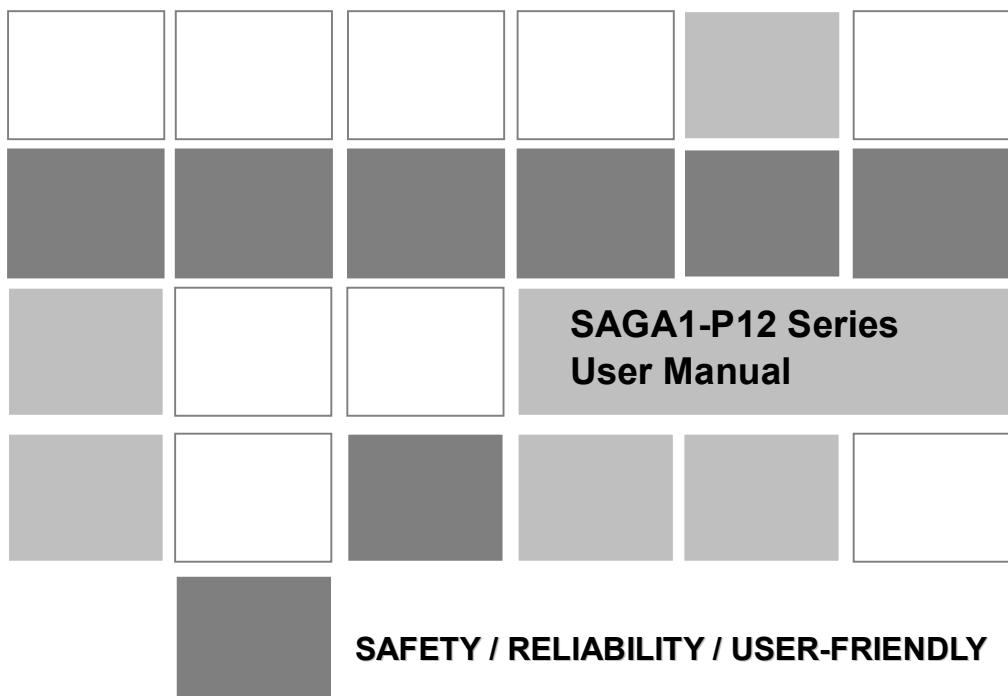




Industrial Radio Remote Controller



Gain Electronic Co., Ltd.

www.sagaradio.com.tw

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

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.

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 can't guarantee that operation in SAGA 1 system 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 a service facility designated by Gain. Customer is responsible for shipping charges to Gain, while Gain will pay return shipping charges.

Excluded Items

This warranty doesn't include consumable parts such as Joystick, batteries, fuses, buttons and relays. Also this warranty doesn't cover defects caused by improper installation, improper or insufficient maintenance unauthorized modification, unavoidable natural essential, improper operation, ignorance of environmental specifications, improper software/interfacing.

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. Gain shall not be liable for any direct/indirect, special, incidental or consequential damages.

Important Information before You Start

Important

1. Read this manual carefully before operating and installation.
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 damage.
4. The equipment has been stringently tested for quality assurance before delivery from factory. However, it must not be used in extremely dangerous situations, or where damage may result.
5. After operation, switch off crane main power as well as receiver unit and remove rotary key from transmitter unit.
6. The transmitter should keep in a safe place when not in use to avoid any unintentionally operation.
7. The crane should be equipped with main power relay, limit switch and other safety devices required.
8. Do not use this device during electrical storm or where there are conditions of high electrical interference.
9. Always check transmitter battery and receiver input power condition before operation.
10. The installation and maintenance service is allowed only when the crane and receiver power are off to avoid electrical shock.
11. The contents of the manual may be amended by the manufacturer without notice.
12. The specification and function is subjected to change without notice by manufacturer.

Precautions

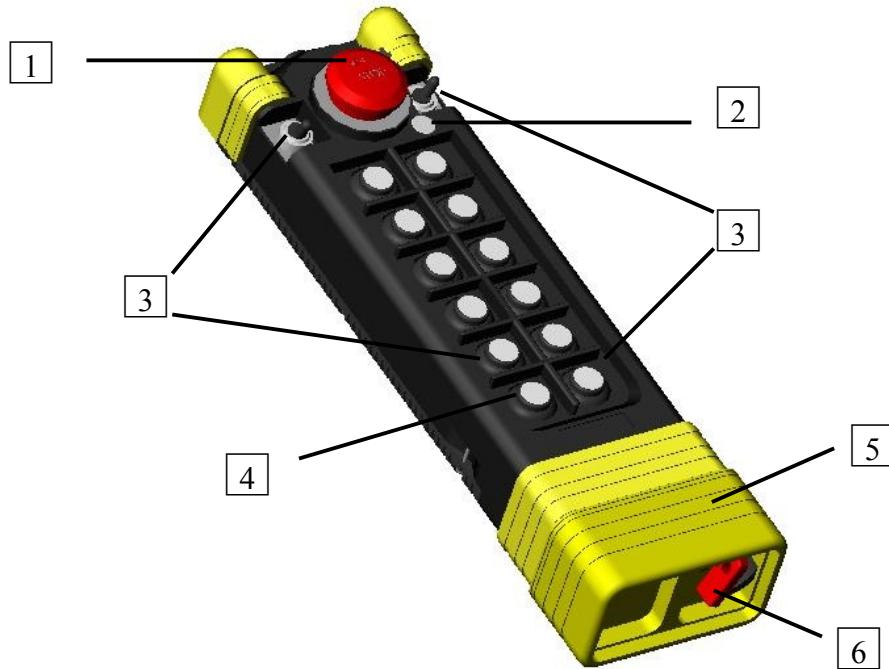
1. Press EMS button and switch off main power of crane and receiver after operation. Then remove transmitter rotary key and keep in a safe place.
2. The following situations may cause receiver response delay and stop operation immediately when situation occurs.
 - (a) Beyond operating range
 - (b) During severe radio interference
3. Remove transmitter batteries when not in use for long period of time.
4. To extend product life, please follow the standard operating procedure and maintain system regularly.
5. Check EMS button and other system main functions before operation.
6. Press EMS button during system failure or any abnormal conditions occur.
7. The operator must be familiar with emergency procedures before operate the system.

Emergency Procedures

In case of emergency, please follow the procedure below:

1. Press EMS button and stop operation.
2. Switch rotary key to "OFF" position and remove it from transmitter unit.
3. Switch off crane main power.
4. Contact the authorized distributor for further assistant.

Transmitter Overview



1 EMS Button

2 LED Indicator

3 Function Button & A/B Switch

4 START /Alarm Button

5 Battery Cover

6 Rotary Key

General Operation

Getting Started

1. Install 4 new AA-size batteries in the battery compartment (make sure batteries correctly installed according to the indication of "Positive" & "Negative") and close battery cover firmly.
2. Insert rotary key into transmitter unit and switch to "ON" position.
3. Press START button to power on the system.

Note: Red LED indicator will flash when fail to follow procedures above accordingly.

4. Press function button for operation.

Follow the procedures below when finish operation

1. Press EMS button
2. Switch rotary key to “OFF” position
3. Remove rotary key and keep in a safe place
4. Remove batteries if not to be used for long period of time.

Transmitter LED Indicator

Green (Full Power)	Operate as usual.
Yellow (Mid Power)	Unload the article as soon as possible and stop operation until new batteries are replaced.
Red (Low Power)	An EMS signal will be sent to receiver automatically to turn off receiver. To avoid the interruption during operation, check battery power frequently.

Note: Switch rotary key to “OFF” position to turn off transmitter completely thus extend battery life, otherwise transmitter is in standby mode when rotary key remain in “ON” position.

Changing Receiver Input Voltage

If the factory preset receiver voltage is different from application, follow the procedures below to change input voltage.

1. Switch off receiver main power.
2. Remove the connector from original position.
3. Insert connector to new voltage position accordingly.

Troubleshooting

A. When transmitter red LED flash fast continually, it may be

1. One of pushbutton jammed.
2. EMS button is not disengage
3. Fail to follow Power-on procedures accordingly.

B. When transmitter red LED flash slowly, it may be low battery power.