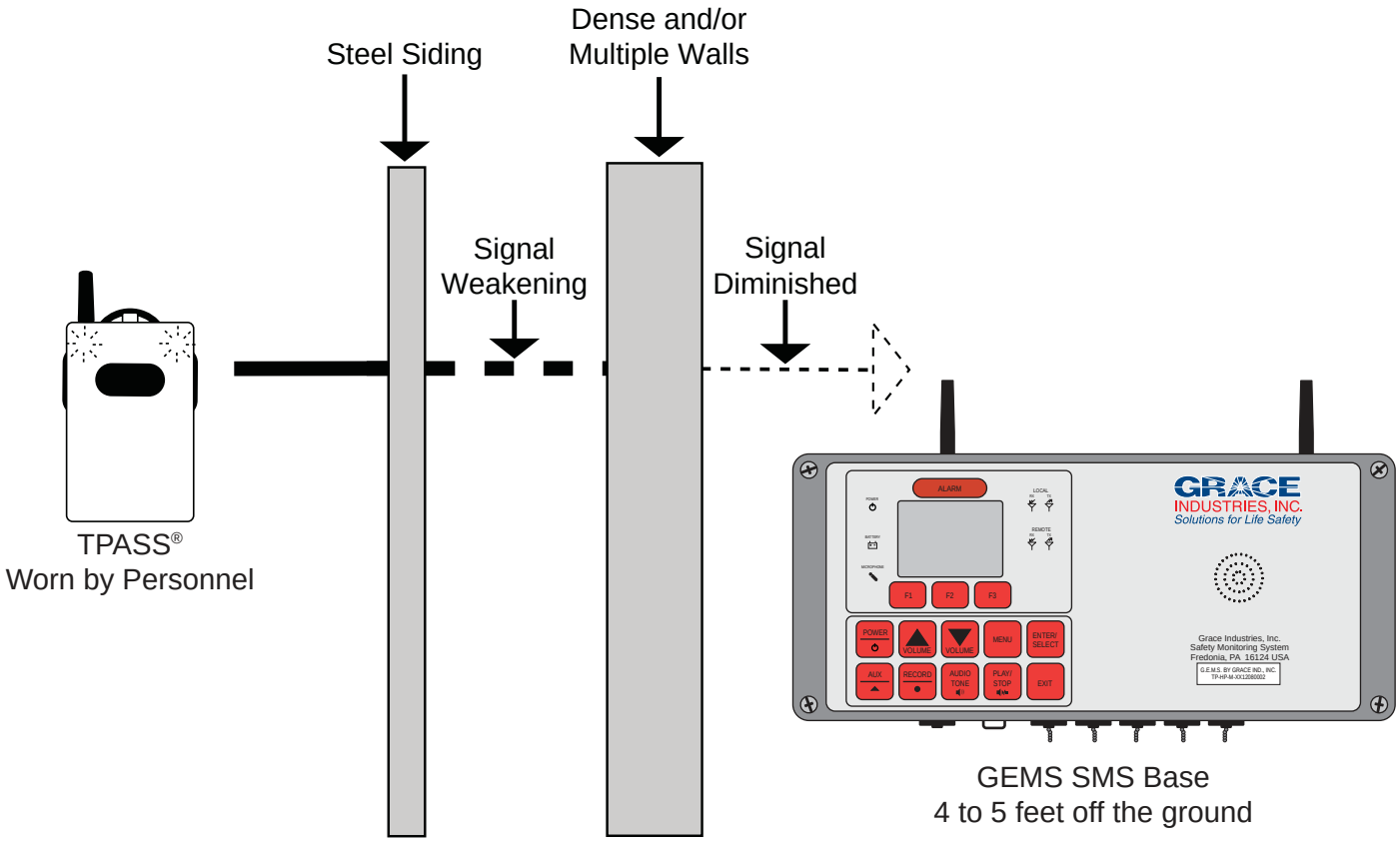
SuperCELL® SC500 Specifications

- **Dimensions:** 2-3/16" wide, 1-3/8" deep (without clip), 5" high (with antenna).
- **Weight:** 5.6 ounces.
- **Alarm Audio Output:** 75 dBA @ 10 feet.
- **Case:** Black polycarbonate, rugged, impact resistant.
- **Attachment:** Multi-directional Belt Clip for versatility.
- **Antenna:** Small, rugged and replaceable.
- **Radio Frequency:** 902-928MHz, License Free Spread Spectrum.
- **Battery:** Integrated, intrinsically safe Lithium-ion battery.
- **Battery Life:** Estimated 80 hours in Sensing mode.
- **Battery Charging:** 6 to 8 hours at 12VDC or 120 VAC
- **Certifications:**
  Intrinsically Safe per ANSI/UL913. For use in Class 1, Groups A, B, C & D; and Class II, Groups E, F, G: Division 1 Hazardous locations. Operating Temperature Code T6. IP67.
  FCC ID: J5XT3HEP -- Meets FCC Part 15
  IC: 5916A-T3HEP -- Complies with Canadian ICES-003

Understanding System Abilities



Signal/Distance will be reduced as more obstacles are added



T3 Repeater Option

The T3 Repeater is a system option designed to enhance signal effectiveness in challenging environments by retransmitting signals to and from tough and hard-to-reach areas. The T3 Repeater retransmits signals from the SMS Base to the TPASS® and from the TPASS® to the SMS Base. The T3 Repeater is omni-directional, enclosed in an industrial grade case and is permanently mounted. The T3 Repeater is powered by 120 Volt A.C., with a lead acid battery backup system.

Repeater Operation

Once the repeater has been prepared for AC power, the unit may be plugged in. The Amber AC Power Indicator glows indicating the system has power and is ready for operation.

A Red Activity Indicator light is located on the bottom left of the repeater. The Activity Indicator will flash when signals are received from a TPASS® or the SMS Base and are retransmitted. Operation may be checked by manually activating a TPASS® and watching the Activity Indicator light on the bottom of the repeater for flashes.

Backup Power Supply

The lead acid battery system will automatically provide approximately 50 hours of continuous operation with the loss of 120 Volt A.C. With loss of power, the Amber AC Power Indicator will not glow. The backup battery system is automatically activated keeping the repeater ON and ready for operation. The Red Activity Indicator will flash as signals are received and transmitted.

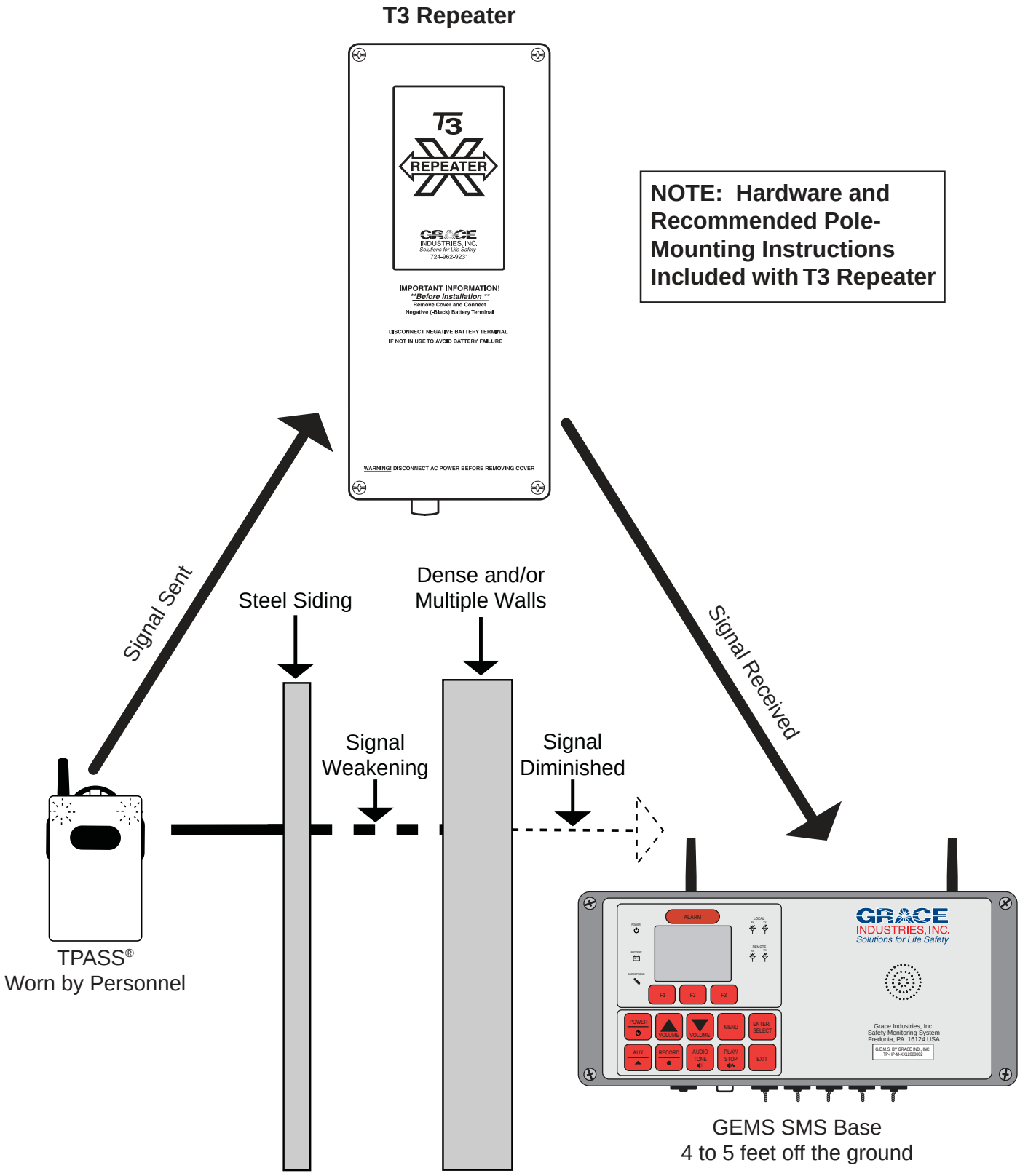
Always test System for Proper Operation Before Field Use

T3 Repeater Specifications

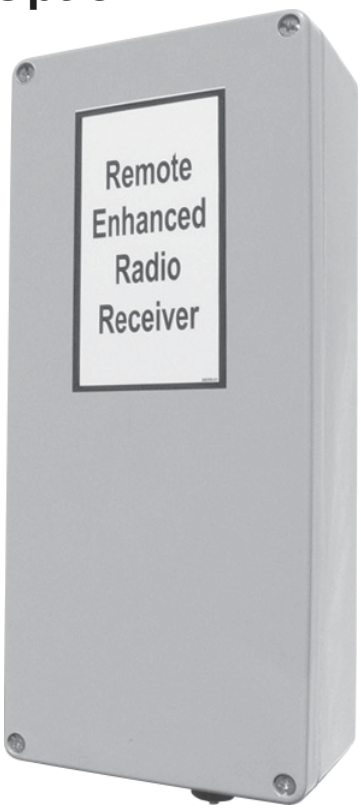
- Case: Rugged, industrial grade, waterproof enclosure
- Case Dimensions: 6.5" Wide x 14.25" High x 4" Deep
- Color: Medium gray
- Weight: 10 Lbs. (without cable and mounting brackets)
- Power Requirements: 120 Volt A.C.
- Receiver Type: Frequency hopping spread spectrum
- Operating Frequency: 902 - 928 MHz
  FCC ID: J5XT3HEP -- Meets FCC Part 15
  IC: 5916A-T3HEP -- Complies with Canadian ICES-003
- Operating Environment: 0 to 140 degrees Fahrenheit
- Antennas: 3.5" Internal
- Compatible Equipment: GEMS SMS Base
- Dual Mounting Brackets for Recommended Pole Mounting

T3 Repeater Option
(continued)

T3 Repeater will retransmit the signal and enhance system ability in challenging environments



Remote Enhanced Radio Receiver Option



The Remote Enhanced Radio Receiver may provide a significant enhancement to signal reception in tough or hard-to-reach areas, enabling the SMS Base to operate more effectively and provide better service.

Receiver Setup

For optimum performance, mount the Remote Enhanced Radio Receiver as high as possible and away from metallic objects.

The Remote Enhanced Radio Receiver may be mounted up to 100 feet above SMS Base. This allows for easier, unobstructed reception of signals.

The SMS Base must be OFF when connecting the enhanced receiver. The Remote Enhanced Radio Receiver quickly and easily plugs into bottom of SMS Base.

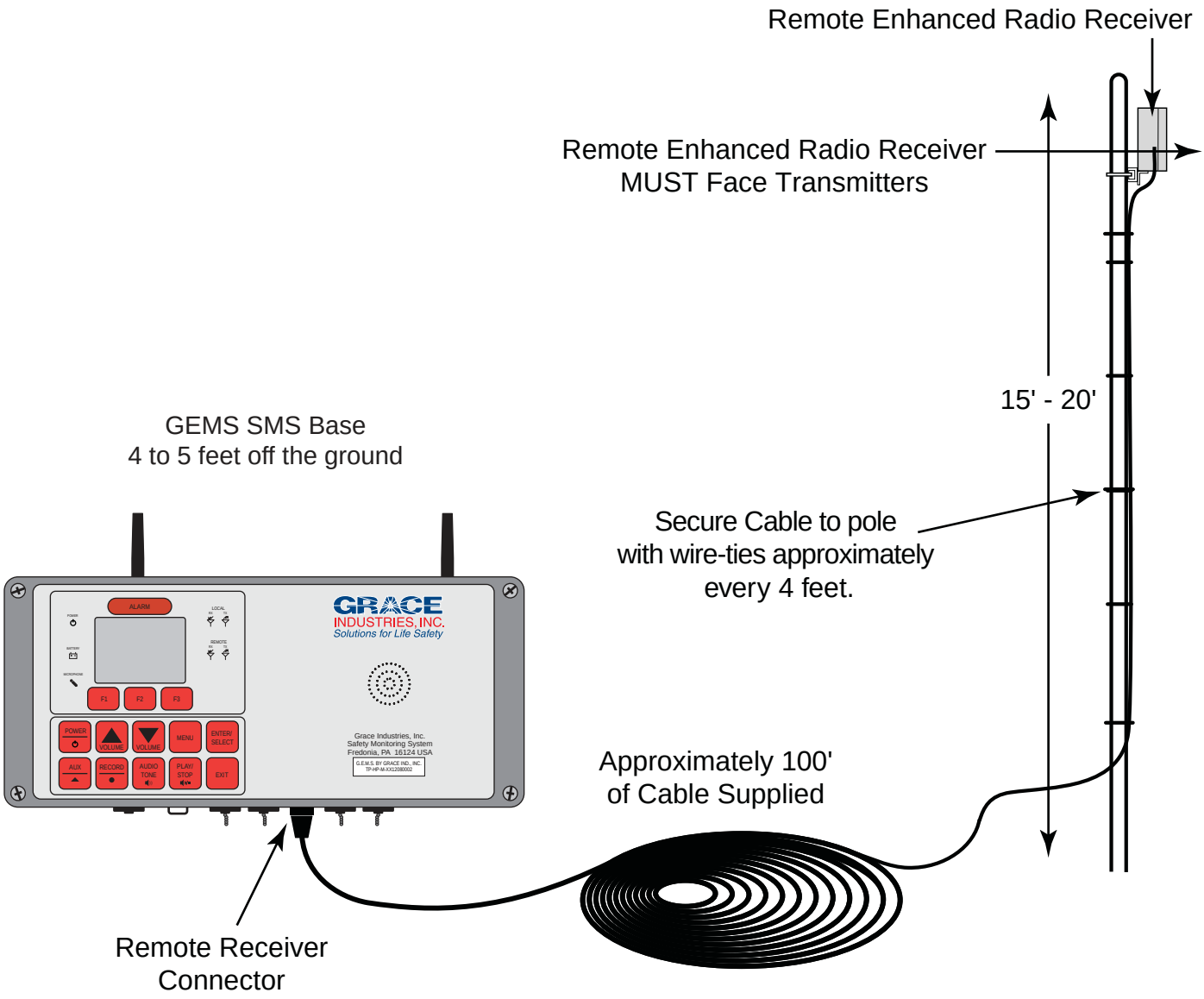
Once connected, turn the SMS Base ON and the Remote Enhanced Radio Receiver is operational. The Remote Enhanced Radio Receiver should always be used with the SMS Base for maximum effectiveness.

Always test System for Proper Operation Before Field Use

Remote Enhanced Radio Receiver Specifications

- Case: Rugged, industrial grade, waterproof enclosure
- Case Dimensions: 6.5" Wide x 14.25" High x 4" Deep
- Color: Medium gray
- Weight: 1 lb, 9 oz. (without cable and mounting brackets)
- Power Requirements: Power supplied from SMS Base
- Receiver Type: Frequency hopping spread spectrum
- Operating Frequency: 902 - 928 MHz
  FCC ID: J5XT3HEP -- Meets FCC Part 15
  IC: 5916A-T3HEP -- Complies with Canadian ICES-003
- Operating Environment: 0 to 140 degrees Fahrenheit
- Antennas: 3.5" Internal
- Compatible Equipment: GEMS SMS Base
- 100 ft Cable
- Mounting Bracket

Remote Enhanced Radio Receiver Option
(continued)



Connect the Remote Enhanced Radio Receiver to the SMS Base BEFORE turning the SMS Base ON

NOTE: Hardware and Recommended Pole-Mounting Instructions Included with Remote Enhanced Radio Receiver

Locator Beacon

Personnel may be located by deploying wireless Locator Beacons throughout buildings. The Locator Beacon is a compact signaling device that transmits a location code to a SuperCELL® SC500 when the user is in range of the beacon.

Once updated with a location code from teh Locator Beacon, all SuperCELL® transmissions will contain the last Location Code received, thus providing location to a SMS Base.

Always test System for Proper Operation Before Field Use

Locator Beacon Specifications

- Models: LT100-H-L and LT100-H-EP
- Size: 5-3/4" x 2-5/8" x 1-5/8" deep.
- Weight: 9.2 ounces (260 grams).
- Battery Power Input: 3.6 VDC, D-size LIthium Battery.
- External Power Input: 12 VDC (regulated +/-5%).
  - Provided wall plug power supply is for indoor use only -
- Frequency Range: 902 - 928 MHz
  FCC ID: J5XT3HEP -- Meets FCC Part 15
  IC: 5916A-T3HEP -- Complies with Canadian ICES-003
- Compatibility: Grace Radio-H personal safety products and SMS-H.
- Case Rating: To maintain the case's UL rating, all openings must be covered with rated equipment. Cover screws must be torqued 8 in-lbs.

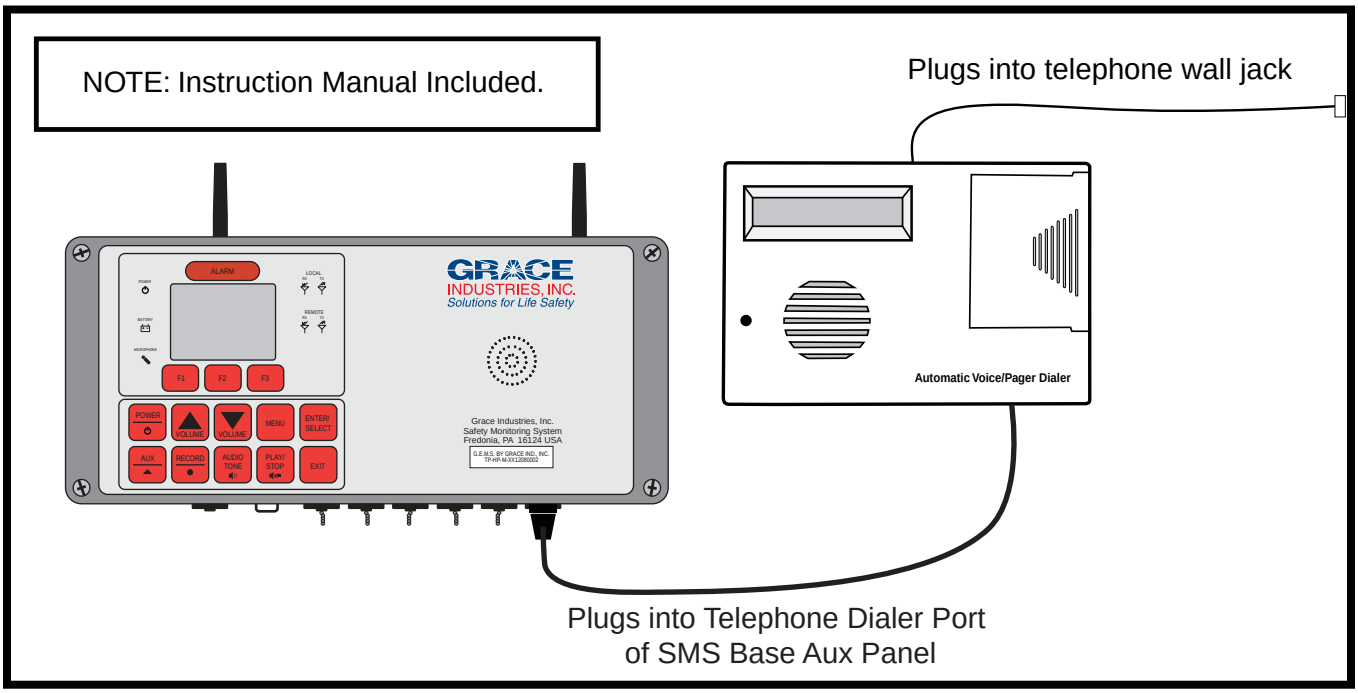
Programmable Telephone Dialer Option

6’ Telephone Jack Cable: Plugs Into Automatic Telephone Dialer and Telephone Wall Jack

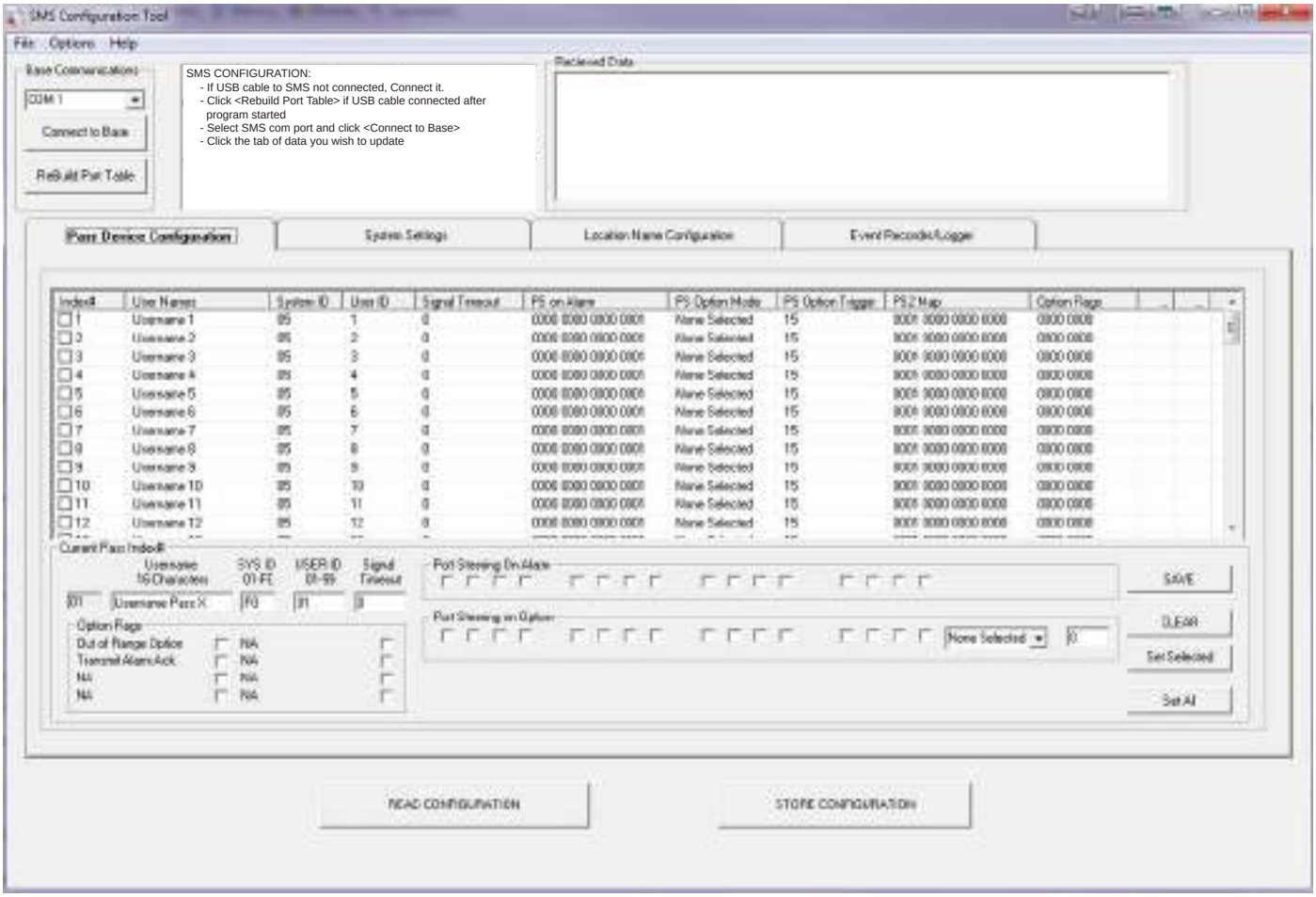
Automatic Telephone Dialer

10’ Cable with 5-pin connector that plugs into Telephone Dialer Port of SMS Base Aux Panel

NOTE: Instruction Manual Included.



Appendix A - SMS Configuration Tool



SMS Base Configuration

Connect SMS Base to PC:

1. Connect USB cable to PC Computer and SMS Base
2. Click Rebuild Port Table if SMS Configuration Tool is started before attaching USB cable
3. Select SMS Base com port and click Connect to Base

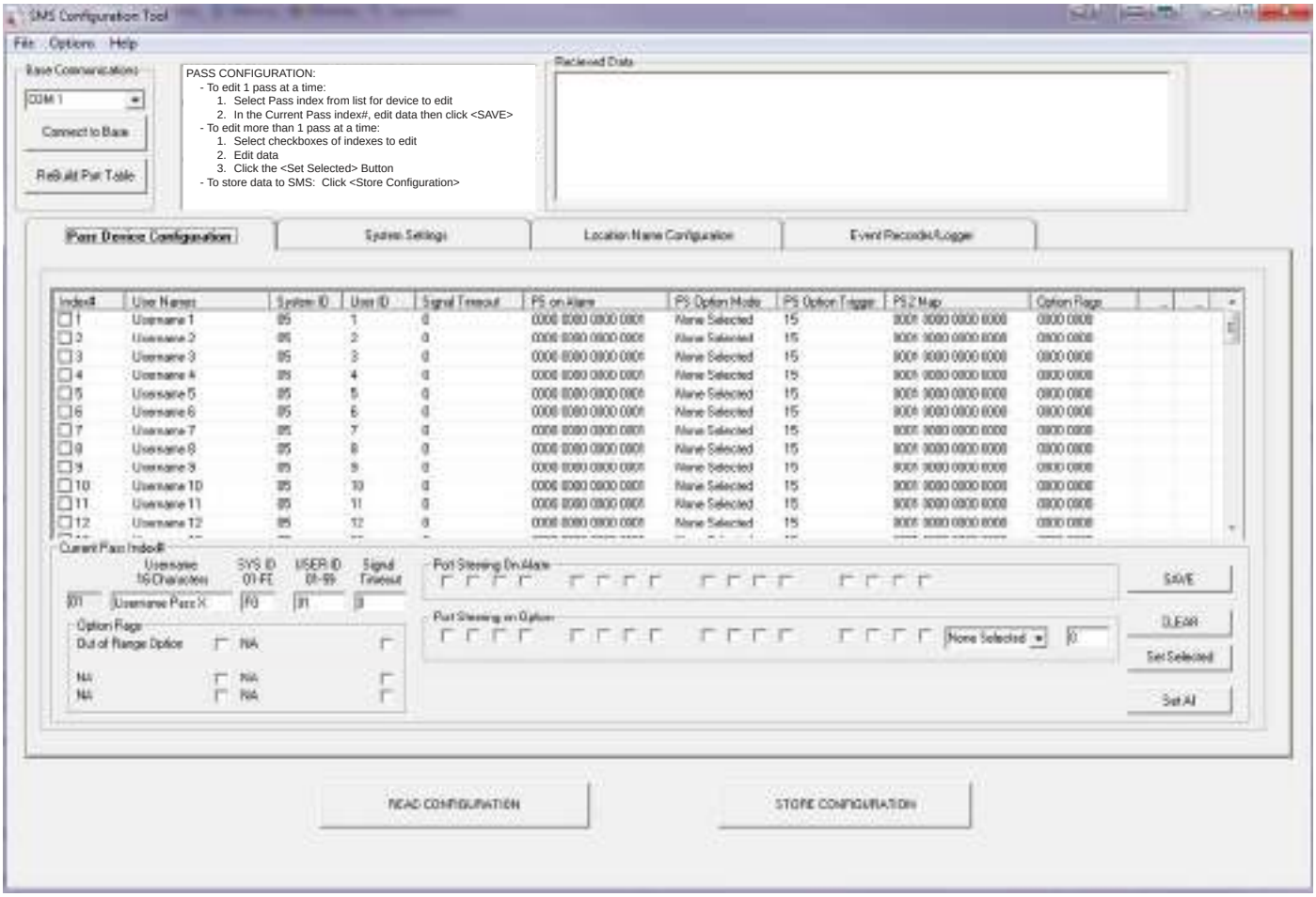
Using the SMS Configuration Tool:

1. Click the configuration tab you want to use:

Screenshots and instructions for each of the configuration tabs are on the following pages:

A1 - PASS Device Configuration
A2 - System Settings
A3 - Location Name Configuration
A4 - Event Recorder / Logger

Appendix A1 - PASS Device Configuration



PASS Device Configuration

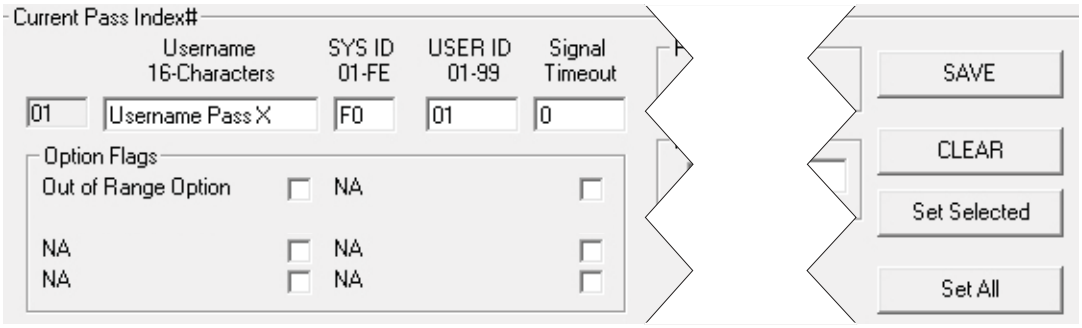
Editing 1 Pass Device at a time:

1. Select the Index # checkbox of the PASS device you want to edit
2. In the Current Pass index# section - Edit the data as needed and click Save when finished

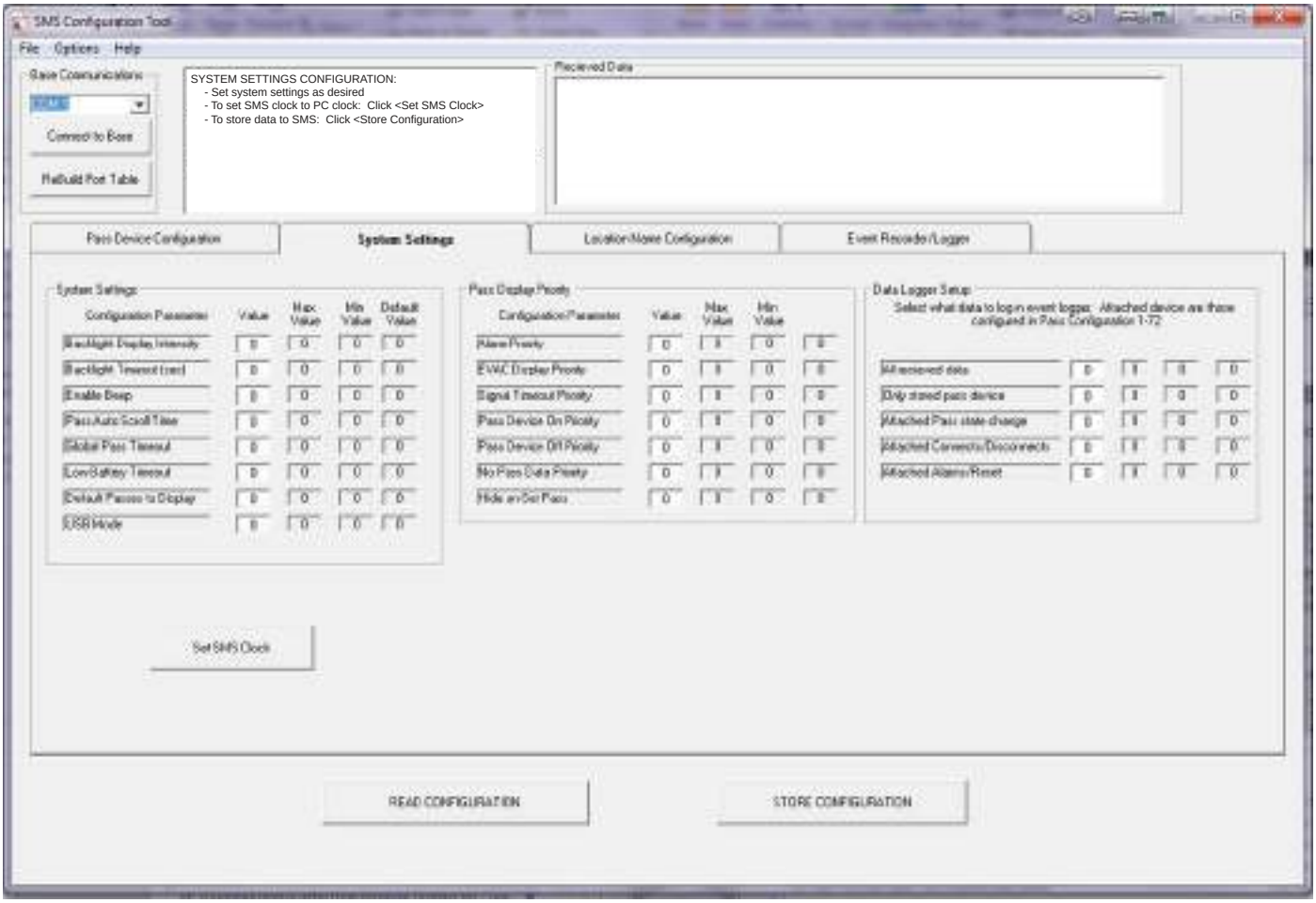
Editing Multiple Pass Devices at the same time:

1. Select the Index # checkboxes of the Pass devices you want to edit
2. Edit data in the Current Pass Index # section
3. Click the Set Selected Button to save and continue to next selected device

Click Store Configuration Button to Save Data to SMS Base



Appendix A2 - System Settings



System Settings Configuration

Adjust System Settings:

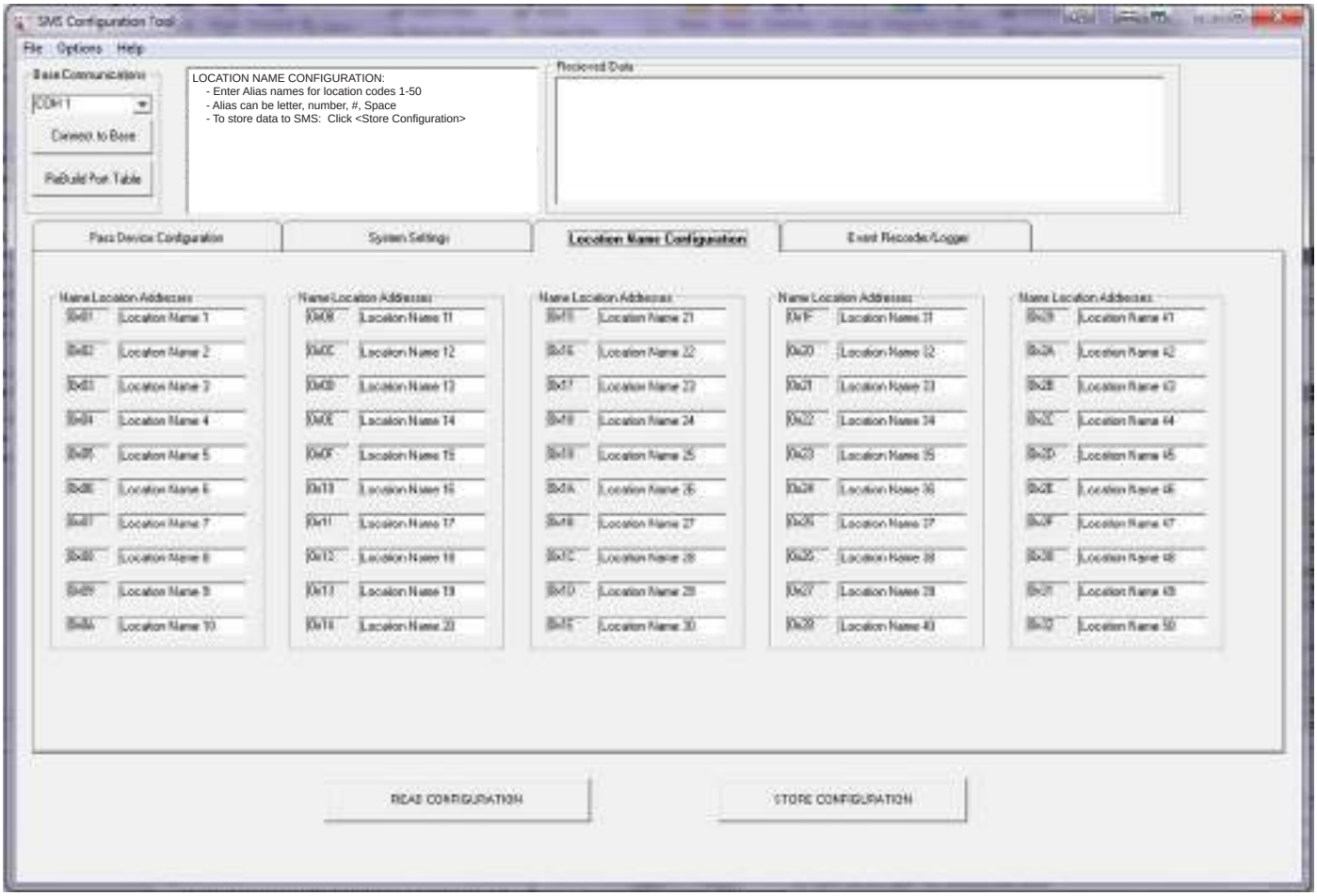
1. Click the Read Configuration button to load current configuration and data range settings
2. To adjust each system setting - click on its Value box and then type in the desired number.

Set SMS Base Clock to PC Clock:

1. Click the Set SMS Clock button

Click Store Configuration Button to Save Data to SMS Base

Appendix A3 - Location Name Configuration



Location Name Configuration

To Change Names/Alias of Locators:

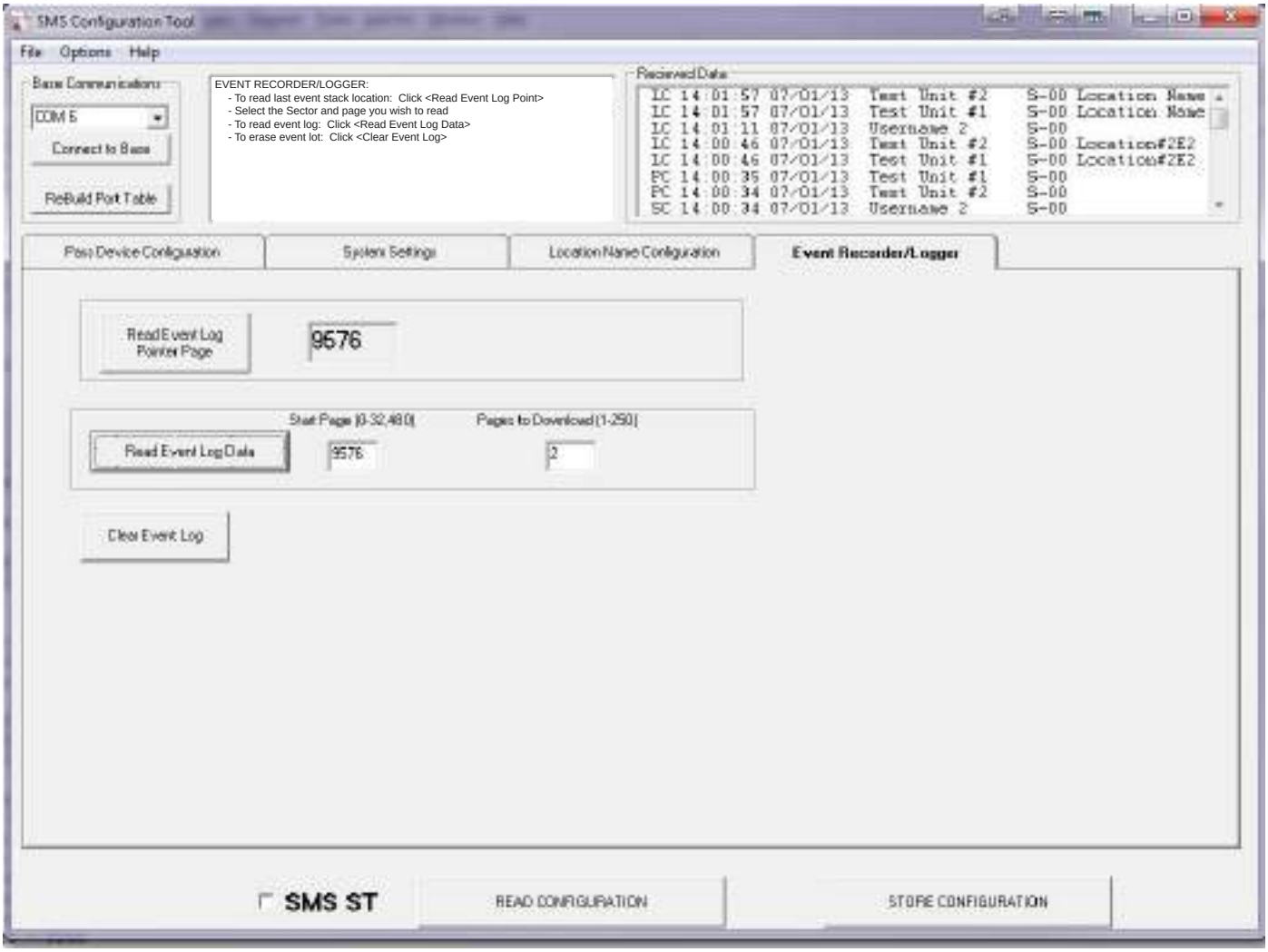
1. Click on the Location Addresses box of the Locator you want to name
2. Type in the new Name/Alias - Letters, numbers, #, and spaces are permitted

Click Store Configuration Button to Save Data to SMS Base

NOTE: Location Codes (their ID Number) are designated in Hexidecimal format. A conversion table is listed below for quick reference.

Hex	##	Hex	##	Hex	##	Hex	##	Hex	##
01	01	0B	11	15	21	1F	31	29	41
02	02	0C	12	16	22	20	32	2A	42
03	03	0D	13	17	23	21	33	2B	43
04	04	0E	14	18	24	22	34	2C	44
05	05	0F	15	19	25	23	35	2D	45
06	06	10	16	1A	26	24	36	2E	46
07	07	11	17	1B	27	25	37	2F	47
08	08	12	18	1C	28	26	38	30	48
09	09	13	19	1D	29	27	39	31	49
0A	10	14	20	1E	30	28	40	32	50

Appendix A4 - Event Recorder / Logger



Event Recorder/Logger

To Read Last Event Stack Location:

1. Click Read Event Log Point to see page of Last Event
2. Select the Start Page and Pages to download

To Read Event Log:

1. Click Read Event Log Data

To Erase Event Log:

1. Click Clear Event Log

NOTES:

WARRANTY

Grace Industries, Incorporated warrants your Product 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 that has been damaged because of accident, misuse or abuse of the Product while in the 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. Grace Industries, Inc. shall not be liable for any direct, incidental or consequential loss or damage arising out of the failure of the device to operate.

The sole and exclusive remedy under all guarantees or warranties, expressed 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 vary from state to state.

NOTE: The information contained in this booklet is believed to be accurate and reliable. Grace Industries, Inc. provides this information as a guide only.

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.

GRACE
INDUSTRIES, INC.
Solutions for Life Safety

305 Bend Hill Road, Fredonia, PA 16124 USA
724.962.9231 - FAX 724.962.3611
www.graceindustries.com

ALWAYS TEST SYSTEM PRIOR TO USE!

All personnel should be thoroughly familiar with and trained in the proper operation of Personnel Monitoring System prior to field use. Failure to do so may expose the user to serious injury or loss of life.

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