

915HB Remote Horn with Beacon

Installation, Operation, and Maintenance Instructions

The 915HB Remote Horn with Beacon is an accessory to the 915 Tank Alarm and provides an audible and visual annunciator which can be located remotely from the console.



Failure to follow any or all of the warnings and instructions in this document could result in a hazardous liquid spill, which could result in property damage, environmental contamination, fire, explosion, serious injury or death.

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Specifications

IMPORTANT: *Not approved for use in explosive atmosphere locations.*

IMPORTANT: *Install in accordance with all applicable local, state and federal regulations.*

IMPORTANT: *Never use with highly flammable liquids as defined by OSHA/GHS.*

Remote Horn with Beacon Input Power

Nominal Input Voltage: 12 VDC

Maximum Current Draw: 0.1 Amps

Maximum Power Consumption: 1.2 Watts

Operating Environment

-40°F to 140°F (-40°C to 60°C) to 100% humidity non-condensing

Indoor or Outdoor.

Maximum Wiring Distance

Maximum wiring distance between 915 Tank Alarm Console and the 915HB Remote Horn with Beacon is 300 ft.

Installation and Testing



WARNINGS

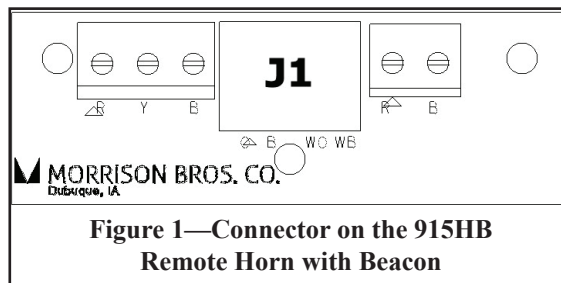
- Any modification of this unit beyond what is outlined in this instruction will void product warranty.
- For your safety, it is important to follow local, state, federal and/or OSHA rules that apply to working inside, above, or around the storage tank and piping area. Use all personal protective equipment required for working in the specific environment.
- Install in accordance with all applicable local, state and federal regulations and codes.
- This device is intended to be used as an auxiliary warning to the operator of an abnormal condition of the system, such as a possible overflow situation and should not be the only system in place to prevent an unwanted condition, such as preventing a tank from overflowing. It is the sole responsibility of the operator to continuously prevent any spillage regardless of the situation.
- In the event of malfunction, remove from service immediately and contact Morrison Bros. Customer Service.

Mounting

In order to prevent contamination from entering the enclosures, follow the following instructions:

1. Mount the enclosure to a stable vertical surface using the mounting flanges of the enclosure. Do not make additional holes in the enclosure.
2. Morrison has provided an opening with wire gland in the bottom of the enclosure. All wiring should enter and exit through this opening. Do not make additional openings in the enclosure.
3. Once the enclosure is securely mounted on a stable surface and the wiring is complete, place the enclosure cover in the proper orientation on the enclosure base and secure in place by snugging each of the cover screws. These are captured screws and are not intended to be removed. Partially thread each screw in place and then move from screw-to-screw to do the final snugging of the screws.

Steps to Wire and Configure the 915HB Remote Horn with Beacon



IMPORTANT: Remove all power from the 915 Tank Alarm System before beginning installation. This may be accomplished by unplugging all of the AC-DC Wall adapters associated with the system.

Preparation

1. Open the front cover of the Remote Horn with Beacon by first loosening the captive screws at each corner, then fully unscrewing them. This allows the front cover to be carefully removed.
2. Repeat this process with the 915 Tank Alarm Console if the front cover has not been removed yet.

NOTE: The corner screws that hold the front cover in place are captive screws and are not intended to be removed from the front cover.

NOTE: The wires that connect the Beacon to the main PCA on the front cover for both the 915 Tank Alarm Console and the 915HB Remote Horn with Beacon are not intended to be used to suspend the front cover. Always support the front cover by some other means

Installation

IMPORTANT: Remove all power from the 915 Tank Alarm System before beginning installation.

Basic Connection Instructions

All of the connections are made using screwless connector blocks. Please follow the connection instructions provided below when making connection to these connection blocks. See Figure 2 for an illustration.

IMPORTANT: These connectors are rated to be used with 24AWG to 18AWG wire ONLY. All connections to these connectors must adhere to these requirements.

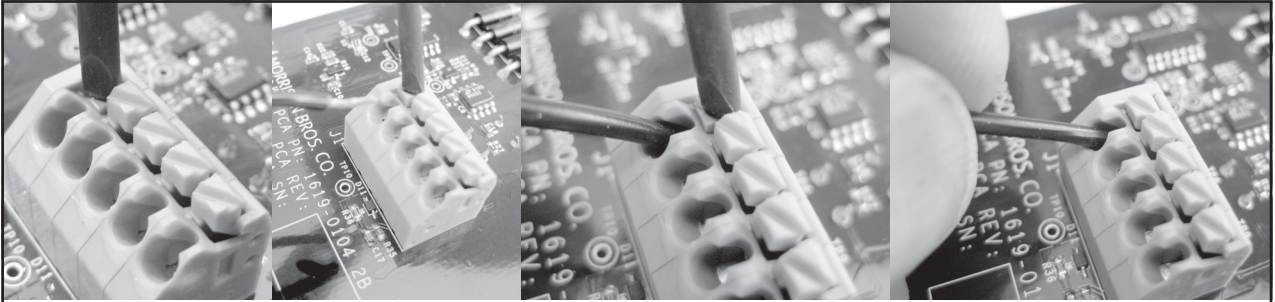


Figure 2 — Connecting wires to a screwless connector block.

1. Wire Preparation
 - a. Strip the wire to be connected to the connector **9mm/0.35inches**.
 - b. Twist the strands of wire together.

1. Wire Connection
 - a. Fully depress the connector's plunger using a suitable tool.
 - b. Fully insert the wire into the connector.
 - c. Release the connector's plunger while maintaining the wire's position in the connector.
 - d. Gently tug on the wire to verify that it has been captured by the connector.

Standard Remote Horn with Beacon Configuration

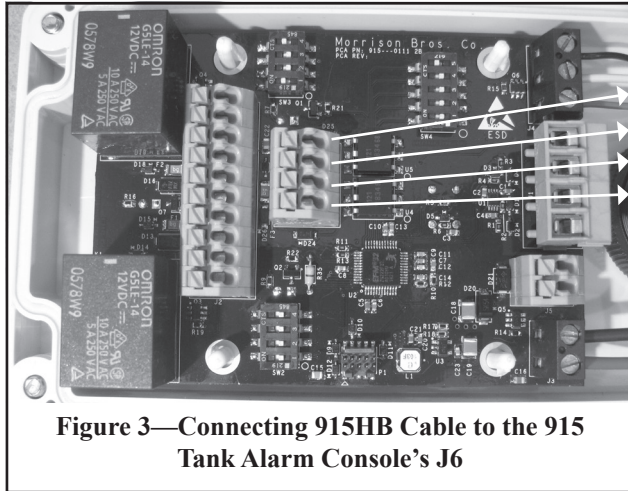
The standard configuration for the Remote Horn with Beacon utilizes a dedicated output of the 915 Tank Alarm Console. Both operational power and control are received from there.

Connecting the 915HB Remote Horn with Beacon to the 915 Tank Alarm Console requires a cable with no less than four (4), 18 to 24AWG conductors.

IMPORTANT: Do NOT plug in the 915 Tank Alarm Console's wall adapter until the entire installation is complete including final inspection.

1. Run the cable between the 915 Tank Alarm Console and the 915HB Remote Horn with Beacon.
2. Bring the cable into the enclosures through the cable gland provided in the bottom of the enclosure base.
3. At the 915 Tank Alarm Console end of the cable
 - a. Prepare the ends of the four (4) conductors of the cable per the instructions in 2.a.i above.

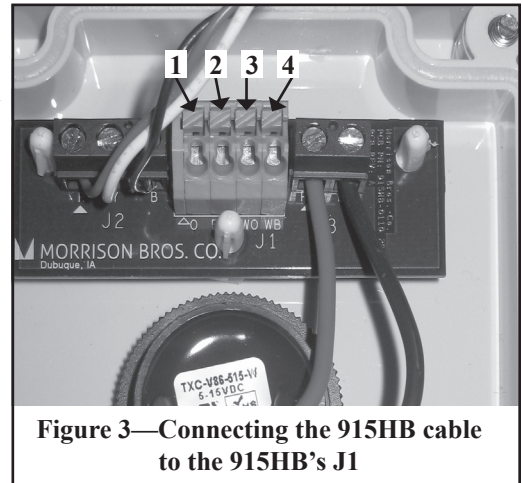
- b. Following the connection instructions in 2.a.i.2 above, connect the conductors of the cable to the pins of J6 using the table below to note which conductor is connected to which pin (see Figure 3, below).



J6 PIN	Cable Wire Color or Number
4	
3	
2	
1	

At the 915HB Remote Horn with Beacon end of the cable

1. Prepare the ends of the four (4) conductors of the cable per the instructions in 2.a.i through.
2. Following the connection instructions in 2.a.i.2 above, connect the conductors of the cable to the pins of J1 using the table above to know which conductor of the cable is to be connected to which pin of the 915HB Remote Horn with Beacon J1.
 - a. J1 pin 1 is connected to 915 Tank Alarm Console J6 pin 1.
 - b. J1 pin 2 is connected to 915 Tank Alarm Console J6 pin 2.
 - c. J1 pin 3 is connected to 915 Tank Alarm Console J6 pin 3.
 - d. J1 pin 4 is connected to 915 Tank Alarm Console J6 pin 4.



915HB J1 pin		915 J6 pin
1	↔	1
2	↔	2
3	↔	3
4	↔	4

Completion

1. Inspect all of the wiring to verify that it has been done properly. Correct any discrepancies and re-inspect.
2. When the installation has passed inspection, reinstall the front panel of the Remote Horn with Beacon and the Tank Alarm Console.
 - a. Place the front panel on the enclosure base being careful to orient the panel in the upright position, carefully folding the wires into the enclosure.
 - b. Partially thread in the four screws that hold the front cover in place.
 - c. Verify the proper seating of the cover.
 - d. Snug the four screws in place.

IMPORTANT: Do NOT apply power to the 915 or any of the system components until the entire installation is complete and the wiring has passed final inspection..

Testing

Testing the system should only be performed after the entire system has been inspected, verifying both the wiring and the configuration.

NOTE: *When power is first applied to the 915 Tank Alarm Console, the Beacon on top of the console and the Beacon(s) on any Remote Horn with Beacon should go through a quick “hello” flash, demonstrating that it is powered on and ready.*

1. Apply power to the system by plugging in each of the AC-DC Wall Adapters.
2. Verify that:
 - a. The Beacon on the 915 Tank Alarm Console does its quick flash.
 - b. The Beacon on any Remote Horn with Beacon units also does their quick flash.
 - c. The GREEN Power Indicator is brightly illuminated on the front panel of the 915 Tank Alarm Console.
 - d. The RED Channel Alarm Indicators on the 915 Tank Alarm Console are not blinking or illuminated.
 - e. The Horn/Buzzer on the 915 Tank Alarm Console is silent.
 - f. The Horn/Buzzer on any Remote Horn With Beacon units are also silent.
 - g. The GREEN Active Indicator on each 915S and/or 915ST unit(s) associated with the system are brightly illuminated.
 - i. 915S–Verify that the downstream air activated device is fully functional
 - ii. 915ST–
 - Set the Timer for 1 minute run time by turning the dial to the 1.
 - Press and release the Start/Stop button in the front panel of the 915ST. Verify that:
 1. The Active Indicator now blinks ... about one second on, one second off.
 2. The downstream air activated device is fully functional
 - Wait for the one minute
 - Verify that:
 1. The ACTIVE Indicator stops blinking.
 2. The downstream air activated device is no longer functional.
 - h. viii. The following test should be performed on each Input Channel of the 915 Tank Alarm Console
 - i. If the input device utilizes Normally-Open contacts, then connect the two wires together at the tank. If the input device utilizes Normally-Closed contacts, then disconnect the two wires at the tank. Verify that:
 - The Channel indicator associated with the channel is blinking
 - The Horn/Buzzer is sounding
 - The Beacon is illuminated
 - The Output Devices associated with the channel are in their alarm condition

EXAMPLE: If the channel is associated with Morrison Bros. Co. 915S or 915ST Solenoid unit(s), the GREEN Active light should be extinguished

- ii. Acknowledge the alarm by pressing the “Test/Cancel” button on the front of the Solenoid Valve Unit.
- iii. Remove the alarm condition at the tank.
- iv. Connect the two Tank Sensor wires to the Tank Sensor
- v. Simulate an alarm condition by moving the Tank Sensor float into the alarming position
- vi. Verify that:
 - The Channel indicator associated with the channel is blinking
 - The Horn/Buzzer is sounding
 - The Beacon is illuminated
 - The Output Devices associated with the channel are in their alarm condition

EXAMPLE: If the channel is associated with Morrison Bros. Co. 915S or 915ST Solenoid unit(s), the GREEN Active light should be extinguished.

- vii. Acknowledge the alarm by pressing the “Test/Cancel” button on the front of the Solenoid Valve Unit.
- viii. Remove the alarm condition at the tank.



Failure to follow any or all of the warnings and instructions in this document could result in a hazardous liquid spill, which could result in property damage, environmental contamination, fire, explosion, serious injury or death.

Operation

Because the 915HB is ancillary to the 915 Tank Alarm Console, there are no specific operating instructions for this part of the system.



WARNINGS

- Any modification of this unit beyond what is outlined in this instruction will void product warranty.
- For your safety, it is important to follow local, state, federal and/or OSHA rules that apply to working inside, above, or around the storage tank and piping area. Use all personal protective equipment required for working in the specific environment.
- Install in accordance with all applicable local, state and federal regulations and codes.
- This device is intended to be used as an auxiliary warning to the operator of an abnormal condition of the system, such as a possible overflow situation and should not be the only system in place to prevent an unwanted condition, such as preventing a tank from overflowing. It is the sole responsibility of the operator to continuously prevent any spillage regardless of the situation.
- In the event of malfunction, remove from service immediately and contact Morrison Bros. Customer Service.

Maintenance

There are two scheduled maintenance operations:

- **At the Beginning of Each Work Shift:** Test the overall operation of the 915 Tank Alarm
- **YEARLY:** Simulate an alarm condition and verify the operation of the System

At the Beginning of Each Work Shift

Test the overall operation of the 915 Tank Alarm System **at the beginning of each work shift.**

1. Press and hold the “Test/Cancel” button while listening to the audible alarm and observing the Channel Alarm indicator(s) and the Beacon.
 - Audible Alarm is loud and strong.
 - Channel Alarm Indicator(s) is (are) blinking
 - Beacon is operating
 - GREEN ACTIVE Indicator(s) on all 915S and 915ST Solenoid Valve Units is extinguished.
2. If alarm does not sound, the Channel Alarm Indicator(s) do not blink, the Beacon is not operating or the ACTIVE Indicators on Solenoid Valve Units remain illuminated, verify that power is applied to the Tank Alarm and that there are not wiring faults between the 915 Tank Alarm Console and the 915S and/or 915ST Solenoid Valve Units and re-test. If the alarm still does not sound or the Solenoid Valve Units do not disable, call Morrison Bros. Co Customer Service.

Yearly

This check is to be performed **no less than once per year.**

1. Perform per-work shift check as outlined above to verify the overall operation of the Tank Alarm System.
2. It is recommended to simulate an alarm condition and manually trigger the alarm using input device (Clock Gauge, float switch, 915 sensor, or other dry contact device). If it does not respond as with an alarm condition, check wiring at junction box and verify that the installation procedure was performed correctly. The alarm can be silenced after being activated by pressing the “Test/Cancel” button.