

WARNING

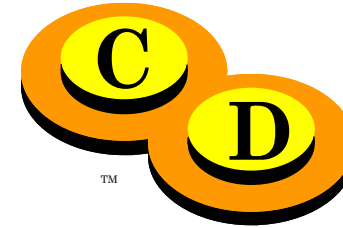
Safety comes first!

Before turning the Autopuller on, always insure there are no individuals working on or near the target machine the Autopuller is connected to. Always adhere to the club rules regarding the safe operating procedure for releasing targets.

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 PULL CORD RELEASE CONNECTOR!

If your Autopuller may possibly be used by other individuals, Clay Delay Inc. 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.



The Autopuller®

By CLAY DELAY INC.

Owner's Manual

Models APS, APT
and APSC- 2,3,4



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Components of the Wired Package

- Autopuller
- 9-volt Alkaline battery
- Microphone
- Cord strain relief carabineer
- Instruction manuals
- Canvas bag (styles may vary)



Components of the Wireless Package

- Autopuller Controller
- Autopuller Receiver
- (2) 9-volt Alkaline batteries
- Microphone
- (2) Adapter Cords and Identifier tags
- Instruction manuals
- Soft carry case (styles may vary)



*Note: Batteries are not included in package for orders shipped outside continental United States.

You are responsible for obtaining and properly attaching your course connector to the Autopuller adapter cord. Wiring Information regarding attaching connector can be found in the wiring/receiver supplement.

Disclaimer:

Your safety should always come first. The Autopuller was designed to give accurate, consistent pulls without the need for a trap boy; however you should never practice alone. Clay Delay Inc. is in no way responsible for personal injury, damage or loss caused by an Autopuller unit. This product should never be used for purposes other than that for which it was designed by Clay Delay Inc.

Warranty:

This product is covered by a 1-year warranty against manufacturing defects and premature component failure.

Our goal at Clay Delay Inc. is 100% customer satisfaction. If, for any reason, you are not satisfied with our product or have concerns, please contact us at (716) 674-4489.

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.

This manual contains the information for all of the standard Skeet, Trap and Sporting Clays models. Your Autopuller may not have all of the features presented here.

The Autopuller controller is preset to work in most environments. Connect the appropriate machine connector, install the batteries, plug in and shoot.

If you find that a particular function is not performing the way you like, please check the manual for that function and make the necessary adjustments. If you are still having difficulties, refer to the troubleshooting section. Of course, if you have any questions or need more direction, don't hesitate to contact us.

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The Autopuller Controller

The Large Top Buttons are for Arming the Target Machine.

As seen when looking down on belt —

Right = Low Left = High

The Small Top Button is for releasing the target manually

Indicator Lights

#1 Green=Mode1 Inst

Red=Mode4

#2 Green=Mode2

R/G=High target

#3 Green=Mode3

R/G=Low target

#4 Green=microphone

Red=low battery



Mode symbol / Button

Rotary Switch is voice sensitivity and ON/OFF

(See pg 9 for further Adjustments)

Along with Instant Voice, the modes on each model are:

TRAP

APT-2t - Rearm

APT-3t - Voice Delay and Rearm

SKEET

APS-2v - Voice Delay

APS-2a - American Delay

APS-2i - International Delay

APS-3a - Voice Delay and American Delay

APS-3i - Voice Delay and International Delay

APS-4a - Voice Delay, American Delay and H/L

APS-4i - Voice Delay, International Delay and H/L

SPORTING CLAYS

APSC-2sc - Report Pair

APSC-3sc - Report Pair and Following Pair

APSC-4sc -Voice Delay, Report Pair and Following Pair

See page 7-8 for detailed explanation of each mode.

Future References:

Voice Delay Setting (5)_____

Skeet Delay Setting (11)_____

Voice Switches 1 and 2 _____

Club _____

Connector _____

Signal Setting_____

Club _____

Connector _____

Signal Setting_____

Club _____

Connector _____

Signal Setting_____

Indicator Lights

The front panel lights indicate different things when the Autopuller is in different states.

In normal operation

- Steady red indicates that you are pressing a top button.
- One or more lights blinking indicates which modes are in standby waiting for you to arm the microphone for a target. **(Please note the color of the mode label next to the light. For example in the photo below, the first light is labeled “Inst (in green) H/L (in red)”. If the light is blinking green the ‘Inst’ is active, if the light is blinking red, the H/L mode is active.)**
- Steady mode lights indicate an armed target.
- Alternating red and green indicates a target launch.

When adjusting Machine Signal (see page 14)

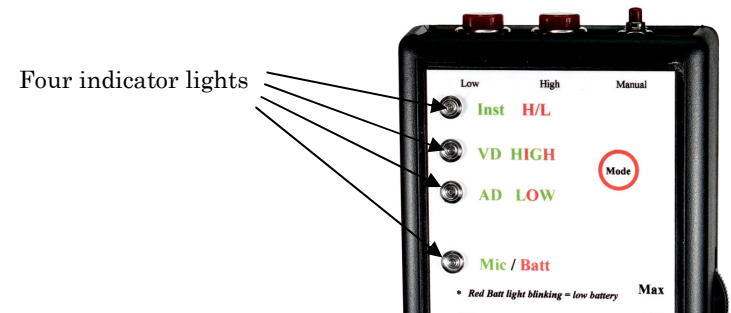
- The position of the fast green blinking indicates length of signal.

When adjusting a delay (see page 10)

- The mode light will blink multiple times, pause, and blink again.

The lower light will tell you two different things

- The green light indicates when the microphone has picked up a sound loud enough to launch a target
- A blinking red light indicates a low battery



Normal Operation

1. *Wireless*: Turn the receiver on, by pressing the power symbol on the front panel. The power light will stay on for two seconds, then start to blink. This is now the standby state. Plug the adapter cord into the pull cord socket and into the receiver.
Wired: Connect your cord to both the Autopuller and the pull cord socket.
2. Turn the controller on, by rotating the side adjuster from the off position.* Mode 1 (Inst) will be blinking green.** The Autopuller is now in standby. A target will not be released until the microphone is armed for a target and you call for the target.
3. Plug the microphone in and use the side adjuster to set the sensitivity. The 'Mic/Batt' on the front panel will light green when it 'hears you'. (Refer to page 9 for more information on the microphone adjustment.)
4. When you press an arming button the active mode light will come on solid, and the controller will be active. (Press a large button to arm the microphone for a single target or both buttons for a double). A target will now release in response to your call. After each target is launched, the controller will go back into the standby state, thus preventing false targets.
5. If you are shooting with a companion, arm the target(s) as usual. When your companion calls for their target, press the small button on the top panel. This will launch a target the same as when you call using the microphone, but since "you" are now the delay, any voice delay will be set to zero.

* If Power Saver option was installed refer to page 16.

** If the mode memory option was installed, the last mode(s) used will be blinking.

Step H: System works OK at original club but not at a second club or at a different machine

- Verify that the connector wiring is the same on both machines.
- The second machine may need a longer signal.
- Wired– refer to page 14 for signal adjustment.
- *Wireless*- Refer to wiring/receiver manual for adjusting the machine pulse.

Step I: Foot-operated release machines

The signal to a foot-operated machine needs to be longer than a pushbutton controlled machine. If you experience a problem releasing targets, increase the machine pulse.

Wired– refer to page 14 for procedure.

Wireless- refer to the wiring/receiver manual.

Step J: Manual Button Operation

The manual button allows you to pull a target for a companion shooter. Since you will be pressing the button, the delay functions are disabled with the button. This allows for a normal response to the call.

Step F: Wireless– 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 your unit to a different orientation on your belt, shell pouch, jacket, etc.*
- *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.*
- *Increase the machine pulse length. Refer to the wiring/receiver manual.*
- *Possibly a bad battery, replace with a new 9-volt Alkaline battery.*
- *Extend the cord on the receiver to reposition it closer to the middle of the skeet field.*

Step G: Wrong House Triggers

The most common problem is that the wiring in the machine connector is not properly configured. Identify the situation and change the wiring.

- **Machines work properly but the wrong machine triggers;**
black and white wires reversed in connector
- **High and Doubles work but no Low:**
black and green wires reversed in connector
- **Low and Doubles work but no High:**
white and green wires reversed in connector

Modes on the Autopuller Controller

The first mode on each model is instant release at your voice. **To select a different mode, press and release the ‘mode’ circle on the front panel. Each time you press the symbol, the next mode is selected.** After you have scrolled through each mode individually, the lights will indicate that multiple modes are activated. Any modes that work together will create a combination mode. After you scroll through all modes and combinations, it will cycle back to instant release at your voice.

For Example: with model APS-4a pictured on page 5: When you turn on the controller, the top light will blink green meaning that ‘Inst’ is active. If you press the ‘mode’ circle once, then the 2nd light will blink green, meaning that the Voice Delay is active. If you press the ‘mode’ circle again, the 3rd light will blink green, meaning that the American Delay is active. If you press the ‘mode’ circle again, the top light will blink red, meaning that the H/L is active. If you press the ‘mode’ circle again, both the 2nd and 3rd lights will blink green meaning that both the Voice Delay and the American Delay are active. Etc. After you scroll through all modes and combinations, it will cycle back to instant release at your voice.

Explanation of modes: (See page 10-12 for adjustments)

- The **Instant (Inst)** is the default mode for all models. By pressing an arming button on top, the target you selected will release immediately at your call, or when the manual button is pressed. There are no adjustments for this mode.
- The **Voice Delay (VD)** will consistently give you the same delay between your call and the launch.. The delay may be adjusted to fine tune your pull delay to match the response you are familiar with. The range is .1 to 1 sec.

cont on page 8

- The **American Delay (AD)** is a random delay of up to 1 second. As per NSSA guidelines, the maximum delay is adjustable, with a range of .1 to 1 sec. The delay between your call and the target launch will vary with each release.
- The **International Delay (ID)** is a random delay of up to 3 seconds. The maximum delay is adjustable, with a range of .3 to 3 sec. The delay between your call and the target launch will vary with each release.
- The **High/Low (H/L)** mode arms the microphone for the first target at the press of the low or high arming button. Call for your first target. At the sound of your gun, the opposite target is armed. Call for your second opposite target. There are no adjustments for this mode.
- The **Report Pair (RP)** mode arms the first target at the press of the low or the high arming button. Call for your first target. The sound of your gun releases the opposite target. The second target is delayed by the timer for this mode. The delay range is .1 to 1.5 sec. If you press both arming buttons you will get a true pair.
- The **Following Pair (FP)** mode arms the first target at the press of the low or the high arming button. Call for your first target. At the sound of your gun, the 2nd target is released from the same machine. The second target is delayed by the timer to allow the machine cycle time before the second launch. The delay range is .1 to 1.5 sec. If you press both arming buttons you will get a true pair.
- The **Rearm (RA)** mode works the same as when you keep selecting the same target over and over. After each shot, the microphone will wait for the sound of the shot to die down before rearming. This delay range is .5 to 5 seconds.

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

- Be sure target machine is on.
- *Wireless- insure receiver is on. If the receiver has prematurely turned itself off, refer to the wiring/receiver manual.*
- Check that the cord is connected properly and securely to the machine connector and Autopuller.
- *Wireless- Verify the data and target lights on receiver are operating properly. (See step C)*
- If there is still a problem, contact Clay Delay for assistance.

Step E: Erratic operation, false targets

- Lower the sensitivity of the microphone using either the external adjuster or switches inside of battery compartment. See page 9 for setup.
- Turn unit off, count to five, turn units back on. See if the problem is corrected.
- The next check is to unplug the microphone. Launch several targets using the manual button. If the problem is gone, plug the microphone back into the side jack. While watching the front 'mic/batt' light, wiggle the microphone cord and connector. If the 'mic/batt' light starts to flash or stays on, there is a problem in the microphone. If possible, try a different microphone and see if the problem is resolved.
- Possibly a bad battery, replace with a new 9-volt Alkaline battery.
- If there is still a problem, contact Clay Delay for assistance.

- If the controller does not follow the correct sequence, there could be a power problem. Install a new 9-volt Alkaline battery and using the side switch, turn the Controller on and off several times. If this does not correct the problem, contact Clay Delay for assistance.

Step C: Wireless- Receiver Operation

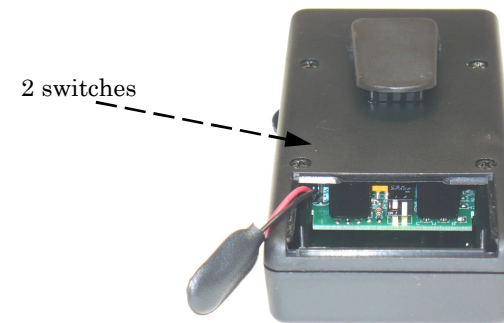
- *Turn the receiver on by pressing the power symbol on the front panel. The power light will illuminate for two seconds then start to blink.*
- *With the controller on and armed, press the manual button.*
- *The left light on the receiver will illuminate red for the length of time the controller light blinks red/green. The corresponding target light (the right light on the receiver) will blink on then off.*
- *If the receiver responds properly, your system is operating the way it was designed to. Continue to the step that best matches your problem.*
- *If the receiver does not respond to the controller, refer to the wiring/receiver manual for synchronizing.*
- *If the receiver does not consistently indicate a signal, try a fresh 9-volt Alkaline battery. If this does not correct the problem, contact Clay Delay for assistance.*

Microphone Setup

The microphone is preset to work in most situations. If you find that the external adjuster does not allow you to comfortably call for your target, you may adjust the sensitivity further by accessing the internal set of two switches.

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 on and up is off.

The normal settings are for one switch to be on and one switch to be off. Turning switches 1+2 off will decrease the sensitivity of the microphone. You will now need a louder and longer call before the unit will respond. Turning switches 1+2 on will increase the sensitivity of the microphone. Keep in mind that the increased sensitivity will now release a target very easily, possibly even with the closing of your gun.



MICROPHONE The microphone used for the Autopuller is a standard microphone used for a computer. Using this style helps in keeping the costs down and it is readily available if a problem occurs with the supplied unit.



Delay and Timer Adjustments

The delays and timers are adjustable to allow you to fine tune your target launches.

1. Turn on.
2. Press and release Mode circle until only the light next to the mode you want to change is blinking.
3. Press and HOLD the manual button (for approximately 4 seconds) until the green light is blinking without the red (manual button) indicator on. Release the manual button.
4. Count the blinks between pauses to establish the present time. Please refer to pages 7 and 8 for the exact unit of time indicated for each blink for specific modes.
5. Press and HOLD the high house button to increase the count or the low house button to decrease the count. The range is from 1 to 10. Fewer blinks=shorter delay (faster pull). More blinks=longer delay (slower pull)
6. Once you have the count you like, turn the Autopuller off, and wait three seconds, before turning back on. The new delay will now be stored.

Step A: Can't Turn Controller On

(The Mode1 light should be blinking when the controller is turned on.)

- Be sure side rotary switch is on.
- Check for a weak or dead 9-volt battery.
- If you have the Battery Saver option, press the power symbol .

Step A: Receiver - Can't Turn Receiver On

(The left light on the receiver should be blinking green when the receiver is turned on.)

- *Press firmly on the power button on front panel. Power light should illuminate, then start to blink.*
- *Check for a weak or dead 9-volt battery.*
- *If external power was installed, insure power source is turned on and that the power source is plugged in to the receiver.*

Step B: Controller Operation

- Turn Controller on. At least one mode light should be blinking.
- Press one of the arming buttons. The mode light should come on steady.
- Press the manual button. The corresponding target lights blink red/green, then go off.
- Mode lights should go back to the blinking state.
- Plug the microphone into the side jack. The green 'mic/batt' indicator should flash green when you talk into the microphone. If not, refer to page 9, microphone setup.
- Press one of the arming buttons again.
- Call for a target.
- The 'mic/batt' light should illuminate green and the corresponding target lights should flash red and green to indicate a target launch.

Continued on page 20

Troubleshooting Procedure

Identify the first step that does not work and proceed to that step on the following pages.

GO TO: IF:

- Step A Controller does not turn on?
- Step A *Wireless-* Receiver does not turn on?
- Step B Controller does not operate properly?
- Step C *Wireless-* Receiver does not respond to controller?

If you have completed the above 4 steps and all appears to be working properly, continue to the step that corresponds to the area you are having the problem in.

GO TO: IF:

- Step D System seems to work OK but no target launch
- Step E Erratic operation, false target launch
- Step F Erratic operation, missing targets
- Step G Wrong target launched
- Step H No target launch at a different machine or club
- Step I Foot-operated released machines
- Step J Manual button operation

Delay and Timer Adjustment

5. Press and HOLD high button to increase or low button to decrease. *

3. Press and HOLD the Manual button until center red light goes off. Release the button.

4. Count blinks

Fewer blinks=shorter delay (faster pull)

More blinks=longer delay (slower pull)

2. Press and release Mode circle until only the light in front of the Delay to be changed is blinking.

1. Turn on.
6. Turn off



* Note: Trap models– to adjust the delay, the arming button will increase, and the manual button will decrease the time.

American and International Delay Randomness Selection

How delay is selected

Refer to page 10 to set maximum time of delay

Based on the level of difficulty or the randomness you want, the delay time may be selected in three ways.

Level 1 and 2 have no reference to the delay from the last shot. It is possible to receive the same, or near the same delay multiple times before a different time is selected. Since each shot is independent, it is possible to never receive a 0 second or maximum delay.

Level 1 breaks the one second into an infinite amount of values. The difference between delays may be so small, it may not be perceivable.

Level 2 breaks the one second into ten separate values. The delay on any consecutive shot will be at least 10% different from the last time. This difference between times will be large enough to be perceived.

Level 3 will give you one of the ten separate random values, for each ten shots. The Autopuller will use the entire range and select the ten values for the ten shots, in random order using each value only once. This insures you will get a zero second delay and a one second delay for each ten shots taken.

NOTE:

The 0 to 1 or 3 second time will be the maximum range. To adjust the range smaller, refer to page 10. When a smaller range is set, all of the random times will be adjusted to fit in the new range.

Mode Memory Option

The mode memory option will store the last mode(s) you used before turning off. This is beneficial if you normally use a different mode than the base Instant.

There are no settings for this option.

Battery Saver Option

The battery saver option will turn all power off after 30 minutes of non-use. When you turn your Autopuller on, the timer starts. Each time you launch a target, the 30 minute timer resets.

If the Autopuller will not turn on using the side rotary switch it is possible that the Autopuller turned itself off eclectically. You will need to reactivate the Autopuller by pressing the power symbol on the front panel (with the rotary switch on).



Power symbol

Adjustment for how American or International delay is selected

- 1a. While holding the Low arming button,
- 1b. Turn the Autopuller on.
- 1c. Release the Low button.

One light will be blinking fast.

2. Press and release the Low button until the light corresponding to the level you desire is blinking.
3. Turn the Autopuller off.

Level 1 blinking fast = max variations

Level 2 blinking fast = 10 variations

Level 3 blinking fast = 1 each for 10 shots

1a. HOLD Low button
and turn on

2. Press and release
Low button to
index lights



Level 1 = max variations

Level 2 = 10 variations

Level 3 = 1 each for 10 shots

1b. Turn on
3. Turn off

Wireless- Transmitter Signal Setup

Wired- Machine Signal Setup

The signal is set to work in most environments. If you are having difficulties in releasing a target, adjust the signal length. (This is common in foot pedal released machines)

Adjustment

- 1a. While holding the Manual button,
- 1b. Turn the Autopuller on.
- 1c. Release the Manual button.

One light will be blinking fast.

2. Press and release the Manual until the light corresponding to the signal you desire is blinking.

Light 1 blinking fast - .5 second signal
Light 2 blinking fast - 1 second signal
Light 3 blinking fast - 1.5 second signal

3. When you have selected the light you want, turn the Autopuller off. The next time you turn on, the new signal length will be used.

Transmitter/Machine Signal Setup

1a. Hold Manual button
and turn on.

1c. Release

2. Press and release
Manual button to
index lights

Light 1 = .5 sec
Light 2 = 1 sec
Light 3 = 1.5 sec



1b. Turn on
3. Turn off