

The Autopuller

By CLAY DELAY INC.

Owner's Manual Models Deluxe, Classic, Premium and Elite with vt



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Quick Setup

- Turn on controller using side knob.
- If red power light is blinking, please change battery.
- Plug microphone in side jack.
- Attach controller to belt/shell pouch/etc., and microphone to collar/lapel/etc.
- * Wired model, attach to your cord and plug cord into receptacle that normally has the pull cord connected.
- * Wireless model-
- Attach antenna.
- Turn receiver on using power button.
- If the green power light is blinking fast (2 blinks per second), please replace battery.
- Connect the adapter cord that has the proper connector for the field you will be shooting at.
- Plug the cord into receptacle that normally has the pull cord connected.
- * You're ready to shoot!

Quick Setup

- Front light blinking is standby state
- Front light on steady indicates which target will be released.
- Top arming buttons select which target you want.
- Press both buttons for double.
- Call for target. Lower Mic light will show when your call is loud enough to release a bird.
- Noisy environment
 – set manual button to allow delayed release without microphone.

Manual Contents:

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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.

This manual contains the information for all of the standard Skeet, Trap and Sporting Clays models. Your Autopuller will <u>NOT</u> 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.

The Autopuller Controller



The **Models** are as follows:

Deluxe—has 3 modes

Classic—has 4 modes

Premium—has 5 modes

Elite—has 6 modes

Each model may have any combination of modes. Look at the front panel of your controller to establish which modes have been installed.

The **Modes** are as follows:

V Voice VD Voice Delay A/I American and International Delay

RP Report Pair FP Following Pair

H/L High then Low RA Rearm

PC Pull Cord SD Split Double

See page 9-12 for detailed explanation of each mode.

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 below the light. For example in the photo below, the first light is labeled "VD (in green) V (in red)".
 If the light is blinking green the 'voice delay' is active, if the light is blinking red, the voice mode is active.)
- Steady mode lights indicate an armed target.
- Fast alternating red/green indicates a target launch.

When adjusting a delay (see page 16)

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

When adjusting Manual Button delay (see page 18)

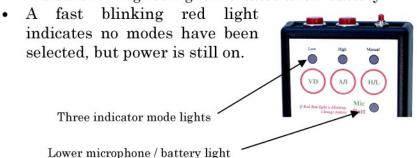
Which light is blinking indicates length of delay.

When adjusting Machine Signal (see page 20)

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

The lower light will tell you three different things

- The green light indicates when the microphone has picked up a sound loud enough to launch a target
- A slow 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. One Mode will be blinking. 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 18 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.

Modes on the Autopuller Controller

To select a mode, press and release the circle that corresponds to the mode you desire.

No one model has all modes. Look at the front of your Autopuller to determine which modes your model has. There are two variations on how the modes within the same circle work.

If there is only one mode, the mode is either on or off, and is selected by pressing the circle once. If there are two modes, you could have both modes on at once. The sequence would be 'green mode', 'red mode' then 'green and red modes' then off.

Elite Model S6 Only

Model S6vt has a slightly different way of selecting the modes. Please refer to page 14 for the S6vt procedure.

Explanation of modes: (See pages 16-17 for adjustments)

• The **Voice (V)** 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) adjustment has been updated. The range has been increased to 16. The first 11 blinks are in intervals of .05 seconds. (11 blinks will give you .5 second delay) Blinks 12-16 have a .1 second interval. The maximum delay is still 1 second, but you now have the ability to fine tune the lower .05 to .5 second range. Keep in mind the entire scale is indexed by .05 seconds. A setting of 1 blink will give a delay of 0 while a setting of 16 blinks will give a 1 second delay..

Example: 1 blink 0 delay 2 blinks .05 second delay 3 blinks .10 second delay 4 blinks .15 second delay Etc. 11 blinks .50 second delay 12 blinks .60 second delay Etc. 16 blinks 1 second delay

• The High/Low (H/L) mode arms the microphone for the first target at the press of the high or low arming button. Call for your first target. At the sound of your gun, the opposite target is armed. Call for your second opposite target. If your first target is broken, you can cancel the second target by pressing the manual button. You now simply press the first target button again to restart. There are no adjustments for this mode.

• The American and International Delay (A/I) is a random delay of up to 1 second, as per NSSA guidelines or up to 3 seconds for international shooting. The maximum delay is adjustable, with a range of .1 to 1 sec. for American and 2 or 3 sec. for international. The delay between your call and the target launch will vary with each release.

When adjusting, the first 10 steps will set the maximum delay from .1 to 1 second. Step 11 will set to 2 seconds and step 12 will set to 3 seconds.

- 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.
- The Pull Cord (PC) mode allows you to launch targets without first selecting the target, then pressing the manual button. When this mode is selected, the buttons will release a target when pressed. The pull cord mode has a lockout on the selection. This will insure that during use. vou cannot accidentally select one of the other modes. When in the pull cord mode, you must first deselect the pull cord mode before you select a different mode. (the power red light must be flashing quickly). You may now select any other mode. It is advisable to first deselect all modes before selecting the pull cord mode. This will insure you do not have any surprises when launching targets. (available only on model STI5vt)

Refer to page 23 for setting up the button order.

• The **Split Double (SD)** mode changes the doubles release time between the two machines. By delaying one of the targets, you can slowly bring the crossing point to the correct center point. This allows you to practice doubles at your pace. (available only on model S6vt)

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Selecting Modes on model S6

The split double mode delays the crossing point of the two double targets. The order is determined by which target button you press first. If you press the high, then the low, the low target will be delayed.

In the SD mode, the first target is launched based on what other mode is active (VD or AI). The second is delayed by which SD mode is on.

The three SD modes operate the same. The only difference is you can have 3 different delays preloaded, allowing you the ability to simply press one of the other SD modes to change the crossing point.

Selecting what modes will be used

To select or deselect a mode, turn the Autopuller on. For the first 10 seconds (indicted by the red mic/batt light) you have the ability to select the modes connected with the green indicator lights. These are the VD, AI and H/L modes. If you desire to turn one of these modes on or off, press the appropriate button (circle) before the red Mic/Batt light goes off. (approximately 10 seconds). To change the selection of an SD mode, you have to wait until the red Mic/Batt light goes off.

After the red Mic/Batt light goes off, the SD modes become selectable. As you select one of the SD modes, the last active SD mode is automatically turned off. This allows you to only press one button to select which SD mode you want active.

If no SD mode is selected, the double launch is exact, with any variations coming from the target machines. Whether an SD mode is active or not, singles are not affected in any way.

Adjusting Modes on model S6

To adjust the delay, start by turning off the VD,A/I and H/L modes. Wait until the red batt light goes off. If no SD mode was previously active, the red batt light will be blinking fast. Select the SD mode you want to adjust. Press and hold the manual button until the red batt light comes back on. Release the manual button.

The range is

1 blink = .04 seconds while 10 blinks = .4 seconds.

The adjustment is the same for the other modes. Press and hold the Low button to decrease or the High to increase the delay.

The default is set to have SD1 delay the crossing point by approximately .1 second, SD2 delays by .2 seconds and SD3 delays by .3 seconds.

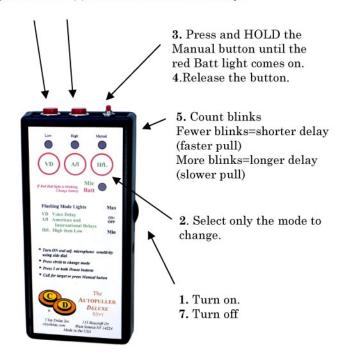
Delay and Timer Adjustments

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

- 1. Turn on.
- 2. Insure only the light above the mode you want to change is blinking.
- 3. Press and HOLD the manual button (for approximately 4 seconds) until the red Batt light is on.
- 4. Release the manual button.
- 5. Count the blinks between pauses to establish the preset time. Please refer to pages 10 through 12 for the exact unit of time indicated for each blink for specific modes.
- 6. Press and HOLD the high house button to increase the count or the low house button to decrease the count. After each count, the red light corresponding to the button will briefly come on. If you continue to hold the button, the count will continue to change. The range for the Voice Delay is from 1 to 16 while the rest of the modes have a range of 1 to 10. Fewer blinks=shorter delay (faster pull). More blinks=longer delay (slower pull). If the range of the mode is .1 to 1sec, then a value of 1 equates to .1 sec while a value of 10 equates to 1 sec.
- 7. 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.

Delay Adjustment

6. Press and HOLD the High (1) button to lengthen the delay or the Low (2) button to shorten the delay.



Manual button Time Delay Adjustment

There may be times you want to shoot in a noisy environment. High winds, or someone shooting on an adjacent field may release a target when using the voice function. To allow you to still pull your own targets, simply unplug the microphone, and add a delay to the manual button. You will still arm the target you want, but now you can press the manual button and have enough time to mount your gun before target release. To turn the time delay on start with the Autopuller off. While holding the manual button, turn the Autopuller on. Release the manual button. (The red Batt light will be blinking indicating you are in the adjustment program.) Now observe which of the six lights is on.

If the Low green is on the delay is 0
If the Low red is on the delay is 1 second
If the High green is on the delay is 2 seconds
If the High red is on the delay is 3 seconds
If the Manual green is on the delay is 4 seconds
If the Manual red is on the delay is 5 seconds

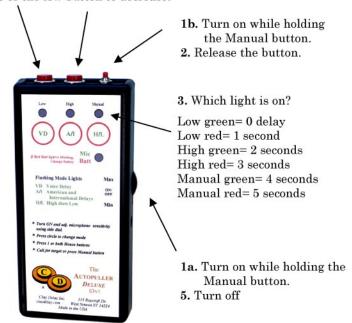
To increase the delay, press and hold the High button until the light you desire is on.

To decrease the time, press and hold the Low button until the light you desire is on.

Once you have the light on that represents the time delay you want, turn the Autopuller off, and wait three seconds before turning back on. The new delay will now be stored.

Manual button Time Delay Adjustment

 Press and HOLD the high button to increase or the low button to decrease.



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.

Adjustment

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

One light will be blinking fast.

2. Press the Low until the light that corresponds to the signal you desire is blinking.

Left Light blinking fast - .4 second signal Center Light blinking fast - 1 second signal Right Light blinking fast - 3 second signal

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

If you are using a wireless Autopuller, you may have to compensate for environmental conditions.

If you are using a wired Autopuller and the target machine would normally be connected to a foot release, you may have to increase the signal length.

Transmitter/Machine Signal Setup



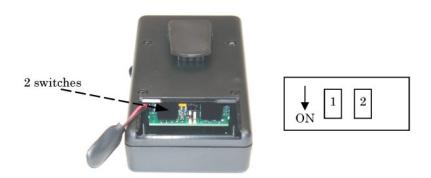
Microphone Setup

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 either switch to be on and the other switch to be off. Turning both switches off will decrease the sensitivity of the microphone. You will now need a louder and longer call before the unit will respond. Turning both switches 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.

If you are shooting in a noisy environment, there may not be enough adjustment to prevent false targets. Consider unplugging the microphone and adjusting the manual button to allow a time delayed release.



Adjusting the launch order of the top buttons in the Pull Cord mode

The order of the top buttons may be changed to reflect how the controller is used.

To change the order, turn off all the modes by pressing each mode button. Only the red 'Batt' light should be blinking fast.

Press and hold the PC mode button (about 3 seconds) until one of the three indicator lights starts to blink fast. Release the mode button.

Press and release the manual button to index the red lights.

When the **Left** light is blinking, the button order is: Low, High, Doubles.

When the **Center** light is blinking, the button order is: High, Low, Doubles.

When the **Right** light is blinking, the button order is: High, Doubles, Low.



Left light blinking

Center light blinking

Right light blinking

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

Step A: Can't Turn Controller On

(At least one Mode 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.

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 22, 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.

• 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.

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 22 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.

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 transmitter signal length. Refer to page 20.
- 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

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 20 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 20 for procedure.

Wireless- refer to the wiring/receiver manual.

Step J: Manual Button Operation

The manual button has two modes of operation.

When the delay is set to zero, you can pull a target for a companion shooter. Since you will be pressing the button, the voice delay function (if active) is disabled with the button. This allows for a normal response to the call.

When the delay is set from one to five seconds, you can now pull your own targets without the microphone. This allows you to shoot in a noisy environment such as a windy day or if someone is shooting on an adjacent field. Refer to page 18 for setup.

Future References:

Voice Switches 1 and 2	
Club	
	Connector
	Signal Setting
Club	
	Connector
	Signal Setting
Club	
	Connector
	Signal Setting

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. 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 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.

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 responsibility 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.