

Wiring Support Supplement for all manuals

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Supporting Information

This booklet contains various support information for wiring you Autopuller to your target machine.

Browsing through the various pages may help clarify how to connect the wires to your particular course.

If you have any info you want to share with your fellow shooters, please contact us. We will post you diagrams or write up in both this supplement and on our website.

The Autopuller wiring color code is as follows:

White wire connects to Low/Right machine
Black wire connects to High/Left machine
Green wire common wire for both machines

The three wires are needed for connecting to a skeet or sporting clays setup. Each wire must be on a separate terminal in the connector. This allows each machine to operated separately, for singles, or together, for true pair/doubles/both.

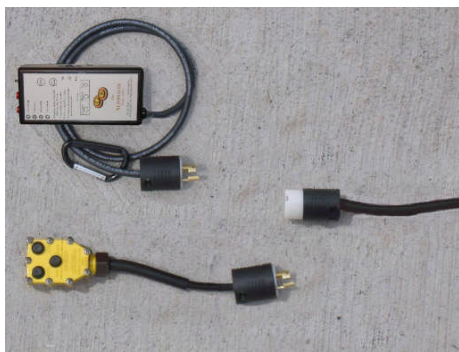
If the skeet or sporting clays model is to be connected to only one machine, trap setup, connect the white and black wires together on one terminal and the green wire on the other terminal.

You will have to determine how your existing connector is wired.

Supporting Information

Wiring color code for a Laporte machine:

Machine	Autopuller
Blue	Black
Yellow	Green
Brown	White



The photo above shows how the original pull cord was modified using twist lock connectors. This allows either the original head or a wired Autopuller to be used with the same cord.

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 CIRCUCMSTANSE, PLUG THE AUTOPULLER INTO ANY OTHER CONNECTION THAN THE TARGET MACHINE CONNECTOR!

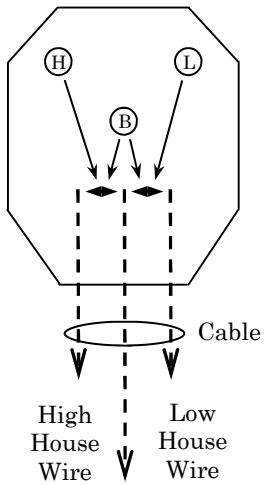
If your Autopuller will be used by other individuals, Clay Delay advises that you spend a little more for a dedicated twist lock connector. This will insure that a possible problem with a wall outlet cannot occur.

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

Information common to both Wired and Wireless

Wiring Diagram for Pull Head and Autopuller

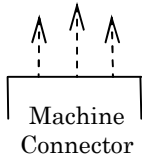
Existing Pull



Common Wire

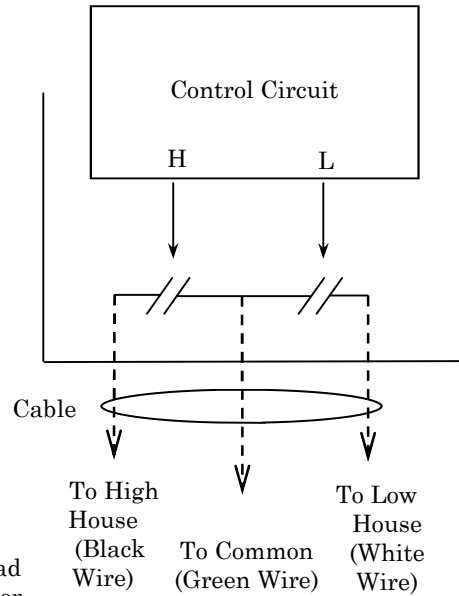
Pressing the High button will connect the high wire to the common wire. (Same for low) The Both button will connect all three wires together.

To Pull Head or Autopuller



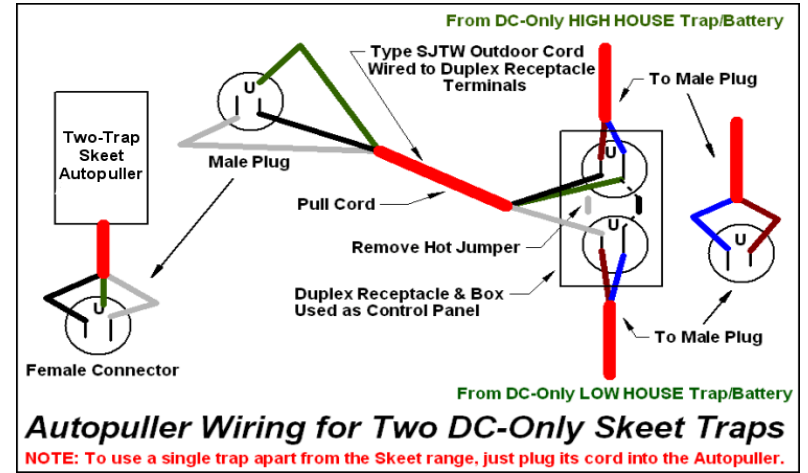
The above diagrams are graphic representations of the wiring from your pull cord to your machines. Connecting the Autopuller is simply disconnecting your pull cord and attaching the Autopuller to the appropriate wires.

Autopuller



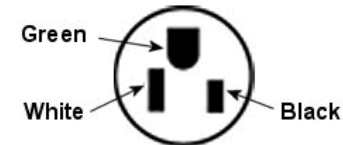
The Autopuller connects the wires together using a control circuit. Pressing the High button connects the high wire to the common wire. The same process for the Low and Both. This is the same as the existing pull head.

Supporting Information



Wiring one Skeet/Sporting Clays Autopuller for use with both single and double traps

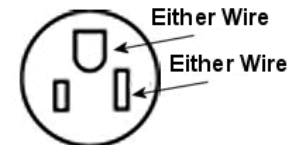
Get the two-trap Autopuller and use it for both your single home trap and a Skeet or Sporting clays set at the range. Both High/Low House buttons will be active, but use only the Low for the single trap.



NEMA 5-15P Plug From Autopuller

White = Low House
 Black = High House
 Green = Common

This is how the Autopuller must be wired, whether it's to be connected to a single or two trap machines. Low House button will operate the single-trap setup.



NEMA 5-15R Receptacle From Trap Machine(s)

Single Trap (above)
 2-Conductor Cable

This is a simple switch loop that completes the connection between the positive and negative terminals of the battery when the Low House button is activated.

Receptacle From Double-Trap Set Control Box

Whatever the brand, a double-trap set will have a 3-conductor cable from its control box -- a common and two wires for the High and Low Houses. Those wires must correspond in the receptacle to those terminals on the Autopuller plug.

Connectors shown are standard 15-amp, 2-pole, 3-wire grounding. An "L" designation simply denotes a locking-type connector.

The above 2 diagrams compliments of Henry Baker

Supporting Information

For your reference, three of the common size connectors are shown below. (The standard 110v is shown to assist you in establishing sizes.)

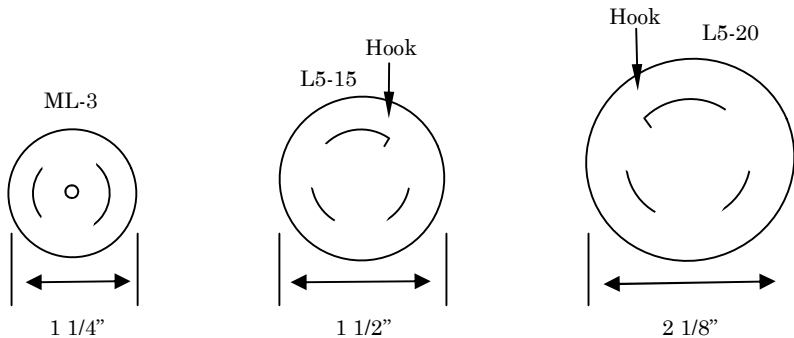


Standard 110v Plug

ML-3

L5-15

L5-20



As seen when looking at the outside terminals
Dimensions are approximate and may vary based on manufacturer

Information common to both Wired and Wireless

The normal electrical color code does not apply to the Autopuller hookup. Due to the limitations on types of wire available, the colors are only references as to how you need to attach the connector.

Green: is common to both the high and low machines

White: is to be connected to the low machine

Black: is to be connected to the high machine

If after you connect your Autopuller to your field, the machines do not respond as desired, you may have to change the wiring order. Please use the information below to establish how to correct the problem.

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:

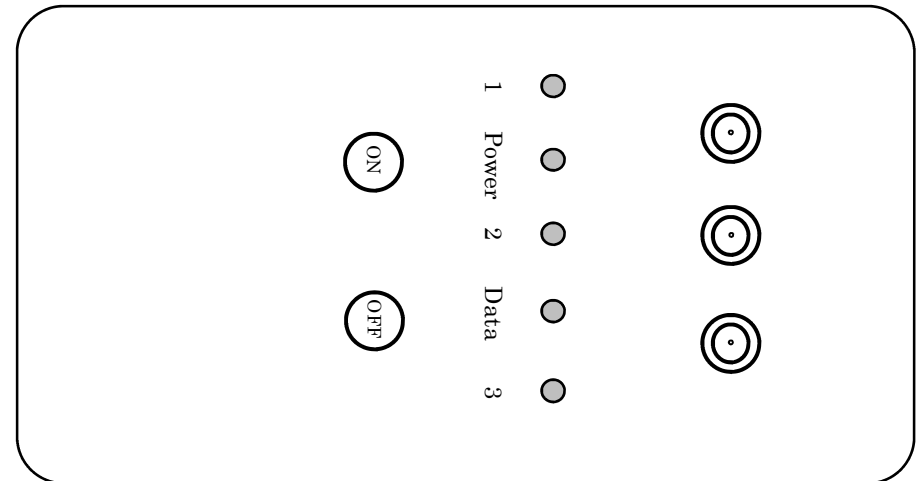
white and green wires reversed in connector

Wireless Autopuller

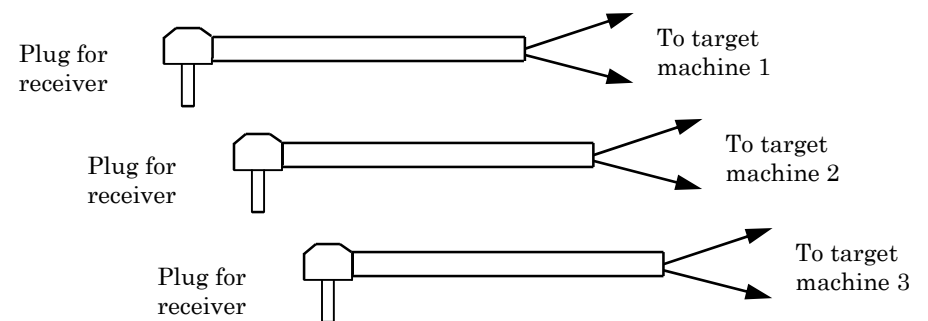
Wiring the Adapter Cord 3 outlet flurry

The wiring for the receiver 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. If more cords are needed, the proper connector is a 2.5mm x 5.5mm size.

Receiver



Adapter Cords with no connectors

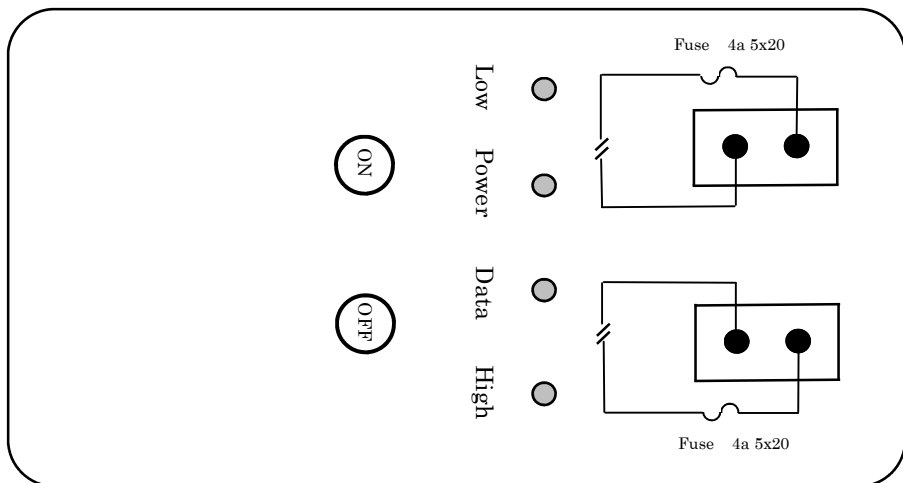


Wireless Autopuller

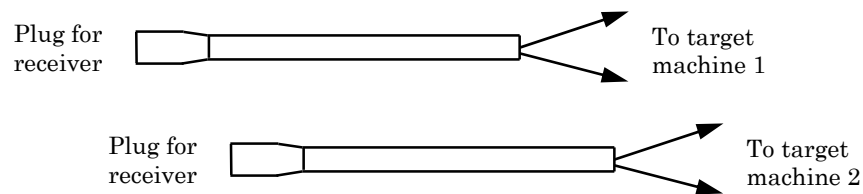
Wiring the Adapter Cord Dual outlets

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.

Receiver



Adapter Cords with no connectors



Wired Autopuller

Wiring Setup

The Autopuller was designed to be used with either your existing pull cord or a external grade extension cord. If you use the existing cord, remove the head from the cord and install a female connector in its place. A mating male connector is installed on the original head and on the Autopuller. This will allow you the choice of either control unit. If you decide to replace the pull cord with an exterior grade extension cord, install the necessary connectors on the cord and on the Autopuller. See installation below for wiring instructions.

Installation:

Trap model: It is not important as to which way the two wires are connected to your cord.

Skeet/Sporting Clays models: 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 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 on page 5.

NOTE: If a skeet or sporting clays model is to be connected to single trap machine, connect both the white and black wires together on one terminal and the green wire to the second terminal.

Wired Autopuller

Using your wired Skeet Autopuller on a Trap field

If you plan on using your Autopuller on a **TRAP** field, please read the following:

Before plugging your Autopuller into the trap connector, verify that the wiring is compatible. Since there are several ways to trigger a target launch, please insure the wire orientation of the Autopuller and field matches.

If you connect your Autopuller to a 3-wire trap cord, and one of the wires is connected to ground, you may damage either the Autopuller circuit board or the machine circuit board.

To prevent a circuit board failure, verify how your trap machine is wired. If the existing trap connector has only two wires, check to see if they line up with the green and white wires on the Autopuller. If the trap connector has three wires, use a meter to establish if one is ground, which one is power (12v, 24vor 110v) and which one will launch a target.

If the trap connector has a ground wire or the wiring does not line up properly, do not plug the Autopuller in! There is a possibility that when you press one of the arming buttons, you may damage either the Autopuller circuit board or the machine circuit board. Resolve the wiring conflict by rewiring the trap connector.

Wireless Autopuller

Using your Single Outlet Receiver on a Trap field

If you plan on using your Autopuller on a **TRAP** field, please read the following:

Before plugging your Autopuller into the trap connector, verify that the wiring is compatible. Since there are several ways to trigger a target launch, please insure the wire orientation of the Autopuller and field matches.

If you connect your Autopuller to a 3-wire trap cord, and one of the wires is connected to ground, you may damage either the Autopuller circuit board or the machine circuit board.

To prevent a circuit board failure, verify how your trap machine is wired. If the existing trap connector has only two wires, check to see if they line up with the green and white wires on the Autopuller. If the trap connector has three wires, use a meter to establish if one is ground, which one is power (12v, 24vor 110v) and which one will launch a target.

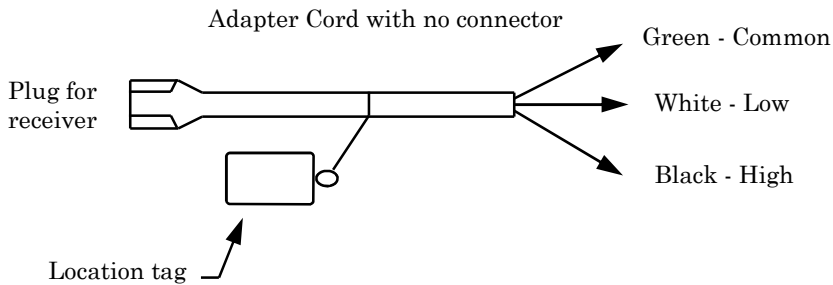
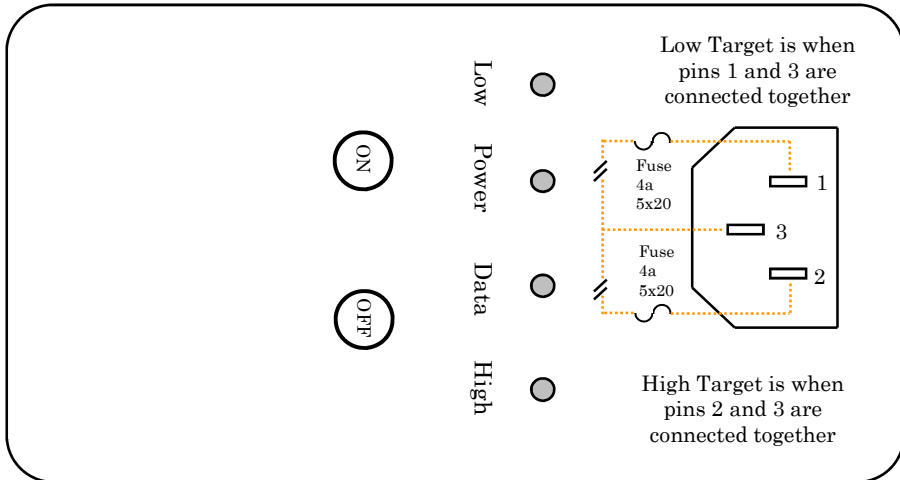
If the trap connector has a ground wire or the wiring does not line up properly, do not plug the Autopuller in! There is a possibility that when you press one of the arming buttons, you may damage either the Autopuller circuit board or the machine circuit board. Resolve the wiring conflict by rewiring the trap connector.

The receiver has two 4a fuses located on the sides of the box. If you have the wiring incorrect, one or both of the fuses may blow, protecting your equipment. If this happens, correct the problem before replacing the fuses.

Wireless Autopuller

Wiring the Adapter Cord Single outlet

Receiver



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.

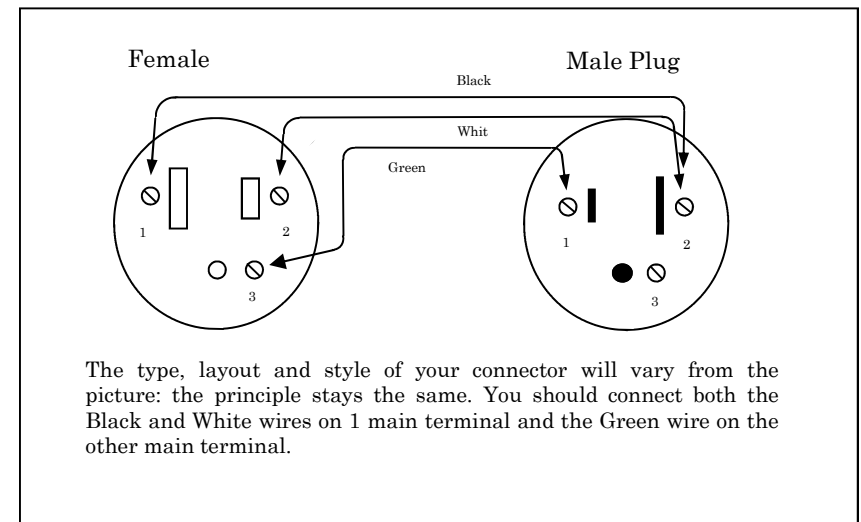
Wired Autopuller

Wiring Tips to use your Wired Skeet/Sporting Clays Autopuller on a Trap field

Many individuals want the ability to switch between skeet and trap with using a screwdriver to change connectors. The easiest way to achieve this is to make a short cord that would be connected between the Autopuller and the pull cord or the pull cord and machine connector.

The wire should be the same gauge as the pull cord and must have 3 wires. The actual connection is as follows:
Note: the Black and White wires are on the same terminal on the Trap connector

- Skeet connector black goes to Trap screw 1
- Skeet connector white goes to Trap screw 1
- Skeet connector green goes to Trap screw 2
- Trap connector would have no wires on screw 3 (if a 3 terminal connector is used)
- Refer to the wiring diagram for clarification



Wireless Autopuller

Wiring Setup for receiver with 1 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 second 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 on page 5.