



**VIOLENT STORM SIGNAL**

# ***ELECTRONIC SIREN MODELS V7-1, V7-2***



## **INSTALLATION AND OPERATING INSTRUCTIONS**



## **WARNING**

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.

***VIOLENT STORM SIGNAL GROUP LTD assumes no liability for any loss resulting from the use of this warning device.***



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## 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.



### **WARNING**

#### **Sirens produce loud sounds that may damage hearing**

- Roll up windows
- Wear hearing protection
- Use only for emergency response
- Avoid exposure to siren sound outside of vehicle

## **INTRODUCTION**

The V7 Series Remote Siren Amplifier is a premium 200W/400W unit designed for dual or four 100W speaker use. The siren comes standard with a remote control head with a noise-cancelling microphone for PA use.

The amplifier box contains two separate amplifiers which allow the user to operate two separate and distinct tones at the same time. This dual-tone feature creates a unique sound providing one of the most attention getting amplifiers on the market today. The dual-tone sound allows a single vehicle to sound like several vehicles traveling at the same time.

Each amplifier operates independently to provide 100W RMS power to each speaker. The primary operating modes are Air Horn, Piercer, Yelp, Wail, Fast Wail, VS Signal Auto, Scan, and Manual.

The V7 series is available in the following different versions:

V7-1: Amplifier is a premium 200W unit designed for dual 100W speakers use.

V7-2: Amplifier is a premium 400W unit designed for four 100W speakers use.

V7-1 and V7-2 with full siren controls, and light controls. Includes a remote hand-held controller with microphone, and the siren amplifier.

### **City mode and Highway mode:**

V7 series is the first one in the industry that has the City and Highway modes. It is the upgrade from the previous Singular and Dual sound mode. The City mode limits the volume output to minimize the noise level. Highway mode can simulate a number of sirens at the same time to maximize the effect of deterrence to the criminals. Users can choose any mode as needed.

### **Recording feature:**

V7 series has the recording feature and the speaker feature. Anything spoken to the microphone after push the “Record” the button will be recorded; the recording can be played back after a simple push on the “Play” button. The sound put out by the sirens speakers is clear and crispy.

### **Automated “VS AUTO”:**

This is a unique feature of V7 that a sound made of “Air Horn +Manual Frequency Switch + 6 Seconds Fast Wail”; the “VS Auto” is played out automatically in the sequence. This is designed to project the presence and be noticed by the traffic ahead in the shortest time as possible for road way clearance.

### **Express Automated 10 Seconds “VS Auto”:**

Push the button of “10 Seconds VS Auto”, a cycle of “VS Auto” will be played for 10 seconds and stops. (The play will be stopped if the button is pushed while it is being played)-the feature is specially designed for emergency passing traffic ahead and dangerous intersections.

### **“Scan” sound:**

This is a sound that is composed of high frequency (Piercer) and Yelp sounds. It automatically switches back and forth for one to another.

### **4-way Light Control:**

Main control can turn on the 4-way light. The total amperage can reach 40A. (Light A,B,C or D maximum is 10A)

### **Radio Repeat:**

This function amplifies a radio speaker input for re-broadcast outside the vehicle through the siren speakers. (\*Optional)

### **Automated circulating fan controlled by thermo:**

The casing is aluminum for better heat induction. Heat sink also attaches to the outside of the casing for heat dissipation. Automated circulating fan controlled by thermo turns on when the temperature of the main control rises (up to 113° F) and shuts off when the temperature drops.



# **INSTALLATION SAFETY MESSAGE** **TO INSTALLERS OF ELECTRONIC SIRENS**



## **WARNING**

The lives of people depend on your proper installation and servicing of VS Signal products. It is important to read and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

### ***Before Installation***

#### **Qualifications**

To properly install an electronic siren, you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and service of safety warning equipment. Always refer to the vehicle's service manuals when performing equipment installations on a vehicle.

#### **Sound Hazards**

Your hearing and the hearing of others, in or close to your emergency vehicle, could be damaged by loud sounds. This can occur from short exposures to very loud sounds, or from longer exposures to moderately loud sounds. For hearing conservation guidance, refer to federal, state, or local recommendations. OSHA Standard 1910.95 offers guidance on "Permissible Noise Exposure."

All effective sirens and horns produce loud sounds (120dB) that may cause permanent hearing loss. Always minimize your exposure to siren sound and wear hearing protection. Do not sound the siren indoors or in enclosed areas where you and others will be exposed to the sound.

VS Signal siren amplifiers and speakers are designed to work together as a system. Combining a siren and speaker from different manufacturers may reduce the warning effectiveness of the siren system and may damage the components. You should verify or test your combination to make sure the system works together properly and meets federal, state and local standards or guidelines.

### ***During Installation***

DO NOT get metal shavings inside the product. Metal shavings in the product can cause the system to fail. If drilling must be done near the unit, place an ESD approved cover over the unit to prevent metal shavings from entering the unit. Inspect the unit after mounting to be sure there are no shavings present in or near the unit.

DO NOT connect this system to the vehicle battery until ALL other electrical connections are made, mounting of all components is complete, and you have verified that no shorts exist. If wiring is shorted to vehicle frame, high current conductors can cause hazardous sparks resulting in electrical fires or flying molten metal.

Be sure the siren amplifier and speaker(s) in your installation have compatible wattage ratings.

In order for the electronic siren to function properly, the ground connection must be made to the NEGATIVE battery terminal.

Sound output will be severely reduced if any objects are in front of the speaker. If maximum sound output is required for your application, you should ensure that the front of the speaker is clear of any obstructions.

Install the speakers as far forward on the vehicle as possible, in a location which provides maximum signaling effectiveness and minimizes the sound reaching the vehicle's occupants. Refer to the National Institute of Justice guide 500-00 for further information.

Mounting the speakers behind the grille will reduce the sound output and warning effectiveness of the siren system. Before mounting speakers behind the grille, make sure the vehicle operators are trained and understand that this type of installation is less effective for warning others.

Sound propagation and warning effectiveness will be severely reduced if the speaker is not facing forward. Carefully follow the installation instructions and always install the speaker with the projector facing forward.

DO NOT install the speakers or route the speaker wires where they may interfere with the operation of air bag sensors.

Installation of two speakers requires wiring speakers in phase.

Never attempt to install aftermarket equipment, which connects to the vehicle wiring, without reviewing a vehicle wiring diagram - available from the vehicle manufacturer. Insure that your installation will not affect vehicle operation and safety functions or circuits. Always check vehicle for proper operation after installation.

DO NOT install equipment or route wiring or cord in the deployment path of an air bag.

Locate the control head so the vehicle, controls, and microphone can be operated safely.

When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.

### **After Installation**

After installation, test the siren system and light system to ensure that it is operating properly.

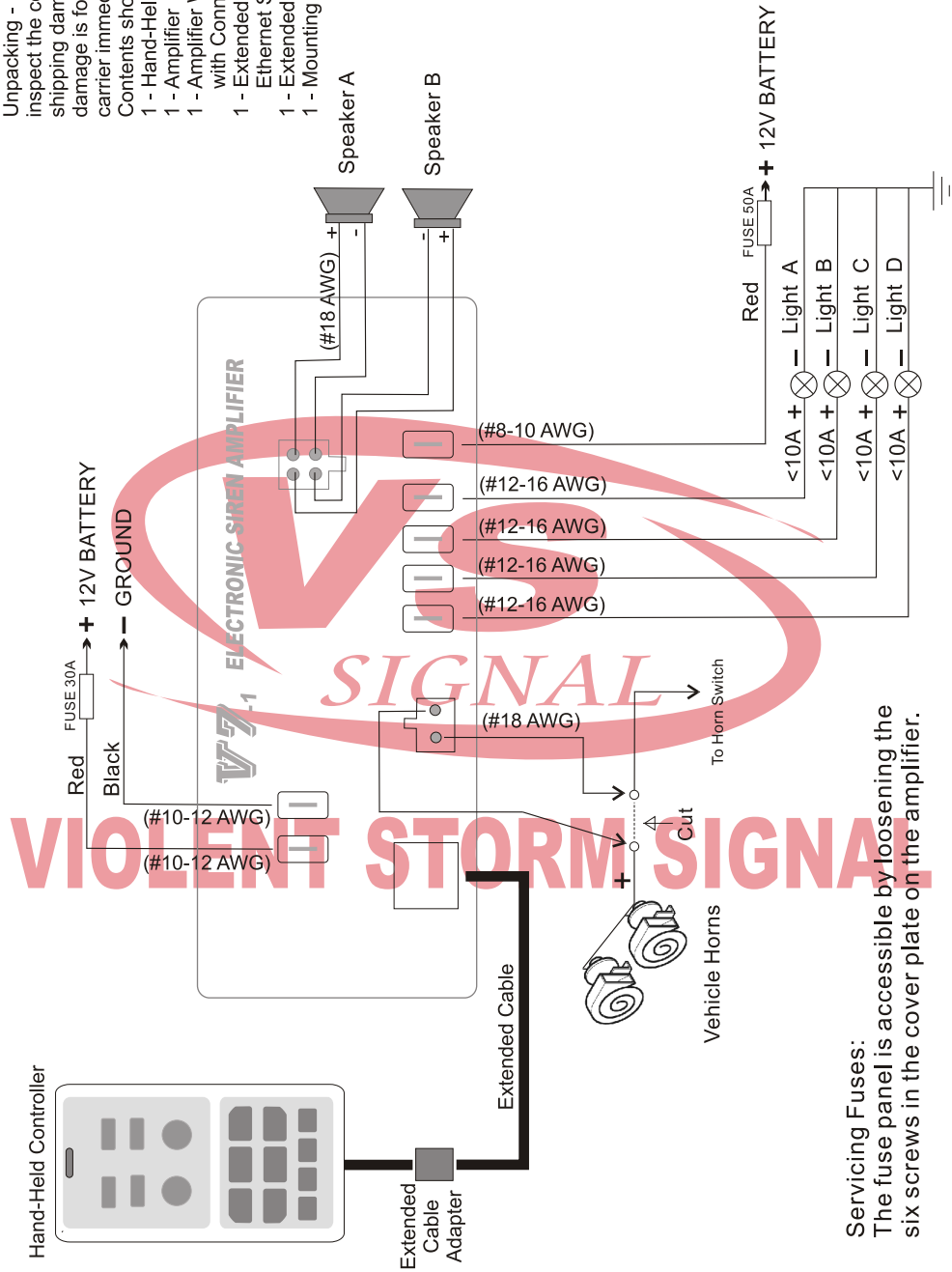
Test all vehicle functions, including horn operation, vehicle safety functions and vehicle light systems, to ensure proper operation. Ensure that installation has not affected vehicle operation or changed any vehicle safety function or circuit.

After testing is complete, provide a copy of these instructions to the instructional staff and all operating personnel.

File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product. Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

# **WIRING DIAGRAM** **MODEL:V7-1**

- Unpacking - Immediately inspect the contents for shipping damage. If any damage is found, alert the carrier immediately.
- Contents should include:
- 1 - Hand-Held Controller
  - 1 - Amplifier
  - 1 - Amplifier Wire Harness with Connector
  - 1 - Extended Cable (8-Wire Ethernet Style Cable)
  - 1 - Extended Cable Adapter
  - 1 - Mounting Hardware

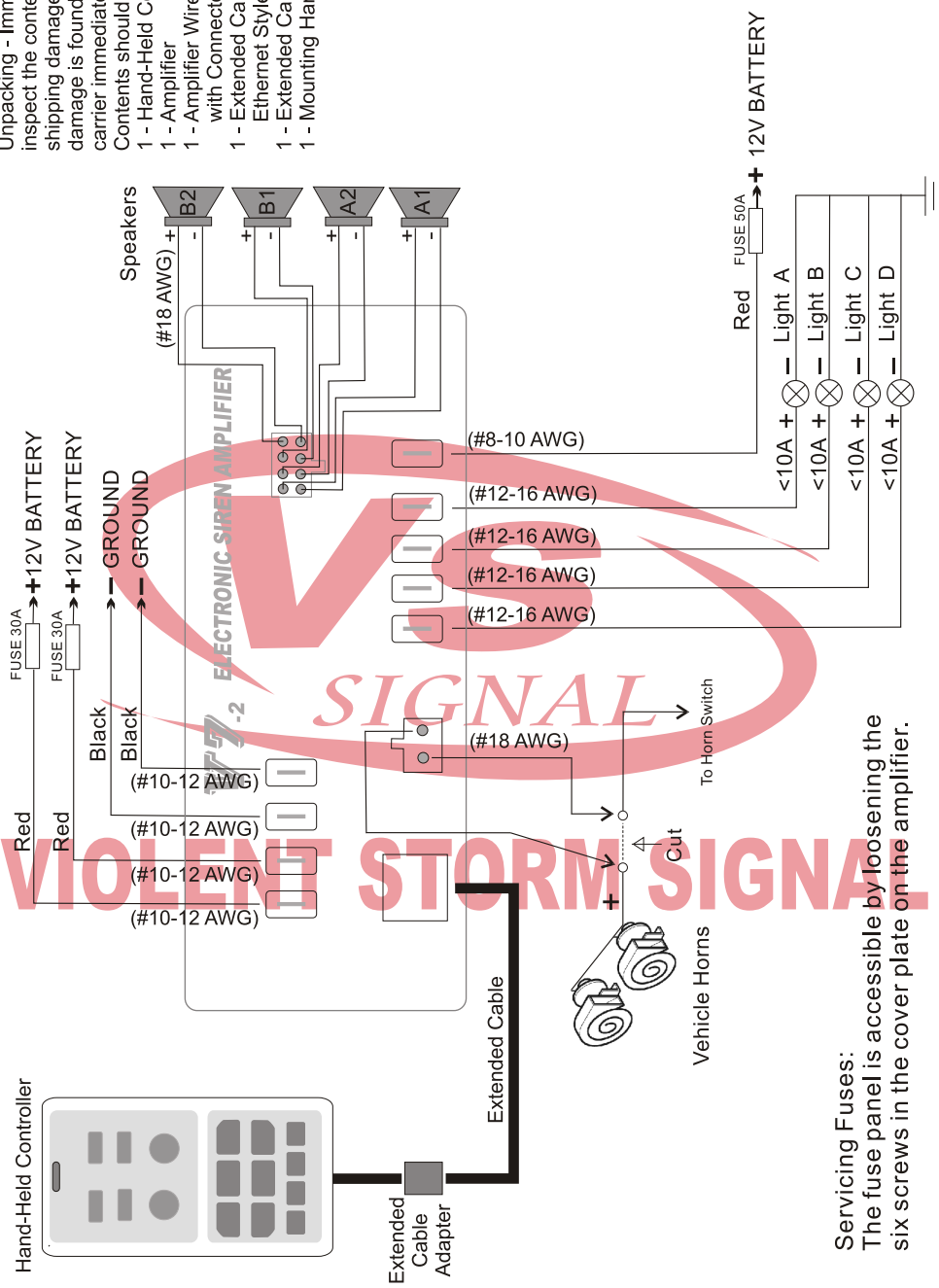


**Servicing Fuses:**  
The fuse panel is accessible by loosening the six screws in the cover plate on the amplifier.

Unpacking - Immediately inspect the contents for shipping damage. If any damage is found, alert the carrier immediately.

- Contents should include:
- 1 - Hand-Held Controller
  - 1 - Amplifier
  - 1 - Amplifier Wire Harness with Connector
  - 1 - Extended Cable (8-Wire Ethernet Style Cable)
  - 1 - Extended Cable Adapter
  - 1 - Mounting Hardware

# **WIRING DIAGRAM** **MODEL:V7-2**



**Servicing Fuses:**  
The fuse panel is accessible by loosening the six screws in the cover plate on the amplifier.

MIC PTT →  
RECORD →  
PLAY →

Anything spoken to the microphone after push the "Record" the button will be recorded; the recording can be played back after a simple push on the "Play" button. The sound put out by the sirens speakers is clear and crispy.

HIGHWAY MODE →  
CITY MODE →

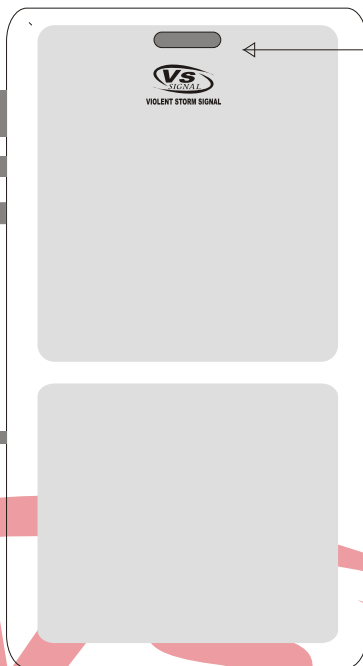
The City mode limits the volume output to minimize the noise level. Highway mode can simulate a number of sirens at the same time to maximize the effect of deterrence to the criminals. Users can choose any mode as needed.

LIGHT A →

LIGHT C →

#### 4-way Light Control:

Main control can turn on the 4-way light. The total amperage can reach 40A. (Light A B C or D maximum is 10A)



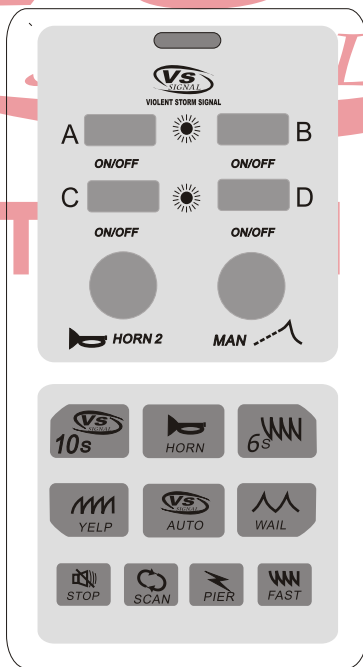
MIC

PA VOLUME

The PA volume control is provided for public address volume. Turn clockwise direction to increase the sound level.

POWER ON  
POWER OFF

**OFF position:**  
All power from the siren and all functions will be inoperable  
**ON position:**  
All functions of the siren will function when selected





















LIGHT B

LIGHT D

**ON position:**  
Press this button once  
**OFF position:**  
Press the button 2 times

See next page

## **Siren Tones Selected**

		CITY MODE	HIGHWAY MODE	MUTE
		Speakers Output:	Speakers Output:	
1		Air Horn -2	Air Horn -4	Release the button
2		Manual -1	Manual -2	City Mode:Release the button Highway Mode:Press the STOP button
3		10 seconds VS Singal Auto	10 seconds VS Singal Auto + Wail	After 10 seconds will automatically mute
4		Air Horn -1	Air Horn -3	Release the button
5		6 seconds Fast Wail	6 seconds Fast Wail + Wail	After 6 seconds will automatically mute
6		Yelp	Yelp + Wail	
7		VS Signal Auto	VS Signal Auto + Wail	
8		Wail	Wail + Wail	
9		Fast Wail	Fast Wail + Wail	
10		Piercer	Piercer + Wail	
11		Scan(Piercer&Yelp)	Scan(Piercer&Yelp) + Wail	
12		Mute		
13	Horn Ring	Air Horn/Manual		Release the button

## SPECIFICATIONS

Input Voltage .....	11 - 15 VDC (negative ground)
Operating Current (no lamps on)	
V7-1.....	16 Amps @ 13.6 VDC (100W 11 Ohm Speaker Impedance x2 )
V7-2.....	32 Amps @ 13.6 VDC (100W 11 Ohm Speaker Impedance x4 )
Standby Current.....	Less than 150 mA
Audio Frequency .....	200Hz - 10 kHz + 3db
Audio Output	
V7-1.....	80 watts @13.6 VDC
V7-2.....	120 watts @13.6 VDC
Output Power	
V7-1.....	200/300/400 WATTS (11/8/5.5 Ohm Speaker Impedance x 2)
V7-2.....	400/600/800 WATTS (11/8/5.5 Ohm Speaker Impedance x 4)
Siren Frequency.....	675Hz - 1633Hz
Operating Temperature Range.....	-15° F to +140° F
Light Control	
Light A Operating Current.....	10 Amps Max.
Light B Operating Current.....	10 Amps Max.
Light C Operating Current.....	10 Amps Max.
Light D Operating Current.....	10 Amps Max.
Dimensions	
Amplifier	
Height.....	2-53/64”(Foot:25/64”)
Width.....	7-9/64”(Edge:15/32”*2)
Length.....	9-1/16”(Foot:25/64”)
Net Weight.....	7.00Lbs. (3.17kg) (V7-1) 7.03Lbs. (3.19kg) (V7-2)
Contro Head	
Height.....	7/8”
Width.....	2-1/4”
Length.....	4-29/64”
Net Weight.....	0.34Lbs. (0.16kg)
Shipping Weight	
V7-1.....	9.76Lbs. (4.43kg)
V7-2.....	10.10Lbs. (4.59kg)

\*Technical specifications may be subject to variations without notice



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