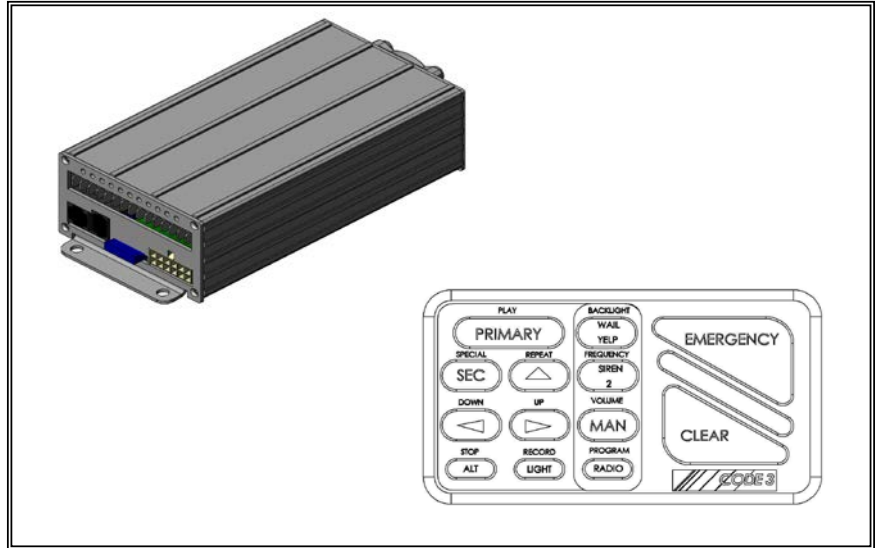# CODE 3®

INSTALLATION & OPERATION MANUAL
SPRINTER Remote Siren System
with Hand-Held Controller

12VDC- MODEL(s)

3750 with US tones

& 3760 with European tones

⚠ WARNING

Sirens produce loud sounds that may damage hearing
• Wear hearing protection when testing
• Use siren only for emergency response
• Roll up windows when siren is operating
• Avoid exposure to the siren sound outside of vehicle

Contents:

IMPORTANT: *Read all instruction and warnings before installing and using.*
INSTALLER: This manual must be delivered to the end user of this equipment.

Introduction

The SPRINTER uses an easily concealable remote hand held controller coupled to an electronic siren, all designed to meet the needs of emergency vehicles. This siren provides a compact control head that can virtually be mounted anywhere in the vehicle along with full 100Watt signal output providing both SAE J1849 and CA Title 13 Compliance. The purpose of this document is to aid in the setup and installation of the SPRINTER, and to provide instructions for its proper operation.

WARNING!

SIREN PRODUCTS

Sirens are an integral part of an effective audio/visual emergency warning system. However, sirens are only short range secondary warning devices. The use of a siren does not insure that all drivers can or will observe or react to an emergency warning signal, particularly at long distances or when either vehicle is traveling at a high rate of speed. Sirens should only be used in a combination with effective warning lights and never relied upon as a sole warning signal. Never take the right of way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection driving against traffic, or responding at a high rate of speed.

The effectiveness of this warning device is highly dependent upon correct mounting and wiring. Read and follow the manufacturer's instructions before installing this device. The vehicle operator should check the equipment daily to insure that all features of the device operate correctly.

To be effective, sirens must produce high sound levels that potentially can inflict hearing damage. Installers should be warned to wear hearing protection, clear bystanders from the area and not to operate the siren indoors during testing. Vehicle operators and occupants should assess their exposure to siren noise and determine what steps, such as consultation with professionals or use of hearing protection should be implemented to protect their hearing.

This equipment is intended for use by authorized personnel only. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should check all applicable city, state and federal laws and regulations. Code 3, Inc., assumes no liability for any loss resulting from the use of this warning device.

Proper installation is vital to the performance of the siren and the safe operation of the emergency vehicle. It is important to recognize that the operator of the emergency vehicle is under psychological and physiological stress caused by the emergency situation. The siren system should be installed in such a manner as to: A) Not reduce the acoustical performance of the system, B) Limit as much as practical the noise level in the passenger compartment of the vehicle, C) Place the controls within convenient reach of the operator so that he can operate the system without losing eye contact with the roadway.

Emergency warning devices often require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.

PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.

Standard Features

The SPRINTER system offers the following features:
- Primary Tones: Wail, Yelp, Hi-Lo, Manual
- program selectable Siren tones including Air Horn
- Vehicle Light Control Buttons
- PA with Built-In Noise Cancelling Microphone with Integrated Volume Control
- Radio rebroadcast
- Park Light function
- Horn Ring Option
- Backlit Buttons with On/Off Intensity Change
- Pass protected volume and programming functions
- Programmable Siren Controls
- Programmable Light Controls
- Externally accessible 15A fuse
- Control Head with Extension Cable

Unpacking & Pre-Installation

After unpacking the siren, carefully inspect the unit and associated parts for any damage that may have been caused in transit. Report any damage to the carrier immediately.

Parts included in the box:
- Siren (amplifier)
- Hand-Held Controller
- Microphone
- Control Head Extension Cable
- Connection Parts Bag
- Wire Harness
- Installation / Operator Manual

Installation & Mounting

The hand-held controller may be mounted in various locations in the vehicle: below the dash, on the tunnel, etc. Ease of operation and convenience to the operator should be the prime consideration when mounting the siren and controls. The amplifier may be mounted at an appropriate location within the vehicle, and the extension cable must be used to couple the hand-held controller to the amplifier. *Caution: Do not plug control head unit into microphone socket on Amplifier.   Use of the extension cable will assure the control head is plugged in correctly.*

⚠ **WARNING!**

All devices should be mounted in accordance with the manufacturer's instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Ease of operation and convenience to the operator should be the prime consideration when mounting the siren and controls. Adjust the mounting angle to allow maximum operator visibility. Do not mount the Hand-Held Controller in a location that will obstruct the drivers view. Mount the Hand-Held Controller mounting base in a convenient location to allow the operator easy access. Devices should be mounted only in locations that conform to their SAE identification code as described in SAE Standard J1849. For example, electronics designed for interior mounting should not be placed under hood, etc. Controls should be placed within convenient reach* of the driver or if intended for two person operation the driver and/or passenger. In some vehicles, multiple control switches and/or using methods such as "horn ring transfer" which utilizes the vehicle horn switch to toggle between siren tones may be necessary for convenient operation from two positions.

Convenient reach is defined as the ability of the operator of the siren system to manipulate the controls from their normal driving/riding position without excessive movement away from the seat back or loss of eye contact with the roadway.

The SPRINTER amplifier is not waterproof. It must be mounted in a location that is sheltered from rain, snow, standing water, etc. It must also be installed in an adequately ventilated area. Do not install near heater ducts or under the vehicle's hood. Using the mounting holes on the amplifier as a template, scribe four drill position marks at the mounting locations. Be sure that both sides of the mounting surface are clear of parts that may be damaged. The siren accessory kit with mounting hardware supplied provides the user with a choice of mounting hardware. Secure the amplifier to the mounting surface, using the mounting hardware.

Connection between the hand-held controller and the SPRINTER amplifier box is identified by the amplifier label.
Note: ***The microphone and control head connectors are different and must not be plugged into the wrong socket.***

Use of the extension cable will assure the control head is plugged in correctly.

⚠️ **WARNING!**

Larger wires and tight connections will provide longer service life for components. For high current wires it is highly recommended that terminal blocks or soldered connections be used with shrink tubing to protect the connections. Do not use insulation displacement connections (e.g. 3M) Scotch lock type connectors. Route wiring using grommets and sealant when passing through compartment walls. Minimize the number of splices to reduce voltage drop. High ambient temperatures (e.g. under hood) will significantly reduce the current carrying capacity of wires, fuses, and circuit breakers. Use "SXL" type wire in engine compartment.
All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring.
Fuses or circuit breakers should be located as close to the power takeoff points as possible and properly sized to protect the wiring and devices. Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity. Ground (Earth) terminations should only be made to substantial chassis components, preferably directly to the vehicle battery.
The user should install a circuit breaker sized to approximately 125% of the maximum Amp capacity in the supply line to protect against short circuits. For example, a 30 Amp circuit breaker should carry a maximum of 24 Amps.
DO NOT USE 1/4" DIAMETER GLASS FUSES AS THEY ARE NOT SUITABLE FOR CONTINUOUS DUTY IN SIZES ABOVE 15 AMPS. Circuit breakers are very sensitive to high temperatures and will "false trip" when mounted in hot environments or operated close to their capacity.

Connections

Reference Figure 1 – Wiring Diagram

1. Disconnect the cable on the negative end of the battery before performing installation. Do not connect the system to vehicle battery until all other electrical connections are made and mounting of all components is complete. Verify the polarities of the cable and ensure that no short circuits exist before connecting to the battery terminals. If routing the extension cable requires drilling a hole in sheet metal or other material, drill a 5/8″ hole in the material and install a 5/8″ grommet (not supplied) to protect the cable.

2. Attach the handheld controller to the amplifier by inserting the connector on the end of the cord into the mating port on the amplifier. If the amplifier is remotely mounted, use the included extension cord and extension adaptor.

Figure 1 - Wiring Diagram

3. To install the positive and negative power wires, strip 1/4" of insulation from the end of the wires, and install the blade connectors onto the ends of the appropriate wires. The "+12V" positions may be connected either directly to a +12V source (such as a battery), or through a switch (such as an ignition switch). (See proper fusing requirements on page 6 prior to making any wire connections to battery or ignition switch)

4. The unit is supplied with a twelve-position, pluggable connector (white color) for connections to the speaker and other selected optional connections such as hood,grill, radio, horn ring and parklight .   Main light bar connections are made at the blade connections in the back of the amplifier unit and are labelled with identification to coincide with the control head.

5. Speaker – the siren is designed to operate with one 11-ohm impedance speaker (100W). Speakers are not included as part of the siren. Any 11-ohm 100W speaker for use with emergency vehicle may be considered to use.

> ⚠ **WARNING!**   CONNECTION OF A 58 WATT SPEAKER TO THE SPKR TERMINAL WILL CAUSE THE SPEAKER TO BURN OUT, AND WILL VOID THE SPEAKER WARRANTY!

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6. To install the light bar power wires, strip approximately 1/4″ of insulation from the end of the lights wires. Install the blade wire connectors onto the wire ends and connect the appropriate wires to the terminals on the amplifier housing to co-incide with the light bar wire function identification. Keep in mind that terminals 8, and 10-14 have a 15 amp maximum current each. Power wires on pins 1,2 and 3 have a max. current of 20A each.

External 25A fuse is required on each of the 3 individual +12V power wires on pins 1,2 and 3 at the battery feed.

   (Pin 4 is not used)

Pin 5 max current of 20A.

Pin 7 max current 20A.

Pin 8 internally fused for 15A

   (Pin 9 not used)

Pins 10 - 14 are all internally fused for 15A each. *(See figure 5, page 9 for fuse location)*

-   left alley (Pin 10),

-   right alley (Pin 11),

-   sign light (Pin 12),

-   headlight flasher (Pin 13),

-   take down lights (Pin 14).

   (Pin 15 not used)

7. If a fuse is installed, it should be sized for the actual load of the lighting used and located as close to the battery positive as possible.

8. Ensure that there are no loose wire strands or other bare wire that may cause a short circuit. All wires must be protected from any sharp edged that could eventually cut through the insulation. Also use an ohmmeter to verify that a short circuit does not exist between the positive (+) leads and the vehicles chassis.

> ⚠ **WARNING!**   Any electronic device my create or be affected by electromagnetic interference. After installation of any electronic device, operate all equipment simultaneously to insure that operation is free of interference.

WARNING! IMPORTANT WARNINGS TO USERS OF SIRENS: "Wail" and "Yelp" tones are in some cases (such as the state of California) the only recognized siren tones for calling for the right of way. Ancillary tones such as "Air Horn", "Hi-Lo", "Hyper Yelp", and "Hyper Lo" in some cases do not provide as high a sound pressure level. It is recommended that these tones be used in a secondary mode to alert motorists to the presence of multiple emergency vehicles or to the momentary shift from the primary tone as an indication of the imminent presence of any emergency vehicle.

This siren system is CA T13 compliant when configured properly. Limitation of siren tones available to the end user are password protected to insure CA T13 compliance.

(Lighting Control keys are found on the light grey pad. Auditory Control keys are found on the blue pad in the center of the Controller. Control keys in (parenthesis) are when "Alt" is pressed before button is selected
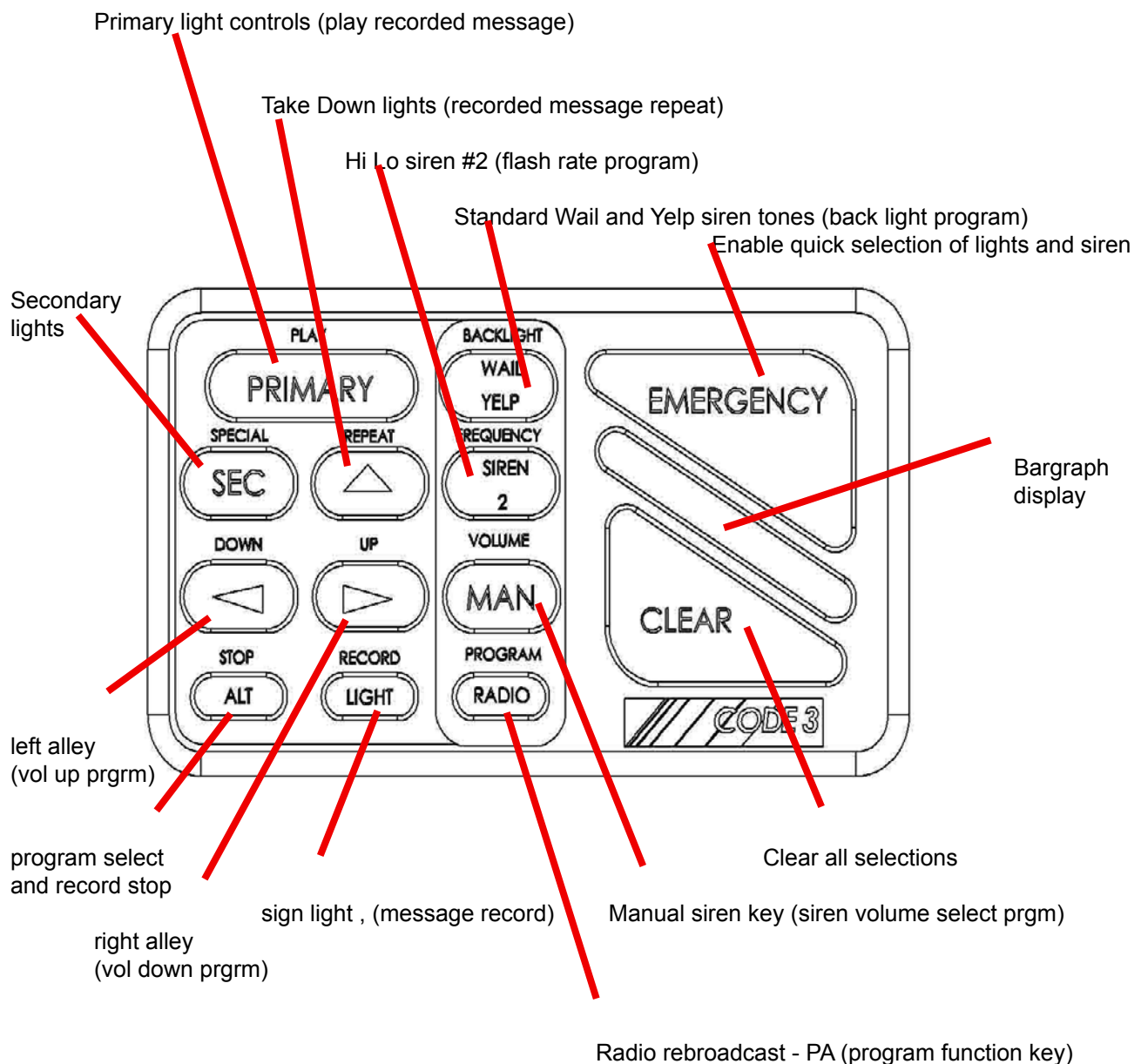
Primary light controls (play recorded message)

Take Down lights (recorded message repeat)

Hi Lo siren #2 (flash rate program)

Standard Wail and Yelp siren tones (back light program)

Enable quick selection of lights and siren

Secondary lights

Bargraph display

left alley (vol up prgrm)

program select and record stop

right alley (vol down prgrm)

sign light , (message record)

Manual siren key (siren volume select prgm)

Clear all selections

Radio rebroadcast - PA (program function key)

Figure 2 - Controller Functions

SPRINTER Siren Main Assembly:

Cooling Fan End of Unit

Microphone Jack

Controller Jack

Light Bar Connections

External Wire Harness Connections

External 15Amp System Fuse
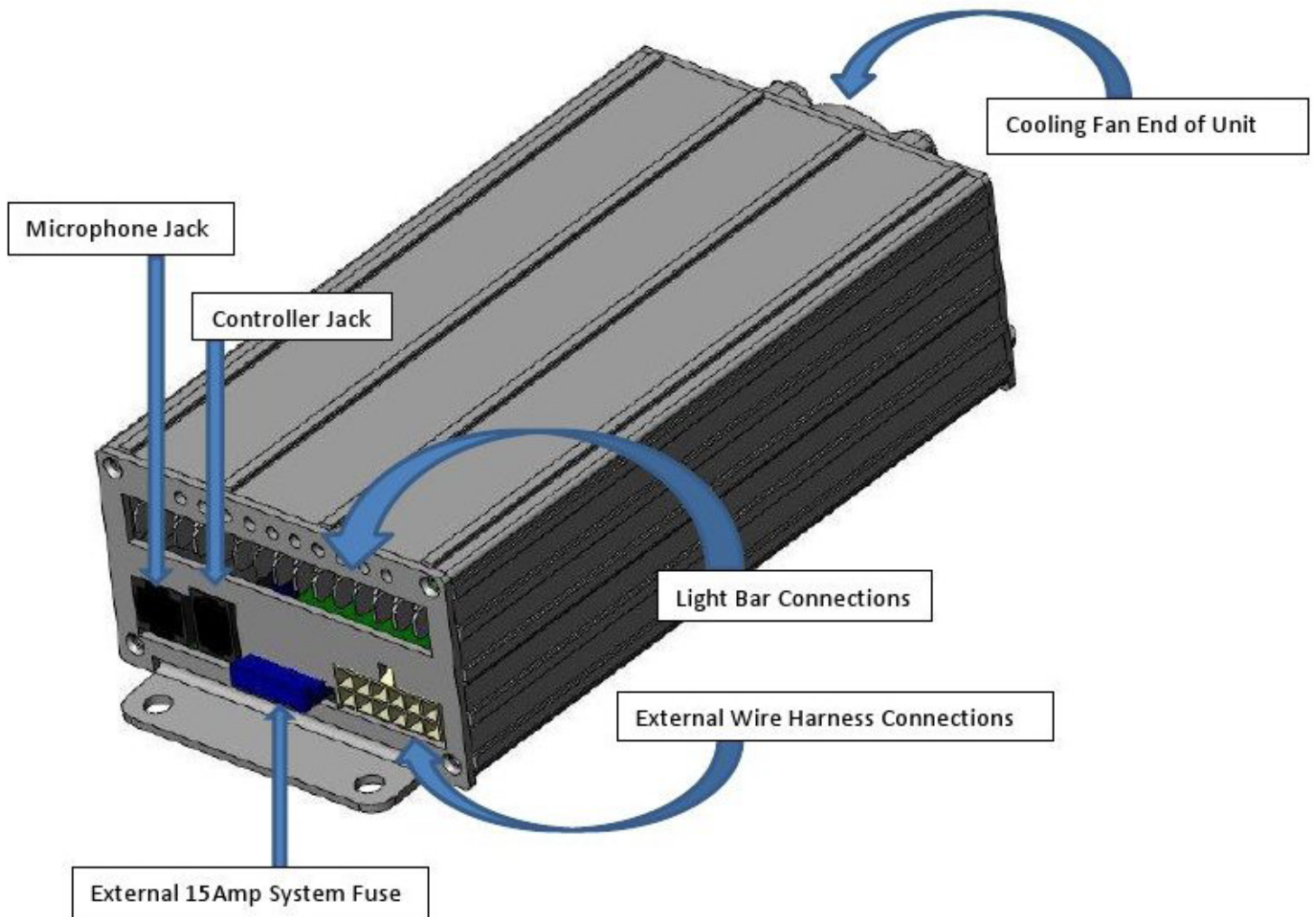
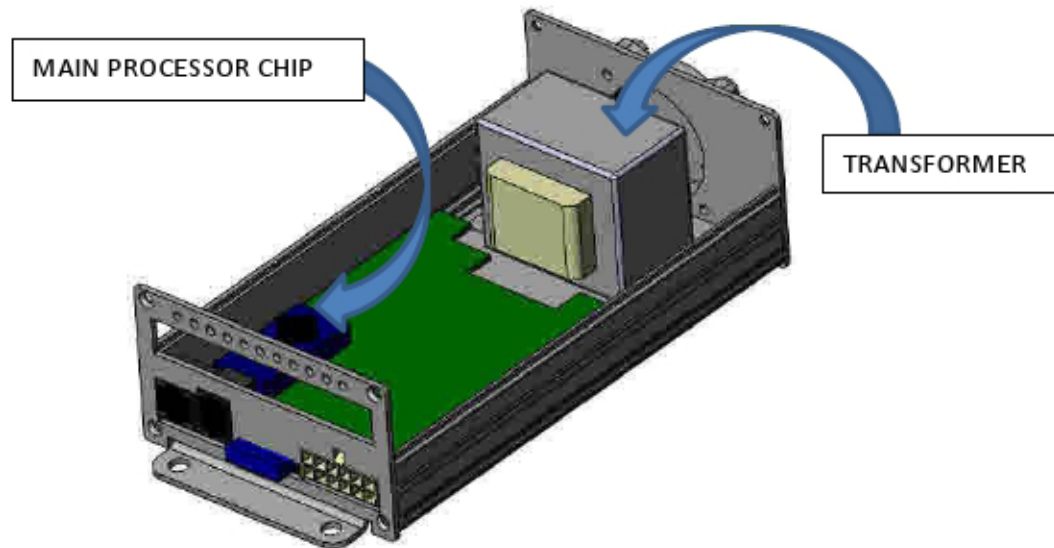Figure 3

Main Lower PCB and Components:

MAIN PROCESSOR CHIP

TRANSFORMER

Figure 4

Main Upper PCB and Components:

Internal 15Amp Fuses: Secondary, Left Alley, Right Alley, Sign Board, Headlight Flasher and Take Down.

Main PCB Ribbon Connection
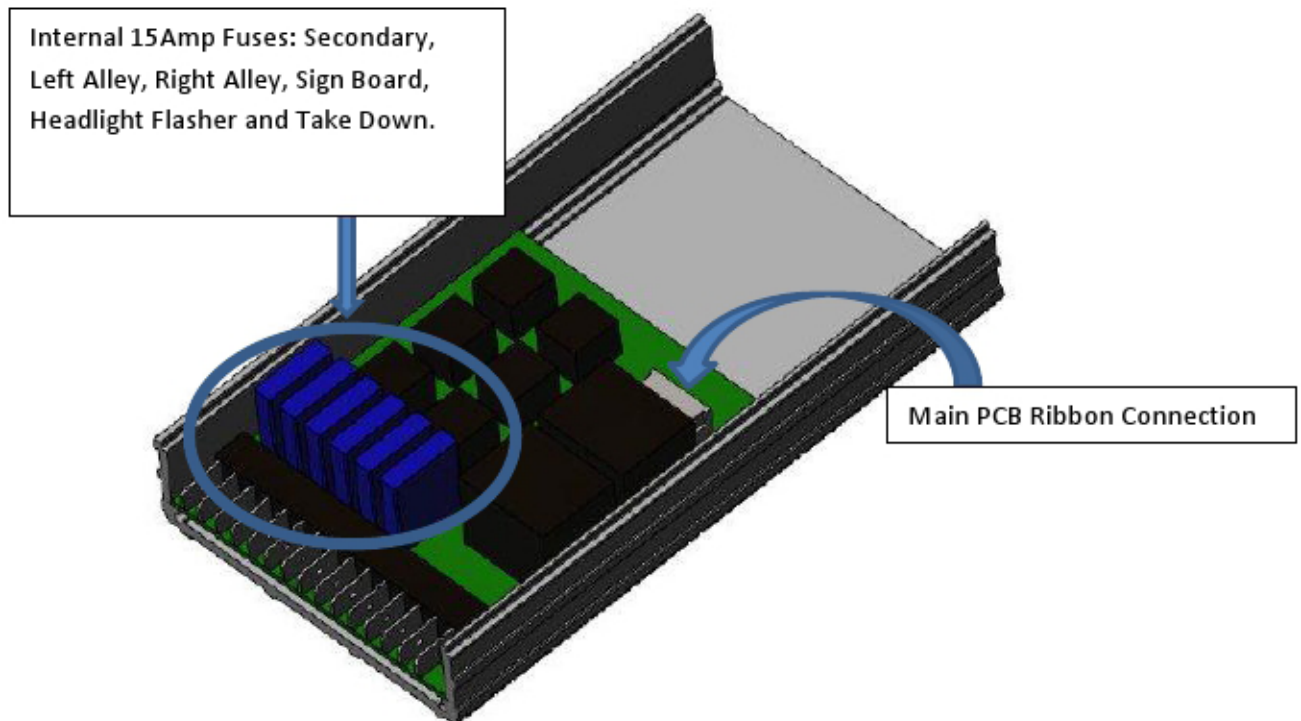
Figure 5

Hand Held Controller Label Designations and Functions:

Item:	Label:	Operation:	Activation:	Description:
	Bargraph Display	located between the CLEAR and EMERGENCY keys on the controller	lighted postion along bar	displays a series of lights in 6 positions along bar

LIGHTING CONTROLS:

Item:	Label:	Operation:	Activation:	Description:
1.	PRIMARY	Turns on/off primary warning lights	front directional and corner	
2.	SEC	Turns on/off secondary warning lights	rear directional	
3.	△	Turns on/off takedown lights		
4.	◁	Turns on/off left alley light		
5.	▷	Turns on/off right alley light		
6.	LIGHT	Turns on/off sign light		
7.	◁ ▷	Turns on/off headlamp flasher	(both keys pressed together)	
8.	SEC △	Turns on/off intersection lights	(both keys pressed together)	
9.	CLEAR	Turns off all warning lights and sirens		

SIREN CONTROLS:

Item:	Label:	Operation:	Activation:	Description:
10.	WAIL YELP	Turns on/off Wail-Yelp Siren	(default: std. Wail-Yelp)	
11.	SIREN 2	Turns on/off 2nd siren	(default: Hi-Lo)	
12.	MAN	Turns on manual siren while button is depressed	(default: Manual Wail)	Returns to previous siren when released.
13.	EMERGENCY	Activates pre-set light and siren warnings (OR) Alternates yelp/wail if siren is currently activated	Press EMERGENCY button once. Press EMERGENCY button additional times.	Pressing CLEAR will turn off the EMERGENCY function including all lights and sirens.

PUBLIC ADDRESS SYSTEM:

Item: Label:	Operation:	Activation:	Description:
14. RADIO	Turns on/off radio repeat function (will switch audio from vehicle radio through to the main speaker. Adjust volume using the vehicle radio.)		(Pressing CLEAR will turn off the radio repeat function.)
15. MICROPHONE	PTT (Push To Talk) ready for immediate use		(Will suspend any siren operation and will switch the microphone through the main speaker.) (Use volume on the adjustment on microphone.)

Using Voice Recording:

Item: Label:	Operation:	Activation:	Description:
16. HOLD CLEAR, PRESS ALT, THEN RECORD	To record a message for playback	(bar graph will display time in 10 sec. increments 60 seconds are available)	(2 second delay to begin recording once Mic button is pressed)
17. PRESS ALT, THEN PLAY	To play back a recorded message	Starts voice message play back.	
18. PRESS CLEAR (OR) PRESS ALT, THEN ALT	CLEAR stops voice message playback ALT, ALT stops voice playback without turning off any lights that may be activated		
19. PRESS ALT THEN REPEAT	Starts voice playback in a constant repeat mode.		
20. PRESS CLEAR (OR) PRESS ALT, THEN ALT	Stops continuous play back and turns off any lights selected ALT, ALT stops voice playback without turning off any lights that may be activated		

CUSTOMIZATION OF THE CONTROL HEAD:

(Pass Code must be entered to make certain program adjustments)
(Pass Code Located on page 21, remove page before giving manual to end user)

Item:	Label:	Operation:	Activation:	Description:

BACKLIGHTING ADJUSTMENT:

Item:	Label:	Operation:	Activation:	Description:
21.	PRESS ALT, THEN BACKLIGHT	Adjusts brightness of keys on controller key pad.	Up & Down keys will flash	Adjust brightness by pressing Up or DOWN keys, when finished press ALT to save settings or to exit without saving press CLEAR.

SIREN VOLUME ADJUSTMENT:
(Pass code protected adjustment)

Item:	Label:	Operation:	Activation:	Description:
22.	PRESS ALT, THEN VOLUME	Adjusts volume of siren to fit situations	Up & Down keys will flash	Adjust volume by pressing Up or Down key, when finished press ALT to save settings or to exit without saving press CLEAR.

LIGHT FLASH RATE ADJUSTMENT:
(WHERE APPLICABLE)

Item:	Label:	Operation:	Activation:	Description:
23.	PRESS ALT, THEN FREQUENCY	Used to adjust flashing rate of lights when a general timer is used to control flashing rate of lights. NOTE: ALT, PROGRAM must first be changed to use a different function than toggle.		Adjust flash rate by pressing Up or DOWN keys, when finished press ALT to save settings or to exit without sav saving press CLEAR.

PROGRAMMING CAPABILITIES:

(Pass Code must be entered to make certain program adjustments)
(Pass Code Located on page 21, remove page before giving manual to end user)

Item: Label: Operation: Activation: Description:

FEATURES THAT ARE PROGRAMMABLE:

1. Setting light switch functions
2. Selecting different siren Wail/Yelp tones
3. Selecting different 2nd siren tones
4. Selecting different Manual siren tones
5. Programming the EMERGENCY key functions

PRESS ALT, THEN PROGRAM	Enters the program mode of the control head.	ALT & PROGRAM keys will turn off and (PRIMARY, SEC, △,▷,◁) light keys will light up	(If the Passcode is not entered within 5 seconds, the unit will return to the idle condition) Once the 4 digit code is entered, the controller will beep and the control head is ready to program.

(Pressing CLEAR while in the programming mode will exit programming without saving any changes made during the programming session.)

Chart 1: Euro Tone Programming Reference

Multiplier for Steps A- D for Euro Tone Prgramming		Indicator light in yellow bargraph area of control head						
		No Lights	1st Light	2nd Light	3rd Light	4th Light	5th Light	6th Light
Multiplier Backlighting	Secondary (SEC) OFF Repeat (▲) OFF	German Town	German Country	French Ambulance	French UMH	French Police	French Gendarmerie	French Pompiers
	Secondary (SEC) ON Repeat (▲) OFF	UK Wail	UK Yelp	UK HiLo	UK Pulsar	UK Airhorn	Swiss HiLo	Dutch Two Tone
	Secondary (SEC) ON Repeat (▲) OFF	Austria Police	Austria Fire	Austria Ambulance	Austria DIN	Norway Wail	Norway Yelp	Martin Horn
	Secondary (SEC) ON Repeat (▲) ON	Swedan HiLo	Swedan Yelp	Finnish HiLo	Finnish Yelp	Italy Police	Italy Fire & Amb.	Belgium NB159

PROGRAMMING STEP #1:

LIGHT SWITCH FUNCTIONS:
Beginning programming mode, the following keys will be illuminated:

△ , ◁ , ▷ ,PRIMARY, SEC, LIGHT   Indicating Step #1 in programming mode.   Each key will light according to its current program state of operation.

STATES OF OPERATION:

| #1 Alternate: LED on | #3 Timed: LED fast flashing (0.25 sec.) | If not lit, it could be |
| #2 Flashing: LED flashing (0.5 sec.) | #4 Momentary: LED off | set to momentary |

(pressing a key will cycle it through the different states of operation)   mode.

ALT   Will advance the programming mode to next step.

PROGRAMMING STEP #2:
SELECTION OF DIFFERENT WAIL SIREN TONES:
the following keys will be illuminated:

WAIL/YELP   (will be illuminated)   Indicating Step #2 in programming mode.   Yellow bargraph will light according to its current program tone selected.

(Use Up & Down keys to select one of the choices. Bar graph will indicate choice of selection)

1.)   For all Euro Tone Programming, refererence Chart 1 on Page 13.
2.)   A.) Pressing the Secondary (SEC) button once will light up the button. This is enabling that "multiplier". If the Secondary (SEC) button is pressed again, the button backlighting will turn OFF and disable that "multiplier".

         B.) Pressing the Repeat (▲) button once will light up the button. This is enabling that "multiplier". If the Repeat (▲) button is pressed again, the button backlighting will turn OFF and disable that "multiplier".

         C.) Pressing Secondary (SEC) once and Repeat (▲) once will light up both buttons. This is enabling that "multiplier". If both buttons are pressed again, their backlighting will turn off and disable that "multiplier".

         D.) After the multiplier(s) is chosen, use the ◄ and ► to navigate the lights in the yellow bargraph area of the control head to choose the tone that is desired. After tone selected, pressing Alt will save the selection & continue to next step in programming.

         ALT   Will advance the programming mode to next step.

PROGRAMMING STEP #3:

         SELECTION OF DIFFERENT YELP SIREN TONES:
         the following keys will be illuminated:

WAIL/YELP	(will be flashing)	Indicating Step #3 in programming mode.	Yellow bargraph will light according to its current program tone selected. (Use Up & Down keys to select one of the choices. Bar graph will indicate choice of selection)

1.)   For all Euro Tone Programming, refererence Chart 1 on Page 13.
2.)   A.) Pressing the Secondary (SEC) button once will light up the button. This is enabling that "multiplier". If the Secondary (SEC) button is pressed again, the button backlighting will turn OFF and disable that "multiplier".

         B.) Pressing the Repeat (▲) button once will light up the button. This is enabling that "multiplier". If the Repeat (▲) button is pressed again, the button backlighting will turn OFF and disable that "multiplier".

         C.) Pressing Secondary (SEC) once and Repeat (▲) once will light up both buttons. This is enabling that "multiplier". If both buttons are pressed again, their backlighting will turn off and disable that "multiplier".

         D.) After the multiplier(s) is chosen, use the ◄ and ► to navigate the lights in the yellow bargraph area of the control head to choose the tone that is desired. After tone selected, pressing Alt will save the selection & continue to next step in programming.

         ALT   Will advance the programming mode to next step.

PROGRAMMING STEP #4:

SELECTION OF DIFFERENT 2nd SIREN TONES:
the following keys will be illuminated:

SIREN 2	(will be illuminated)	Indicating Step #4 in programming mode.	Yellow bargraph will light according to its current program tone selected.
			(Use Up & Down keys to select one of the choices. Bar graph will indicate choice of selection)

1.) For all Euro Tone Programming, referenced Chart 1 on Page 13.
2.) A.) Pressing the Secondary (SEC) button once will light up the button. This is enabling that "multiplier". If the Secondary (SEC) button is pressed again, the button backlighting will turn OFF and disable that "multiplier".
  B.) Pressing the Repeat (▲) button once will light up the button. This is enabling that "multiplier". If the Repeat (▲) button is pressed again, the button backlighting will turn OFF and disable that "multiplier".
  C.) Pressing Secondary (SEC) once and Repeat (▲) once will light up both buttons. This is enabling that "multiplier". If both buttons are pressed again, their backlighting will turn off and disable that "multiplier".
  D.) After the multiplier(s) is chosen, use the ◄ and ► to navigate the lights in the yellow bargraph area of the control head to choose the tone that is desired. After tone selected, pressing Alt will save the selection & continue to next step in programming.

ALT   Will advance the programming mode to next step.

PROGRAMMING STEP #5:

1.) SELECTION OF DIFFERENT MANUAL SIREN TONES:
the following keys will be illuminated:

MAN	(will be illuminated)	Indicating Step #5 in programming mode.	Yellow bargraph will light according to its current program tone selected.
			(Use Up & Down keys to select one of the choices. Bar graph will indicate choice of selection)

2.)   For all Euro Tone Programming, refererence Chart 1 on Page 13.

3.)   A.) Pressing the Secondary (SEC) button once will light up the button. This is enabling
        that "multiplier". If the Secondary (SEC) button is pressed again, the button backlighting will
        turn OFF and disable that "multiplier".

        B.) Pressing the Repeat (▲) button once will light up the button. This is enabling that
        "multiplier". If the Repeat (▲) button is pressed again, the button backlighting will turn OFF
        and disable that "multiplier".

        C.) Pressing Secondary (SEC) once and Repeat (▲) once will light up both buttons. This is
        enabling that "multiplier". If both buttons are pressed again, their backlighting will turn off
        and disable that "multiplier".

        D.) After the multiplier(s) is chosen, use the ◄ and ► to navigate the lights in the yellow
        bargraph area of the control head to choose the tone that is desired. After tone selected,
        pressing Alt will save the selection & continue to next step in programming.

    ALT   Will advance the programming mode to next step

PROGRAMMING STEP #6:

    ENABLES PROGRAMMING OF THE LIGHT key:
    the following keys will be illuminated:

| RADIO | (will be illuminated along with other any other keys programmed into the light list.) | Indicating Step #6 in programming mode. | Pressing any key while in the LIGHT programming mode will include that key function in the list of functions for the EMERGENCY key. |

Headlight Flasher:
If the vehicle is equiped with a headlight flasher, pressing both the left and right arrow keys
at the same time will enable this function when the EMERGENCY key is selected and will
illuminate the ALT key to indicate such.

Intersection Lights:
If the vehicle is equipped with intersection lights, pressing both the SEC & TAKEDOWN keys
at the same time will enable this function when the EMERGENCY key is selected.
(No indication is displayed for this function.)

    ALT   Will advance the programming mode to next step.

PROGRAMMING STEP #7:

    ENABLES PROGRAMMING OF THE EMERGENCY key:
    the following keys will be illuminated:

| EMERGENCY | (will be illuminated along with other any other keys programmed into the light list.) | Indicating Step #7 in programming mode. | Pressing any key in EMERGENCY programming mode will include that key function in the list of functions for the EMERGENCY key. |

Headlight Flasher:

If the vehicle is equipped with a headlight flasher, pressing both the left and right arrow keys at the same time will enable this function when the EMERGENCY key is selected and will illuminate the ALT key to indicate such.

Intersection Lights:

If the vehicle is equipped with intersection lights, pressing both the SEC & TAKEDOWN keys at the same time will enable this function when the EMERGENCY key is selected.
(No indication is displayed for this function.)

Changing the initial condition of the SIREN tone from WAIL to YELP

Can be done by pressing the key to the following conditions:

WAIL/YELP key;	Illumination condition: OFF	Indicates: Siren tone off
	Illumination condition: ON	Indicates: setting to WAIL tone
	Illumination condition: FLASHING	Indicates: setting to YELP tone

When finished press ALT to save settings or to exit without saving press CLEAR.

PROGRAMMING STEP #8:

ENABLES AUTO-LIGHT FEATURE TO BE TURNED OFF OR ON
Description of condition:
If Auto Light feature is activated: the siren will automatically turn on the lights programmed for the SEC key on the control head any time the WAIL/YELP key or SIREN 2 key is pressed.

The Following keys will be lighted indicating STEP #8 in the Programming sequence:
WAIL /YELP will be lighted
SIREN 2 will be lighted
SEC will NOT be lighted – indicating that the AUTO- LIGHT feature is disabled.

Pressing the SEC key will cause the SEC key to be lighted – along with the WAIL/YELP and SIREN 2 keys at the same time, indicating that the AUTO-LIGHT feature has been enabled.

Press ALT key to exit programming and save or press CLEAR to exit programming without saving.

HORN RING TRANSFER FUNCTION:
The connection process is the same as standard Sprinter unit. CONNECTING THE GREY WIRE TO GROUND WILL ACTIVATE THE HORN RING FUNCTION.
 When the Wail key is depressed, grey wire has the same function with Emergency key, using to shift between Wail and Yelp.

TROUBLESHOOTING:

PROBLEM	PROBABLE CAUSE	REMEDY
No siren output	shorted speaker or speaker wires	check connections and wire ways
Fuse Blows	amplifier wires reversed polarity	check polarity of wire connections
Siren tone volume low or garbled	low voltage to siren amplier, high resistance in wiring/ defective spkr.	check wiring for bad connections, check spkr wiring, replace speaker
High rate of speaker failures	high voltage to siren, 58 W speaker connected-(58 W spkr not allowed)	check vehicle charging system, install 100W speaker in system
Backlight will not light or adjust	parklight input must have +12V for backlight to function on controller	engage parklights on vehicle if wired into system. or apply +12V. to parklight circuit input on Amp.
Auxiliary lights do not operate IE: alley, TD , sign board, headlight flashers	short ciruit of wiring for light in question, internal fuse blown in amplifier	check wiring and connections to lights in question, check and re-place fuse in amplifier circuit

SPECIFICATIONS AND MAINTENANCE:

Specifications:

Siren Section
Input Voltage 10-15VDC (negative ground)
Input Current 10 Amps @ 13.6VDC
Output Voltage Maximum 100W @ 12VDC
Operating Temperature -30 °C to +65 °C
Dimensions (HWL):
Handheld controller 0.65"X 2.0"X3.7"
Amplifier 2.0"X3.6"X7.6"
Weight – Siren (approx): 4.0 lbs
Weight – Controller (approx): 0.5 lbs
Base: Black powder coat painted aluminum extrusion
Mounting – Siren: 4-hole flange mounting on base
Mounting – Controller: (Not specified), (4 mounting holes provided on base)
Compliance: SAE J1849, California Title 13
Warranty: 5 years

Maintenance:

Your Code 3 siren has been designed to provide trouble free service. In case of difficulty, consult the Troubleshooting Guide of this manual. Also check for shorted or open wires. The primary cause of short circuits has been found to be wires passing through fire walls, roofs, etc. If further difficulty persists, contact the factory for troubleshooting advice or return instructions.

The factory maintains a complete parts inventory and service facility and will repair or replace (at the factory's option) any unit found to be defective under normal use and in warranty. Any attempt to service a unit in warranty, by anyone other than a factory-authorized technician, without the express written consent of the factory, will void the warranty.

Units out of warranty can be repaired at the factory for a nominal charge on either a flat rate or parts and labor basis. Contact the factory for details and return instructions. Public Safety Equipment, Inc. is not liable for any incidental charges related to the repair or replacement of a unit unless otherwise expressly agreed to in writing by the factory.

Installation Notes:

Programming Passcode:

Left Arrow   ◁

Right Arrow   ▷

Manual   MAN

Radio   RADIO

Manufacturer Limited Warranty Policy:

Manufacturer warrants that on the date of purchase this product will conform to Manufacturer's specifications for this product (which are available from the Manufacturer upon request). This Limited Warranty extends for Sixty (60) months from the date of purchase.

DAMAGE TO PARTS OR PRODUCTS RESULTING FROM TAMPERING, ACCIDENT, ABUSE, MISUSE, NEGLIGENCE, UNAPPROVED MODIFICATIONS, FIRE OR OTHER HAZARD; IMPROPER INSTALLATION OR OPERATION; OR NOT BEING MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE PROCEDURES SET FORTH IN MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS VOIDS THIS LIMITED WARRANTY.

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