

iPULL Pro - Sporting Clays User Guide

Overview

iPull 700 is a wireless, 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 can be set for automatic, voice or keypad release.

iPull wirelessly controls the target throwers via the Remote Receiver unit (RSU). Each RSU can be connected to one or two target throwers. A single iPull controller can control up to eight target throwers with up to three different targets menus for a variety of target presentation on a single station.

iPull has several release modes: Manual, Automatic and Voice activated. Your RFID Card will automatically set the iPull to your choice of Release mode.

- In Practice Mode, the RFID card must be attached to the iPull. Each target released is counted on the card and iPull is fully manual. Depending on the card settings, iPull can release A, B, pair A+B, Report A>B or singles A, B, C and D.
- In Auto and Voice release modes, you scan the cards, to "pay" for all the targets on the menu at once. 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. The first gunshot of a Report Pair automatically releases the second target. iPull detects your gunshots so it knows when a step in the shooting sequence has been completed and automatically moves to the next step. 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.

- 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 Card so you can press the key and have a few seconds to prepare to shoot.
- In Voice Release mode, you do not need to press any keys, just call "pull" to activate each step in the shooting sequence.



Place card
above gray area

Keys and functions

OPERATING MODE				
Key/Symbol	Payment <i>Before scanning card</i>	Voice/Auto Release	Pause/Special	Fully Manual/Practice
 [b]	[b] Hold. Shoot only two targets	[b] Release the next step in the sequence.	Hold [b] enter fully manual mode	From Voice/Auto: Hold [b] return to Pause mode
	[?] + [b] Increase number of targets	[?] + [b] Increase number of targets	[?] + [b] Increase Sensitivity	Press [b] and quickly let go, release C or Report A>B (depending or card)
 [▶]	[▶] Change menu level (if enabled)	[▶] Jump one Step in the shooting sequence	[?] + [▶] Abort and return to Payment mode	[▶] Release A
	[?] + [▶] Abort wrong Card refund	[?] + [▶] Abort and return to Payment mode, get a refund if applicable	[?] + [▶] Abort and return to Payment mode, get a refund if applicable	
 [?]	[?] + [b]/[\$] change number of targets	[?] Enter Pause mode	[?] Return to Release Mode	[?] Release B
	[?] + [b]/[\$] change number of targets	[?] Enter Pause mode	[?] + [b]/[\$] adjust Sensitivity	
 [\$]	[\$] Check Card Balance	[\$] See Report Pair	[?] + [\$] Decrease Sensitivity	[\$] Release True Pair A + B or D (depending or card)
	[?] + [\$] Decrease number of targets	[?] + [\$] Decrease number of targets	[?] + [\$] Decrease Sensitivity	
 [⊙]	[⊙] Wake from Sleep	[⊙] Wake from Sleep and back to payment mode	[⊙] Wake from Sleep	[⊙] Wake from Sleep and back to payment mode
	Reset to default number of targets and Level #1	Hold [⊙] abort session and back to payment mode		From Voice/Auto: Hold [⊙] abort session and back to payment mode

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

1. Purchase and Card Options:

1. **Purchase Targets:** Pay at the gun club’s cash register. The number of targets purchased will be loaded onto an RFID tag (card). 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 card is loaded with the number of targets you paid for plus some extras.
 - 1.1.2. Shoot-On-Tab: the card 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.

2. Selecting the card configuration:

- 2.1. The card will determine the release mode:
 - 2.1.1. If you would like to be able to release targets manually, much like traditional hand switch, select a Practice mode card. This card does not have automatic sequence release and gun shot detection. Depending on the settings of your card, you can have access to different target presentations as well as Solo-Delay (see table on right).
 - 2.1.2. If you are shooting alone or would like to use voice release for fully automated “no buttons” operation, select a Voice card.
 - 2.1.3. If you are part a of a group and would like to socialize and talk on the shooting stand, select an Auto card. Targets are released automatically with only one key [b] press on each step.
- 2.2. The card may determine the target menu level: Your RFID Tag may be set to automatically select the target menu level of your choice.

- 2.2.1. Example: Level 1 the standard menu, Level 2 beginner menu and Level 3 expert menu.
- 2.2.2. Example: Level 1, 100 target course, Level 2 50 target course Level 3 100 target special practice course.
- 2.2.3. When using a Voice or Auto card, the user can access a fully Manual mode. When using a Practice card, the user has access only to Practice mode which is fully manual. The level marked on the card and the value of Solo-Delay on the card, affect the target options in these modes as follows:

Card/Mode	Level	Solo Delay	Key Trap Release			
			[>]	[?]	[\$]	
Voice/Auto in Manual mode	#1	N/A	A	B	A + B	nothing
	#2	N/A	A	B	A + B	C
	#3	N/A	A	B	D	C
Practice Card (Admin)	#1	0	A	B	A + B	nothing
	#2	>0	A	B	A + B	Report A > B
	#3	N/A	A	B	A + B	C

- 2.2.4. For example: You want to shoot Practice mode alone on a course with Traps A and B. Have your card prepared with Practice mode, Level #1 and a SoloDelay of 3 seconds. You will have a delay of 3 seconds after pressing any key. The [b] key will throw “A” target first and 3 seconds later a “B” target to simulate a report pair.

3. **Selecting a "Show Target" option:** If using Auto or Voice card, there are two options for "Show Targets" allocation:
 - 3.1. Get a separate "ShowCard". This card or key FOB will be loaded with just enough targets to show on each station and will be set as a practice card. This arrangement gives the most flexibility in releasing manually and is optimal for a group situation.
 - 3.2. Use you Voice or Auto card to release targets without shooting the targets. You may be asked to "pay" for "wasted targets", but don't worry, the gun club allocated some extra targets for "Show Targets".
 - 3.3. If using a Practice mode card, your "Show Targets" will simply added on your card and discounted by the Gun club.

2. Get Familiar with iPull:

Before you leave the office, learn the basic functions of the iPull. iPull has several main operating modes. Here are the basic things you need to know:

1. **Payment Mode:** in Payment mode, the iPull is waiting for a card transaction. In Payment mode:
 - 1.1. The Red LEDs on the front panel are turned off.
 - 1.2. The display shows the station information. The station number (i.e.,S#11), total number of targets (i.e.,TGT:10) and current menu level (i.e.,LVL1) are shown on the top line. The bottom line scrolls through each step in the shooting sequence, such as SINGLE, REPORT, PAIR and FOLLOWING in the order targets are released. Note that the Traps are marked A, B, C, etc. If an automated timer sequence is programmed on the iPull, the delay to the next step is shown on the right side of the second line.



- 1.3. If the iPull is in **Sleep** mode, the [Ⓞ] key will wake it up. Otherwise, holding the [Ⓞ] key until the end of count down, resets the iPull to Menu level #1 with the nominal number of targets.
2. **Practice mode:** As you press the keys and release targets, the balance on the card will be reduced. In Release mode:
 - 2.1. The Red LEDs on the front panel are slowly alternating.
 - 2.2. If a SoloDelay is programmed on the card, after pressing a key, the LED(s) of the respective target will flash rapidly for the duration of the delay.
 - 2.3. The top line of the display shows the targets balance on the card and the second line shows which trap(s) is released by each key.
3. **Auto/Voice modes:** In Auto and voice mode, all the targets in the menu have already been charged to the card. In automatic release modes:
 - 3.1. The Red LEDs on the front panel are blinking.
 - 3.2. If a SoloDelay is programmed on the card, after pressing the [b] key, the LED(s) of the respective target will flash rapidly for the duration of the delay.
 - 3.3. The display shows the step number, description and number of targets left (i.e., 1.REPORT A>B **106**). The second line shows the release mode instructions. If an automated timer sequence is programmed on the iPull, the delay to the start of the step is shown on the right side of the second line.
 - 3.4. If the shooter before you left the iPull running in automatic release mode, press and hold the [Ⓞ] key to **abort** and return to "Payment mode".
 - 3.5. To abort from Auto/Voice and receive a **refund** on remaining targets: press and hold the [?] then press and hold the [▶] Key. Release both keys and place card on iPull.

3. Shooting with a Practice card:

If using a Practice card, simply insert the card into the loop on the back of the unit, verify positive balance and start releasing targets manually. There is nothing else to know.

4. Auto/Voice Step by Step Operation:

1. When arriving at a shooting station, observe the iPULL display:
 - 1.1. If the displays indicates the unit is in "SLEEP MODE", press and quickly release the [⊙] key. The unit will wake in "Payment mode".
 - 1.2. In "Payment mode" the display shows the station information. Check the bottom line to see each step in the shooting sequence.
 - 1.3. If the shooter before you left the iPULL in another menu level or set to release less targets, press and hold the [⊙] key until the end of a count down to reset the iPULL to default level #1 and nominal number of targets.
 - 1.4. If the shooter before you left the iPULL running in auto/voice release mode, you will see the RED light blinking. Press and hold the [⊙] key to return to "Payment mode".

2. Optional - Check the Balance:

- 2.1. Keep the card away from iPULL.
- 2.2. Press and release the [\$] key.
- 2.3. Hold the card not more than 1" above the gray area on the iPULL keypad.
- 2.4. The balance, shooting mode and menu level will be displayed. Remove the card and keep it away from iPULL.



3. **Log on:** Hold the card not more than 1" above the gray area on the iPULL keypad.

Notice: Hold card still until display shows: **REMOVE TAG!**

- 3.1. Normal Operation: iPULL charges the station's total targets to the card and shows the remaining balance on the bottom line of the display. Remove the Card. The system will go to Release Mode. See below.
- 3.2. Empty Card: You will see a message indicating how many targets were purchased and how many were Shot (wasted targets are not shown).
- 3.3. Low Balance: If the remaining balance on the card is less than the total number of targets on the menu, you will see a message and a count down. During the count down, you may remove the card and forgo shooting. At the end of the count down, iPULL will enter Release Mode allowing you to shoot the remaining targets.
- 3.4. Shoot just two more Targets: If you completed your sequence but would like to try a pair of targets again:
 - 3.4.1. Keep the card away from iPULL.
 - 3.4.2. Press and hold the [b] Key for 2 seconds. The display will show "02" on the top right corner.
 - 3.4.3. Log-on (step 3 above) and use the [▶] to select the target combination you would like to repeat. Release the target (See 4 below).
- 3.5. Adjust the Number of Targets: to shoot less than the nominal number of targets on a station:
 - 3.5.1. Keep the card away from iPULL.
 - 3.5.2. Press and hold the [?] Key then press and release the [\$/-] or [b/+] keys to adjust the number of targets.
 - 3.5.3. Log-on (step 3 above).

- 3.6. Once log-on is complete, the top line of the display shows the next step in the station's shooting sequence. If Voice Release was enabled on your card, the bottom line shows "READY-CALL PULL". Otherwise, the bottom line shows "READY-PRESS [b]". The number of shots remaining is shown the top left corner of the display.

⚠ No talking in Voice Release! Targets are counted!

4. **Start Shooting:** Call Pull (Voice) or press [b] key (Voice or Auto) to release targets.
- 4.1. **Solo Delay:** Solo Delay applies only to releasing with the [b] key. Voice is always instantaneous. If your card includes a "Solo Delay", you press the [b] key, the display will show the delay in seconds, LEDs will flash rapidly, and targets will be released only after the delay.
- 4.2. **Skipping a step:** Use the [▶] to jump to the next step.
- 4.3. If all targets on a step were shot at, iPULL automatically moves to the next step in the sequence.
- 4.4. When all targets logged are shot at, iPULL will revert to payment mode.
5. **Exceptions:** As you shoot there may be exceptions due to "show targets", broken targets, gun/ammo malfunctions, etc.
- 5.1. **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.
- 5.2. **Wasted Targets:** If you release targets without shooting, or if you shoot only the first target on a pair, you may be required to use the card and pay for "Wasted Targets". These targets will affect your balance.

Notice: if you release too many targets without shooting, you may not be able to complete the entire course and will have to pay for wasted targets!

6. **"Show targets":** Usually the first shooter on the squad is allowed to see a couple of targets. There are two ways to view targets:
- 6.1. **View with your card:** if you are shooting alone, show targets will be added to your card. Use the [▶] to select the step you would like to view. 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.
Notice: Do NOT shoot at "show targets" as gun shots will be counted as part of the shooting sequence. After targets are released, you may see a "Targets Wasted" message. Scan your card to return to release mode.
- 6.2. **Use a "ShowCard":** The Club may provide you with a "ShowCard" dedicated only to viewing targets. This card may look different than your standard Card. Before you start shooting, the first shooter holds the "ShowCard" on the iPULL and manually releases any two targets. See Practice mode above.

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 again with the same card 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 card:**
 - 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. Hold the card not more than 1" above the gray area on the iPULL keypad. Refunded targets will be added to your card and the new balance will be displayed. Remove the card and keep it away from iPULL.
 - 7.2.4. Note: Targets can be refunded only to the original card. If you do not have the original card used to pay for the session, abort the refund: Press and hold the [?] then press and hold the [▶] Key. Release both keys.

8. **Multiple targets on Timer Release:** iPULL 700 may be set to automatically release several steps (max. 8 steps and up to 16 targets) on a single [b] key press. The time delay to the start of the step will be displayed on the LCD. This option is intended for experts who can quickly reload and handle multiple targets.
 - 8.1. In Timer Release mode, iPULL does not attempt to count gunshots. Each target released is counted as target shot.
 - 8.2. You can pause the timer sequence by pressing and holding the [b] key and resume the sequence with another press of the [b] key.
9. **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.

5. 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:

1. **Switch to Manual mode:** The Fully Manual mode allows you to manually release targets at any order via the keypad.
 - 1.1. You can access manual mode 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.
 - 1.2. The operation of Manual mode is similar to Practice Mode.
 - 1.3. Press and hold the [b] key to return to Pause mode.

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

- 2.1. Press and hold the [?] Key. Press and release the [b/+] or [\$/-] keys to adjust the sensitivity. Higher number is more sensitive
- 2.2. Sensitivity levels 3 to 6 should cover most voices.
- 2.3. If targets are released from normal conversational voice levels 6’ away from station, reduce the sensitivity.
- 2.4. iPULL will retain the sensitivity adjustment 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:
 - Abort per section 4 subsections 7.1 above.
- Broken Target(s):

- Do not shoot broken targets. Release targets again to repeat the shooting step.
- One broken target on a pair: Do NOT shoot! Release targets again. 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 subsections 3.4 and 3.5 above for adjusting the number of targets and shoot more targets.
- Gun/Ammo Malfunctions:
 - Did not shoot at all: Release targets again to repeat the shooting step. Pay for Wasted Targets if needed.
 - 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.