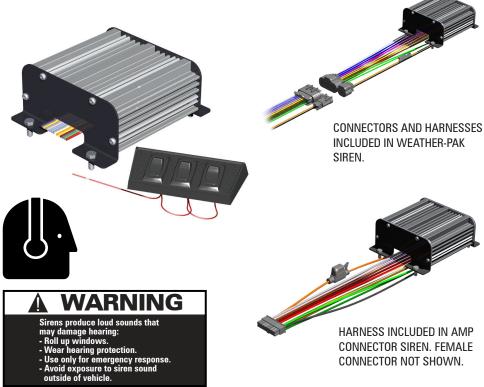
SERIES Compact Siren

ETSA2ØØRW - W/ WEATHER PAK CONNECTOR ETSA2ØØRA - W/ AMP CONNECTOR



Please see reverse for **Technical Specifications**

Important Information: -

 Warning devices are strictly regulated and governed by Federal, State and Municipal ordinances. These devices shall be used ONLY on approved vehicles. It is the sole responsibility of the user of these devices to ensure compliance.

IMPORTANT NOTICE TO INSTALLER:

Make sure to read and understand all instructions and warnings before proceeding with the installation of this product. Ensure the manual and all warning cards are delivered to the end user of this equipment.

Introduction

The ETSA2ØØR(x) is a Compact Siren Amplifier designed for single 100 Watt speaker or dual 58 Watt use.

The primary operating modes are User Selectable Tone, Yelp, Wail, Piercer, Hi-Lo, Super Hi-Lo, Radio, PA, Horn Override, and a Manual Override are available in all modes.

Sirens provide an essential function of an effective audio / visual warning system. However, sirens are only short range secondary devices. The use of a siren does not insure that all drivers can or will abide by or react to an emergency warning signal, especially at high rates of speeds or long distances. The operator of the vehicle must never take the right of way for granted and it is the operator's responsibility to proceed safely.

The effectiveness of this siren system is highly dependant on the correct mounting and wiring. The installer must read and follow the manufacturer's installation instructions and warnings in the manual. The vehicle operator should verify the siren system is securely fastened to the vehicle and properly functioning.

Effective sirens generate loud sound pressure levels that can potentially cause hearing damage. Installers and those around the vehicle need to be aware of the dangers and wear hearing protection whenever the siren system is operating. Vehicle operators and occupants should assess their exposure to siren noise and determine what steps need to be taken to prevent hearing damage.

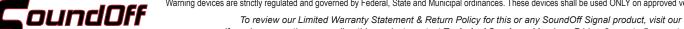
The siren system is intended for use by authorized personnel only. It is the user's responsibility to ensure they understand and operate the emergency warning devices in compliance with all applicable city, state, and federal laws and regulations. SoundOff Signal assumes no liability for any loss resulting from the use of the siren system.

Package Contents:

- 1 ea. Amplifier
- 1 ea. Instruction Manual
- 1 ea. Operators Warning Card to remain in vehicle for operator review
- 1 ea. Sound Pressure Warning Label that is to be attached in vehicle and in plain site of operator and occupants of the vehicle
- 1 ea. 3 Switch panel with: 1-0N/0FF/0N Switch 2-OFF/MOMENTARY Switch
- 1 ea. Electrical Isolation Hardware Kit

Wire capacity requirements for siren amplifier (incoming power + ground) 0-10 Feet: 14 ÅWG 10-20 Feet: 12 AWG 20-30 Feet: 10 AWG 30 + Feet: Consult Factory to determine requirements

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ETSA2ØØR(x) 6.13



TECHNICAL SPECIFICATIONS		
Size Amplifier:	2.3″H x 5.4″W x 4.6″D	
Input Voltage:	10 - 30 Vdc (negative ground)	
Input Current:	8 Amps @ 13.6 Vdc (100W speaker)	
Standby Current:	<1 mA	
Audio Frequency:	200Hz - 10 kHz + 3db	
Output Power:	100 WATTS RMS MAX. (11 Ohm Speaker Impedance)	
Siren Frequency:	675Hz - 1633Hz	
High Voltage Protection:	30 Vdc will cause siren output to cease, resume at normal.	
Low Voltage Shutdown:	Voltage below 9.0 Volts for 10 seconds or more will cause siren output to cease and will resume when system voltage is above 9.0 Volts	
Operating Temperature / Humidity:	-40° F to $+110^{\circ}$ F temperature, 5-95% Non-condensing humidity	
Controls:	Tone, Yelp, Wail, Horn, Manual, Horn Ring, Park Kill, Ignition, PA, Radio Rebroadcast	
Boxed Weight	3 Lbs.	

INPUT WIRE HARNESS				
WIRE COLOR:	FUNCTION	ACTIVATION METHOD		
TAN	Tone 1 Select	Connect to +Vdc		
BROWN	Tone 2 Select	Connect to +Vdc		
TAN AND BROWN	Tone 3 Select	Connect to +Vdc		
RED/BLACK	Manual Tone Select	Connect to +Vdc		
RED	Horn Tone Select	Connect to +Vdc		
ORANGE/BLACK	Ignition Input	Connect to +Vdc		
WHITE/RED	PA Audio through Siren	Connect PTT Switch wire (Grey) to ground (-)		
BLUE	Radio Rebroadcast	Connect Grey wire to +Vdc		
YELLOW	Park Kill / Tone Disable	Connect to Ground (-)		
WHITE	Horn Ring Output			
WHITE/BLACK	Horn Ring Input	Ground Input Signal		
VIOLET Tone / Volume Program		Connect to Ground to change tone / volume		

PA VOLUME PROGRAMMING

- 1. Connect audio source to White/Red wire
- 2. Connect Grey wire to ground to activate PA
- Momentarily connect Violet wire to ground to toggle through the available volume settings.
- 4. The last volume selected will be programmed to be used whenever PA control is selected

RADIO RE-BROADCAST VOLUME PROGRAMMING

- 5. Connect audio source to Blue wires
- 6. Connect Grey wire to +V to activate Radio Rebroadcast
- 7. Momentarily connect Violet wire to ground to toggle
- through the available volume settings.8. The last volume selected will be programmed to be used whenever Badio Rebroadcast is selected

HORN RING TONE ACTIVATION:

- When Horn Ring is activated, while Tone 1 is activated, the siren will switch to Tone 2 for 5 seconds and then return to Tone 1
- When Horn Ring is activated, while Tone 2 is activated, the siren will switch to Tone 1 for 5 seconds and then return to Tone 2
- When Horn Ring is activated, while Tone 3 is activated, the siren will switch to Tone 1 for 5 seconds and then return to Tone 3

HANDS FREE OPERATION:

When the Horn Ring is programmed to a warning tone, Hands-free operation is enabled. When the Horn Ring is activated, the tone will sound until the Horn Ring is activated again. Tone1, Tone2, Tone3, PTT, Manual Tone and Radio Rebroadcast will override Hands-free operation.





TONE SELECT PROGRAMMING

1. Connect the following wires to + Vdc to activate tone that needs to be programmed

WIRE COLOR:	FUNCTION
TAN	Tone 1 Select
BROWN	Tone 2 Select
TAN AND BROWN	Tone 3 Select
RED	Horn Tone Select
WHITE/BLACK	Horn Ring

2. Momentarily connect Violet wire to ground to toggle through available tones

- 3. The last tone selected will be programmed to be used whenever selected control wires are activated
- 4. Repeat steps 1-3 for each tone option
- **NOTE:** Manual Function is <u>NOT</u> programmable.

TONE RESET INSTRUCTION:

When toggling through available tones, holding the violet wire to ground for more than two seconds the tone will switch to the default tone.

(See Horn Tone and Warning Tone Table below)

HORN TONE TABLE		
HORN TONE 1	Default	
HORN TONE 2		
HORN TONE 3		
HORN TONE 4		



WARNING TONE TABLE		
WAIL	Tone 1 and Horn Ring (default)	
YELP	Tone 2 (default)	
ALERT A	Tone 3 (default)	
PIERCER		
Hi-Lo		
SUPER Hi-Lo		
CYCLE TONE	Plays thru Wail, Yelp, Alert A and Piercer (Tone changes every 5 seconds)	

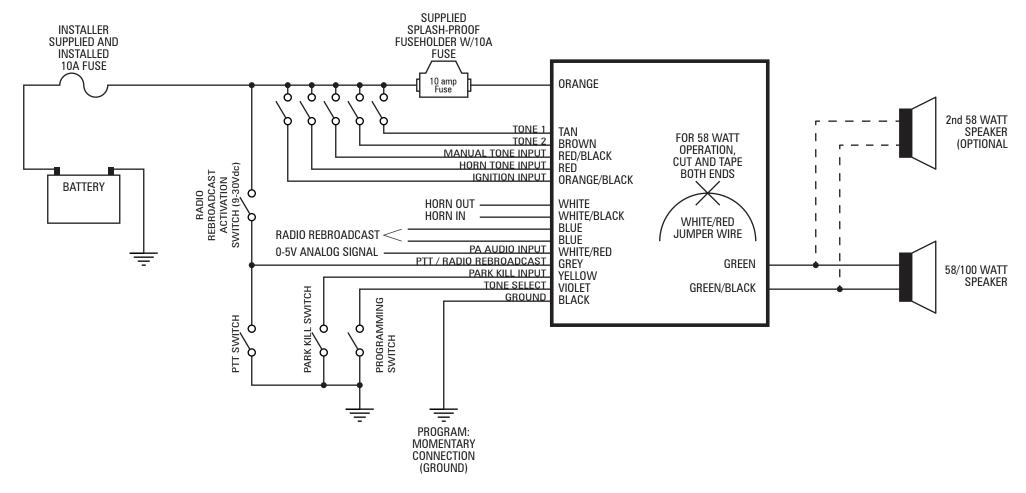
INSTALLATION:

- 1. Mount Amplifier Assembly in a protected location, being careful to route wires away from any hot surfaces or areas where the wires may get pinched.
- 2. Locate Green and Green/Black wires that are on opposite corners of all other input/control wires. These are the outputs to the speaker(s)
- 3. Connect these 2 wires to the speaker(s) which are installed on the vehicle. The white/ red wire jumper will determine if the amplifier is to operate at an output voltage designed to drive a single 100 Watt speaker or a single/dual 58 Watt speaker(s). See electrical schematic on reverse side for more information.

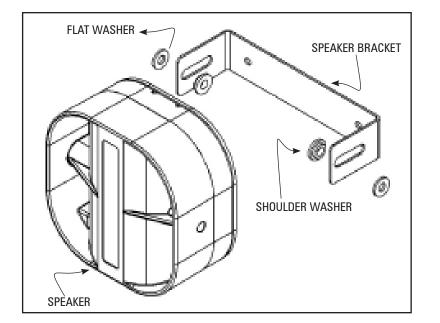
SPEAKER CONFIGURATION	WHITE/RED JUMPER WIRE
SINGLE 100 WATT SPEAKER	DO NOT CUT
SINGLE 58 WATT SPEAKER	Cut and Tape both ends
DUAL 58 WATT SPEAKER	Cut and Tape both ends

- 4. Connect Black wire to reliable ground. Using wire capacity chart as a guideline to establish wire gauge to use for extending wires.
- 5. Connect Orange wire to fused constant +Vdc. Using wire capacity chart as a guideline to establish wire gauge to use for extending wires.
- 6. Connect Orange/Black wire to ignition switch. +Vdc is required on Orange/Black wire for siren to operate.
- 7. Connect Tone 1, Tone 2, Manual Tone, Horn Tone wires to provided switch panel as needed.
- 8. Program Tones following instructions found earlier in the manual under Tone Select Programming.
- 9. Connect Blue wires to radio output if radio rebroadcast feature is required.
- 10. Connect White/Red wire to PA microphone.
- Connect PTT / Radio Rebroadcast activation wire and to switch that will supply ground when activated for PA function and +Vdc when activated for Radio Rebroadcast function. A Single Pole Double Throw (SPDT) switch with center OFF position will be required for this.
- 12. Program Radio Rebroadcast following the Programming instructions found earlier in the manual under Radio Re-broadcast Volume Programming.
- 13. Program Radio Rebroadcast following the Programming instructions found earlier in the manual under PA Volume Programming.
- 14. (OPTIONAL) Attach Yellow wire (Park Kill) to a switch that will supply ground whenever the siren is to be disabled.









For 200 Series Sirens the speaker must be electrically isolated from the vehicle's chassis ground.

NOTICE TO INSTALLER:

When installing your speaker, be sure to use the supplied electrical isolation hardware kit as shown left.

1. Use a .375 drill bit to drill a hole in the speaker bracket to allow room for the shoulder washer if needed.

2. Place shoulder washers between the speaker and the speaker bracket

3. Place flat washer on outside of speaker bracket and use the screws supplied with your speaker to screw together.

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ETSA2ØØR(x) 6.13