RM200 LoRa Radio

BINTRAC®

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Setup

Prior to installation, the unit must be configured to operate as either a BASE or REMOTE radio. Additionally, the radio channel can be changed if there are others in your area that are using RM200s on the default channel. These functions are accessed via the set of dip switches inside the unit as shown below.

Description	Switch #	Default	Function
Channel #	1	Off	Allows 8 different radio channels to be used depending on how these are set. Must match on Base and Remote(s). Can leave at default unless multiple Base radios are in the area.
	2	Off	
	3	Off	
Normal/Test	4	Off	HerdStar Internal use only - Leave at default
Mode	5	On	HerdStar Internal use only - Leave at default
	6	Off	
	7	Off	
Remote/Base	8	Off	Used to set unit as Base or Remote radio. Off-Remote On-Base

Mounting

Mount the RM200 outdoors using the mounting holes on the top and bottom of the attached bracket (See **Appendix A – Dimensions**). The Remote radio(s) should be mounted within 100 feet of the BinTrac Indicator(s) it will be connected to. The Base radio should be mounted within 100 feet of where the Communication Hub or HouseLink will be placed.

IMPORTANT: Position each unit in a location where it will have the best line of sight with the other radio(s) it will be communicating with.

Remote radio placement
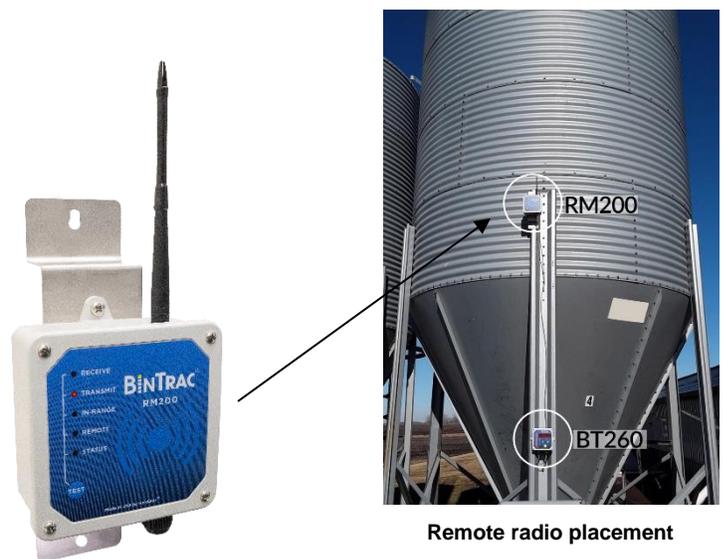
Base Radio Wiring

Insert the Conxall connector into the port on the Communication Hub marked Base Radio, then wire the RM200 to the Base Radio using the information below. The relevant terminals on each unit are circled. There is a limit of 100 feet between the RM200 and the Base Radio.   Ensure that dip switch S8 is ON for the Base Radio.
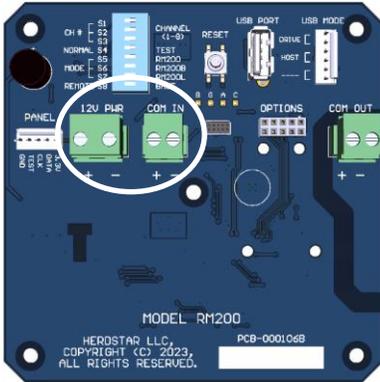
| Wire Color	RM200 (12V PWR and COM IN)
GREEN	12V PWR +
WHITE	COM IN +
RED	COM IN -
BLACK	12V PWR -

Remote Radio Wiring

Determine which BinTrac Indicator you have, either the BT200 (smaller, 5-digit display) or the BT260 (larger, 6-digit display) and wire the RM200 to the BinTrac Indicator using the information below. The relevant terminals on each unit are circled. There is a limit of 100 feet between the RM200 and the Indicator that it is wired to. Ensure that dip switch S8 is OFF for the Remote Radio.

NOTE: Only one COM connection at a time (COM IN **or** COM OUT) can be used on the RM200. They cannot be used simultaneously.

Standard/Master Wiring (Most Common) – This is used when the BinTrac Indicator is either a standalone unit, or when it is the MASTER in a MASTER/REMOTE configuration.

BT200
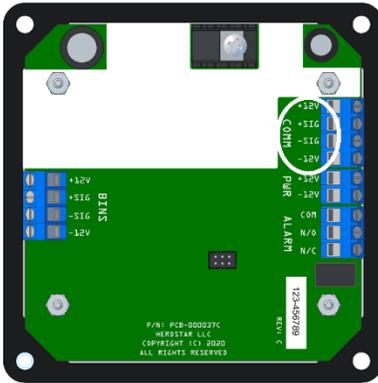
BinTrac BT200 (COMM)	Wire Color	RM200 (12V PWR and COM IN)
+12V	GREEN	12V PWR +
+SIG	WHITE	COM IN +
-SIG	RED	COM IN -
-12V	BLACK	12V PWR -

BT260
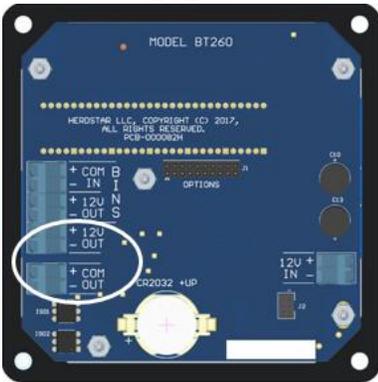
BinTrac BT260 (12V & COM OUT)	Wire Color	RM200 (12V PWR and COM IN)
+12V OUT	GREEN	12V PWR +
-12 V OUT	BLACK	12V PWR -
COM OUT +	WHITE	COM IN +
COM OUT -	RED	COM IN -

RM200
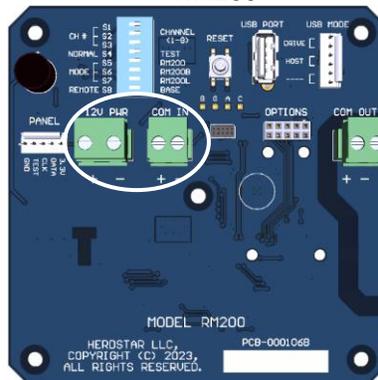
Remote Display Wiring (Optional) - This is used when the BinTrac Indicator is the REMOTE in a MASTER/REMOTE configuration. The COM wires in the RM200 will need to be moved from the COM IN to the COM OUT.

BT200
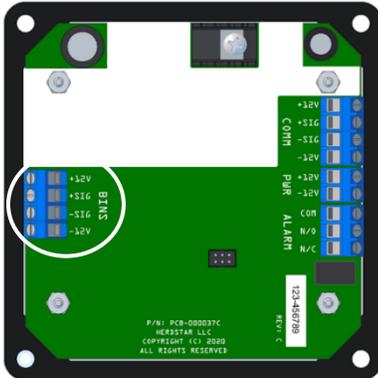
BinTrac BT200 (BINS)	Wire Color	RM200 (12V PWR and COM OUT)
+12V	GREEN	12V PWR +
+SIG	WHITE	COM OUT +
-SIG	RED	COM OUT -
-12V	BLACK	12V PWR -

BT260

BinTrac BT260 (BINS)	Wire Color	RM200 (12V PWR and COM OUT)
+COM IN	WHITE	COM OUT +
-COM IN	RED	COM OUT -
+12V OUT	GREEN	12V PWR +
-12V OUT	BLACK	12V PWR -

RM200
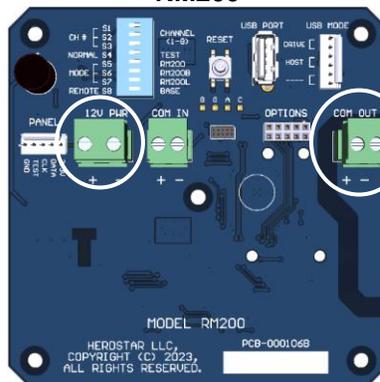
Wiring Multiple BinTrac Indicators to a Single RM200 - Multiple BinTrac Indicators can be wired to a single RM200 by daisy chaining on the communication port that the RM200 is wired to (+/- SIG on the BT200 and +/- COM OUT on the BT260 – see below). When using multiple Indicators in this fashion, each Indicator needs to be set to a unique ID. See the BinTrac BT260/BT200 Operation Manual for more details or contact HerdStar support.
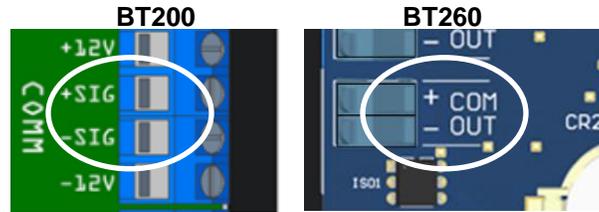
Status Lights

The status lights on the RM200 indicate the following:
- Receive – Lights when the unit is receiving data.
- Transmit – Lights when the unit is transmitting data.
- In Range – (REMOTE ONLY) Lights when the unit is communicating with a BASE radio.
- Remote – Lights when the unit is configured as a REMOTE. When off, the unit is configured as a base.
- Status – The Status LED will light when the unit has power.

Test Button

When set to Remote Radio (dip switch 8 OFF) - Pressing the TEST button will briefly display the signal strength between the Remote Radio and the Base Radio it is connected to using the 5 LEDs on the display:
- 1 LED – RSSI < -110 (worst)
- 2 LEDs – RSSI < -105
- 3 LEDs – RSSI < -95
- 4 LEDs – RSSI < -90
- 5 LEDs – RSSI > -90 (best)

When set to Base Radio (dip switch 8 ON) - TEST button disabled.

Appendix A

Dimensions
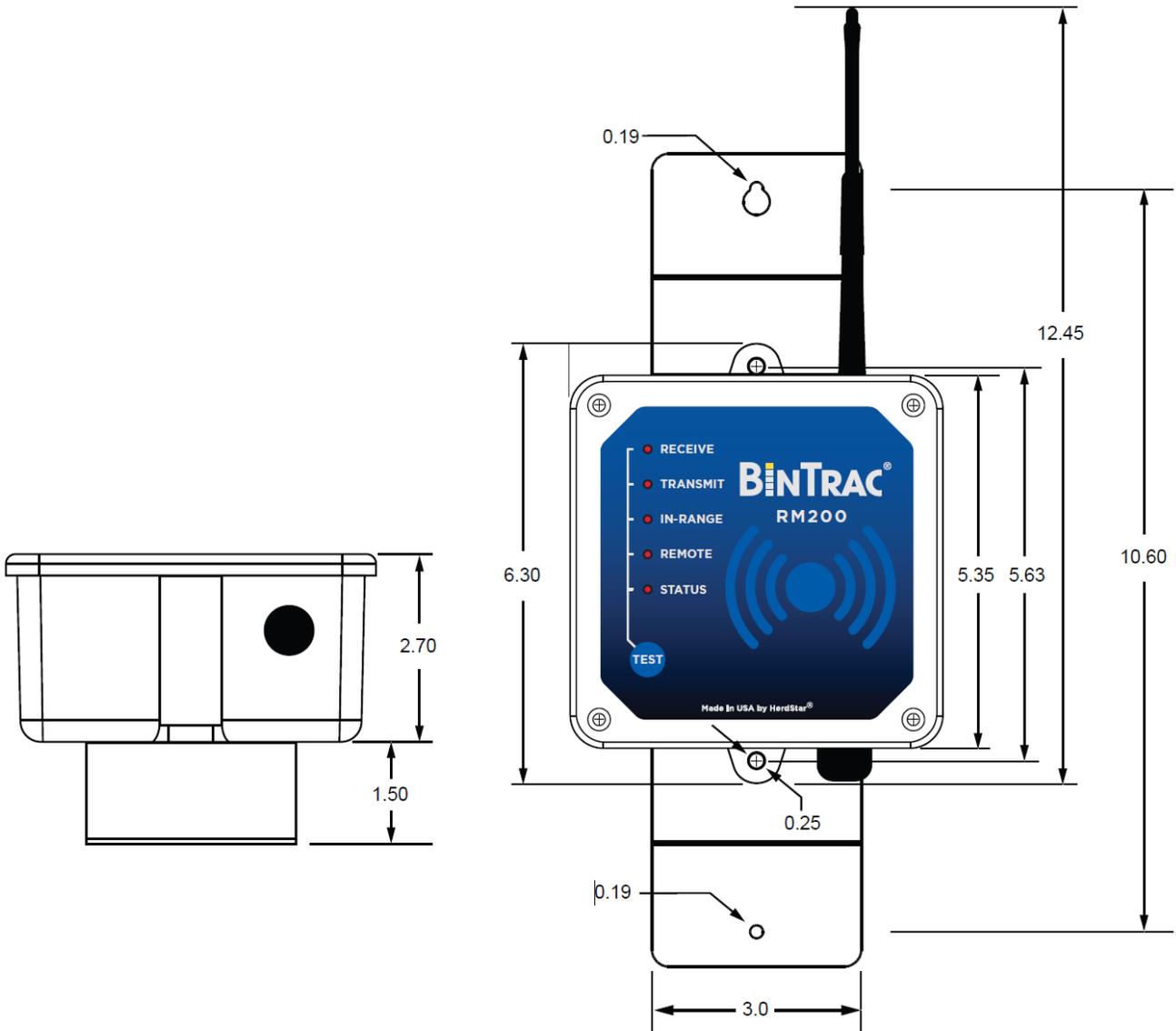
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HerdStar, LLC ("**HerdStar**") warrants to original purchaser ("**Buyer**") that goods manufactured solely by HerdStar, LLC ("**Products**") will be free from defects in material or workmanship under normal and intended use and service for a period of one year from delivery date of the Products. Used and/or refurbished parts sold shall carry a 90-day warranty on material and workmanship. All warranty claims must be submitted within ten (10) days of discovery of defects within the warranty period, or shall be deemed waived. Furthermore, HerdStar, LLC warrants the load cell ("Load cell" is defined as the s-shaped component and any cabling and connectors) against lightning damage for 12 months or the term of any extended warranty.

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