

**DC-Digital**<sup>TM</sup>  
by **IES** Ltd.

**INSTALLATION INSTRUCTIONS  
FOR**



**HRN-1 OUTDOOR HORN KIT**

# INSTALLATION INSTRUCTIONS

## OUTDOOR HORN KIT

**IMPORTANT!** Before beginning installation, carefully read the following:



**DANGER! HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION. TURN OFF POWER SUPPLYING THE SCOREBOARD BEFORE OPENING THE SCOREBOARD ENCLOSURE OR BEGINNING THE INSTALLATION OF THE OUTDOOR HORN KIT. THE INSTALLATION AND TESTING OF THE OUTDOOR HORN KIT SHOULD BE PERFORMED BY A LICENSED, QUALIFIED ELECTRICIAN. CHECK WITH LOCAL BUILDING AND ELECTRICAL AUTHORITIES FOR CODES AND REQUIREMENTS REGARDING SUCH INSTALLATIONS BEFORE BEGINNING AND ENSURE THAT THE INSTALLATION AND USE OF THE OUTDOOR HORN KIT IS IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS. AFTER INSTALLATION, CLOSE AND SECURE ALL COVERS AND TRIMS BEFORE RE-ENERGIZING. FAILURE TO DO SO MAY RESULT IN ELECTRIC SHOCK, SEVERE PERSONAL INJURY, OR DEATH.**

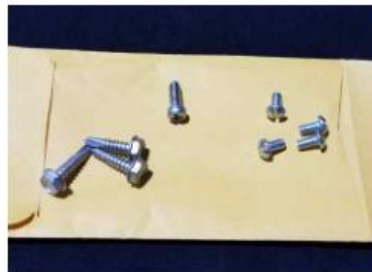


Before beginning installation, check to ensure that the outdoor horn kit package includes each of the items shown below. If any parts are missing, contact the manufacturer immediately.

### SUPPLIED PARTS



**Outdoor Horn Kit  
w/5' Horn Harness**



**Hardware Envelope**



**2x4 Junction Box**



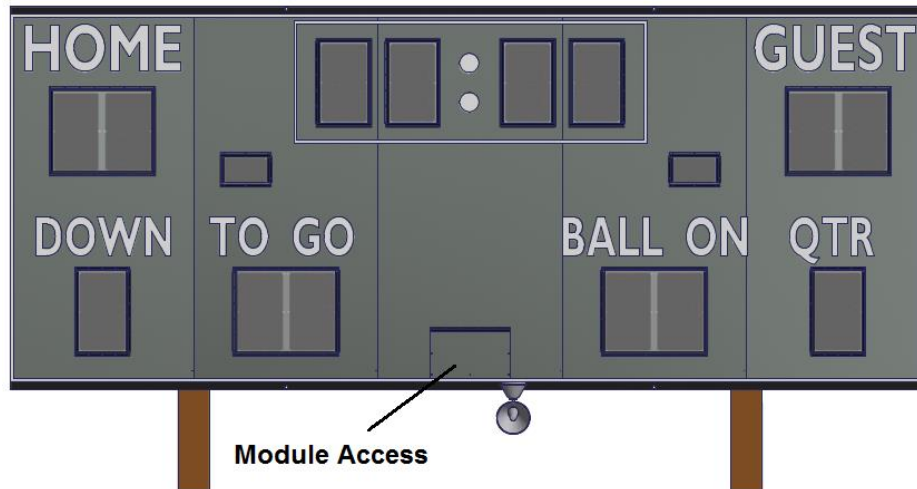
**Waterproof Strain  
Relief**



**2X4 Junction Box  
Cover Plate**

## INSTALLATION OVERVIEW

**INSTALLATION METHOD A** – Standard Installation onto bottom of scoreboard below the main control module. (No need to extend supplied horn harness)



1. Remove the module access door on the front of the scoreboard. Ensure that there is **NO** power to the scoreboard's control module box.
2. Install the horn's weatherproof box (base) onto the bottom of the scoreboard, below the module access door.
3. Connect the supplied horn harness to the scoreboard's control module box.
4. Feed the supplied horn harness through the bottom hole on the scoreboard and into the mounted weatherproof box.
5. Feed the supplied horn harness through the horn's mounting plate and attach to the plug receptacle.
6. Mount the horn's mounting plate onto the weatherproof box.
7. Select desired signal and hook the horn onto the mounting plate and tighten screw.
8. Adjust the horn's direction using the adjusting nut.
9. Power the scoreboard and test the system.

### **STEP 1. Remove the module access door on the front of the scoreboard.**

1. Remove the module access door on the front of the scoreboard by removing the hex head screws that secure it. The module access door is easily identified since it is the largest removable door on the face of the scoreboard. Ensure that there is no power to the scoreboard module box. If unsure, unplug the 3-prong power plug from the scoreboard's aluminum control module box.



**STEP 2. Install the horn's weatherproof box onto the bottom of the scoreboard, below the module access door.**

1. Use the supplied 5/16" self-tapping screws to attach the horn's waterproof box onto the bottom of the scoreboard. If it is mounting to a multi-panel scoreboard you may want to pre-drill the angle iron for ease of mounting.
2. Position this waterproof box so that the opened threaded hole is towards the left and beside the scoreboards's 3/4" drain hole. Insert the provided waterproof strain relief into the threaded hole of this box.



**STEP 3. Connect the supplied horn harness to the scoreboard's control module box.**

1. Press the 2-pin connector, on the supplied horn harness, onto the control module pins marked "PRIMARY HORN". Ensure that the connector is not off a pin and that it is fully seated.
2. Attach the ground wire, (green wire with the ring terminal), to the scoreboard cabinet. This can be mounted under one of the module mounting screws.



**STEP 4. Feed the supplied horn harness through the bottom hole on the scoreboard and into the mounted weatherproof box.**

1. Feed the “cut” end of the supplied horn harness out through the  $\frac{3}{4}$ ” cabinet hole and into the mounted weatherproof box, through the waterproof strain relief.



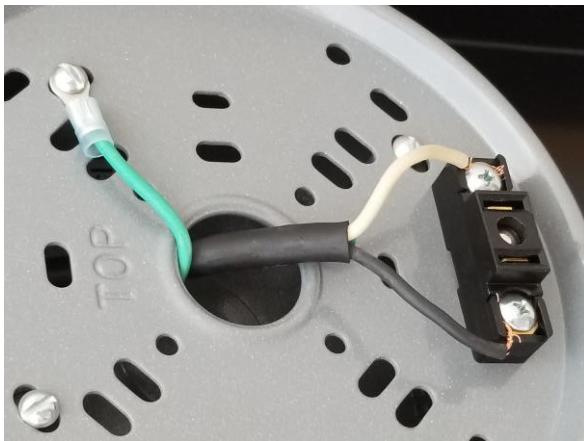
**STEP 5. Feed the supplied horn harness through the horn's mounting plate and attach to the plug receptacle.**

1. Pull this horn harness through the mounting plate and put the black and white wires under the two plug receptacle screws. Ensure these screws are tight onto these wires.



**STEP 6. Mount the horn's mounting plate onto the weatherproof box.**

1. Use the four (4) provided mounting plate screws to attach this to the weatherproof box.  
**\*\* The retainer screw hole must be placed at the opening of the gasket**
2. The green ground wire can be attached to the base at this point.



**STEP 7. Select the desired signal and hook horn onto the mounting plate and insert retainer screw.**

1. Use the selection switch on the bottom of the horn for your desired sound. Your choices are “HORN” or “SIREN”.



2. Attach the horn to the mounting plate with the tab side first. The tab from the mounting plate goes through the slot on the horn base. Seat the horn and use the provided retainer screw to hold in place.



**STEP 8. Adjust the horn's direction using the adjusting nut.**

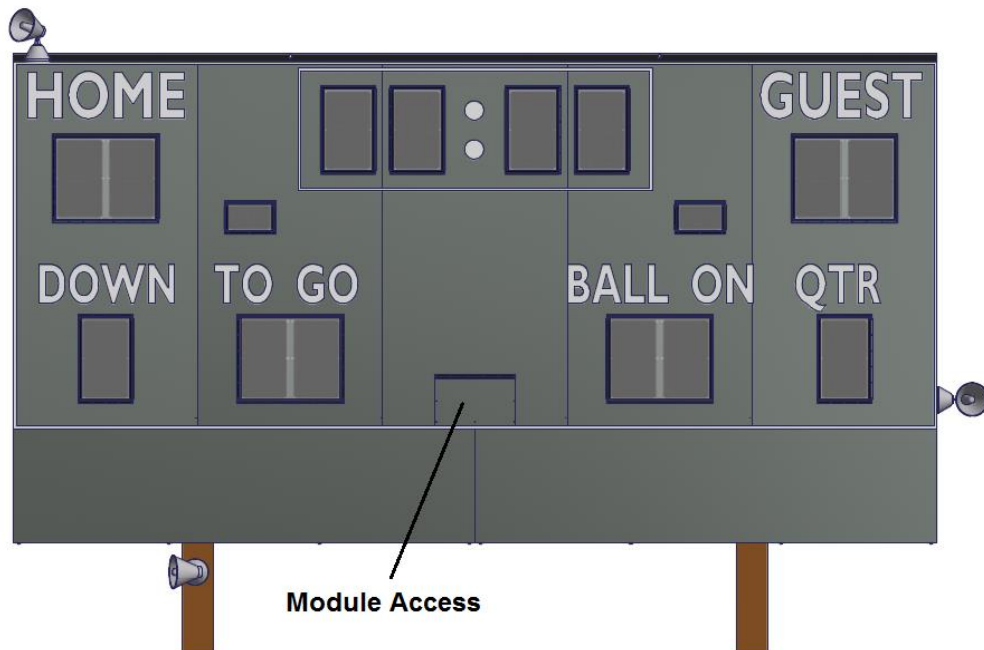
1. This can be done by loosening this not, adjusting the position, and then tightening this nut.



**STEP 9. Power the scoreboard and test the system.**

1. Refer to the Operation Manual for start-up procedures. Once in game mode test the horn by pressing the "HORN" key on the controller.

**INSTALLATION METHOD B – Location of horn other than below the main control module.**



This installation type will require the use of the provided 2" x 4" junction box to connect the provided horn harness to the customer specified length of wire needed to get to a remote horn location (as shown above).

1. Remove the module access door on the front of the scoreboard. Ensure that there is NO power to the scoreboard's control module box. (**see Installation Method A, step 1**)
2. Install the 2" x 4" junction box onto the bottom scoreboard U-channel below the module access door. Remove the protective backing on the tape to ensure that it adheres to the bottom of the scoreboard.



3. Connect the supplied horn harness to the scoreboard's control module box. (**see Installation Method A, step 3**)
4. Feed the supplied horn harness through the bottom hole on the scoreboard and into the mounted 2" x 4" junction box. Make connections to the customer supplied 16-gauge wire that will go to the remote horn location.



5. Three wires must be run: a black (HOT), a white (NEUTRAL), and a green (GROUND). This gets connected to the provided horn harness and there is NO need for any other power to the horn. The horn gets power from the scoreboard control module. This wiring to the remotely mounted horn should be ran in rain-tight conduit. Use the provided 2" x 4" cover plate to cover this connection.



6. Install the horn's weatherproof box (base) in its remote location. (**see Installation Method A, Step 2**)
7. Feed the customer supplied length of 3-wire cabling through the weatherproof strain relief and into the weatherproof box. (**see Installation Method A, Step 4**)
8. Feed the customer supplied length of 3-wire cabling through the mounting plate and attach to the plug receptacle, ensuring that the ground gets connected. (**see Installation Method A, Steps 5 & 6**)
9. Mount the mounting plate onto the weatherproof box. (**see Installation Method A, Step 6**)
10. Select desired signal and hook the horn onto the mounting plate. Tighten the retainer screw, adjust the horn and test the system. (**see Installation Method A, Steps 7, 8 & 9**)