HURRICANE
130

MANUAL OF

INSTALLATION

OPERATION

MAINTENANCE

PARTS

ALERTING COMMUNICATORS
of
AMERICA

1939 N. HUBBARD ST., MILWAUKEE, WISCONSIN 53212
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INTRODUCTION

The A.C.A. Hurricane 130 siren is the most powerful siren manufactured in the United States. The output of 130 decibels at 100 feet is radiated through the computer designed horn to an effective 70 DB range of 6500 feet, thus giving a total circular coverage of 4.5 square miles per siren unit. (Federal CD Guide, March 1964)

Installation of the siren is facilitated through the use of the "swing down" feature. This feature permits raising and lowering of the head and horn assembly for installation or major repairs, often times without the need of an external crane. The self-contained, weatherproof electrical control compartment requires that only two electrical connections be made – the signal source and the main power source.

The signal source for initiating operation of the siren can come from these mechanisms:

1. Direct mechanical switch
2. Telephone relay
3. Radio relay
4. Program timer
5. Any combination of the above

A thorough understanding of the controls of the siren is essential for obtaining maximum operational benefits.

The simple, well balanced design of the siren, using many off-the shelf components, offers an almost maintenance free unit. The tough, color impregnated fiberglass enclosures completely eliminate the need for costly and troublesome periodic painting.

Because of the high dependability of the siren and the use of off-the shelf components, repair is kept to a minimum, but should repairs become necessary in the future, the manufacturer stands ready to advise you in making repairs.

Installation, operation, maintenance, and parts are the key words to any successful warning system and this, then, is the purpose for this manual.
SPECIFICATIONS

SIZES

Weight:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tr>
<td>Head and Horn Assembly</td>
<td>250 lbs.</td>
</tr>
<tr>
<td>Compressor Assembly</td>
<td>650 lbs.</td>
</tr>
<tr>
<td>Total</td>
<td>900 lbs.</td>
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Measurements:

<table>
<thead>
<tr>
<th>Component</th>
<th>Dimensions</th>
</tr>
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<tr>
<td>Head &amp; Horn Assembly</td>
<td>72&quot; long, 11&quot; to 26&quot; wide, 48&quot; high</td>
</tr>
<tr>
<td>Compressor Assembly</td>
<td>51&quot; long, 22&quot; wide, 18&quot; high</td>
</tr>
</tbody>
</table>

ACOUSTICAL DATA

Output level ............................................. 130 Db at 100 feet

Output frequencies:

- Standard Dual Tone .................................. 465 / 582 cps
- Special Dual Tone .................................... 465 / 698 cps
  - Dual Tone ........................................ 582 / 698 cps
  - Single Tone ...................................... 465 cps
  - Single Tone ...................................... 582 cps
  - Single Tone ...................................... 698 cps

Output cutoff (Resonant) Frequency .................. 80 cps

Horn configuration .......... Dual throat exponentially curved

Sound Dispersal Beam ................. 30° Above Horizontal
                                    270° Below Horizontal
                                    30° Wide Horizontally
MOTOR TYPES

Head and Horn Assembly:

Chopper: 2 Hp., Single Phase, High Slip, 
            Ball Bearing, Semienclosed, 
            Induction Motor.

Rotator: 1/4 HP, Single phase, Ball Bearing, 
            Semienclosed, Induction Motor.

Compressor Assembly: 25 HP, 3 Phase, Ball Bearing, Semi- 
                      enclosed, Induction Motor.

ELECTRICAL REQUIREMENTS

Head and Horn Assembly:

Chopper: 2 HP, 230 Volts, Single Phase, 
          Running - 5 Amps., Full load - 10,
          7 Amps., Surge - 60 Amps.

Rotator: 1/4 HP, 115/230 Volts, Single Phase, 
          Full Load - 2.8 Amps., Running - 1
          Amps., Surge - 15 Amps.

Compressor Assembly: 25 HP, 230-460 Volts, 3 Phase, Full 
                     Load - Running - 6 5/32 Amps., Surge
                     335 Amps.

AIR COMPRESSOR

Direct drive through a jaw coupling. Twin Impeller, Positive Displacement, 
Air Cooled, Ball Bearing, Rotary Blower. Producing 450 cfm at 10 psi.

ROTATION

Drive: Direct drive through a double worm gear box, coupled 
       through a disc type torque limiter.

Speed: 3 RPM in a clockwise direction as viewed from the bottom.

Oscillation: A special rotation system can be purchased which will 
             allow the head and horn assembly to oscillate through 
             a preset arc.
MOTOR TYPES

Head and Horn Assembly:
  Rotator..........................1/4 HP, Single phase, Ball Bearing, Semienclosed, Induction Motor.
  Compressor Assembly.............25 HP., 3 Phase, Ball Bearing, Semienclosed, Induction Motor.

ELECTRICAL REQUIREMENTS

Head and Horn Assembly:

AIR COMPRESSOR

Direct drive through a jaw coupling. Twin Impeller, Positive Displacement, Air Cooled, Ball Bearing, Rotary Blower Producing 450 cfm at 10 psi.

ROTATION

Drive......Direct drive through a double worm gear box, coupled through a disc type torque limiter.
Speed......3 RPM in a clockwise direction as viewed from the bottom.
Oscillation. A special rotation system can be purchased which will allow the head and horn assembly to oscillate through a preset arc.
INSTALLATION

SERVICING

At all times it should be kept in mind that some servicing will be required of the siren after installation. A means of working on the siren should therefore be provided at the time of installation. The most economical, and generally the most useful, provision for working is that of a small platform for the head and horn assembly at the top of the pole on a pole mounted installation (Fig 16) in addition to a platform around the compressor assembly. For a parapet, roof, or water tower installation, a small railing around the platform is an additional safety feature. If rungs or steps are provided for climbing up to a pole mounted siren, a good policy to follow is to have the first rung no closer to the ground than 10-15 feet in order to hinder attempts at vandalism.
INSTALLATION

GENERAL LOCATION

Careful thought must be given to the area surrounding the installation site. Any buildings, trees, hills, or other obstructions will tend to create a barrier which will produce a deadened area behind the obstruction.

The type of electrical power available at the installation site must be understood before the siren is ordered from the manufacturer. The voltage (208, 220, 230, 240, 380, 440, 460, 480, 550), phase (single or three), transformer bank amperes rating and other loads on that line, and line frequency (cycles/second) should be tabulated in order to be presented to the manufacturer upon placement of an order. Line voltage must not exceed 10% (NEMA standard).

Once the physical barriers around the installation site are mapped and understood, and the electrical power is deemed sufficient for the siren, the actual type of siren mounting can be considered.

TYPES OF MOUNTING

- Roof mount: Figures 1 & 2
- Through Roof Mount: Figures 3
- Chimney Mount: Figures 4 & 5
- Pole Mount: Figures 6, 7, 8, 9 & 11
- Tower or tank mount: Figures 13 & 14
INSTALLATION

HEIGHT DETERMINATION

The most basic and critical consideration of installing the siren is the obtaining of the proper height above surrounding barriers to insure good sound coverage. In order to obtain the proper height, two basic factors must be considered:

1. Measure, as accurately as possible, the height of the tallest or otherwise most severe sound barrier within 150 feet of the proposed siren installation. It is the recommendation of the manufacturer that the top of the head and horn assembly be located approximately five feet above the top of the barrier.

To compute the pipe length PL, in order to make the projected sound clear a physical sound barrier of height PB, when the compressor assembly is placed on a platform of height PH, on top of a building of height BH (see figure 1).

Use the formula: Pipe length equals barrier height minus (platform height plus building plus 1).

OR \[ PL = PB - (PH + BH + 1) \]

Example:

Find the pipe length (PL) for a siren where a nearby building measures 42 feet (PB = 42), the compressor assembly is on a platform measuring 3 feet (PH 3) and the siren is mounted on a building 28 feet tall (BH = 28).

\[ PL = PB - (PH + BH + 1) \]
\[ = 42 - (3 + 28 + 1) \]
\[ = 42 - 32 \]
\[ PL = 10 \text{ feet.} \]
Thus, the length of 4" galvanized pipe with a standard, tapered pipe thread on both ends is ten feet. Since this is longer than four feet, guy wires will be required.

2. If the siren is to be mounted in the center of, or to one side of a large roof area, use the following formula to compute the required pipe length PL, to make the projected sound clear a roof of length D, when the compressor assembly is placed on a platform of height PH, with a parapet height W. (see figure 2).

Pipe length = Roof length / 3 + parapet height-platform height - 6.

Or PL = D/3 + W - PH - 6.

Example:

Find the pipe length (PL) for a siren where the roof length measures 60 feet (D=60) and the parapet measures 3 feet (W=3).

\[
PL = \frac{D}{3} + W - PH - 6
\]

\[
= \frac{60}{3} + 3 - 3 - 6
\]

=20 - 6

PL = 14 feet

Thus, the length of 4" galvanized pipe with a standard tapered pipe thread on both ends is fourteen feet.

Since this is longer than four feet, guy wires will be required.

It will have to be determined by the installer which of the pipe calculations (surrounding physical barrier or roof length) is the largest, and therefore, the governing factor in the length of pipe required.

Example:

The pipe length calculated for the previous situations were:

A. Physical barrier - PL = 10 feet

B. Roof length - PL = 14 feet
Therefore use the PL at 14 feet and both installation requirements will be met. Since the pipe length is 14 feet, the installation will require guy wires or chains.
INSTALLATION

MECHANICAL INSTALLATION

The siren can be lifted in one or two configurations and under certain conditions:

1. The head and horn assembly is connected to the compressor assembly.
   Conditions:
   A. Do not lift the entire siren by the eye bolt on top of the head and horn assembly.
   B. Remove the fiberglass cover from the compressor assembly.
   C. The primary lift point is the angle iron strut located between the compressor and the motor on the compressor assembly.
   D. The lateral ties are required to provide horizontal stability. One tie loops around the end of the air compressor and the other one fastens to the motor eyebolt (see figure 19) (the motor represents 50% of the compressor assembly weight).
   F. The lifting cable will run along the head and horn assembly and the cable can be strapped to it for additional stability.
   F. Under no circumstances should the siren be lifted as a unit if the pipe length exceeds 10 feet.

2. The head and horn assembly is separate from the compressor assembly.
   Conditions:
   A. Remove the fiberglass cover from the compressor assembly.
   B. The primary lift point of the compressor assembly is the angle iron strut located between the compressor and the motor.
C. Two lateral ties are required to provide horizontal stability. One tie loops around the end of the air compressor and the other one fastens to the motor eyebolt (see figure 19) (the motor represents 50% of the compressor assembly weight).

D. The primary lift point for the head and horn assembly is the eyebolt at the top of the assembly. An additional rope looped around the horn will provide horizontal stability.

E. The head and horn assembly can be lifted by the eyebolt with a length of 4" pipe attached, provided the pipe does not exceed 2 feet in length. For pipes in excess of 2 feet, the actual lifting should be done by attaching to the pipe and using ties to the head and horn assembly for stability only.

When shipped from the factory, the compressor assembly has 6 predrilled 5/8 inch holes on the mounting legs for a variety of mounting methods.

1. For a pole mount, the compressor assembly can be placed on either a concrete pad at ground level or on an elevated platform — preferably at 10-15 feet off of the ground to help deter attempts of vandalism.

2. For a roof mount, the roof composition, spacing of the rafters or beams, and the roof's load carrying capacity must be known and considered before installation is started.

   A. If the roof is considered to be capable of supporting the siren, the unit can rest level on the roof as shipped without an elaborate sub base. To preclude damage to any electrical components, the compressor assembly can be placed on two, 4" x 4" x 48" wood beams. For a concrete roof, an angle iron platform, approximately 3 feet high (see figure 17) can be used which offers the additional advantages of increased accessibility for maintenance as well as putting the compressor assembly above the snow line in the winter.

   B. If the roof composition and/or span loading present a problem, a sub base can be constructed to distribute the weight (see figure 13). If the swing down feature is to be used for erection of the siren the next step is to remove the bolt securing the 4" pipe elbow to the channel iron strut between the compressor and the motor. Using a large pipe wrench turn the pipe elbow down to the horizontal. Insert the required length of 4" galvanized pipe into the pipe elbow and tighten. Be sure to use a good grade of pipe lubricant and sealant. (Note: Do not attempt to utilize "swing down" if pipe exceeds 20 feet in length). Lay the head and horn assembly on its side with the mounting flanges in line with the side with the mounting flanges in line with the 4" compressor pipe (see
figure 20). Remove the four bolts holding the bottom mounting flange to the head and horn assembly and screw the mounting flange to the end of the 4'' compressor pipe, again using pipe dope. Move the head and horn assembly into position to be attached to the mounting flange on the compressor pipe. Adjust the position of the compressor pipe, lower mounting flange, and as yet unattached head and horn assembly so that the electrical conduit to be used will be in approximate alignment with the conduit elbow of the electrical enclosure of the compressor assembly. Insert the four bolts into the mounting flanges and securely tighten the lock washer and nut. Attach the rigid conduit at the lower conduit box to the compressor pipe using conduit clamps at approximately 10 feet intervals. Pull the wires through the conduit and connect these wires to the wires coming through the flexible conduit from the electrical enclosure of the compressor base. Be sure to use the correct wire size to allow for 2nd/voltage drop. Follow the color coding of the head and horn assembly and compressor assembly. If the head and horn assembly has to be guyed in place, (pipe length exceeds 4 feet) the guy wires should now be attached to the loops provided on the lower mounting flange (see fig. 21).

The head and horn assembly can be swung up into the vertical position by one of the following methods:

1. Available manpower
2. Spike poles and/or ladder leverage
3. Block and tackle
4. Hand winch
5. Power winch
6. Boom crane
7. Combination of the above.

After the head and horn assembly is in the vertical position, the securing bolt can be replaced, the pivot bolt can be tightened, and the guy wires can be anchored and adjusted.

If the siren is to be installed without the use of the swing down feature, it can be installed as a unit or as separate components. The limiting factor for installation as a unit is the length of the compressor pipe, which must not exceed ten feet. Assemble the head and horn assembly to the compressor assembly as described above except for the application of the guy wires. Lift the unit into place as previously described and make the necessary electrical power and control connections.

When siren is installed as individual components the limiting factor is the length of compressor pipe. The pipe length should not exceed 20 feet for a non-supporting guyed siren and 30 feet for a pole or
chimney supported siren. In the case of an installation as shown in figure 9 the length of pipe is limited only by the capability of the pole to support it. The compressor assembly is installed first, then the compressor pipe with conduit and lower mounting flange already in place is attached to the compressor assembly. The head and horn assembly is then lifted and attached to the lower mounting flange, using the four bolts, lockwashers and nuts provided. A crane or other lifting device will have to be employed to position the head and horn assembly. The electrical power and control connections can then be made to complete the installation.
ELECTRICAL CONTROLS:

The compressor magnetic starter and other controls are prewired in a self-contained panel, within the weather-proof, compressor assembly, fiberglass housing. Control of the siren can be accomplished by either direct switch control, program timer at the installation, remote control, radio encoder transmitter to decoder receiver, or telephone lines, from a location different from installation. The incoming signal actuates the instant and time delay relay module. This, in turn, actuates the magnetic starter and rotor motor with the delay off section and the chopper motor with the instantaneous section. These components are all protected by circuit breakers that disconnect the load should overloading occur. A tripped circuit breaker will show a white band around the reset button. The red trigger is for manually tripping the circuit breaker to the OFF position. To reset, merely push the button in. The magnetic starter which operates the compressor and protects it from overload, also contains a reset button.

1. Prior to application of ANY power to the control cabinet, CHECK the elapsed time of the time delay relay diaphragm release. Use figure 22 notations:

   A. The diaphragm release has been preset at the factory. However, a check is important.

   B. Face the open magnetic starter control panel.

   C. The time delay relay is located on the right side of the control cabinet.

   D. With a screwdriver gently move the solenoid armature closed. Then release and listen for the click. The release time of the delay should be 10 seconds.

   E. To adjust the elapsed time, use the screw located behind the pressed fiber flap on the front of the time delay relay. ONLY a very slight adjustment of the screw will be required. Retest time delay after every 1/4 turn of the screw.
2. A general wiring layout of the complete electrical circuit is shown in figures 25 and 26. Power for each siren IS TO BE RUN FROM AN ADEQUATELY FUSED DISCONNECT SWITCH CONNECTED TO THE POWER SOURCE. Additional disconnect switches may be required by code.

3. Wiring schematic drawings of the magnetic starter control panel and head and horn assembly are provided on the enclosed blueprint copies.

4. Prior to final wiring connection of Radio Decoder, Timer, or Telephone Relays and with power connected to the starter controls, a check of proper 25 H.P. Motor/air compressor rotation MUST be made. Use Figure 22 notations:

   A. Face the open magnetic starter control panel.

   B. The time delay relay is located on the right side of the control cabinet.

   C. With an insulated object momentarily depress the WHITt PLASTIC TRIGGER on the end that has the delay adjustment screw. Do not press the metal delay ring. CHECK drive shaft rotation. If the rotation is backwards according to the arrow on the compressor, correct the main electrical connections by interchanging any two of the three leads.

   NOTf: If the metal delay ring connected to the diaphragm of the delay relay is accidently pushed, IMMEDIATELY throw the DISCONNECT SWITCH and wait until the diaphragm releases. Prolonged IMPROPER ROTATION will damage the equipment.

5. Wire the Radio Decoder, Timer or Telephone Relays to the magnetic starter control cabinet.

   You should now be ready to TEST the entire operation of the siren using the radio controls, timer, or telephone system.

   NOTf: With the installation complete, the siren SHOULD NOT BE ALLOWED TO SOUND for any prolonged period (more than 30 seconds) while any person is on the same level as the horn. Ear guards should be worn by personnel on the same level as the horn as a precaution at all times during testing or possible remote starting.
MAINTENANCE

HEAD AND HORN ASSEMBLY (See Figure 23)

1. A self-aligning ball bearing is installed above the collector ring assembly. This bearing is sealed for lifetime use and no additional lubrication is necessary.

2. Another self-aligning ball bearing is installed under the base in the center of the assembly. This bearing has an external grease fitting (see Fig. 23) and has been lubricated at the factory so no additional lubricant is necessary for one year. When greased, one shot of the grease gun is sufficient. If excess grease flows from the seals, remove it from inside the fiberglass tube with a rag. Use Molub Alloy #171 graphite grease manufactured by the Imperial Oil and Grease Co. or equivalent.

3. Access to the gear reducer in the head and horn assembly is through the trap door. The oil in this unit should be changed each year as follows:
   
<table>
<thead>
<tr>
<th>Temp Range</th>
<th>Oil Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>-50 to 20°C</td>
<td>SAE 20</td>
</tr>
<tr>
<td>+50 to 115°C</td>
<td>SAE 30</td>
</tr>
</tbody>
</table>

   The unit has been filled at the factory. But should be checked in case spillage has occurred during shipment. Be sure to remove the protective plastic cap on the oil breather before operating siren.

4. At the same time, grease the gear reducer drive chain with Molub Alloy #171 graphite grease or equivalent. Do not over-grease. Check the set screws in the sprockets in the process of greasing the chain.
MAINTENANCE

COMPRESSOR ASSEMBLY

1. The oil in the air compressor assembly should be changed each year unless adverse conditions (dust, salt, etc.) warrant more frequent oil replacement. This unit has been filled at the factory with Sinclair SA^2 20-20 W, Service MS-DM oil, but should be checked prior to operation.

The following oils have been approved by the manufacturer:

Cities Service
Conoco
D-A Lubricants, Indianapolis, Indiana
Gulf Oil & Refining Co.
Humble Oil & Refining Co.
Mobil, Socony Oil Co.
Phillips 66
Shell Oil Co.
Sinclair Oil & Refining Co.
Standard American Oil Co.
Sun Oil Co.
Texaco

2. Check set screws on the motor-air compressor drive coupling.
MAINTENANCE

GENERAL

If the siren is inoperative and all electrical connections such as fuses, overloads in the magnetic starter and circuits have been checked, inspect the collector rings in the head and horn assembly by removing the trap door. (Make certain the electrical power is off)

If the collector ring is discolored or has a dirt or oil film coating, polish each ring with a fine crocus cloth. This can be accomplished by polishing the portion of the ring near the trap door, and then rotating the head and horn assembly by hand far enough to expose another portion of the collector ring. Also check the triggers on the brush holders to see if there is sufficient pressure on each brush to maintain contact.
TO CALCULATE PIPE LENGTH (PL) FOR:

PHYSICAL BARRIER HEIGHT - PB
BUILDING HEIGHT - BH
PLATFORM HEIGHT - PH

USE FORMULA:

\[ PL = PB - (PH + BH + 1) \]
TO CALCULATE PIPE LENGTH (PL) FOR:

ROOF LENGTH – D
PARAPET HEIGHT – W
PLATFORM HEIGHT – PH

USE FORMULA:

\[ PL = \frac{D}{3} + W - PH - 6 \]
HURRICANE 130 THROUGH ROOF MOUNT

COMPRESSOR ASSEMBLY MOUNTED INSIDE—OUT OF WIND & WEATHER

FIGURE 3
SWING DOWN FEATURE
CAN BE USED FOR INSTALLATION
OR MAJOR REPAIR

FIGURE 4
OBSTACLE WITHIN 150 FEET OF SIREN - TOP OF SIREN MUST BE AT LEAST FIVE FEET ABOVE OBSTACLE
HURRICANE 130 POLE MOUNT

OFFSET WOOD POLE CONFIGURATION

ONE-WAY SWING DOWN

SWING DOWN

FIGURE 6
HURRICANE 130 POLE MOUNT

HEAD-ON WOOD POLE CONFIGURATION

TWO-WAY SWING DOWN

SWING DOWN

FIGURE 7
HURRICANE 130 POLE MOUNT

HEAD-ON WOOD POLE
CONFIGURATION

TWO-WAY SWING
DOWN

SWING DOWN

SWING DOWN

FIGURE 8
HURRICANE 130 POLE MOUNT

HEAD-ON WOOD POLE CONFIGURATION

NO SWING DOWN PIPE STRAPPED TO POLE

$\frac{3}{4}$ RIGID CONDUIT (HIDDEN FROM VIEW)

FLEXIBLE TUBING OR HOSE
USE ADHESIVE AND HOSE CLAMP FOR ASSEMBLY

FIGURE 9
HURRICANE 130 - POLE MOUNT

HEAD-ON WOOD POLE
CONFIGURATION

ONE-WAY SWING DOWN

48" TYPICAL

SWING DOWN

FIGURE 11
HURRICANE 130 TOWER MOUNT

PLATFORM MOUNTING ON WATER TOWER CROSS BEAM

ANGLE OR CHANNEL IRON FOR ADDITIONAL BRACING

FIGURE 13
HURRICANE 130 TANK MOUNT

PLATFORM MOUNTING ON UPRIGHT TANK STRUCTURE

PROPERLY GROUNDED LIGHTENING ROD—ACCORDING TO LOCAL CODE

APPROX. 30°
HURRICANE 130 WORK PLATFORM

SUGGESTED WORK PLATFORM FOR POLE MOUNTED SIREN

OPTIONAL RIGHT OR LEFT HAND

RAILING - 1\(\frac{1}{2}\)X 1\(\frac{1}{2}\)X 1\(\frac{1}{8}\) ANGLE IRON

ATTACH TO POLE APPROX. 48" FROM SIREN MOUNTING FLANGE

FRAME AND BRACE - 2\(\frac{1}{2}\)X 2\(\frac{1}{2}\)X 1\(\frac{1}{4}\) ANGLE IRON

FLOORING OPTIONAL - 2X4 PLANKING OR 1\(\frac{1}{4}\) EXPANDED MESH GRATING

8" X 11.5 LB CHANNEL

13 DIA HOLE FOR 3/4 BOLTS (3)

FIGURE 16
HURRICANE 130 SIREN PLATFORM

SUGGESTED PLATFORM FOR MOUNTING COMPRESSOR ASSEMBLY

FRAME - 2 x 2 x \( \frac{1}{4} \) ANGLE IRON

5/8 DIA. HOLES (6)

BRACES - \( 1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{16} \) ANGLE IRON

LEGS - 2 x 2 x \( \frac{1}{4} \) ANGLE IRON

24\" \( \Delta \) TO \( \Delta \)

22\" \( \Delta \) TO \( \Delta \)

50

36

24\" \( \Delta \) TO \( \Delta \)

FIGURE 17
HURRICANE 130 ROOF MOUNT

ROOF PLATFORM FOR
SPREADING SIREN
LOADING

WEIGHTS:
HEAD & HORN ASSEM. 650 LBS.
COMPRESSION ASSEM. 250 LBS.
PLATFORM 300 LBS.
PIPE 10.75 LB X ___ FT. ___ LBS.

TOTAL ___ LBS., THUS LOAD IS ___ LBS.

USE WEATHER PROOFING MATERIAL
UNDER ALL PARTS OF PLATFORM
IN CONTACT WITH ROOF.

FIGURE 18
HURRICANE 130

COMPRESSOR ASSEMBLY
LIFTING POINT

LATERAL TIE

LATERAL TIE

MAIN LIFTING POINT

FIGURE 19
HURRICANE 130 SWING DOWN

HEAD AND HORN ASSEMBLY
IN DOWN POSITION

COMPRESSOR ASSEMBLY

MOUNTING FLANGES

UNION

4" GALVANIZED STEEL PIPE

HEAD AND HORN ASSEMBLY

FIGURE 20
HURRICANE 130 GUY ATTACHMENT

ATTACHMENT POINTS -
4 WIRE GUY

HEAD & HORN
ASSEMBLY

MOUNTING
FLANGES

ATTACHMENT
LOOPS (4)

4" GALVANIZED
PIPE - STANDARD
TAPERED THREAD

FIGURE 21
HURRICANE 130  TIMING RELAY

ADJUSTMENT OF TIME DELAY
RELAY MODULE

WHITE PLASTIC TRIGGER
FIBER FLAP

METAL DELAY RING

DELAY ADJUSTMENT SCREW

CHOPPER MOTOR SWITCH

ROTATOR MOTOR
AND COMPRESSOR MOTOR
MAGNETIC STARTER SWITCH

FIGURE 22
HURRICANE 130 BLOWER

FILL BOTH ENDS OF BLOWER TO OIL LEVEL HOLE

FILL AND BREATHER

CAPACITY - 1 1/2 PINTS - EACH END

OIL DRAIN PLUG

OIL LEVEL PLUG (SQUARE HEAD)

OIL DRAIN PLUG

FIGURE 24
HURRICANE 130 WIRING LAYOUT

TWO SIGNAL

HEAD & HORN ASSEMBLY PULL BOX - IF REQ'D BY LOCAL CODE

RADIO DECODER PROGRAM TIMER

OUT IN
S P P C

MAGNETIC STARTER CABINET IN COMPRESSOR ASSEMBLY

3-# 10 WIRES IN 3/4" RIGID CONDUIT

3-# 14 WIRES IN 1/2" CONDUIT

COMPRESSOR ASSEMBLY PULL BOX - IF REQ'D BY LOCAL CODE

S - SIGNAL
P - POWER
C - COMMON

3 PHASE ±10% 10 VOLTAGE POWER SUPPLY TO MATCH SIREN

DISCONNECT SWITCH
100 AMP FOR 230 VOLT
60 AMP FOR 460 VOLT
3-# 4 WIRES (UP TO 25 FT.) IN 1" CONDUIT

FIGURE 25
HURRICANE 130 WIRING LAYOUT

TWO SIGNAL

MECHANICAL SWITCH
TELEPHONE RELAY

PS

3 - #10 WIRES IN 3/4" RIGID CONDUIT

MAGNETIC STARTER CABINET
IN COMPRESSOR ASSEMBLY

2 - #14 WIRES IN 1/2" CONDUIT

COMPRESSOR ASSEMBLY
PULLBOX - IF REQ'D
BY LOCAL CODE

S-SIGNAL
P-POWER

3 PHASE ± 10% VOLTAGE
POWER SUPPLY TO MATCH SIREN

DISCONNECT SWITCH
100 AMP FOR 230 VOLT
60 AMP FOR 460 VOLT
3 - #4 WIRES (UP TO 25 FT.)
IN 1" CONDUIT

FIGURE 26