

iPULL Sporting Clays User Guide

Overview

iPull is a wireless, fully automatic voice or keypad activated target release controller for Sporting Clays. Each unit has a built-in RFID card system for "Pay and Play". iPull controller is placed at each shooting station.

iPull wirelessly controls the target throwers (RSU). Each RSU can be connected to one or two target throwers. A single iPull controller can control up to three target throwers for a variety of target presentation on a single station.






iPull is automatic. No more complicated button combinations and puller errors. Simply call "Pull" or press one key and get perfectly timed targets from the automatic sequencer in the iPull. Your RFID Tag will automatically set the iPull to your choice of Release mode:

- In Voice Release mode, you do not need to press any keys, just call "pull" to activate each step in the shooting sequence.
- In Auto Release mode, just press the Manual (hand) key to activate each step in the shooting sequence. A Solo-Delay on the key can be added to your RFID Tag so you can press the key and have a few seconds to prepare to shoot.
- In Practice Mode, iPull is fully manual with keys for releasing Trap A, B, A+B or C.

iPull detects your gunshots so it knows when a step in the shooting sequence has been completed and automatically moves to the next step. Detecting the first gunshot of a Report Pair automatically releases the second target. By counting the number of shots and comparing it to the number of targets for the station, iPull determines when the entire shooting sequence has been completed.



Keys and functions

OPERATING MODE				
Key/Symbol	Payment	Voice/Auto Release	Pause/Special	Fully Manual/Practice
 [b]	[?] + [b] Increase number of targets	[b] Release the next step in the sequence.	Hold [b] enter fully manual mode	Hold [b] return to Pause mode
 [▶]	[?] + [▶] Abort certain functions	[▶] Jump one Step in the shooting sequence [?] + [▶] Abort and return to Payment mode, get a refund if applicable	[?] + [▶] Abort and return to Payment mode get a refund if applicable	Press [b] and quickly let go, release C (if available on station)
 [?]	[?] Function/Help Display a scrolling ticker listing all applicable functions	[?] Enter Pause mode	[?] Return to Release Mode	[?] Release A
 [\$]	[\$] Check Tag Balance [?] + [\$] Decrease number of targets	[\$] See Report Pair	[\$] Adaptive Voice Check [?] + [\$] Decrease Sensitivity	[\$] Release True Pair A + B
 [⊙]	[⊙] Wake from Sleep	[⊙] Wake from Sleep and back to payment mode Hold [⊙] abort session and back to payment mode	[⊙] Wake from Sleep	[⊙] Wake from Sleep and back to payment mode Hold [⊙] abort session and back to payment mode

*) iPull goes to Sleep Mode after 4 minutes of inactivity

Step by Step Operation:

1. **Purchase Targets:** Pay at the gun club's cash register. The number of targets purchased will be loaded onto an RFID tag. The tag will look like a credit card or a key FOB.

1.1. There are two payment modes:

1.1.1. Standard payment: the tag is loaded with the number of targets you paid for plus some extras.

1.1.2. Shoot-On-Tab: the tag is loaded with more targets than required for the course. When you are done shooting, you pay based on the number of targets used less some extra targets.

1.2. The tag will also determine the release mode:

1.2.1. If you are shooting alone or would like to use voice activation, your tag can be set for automatic voice release.

1.2.2. If you are part a of a group and would like to socialize and talk on the shooting stand, the club may disable voice release on your RFID Tag so targets are released automatically with only one key [**b**].

1.2.3. If you would like to be able to release targets manually, your tag can be set for Practice mode. This will disable automatic release and gun shot detection.

2. **The Shooting Stand:** When arriving at a shooting station, observe the iPULL display:

2.1. If the iPULL is in "Payment mode" the display shows the station information. The station number and total number of targets are shown on the top line. The bottom line displays a scrolling ticker showing each step in the shooting sequence, such as SINGLE, REPORT, TRUE-PAIR, etc.. Note that the throwers are marked A, B or C indicating the order targets are thrown.



2.2. If the displays indicates the unit is in "SLEEP MODE", press and quickly release the [⊙] key. The unit will wake in the "Payment mode".

2.3. If the shooter before you left the iPULL running in Release mode, you will see the RED light blinking. Press and hold the [⊙] key to return to "Payment mode".

3. **Start Shooting:** Momentarily hold the tag not more than 1" above the gray area on the iPULL keypad.

3.1. Normal Operation: iPULL subtracts the station's total targets from the tag and shows the remaining balance on the bottom line of the display. Remove the Tag. The system will go to Release Mode.

3.2. Empty Tag: You will see a message indicating how many targets were purchased and how many were used. Purchase additional targets in the office.

3.3. Low Balance: If the remaining balance on the tag is less than the total number of targets, you will see a message and a count down. During the count down, you may remove the tag and forgo shooting. At the end of the count down, iPULL will enter Release Mode allowing you to shoot the remaining targets.

4. **Adjust the Number of Targets:** To shoot less than the nominal number of targets on a station:
 - 4.1. Keep the tag away from iPull.
 - 4.2. Press and hold the [?] Key.
 - 4.3. Press and release the [\$/-] or [\$/+] keys to adjust the number of targets.
 - 4.4. Momentarily hold the tag not more than 1" above the gray area on the iPull keypad. See above section 3.1.
5. **Check the Tag's Balance:**
 - 5.1. Keep the tag away from iPull.
 - 5.2. Press and release the [\$/] key.
 - 5.3. Momentarily hold the tag not more than 1" above the gray area on the iPull keypad.
 - 5.4. The balance will be displayed. Remove the Tag and keep it away from iPull.



6. **Voice/Auto Release Modes:** The top line of the display shows the next step in the station's shooting sequence. If Voice Release was enabled on your Tag, the bottom line shows "READY-CALL PULL". Otherwise, the bottom line shows "READY-PRESS [δ]".

⚠ No talking in Voice Release! Targets are counted!

- 6.1. **Releasing targets:** If Voice Release was enabled on your Tag, you can release targets by calling "Pull" or by pressing the [δ] key. If Voice Release was disabled on your Tag, you can only release targets by pressing the [δ] key.
- 6.2. **Solo Delay:** Solo Delay applies only to releasing with the [δ] key. If your RFID Tag includes a "Solo Delay", after you press the [δ] key, the display will show the delay in seconds and targets will be released only after the delay.

Notice: if you release four targets without shooting, you will be required to use the Tag and pay for Extra Clays. These targets will affect your balance and you may not be able to complete the entire course!

- 6.3. **"See" targets:** Usually the first shooter on the squad is allowed to "see" the targets. For Single, True-Pair, or Following-Pair, simply release targets. For a Report Pair, press the [\$/] key and then release. The second target will be released 3 seconds after the first target. Do NOT shoot at "see" targets as gun shots will be counted as part of the shooting sequence.
- 6.4. **Shoot targets:** Call "Pull" or press the [δ] key and shoot. If all targets were shot at, iPull automatically moves to the next step.
- 6.5. **Incomplete shots:** If you release targets and do not shoot or if you shoot only one shot on a pair, iPull will not move to the next step. Release again to repeat the step.
Notice: If you shoot only one shot on a pair, the step will be repeated only once.
- 6.6. **Skipping a step:** Use the [▶] to jump to the next step.

7. **Aborting a Shooting Session:** There are two ways to abort a shooting session:
 - 7.1. Abort without refund: Press and hold the [⊙] key for 1 Second to return to "Payment mode". If you log on with the same tag you will return to the last shooting step before aborting. Otherwise, your session will be purged.
 - 7.2. Abort and receive a "refund" on your Tag:
 - 7.2.1. Press and hold the [?] then press and hold the [▶] Key. Release both keys.
 - 7.2.2. The display will indicate how many targets will be refunded.
 - 7.2.3. Momentarily hold the tag not more than 1" above the gray area on the iPULL keypad. Refunded targets will be added to your Tag and the new balance will be displayed. Remove the Tag and keep it away from iPULL.
 - 7.2.4. Note: Targets can be refunded only to the original Tag. If you do not have the original Tag used to pay for the session, abort the refund: Press and hold the [?] then press and hold the [▶] Key. Release both keys.

8. **Pause/Special Functions Mode:** Should you need to Pause a shooting session so you can talk without releasing targets or if you need to access any of the special functions, press and release the [?] key. To return to Release Mode simply press and release the [?] key again.
9. **Practice Mode:** If your tag is set for Practice mode, iPULL subtracts only two targets from the tag and goes directly to a fully manual mode. To shoot continuously, insert the tag in the rubber boot's belt holder on back of the iPULL.
 - 9.1. The top line of the display shows a target counter, you will see the number of targets left on the tag + the number of targets loaded on the iPULL (max. 2).
 - 9.2. The bottom line shows the active keys and the target's they release. If the station has a third trap machine "C", it will be released with the [b] key.
 - 9.3. In Practice mode, the gunshot detector is disabled and each target you release is counted as if you shot it.
 - 9.4. If the laded target counter shows +01, you cannot release a "true pair". Pressing the [\$] key will result in releasing only one target from trap A.
 - 9.5. If you need a true pair with Trap C. for Example A+C, the laded target counter must show +02. Press and release the [▶] Key for A, then immediately press and release the [b] key for C.
 - 9.6. **Remember:** after removing the Tag from the back of the iPULL, you still have two targets loaded in the iPULL.

Special Functions:

Special functions are accessible when in Pause Mode. The bottom line of the display shows a scrolling "ticker" listing all the special functions:

10. Fully Manual Mode: The Fully Manual mode allows you to manually release targets at any order via the keypad.

10.1. You can access fully manual release by pressing and holding the [b] key. You will see a number countdown, keep holding the key until entering Manual Mode. If you release the key before the end of the countdown, the system returns to Pause Mode.

10.2. Use the [▲] key for thrower A, the [?] key for thrower B and the [\$] key for a True-Pair. If the station has a third trap machine "C", it will be released with the [b] key. If you need a true pair with Trap C. for Example A+C, the laded target counter must show +02. Press and release the [▲] Key for A, then immediately press and release the [b] key for C.

10.3. In full manual mode, each target released is considered a "Target shot".

10.4. A counter at the top right corner of the screen shows how many targets are left.

10.5. Press and hold the [b] key to return to Pause Mode.

11. Adaptive Voice Check: If Voice Release was enabled on your Tag, but when you call "Pull" a target is not released, try to call "Pull" louder and longer. If iPull is still not releasing targets, you can adapt it to your individual voice characteristics:

11.1. Press and hold the [\$] key. You will see a number countdown. Keep holding the key until the display shows *CHECK VOICE Call PULL*. If you release the key before the end of the countdown, the system returns to Pause Mode.

11.2. Stand in your normal shooting position and call your "typical" "Pull".

11.3. If display shows *CHECK VOICE FAIL*, call "Pull" again. After 5 failed attempts, iPull will revert to the Voice Release Mode.

11.4. If display shows *CHECK VOICE PASS*, call "Pull" again. This is just another test, targets will NOT release. If your "Pull" worked, iPull will revert to the Release Mode and will release targets on your call.

11.5. iPull will maintain your personal voice characteristics until a new RFID tag is logged in.

12. Adjust Voice Sensitivity – Manually adjust only the sensitivity parameter:

12.1. Press and hold the [?] Key. Press and release the [b/+] or [\$/-] keys to adjust the sensitivity. Higher number is more sensitive

12.2. Sensitivity levels 3 to 6 should cover most voices.

12.3. If targets are released from normal conversational voice levels, reduce the sensitivity.

12.4. iPull will maintain manual sensitivity settings until it is turned OFF.

Troubleshooting:

- Display shows "LOW BAT" and lights are flashing fast: Low battery. Inform the club personnel.
- On arrival to station, the system is not in Payment Mode:
 - If in Manual Mode, return to Voice Mode per Section 9 above and then abort per section 7 above.
 - If in Release Mode, abort per section 7 above.
- Broken Target(s):
 - Do not shoot broken targets. Release targets again to repeat the shooting step.
 - One broken target on a pair: Release targets again to clear the thrower. Do NOT shoot! When both targets are OK, call "pull" and shoot both targets.
 - Hit both targets with one shot: Release targets again to repeat the shooting step.
 - Shot at broken target(s) and shooting session ended: Your club gave you a few "Extra" targets. See Section 4 above for Adjusting the Number of Targets and reshoot a couple more targets.

- Gun/Ammo Malfunctions:

- Did not shoot at all: Release targets again to repeat the shooting step.
- Shot only one target on a pair:
Notice: If you shoot only one shot on a pair, the step will be repeated only once!
 - If problem is fixed, Release targets again to repeat the shooting step
- Gun cannot shoot doubles and you already shot the first target:
 - If a SINGLE, FOLLOWING or TRUE-PAIR, Release targets again to repeat the shooting step and shoot only the second target.
 - If a REPORT PAIR, Press and release the [\$] key, then release targets again and shoot only the second target.