

User's Guide

SAGA1-P40 Joystick type

Industrial Radio Remote Controller



Gain Electronic Co., Ltd.

Warning and Caution

The following symbols may be found on the product or throughout the documentation.

Symbol	Description
	Refer to Manual Refer the user manual for additional information when product marked with this sign.
	Dangerous Voltage Indicates presence of hazardous voltage. Unsafe practice could result in severe personal injury.
	Warning Denotes a hazard. Included text gives proper procedures. Failure to follow instructions could result in severe personal injury and/or property damage.
	Caution Denotes a hazard. Included text gives proper procedures. Failure to follow instructions could result in minor personal injury and/or property damage.

FCC Compliance Statement

This device complies with Part 15 of the 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.
- (3) Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada Notice

Operation is subject to the following two conditions: (1) this device may not cause interference and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Industry Canada Caution

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Chapter 1. Limited Warranty

Warranty

Gain Electronic Co., Ltd. guarantees that this equipment meets its published specifications at the time of shipment from the factory. This equipment will perform as described if installed properly. However, Gain cannot guarantee that operation in SAGA product is absolutely error-free, or without interruption.

Warranty Period

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, Gain is responsible for necessary repairs as long as the product can be proved to be defective.

For warranty service or repair, this equipment must be returned to the service facility designated by Gain. Customer is responsible for shipping charges to Gain, while Gain will bear return shipping charges.

Excluded Items

This warranty does not include consumable parts such as batteries, fuses, buttons and relays. Also this warranty does not cover failure or damage resulting from misuse, accident, unauthorized modification, unsuitable operating environment, natural disasters, improper software setting or improper maintenance.

Limitation of liability and remedy

If your SAGA product fails to work as warranted above, Gain's maximum liability under this limited warranty is expressly limited to the lesser of the price you have paid for the product. Gain disclaims any liability as a result of any direct/indirect, special, incidental or consequential damages.

Remarks

No other warranty is expressed or implied, except for the above mentioned.

Chapter 2. Precautions of Operation

2-1 Precautions:

- Please carefully read the manual before operating this device.
- Never dismantle the equipment by any unauthorized personnel, or equipment may be damaged.
- This manual is for reference only. Please consult your distributor for further assistance.
- The equipment has been strictly tested for quality before delivery from our plant. However, this equipment must not be used in dangerous situations or where damage may result.
- After operation, shut off main power to the crane, power to receiver, and turn the key to "OFF" position and remove it.
- Transmitter should be placed in a safe area when not in use to avoid accidental pressing of buttons.
- The crane should be equipped with main power relay, limit switch and other safety devices.
- Don't use equipment during lightning or high electrical interference conditions.
- Make sure that the batteries are in good condition and power for receiver is correct.
- Maintenance should only be done while the crane's main power is off to prevent electrical shock.
- Operating in an industrial facility is highly dangerous; therefore, operator must have adequate training in using SAGA1 system.
- Those who operate the machine should be healthy and have good judgment in regards to safety.
- Although the SAGA1 transmitter is very durable and weather resistant care should be taken not to expose it to severe impact or pressure.
- If the severe interference occurred you should stop using the equipment at once.
- Please take the battery out when the equipment will not be used for a long time.
- Be sure to know the "**Procedures of Emergency**" as following.

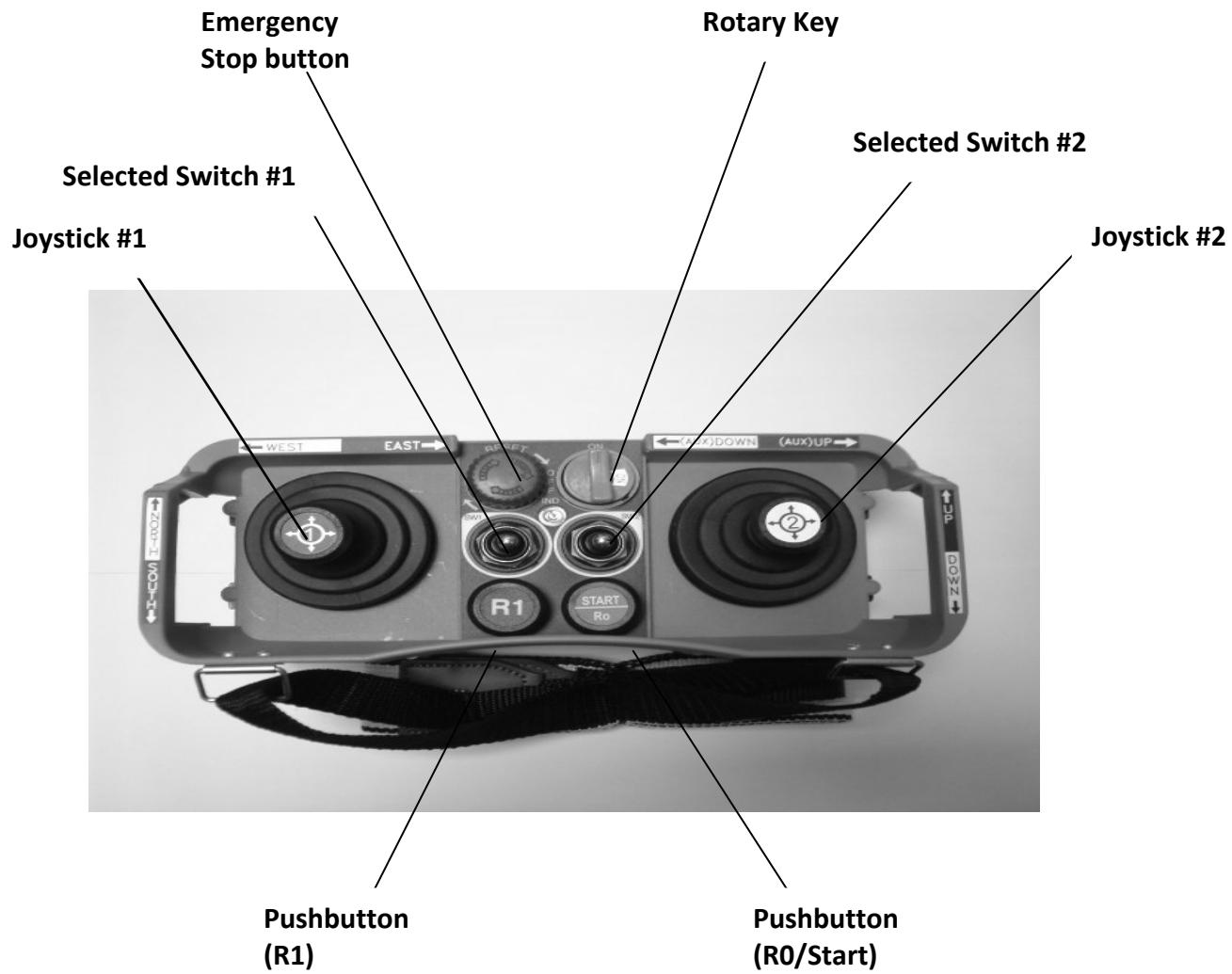
2-2 Procedures of emergency:

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

- Press EMS button.
- Turn the “rotary key” to “OFF” position and remove it.
- Switch off the main power of crane.
- Advise the distributor to check it out.

Chapter 3. Operation

3-1. SAGA1- P40 Transmitter



3-2. SAGA1-P40 Receiver

Wiring Diagram of Control Contact



3-3. General Operation

1. Turn on the main power switch of the equipment (Crane).
2. Install four AA size batteries in the transmitter make sure the "+" and "-" direction are correct.
3. Rotate "EMS" mushroom clockwise 45° and pull out.
4. Turn the rotary key clockwise to "ON" position, then press the "Start" pushbutton to Power-On.
5. Operate normally according to the function setting has done.
6. Please proceed the following procedure after operation.
 - a) Press EMS mushroom and turn the rotary key of the transmitter to "OFF" position to shut off the motion of the receiver and remove the key.
 - b) Switch off the main power switch of the equipment (Crane).
 - c) Remove the batteries when the equipment is not going to be in use for a long period of time.

Note:

A) Four AA size batteries are required for the transmitter. There is a 3-stage power indicating function with LED display.

"Green color": Sufficient power to operate transmitter.

"Yellow color": Power is depleting. Operation must be stopped immediately (for example: down the goods to ground) to replace batteries.

"Red color": Insufficient power. Transmitter will send out an emergency stop signal to the receiver due to insufficient power. Operator should avoid this situation in order to maintain the safety of operation.

B) Turn the rotary key of the transmitter to "OFF" position; it will not only shut off the motion of the receiver but also save the power. Otherwise, the transmitter will keep staying in the standby mode and causing more power consumption.

3-4. Receiver Voltage Selections

There are four input voltages available for the SAGA1-P40 as follows:

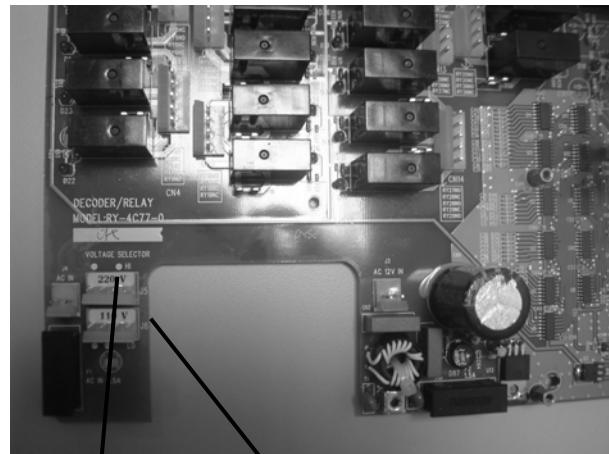
48/110VAC

48/220VAC

110/220VAC

220/380VAC.

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



Switch the plug to choose voltage