Bullhorn Monitoring

BULLHORN RM510 RECTIFIER REMOTE MONITOR



Engineered from the ground up for better reliability, the next-generation Bullhorn RM5 remote monitors put field personnel needs front and center.

THE MOST RUGGED BULLHORN EVER

Designed to resist water, dust, shock, and insects, the RM510 features the industry's best surge resistance with our award-winning solid-state relay. Rigorously tested in the toughest environments, the RM510 ensures comprehensive surge protection across all components.

3X FASTER INSTALLATION

At just 1/6th the size of previous generation models, the RM510 effortlessly fits into even the smallest rectifier cabinets. Its modular design offers flexible mounting options for customized installation, allowing you to set it up exactly how you want. With easy-to-use magnetic mounts included in every kit, installing on secondary taps is a breeze. Plus, the built-in Bluetooth capability eliminates the need for cords, dongles, and accessories, streamlining your setup even further.

SEAMLESSLY CONNECTED FIELD AND OFFICE

The RM5 series offers a fully integrated IoT solution, providing customizable sampling, reporting, and alarm parameters to deliver the data you need on your preferred schedule. Seamlessly integrating with Bullhorn Web, PCS, and other American Innovations solutions, the RM510 improves accelerates workflows throughout your organization.

BULLHORN RM510 HIGHLIGHTS

- Industry-leading surge protection
- Full 3-year warranty, including surge
- Streamlined Bullhorn Web and PCS integration with SOC2 compliance
- Integrated IoT network through your choice of LTE-M cellular or Iridium satellite connectivity
- Weather-sealed for enhanced durability
- Wireless configuration via iOS/Android app or Bullhorn Web
- Ultra-small footprint with new magnetic mounting
- Instant-off, GPS-synchronized interruption with enhanced real-time monitoring
- Configurable reading schedule and alarms, plus a battery backup and field-replaceable battery

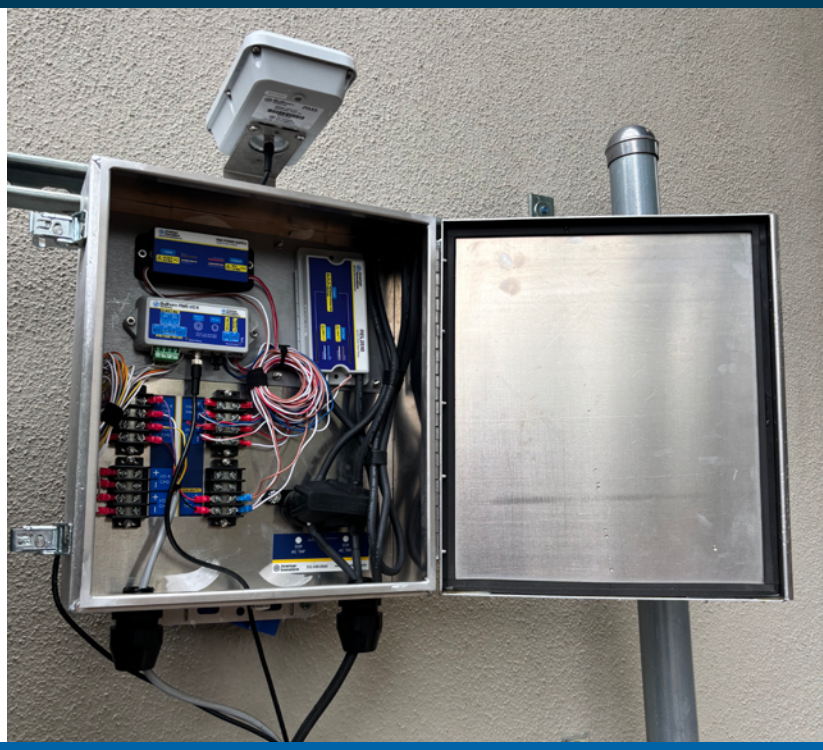
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Bullhorn RM510 External Enclosure

Say goodbye to installation constraints with the RM510 External Enclosure.

When installing a remote monitoring unit inside a rectifier cabinet isn't practical—especially with compact units like shoebox rectifiers—the RM510 External Enclosure delivers a turnkey solution. Purpose-built and pre-wired, it houses the Bullhorn RM510's I/O, Power Supply, and REL2510 Solid-State Relay in a rugged, IP65-rated dust and waterproof enclosure, ready to mount externally on any rectifier.

The result: fast, hassle-free installation with reliable protection against the elements.



EXTERNAL ENCLOSURE SPECIFICATIONS

RELAY MOUNTING

Relay Integration Options	Integrated REL2510 Solid-State Relay Non-Integrated REL2510 Solid-State Relay - Mount in Rectifier

DIMENSIONS & MATERIALS

External Enclosure	14" x 12" x 4" (35.56 x 30.48 x 10.16 cm)
Weight	Empty: 4.4 lbs (2.0 kg) With Bullhorn RM510 and REL2510 Solid State Relay installed: 9 lbs (4.1 kg)
Construction	5052 Aluminum, 14-gauge with Timesaver Grained Finish

ENVIRONMENTAL SPECS

IP65 Rating
Watertight Grommets for RM510C/S Dome

INCLUDED HARDWARE

External Mounting Hardware	Universal Mounting System with integrated flanges requiring no additional hardware. **Pole mounting** - metal straps/hose clamps **Structure mounting** - U-bolts **Surface mounting** - lag bolts
10 ft AC Tap Connectors	
Spade Terminal Connections	

American Innovations

LEARN MORE: aiworldwide.com/bullhorn

aiworldwide.com • 512-249-3400 • info@aiworldwide.com
12211 Technology Blvd. Austin, TX 78727

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BULLHORN RM5 SPECIFICATIONS

INPUTS

Channels	4 analog + 2 digital channels Expandable to 16 analog channels
Max DC Voltage	+/-150Vdc
Max AC Voltage	100V
Accuracy	+/- 2% of range. Ranges: +/-1.25V, +/-2.5V, +/-5V, +/-63.75V, +/-127.5V, +/-255V. Ranges can handle simultaneous DC and AC voltages
Input Impedance	20 Meg ohms
Channel-to-Channel Isolation	>250Vdc
Surge Immunity	The RM510 system survives 30kV peak-to-peak, 300ms transients. Includes full 3-year warranty.

DIGITAL

Minimum Logic	<1.1V for logic low
Maximum Logic	>1.1V for logic high, 20Vmax

INTERRUPTION

Interruption Verification	Every five minutes
Maximum Current	500mAdc
Relay Max Current	100A
Output Voltage	10-14Vdc
Relay Max Voltage	100V DC, 70V ACrms
Minimum Switching Cycle	1s
On/Off Cycle Increments	100ms
Relay Support	System surge rating maintained only with REL2510 100V/100A AC SSR. Use AI Lightning Arrestor if using other relays (Mercury or Solid State).

DIMENSIONS

Dome	4” x 6.4” x 2.2” (10.2 x 16.3 x 5.6 cm)
IO	2.4” x 4.88” x 1.1” (6.1 x 12.4 x 2.8 cm)
Terminal Blocks	1.38” x 2.48” x 0.75” (3.5 x 6.3 x 1.9 cm)
Power Supply	1.85” x 4.37” x 1.09” (4.7 x 11.1 x 2.8 cm)
Relay	2.98” x 5.5” x 0.84” (7.6 x 14.0 x 2.1 cm)

POWER

Input	12Vdc
Power Source	RM510 Power Supply providing Output of 12Vdc @ 1A Max with Input of 10-42Vac/dc @ 3A Max

COMMUNICATIONS

Cell Network (RM510C)	AT&T
Satellite Network (RM510S)	Iridium
GPS	GPS Network, Accurate to 5m

ENVIRONMENTAL SPECS

Temperature (Dome, IO, PS, and Relay)	-30° C to +60° C
Humidity (Dome)	0 - 100%
Humidity (IO, PS, and Relay)	0 - 95%

CERTIFICATIONS

FCC
Industry Canada

DATA

Memory	EEPROM



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BULLHORN RM510 FREQUENTLY ASKED QUESTIONS (FAQS)

How do I configure Bullhorn RM510 settings and validate communication during installation?

To configure the RM510 and validate communication during the installation process, you can use the free Bullhorn Tools mobile app. You can download this app from either the Google Play Store for Android devices or the Apple App Store for iOS devices.

Is any assembly required for the external enclosure?

No assembly is required! The RM510 External Enclosure comes fully assembled with the RM510 I/O Module, Power Supply, Terminal Blocks, and REL2510 Solid-State Relay already installed.

What configuration options are available for the RM510 External Enclosure?

The enclosure is available with the REL2510 Solid-State Relay mounted inside or outside the IP65-rated enclosure.

How do I get my data into PCS?

Bullhorn Web integrates directly into the PCS ecosystem through an API providing real time compliance data.

What if I need more than 4 channels?

For expanded monitoring, the optional 16-Channel Expansion Module increases capacity from 4 to 16 analog channels.



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