

The Autopuller®

By CLAY DELAY

Owner's Manual

Model **Wireless Upgrade**



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Wireless Upgrade

The wireless upgrade kit allows you to convert your wired Autopuller to a wireless Autopuller.

The change is simple:

- Remove the connector installed on the Autopuller wire
- Insert the wire in the strain relief
- Connect the 3 wires to the terminal block
- Install your connector on the Adapter Cord
- Your ready to shoot

If you have a sporting clays model (6 foot cord) or desire to have the ability to switch back to a wired configuration, use the second procedure to connect the transmitter.

This will let you still walk the sporting clay course using the original version, then switch to wireless for the skeet field.

Components of the Wireless Upgrade Package

- Transmitter unit
- Receiver
- 9-volt Alkaline battery
- 2 Adapter Cords
- Screwdriver
- 2 extra fuses
- Instruction manual (this document)
- Attaché style carrying case
- Short extension wire for optional setup

Your Autopuller will function the same with the wireless option, as it did when wired. Since the switches for the machine pulse are in the receiver, there is a possibility that you may have to make a few adjustments to this signal.

The two machine switches in the Autopuller battery compartment no longer control the machine, they are now the transmitter signal. The machine pulse switches are now in the receiver. If you are having difficulties with controlling your machines, refer to pages 7 and 8 to adjust the switches.

Receiver Operation

Turn the receiver on by pressing the ON circle on the front panel. The power light will illuminate for 2 seconds then start to blink. With the Autopuller on and armed, press the manual button. The data light will illuminate for the length of time the controller light is on. The corresponding target light will blink on then off.

When you have finished shooting, press the OFF circle on the front panel. Refer to page 9 for information on the auto off feature.

If the receiver does not respond to the controller refer to page 10.

Wiring the Transmitter Box to your Autopuller (original cord will not be used)

This procedure will permanently connect the transmitter to your Autopuller. You will no longer be able to use the existing cord. Wiring the transmitter box is accomplished by simply removing the existing connector, connecting the transmitter in its place, then attaching the connector on the adapter cord.



Step 1 Remove the existing connector. Note which color wire is connected to which terminal.

Black wire —
Green wire —
White wire —



Step 2 Install the strain relief. The rubber bushing will be very tight but will fit over the wire.



Step 3 Connect the wire to the terminal block and tighten the strain relief.



Step 4 Using the same configuration as noted in step 1, attach the connector to one of the adapter cords.



Final configuration

Connecting the Transmitter Box to your Autopuller (original cord may still be used)

This procedure allow you to connect and disconnect the transmitter to your Autopuller. You will be able to use both your original setup and the wireless transmitter.

Wiring the transmitter box accomplished by connecting the supplied short length of cord to both the transmitter and a mating connector. You can now switch from the wired cord to the transmitter.



Step 1 Install the strain relief on the short wire. The rubber bushing will be very tight but will fit over the wire.



Step 2 Connect the wire to the terminal block. Tighten the strain relief



Step 3 Install the mating connector on the wire. You may have to open the connector on the Autopuller to identify which wire is on which terminal.

Black wire —
Green wire —
White wire —



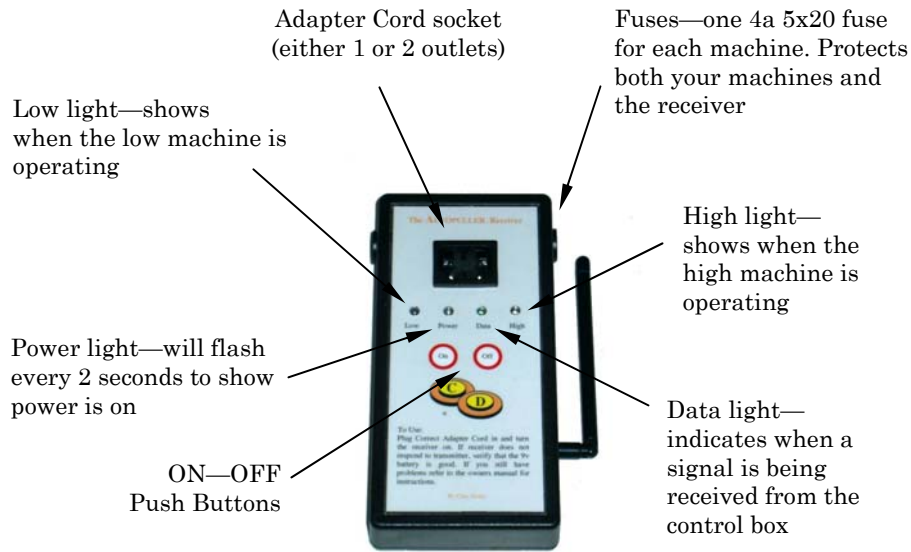
Step 4 Using the same configuration as noted in step 3, attach the same original style connector to one of the adapter cords.



Final configuration

The Autopuller Receiver

has 5 controls and 4 indicators



Inside the battery compartment are the switches for:

- Machine Pulse see page 8
- Auto-off see page 9
- Controller synchronization see page 10

ADAPTER CORD The adapter cord is the interface between the Autopuller receiver and the target machine. The wiring of the adapter cord determines how the target machine will operate.

Using an incorrectly wired cord or using the cord from a different location may damage either the receiver or the target machine!



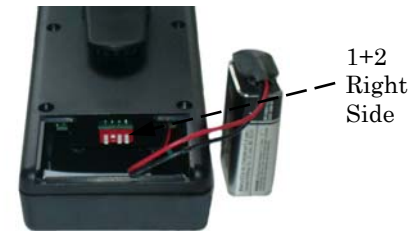
Transmitter Signal Setup (in Controller) (originally, machine pulse in wired manual)

The transmitter signal is normally set with switches 1 and 2 off . If you are having difficulties in releasing a target, check the positions of the switches. You may have to adjust the signal length using the internal switch.

The internal switch is located in the battery compartment. Open the battery door and remove the battery. The switch is now visible in the center of the unit. As seen through the opening, down is off and up is on. Please reference the picture below and note switches 4, 2 and 1 are off and switch 3 is on. The numbers go from left to right, 4 to 1.

The 4 position switch has two functions. Switches 1 and 2 are for the transmitter signal and switches 3 and 4 are for microphone setup.

Switches 1 and 2 are used to increase the length of the signal needed for the receiver to launch a target. Some environments may need a longer signal. With both switches 1 and 2 off, the pulse to the signal will be .5 seconds. Placing switch 1 on (on), adds .5 seconds, for a total of 1 second pulse. Placing switch 2 on will add 1 second, for a total of 1.5 seconds. Placing both switches 1 and 2 on will give a signal of 2 seconds.



Machine Pulse Setup (in Receiver)

The machine pulse is set to work on most machines. If you are having difficulties in releasing a target, adjust the pulse length using the internal switch.

The internal switch is located in the battery compartment. Open the battery door and remove the battery. The switch is now visible in the center of the unit. As seen through the opening, down is off and up is on. Please reference the picture below and note switches 4, 2 and 1 are off and switch 3 is on. The numbers go from left to right, 4 to 1.

The 4 position switch has two functions. Switches 1 and 2 are for machine pulse and switches 3 and 4 are for auto-off state.

Switches 1 and 2 are used to increase the length of the pulse needed for the target machine to launch a target. A foot-operated machine or older machine will need a longer pulse. With both switches 2 and 1 down, the pulse to the machine will be .5 seconds. Placing switch 1 on, adds .5 seconds, for a total of 1 second pulse. Placing switch 2 on will add 1 second, for a total of 1.5 seconds. Placing both switches 1 and 2 on will give a pulse of 2 seconds.

NOTE: If after making an adjustment the pulse is too long, a second target may be released. To correct this, place switch 1 back in the off position.

As seen through opening, left 2 switches set auto-off



As seen through opening, right 2 switches set machine signal

Auto-Off Setup (in Receiver)

The receiver can be set to stay on until turned off, or turn off after a preset time.

The internal switch is located in the receiver battery compartment. Open the battery door and remove the battery. The switch is now visible in the center of the unit. As seen through the opening, down is off and up is on. Please reference the picture below and note switches 4, 2 and 1 are off and switch 3 is on. The numbers go from left to right, 4 to 1.

The 4 position switch has two functions. Switches 3 and 4 are for auto-off and switches 1 and 2 are for machine pulse.

Switches 3 and 4 are used to set the power off state. With both switches off, the receiver will stay on until manually turned off by pressing the OFF indication on the front panel. Turning switch 4 on will set the off time to 30 minutes after the last target is released. Turning switch 3 on will set the time to 60 minutes. Turning both 3 and 4 on will now set the turn off time to 1.5 hours. Each time you launch a target, the time is reset to 0.

NOTE: Photo shows Auto-off set to 60 minutes.

As seen through opening, left 2 switches set auto-off



As seen through opening, right 2 switches set machine signal

Synchronizing the Controller to the Receiver

Located inside the receiver battery compartment is the red pushbutton used to place the receiver in a learn mode. This may be necessary if you want to use more than 1 controller with the receiver.

To add a new unit, turn the receiver on, and wait until the power light starts to flash. Try the new controller. If the controller does not connect with the receiver, press and release the pushbutton inside the battery compartment. The data light will now start to flash. Turn the Autopuller on, and press the low house button, then the manual button. Now press the high house button, then the manual button again. Turn off the receiver, wait 2 seconds, and turn the receiver back on.

Press the low house button and then the manual button. The receiver should indicate that a low target has been launched. Do the same for the high house. The 2 units are now communicating with each other. Repeat the process for as many units as you have.

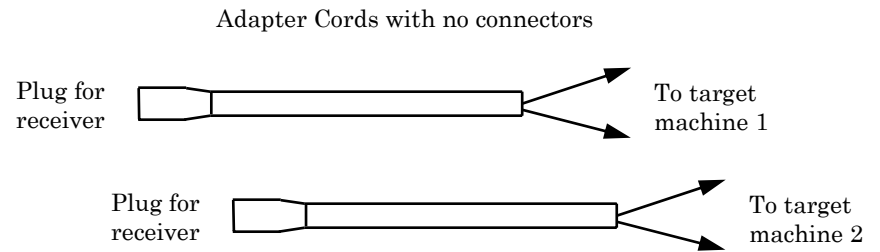
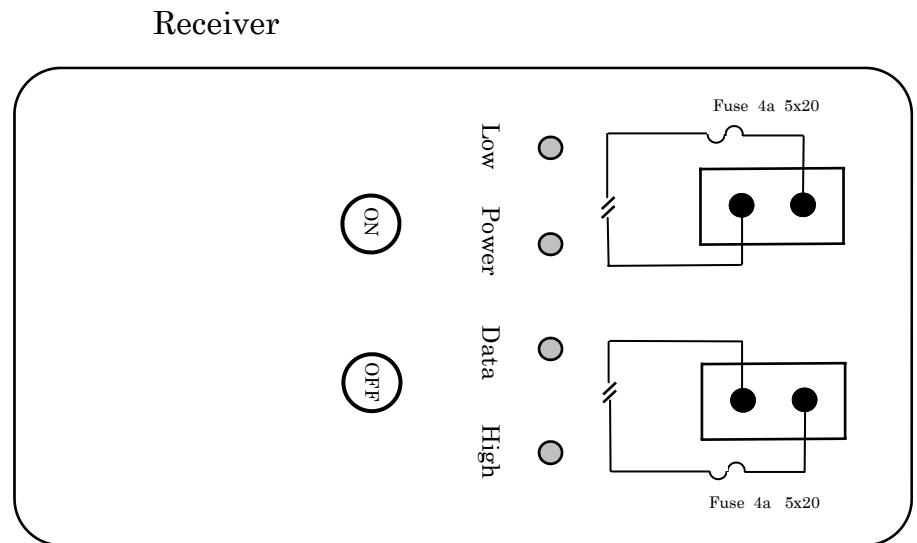
If you decide to remove a transmitter, due to interference from adjoining field usage, press and hold the button until the data light goes off (approx 10 sec.). After you release the button the light will come on again for 2 seconds, then go off. This has cleared ALL transmitters. You will have to press the button again and follow the procedure to add a controller to reinitialize your unit.



RED push button for synchronizing both units

Wiring the Adapter Cord Dual outlets (Refer to page 12 for single outlet receiver)

The wiring for the receiver with two outlets is very easy. You will be using a separate adapter cord for each machine, so it does not matter which wire goes to which terminal. For each machine, you simply connect the two wires of the adapter cord in place of the pull cord.



Wiring Setup Single outlet

The Autopuller receiver is connected to your course in place of the original pull cord. Since the adapter cord has three wires, the wires have to be connected in a specific order. Please read the following pages to assist you.

Your system comes with two adapter cords, allowing you to wire one for skeet and one for trap.

Installation:

Trap cord: Most shooters connect both the high (black) and the low (white) wires to the same terminal, with the green connected to 2nd terminal. This allows you to press either button if you are using a Skeet controller.

Skeet cord: The three wires have to be connected in a specific way. To operate two target machines, one wire has to be common to both (green), one wire is for high (black) and one wire is for low (white). You will need to determine the matching wires for your particular cord. If you connect the wiring incorrectly, the Autopuller will not release the correct target with the appropriate button. If this occurs, simply rearrange the wires as per the information below.

Machines work properly but the wrong machine triggers:

black and white wires reversed in connector

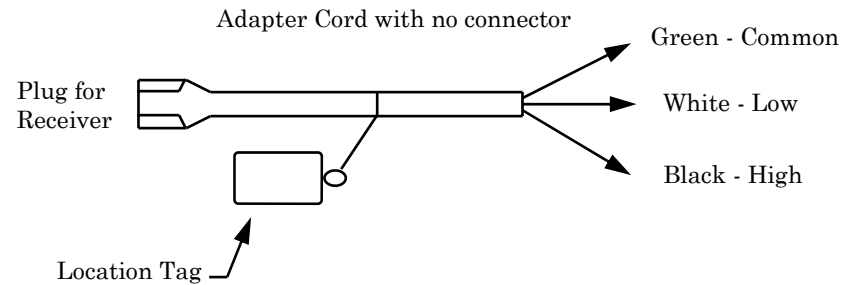
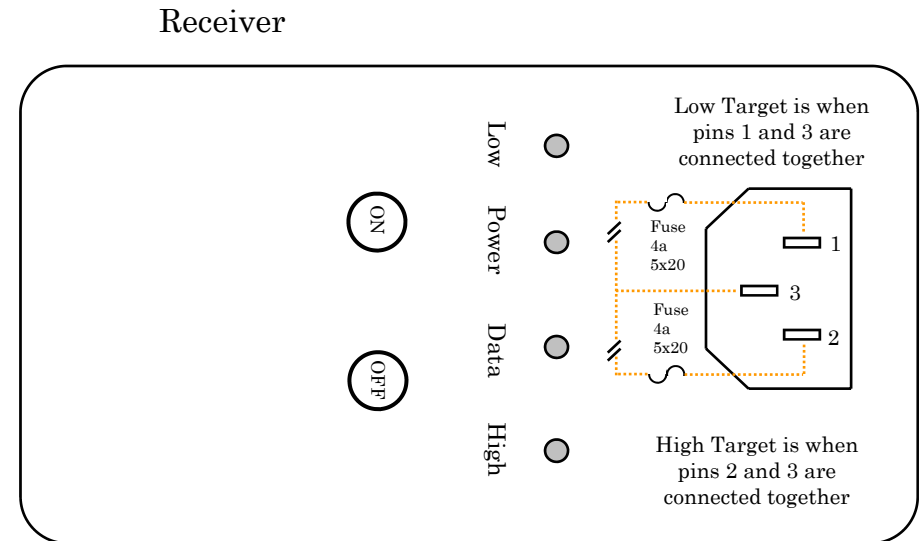
High and Both work but no Low:

black and green wires reversed in connector

Low and Both work but no High:

white and green wires reversed in connector

Wiring the Adapter Cord Single outlet

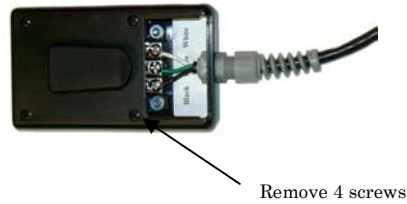


When wiring for a Trap machine, connect both the high and low wires to one terminal and the common wire to the other.

Use the location tag to note the machine and at which club or location the cord is wired for. This will prevent any confusion in the future if multiple cords are carried in your case.

Changing the Transmitter Battery

The transmitter contains its own battery if you start having difficulties launching a target, the problem may be a weak battery.



Step 1 Remove the battery cover and 4 screws securing the back



Step 2 Remove the back and top cover



Step 3 Slide the battery out of the its holder.

Step 4 Insert new battery in holder with the + side up

Step 5 Reassemble unit

Troubleshooting

Since you have been using your Autopuller as a wired unit, the only topics coved pertain to using the receiver.

Step A: Receiver Operation

- Turn the receiver on by pressing the ON circle on the front panel. The power light will illuminate for 2 seconds then start to blink.
- With the controller on and armed, press the manual button.
- The data light will illuminate for the length of time the Autopuller is transmitting. The corresponding red target light will blink on then off to signal a target is launched.
- If the receiver does not respond to the controller refer to page 10.
- If the receiver responds properly, your system is operating the way it was designed to. Continue to step B.
- If the receiver does not respond to the controller, or is not consistently indicating a signal, try a fresh 9-volt Alkaline battery in the receiver. If this does not correct the problem, the transmitter battery may be bad. (The most common indication is poor range). If all appears to be ok but you are still having problems, contact Clay Delay for assistance. There could be a switch or circuit board problem.

Step B: System seems to work ok but no target launch

- Be sure target machine and receiver are on. If the receiver has prematurely turned itself off, refer to page 9.
- Check that the adapter cord is connected properly and securely to the machine connector and receiver.
- Verify the data and target lights on receiver are operating properly. (step A)
- Check that the two 4-amp 5x20 fuses are good.
- If there is still a problem, contact Clay Delay for assistance.

- The signal to the receiver may not be adequate to start a launch cycle. Increase the transmitter signal. Refer to page 7.
- The signal from the receiver to the machine may not be adequate to start the machine. Increase the machine pulse length. Refer to page 8.
- Possibly a bad receiver battery, replace with a 9-volt Alkaline battery.

Step C: Erratic Operation, missed targets

- The first check is to verify you are not out of range. The normal maximum distance from controller to receiver is 175 feet.
- The placement of the controller on your person will have an impact on the range. Try moving the transmitter unit to a different orientation on your belt, shell pouch, jacket, etc.
- The battery in the transmitter may be weak. The normal indication of this is that the range is less than last time you used your system.
- The receiver may be picking up interference from a surrounding structure or environment. Try moving the receiver to a different location and/or adjust the antenna orientation to the shooting field.

Record of switch settings

Club _____

Connector _____

Receiver Switches 1 and 2 _____

Club _____

Connector _____

Receiver Switches 1 and 2 _____

Club _____

Connector _____

Receiver Switches 1 and 2 _____

**FEDERAL COMMUNICATIONS
COMMISSION (FCC)
REGULATORY INFORMATION**

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

The wireless radios are required to comply with FCC rules and regulations. Consequently, the radios have limited range because of the limited output power under these rules. Changes cannot be made to these devices because such changes may void compliance with U.S. rules and regulations.

WARNING

Many individuals have elected to connect a common household 110-volt style male connector to the cord on the Autopuller. If the Autopuller is inadvertently plugged into an outlet, turned on, and operated, major damage will occur.

DO NOT, UNDER ANY CIRCUMSTANCE, PLUG THE AUTOPULLER INTO ANY OTHER CONNECTION THAN THE TARGET MACHINE CONNECTOR!

If your Autopuller will be used by other individuals, Clay Delay advises that you spend a little more for a dedicated twist lock connector. This will insure that a possible problem with a wall outlet cannot occur.

If you decide to connect a household connector, the owner of the Autopuller, not the Clay Delay company, takes full responsibility for proper use of their unit.

Thank you for ordering an Autopuller

Safety should always come first. The Autopuller was designed to give consistent pulls without the need for a trap boy. You should never be alone when practicing, but with Autopuller you do not have to rely on your companion to do the pulling.

CLAY DELAY takes no responsibility for damage caused by incorrectly wired trap machines, modified trap machines, modified units, incorrect data given to CLAY DELAY at time of order, or use of the Autopuller for purposes other than that for which it was designed.

This product is covered by a 1-year warranty against manufacturing defects.

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