



INMOTION Controls, Inc.

INSTALLATION &
OPERATION
MANUAL

INMOTION Series 1210

June, 2008



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Chapter 1 Warranty

1-1 Warranty

INMOTION Controls, Inc. guarantees that this equipment meets its published specifications at the time of shipment from factory. This equipment will perform as described if installed properly. However, INMOTION cannot guarantee that the operation of the equipment is absolutely error-free, or without interruption.

1-2 Warranty Period

This equipment is warranted against defects in material and manufacturing for a period of one year from the date of shipment. During the warranty period, INMOTION 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 a service facility designated by INMOTION. Buyer will pay shipping charges to INMOTION, while INMOTION will pay return shipping charges.

1-3 Excluded Items

This warranty does not include consumptive parts such as batteries, fuses, buttons, and relays. Also this warranty does not cover defects caused by improper installation, improper or insufficient maintenance, unauthorized modification, improper operation, ignorance of environmental specifications, or improper software or interfacing.

1-4 Remarks

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



Chapter 2 Operating Precautions

2 - 1 Attention

1. Read this manual carefully before operating and installing Series 1210.
2. Due to the complex nature of equipment, it is necessary to read the entire manual before installation.
3. Never allow any unauthorized personnel to dismantle equipment as this may cause the equipment to be damaged.
4. The equipment has been stringently tested for quality before delivery from our plant. However, it must not be used in extremely dangerous situations, or where damage may result.
5. After operating the Crane, switch off main power as well as the power on the Receiver and remove the Transmitter key.
6. The Transmitter should be safely placed when not in use to avoid accidental pressing of buttons.
7. The Crane should be equipped with a main power Relay, Limit Switch and other required safety devices.
8. Don't use this device during electrical storm or where there are conditions of high electrical interference.
9. Ensure that the Transmitter batteries are in good condition and the power for Receiver is normal.
10. Installation and maintenance should be done only while the Crane's main power is off and the Receiver's power is off to prevent electrical shock.
11. The contents of the manual may be amended by the manufacturer without notice.
12. The manufacturer may introduce new functions to the equipment as is necessary; therefore, the descriptions may be subject to change.

2 - 2 Precautions

1. After operating Series 1210, please press EMS mushroom and shut off the main power supply on the Crane & the Receiver and remove the Transmitter key.
2. Stop operating when slow-response occurs due to insufficient Transmitter power, beyond the remote control range or severe interference.
3. Remove the batteries when the equipment is not going to be in use for a long period of time.



4. The Series 1210 is suitable for use in diverse industrial environments. Correct operation and maintenance will extend the Series 1210 system's life.
5. Check EMS mushroom and the other security functions of the Series 1210 system before daily operation.
6. Press EMS mushroom when malfunctions or abnormal conditions occur.
7. The operator must be familiar with the following Emergency Procedures before operating.

2 - 3 Emergency Procedures

In case of emergency, please follow the steps below:

1. Press EMS mushroom.
2. Turn the security key or rotary key switch to "OFF" position.
3. Remove the battery box and key.
4. Shut off the main power of the Crane and discontinue the operation.
5. Contact the distributor to find out reasons.



Chapter 3 Standard Accessories

A standard Series 1210 is consists of:

Series 1210

Transmitter (strap included) - 2 unit



Receiver - 1 unit





4 – 1 Transmitter Configuration

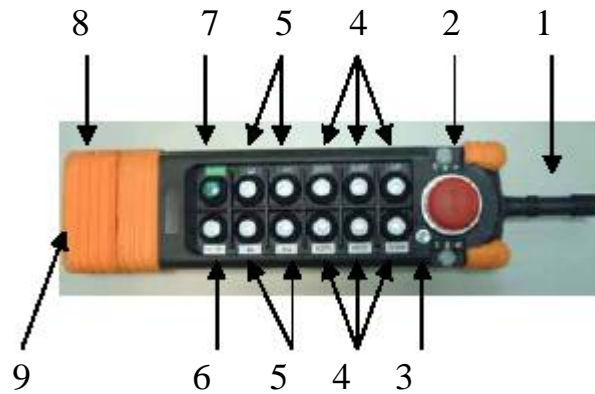


Figure 4-1 Transmitter Configuration

- | | |
|----------------------------|---|
| 1- Antenna | 6- F1 Pushbutton |
| 2- Emergency Stop | 7- Start Pushbutton |
| 3- LED Indicator | 8- Bottom Case
(Houses Battery Holder) |
| 4- Motion Pushbutton | 9- Security Key |
| 5- Aux. Pushbutton R1 ~ R4 | |



4 – 2 General Operation

1. Install 2 new AA-size alkaline batteries in the battery box of Series 1210, then insert into battery chamber. Make sure the “+” and “-” directions are correct.
2. Insert security key in the “OFF” position.
3. Turn on the power according to the “Power-On Modes”.
Note: LED indicator will flash red if proper procedures are not followed.
4. Operate transmitter by pressing each pushbutton.
5. After operation, perform the following procedures in sequence: (1) Press EMS mushroom, (2) rotate security key or rotary key switch counterclockwise to the “OFF” position, (3) remove key and keep it in a safe place, (4) remove batteries if not to be used for a long period of time.

4 – 3 Special Functions Operation

4-3-1 Power-On operations

Power-on means that the Main-Relay on the receiver will switch on as soon as the transmitter sends a signal and then the receiver will be on standby for continuous control. There are 2 options for “Power-On Mode”:

A. Any pushbutton Power-On Mode

1. Rotate “EMS” mushroom clockwise 45° and pull out.
2. Turn security key clockwise to “ON” position.
3. Press any pushbutton on the transmitter. This will turn on the power as well as execute the function of pushbutton.

B. “Start” pushbutton Power-On Mode

1. Rotate “EMS” mushroom clockwise 45° and pull out.
2. Turn security key clockwise to “ON” position.
3. Press “Start” pushbutton on the transmitter to turn on power.



4-3-2 Acceleration Operation

1. The “Start” pushbutton is acceleration pushbutton.
2. When a motion is in the second speed, quick touch of acceleration pushbutton will accelerate the speed. Repeated touch of acceleration pushbutton will increase the speed.

Note: When accelerating, the motion pushbutton must be depressed and held in the second speed. If motion pushbutton is released, there will be no acceleration and speed will return to zero.

4-3-3 Inching Operation

1. “Start” pushbutton is set for “inching” function.
2. Press and hold inching pushbutton.
3. Press any motion pushbutton to perform the inching motion.

Note: The other pushbutton of transmitter must be released before pressing the inching pushbutton.



4 – 4 Receiver Voltage Selection

There are two types of power voltages (DC and AC) available for the Series 1210:

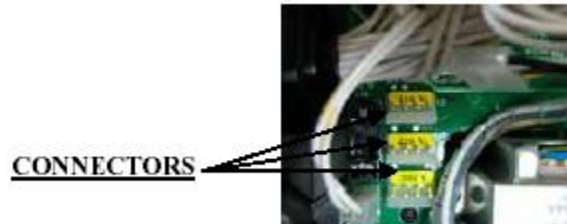
(1) DC Type:

Input Voltage : 12~24 VDC
Relay Contact: 10A-36VDC

(2) AC Type:

Three different AC transformers: 48/110/220V, 48/220/380V,
110/220/380V.

Please disconnect the RX's power, select the proper voltage and plug in the connector.



Switch the plug to choose voltage

4 – 5 Transmitter Battery Adoption

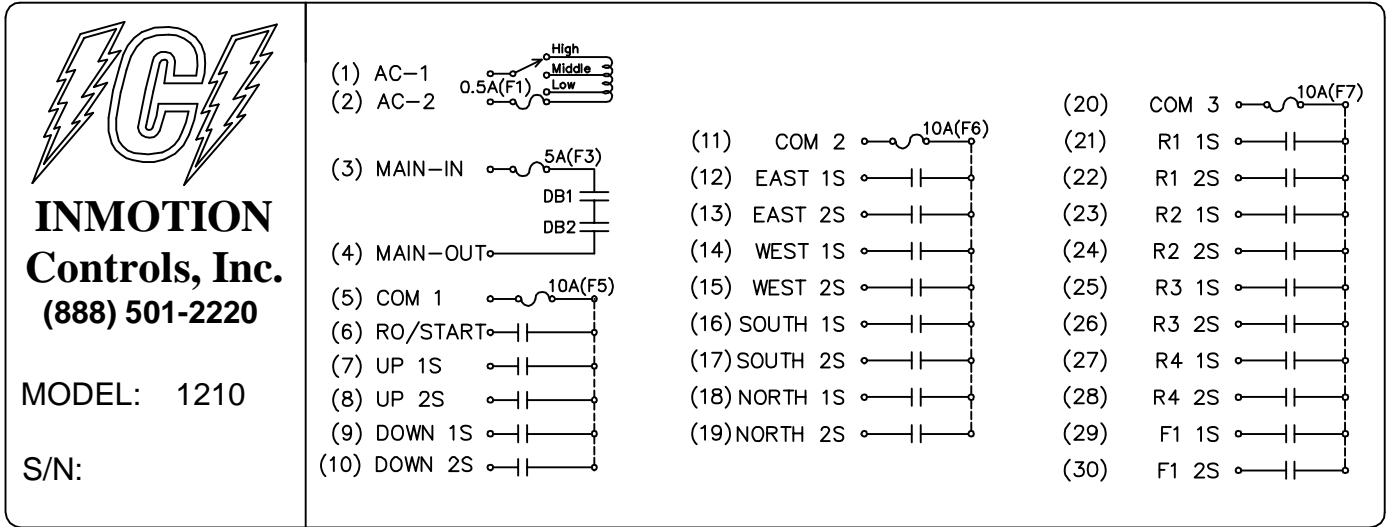
Two AA size alkaline batteries are required for the transmitter. The LED will flash green when the battery power is sufficient. The LED will flash red when the battery power is low.

- * 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.

• WIRE DIAGRAM OF INMOTION SERIES:



INMOTION-1210