INSTALLATION & OPERATION MANUAL

3992 SERIES SIRENS

Code 3, Inc., a subsidiary of
Public Safety Equipment, Inc.

CODE 3 ®
INC.
PUBLIC SAFETY EQUIPMENT, INC.

MICRO**COM**2™ SIRENS

Contents:

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

Introduction

The 3992 series sirens are remotely controlled electronic sirens that has been designed to meet the needs of all emergency vehicles. This series of sirens incorporates the popular features of the existing Micro[om] siren with microprocessor based circuitry and MOSFET technology. All of the original Micro[om] features are available along with many added CODE 3 features such as; **Park Kill, Instant "ON", Adj. " Scroll " Mode and more.**

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 or using 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 3992 series sirens consist of a remotely mounted siren amplifier with an optional second amplifier, providing up to 400W of siren power and opposing siren tones when both amplifiers are installed. The siren system is operated by a compact control panel designed to be conveniently mounted near the operator. The models are as follows:

3992
- Primary Tones: Wail, Yelp, Hi-Lo, Air Horn
- Secondary Tones: HyperYelp, HyperLo

3992XAMP
- Primary Tones: Wail, Yelp, Hi-Lo, Air Horn
- Secondary Tones: HyperYelp, HyperLo

It is important to note that the 3992XAMP is compatible with the popular RLS series sirens and may also be used as a 2nd amplifier with these sirens.

The following features are standard in the 3992 series sirens (tones and sequences may differ with model and options):
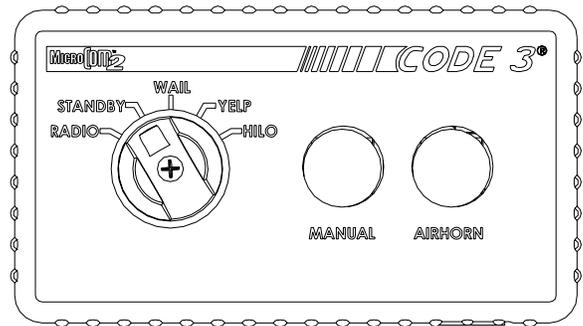

Figure 1 - Control Panel

Instant-On- There is no " ON/OFF " switch. Selecting any
siren function, or keying the microphone will activate the
selected siren function, assuming the siren is properly installed and the vehicle's ignition is switched on.

Park Kill- This feature deactivates the siren tones when the vehicle is shifted into park. Once **PKILL** is activated the siren will remain deactivated until the vehicle is shifted into drive and an
action occurs such as depressing one of the siren control switches or keying the microphone. Any of these actions will cause the siren tones to start again.

Adjustable Backlighting- Backlighting is independent of siren power. Allows connecting to dimmer if desired.

Automatic Short Circuit Protection- The siren will sense a short circuit on the speaker terminals and automatically go to standby until the fault is removed. Once the fault is removed the siren will return to normal operation.

Scroll Mode- Setting the slide switch on the rear of the siren to the SCROLL position will put siren in scroll mode. This will allow "scrolling" through tones utilizing sharp taps on the horn ring, or a switch, via the Remote siren input. In this mode holding the horn ring for prolonged durations will produce the Air Horn sound. See OPERATION section for further details.

Hit-n-Go Mode - Setting the slide switch on the rear of the siren to the Hit-N-Go position will put the siren in the Hit-n-Go mode. This mode will be most familiar to existing **MASTER COM** users. A seven second override is standard for all tones when activated by the Remote input. See OPERATION section for details.

Automatic Siren Tones - Industry standard Wail, Yelp, and Hi-Lo tones.

AIR HORN Tone - Electronic AIR HORN sound.

Instant Public Address - Public Address override of all siren functions when the microphone Push-to-Talk key is pressed.

Status LED - An indicator LED, visible on the front of the remote siren amplifier indicates that the unit is on when lighted.

Radio Rebroadcast - Broadcast Two-way radio reception over siren speakers. These inputs are transformer coupled to prevent loading of the radio.

Remote Siren Switching - The siren accepts either a positive or a ground (earth) signal, usually from the vehicle's horn switch (or other user supplied switch), to remotely activate the MANUAL or AIR HORN functions. (MANUAL or AIR HORN is selected via the slide switch located on the front panel of the siren amplifier. **The siren is factory set for a GND (Earth) signal and may be reconfigured to accept a positive signal. See SETUP and Adjustments and Operation sections for details.**

Noise Cancelling Microphone - Plug-in microphone that is easily unplugged for service or replacement.

Unpacking & Pre-installation

After unpacking your Micro**Con**2 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.

Installation & Mounting

The 3992 series siren control may be mounted above the dash, below the dash, on a tunnel or in a rack with the mounting hardware supplied (see Fig. 1). Ease of operation and convenience to the operator should be the prime consideration when mounting the siren and controls

.

NOTE: Setups and adjustments will be made in subsequent steps. That may require access to the rear area of the unit. Plan the installation and wiring accordingly.
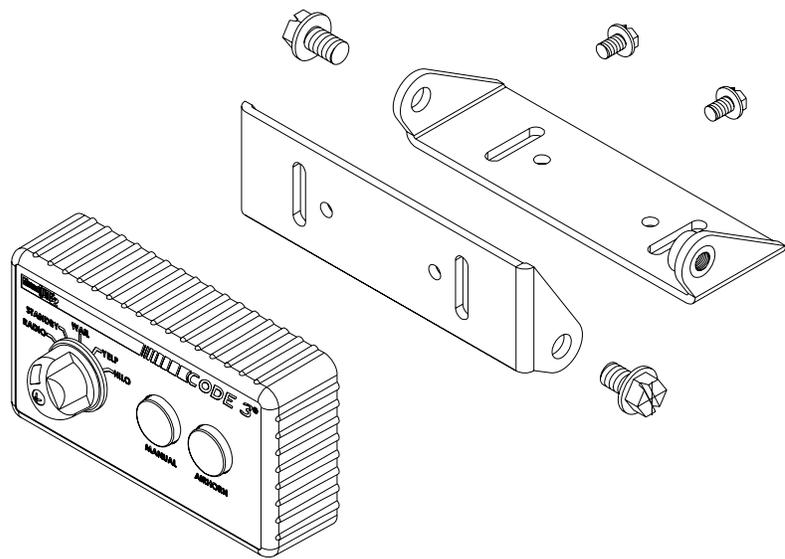

Figure 1

⚠ **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 Control Head Module in a location that will obstruct the drivers view. Mount the microphone clip 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 underhood, 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. |

Amplifier Connections

Siren Amplifier Connector - As a standard feature, the Siren is equipped with a combination plug-in terminal block/connector. To terminate the wires, strip approximately 1/4" of insulation from the end of each wire and insert it in the appropriate hole in the terminal block. Tighten the setscrew and proceed to the next connection.

Should you ever have to remove the unit, pull the terminal block straight out. It will unplug from the unit, leaving the wiring in place.

Terminal Connections

COM - Connect to the wire from speaker terminal 1.

SPKR - Speaker - Connect to the wire from speaker terminal 2.

⚠️

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 connectors(e.g. 3M®) Scotchlock 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. underhood) 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 otherrecommendations 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.

NOTE: When using two 100W (11 ohm) speakers in parallel, correct phasing is important and can be accomplished by connecting both speaker terminals marked " 1 " to the **COM** terminal and both speaker terminals marked " 2" to the **SPKR** terminal. Also refer to the wiring diagram on page 14.

REMOTE - Remote switch (Horn ring or foot switch). Circuit can be configured for both ground (earth) or positive signals. A horn ring transfer circuit is standard in all 3990 series. Connect to the "REMOTE" terminal on the Lighting Control Section terminal block. Unit is configured for a ground (earth) at the factory. See page 8 for details on configuring for a +12V input.

BLTG- Provides +12V to siren backlighting. Connect to a vehicle circuit that is powered when the ignition switch is " on ". If backlighting dimming is desired, connect to the dash lights' circuit. **Caution- If connected to the battery the backlighting will be active at all times.**

PKILL- This feature automatically deactivates siren tones when the vehicle is shifted into PARK. Siren tones will be disabled until the vehicle is shifted out of PARK and one of the siren control switches is selected. This circuit is activated by a negative signal. Connect this input to a circuit that is GROUNDED (Earth) when the vehicle is shifted into PARK. **It is the installer's responsibility to determine an appropriate location in the vehicle circuitry to connect this wire.**

RRB - Connect to one side of the two-way radio speaker.

RRB - Connect to the second side of the two-way radio speaker.

InterClear® - Connect to the device or circuit that is to be activated by the InterClear feature. The InterClear circuit is internally current limited at 1 Amp. Should your application require higher currents, use the InterClear Power Booster Kit (# INTBS), available from your Code 3 supplier.

Power Connections

1/4" Male Quick-Connect Printed Circuit Board Terminals

+12V - Connect to a positive +12 volt DC source. It is recommended that the user protect this wire with a 20 Amp fuse or circuit breaker located at the source. Use #14 gauge wire terminated with **1/4" female, fully insulated quick-connect terminals only.**

NEG - Connect to the negative terminal of the battery. This supplies ground (earth) to the siren. Use #14 gauge wire terminated with **1/4" female, fully insulated quick-connect terminals only.**

NOTE: A #8 stud is provided on the rear of the unit and is intended for use **ONLY** as a convenient ground (earth) " tie-point " for the light bar wiring. **It is not an adequate ground (earth) for the siren or the light bar. It is recommended all ground (earth) wires attached here be terminated with a crimp-on ring terminal.**

When using the 3992XAMP 2nd amplifier with the 3992 siren system the RLSEXP Modular Expansion unit is required. Refer to the diagram on page 11 for interconnection details. The 3992XAMP may also be used with the RLS 3997, 3998 and 3999 sirens by using the same basic interconnection method shown on page 11.
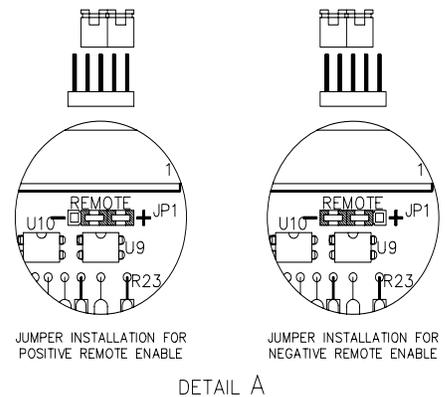
SETUP AND ADJUSTMENT

 All of the adjustments and setup switches are located on the amplifier unit. Make these adjustments and set the switches to the desired position prior to securing the amplifier in it's final mounting location. (see wiring diagram, page 15).

Audio Adjustments

Radio Rebroadcast Adjustment - Place the selector switch in the RADIO position. The trimmer located on the rear panel of the siren sets the maximum level RRB will reach with the knob fully clockwise. To adjust properly, set the volume knob fully clockwise and adjust the trimmer such that normal two-way radio volume inside the vehicle produces the desired volume outside the vehicle.

Maximum P.A. Volume Adjustment - This trimmer (located on the front panel next to the volume control knob) sets the maximum level that the P.A. volume will reach with the front panel VOLUME control in the fully clockwise position. To adjust properly, set the front panel volume control fully clockwise and adjust the trimmer while keying the microphone until the maximum volume out of the speaker is such that there is no feedback and is intelligible.

Remote Input - The remote input can be configured to accept either a positive +12V or negative GND (Earth) signal for actuation. All 3990 series sirens are shipped setup to accept the GND (Earth) signal present on most vehicles from the vehicle horn switch. To reconfigure the Remote Input to accept a +12V signal the amplifier cover must be removed (see exploded view, page 20). Move both jumpers towards the "+ " position. Refer to detail "A" for a complete illustration.

JUMPER INSTALLATION FOR POSITIVE REMOTE ENABLE

JUMPER INSTALLATION FOR NEGATIVE REMOTE ENABLE

DETAIL A

Siren Mode Selector Switch (located on the siren amplifier, rear panel)

The siren has two distinct modes, **Hit-N-Go** and **Scroll**. Set rear panel slide switch, Figure 2, to the desired mode by sliding left or right. See operation section for a detailed description of operation in each mode.

P.A. Volume Knob

This control adjusts the level of the P.A. audio produced when keying the microphone and speaking into it. This control also controls the Radio Rebroadcast level when in the " RRB " switch is on. (see SETUP, Radio Rebroadcast Adjustment).
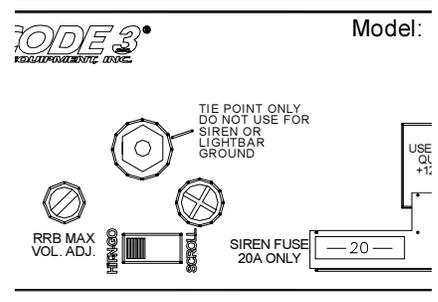
Figure 2
Amplifier Rear View
Hit-N-Go / Scroll Switch

Operation

IMPORTANT !

The Model 3992 Siren has two distinct modes of operation. These are Hit-N-Go mode and SCROLL mode. The desired mode of operation can be selected via the amplifier rear panel slide switch. Each mode will affect the siren operation as described below. The Hit-N-Go mode should be most familiar to existing _MASTER_ {0M} **users.**

The Park Kill features will, in some cases, prevent the siren from producing siren tones. The siren will not produce tones when the vehicle is in "PARK" if the PKILL feature has been connected. To test the siren tones the vehicle must not be in "PARK". The following assumes that PKILL has not been activated.

Operation - Hit-N-Go Mode Selected

The Hit-N-Go mode is designed to allow the user to instantly change siren tones by utilizing the Remote input on the siren. By depressing the switch connected to the Remote input of the siren (usually the vehicle Horn Ring switch), the user can cause the siren to change tones for an eight second period after which time the siren will revert to the previous tone. The InterClear output will also be activated during this period.

Function Description

RRB - In the RADIO position, the audio from the 2-way radio is rebroadcast over the siren speaker. Note, all siren tone functions are disabled in this mode. Hhowever, the AIRHORN function will operate normally.

STANDBY - This is the standby mode. If the **MANUAL** button is depressed the Manual wail tone will ramp up until it reaches a peak then ramp down when released. If the **AIR HORN** button is depressed, the Air Horn sound will be produced.

WAIL - Rotating the selector switch to the WAIL position will cause the siren to produce the Wail tone. Depressing the AIR HORN button will produce the Air Horn sound and when released the siren will resume the Wail tone. If the **MANUAL** button is depressed the Manual wail tone will ramp up until it reaches a peak then ramp down when released then resume the selected tone. The Remote/Horn Ring input will activate the Interclear output and cause the siren tone to either scroll to the next mode or change to Yelp for 7 seconds, depending on the position of the SCROLL/HIT&GO switch.

YELP - Rotating the selector switch to the YELP position will cause the siren to produce the Yelp tone. Depressing the AIR HORN button will produce the Air Horn sound and when released the siren will resume the Yelp tone. If the **MANUAL** button is depressed the Manual wail tone will ramp up until it reaches a peak then ramp down when released then resume the selected tone. The Remote/Horn Ring input will activate the Interclear output and cause the siren tone to either scroll to the next mode or change to HyperYelp for 7 seconds, depending on the position of the SCROLL/HIT&GO switch.

HI-LO - Rotating the selector switch to the HILO position will cause the siren to produce the HILO tone. Depressing the AIR HORN button will produce the Air Horn sound and when released the siren will resume the HILO tone. If the **MANUAL** button is depressed the Manual wail tone will ramp up until it reaches a peak then ramp down when released then resume the selected tone. The Remote/Horn Ring input will activate the Interclear output and cause the siren tone to either scroll to the next mode or change to HyperLO for 7 seconds, depending on the position of the SCROLL/HIT&GO switch.

Push-to-Talk (PTT) Microphone Switch - Keying the microphone will automatically override whatever mode the siren is in and broadcast public address messages over the siren speaker.

MANUAL Push-button Momentary Switch - Produces the Manual tone as described above.

AIR HORN Pushbutton Momentary Switch - Produces the Air Horn tone as described above.
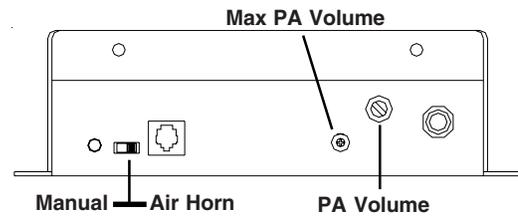

Figure 3, Siren Amplifier, Front Panel

⚠️ **WARNING!** "Wail" and "Yelp" tones are in some cases (such as in the state of California) the only recognized siren tones for calling for the right of way. Ancillary tones such as "Air Horn", "Hi-Lo", "Hyperyelp", and "Hyperlo" 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 an emergency vehicle.

SLIDE SWITCH (Manual / AIR HORN) - The slide switch located on the front of the siren amplifier (see Figure 3) selects the function for the REMOTE (external switch) circuitry. When the siren is in standby mode and switch is to the right, the Horn Ring circuitry remotely "depresses" the AIR HORN button and it produces the effects outlined above. When the slide switch is to the left, it allows the REMOTE circuitry to remotely "depress" the MANUAL push-button with a similar result.

Operation - Scroll Mode Selected

The " Scroll " mode is designed to allow the user to scroll through Wail, Yelp, HyperYelp and AIR HORN tones by utilizing the Remote input on the siren. This will usually be connected to the vehicle Horn Ring circuit. The user can use the Horn Ring to sequence through Wail, Yelp and Hyperyelp by applying a quick, sharp tap on the horn. Additional taps will scroll the siren to the next tone. The InterClear output will also be activated for an eight second period following each tap of the Horn Ring switch. Depressing the horn for longer periods will produce AIR HORN tone and deactivate the InterClear output.

When the Scroll Off option is purchased, the Remote input may be used to activate the siren from the Standby mode. In this case the Scroll feature will operate as described above except that the siren will scroll through WAIL, YELP, HYPERYELP & STANDBY modes. Holding the remote switch for a longer period will still cause the siren to switch to the Air Horn tone. When the siren is not in Standby mode (the siren is operating in any mode which was invoked by the either the Scroll Up or Scroll Down switches on the 3992 control panel), the scroll feature will operate as previously described.

Function Description

RRB - In the RRB position, the audio from the 2-way radio is rebroadcast over the siren speaker. Note, all siren tone functions are disabled in this mode. Hhowever, the AIRHORN function will operate normally.

STANDBY - This is the standby mode; no siren tones are produced in this position except when the **MANUAL** button is depressed the Manual wail tone will ramp up until it reaches a peak then ramp down when released. If the **AIR HORN** button is depressed, the Air Horn sound will be produced.

WAIL - This mode produces the Wail tone. Depressing the MANUAL button will now produce Manual wail tone and ramp up until released. Depressing the AIR HORN button will produce the Air Horn sound. The siren can be scrolled in this position as described above. The Remote/Horn Ring input will also activate the Interclear output for 7 seconds.

YELP - This mode produces the Yelp tone. Pushing the MANUAL button will now produce the Manual wail tone and ramp up until released. If the AIR HORN button is pushed, the AIR HORN sound will be produced. The siren can be scrolled from this position as described above. The Remote/Horn Ring input will also activate the Interclear output for 7 seconds.

HI-LO - This position produces the Hi-Lo tone. Pushing the MANUAL button will produce the Manual Wail tone until released. If the AIR HORN button is pushed, the AIR HORN sound will be produced and when released the siren return to Hi-Lo. The siren cannot be scrolled from this position. The Remote/Horn Ring input will activate the Interclear output and cause the tone to change to HyperLo for 7 seconds.

Push-to-Talk (PTT) Microphone Switch - Keying the microphone will automatically override whatever mode the siren is in and broadcast public address messages over the siren speaker.

MANUAL Pushbutton Momentary Switch - Produces the Manual tone as described above.

AIR HORN Pushbutton Momentary Switch - Produces the Air Horn tone as described above.

MANUAL / AIR HORN SWITCH - The MANUAL / AIR HORN slide switch located on the front of the siren amplifier, Figure 3, selects the function for the REMOTE (external switch) circuitry when the siren is in standby mode. When the siren is in standby mode and switch is to the right, the Horn Ring circuitry remotely "depresses" the AIR HORN button and it produces the effects outlined above. When the slide switch is to the left, it allows the REMOTE circuitry to remotely "depress" the MANUAL pushbutton. This causes the effects described above to occur. **When in the "Scroll " mode this switch has no effect unless in STANDBY position.**

LED STATUS INDICATOR - The green LED status indicator indicates the siren amplifier is on when lighted; off or standby mode when unlighted.

SPECIAL CAUTION!

The modular cables supplied with the Micro[on]₂ siren are specially designed to meet the needs of this product. DO NOT attempt to splice the cables, fabricate replacement cables or to substitute generic cables in place of those provided. Use of non-CODE 3 cables will cause damage to your siren and will void the warranty. CODE 3 has several lengths of standard cables available and can fabricate custom length cables (priced separatley) to meet your unique requirements.

MAINTENANCE

Your Code 3® 3992 siren has been designed to provide trouble free service. In case of difficulty, see Troubleshooting (pages 12-13). Also check for shorted or open wires. The primary cause of short circuits has been found to be wires passing through firewalls, roofs, etc. If further difficulty persists, contact the factory for troubleshooting advice or return instructions. Public Safety Equipment, Inc. maintains a complete parts inventory and service facility at the factory 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 express written consent by 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.

USER SUPPLIED
FASTENERS (4)

3992XAMP SIREN

USER SUPPLIED
FASTENERS (4)

3992 SIREN

USER SUPPLIED
FASTENERS (4)

MODULAR EXPANSION UNIT
NOTE: NOT TO SCALE

P/N T11137
CABLE

P/N T11049 Y-ADAPTER

P/N T10898
20' EXT. CABLE

T07309
MICROPHONE

P/N T10957 CABLE

RLS CONTROL HEAD
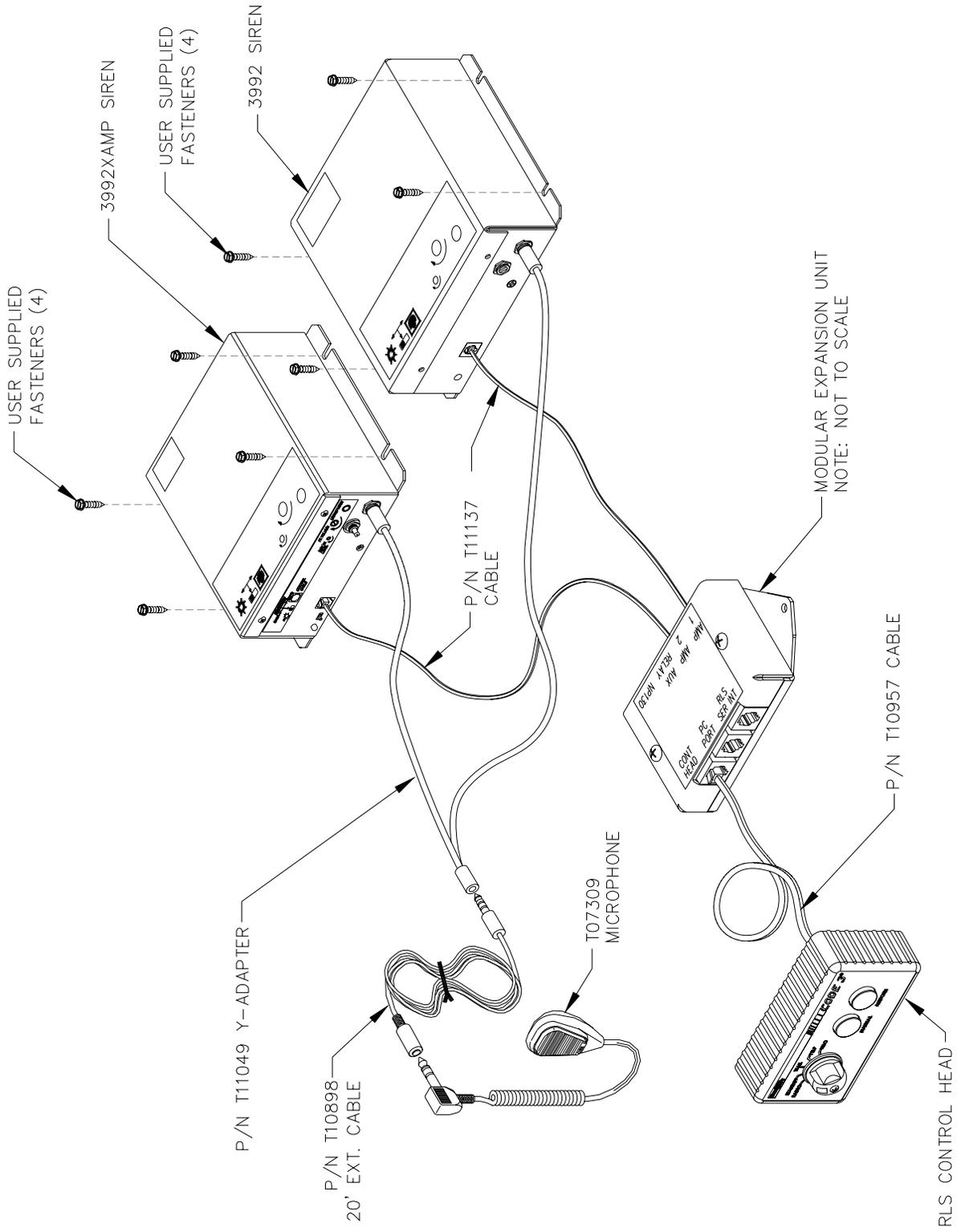
3992/ 3992XAMP Interconnection

TROUBLESHOOTING
(Refer to wiring diagram page 15)

PROBLEM	PROBABLE CAUSE	REMEDY
NO SIREN OUTPUT.	A. PARK KILL ACTIVATED B. SHORTED SPEAKER OR SPEAKER WIRES. SIREN IN OVER CURRENT PROTECTION MODE.	A. SHIFT VEHICLE OUT OF PARK. B. REPLACE SPEAKERS, CHECK CONNECTIONS
EXTERNAL 20A FUSE BLOWS.	A. AMPLIFIER POWER WIRES REVERSED POLARITY	A. CHECK POLARITY
NO OUTPUT FROM SPEAKER, TONES HEARD INSIDE AMP. MODULE.	A. SPEAKER NOT CONNECTED/ OPEN CIRCUIT IN SPEAKER WIRING B. DEFECTIVE SPEAKERS	A. CHECK SPEAKER WIRING B. REPLACE SPEAKER(S)
SIREN TONES VOLUME TOO LOW/GARBLED.	A. LOW VOLTAGE TO SIREN AMPLIFIER B. HIGH RESISTANCE IN WIRING/ DEFECTIVE SPEAKER C. SPEAKERS PHASED IMPROPERLY	A. CHECK WIRING FOR BAD CONNECTIONS/ CHECK VEHICLE CHARGING SYSTEM B. CHECK SPEAKER(S) WIRING/REPLACE SPEAKER(S) C. REFER TO TEXT FOR PROPER PHASING
HIGH RATE OF SPEAKER FAILURE.	A. HIGH VOLTAGE TO SIREN B. 58 WATT SPEAKER CONNECTED	A. CHECK VEHICLE CHARGING SYSTEM B. USE CORRECT SPEAKER
SIREN CONTINUES TO OPERATE FOR 7 SEC. AFTER MANUAL BUTTON/ HORN RING IS RELEASED.	A. "HIT-N-GO" FEATURE ENGAGED. NORMAL OPERATION	
INTERCLEAR WILL NOT POWER AUXILIARY DEVICES.	A. THERE IS A SHORT IN THE WIRING, OR THE LOAD IS GREATER THAN 1 A.	A. CHECK FOR SHORTS. INSTALL INTERCLEAR BOOSTER KIT (PART #INTBS)
P.A. VOLUME LOW OR NO P.A. AT ALL. VOLUME CONTROL FULLY CLOCKWISE.	A. DEFECTIVE MICROPHONE B. MAXIMUM P.A. VOLUME TRIMMER MISADJUSTED. SEE SETUP AND ADJUSTMENT SECTION. C. MICROPHONE NOT COMPLETELY PLUGGED IN. D. COMMON MICROPHONE CIRCUIT NOT PROPERLY WIRED. E. INCORRECT MICROPHONE.	A. REPLACE MICROPHONE B. REFER TO SETUP AND ADJUSTMENT SECTION C. PLUG MICROPHONE IN SECURELY D. CHECK WIRING E. CALL PSE FOR LIST OF ADAPTABLE MICROPHONES

TROUBLESHOOTING

(Refer to wiring diagram page 15)

PROBLEM	PROBABLE CAUSE	REMEDY
RRB VOLUME LOW, OR NO RRB AT ALL. VOLUME CONTROL FULLY CLOCKWISE.	A. MAXIMUM RADIO REBROADCAST TRIMMER MISADJUSTED B. RRB WIRES NOT CONNECTED TO TWO-WAY RADIO EXTERNAL SPEAKER	A. REFER TO SETUP AND ADJUSTMENT SECTION B. CHECK RRB CONNECTIONS
SIREN SOUNDS BY ITSELF	A. REMOTE SWITCH (HORN RING) WIRING FROM TERMINAL REMOTE SHORTING TO POSITIVE OR TO GROUND (EARTH).	A. CHECK WIRING FOR ANY SHORTING.
SIREN RUNS PROPERLY BUT SHUTS DOWN WHILE RUNNING, THEN STARTS RUNNING AGAIN AFTER A FEW MINUTES	A. VEHICLE CIRCUIT BREAKERS NOT RATED PROPERLY, AND ARE OVERHEATING, OR ARE NOT FUNCTIONING PROPERLY	A. REFER TO SPECIFICATIONS SECTION, PAGE 17. USE A BREAKER RATED AT 1.25x THE AMPERAGE OF THE EXPECTED LOAD CURRENT.

INTERCONNECT DIAGRAM

BATTERY

TO IGNITION

TO IGNITION

#14 GA

#14 GA

USE 1/4" FEMALE INSULATED
QUICK-CONNECTS

20A MAX

+12V

20A MAX

INTERCLEAR OUTPUT #1, **1A Maximum**
TO TWO-WAY RADIO

PARK SWITCH

DASH LIGHT SWITCH / IGNITION
SWITCH

INTERCLEAR OUTPUT #2, **1A Maxi-
mum**

18 GA

Model: 3992

Model: 3992XAMP

WARNING!
USE ONLY INSULATED
QUICK-SLIDES FOR
+12V & NEG TERMS

WARNING!
USE ONLY INSULATED
QUICK-SLIDES FOR
+12V & NEG TERMS

+12V   NEG

+12V   NEG

TIE POINT ONLY
DO NOT USE FOR
SIREN OR
LIGHT BAR
GROUND

TIE POINT ONLY
DO NOT USE FOR
SIREN OR
LIGHT BAR
GROUND

SIREN FUSE
20A ONLY

SIREN FUSE
20A ONLY

20

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RRB MAX
VOL. ADJ.

RRB MAX
VOL. ADJ.

CODE 3
PUBLIC SAFETY EQUIPMENT INC.
MicroCom2

Code 3, Inc., a subsidiary of
Public Safety Equipment, Inc.

WARNING!
MAX INTERCLEAR
CURRENT –1A

WARNING!
MAX SPEAKER
LOAD 200 WATT

WARNING!
MAX INTERCLEAR
CURRENT – 1A

WARNING!
MAX SPEAKER
LOAD 200 WATT

COM

COM

16GA

16GA

BREAK VEHICLE

ADDITIONAL 100W SPEAKER

100W SPEAKER

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Specifications, 3992 / 3992XAMP Sirens

Input Voltage: 10 to 16 VDC, negative ground - 12V units
(Note: Operation above 15 VDC for an extended period of time may result in speaker damage.)
                          20 to 30 VDC, negative ground - 24V units
(Note: Operation above 30 VDC for an extended period of time may result in speaker damage.)

Operating Current 100W: 8 Amps @ 13.6V with 11-ohm load (100 W Spkr) - 12Vunits
                          4. 5 Amps @ 27.6V with 11-ohm load (100 W Spkr) - 24Vunits
              200W:
                          14 Amps @ 13.6V with 5.5-ohm load (2- 100 W Spkr) - 12V units
                          9 Amps @ 27.6V with 5.5-ohm load (2- 100 W Spkr) - 24V units
Standby Current: 25 mA excluding backlighting

Cycle Rate: WAIL - 11 cycles/minute.
                          YELP - 200 cycles/minute.

Voltage Output (approx.) 58V peak-to-peak with 5.5 ohm load (2-100 W Spkrs)

Primary Tones: (standard)   Wail, Yelp, Hi-Lo, Air Horn
Secondary Tones: (standard)   HyperYelp, HyperLo

Primary Tones: (optional)   Wail, Yelp, Air Horn
Secondary Tones: (optional)   HyperYelp

Note: The 3992XAMP provides opposing tones for use in dual siren applications:

3992 Tone	**3992XAMP Tone**
Wail	Wail
Yelp	Wail
HyperYelp	Yelp
HILO	Yelp*
HyperLo**	Yelp
Manual	Manual
Air Horn	Air Horn

*Yelp   Yelp   w/ No HILO option
**The HyperLo tone is produced by the 3992 siren in Hit&Go mode only.

Audio Section:
Noise Cancelling Plug-In Microphone
Audio Response: ± 1 dB   300 to 3000 hz.
                          1000 hz. 0 dB Reference

Special Features:

Instant "ON", Park Kill, Adj. Backlighting, "Hit&Go" Mode, "Scroll" Mode w/ Instant Air Horn, "Scroll-Off" Mode w/Instant Air Horn (optional), Automatic Short Circuit Protection, Instant Public Address, Status Indicator LED, Radio Rebroadcast (RRB), Remote Siren Switching Input (Horn Ring or Remote Switch), +12VDC or Ground operation

**Dimensions and Weight:**

Control Head: 4.625"W x 2.625"H x 1.9"D, Mounting Hole Centers: 2.250"
Amplifier: 7.625"W x 2.5"H x 7.0"D, Mounting Hole Centers: 7.125" x 4.375"
Standard Control Cable Length: 20 Feet
Shipping Weight (3992) 5.75 lbs; (3992XAMP) 4 lbs
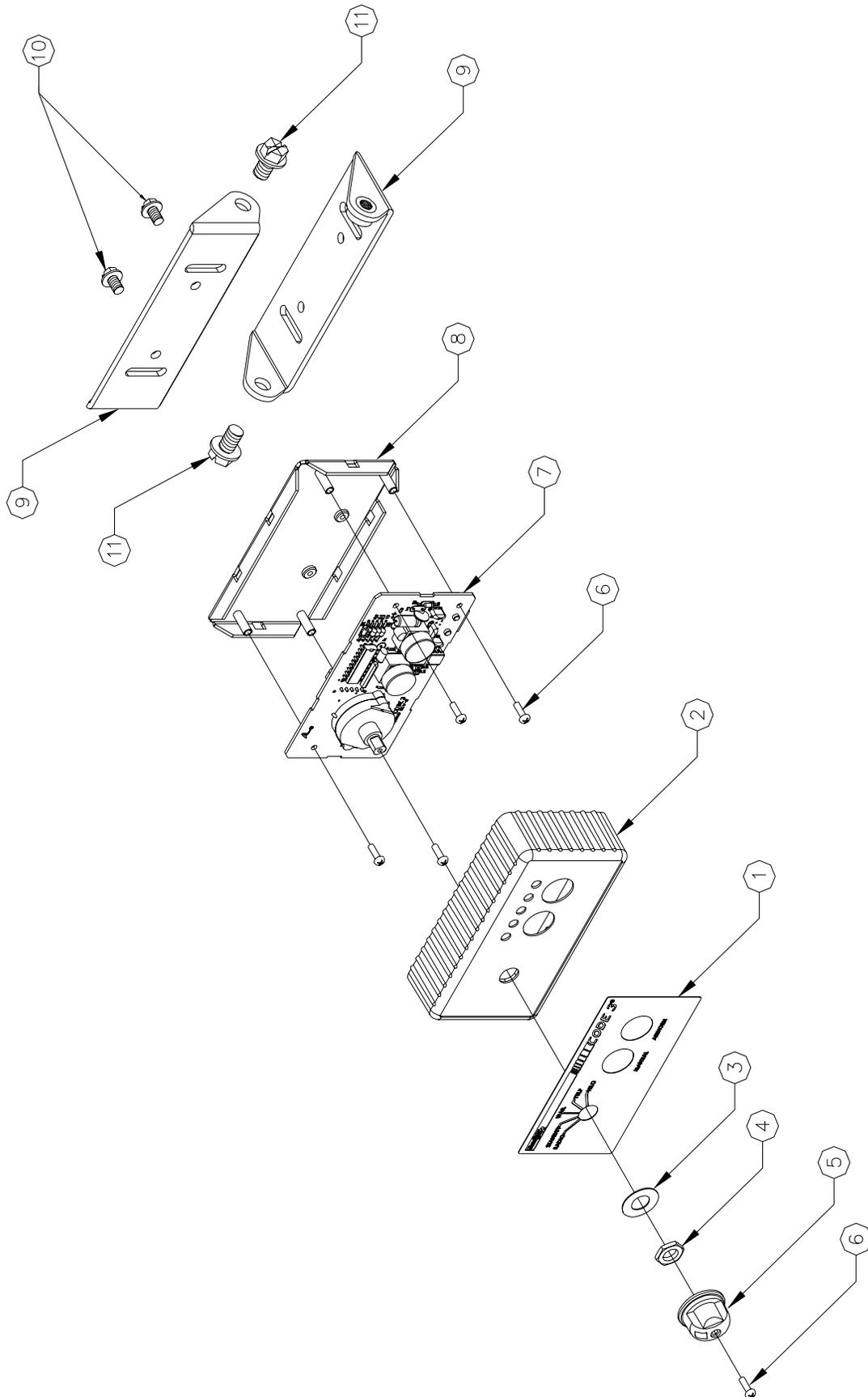
Control Head, Exploded View

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Siren Control Head, Parts List

Ref No.	Description	Part No.	Qty.
1	Label, Faceplate, Model 3992 Siren	T11069	1
2	Enclosure, Control Head, Model 3992 Siren	T11043	1
3	Washer, 3/8" Flat, Volume Control	T00667	1
4	Nut, 3/8-32 x 1/2" x .090"	T01082	5
5a	Knob, Selector Switch	T03537	1
5b	Insert, Knob, Selector Switch	T03538	1
6	4-40 x 3/8" Pan Head Phillips, Black Oxide	T06937	5
7	PCB Assembly, Control Head, Model 3992 Siren	S71646	1
8	E-Tray, Control Head, Model 3992 Siren	T11046	1
9	Bracket, Control Head, Model 3992 Siren	T11050	2
10	8-32 x 1/4" Hex Head, Zinc	T01385	2
11	1/4 - 20 x .375", Hex Washer Hd, Zinc	T10912	2
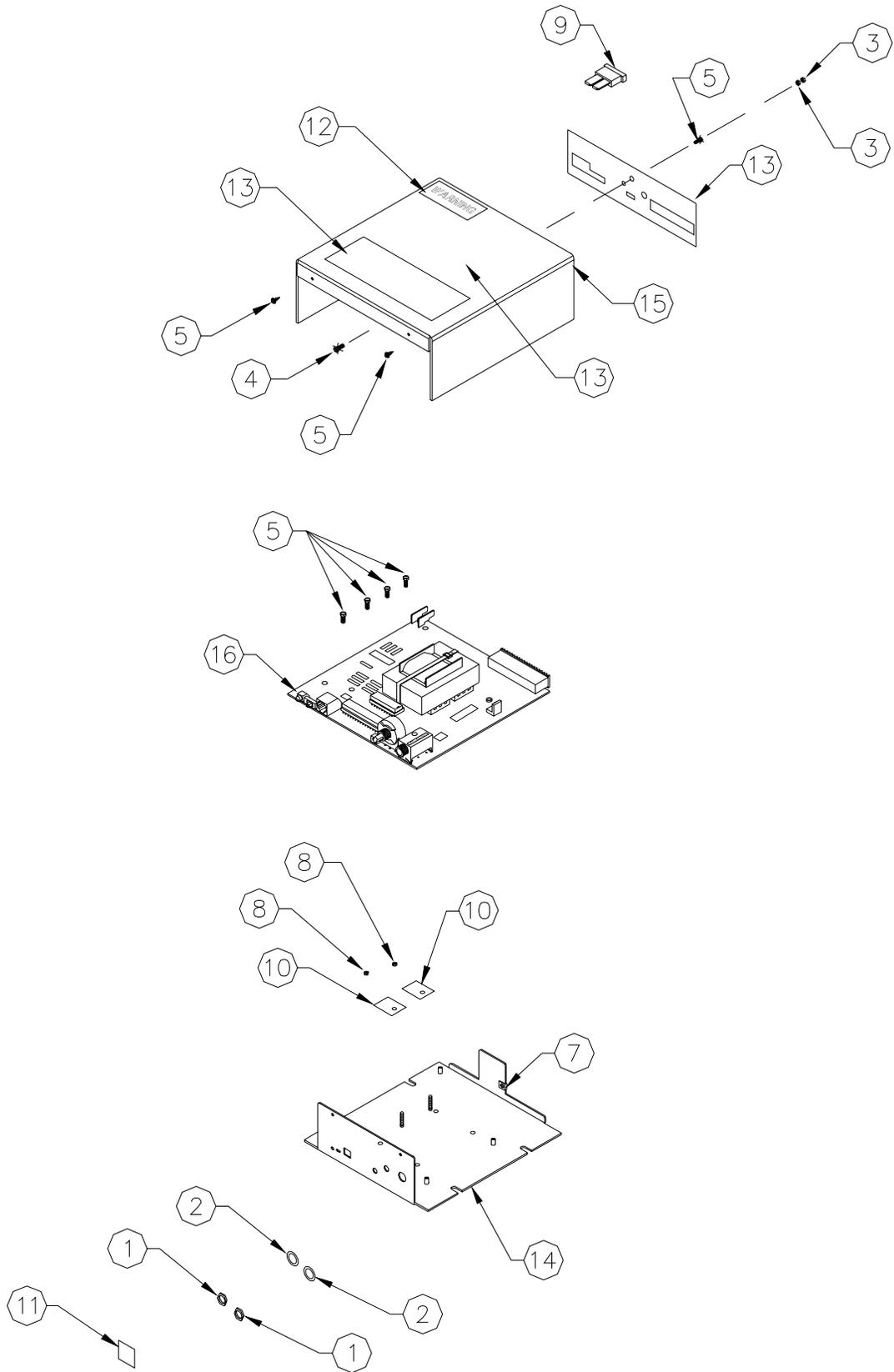
Siren Amplifier, Exploded View

Siren Amplifier, Parts List

Ref No.	Description	Part No.	Qty.
1	3/8 - 32 x 1/2 x .090" Nut	T01082	2
2	Flat Washer, 3/8"	T00667	2
3	8 - 32 Keps Nut	T00674	2
4	8 - 32 x 5/8 Machine Screw	T00763	1
5	6 - 32 Rd Hd Phil., Machine Screw	T01030	6
6	6 x 3/8 Hex Hd, Sheet Metal Screw	T01031	1
7	Tinnerman Clip	T01058	1
8	4 - 40 Nylon Insert Stop Nut	T03594	2
9	Fuse, ATO, 20A	T01143	1
10	Transistor Insulating Pad	T06363	2
11	Serial Number Label	T06140	1
12	Airbag Warning Label	T09937	1
13	Label, Wiring and Backplate, Model 3992 Siren	T11047	1
14	E - Tray, Inserted	T11052	1
15	Cover, Model 3992 Siren Amplifier	T11053	1
16	Siren Amplifier PCB, RLS Series Siren	S71541	1
	Not Shown:		
	#6-32 x 1.5, Truss Hd., Phil., Machine Screw	T11136	4

WARRANTY

Code 3, Inc.'s emergency devices are tested and found to be operational at the time of manufacture. Provided they are installed and operated in accordance with manufacturer's recommendations, Code 3, Inc. guarantees all parts and components except the lamps to a period of 1 year (unless otherwise expressed) from the date of purchase or delivery, whichever is later. Units demonstrated to be defective within the warranty period will be repaired or replaced at the factory service center at no cost.

Use of lamp or other electrical load of a wattage higher than installed or recommended by the factory, or use of inappropriate or inadequate wiring or circuit protection causes this warranty to become void. Failure or destruction of the product resulting from abuse or unusual use and/ or accidents is not covered by this warranty. Code 3, Inc. shall in no way be liable for other damages including consequential, indirect or special damages whether loss is due to negligence or breach of warranty.

CODE 3, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY INCLUDING, WITHOUT LIMITATION, WARRANTIES OF FITNESS OR MERCHANTABILITY, WITH RESPECT TO THIS PRODUCT.

PRODUCT RETURNS

If a product must be returned for repair or replacement*, please contact our factory to obtain a Return Goods Authorization Number (RGA number) before you ship the product to Code 3, Inc. Write the RGA number clearly on the package near the mailing label. Be sure you use sufficient packing materials to avoid damage to the product being returned while in transit.

*Code 3, Inc. reserves the right to repair or replace at its discretion. Code 3, Inc. assumes no responsibility or liability for expenses incurred for the removal and /or reinstallation of products requiring service and/or repair.; nor for the packaging, handling, and shipping: nor for the handling of products return to sender after the service has been rendered.

NEED HELP? Call our Technical Assistance Hotline - (314) 996-2800

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Public Safety Equipment, Inc.

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PUBLIC SAFETY EQUIPMENT, INC.

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