BRB Systems USA Co.

Instruction Manual

Fully Wireless Counter Release System

IMPORTANT: Read and understand this manual before assembling, installing or using this system. Improper use of this system can cause serious injury

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(1) Safety Information

CAUTION:

This system is powered by electricity. To reduce the risk of electric shock, do not tamper with any part of the apparatus. There are no user serviceable parts of this equipment. Refer servicing to BRB Systems USA Co.

Make certain that any person assembling or installing this system has read and fully understood this Instruction Manual. It is your guide to safe and proper operation of this system.

- TX-101 Button Controllers are 6V powered by 4 AA batteries.
  AA batteries are small but powerful and must be treated with respect. Never short the ends of the battery together. Never burn the battery, even when you think it is fully discharged.
- RX-101 Receivers sold as 12V are to be powered with 12V dc power sources only. The 12V dc power sources that may be used are; 12V lead acid batteries, 12V regulated ac to dc power supplies and 12V dc power from the trap.
- RX-101 Receivers sold as 120V are to be powered with 120V ac power sources only. Do not defeat the safety purpose of the polarized or grounding type plug fitted to this apparatus. If the provided plug does not fit into your outlet consult a qualified electrician. Exterior 120V outlets should be GFCI protected for your safety. If the outlet is not GFCI protected then contact a qualified electrician for rectification.
- System Counter components sold as 12V units are to be used with 12V dc power sources only. The 12V dc power sources that may be used with the Counter units are; 12V lead acid batteries, 12V regulated ac to dc power supplies and BRB Power Packs.
- 12V lead acid batteries (such as car type batteries) contain acid and so extreme care must be taken when handing them.
- 12V car batteries are capable of supplying large amounts of current and care must be taken not to connect the + (red) and – (black) terminals together.
- Protect the power cord from being walked on, pinched or damaged in any way.
- Disconnect this apparatus from its power source during lightning storms or when unused for extended periods of time.
- Use only the attachment parts/accessories supplied by BRB Systems USA Co.

- Do not allow liquid entry into the system components.
- Ensure that the traps are disconnected from their power sources and unloaded before connection of the Receiver or set up of the Button Controller. Failure to do so could result in the unexpected operation of the trap causing serious injury.
- Ensure that the trap is disconnected from its power source and unloaded and that it is completely disconnected from the Receiver before attempting loading, maintenance or repair of the trap. Failure to do so could result in the unexpected operation of the trap causing serious injury.
- Extreme caution must be taken when a manually loaded trap is in use. This system is not able to determine whether a loader is ready for a target to be launched. Inadvertent operation of the system may cause serious injury to the loader.

(2) Installation

(2.1) Counter Unit

Installation of the Counter Unit should be to the side or rear of the shooting position, in such a place as not to obstruct or distract the shooter. The Counter Unit should be mounted either to a post, wall or tree and must be mounted vertically without obstruction between the antenna and the trap house.

Counter Unit Connections

Battery Power
10ft 2 core cable = Counter Unit power
Connect to battery with appropriate connectors.
Power +12V = Red
Power -12V = Black

(2.2) RX-101 Receiver

Using the cabling as supplied, each Receiver should be mounted vertically and within 10ft of the power and release connections of the trap.
To lengthen the power/release cabling use a connector that is rated for outdoor use and meets current electrical standards. Ideally the Receiver antenna should have an unobstructed line of sight to the Counter Unit antenna.

To make the Receiver connections to your traps, use the appropriate plug for the trap. Release plug and socket wiring diagrams for your trap can be obtained from your trap manufacturer or dealer.

Radio Signal Strength Indication (RSSI)

Optimum location of the Receiver can be ensured with the help of the RSSI feature of this equipment. When a message is received from the Button Controller or Counter Unit, the yellow 'SIG' LED will flash to show the strength of signal received.

- 1 flash = weakest signal that can release a target
- 5 flashes = strongest signal

Note – If a strong signal is received, but its message is corrupted (by radio frequency interference etc.) the LED will not flash.
Note - To avoid confusion between signals, if a signal is received within1 second of completion of the last sequence of flashes its strength will not be displayed on the 'SIG' LED.

Select the number of receivers and power type from the list below.

Receiver Connections – 1 Trap Receiver

12Vdc Power From Trap – 1 x Trap Receiver
10ft 4 core cable = Receiver power and trap release connections
Power +12V = Red
Power -12V = Black
Trap release connections= Green and White. Wire color orientation is not important.

120Vac Wall Outlet – 1 x Trap receiver
10ft 120V ac power cord = Receiver power
Plug into GFCI protected 120V outlet.
10ft 2 core cable = Trap release connections
Wire color orientation is not important.

Receiver Connections – 2 Trap Receiver

12Vdc Power From Trap – 2 Trap Receiver
10ft 2 core cable = Receiver power
Power +12V = Red
Power -12V = Black
10ft 4 core cable = Trap release connections

Red and Black = relay 1 trap release connections.
White and Green = relay 2 trap release connections.
Wire color orientation is not important.

120Vac Wall Outlet – 2 Trap Receiver
10ft 120V ac power cord = Receiver power
Plug into GFCI protected 120V outlet.
10ft 4 core cable = Trap release connections
Red and Black = Relay 1 trap release connections.
White and Green = Relay 2 trap release connections.
Wire color orientation is not important.

(3) User Options & Set Up

This equipment has been designed for ultimate versatility, which is achieved by offering a large number of user options. Each user option needs to be set. Unless specified otherwise when ordered, each piece of this equipment will be preset to factory settings before shipping. For many customers no changes will be necessary. Should you need to make any changes from the factory settings a comprehensive description of how to do so follows.

(3.1) Counter Unit Set Up

Each Counter Unit can be set by the club/owner into one of the following modes:

- No-load target counting - individual targets
- Preload target counting - rounds of 25 targets
- Free play

No-load target counting requires a Dongle to be in the Counter Unit at the time of shooting and charges the Dongle per shot. This counter mode is most commonly used by a shooter in the Sporting disciplines.

Preload target counting allows shooters to each load multiples of 25 targets onto a Counter Unit, where they are stored until used. Targets are preloaded by inserting and then removing a Dongle. This counter mode is most commonly used by single or multiple shooters, in the Trap or Skeet disciplines.

Free play mode allows the counter equipment to be used as a release system without any need for a Dongle to be inserted for payment.

To set/change a Counter Unit mode you will need the appropriate Programming Dongle (either a No-load Programming Dongle, Preload Programming Dongle or Free Play Dongle). Any Dongle can be made into a Programming Dongle by following the instructions in the Console instruction manual.

Setting a Counter Unit for No-load Target Counting

Power on the Counter Unit.
Insert No-load Programming Dongle into the socket.
The display shows Cntr then changes to donE.
Remove the No-load Programming Dongle.

Setting a Counter Unit for Pre-load Target Counting

Power on the Counter Unit.
Insert Pre-load Programming Dongle into the socket.
The display shows PreL then changes to donE.
Remove the Pre-load Programming Dongle.

Setting a Counter Unit for Free Play

Power on the Counter Unit.
Insert a Free Play Programming Dongle into the socket.
The display shows FrEE then changes to donE.
Remove the Free Play Programming Dongle.

Once a Counter Unit has been set to No-load Counting, Preload Counting, or Free Play it will stay in that mode even if powered off.

Counter Unit Dipswitch Settings

The Counter Unit identity is set with the upper of the three 8 position dipswitches. To access the dip switches carefully remove the cover without pulling the internal wiring that links between the cover and the enclosure body.

Switch numbers are printed on the body of the dipswitch.

TOP

1	2	3	4	5	6	7	8	
OFF	**CHN**	**CHN**	**CHN**	**CHN**	**CHN**	**CHN**	**CHN**	The 7 CHN switches must match between TX,RX and Counter – Used to set RF frequency

MIDDLE

1	2	3	4	5	6	7	8	
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	UNUSED – Set all OFF

BOTTOM

1	2	3	4	5	6	7	8	
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	UNUSED – Set all OFF

CHN Channel Dipswitches

The seven CHN dipswitches (#2-8 of the TOP dipswitch) set the frequency of the equipment radio communication and have 128 possible frequency variations. Using a unique CHN setting, for one set of Counter Unit, Button Controller and Receiver, eliminates cross calls between adjacent fields, because each field has a different working frequency.

The seven CHN dipswitch settings on the Receiver, Button Controller and Counter Unit must match for the system to operate.

(3.2) RX-101 Receiver Set Up

The Receiver identity and operation are set via the three 8 position dipswitches.

Receiver Dipswitch Settings

Switch numbers are printed on the body of the dipswitch.

SW3

1	2	**3**	**4**	5	6	7	8	SW3
OFF	**CHN**	**CNH**	**CHN**	**CHN**	**CHN**	**CNH**	**CHN**	The 7 CHN switches must match between TX, RX and Counter- Used to set RF frequency

SW2

1	2	3	4	5	6	7	8	SW2
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP1' responds to Transmitter button 'A'
OFF	OFF	OFF	OFF	**RESP**	OFF	OFF	OFF	Receiver relay 'TRAP1' responds to Transmitter button 'B'
OFF	OFF	OFF	OFF	OFF	**RESP**	OFF	OFF	Receiver relay 'TRAP1' responds to Transmitter button 'C'
OFF	OFF	OFF	OFF	**RESP**	**RESP**	OFF	OFF	Receiver relay 'TRAP1' responds to Transmitter button 'D'
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP2' responds to Transmitter button 'A'
OFF	OFF	OFF	OFF	OFF	OFF	**RESP**	OFF	Receiver relay 'TRAP2' responds to Transmitter button 'B'
OFF	OFF	OFF	OFF	OFF	OFF	OFF	**RESP**	Receiver relay 'TRAP2' responds to Transmitter button 'C'
OFF	OFF	OFF	OFF	OFF	OFF	**RESP**	**RESP**	Receiver relay 'TRAP2' responds to Transmitter button 'D'

SW1

1	2	3	4	5	6	7	8	SW1
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP1' closed time= 0.25 sec.
CLOSE	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP1' closed time= 0.8 sec.
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP2' closed time= 0.25 sec.
OFF	CLOSE	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP2' closed time= 0.8 sec.
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP1' re-cock time= 0.5 sec.
OFF	OFF	OFF	OFF	RCOC	OFF	OFF	OFF	Receiver relay 'TRAP1' re-cock time= 1.5 sec.
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Receiver relay 'TRAP2 re-cock time= 0.5 sec.
OFF	OFF	OFF	OFF	OFF	RCOC	OFF	OFF	Receiver relay 'TRAP2' re-cock time= 1.5 sec.

CHN Channel Dipswitches

The seven CHN dipswitches (#2-8 of SW3) set the frequency of the equipment radio communication and have 128 possible frequency variations. Using a unique CHN setting, for one set of Counter Unit, Button Controller and Receiver, eliminates cross calls between adjacent fields, because each field has a different working frequency.

The CHN dipswitch settings on the Receiver, Button Controller and Counter Unit must match for the system to operate.

RESP Relay Response Dipswitches
The four RESP dipswitches (#5, 6, 7 & 8 of SW2) set which Button Controller button controls which Receiver relay.

CLOSE Relay Closed Time Dipswitches
The 2 CLOSE dipswitches (#1 & 2 of SW1) set how long a relays contacts are closed for. For a target to be released, some traps require a longer receiver relay closed time than others. The CLOSE dipswitches allow for each relay within the receiver to be individually set to a closed time of 0.25 seconds or 0.8 seconds. If set too short the trap may start to move, but not release a target. If set too long a fast re-cocking trap may release more than one target for a relay closure.

RCOC Relay Re-cock Time Dipswitches
The two RCOC dipswitches (#5 & 6 of SW1) set the system re-cock time used with a Button Controller mode that releases automatic Following Pairs from the same trap. When a Following Pair is called for, the time between the 1st and 2nd target release can be set to 0.5 or 1.5 seconds to allow the trap time to re-cock. This setting should depend upon how fast your trap re-cocks and the preference of the shooter.

(3.3) Button Controller Set Up

(3.31) User Options

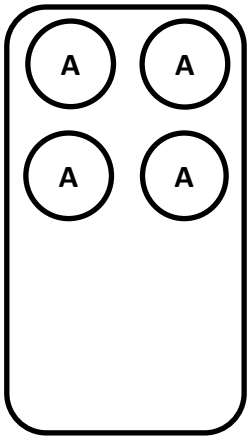
The TX-101 Button Controller and RX-101 Receiver combine to make a multi-purpose trap controller, capable of basic single trap releases through more complex sequences of up to four traps. Select your required discipline from the list below:

- **Trap** – 1 Trap
- **Skeet – Instant release** – 2 traps
- **American Skeet 0-1 sec random delay** – 2 traps
- **International Skeet 0-3 sec random delay-** 2 traps
- **Sporting** – 2 traps
- **Super sporting** – 3 traps
- **Quad Sporting** – 4 traps

Each discipline with two or more traps has two options of button layout, one basic and one advanced. Advanced options include features such as; Automatic Report Release, Automatic Following Pairs and Skeet Sequences.

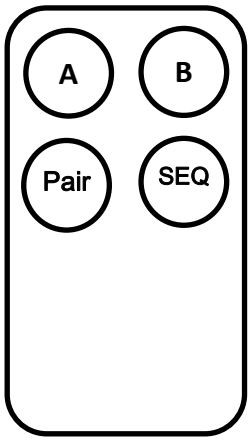
Select your required button layout from the following choices.

(3.32) Button Controller - Button Options



Trap - 1Trap
Manual or Voice Release
Instant or Solo Delay

Single
Press any **A** button to release Trap A

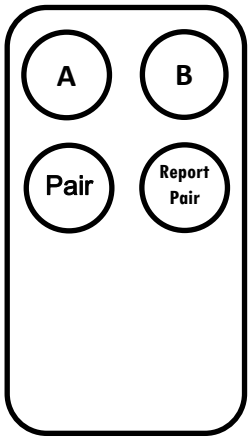


Skeet/Sporting -2 Traps
Manual release
Instant or Solo Delay

Single
Press **A** to release Trap A
Press **B** to release Trap B

Double/Pair
Press **Pair** to release a True Pair

Timed Following Pair
Press **SEQ**
LED lights, buzzer sounds. Unit is in SEQuence mode.
Press **A** then **A** to release A then A
Press **B** then **B** to release B then B
Press **A** then **B** to release A then B
Press **B** then **A** to release B then A

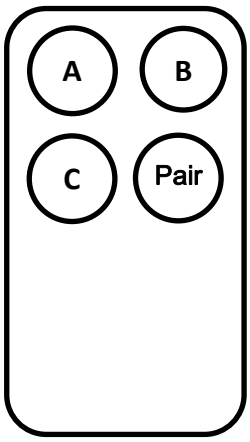


Advanced Sporting - 2 Traps
Manual or Voice Release
Instant or Solo Delay

Single
Press **A** to release Trap A
Press **B** to release Trap B

Pair
Press **Pair** to release a True Pair

Report Pair Using Internal Microphone
Press **Report Pair** then
Press **A** to release Trap A first (Trap B on report)
or
Press **B** to release Trap B first (Trap A on report)

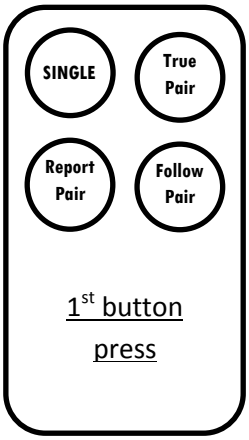


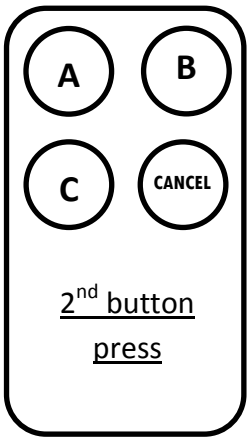
<u>Super Sporting</u> – 3 Traps
Manual or Voice Release
Instant or Solo Delay

<u>Single</u>
Press **A** to release Trap A
Press **B** to release Trap B
Press **C** to release Trap

<u>Pair</u>
Press **Pair** then
Press **2 buttons together** of 2 traps required, to release a True Pair

<u>Advanced Super Sporting</u> - 3 Traps
Manual or Voice Release Instant or Solo Delay



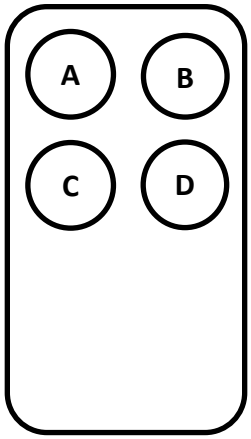


<u>Single</u>
Press **Single** followed by **A** to Release Trap A
Press **Single** followed by **B** to Release Trap B
Press **Single** followed by **C** to Release Trap C

<u>Report Pair Using Internal Microphone</u>
Press **Report Pair** then
Press **A**, **B** or **C** -1st trap to be released, then
Press <u>& release quickly</u> **A**, **B** or **C** -2nd trap to be released on report

<u>Pair</u>
Press True **Pair** then
Press **A**, **B** or **C** – 1st trap of pair, then
Press **A**, **B** or **C** – 2nd trap of pair

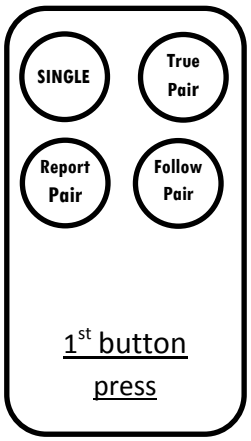
<u>Following Pair From 1 Trap</u>
Press **Following Pair** then
Press **A** for a Following Pair from Trap A
or
Press **B** for a Following Pair from Trap B
or
Press **C** for a Following Pair from Trap C



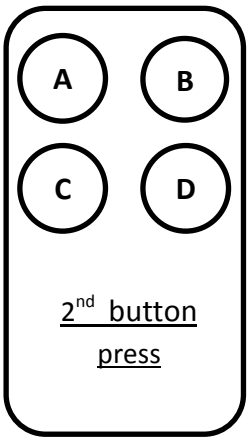
Quad Sporting– 4 Traps
Manual or Voice Release
Instant or Solo Delay

Single - Target is released when button is released
Press and release **A** to release Trap A
Press and release **B** to release Trap B
Press and release **C** to release Trap C
Press and release **D** to release Trap D

True Pair
Press **2 buttons together** of 2 traps required, to release a True Pair



Advanced Quad Sporting-4 Traps
Manual or Voice Release
Instant or Solo Delay



Single
Press **Single** followed by **A** to Release Trap A
Press **Single** followed by **B** to Release Trap B
Press **Single** followed by **C** to Release Trap C
Press **Single** followed by **D** to Release Trap D

Report Pair Using Internal Microphone
Press **Report Pair** then
Press **A**, **B**, **C** or **D** -1st trap to be released, then
Press & release quickly **A**, **B**, **C** or **D** -2nd trap to be released on report

True Pair
Press **True Pair** then
Press **A**, **B**, **C** or **D** – 1st trap of pair, then
Press **A**, **B**, **C** or **D** – 2nd trap of pair

Following Pair From 1 Trap
Press **Following Pair** then
Press **A** for a Following Pair from Trap A
or
Press **B** for a Following Pair from Trap B
or
Press **C** for a Following Pair from Trap C
or
Press **D** for a Following Pair from Trap D

Using the tables and descriptions below as a guide, set your selected discipline and button layout into the Button Controller.

Button Controller identity and operation are set via the three 8 position dipswitches accessed by removing the battery cover and the batteries.

Button Controller Dipswitch Settings

Switch numbers are printed on the body of the dipswitch.

TOP

1	2	3	4	5	6	7	8	
OFF	**CHN**	**CHN**	**CHN**	**CHN**	**CHN**	**CHN**	**CHN**	The 7 CHN switches must match between TX, Rx and Counter – Used to set frequency

MIDDLE

1	2	3	4	5	6	7	8	
OFF	OFF	OFF	OFF	OFF	MIC	MIC	MIC	The 3 MIC dipswitches set the microphone sensitivity

BOTTOM

1	2	3	4	5	6	7	8	
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	TRAP
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	SKEET / SPORTING - Instant Release
ON	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	INTERNATIONAL SKEET – Random Delay 0-3 Seconds (Ignores a set 1/6th second delay)
ON	OFF	OFF	OFF	OFF	OFF	**ON**	OFF	AMERICAN SKEET- Random Delay 0-1 second (Ignores a set 1/6th second delay)
OFF	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	ADVANCED SPORTING
OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	SUPER SPORTING
OFF	OFF	**ON**	OFF	OFF	OFF	**ON**	OFF	ADVANCED SUPER SPORTING
OFF	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	QUAD SPORTNG
OFF	OFF	OFF	**ON**	OFF	OFF	**ON**	OFF	ADVANCED QUAD SPORTING
ANY	ANY	ANY	ANY	DEL	ANY	ANY	ANY	1/6th SECOND DELAY added before first release (Every game except random skeet delays)
ANY	ANY	ANY	ANY	ANY	ANY	ANY	**REP**	REPEAT VOICE MODE – all games (Repeats last call if mic. detected)

CHN Channel Dipswitches

The seven CHN dipswitches (#2-8 of the top dipswitch) set the frequency of the equipment radio communication and have 128 possible frequency variations. Using a unique CHN setting, for one set of Counter Unit, Button Controller and Receiver, eliminates cross calls between adjacent fields, because each field has a different working frequency.

The CHN dipswitch settings on the Receiver, Button Controller and Counter unit must match for the system to operate.

DEL Release Delay Dipswitch
The DELAY dipswitch (#5 of the BOTTOM dipswitch) is used to add a 1/6th second delay before the release of a target or sequence.
This delay is not added to American or International Skeet modes.

REP Repeat Voice Release Dipswitch
The REPEAT dipswitch (#8 of the BOTTOM dipswitch) is for voice release only.
In this mode when a call is made and a target (or sequence) is released, the unit will rearm for another release that is the same as the last. This will continue until a new button sequence is pressed.

MIC Microphone Sensitivity Dipswitches
The three MIC dipswitches (#6, 7 & 8 of the MIDDLE dipswitch) are used to set the sensitivity of whichever microphone is plugged in. The sensitivity will be preset to a standard setting at the time of purchase and may not need to be changed by the user. However, the sensitivity can be changed up or down using the eight possible settings in the chart below.

Note: For optimum lapel microphone performance, clip the microphone to the clothing directly below and as close to the chin as possible, facing directly upwards.

Note: The more sensitive the microphone setting the lower the ability to ignore unwanted background noise.

6	7	8	
OFF	OFF	OFF	**MOST SENSITIVE**
OFF	OFF	**ON**	
OFF	**ON**	OFF	
OFF	**ON**	**ON**	**STANDARD PRE-SET SENSITIVITY**
ON	OFF	OFF	
ON	OFF	**ON**	
ON	**ON**	OFF	
ON	**ON**	**ON**	**LEAST SENSITIVE**

Once the dipswitch settings have been made, install the 4 x AA batteries into the rear of the Button Controller. Take care to ensure correct orientation. Each battery direction is clearly marked inside the battery cavity.

(4) Operation

(4.1)Counter Unit Operation

(4.1.1) No-load Target Counting

Dongles

To release a target using a Counter Unit set to No-load Counting, a Dongle must be inserted into the Counter Unit socket and left inserted for as long as the shooter requires targets to be released. If the Dongle is set to Count Up mode, then the shooter may release 10,000 individual targets before the Dongle will need to be reset. If the Dongle is set to Count Down mode then then the club must preprogram the required number of individual targets into the Dongle using the Console. Any amount between 0 and 999 can be programmed.

Once the Dongle has been inserted and the Counter Unit is powered on, the unit will stay powered for 30 minutes after use has stopped. Once the Dongle has been removed the display will read IdlE and wait for another Dongle for 10 seconds. If none is inserted after 10 seconds the Counter Unit will power off.

Count/Credit – Counting Up

With a Counter Unit powered on and a Count Up Dongle inserted, the display will show the number of targets that Dongle has released. The count of a Count Up Dongle will read between 0 and 10,000 and will be displayed as follows:

1234

The Dongle has recorded the release of 1234 targets.

When a Dongle has released 9999 targets no more targets will be released and an audible 'Beep; will sound. To release more targets using this Dongle the count must first be cleared using the Console.

Count Credit - Counting Down

With a counter powered on and a Count Down Dongle inserted, the display will show the amount of target credit available. The credit remaining on a Count Down Dongle will be displayed as follows:

.9.8.7

The Dongle has a credit remaining of 987 targets.

When the count reaches zero no more targets can be released until more count is added to the Dongle using the Console.

If a user attempts to release a target with zero credit on a Dongle, or release a pair in Count Down mode with a credit of only 1 available, the user will hear an audible 'beep' to inform them that no credit exists.

(4.1.2) Preload Target Counting

Dongles

To release a target using a Counter set to Preload Counting mode, a Counter Unit must have stored credit of at least 1. Credit is added to the Counter by inserting a Count Up or Count Down Dongle that is has at least 25 targets available.

When a Preload Counter is powered on, the display will show the count credit that is already stored in it. This figure will be between 0 and 999.

When a Dongle is inserted into the Counter, the Counter will take 25 targets from the Dongle and the previous credit shown on the display will rapidly increase by 25 targets. If the Counter has been set by the club/owner to give extra targets for each round of 25, to allow for broken targets, these will also be added to the Counter credit.

Once the Dongle has been inserted and the unit is powered on, the unit will stay powered for 30 minutes after use has stopped.

If a Dongle is inserted that does not have enough credit to allow 25 targets to be taken from it, the display will flash the amount of credit available on the Dongle to make the shooter aware that the credit is insufficient. When the Dongle is removed the display will return to showing the Counter stored credit.

Count/Credit

With a Counter powered on the display will show the amount of target credit already stored on the unit. A Preload counter display always displays and releases targets by counting down.

.2.3.4

The Counter Unit has a 234 target credit. When the count reaches zero no more targets can be released until more count is added to the counter using a Dongle.

When a Count Up Dongle is used to credit the Counter, 25 targets will be added the count already stored on the Dongle.

When a Count Down Dongle is used to credit the Counter, 25 targets will be subtracted from the count credit stored on the Dongle.

When either a Count Up or Count Down Dongle is removed, the target credits remain stored in the Counter Unit. If more credit needs to be added, reinsert the Dongle. Other shooters can add credit by inserting their Dongles.

If a shooter attempts to release a target with zero credit on the Counter Unit, or release a pair of targets with only 1 credit available, an audible 'beep' will sound to inform the shooter that no credit exists and no target will be released.

Erasing Unused Targets

Any unused target credit stored on the counter can be removed by inserting a Preload Programming Dongle into the Counter Unit. The display will show PreL done then the display will show zero credit.

(4.1.3) Free Play

Dongles

To release a target, using a Counter unit set to Free Play mode, it is not necessary to insert any Dongle. If a dongle is inserted into the counter the display will flash FrEE to alert the shooter, until the Dongle is removed.

Count/Credit

When a Counter Unit set to Free Play mode is powered on the display will read FrEE and any target combination can be released.

(4.14) All Counter Modes

Ground ID

If a Dongle with the wrong Ground ID is inserted, no target can be released. The Counter Unit display will show FaiL Err3 will be until the Dongle is removed.

Instant Release or Solo Delay Selection

Selection of the users required shooting mode, Instant Release or Solo Delay, is made by the toggle switch on the front of the counter. Voice release is selected by installing a microphone into the TX-101 Transmitter.

- Instant Release Mode: Releases all targets immediately upon pressing the required target button or by Voice Release.
- Solo Delay Mode: Initiates a 5 second delay with audible 'beeps' down to the first target release. After the first target release, (if applicable) there is a 4 second delay before the second target is released. Target release can be manual or by voice.

(4.2) RX-101 Receiver Operation

When connected to its power source, the green 'PWR' LED will light on the Receiver and will stay lit as long as a good power level is maintained.

If the power supply voltage drops below 10.5V the 'PWR' LED will flash continuously to signify low power.

When the Receiver relay closes the corresponding relay LED will light for the time that the relay is closed. When the relay opens, the LED will flash rapidly during the trap reload time.

Radio Signal Strength Indication (RSSI)
Optimum location of the Receiver can be ensured with the help of the RSSI feature of this equipment. When a message is received from the counter unit the yellow 'SIG' LED will flash to show the strength of signal received.

- 1 flash = weakest signal that can release a target.
- 5 flashes = strongest signal.

Note – If a strong signal is received, but its message is corrupted (by radio frequency interference etc.) the LED will not flash.
Note - To avoid confusion between signals, if a signal is received within1 second of completion of the last sequence of flashes its strength will not be displayed on the 'SIG' LED.

(4.3) TX-101 Button Controller Operation

The Button Controller has no power on switch. When you want to use it simply press the appropriate button or sequence of buttons. The unit awakens immediately and releases the target(s).

For optimum performance stand facing toward the counter when holding the Button Controller, with the antenna in the vertical position.

Low battery

If a low battery voltage is detected the red 'LO BATT' LED lights for 10 seconds at the start of each button sequence.

Manual Operation

To manually release a single, pair or target sequence, press the corresponding Button Controller button(s). The time between the last button being pressed and the Receiver relay closing is less than 1/20th second.

If 1 or more button presses of a sequence are made, but the sequence is not completed, the unit will wait for up to 5 seconds for the sequence to be completed. If the remainder of the sequence is not entered during that time the unit will reset ready for the next sequence to be entered.

Release Of An Automatic Report Pair

In any of the Sporting modes an automatic Report Pair can be released via the units internal report microphone.

"**PULL**"- 1st target is released – **BANG** - 2nd target is released.

When a Report Pair is released, if no gunshot is detected after 5 seconds the unit will reset ready for a new sequence.

Automatic Following Pair

An automatic Following Pair from the same trap can be released in Advanced Super Sporting and Advanced Quad Sporting modes. In these modes a second target will be released after the 0.5 sec or 1.5 sec re-cocking time that has been set in the RX-101 Receiver.

Voice Release Operation

When either the supplied lapel microphone, or the optional full size microphone are plugged in to the TX-101 Transmitter, the unit automatically recognizes that it is in voice release mode. A target now cannot be released manually.

To release a target the procedure is the same for each discipline. Press the appropriate button or sequence that you want to be released. One second after the button is pressed the microphone will listen for your call. Call for the target and the target will be released.

If no call is heard after 30 seconds of the button sequence being pressed, the unit will reset and will require a new button sequence to be pressed to release a target.

After a target has been released the unit will close the microphone for 2 seconds during which time no more targets can be released.

When the microphone jack is removed from the TX-101 Transmitter the unit returns to a manual button release.

REP – Repeat Voice Mode

When a target is released with REPEAT voice mode switched on, after the 2 seconds microphone closed period, the microphone will listen for another call. When a call is heard the same target will be released as the last. This will continue until a different button selection is made.

When REPEAT mode has not been switched on, another button press sequence is required to release a target.

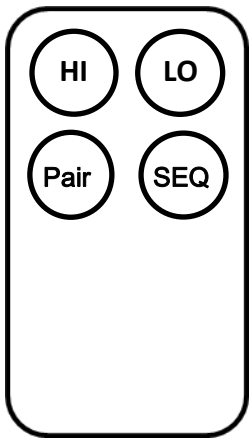
Skeet Sequence - Voice Mode (SEQ)

In voice release mode (when a microphone is detected) Timed Following Pairs are replaced with a 2 target user selectable Skeet sequence

Release of targets is as follows:

"**PULL**"–1st target is released - **BANG** - "**PULL**"–2nd target is released.

The Skeet button layout on the TX-101 now becomes:



Skeet – 2 Traps
Voice Release
Use with Instant Release

Single
Press **HI** to release trap A
Press **LO** to release trap B

Double /Pair
Press **Pair** button to release a Double

Skeet Sequence
Press **SEQ** to enter Sequence mode. LED lights and buzzer sounds

High Followed By Low
Press **HI**

Low Followed By High
Press **LO**

Skeet Sequence mode can be used with the REPEAT mode to repeat the sequence until a new button sequence is selected.

(5) Counter Codes

If the Counter Unit sees a Dongle with the incorrect ground ID or cannot read a Dongle the display will show an error message until the Dongle is removed.

'**Err 3**' = Bad ground ID. Dongle is from another ground.

'**Err 5**' = Cannot read Dongle.

(6) Maintenance

The rugged manufacturing of this Fully Wireless Counter System should ensure many years of trouble free use if it is not abused and given simple maintenance.

- Do not allow any component to be immersed in water.
- Do not leave the equipment outside, in the weather, for indefinite periods of time. Store in a cool dry place.
- Regularly inspect the equipment for wear or damage. If any wear or damage is found seek service from BRB Systems USA Co.

Should difficulty be found with the system operation, do not dismantle any part of the system. This will void the warranty and may result in an electric shock or fire.

Refer servicing to BRB Systems USA Co.

(7) BRB Systems USA Co. - Limited Warranty

This BRB Systems USA Co. product, supplied in the original packaging to the original purchaser, is warranted by BRB Systems USA Co. against manufacturing defects in materials and workmanship for a limited warranty period of:

One (1) Year Parts and Labor.

This limited warranty begins on the original date of purchase and is valid only on products purchased and used in the USA.
This warranty will terminate automatically prior to its stated expiration if the original purchaser sells or transfers the product to any other party.

BRB Systems USA Co. will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above.
All replaced parts and products become the property of BRB Systems USA Co. and must be returned to BRB Systems USA Co.
Replacement parts and products assume the remaining original warranty or ninety (90) days, whichever is longer.

This limited warranty covers defects in materials and workmanship encountered in normal use of this product and shall not apply to defects or injuries caused by the following, including, but not limited to: damage which occurs in shipment; delivery and installation; applications and uses for which this product was not intended; product alterations not authorized by BRB Systems USA Co.; cosmetic damage or exterior finish; accidents; neglect; fire; water damage; vermin or insect infestation; lightning or other acts of nature; use of products, equipment systems, utilities, services, supplies, accessories, applications, installations, repairs, external wiring or connectors not supplied or authorized by BRB Systems USA Co. which damage this product or result in service problems; incorrect electrical line voltage; fluctuations and surges; customer adjustments and failure to follow operating instructions, cleaning, maintenance and environmental instructions that are covered and prescribed in the Instruction Manual.
BRB Systems USA Co. does not warrant uninterrupted or error-free operation of the product.

BRB Systems USA Co. shall not be liable for loss of revenue or profits, failure to realize savings or other benefits, or any other special, incidental or consequential damages caused by the use, misuse or inability to use this product, regardless of the legal theory on which the claim is based, even if BRB Systems USA Co. has been advised of the possibility of such damages. Nor shall recovery of any kind against BRB Systems USA Co. be greater in amount than the purchase price of the product sold by BRB Systems USA Co.
Without limiting the foregoing, the purchaser assumes all risk and liability for loss, damage or injury to purchaser and purchaser's property and to others and their property arising out of the use, misuse or inability to use this product sold by BRB Systems USA Co. not caused directly by the negligence of BRB Systems USA Co.

To receive warranty service contact BRB Systems USA Co. for problem determination and service procedure. If it is determined that the product requires warranty service, ship the product, in its original packaging or its equivalent, together with proof of purchase, prepaid insured to BRB Systems USA Co.

Products repaired or replaced under warranty will be returned to you, within a reasonable time, freight prepaid.

To obtain warranty service contact BRB Systems USA Co. at:

brbsystemsusa@yahoo.com or call: 412 773-2128.