



**INMOTION Controls Inc.**

**Industrial Radio Remote Control**

**INMOTION Series 532  
INMOTION Series 532-H  
INMOTION Series 532-A/B  
INMOTION Series 532-A/B-H  
User's Manual**

**Safety/Reliability/User-Friendly**

**October, 2013**

This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions; (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**FCC ID: NCT048L10 IC: 2802A-048L10  
CE 0678**

## **WARRANTY**

INMOTION Controls, Inc. guarantees that this product meets its published specification at the time of shipment from the factory. Under proper installation, it should work as expected. However, INMOTION Controls, Inc. does not guarantee that operation of the 532 Series Radio Control System is error-free or without interruption.

This equipment is warranted against defects in materials and workmanship for a period of one year from the date of shipment. During the warranty period, INMOTION Controls, Inc. is responsible for necessary repairs, as long as the product can be proved to be defective.

For warranty service or repair, this product must be returned to our factory. Customer is responsible for shipping charges to INMOTION Controls, Inc., while INMOTION Controls, Inc. will pay return shipping charges.

This warranty does NOT include consumable parts, such as joystick, batteries, fuses, buttons, and relays or damage from normal wear and tear. Furthermore, this warranty does NOT cover defects caused by misuse, neglect, accident, failure to follow instructions, improper installation, improper or insufficient maintenance, unauthorized modification, unavoidable natural essential, improper operation, ignorance of environmental specifications, improper software/interfaces, fire, or acts of God.

- No other warranty is expressed or implied, except for the above mentioned
- The remedies provided herein are the buyers' sole and exclusive remedies.
- INMOTION Controls, Inc. shall not be liable for any direct/indirect, special, incidental or consequential damages.

# **OPERATING PRECAUTIONS**

## **ATTENTION**

- Due to the complex nature of the equipment, it is necessary to read the entire manual before installation.
- Never dismantle equipment by any unauthorized personnel, or equipment may be damaged.
- This Manual is for reference only, please call your distributor if further assistance is required.
- This equipment has been strictly tested for quality before delivery from our factory. However, it must not be used in extremely dangerous situations, or where damage may result.
- After operating, please shut off main power in Crane and the power to Receiver.
- Transmitter should be placed safely when not in use to avoid accidental pressing of buttons.
- The Crane should be equipped with main power Relay, Limit Switch and other required safety devices.
- The GND (ground) of Receiver must be connected with metal part of Crane, or electrical shock will occur.
- Do not use this device during electrical storm, or high electrical interference conditions.
- Ensure Transmitter batteries are in good condition and power for Receiver is normal.
- Installation and maintenance should be done only while the Crane's main power and Receiver's power are OFF, to prevent electrical shock.
- Contents of the Manual may be amended by the manufacturer without notice.

- Series 532 is manufactured with many patents developed and owned by INMOTION Controls and its related enterprises.

## PRECAUTIONS

- After Operating Series 532, please press EMS mushroom to shut off main power in the Crane & Receiver.
- Stop operating when slow-response occurs due to insufficient Transmitter power, beyond the remote control range, or severe interference.
- Remove the batteries when the equipment won't be used for a long period.
- Operators must be in good health and have good judgment in regards to safety.
- Remote Control operator must have adequate training and related license to avoid danger.
- Series 532 Transmitter is durable and weather-resistant, but care should be taken not to subject it to severe impact or pressure.
- Series 532 is suitable for use in diverse industrial environments, and adequate operating and maintenance will extend system's life.
- Check EMS mushroom and the other security functions of Series 532 system before daily operation.
- Press EMS mushroom when malfunctions or abnormal conditions occur.
- Operator must be familiar with the following Emergency Procedures before operating.

# **EMERGENCY PROCEDURES**

In case of emergency, please follow the steps below and ask the distributor for service immediately.

- Press EMS mushroom
- Remove the batteries
- Shut off the main power of the Crane and discontinue the operation

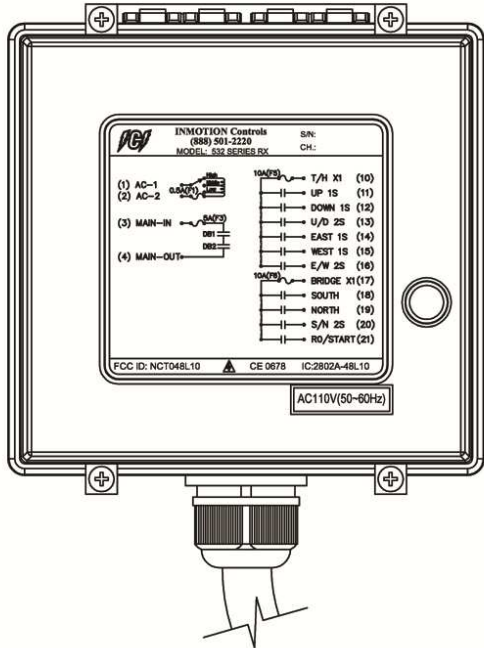
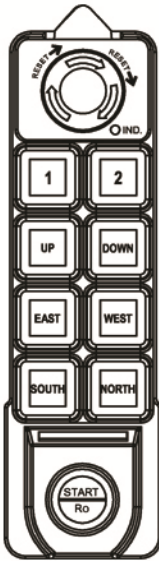
Contact the distributor to find out possible causes.

# STANDARD ACCESSORIES

A standard and full set of Series 532 consists of:

(1) Transmitter, 2 units

(2) Receiver, 1 unit

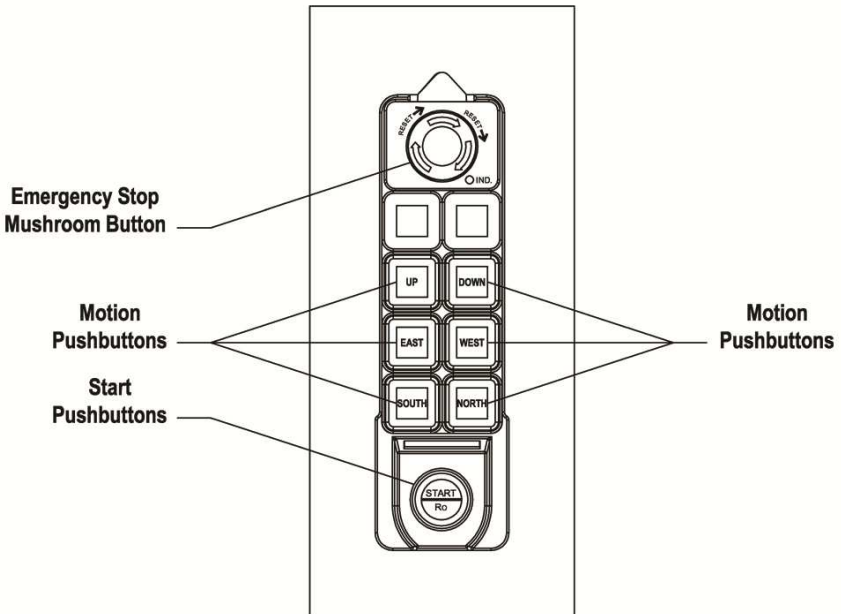


Note:

Inmotion Series 532-A/B-H Shown. Models vary depending on options.

# OPERATION

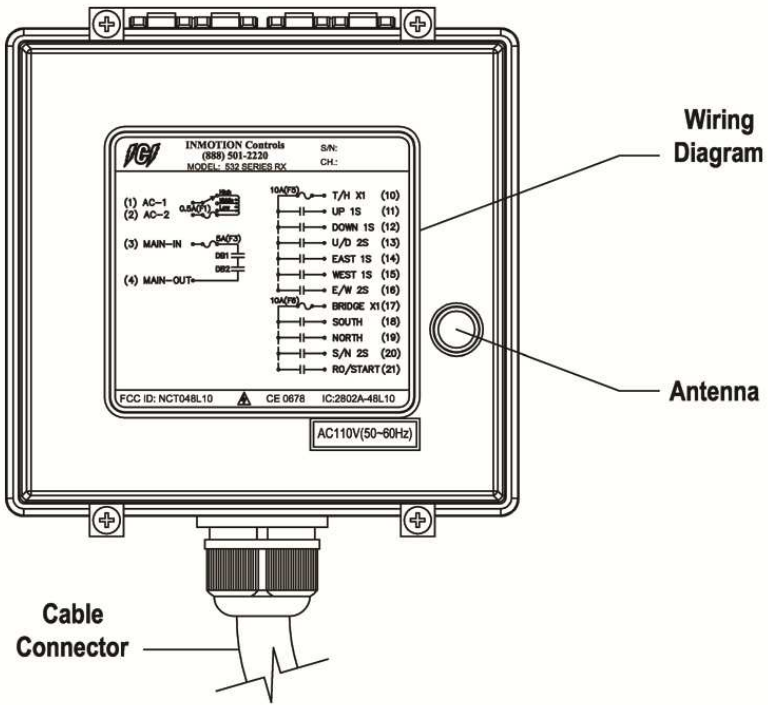
## TRANSMITTER CONFIGURATION



Note:

Inmotion Series 532-A/B-H Shown. Models vary depending on options.

# RECEIVER CONFIGURATION



Note:

Inmotion Series 532-A/B-H Shown. Models vary depending on options.



## GENERAL OPERATION

- Turn on the main power switch of the equipment (Crane).
- Install 2 AA batteries in the battery box in the Transmitter. Make sure the “+” and “-“ directions are correct.
- Attach Transmitter battery door with screws.
- Press the “Start/RO” Button.  
**Note:** LED indicator will flash with red color if proper procedures are not followed.
- Operate Transmitter by pressing each pushbutton.
- After operation, perform the following procedures in sequence:
  - (1) Press EMS mushroom
  - (2) Keep the transmitter in a safe place
  - (3) Switch main power off to the equipment (Crane)
  - (4) Remove batteries if not used for a long period of time**Note:** Transmitter has power indicating functions with LED display.

← “Green Color” – The LED will flash green when battery power is sufficient.

→ “Red Color” – The LED will flash red when the power is low.

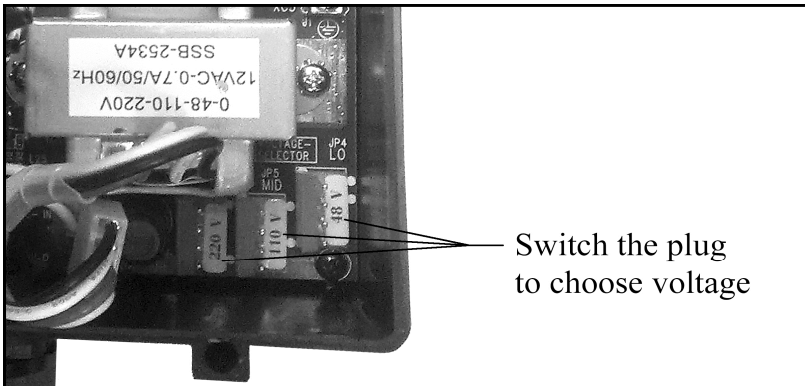
- The operating distance will become shorter and intermittent when the batteries are low.
- Replace with new batteries when battery power is low.

**! DO NOT USE RECHARGEABLE BATTERIES !**

# RECEIVER VOLTAGE SELECTION

There are two types of power voltages (DC and AC) available for the Series 532.

- 1) DC Type:  
Input Voltage: 12~24 VDC  
Relay Contact: 10A-36 VDC
  
- 2) AC Type:  
Three different AC transformers:  
48/110/220V, 48/220/380V, 110/220/380V.  
Please disconnect the Receiver's power, select the proper voltage, and plug in the connector.



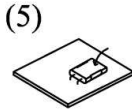
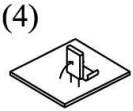
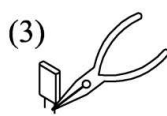
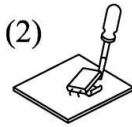
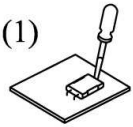
**Note: Standard Systems are 48/110 VAC. If any others are required, please specify when ordering.**

# CHANGING THE FREQUENCY

It is easy to change the frequency of the Series 532 simply by replacing corresponding frequency crystals in both the Transmitter and the Receiver.

Instructions:

1. Pry up the crystal with a flathead screwdriver.
2. Remove the crystal from the system.
3. Use needle nose pliers to straighten both pins of the new crystal.
4. Insert the new crystal vertically into the PC board.
5. Press the new crystal down into the socket.



**ATTENTION :**

The Transmitter frequency will be different from the Receiver frequency. For example, the transmitter crystals are labeled T01 thru T60 and receiver crystals are labeled R01 thru R60.

## FREQUENCY CHART

Ch	Freq. MHz	Ch	Freq. MHz	Ch	Freq. MHz	Ch	Freq. MHz
1	310.0325	11	312.7075	21	315.3825	31	318.0575
2	310.3000	12	312.9750	22	315.6500	32	318.3250
3	310.5675	13	313.2425	23	315.9175	33	318.5925
4	310.8350	14	313.5100	24	316.1850	34	318.8600
5	311.1025	15	313.7775	25	316.4525	35	319.1275
6	311.3700	16	314.0450	26	316.7200	36	319.3950
7	311.6375	17	314.3125	27	316.9875	37	319.6625
8	311.9050	18	314.5800	28	317.2550	38	319.9300
9	312.1725	19	314.8475	29	317.5225	39	320.1975
10	312.4400	20	315.1150	30	317.7900	40	320.4650

## **BATTERIES**

Two AA size alkaline batteries are required for the Transmitter.

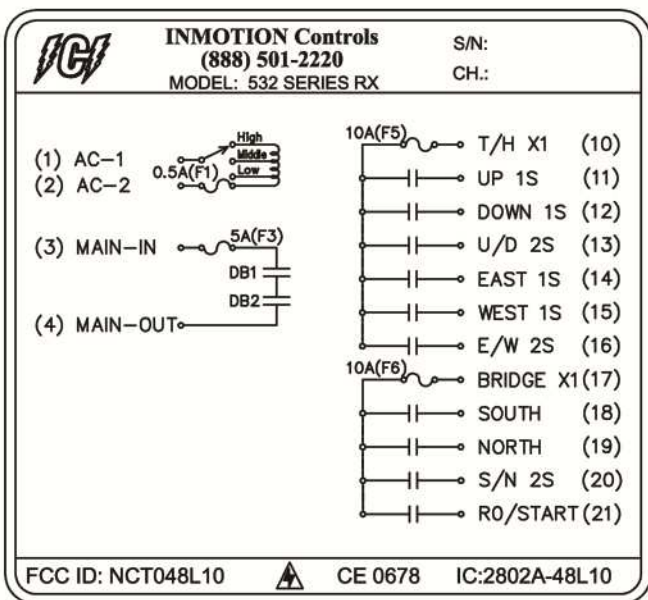
The LED will flash green when the battery power is sufficient.

The LED will flash red when the battery power is low.

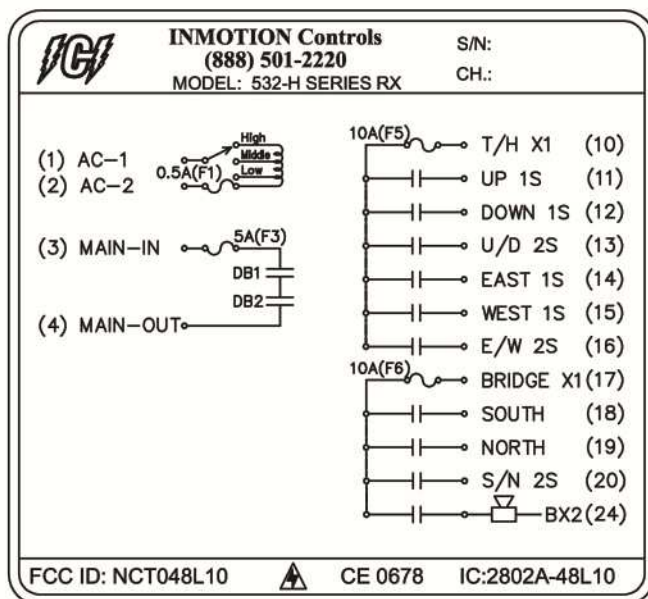
- The operating distance will become shorter and intermittent when the battery is low.
- Replace with new battery when battery power is low.

**! DO NOT USE RECHARGEABLE BATTERIES !**

# **INSTALLATION NOTES**



## INMOTION 532



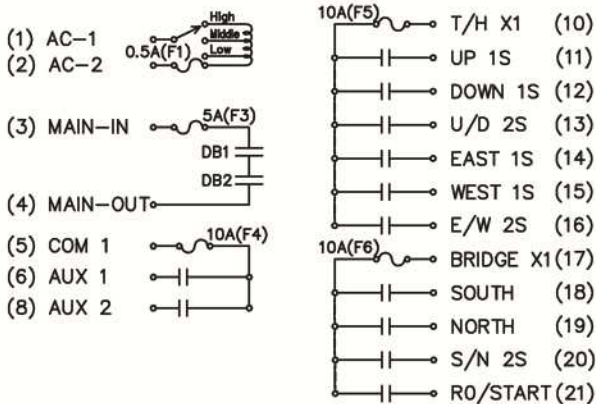
## INMOTION 532-H



**INMOTION Controls**  
(888) 501-2220  
MODEL: 532-A/B SERIES RX

S/N:

CH.:



FCC ID: NCT048L10



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IC:2802A-48L10

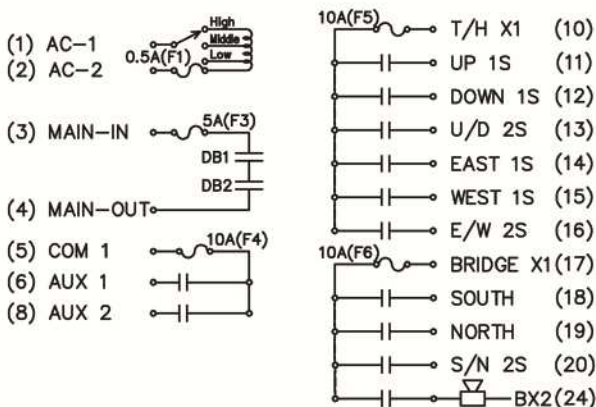
## INMOTION 532-A/B



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MODEL: 532-A/B-H SERIES RX

S/N:

CH.:



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## INMOTION 532-A/B-H

**Do You Have a  
Harsh Environment?  
Are Your Operators  
Tough on Transmitters?**



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Rubber Boots**