

# TimberWolf Siren

Unsurpassed Quality And Proven Technology Able To Penetrate Today's Cars.



## The Industry's Only 28 Amp Mechanical Siren

123 db of piercing warning engineered to fit anywhere

909.881.5241  
[www.timberwolvesirens.com](http://www.timberwolvesirens.com)



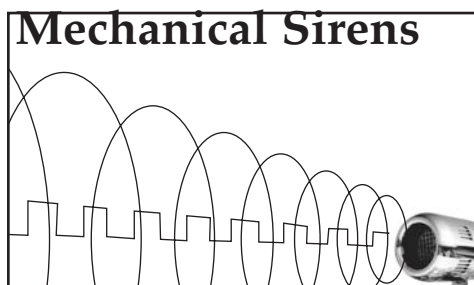
# SIREN BASICS

CREATING NEW INDUSTRY STANDARDS  
THROUGH SOLID ENGINEERING

## Electronic vs. Mechanical ?

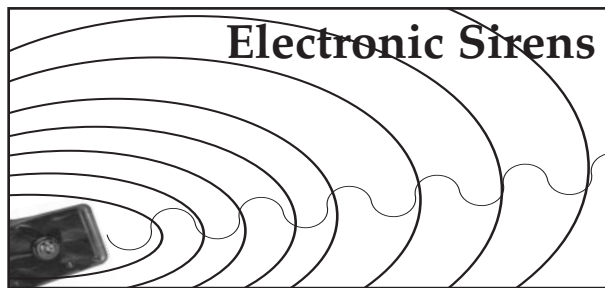
### Why the controversy?

Is it just the modern vs. the old fashioned diehard? Well, it is true electronic sirens made their entrance to the emergency warning business in the 1960's coinciding with the industry wide increase in electrical demand brought on by more lights, radios, computers, and new EMS equipment. Typical mechanical sirens of the era drew 200 to 300 amps compared to only 12 to 17 amps for the new electronic style. Switching sirens was an easy trade off, as many cars were not air conditioned and sound insulation was only minimal. Electronic tones from alarms, buzzers, games, and computers were not common. Thus the new sirens enjoyed an acceptance for a season. However, today it's a different story.



*A mechanical siren produces a spiraling square wave, thus offering a very strong and focused pattern*

*Electronic sirens are notorious for having dead spots and creating noise pollution without direct sound penetration making them less effective.*



### But why do they say the mechanical siren is more effective?

Don't they both make Whoo Whoo sounds ?

### One must look at the physics of the air movement!

Electronic Sirens translate a transistor generated signal to an electro magnetic driver which pulses a 3/4 diameter diaphragm back and forth rigorously 1/32

inch to move the air in a sine wave form, creating the familiar Whoo Whoo sound projected from the speaker horn.

The electronic siren works like an ice cream truck speaker, creating sine waves like ripples on the lake which go and go and go in all directions.

Mechanical Sirens pump air, compressing and accelerating it to more than 130,000 inches per minute (or 124 miles per hour) where a rotor pulses it, off on, off on in a square wave form which spirals at 9,000 revolutions per minute as it expands from the 2 3/4 inch diameter guiding throat.

The Mechanical Siren's spiraling wave is like an ocean's wave curl projected from a short guiding throat, on off on off, making the Whoo sound. The **operator controls** the volume and the pattern with the foot switch.

### The waves are different, but how do they affect me?

The electronic siren wave pattern is spotty and tends to have dead spots. The electronic siren waves roll and can pass over a vehicle. Did you ever hear someone say, "I didn't even hear the siren." and there was the Fire Truck, or the Ambulance, or the Police Car, next to me!! ??

The Mechanical Siren's waves are projected in an expanding spiral line to encompass entire vehicles, and to penetrate thru them, causing the air within the car to vibrate, so one can't ignore the siren, alerting the driver and passengers to the possible approaching danger.

### How does a mechanical siren affect the community?

Because the mechanical siren produces a spiraling square wave, directed by the tuned throat to expand in a narrow pattern, one can not only hear the approaching siren, but can also discern the direction it is traveling. Another advantage is that the waves deaden out, as their spiraling components strike the ground and other porous surfaces. For this reason, one does not hear emergency vehicles with mechanical sirens thru the night from all over the town.

# SIREN BASICS



## What choices does one have for a 123db Class A mechanical siren?

INDUSTRY COMPARISONS			
	B&M Super Chief	Federal Q2B	Timber Wolf 45
Diameter	8	10	5
Weight	23	48	14
Height on Pedestal	9.3	10.5	6.5
Length	14	14	10.5
Sound Directing	Yes	No	Yes
Amps Running	60	125	28
Amps Inrush	175	350	78
Wire (AWG)	6	2	8

## Does an electronic siren contribute to noise pollution?

**Absolutely!** The wave of the electronic siren, being essentially two dimensional, widens its path as it travels, further and further, broader and broader. This simple wave expands to create sound over a large expanse, causing unnecessary noise pollution over a great distance.

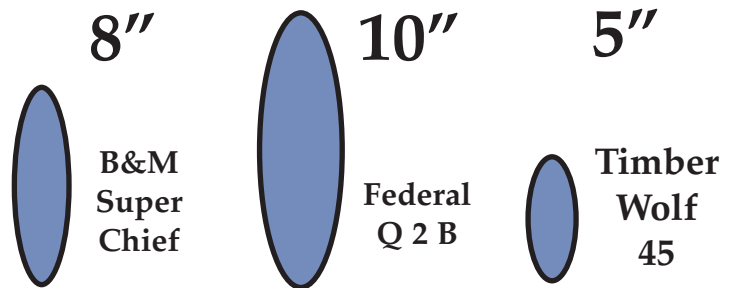
## How does speed affect a siren?

Vehicles with electronic sirens tend to out run their sound waves at approximately 55 mph. This phenomena is so common in the industry, they call it sirencide. Vehicles equipped with mechanical sirens do not outrun their sound waves. The air or shock wave is accelerated to more than 120 mph allowing the vehicle's speed to never be a concern.

## But, What about the new electronic "Q"?

*Sounds just like a mechanical siren!*

Two companies offer these new sirens which digitize the sound of the old standard "Q." This digitized signal is played from a special large speaker horn. But it still is an Electronic Siren. It only moves air by a 3/4 inch diameter diaphragm, pushed and pulled by electro magnets. Even if it sounds good to the Firefighter, it does not penetrate a car 100 feet away.



TimberWolf Siren is shipped complete and ready to install. Pre-wired with 10ft of wire, includes foot switch, magnetic relay, circuit breaker, stainless steel mounting hardware.

Optional Automatic Cyclers is available. A solid state timer cycles the siren automatically. Adjustable time on and time off, begin time off or time on. The foot switch overrides the cyclers for instantaneous control. Timer automatically resets to continue from time off.

Standard mounting brackets (or flange) are included and available to fit most vehicles.

## 3 YEAR WARRANTY

**TimberWolf Siren**  
TECHNOLOGY

# TimberWolf Siren MODEL 45

CUSTOM ORDER  
NUMBER SYSTEM

**Family** 45 - 5.0 diameter, 28 amps running 123 db sound level

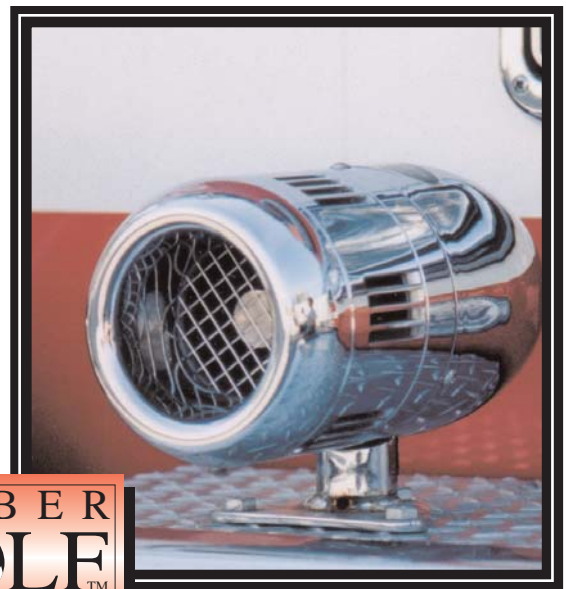
**Tone**  
t { 5 - Low Tone, Horn Nose (Standard), Other names: longer, 4th generation, 5 blades, 5 ports, deep tone  
6 - High Tone, Streamline Nose (Standard), Other names: Original, shorter, 6 blades, 6 ports

**Mount**  
m { 1 - None, bolt direct to motor end bell  
2 - Pedestal 1 1/2 high, Triangle Base, 3 each - 3/8 dia bolts (Fire Truck)  
3 - Bracket, 1/4 high, Rectangle Base, 4 each - 1/4 dia bolts, Push bumper & Ford E-Sires (low, thru skirt)  
4 - Circular Flange, 7 1/8 diameter with 5 3/4 pilot hole  
5 - Ford Crown Victoria, 2000, 2001, 2002 (behind grill)  
6 - Bracket, 2 bolt angled - 3/8 dia bolts, Ford E Series (high, thru bumper & skirt)

**Cover**  
c { 1 - None  
2 - Streamline  
3 - Vinyl Boot

**Finish**  
f { 1 - None, clear anodize, aluminum color  
2 - Chrome plate  
3 - Black hard anodize, satan black color

**Accessories**  
a { 1 - No wire, no switches  
2 - Standard, 10 feet of wire, 1 foot switch, magnetic relay under cover/boot  
3 - 5 feet of wire, 1 foot switch  
4 - 20 feet of wire, 1 foot switch  
5 - 2 foot switches  
6 - Auto timer, time off first (Fire Truck)  
8 - Remote position magnetic relay  
9 - Low temperature service, teflon coating  
10 - Low temperature, heat tape system  
11 - Horn Nose, 6 inch diameter



## ORDERING EXAMPLE:

*Typical Pedestal Siren Order:*

**45-t6-m2-c2-f2-a2**

Model 45, high tone, pedestal,  
streamline, chrome, standard wiring  
(as pictured)



**909.881.5241**  
**FAX 909.881.2988**

**TIMBERWOLF SIREN TECHNOLOGY**

**OFFICE:** 3755 EL CAMINO DRIVE, SAN BERNARDINO, CA 92404  
**SHOP:** 1443 SOUTH GAGE STREET, SAN BERNARDINO, CA 92408