Bullhorn Monitoring

Required Tools

- Screwdrivers
- Wire stripper and wire cutter
- Crimper
- Adjustable wrench
- Voltmeter
- Drill and assorted bits
- Zip ties

Safety Warnings & Requirements

⚠️ **WARNING:** Turn off rectifier input power prior to installation. Use a digital voltmeter to confirm that rectifier output voltage is less than 5 V DC.

For a complete list of safety requirements, see the RM5 User Guide available at https://support.aiworldwide.com/products/bh2/content/topics/index.htm

1 Install the RM5 Power Supply and REL2510 Relay

IMPORTANT: Only RM5 power supplies should be used with RM510C units. DO NOT connect the RM5 power supply directly to AC power mains.

1 Use a digital voltmeter to identify a 10-30 V AC power source across the recifier's secondary taps (separate from the taps bridged by the bus bar to deliver rectifier output voltage).

2 Connect the Input cables from the RM5 power supply and the optional REL2510 relay to the 10-30 V AC power source identified in step 1. Secure connections with the provided nuts.

3 Refer to the installation diagram on page 2 for details on installing the RM5 power supply and optional REL2510 relay. **IMPORTANT:** The output cables of the REL2510 relay replace the bus bar.

2 Install the RM5 I/O4 Module

IMPORTANT: The RM5 I/O4 module must be installed inside an enclosure (such as the rectifier cabinet).

1 Secure the RM5 I/O4 module to any ferrous metal surface using the magnetic mounts, or mount it in the desired location using the included screws.

2 Refer to the installation diagram on page 2 for details on installing the RM5 I/O4 module. **IMPORTANT:** On the Bullhorn website, channels 1 and 2 are preconfigured to read rectifier amps and volts, respectively.

3 See the RM5 I/O4 module label for maximum channel input ratings. Ensure all system connections make solid contact and are protected from moisture and dirt to prevent shorting or corrosion.

3 Install the RM510C Dome

IMPORTANT: The RM510C dome must be mounted outside of the rectifier enclosure with a clear view to the sky.

1 Secure the RM510C dome to any ferrous metal surface using the magnetic mounts, or mount it in the desired location using the included screws. Use the provided mounting bracket if necessary.

2 Refer to the installation diagram on page 2 for details on installing the RM510C dome. **IMPORTANT:** To avoid damaging the M8 cable, hand tighten only.
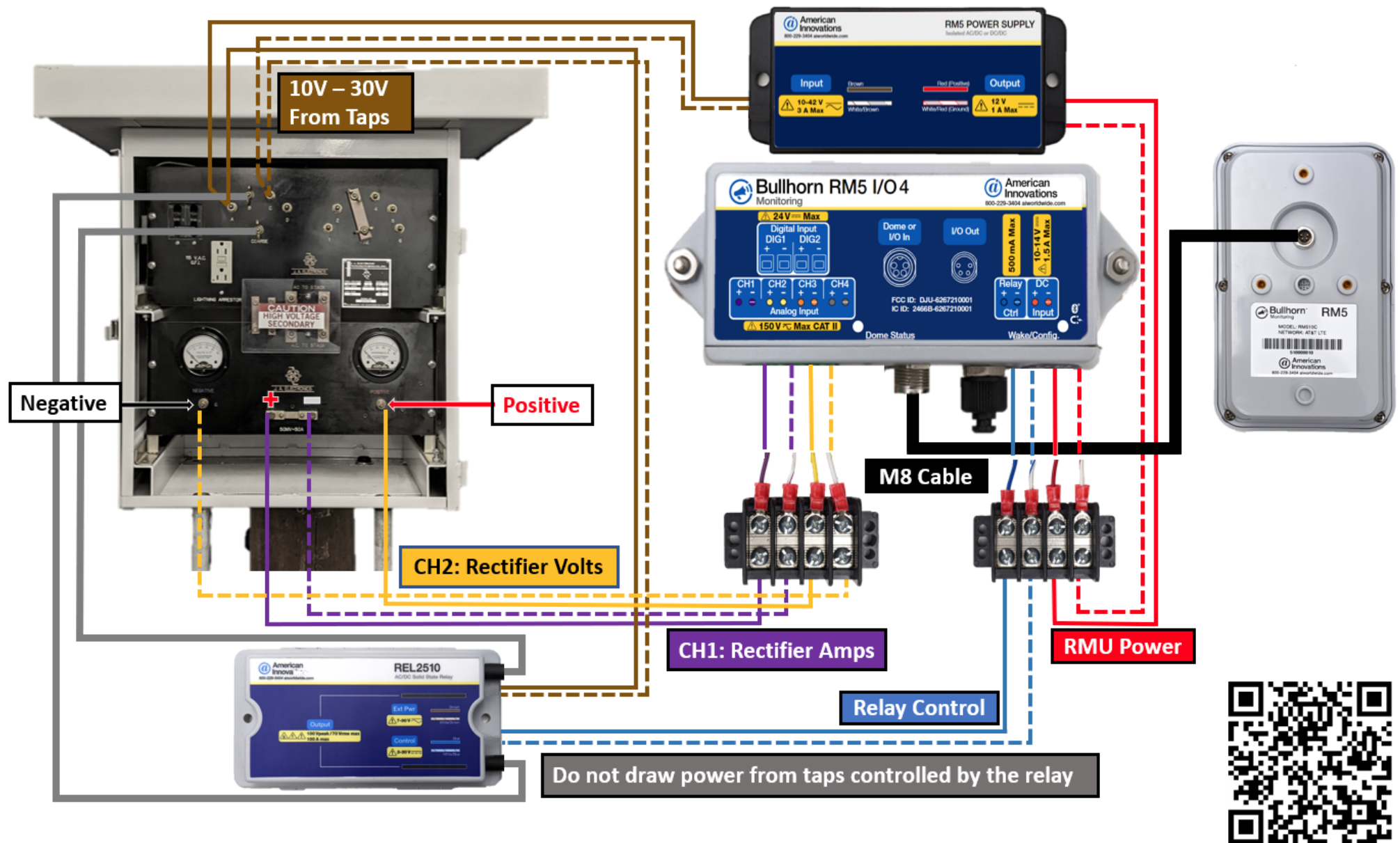
4 Testing and Configuration

IMPORTANT: Restore input power to the rectifier. Using a digital voltmeter, take test measurements to confirm the rectifier is functioning normally.

1 Confirm that the Dome Status LED located on the RM5 I/O4 module is illuminated green.

2 To configure the RM510C, navigate to www.bullhornsys.com and log into your Bullhorn Web account.

For additional assistance, contact the American Innovations Technical Services team at support@aiworldwide.com or 512-249-3400 (toll-free: 800-229-3404).

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Part No. 122253-000, Rev. 2

RM510C Installation Diagram

10V – 30V From Taps

RM5 POWER SUPPLY
Isolated AC/DC or DC/DC

Input
10-42 V 3 A Max

Output
12 V 1 A Max

Bullhorn RM5 I/O 4
Monitoring

American Innovations
800-229-3404 aiworldwide.com

24 V Max

Digital Input DIG1 DIG2

Dome or I/O In

I/O Out

500 mA Max

10-14 V 1.5 A Max

CH1 CH2 CH3 CH4
Analog Input

FCC ID: DJU-6267210001
IC ID: 2466B-6267210001

Relay Ctrl

DC Input

150 V Max CAT II

Dome Status

Wake/Config.

Bullhorn RM5

MODEL: RM510C
NETWORK: AT&T LTE

American Innovations
800-229-3404 aiworldwide.com

Negative

Positive

CH2: Rectifier Volts

M8 Cable

CH1: Rectifier Amps

RMU Power

American Innovations
REL2510
AC/DC Solid State Relay

Output

Ext Pwr

Control

Relay Control

Do not draw power from taps controlled by the relay

Scan for RM5 Installation Video