

PRODUCT DESCRIPTION

IMPORTANT!

Please take the time to read through the manual before you start to install/program your equipment.

The systems KRC11, 12, 13 and 14 consists of two parts: the transmitter and the receiver including wiring .

The transmitter and receiver are pre-programmed. This means the system is ready for use. Every transmitter has a fixed, unique serial coding which has been programmed into the receiver, so that another transmitter cannot control the receiver.

APPLICATIONS

The receivers and transmitters of the system are pre-programmed. They are meant to control fixed or mobile STONE[®] equipment.

!!SAFETY!!

Ensure that:

!!Appropriate personnel have received a complete review of and appropriate training on the system's functions before it is used.

!! Only appropriate and trained personnel have access to the transmitter.

!! The transmitter is not left unsupervised.

!! The operator always has a complete view of the equipment when it is radio controlled.

!! Be sure your hydraulic lift application is shut off during transit.

!!CAUTION!!: TAMPERING WITH THE PRODUCT, CHANGING THE SETTINGS OR USING THE PRODUCT IN A FASHION OTHER THAN SET FORTH HEREIN CAN LEAD TO PRODUCT MALFUNCTIONS WHICH IN TURN CAN LEAD TO SERIOUS INJURIES OR DEATH. ANY TAMPERING, UNAUTHORIZED CHANGE IN THE PRODUCT, MISUSE OR ABUSE WILL INVALIDATE SPX'S WARRANTY ON THE PRODUCT.

RECEIVER

OPERATING VOLTAGE	12-24VDC
POWER CONSUMPTION	30-80mA (standby mode)
DIMENSIONS	5.75" x 4.63" x 1.25" (147 x 118 x 32mm)
PROTECTION	IP65
TEMPERATURE RANGE	-30C to 70C (Humidity: 10%-90%)
COMPATIBLE TRANSMITTER	SPX# 20002217

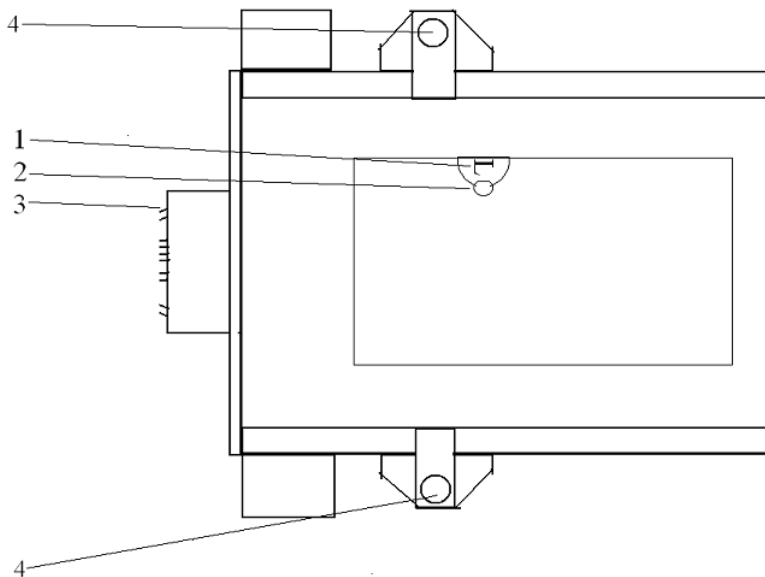


Figure 1 - receiver

1- 'LEARN AREA' for magnet to be placed for reprogramming action
(Magnet suggestion = SPX# 1536-AA)

2- Status and power light – blinks RED when the receiver has the correct voltage and aids with remote programming. Is GREEN when the receiver is ready to accept UP or DOWN commands.

3- Connector – connections for power unit and incoming power

4- Mounting holes – fastener with a maximum diameter of up to 0.25" can be used

TRANSMITTER

The transmitter must be activated by pushing the ON button (Button 3) for a minimum of 3 seconds. After that, the UP (Button 1) or DOWN (Button 2) buttons can be used for operating the system. Pushing the OFF button (Button 4) will turn off the receiver.

The transmitter is active when the LED blinks during a button press. The transmitter will blink even if the receiver has timed out.

NOTE: If the transmitter is not used within 60 seconds, the receiver turns OFF automatically. Pushing the ON/OFF button for 3 seconds minimum activates the transmitter and receiver communication again.

Battery replacement:
CR2032 watch battery (3 volt lithium cell)

The system has an ON/OFF feature (via button & auto off), and two momentary outputs which are controlled through operation of the remote. The control button configuration on the transmitter is as follows:

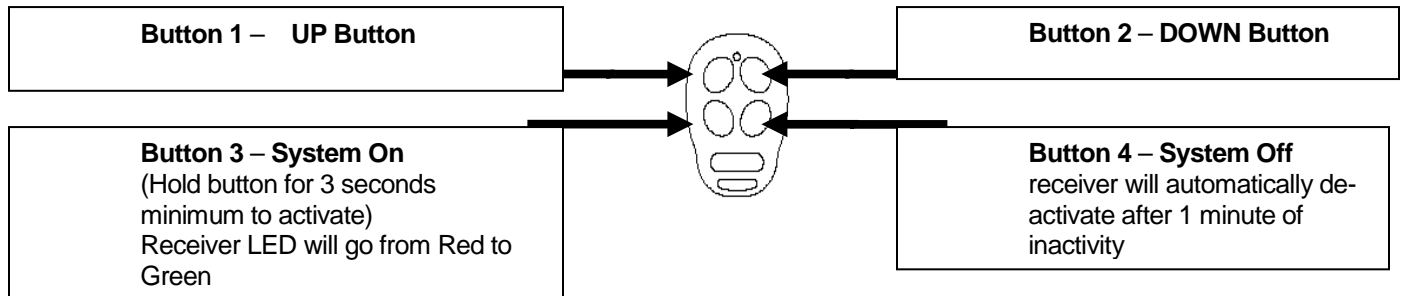


Figure 2 -transmitter

WIRING OF THE RECEIVER

Yellow wire - connect to 12V- 24V power

Gray wire – connect to DOWN solenoid

White wire – connect to UP solenoid (not used on KRC11 and KRC12)

Orange wire – connect to motor start solenoid

Black wire – connect to ground

PLACEMENT OF THE RECEIVER

Mount the receiver [on the frame of the hydraulic lift equipment] with the connector facing downward and close to the unit's power source or unit. Select a location, if possible, which is protected from the wind and weather.

!! Avoid locations where the receiver may be exposed to abnormal moisture conditions, i.e. during high pressure washing.

!! Avoid locations close to metal objects, inside metal objects, electrical cables and antennas, this may cause the RF signal to be weak and not operate the unit. [Provide the receiver with separate wiring to the power source.]

NOTE: Upon delivery the receiver will be pre-wired. DO NOT ATTEMPT TO MODIFY THE WIRING. ANY MODIFICATIONS TO THE WIRING WILL INVALIDATE SPX's WARRANTY ON THE PRODUCT.

HOW TO PROGRAM THE RECEIVER FOR A REPLACEMENT OR NEW TRANSMITTER:

RF remote receivers are shipped from the factory programmed to a specific transmitter. To program the receiver for a new or replacement transmitter you must first clear the receiver's memory:

1.) Apply power to the receiver. The LED on the receiver will flash RED four times. This indicates that the receiver has power.

2.) Place a fairly powerful magnet over the receiver "learn" area (see Figure 1 for location) and hold it there. The LED should illuminate and go to a constant RED state. (if you can't get a response from the LED, try placing the magnet on the back or to the side of the unit's enclosure in the same general area) Once the LED is on, continue to hold the magnet by the area until the RED LED goes out. (approximately 15 seconds) Once the LED goes out, the receiver's memory is cleared

- 3.) Power down then power up the unit. When you do so, the LED on the receiver unit will flash RED four times. This indicates that the unit has received power.
- 4.) Place a fairly powerful magnet over the receiver “learn” area (see Figure 1 for location) for a brief moment (3 seconds), and then remove it.
- 5.) The LED will go to a constant RED state.
- 6.) Immediately press any button on the transmitter you are attempting to use.
- 7.) The LED will go to a flashing RED color. This response confirms that the receiver has picked up a signal from the transmitter, and subsequently ‘learned’ that signal. When the RED LED stops flashing the transmitter is ready to use. The unit is now ready to function properly.
- 8.) During standard operation, to confirm the receiver is picking up a signal from the transmitter, the receiver will respond to transmitter inputs and illuminate the receiver status LED (see Figure 1).

TROUBLESHOOTING:

It may be necessary to re-program the receiver after extended periods of storage, inactivity, or transmitter replacement. The receiver LED can also be used as a troubleshooting measure whenever communication between the transmitter and receiver unit has been lost. (Do this only after the initial troubleshooting measure of transmitter battery replacement has been completed) Each transmitter generates a unique signal, and the receiver unit needs to be able to identify and respond to that signal in order to operate. The use of a unique signal for each transmitter prevents the receiver from being susceptible to outside interference, and protects against stray signals causing potentially unintended and/or undesirable operation. With this safety feature, only one transmitter is able to be programmed and used on the SPX RF system at a time. Please see **HOW TO PROGRAM THE RECEIVER FOR A TRANSMITTER** section.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The LED of the receiver does not light up	The receiver is not connected to the power supply	Check the connection of the power supply
The LED of the receiver does not light up	Incorrect power supply voltage	Check the power supply voltage
The receiver LED lights but the relays do not react	The transmitter code has not been stored in the receiver	Program/LEARN the transmitter code in the receiver
The LED of the receiver does not light up when the transmitter LED is blinking	Check 7.5Amp fuse for receiver	Replace fuse if bad
The LED of the transmitter does not light up when a button is pressed on the transmitter	The battery is very low	Replace the battery of the transmitter
The LED of the transmitter does not light up when a button is pressed on the transmitter	The transmitter is broken	Contact supplier
The range of the system is too short	The battery of the transmitter needs to be replaced	Replace the battery

Please contact your supplier if you have tried out all solutions, but your system still does not work properly.