# SRR

#### **Remote Control System**

Owner's Manual and Installation Instructions

For use with Hunter SRC, Pro-C, and ICC Controllers





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## INTRODUCTION .....

Finally, there's no need to walk back to the controller to start and stop a manual watering cycle when doing maintenance or repair work on your irrigation system. Finally, winterization can be done quickly and easily with one worker instead of two. Finally no more going back to the garage to start or stop a manual irrigation cycle.

Hunter is pleased to introduce the SRR-A Simple and Reliable Remote Control System for use with our SRC, Pro-C, ICC, and future controllers. The SRR can offer you features other remotes can't, at a price you can afford.

The SRR transmitter is made of sturdy ABS and has no external antenna to get in the way. It features a large LCD and four-button operation. Don't let its size fool you-while it's small enough to fit in your shirt pocket, it has an open field range of up to 450 feet.

The large LCD display and simple four-button control make the SRR a snap to use. Simply press the  $\blacklozenge$  or  $\blacklozenge$  keys to display the station or program you want to turn on or off, then press the  $\textcircled$  or  $\textcircled$  button-what could be easier? Don't worry about forgetting to turn off the SRR. After several minutes of inactivity the unit turns itself off to extend battery life. Then, the unit can be turned back on by touching any button. A standard 9-volt alkaline battery will last an entire season for a contractor, and years for a homeowner.

We believe the SRR is the simplest remote control available. It is so easy to use that you will need this booklet very little after installation. If you do have a question, keep this in a safe place for easy reference.

Congratulations-your life just got a little easier!

#### **SRR COMPONENTS** .



This section will give you a brief description of the components of the SRR. Each item will be discussed in further detail later, however this section can be helpful in getting acquainted with the Transmitter, Receiver, and SmartPort<sup>®</sup>.

#### TRANSMITTER

#### A. LCD Display

- 1. Run Time Indicates the Station Run Time is being set when flashing.
- 2. Transmit Indicates that the Transmitter is transmitting the programmed data to the receiver.
- 3. Main Display Indicates various times and values.

**Number** – Indicates either Station Run Time (1 to 30) or Station number (1 to 48).

**On** – Indicates Transmitter is turning on a particular station.

**Off** – Indicates Transmitter is turning off a particular station.

**Program (A, B, C)** – Indicates program selected.

4. Address – Indicates that a new address for transmitting between the Transmitter and the Receiver is being set.

#### **B.** Control Buttons

- **5.**  $\bullet$  Increases the selected flashing display.
- **6.**  $\bullet$  Decreases the selected flashing display.
- 7.  $\ensuremath{\textcircled{O}}$  Selects the selected flashing display.
- 8.  $\bullet$  Cancels the selected flashing display.

#### C. Other

9. Battery Cover – Covers compartment for 9volt alkaline battery.

## SRR COMPONENTS (CONTINUED) .....

#### RECEIVER

- Control Button Hold button down when plugging Receiver into SmartPort<sup>®</sup> when programming a new address.
- 11. SmartPort Outlet (Male) Outlet on back of Receiver that plugs into the SmartPort harness.
- 12. Antenna Receives signals from Transmitter from up to 450'.

#### SmartPort<sup>®</sup>

- 13. SmartPort Outlet (Female) Outlet on front of SmartPort<sup>®</sup> that plugs into the SRR Receiver or other Hunter product.
- 14. Rubber Cover Protects SmartPort from dirt and weather.
- **15. Control Wires** Red, white, and blue wires that connect to the terminal strip area of the controller.

## WIRING HARNESS/SmartPort<sup>®</sup> CONNECTION KIT ......

To utilize the SRR Remote Control System, your controller must be equipped with the SmartPort wiring/harness connection kit. This wiring harness provides the connection port where the SRR receiver is attached.

The SmartPort wiring harness is included with the purchase of the SRR. Additional SmartPorts may be purchased separately to allow you to utilize the transmitter and receiver with additional Hunter controllers.



#### INSTALLING THE SRR REMOTE WIRING HARNESS .....

**NOTE:** Any extension of the wires provided with the standard wiring harness may result in an error message on the controller display and possible malfunction of the remote due to radio interference. In some situations, lengthening of the standard harness may work fine, in others it may not work at all (it is site specific). In either case, it is recommended that installations where the SmartPort® outlet will be located more than 5 feet from the controller that the installation be done using the shielded cable wiring harness (SRR-SCWH) to minimize the possible effects of electrical noise. See page 7 for information

1. Install a ½" female threaded "Tee" in the field wiring conduit approximately 12" from the SRC, ICC, and Pro-C controllers.



NOTE: While the SmartPort has a protective cover to allow for outdoor installation, the SRR Receiver should only be used on a temporary basis, as the Receiver is not designated for permanent outdoor mounting.

- 2. Feed the red, white, and blue wires of the SmartPort through the base of the "Tee" and into the controller wiring compartment as shown in Figure 1.
- 3. Screw the SmartPort housing into the "Tee" (or other fitting) as shown in Figure 1.



Figure 1

 Route wiring harness into controller housing. Attach the red wire to the first AC screw slot. Attach the white wire to the other AC screw slot, and attach the blue wire to the  ${\bf R}$  (or  ${\bf REM}$  on some controllers) as shown in Figure 2.

## WIRING THE SmartPort® TO HUNTER CONTROLLERS .....

#### **SRC Controller SmartPort Installation**

Access the terminal strip area and attach the red wire to the left  $\boldsymbol{AC}$  screw slot, attach the white wire to the

next **AC** screw slot and attach the blue wire to the screw slot marked "**R**".



#### **Pro-C Controller SmartPort Installation**

Access the terminal strip area on the main module and attach the red wire to the bottom most **AC** screw slot, attach the white wire to the upper **AC** screw slot and attach the blue wire to the screw slot marked "**REM**".



#### ICC Controller SmartPort Installation

Access the terminal strip area on the power module and attach the red wire to the bottom most **AC** screw slot, attach the white wire to the upper **AC** screw slot and attach the blue wire to the screw slot marked "**REM**".



## **TYPICAL INSTALLATION**

#### **Receiver Mounted Indoors**

This installation is ideal for situations when the SRR system will be left permanently connected to the controller in an indoor area.

## Connection of Receiver on a Temporary Basis from Outside of a Garage or Building

This installation is ideal for situations where a contractor desires the ability to access and operate a controller from outside of a locked building or garage. However, the SRR receiver must be removed from the SmartPort<sup>®</sup> and the weather resistant cap placed back on the outlet after each use.



#### **MAXIMIZING OPERATING RANGE.**

There are many factors which influence operating range. Listed below are a few things you can do to assure that you get maximum range possible.

- 1. Do not install SmartPort near large sources of metal such as power meters, water pipes, and aluminum siding.
- 2. Do not install SmartPort in a basement or underground location. The higher the location the better chance of strong reception.
- 3. For maximum range in all directions, the receiver should be pointed straight up (vertically). If receiver is mounted with its antenna oriented horizontally, reception will be very good if transmitter is on either side of the antenna, but very poor if it is facing either end of the receiver antenna.
- 4. When operating transmitter, hold the transmitter as vertical as possible and face in the direction of the receiver, especially if it is several hundred feet away.



NOTE: Remote is designed for residential and small commercial sites. Large projects such as cemeteries and golf courses will require a long-range remote.

## EXTENDING WIRING ON SmartPort<sup>®</sup> HARNESS.

Use shielded cable to connect the SmartPort to the controller if installing the connector more than 2 meters of wiring length from the controller. The use of shielded cable will eliminate the potential for radio interference by preventing the wire as acting as an antenna. At no time should the SmartPort be installed more than 15 meters away from the controller.

For easiest installation, order a Hunter SRS-SCWH SmartPort wiring harness with a full 7.6 meters of shielded cable.





#### PREPARING THE TRANSMITTER FOR USE .....

Your SRR System is designed to work right out of the box. This means that other than installing the battery, you may choose to skip this entire section. However, we recommend you read it because with a few simple steps you can customize your SRR to add functionality and security to your system. Be aware that if you change your transmitter address or maximum station number as described on the following pages, you should make a note of the settings, since when the battery is removed and a new one is installed, the transmitter will revert back to the original settings.



#### INSTALLING THE TRANSMITTER BATTERY .....

Your SRR Transmitter requires a 9-volt alkaline battery. To install the battery, slide open the battery door on the back of the transmitter. Attach the battery to the clip, insert the battery into the compartment, and slide the battery door shut. When changing the battery, push the battery down in the case to reveal the battery clip before attempting to remove the battery from the case.





## CHANGING THE REMOTE ACTIVATED STATION RUN TIME......

You have the ability to adjust the amount of time that a station will run once it has been turned on by your SRR System. This does not affect the run time programmed into your controller. This adjustment is made using the transmitter as described below.

## To change the Remote Activated Station Run Time follow the steps below:

- If the unit is off (no display), power the transmitter up by pressing or any of the buttons for at least 1 second and then releasing the button. The transmitter will first illuminate the entire display for 1 second then display the active station.
- Press the ◆ and ◆ buttons simultaneously, until the word "RUN TIME" along with the current Run Time is displayed (default is 10 minutes). The display will be blinking at this point. If more than 5 seconds go by without a button being pressed, the Transmitter will revert back to displaying the active station.

 Use the ◆ and ◆ buttons to change the Run Time to any of the 8 settings ranging from 1 to 30 minutes. Then do not touch any of the buttons for 5 seconds and the display will stop blinking, and return back to the active station.



NOTE: Black buttons indicate what is to be pushed.



## CHANGING THE TRANSMITTER ADDRESS .....

Both the SRR Transmitter and Receiver have an "address" that they use when communicating. If the addresses do not match, the receiver will ignore the transmission.

Your SRR comes from the factory with both the Transmitter and the Receiver address set to 0. You may change the address to any value from 0 through 127 for added security. Note that if you change the Transmitter address, the Receiver must "learn" the new address as described in "Preparing the Receiver for Use" section.

## To change the Transmitter address follow the steps below:

 If the unit is off (no display), power the Transmitter up by pressing any of the buttons for at least 1 second then releasing the button. The Transmitter will first illuminate the entire display for 1 second then display the active station.

- Press the ◆ and ◆ buttons simultaneously, until the word "RUN TIME" along with the current Station Run Time is displayed. The display will be blinking at this point.
- While the display is blinking and showing the current Run Time, Press the button. The word "ADDRESS" will now illuminate and the current address will be blinking. Note that if more than 5 seconds go by without a button being pressed, the Transmitter will revert back to displaying the active station.
- 4. Use the ◆ and ◆ buttons to change the address to any value between 0 and 127. Then do not touch any of the buttons for 5 seconds and the display will stop blinking, and return back to the active station.



## CHANGING THE MAXIMUM STATION NUMBER .....

Your SRR Transmitter comes from the factory with the maximum station number set to 9. This means that when you use the ◆ and ◆ buttons to change the station, you may change it to any number between 1 and 9. However if you only have a 6-station controller, you will never need to access stations 7 through 9. Likewise, perhaps you will own a Hunter controller like the ICC which can have more than 9 stations. In this case you would want to access the stations above 9.

## The SRR Transmitter allows you to set the maximum station number as follows:

- If the unit is off (no display), power the Transmitter up by pressing any of the buttons for at least 1 second then releasing the button. The Transmitter will first illuminate the entire display for 1 second then display the active station.
- 2. Press the ◆ and ◆ buttons simultaneously, until the word "**RUN TIME**" along with the current Run Time is displayed. The display will be blinking at this point.

- 3. While the display is blinking and showing the current address, press the <sup>●</sup> button. The display will continue to blink, but the word "ADDRESS" will be illuminated.
- Press the button again. The display will continue to blink, but the word "ADDRESS" will no longer be illuminated.
- Use the ◆ and ◆ buttons to change the maximum station number from 1 to 47. Then, do not press any buttons for 5 seconds and the display will stop blinking and return to the active station number
- 6. You may now change the active setting to any station in the new station range.



## **PREPARING THE RECEIVER FOR USE.**

As stated earlier, your SRR System is designed to work right out of the box. If you have decided to change your Transmitter address as described in the previous section, you must allow the Receiver to "learn" this new address. Once learned, the only way to remove the address from Receiver memory is to learn a different address. This can be done by following the simple steps outlined below.



NOTE: The SRR remote receiver should not be permanently installed in an outdoor or unsheltered location.



## **CHANGING THE RECEIVER ADDRESS**

- 1 Hold down the single button on the face of your Receiver while you plug it into a SmartPort<sup>®</sup> that is connected to a powered controller. When this is done, the Receiver will beep 4 times.
- 2. After the Receiver starts to beep, release the button.
- 3. Press either the or button of your transmitter.
- 4. The Receiver will beep 4 additional times indicating that it has learned the new Transmitter address and will respond only to that address from this point on.



#### ACTIVATING A STATION WITH THE SRR REMOTE CONTROL SYSTEM.....

The SRR System will allow you to remotely turn on and off any station on your SRC, ICC, or future Hunter controller with the press of a button. Once on, the station will run for the run time you have designated in the remote. To remotely activate a station or program follow the steps below:

- Plug the Receiver into a SmartPort<sup>®</sup> that is connected to a powered controller and wait for two beeps indicating that the Receiver is ready.
- If your Transmitter is not on (no display), press any button for at least one second and release. The Transmitter will first illuminate the entire display, then display the active station.
- 3. Use the ◆ and ◆ buttons to display the station or program you would like to start.
- Press the button to start the station or program. The Transmitter will display the word "TRANSMIT" and the letters "On". Both will

flash for about 4 seconds indicating that it is sending the command to the receiver. If you are near the Receiver, you will here it beep 2 times. This indicates that the Receiver has received the command.

5. Press the button to turn off any station that is on. The display will read "TRANSMIT" and the letters "Of". Both will flash for about 4 seconds, and the Receiver will beep again twice. The SRR System is designed to turn on one station at a time (unless you activate a program). Therefore, turning a station on while another station is operating will cause the operating station to turn off.



NOTE: The SRR remote can activate any station on the controller whether the controller dial is in the "SYSTEM OFF", "RUN" or "RUN/BYPASS SENSOR" modes. If a sensor device has been wired to the controller, the SRR remote will NOT override the sensor for manual operation.



## A WORD ABOUT RANGE.....

There are many claims being made about the range of various remote control systems, whether they be for auto alarms, garage doors, or irrigation systems for that matter. The published range for the SRR System is up to 450 feet. Most users will achieve this range or more, but a few may not. It is the attempt of this section to educate the user about those factors that influence operating range. We believe that we have achieved the maximum performance available on this frequency. Here's why...

The range of any remote control system is dependent on many factors. These include the terrain at a particular site, obstructions such as buildings and walls, the strength of the various interfering signals, the sensitivity of the Receiver, the ability of the Receiver to reject "unwanted" signals, and the strength of the Transmitter. Since it is impossible to control the obstructions, terrain at a site, and the strength of interfering signals, it is impossible to guarantee an operating range under all conditions. However, we have done everything under our control to maximize the operating range of this system. The SRR Transmitter has been designed to transmit the maximum power allowed by the FCC. Furthermore, it has special circuitry to assure that this maximum output power is maintained until just before the battery goes dead. Other transmitters emit less and less power as the battery wears down. And our special SmartPort<sup>®</sup> wiring harness is designed to keep interfering signals at a minimum, especially with the addition of Hunter shielded cable. The Receiver employs a reception method far superior to that used in a typical garage door opener or car alarm.

The SRR has been designed to give you simple, reliable operation for many years.

## TROUBLESHOOTING GUIDE .....

PROBLEM	CAUSES	SOLUTIONS
Transmitter display is blank.	Transmitter is off. Battery is dead.	Press any button for 1 second. Replace battery.
Can't access all the desired stationson the Transmitter.	Maximum station number is set wrong.	See "Changing the Maximum Station Number" on page 12.
Receiver doesn't beep two times after plugging it in.	SmartPort <sup>®</sup> is not connected properly. Controller has no power.	Recheck SmartPort wiring. Check controller power.
Receiver beeps twice after plugging it in, but won't respond to Transmitter.	Receiver and Transmitter address don't match.	Relearn address at receiver.
Transmitter display stays on.	Transmitter will turn off automatically.	Wait approximately 5 minutes without pressing any buttons. Transmitter will "fall asleep."
"ERR" message in controller display when controller is in the run position.	SmartPort wiring leads have been extended and are receiving radio interference.	Replace lengthened wire with shielded cable to prohibit radio interference. Use Hunter SRR-SCWH. See "Extending Wiring on SmartPort Harness" on page 7.
Receiver does not receive signal from remote held at close range.	Mismatch of addresses in transmitter and receiver.	Reset address of receiver. See page 14.
Remote has short range (i.e. less than 100 feet).	Check for interference causes.	See "Maximizing Operating Range" on page 7.

#### SPECIFICATIONS .....

#### **Operating Specifications**

- Address range: 0-127
- Maximum stations supported: 47
- Run Time: 8 settings from 1-30 minutes
- Range: up to 450 feet\*

#### **Electrical Specifications**

- Power Source Transmitter: 9-Volt Alkaline
  Battery
- Power Source Receiver: 24VAC, 0.010 Amps (from SRC)
- Transmitter type: SAW Stabilized
- Receiver type: Superheterodyne
- System Operating frequency: 315MHZ

#### **Default Settings**

• Address = 0 (may be varied from 0-127)

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- Number of stations = 9 (may be varied from 1-48)
- Run Time: 10 minutes

#### Dimensions

#### Transmitter:

- Height: 43/4"
- Width: 21/2"
- Depth: 11/4"

#### **Receiver:**

- Height: 4<sup>3</sup>/<sub>4</sub>"
- Width: 21/2"
- Depth: 1"

\*See "A Word About Range" on page 22 for more information.

## **INFORMATION ABOUT YOUR SPRINKLER SYSTEM.....**

Date of Installation:
Contractor Installing System:
Address:
Phone:
Location of Control Valves:
Location of Weather Sensor:
Location of Main Water Supply Shutoff:

## FCC COMPLIANCE NOTICE .....

This device complies with FCC rules Part 15. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference and
- (2) This device must accept any interference that may be received, including interference that may cause undesired operation.

Transmitter: FCC ID: M3USRR-TX01 Receiver: FCC ID: M3USRR-RX01