Date: July 14, 2019
From: Ron Brooks (CGC Member)
Subject: Quick Start ERAD User Guide (Trap & Skeet Fields 1,2,3,4)

Sole purpose of this email is to act as a **Quick Start Guide (QSG)** to those making use of their ERAD Transmitter for the first time. In addition, a full set of instructions has been attached for that time you as a user look to experience more of their ERAD's true potential (Trap & Skeet Only).

A Word Of Caution: If you get a bit too deep into what all the other menus contained in your ERAD are and you begin pushing buttons haphazardly. You might very well alter the internal configuration of your ERAD beyond what the average user is capable of undoing without consulting ERAD (*817-244-1761 / Fort Worth Texas*). PS: The people at ERAD expect to be called when you are not sure of something and require a simplified answer to whatever your questions are. So don't hesitate to call them when needed else you will not gain an appreciation as to how simple a device your ERAD really is. I did! Enjoy!

<u>Buttons are sensitive so push them quickly else they will repeat.</u>

QSG #1 = 13 Commands
Purpose = Setting your ERAD Transmitter to a specific Field & Game as your default.
Advantage = This step affords the convenience of only having to enter two commands when returning to Cherokee to shoot the same Game on the same field / each and every time. **(See QSG #1A)**.
1st Command = Press any key to wake up the unit (let it cycle thru until the screen displays "STD*BY")
2nd Command = Press ENT/EDT key once (screen should read "PIN*NB")
3rd Command = Press ENT/EDT key once (screen should read "unlock")
4th Command = Press the ENT/EDT key once again (screen should display "******")
5th Command = Hold on to the 9 key until all blanks are filled with 9's (999999)
6th Command = Press ENT/EDT key once and it should take you back to STD*BY
7th Command = Press SEL key once (screen should read "Mode")
8th Command = Press 0 key once (screen should read "Game")
9th Command = Press ENT/EDT key once (screen should read "TRAP *S" representing Trap Singles)
10th Command = Continue to Press "0" key till screen reads the Game you wish your ERAD to be set for. For ERAD beginners I suggest either TRAP*S for Trap singles, SKET*S for Skeet Standard or SKET*D for Skeet Doubles.
11th Command = Press ENT/EDT key once and it should take you back to STD*BY
12th Command = Now push the 4 & 6 keys at the same time once...(screen should display a number)
13th Command = Use the up and down arrows to get to your desired FLD (Field) number and push ENT/EDT key once. The ERAD will now turn itself off (Blank Screen). ERAD is now Pre-Programed to your personal preference / default.

QSG #1A = Turning your ERAD on and begin using at the default setting entered in **QSG #1**.
1st Command = Press any key to wake up the unit (let it cycle thru until the screen displays "STD*BY")
2nd Command = Press the FLD (Field) key once and unit now displays the Game you selected as your default (<u>TRS11</u> (TRAP SINGLES), <u>SKH*01</u> (Regulation Skeet) or <u>SKD*01</u> (Skeet Doubles)) and now ready for you to call for a Bird (PULL).

Clip ERAD to your left Lapel (RH Shooter) or right Lapel (LH Shooter) with Antenna pointing downwards.
Push the #1, #2 or #3 Button to manually release a Bird.
ERAD turns itself off in 30 min with no activity and resets back to 30 Min with activity.
*To temporarily pause your ERAD when not actively shooting push the Field Button and the unit will go into "Stand*By Mode". To wake your ERAD and continue shooting press Field Button once more.*
As an alternate means of temporarily pausing your ERAD with the FLD Button. Press the "UP" (9) Button to turn off the Mic and then the "Down" (8) to reinitiate.
Setting your ERAD to shoot Trap Doubles will not work. Reason = Trap Machines are not electrically equipped to do so.
Should you have difficulty interpreting the attached document the Tech's at ERAD are there to assist whenever called upon to do so. 817-244-1761 / Fort Worth Texas

E R A D

P.O. Box 121715
Ft. Worth, TX 76121

Ph: 817-244-1761
Fax: 817-244-1796
Email: eradusa@earthlink.net

06-28-16

XT2004 Wireless Remote Transmitter 418 MHZ

E R A D has designed a **Bird Management** Voice Controlled Wireless Release   **Transmitter** and Receiver for use in the Clay(s) shooting industry. This system provides complete control and programming for Trap shooting, Skeet shooting, Five Stand, Sporting Clays, and Outdoor (Personal back yard systems), etc. The system is designed to provide Clubs and Individuals significant benefits over the current systems available and major benefits over manual pulling of the clays.

The XT2004 transmitter is the size of a credit card, a little over one quarter of an inch thick. It contains an "LCD" (Liquid Crystal Display) for displaying of data to the shooter, and a 16 position "Keypad" for control and data entry. Access to any given transmitter is via a personal "PIN" number limiting access to the individual owner. Powered by 2 each "2450" button cell batteries, life expectancy is approximately 1 year, (available from most grocery, drug, Wal-Mart, Target stores etc.). The RC2004 receiver is approximately 6" x 4" x 1 1/2" thick, and is installed by simply connecting it in place of the pull cord. The receiver does NOT require batteries and may be permanently installed.

Installation of the XT2004 transmitter typically is by clipping to the user's collar on the opposite side from the gun. The transmitter weighs a mere 1.80 Ounces.

HOW TO ACTIVATE THE EXTERNAL MANUAL MODE OF A TRANSMITTER

The transmitters are normally shipped with the "External manual mode" activated. This is a special, one button activation mode typically used for Trap, with each "Transmitter" set for a dedicated field. If you activate this mode by following the instructions listed below, you must use the Transmitter on the same "Field number" as the "Receiver" that is mounted in the Trap house. For example, if the Transmitter is set for External Manual Mode Field (3), then it must be used with the Receiver that is identified as Field number (3). If this "Field number" programming, needs changing, see the (4) + (6) key function on page 11 of this manual. **If you unlock the Transmitter by entering the pin number this function becomes inactive and you may now log onto ANY field by using the normal field log on function, (FLD)(X)(FLD).**

1)   Press any **RED** key to wake the transmitter up. After it completes the power up sequence, the display will show "STD*BY" (Stand by).

   NOTE, if at anytime the display does **NOT** show "STD*BY" press the (SEL)   Select key to return the unit to the (Stand by) mode.

2)   Press the (FLD) Field key one time. The display will show TRS*11 or TRD*11 (Trap Singles or Trap Doubles, station 1 bird 1) if the game(s) of Trap are selected under the "GAME" function. The transmitter is now **VOICE ACTIVE**. Pressing the (1, 2, 3, 4, 5, or 6) key will release a bird. Pressing the (FLD) key a second time will return you to "STD*BY".

   NOTE, at this point (TRS*11 or TRD*11) pressing the (D/A) Down Arrow will turn off the "Mic" (voice call is not active) and pressing the (U/A) Up Arrow will reactivate the "Mic".

XT2004 Start up

How to get started when the DISPLAY is blank (unit is in the SLEEP mode). If the DISPLAY is not blank you need to find out where the unit is. You may need to touch the (SEL) select key to bring you back to (STD*BY) stand by.

Note: **To press a key, use the ball of your thumb. This is a very fast keypad so do NOT hold the key down. Simply depress it with a clean sharp press and release. Holding it down will cause multiple reads and loading of the key. For example 99 or 999.**

   For further detailed information refer to this manual.

1)   Touch any key to wake the unit up. The display will show the current complier version, for example (C3*249), the current software revision, for example (REV*11), and the serial number of the unit.

2)   The display will then change to show (STD*BY) stand by.

3)   Press the (EDT) edit key one time. The display will show (PIN*NB) pin number. The unit realizes it needs the pin number loaded.

4)   Answer yes to the (PIN*NB) by touching the (EDT) key once again. The display will show (UNLOCK). The unit is asking you if you want to unlock it.

5)   Press the (EDT) key once to answer yes. The display will show (******). Enter 999999 and press the (EDT) key. If you have loaded the correct pin number (in this case we used 999999 as the pin number), the display will show (STD*BY). If you entered the incorrect pin number the display will show (FAILED). Simply reenter the pin number and touch the (EDT) key again. **The unit is now unlocked and ready to use. Go to step 6.**

6)   If you have not already done so, you need to select the "Game" you wish to shoot. You do this by touching the (SEL) key. The display will show (MODE). Press the (9)(U/A) key one time until the display says (GAME).

7)   Press the (EDT) key once and the display will show you the current "Game" that is selected. If this is not the game you want to shoot, press the (9)(U/A) key or the (8)(D/A) key to change to the "Game" you wish to shoot.

    TRAP*S   Trap singles (16 yard and Handicap)
    TRAP*D   Trap doubles
    SKET*S   Skeet Standard
    SKET*I   Skeet International ** ("**Low gun**" may require mic adjustment)

    ** Note: If (DLY*FR) is set to (DL*RND) you will get a 0-3.0 second random delay. If set to (DL*FIX) the delay will be the user's fixed delay programmed under the (DELAY) function.

    SKET*D   Skeet doubles
    CUST*G   Custom game
    SPRT*C   Sporting clays
    5STD*B   Five stand beginner
    5STD*I   Five stand intermediate
              5STD*P Five stand professional

8)   After selecting the game press the (EDT) key to accept and save the game. The display will return to (STD*BY). You are ready to log on to a field.

9)   To log ON to a field press the (FLD) field key one time. The display will show (FIELD). Type in the field number that you are on, for example, 2, and press the (FLD) key again. Example (FLD) (2) (FLD), will log you on to field 2. If you accidentally press the wrong number(s) touch the (N/B) no bird key to clear the display back to "0" zero. At anytime prior to actually logging on to a field, you can touch the (SEL) select key to return to the (STD*BY) function in step 5. When you log ON to a field the display will show (MIC*OF) mic off. At this point the unit is ready to use short of turning the mic on with the (9)(U/A) nine/up arrow key. The display will show (MIC*ON) for a 1/2 second and will then display the station you are on. It is recommended that you wait until you are on the station to turn the mic on. To turn the mic off simply, touch the (8)(D/A) eight/down arrow key.

10)   To log OFF a field touch the (FLD) key twice. For example, (FLD) (FLD). Note that if you are logged ON a field and someone has elected to enter the menu, that is, the display shows one of the menu functions (See this manual), you must touch the (SEL) key to exit the menu function to be able to log OFF a field. You can only log OFF a field if the display shows, (END) end of game, (MIC*OF) mic off, or a station position for example (TRS*11) Trap singles, station 1, bird 1. With any of these three items in the display you can log OFF the field.

11)   After logging ON to the field you have 30 minutes to do something or the unit will go back to sleep. If you touch any key, or call for a bird the timer will be reset to 30 minutes each time. When NOT logged on a field you have 15 minutes to touch a key or the system will go to sleep. This is to conserve battery life. If the unit goes to sleep (the display goes blank) simply go to step 1 to wake up the unit and enter the pin number.

12)   **IMPORTANT!!!** If you have a broken bird you must touch the (N/B) No Bird key once to reload the shot. If you are shooting **TRAP**, you do **NOT** have to do this before YOU call for the next bird. Just touch it one time for each broken bird before the end of the game. HOWEVER, you can NOT touch it 2 or 3 times in a row for 2 or 3 broken birds. YOU must release a bird between each press of the key for it to function. Pressing it multiple times will only reload one bird between releases. See step 13 and 14.

13)   When logged ON to a field, pressing the (7)(L/A) Seven/left arrow key will back you up one bird each time it is pressed.
14)   When logged ON to a field, pressing the (0)(R/A) Zero/right arrow key will move you forward one bird each time it is pressed.

15)   When in the (V*AUTO) mode (typical for practicing), if a complete round is properly shot the display will show (END) when you have shot your last shot. The unit beeps each time it changes stations.

16)   To reset to the first shot of a round just re-log ON to the field or use the (STA) key to set the unit back to the start of the "Game". This can be done at anytime.

Typical use:

3

*** 　　Under normal use the only requirement that is repeated is to "Log" onto the field you are about to shoot on. This holds true for "Outdoor" units also. Once on the station touching the (9)(U/A) up arrow will turn the mic on and you are ready to shoot. When you "Log off" the microphone is automatically shut down. If you are at a different Club the user would call up the "Club ID" of the location they are at, "Log on" to the field, and proceed to shoot. Normally all the settings are saved and do NOT have to be selected each time. At anytime the user may log out of their "PIN" number locking down the unit so no one else can use it.

Call of the bird:

*** 　　Although you may use any command you desire so long as you meet the minimum volume-function setting to release a bird we highly recommend that you use "PULL" with a strong sharp accent on the "P".

If you are having trouble getting releases, the problem, more than likely is, you need to speak up slightly or move the unit **higher** up on your collar, or **BOTH**. Also, the use of the word "PUP" like puppy with the "py" left off seems to work extremely well. Remember, we are trying to detect **your** call for the bird and yet **NEVER** throw the bird when **ANY** gun is fired, gun echo occurs, a gun action is closed, you are talking, the wind is blowing, etc. This is NOT an easy task so please **speak up** and try using a **high (650 or greater)** volume setting to eliminate false releases.

Mounting of unit:

*** 　　Typically, when shooting with a **"MOUNTED"** gun, the XT2004 should be clipped to what is or would be the **(IN) SIDE** or **SIDE** of your collar about 1 inch down (not out) from the seam that runs across your shoulder opposite side from mounting of the gun. Remember, on the collar or seam of the collar, **NOT** out on the shoulder.

Typically when shooting **"LOW GUN"**, the XT2004 should be clipped down and around, towards the center of the chest by a couple of inches from 　　　above description.

Ultimately the shooter should position unit and adjust the volumes to what works best for them.

Antenna:

*** 　　The Antenna should **hang strait down with a slight outward slant**. **Never** roll or wad the antenna up or tuck it inside of a pocket or a shooting vest or shirt. **Never** clip anything to the antenna. **Never** lengthen or cut the antenna.

Volume:

*** 　　　　Volume　(Volume sensitivity, **Typical setting 650**)

NOTE: 　For **"Skeet International" "Low gun"** you may need to adjust the position of the unit and the volume of the mic. Using this **function** with the gun in the low position, adjust the mic sensitivity and unit position to obtain the highest setting and still release a bird.

Also, if you are running the mic at levels below 600 you might consider unlocking **(UNLOCK)** the "Auto Mic" function for games other than Trap.

The user can program the sensitivity of the XT2004 to the call of the bird. Note that this should be set as **HIGH** as possible and still release a bird when called. This will minimize the chances of the system releasing uncalled for birds. While in this mode the mic is automatically turned on and the shooter can **TEST** to see if the unit will hear their voice. This testing **MUST BE DONE OUTDOORS** with the unit **PROPERLY ATTACHED** to the shooter and the gun **POSITIONED** ready to call for a bird. If the unit detects your voice it will beep three times. This does **NOT** charge you for birds, and you may call as many times as you wish. Note that this test function only works if you are logged **OFF** the field. If you enter this mode while logged onto a field you can change the release level of the mic but the test function will not work. It is **highly** recommended that the shooter speak up allowing for a high volume setting to **minimize** the chances of throwing unwanted birds, especially when talking. A typical setting of **650** or greater will virtually eliminate all unwanted releases. If possible, it is recommended that you practice releasing birds at this level or higher. By practicing with the higher settings and becoming proficient at releasing the birds, you can minimize the chance of ever releasing an unwanted bird. Also note that experience shows as the shooter moves through the game and gets towards the end stations they tend to trail off in the intensity of their call, so please, practice keeping the intensity your call the same throughout the game. Using a call that has a sharp starting edge, such as "PUP" (example) provides for a clean detection without the need to scream for the release of the bird. Remember, ... a **properly** mounted unit with a **crisp** call will provide for a clean release and an enjoyable shooting experience.

See (AM*MIC) function.

Battery replacement:

1) To change the batteries first remove, if any, the Velcro clip from the backside and set it aside.

2) Remove the screw in the back of the unit and set it aside.

3) **CAREFULLY** separate the two halves of the case using your fingernail to **approximately 1/4"**. If you are using a metal object, such as a knife blade, do **NOT** allow the blade to enter the case. You may short out a component and kill the unit.

   Note: **You must separate the two halves equally or you will damage the alignment posts in each corner of the case. The top half will stay attached to the bottom half via the flexible interconnects between the keypad and the printed circuit board. DO NOT PULL ON THESE CONNECTIONS.**

4) Using your fingers, carefully lift the end corners (opposite from antenna), of the battery packs to lift the printed circuit board out of the bottom case. This will tilt the printed circuit board in the bottom case and allow you to remove the batteries. The antenna end of the pc board will still be in the bottom case with the antenna still passing thru the case.

5) Using a **NON** conductive item such as a Q-tip, push each battery out from the middle of the pc board. **MAKE** note of the **DIRECTION**, that is, top and bottom, of how the batteries are installed. **IF YOU INSTALL ONE OR BOTH OF THE BATTERIES UPSIDE DOWN IN THE UNIT YOU WILL VOID THE WARRANTY AND KILL THE UNIT.**

6) Pull the batteries out and install two (2) new CR2450 or equivalent batteries. **MAKE SURE** you install them with the (+) facing up as marked on the battery packs. (See step 5).

   Note: Never install an old battery with a new battery. Make sure you pull both of the old batteries out **BEFORE** installing either of the new batteries. The unit will retain all of its' current settings even without the batteries installed.

7) Carefully reassemble the unit, making sure not to pinch the pigtails to the keypad.

Functions include:

Note: **To press a key, use the ball of your thumb. This is a very fast keypad so do NOT hold the key down. Simply depress it with a clean sharp press and release. Holding it down will cause multiple reads and loading of the key. For example 99 or 999.**

How to get started when the unit is in the "SLEEP" mode. Touch any key to wake the unit up and go to the section on (PIN*NB) Pin Number.

***   SEL   (Select key)

Enters/Exits the menu.

Use the (U/D/R/L) arrow keys to move through the menu.

***   (EDT) key   (Edit key)

Typically used to **ACCEPT** or **ENTER** a function.

***   MODE   (Mode)

Allows the user to select from any of the following modes.

   ***   V*MAN (Voice Manual mode)

   Releases the bird via voice call but follows no "Game". The user touches the (OPT) key to initiate the load sequence, touches the command keys (1-6) they wish to load and then touches the (OPT) key to complete the function. The user then calls for the release of bird. The system will simply repeat the sequence over and over or until changed.

   ***   V*AUTO   (Voice Auto, typical practice mode)

   Releases the bird, via voice call and follows the "Game" selected by the shooter.

   ***   COMPET   (Competition mode)

   Competition mode simply calls for the bird. Which station type or bird that is released, is set by the judge. (See JUDGE mode)

   ***   JUDGE   (Judge mode, Optional)

   This is a SPECIAL mode available from the "Club" and MAYBE used by "Clubs/Judges" to control fields during competitions. This is NOT a mandatory mode for shooting competitions.

***   GAME   (Game selected)

Allows the user to select from any of the following games.

TRAP*S	Trap singles (16 yard and Handicap)
TRAP*D	Trap doubles
SKET*S	Skeet Standard
SKET*I	Skeet International ** ("**Low gun**" may require mic adjustment)

** Note: If (DLY*FR) is set to (DL*RND) you will get a 0-3.0 second random delay. If set to (DL*FIX) the delay will be the user's fixed delay programmed under the (DELAY) function, see below.

SKET*D Skeet doubles
CUST*G Custom game
SPRT*C Sporting clays
5STD*B Five stand beginner
5STD*I Five stand intermediate
5STD*P Five stand professional

***   VOLUME   (Volume sensitivity, **Typical setting 650**)

NOTE: For **"Skeet International" "Low gun"** you may need to adjust the position of the unit and the volume of the mic. Using this **function** with the gun in the low position, adjust the mic sensitivity and unit position to obtain the highest setting and still release a bird.

Also, if you are running the mic at levels below 600 you might consider unlocking **(UNLOCK)** the "Auto Mic" function for games other than Trap.

Using the (U/D/L/R) arrow keys allows the user to program the sensitivity of the XT2004 to the call of the bird. Note that this should be set as **HIGH** as possible and still release a bird when called. This will minimize the chances of the system releasing uncalled for birds. While in this mode the mic is automatically turned on and the shooter can **TEST** to see if the unit will hear their voice. This testing **MUST BE DONE OUTDOORS** with the unit **PROPERLY ATTACHED** to the shooter and the gun **POSITIONED** ready to call for a bird. If the unit hears your voice it will beep three times. This does **NOT** charge you for birds, and you may call as many times as you wish. Note that this test function only works if you are logged **OFF** the field. If you enter this mode while logged onto a field you can change the release level of the mic but the test function will not work. It is **highly** recommended that the shooter speak up allowing for a high volume setting to **minimize** the chances of throwing unwanted birds, especially when talking. A typical setting of **650** or greater will virtually eliminate all unwanted releases. It is recommended that you practice releasing birds at this level or higher. By practicing with the higher settings and becoming proficient at releasing the birds, you can minimize the chance of ever releasing an unwanted bird. Also note that experience shows as the shooter moves through the game and gets towards the end stations they tend to trail off in the intensity of their call, so please, practice keeping your call the same throughout the game. Using a call that has a sharp starting edge, such as **"PUP"** (example) provides for a clean detection without the need to scream for the release of the bird. A **properly** mounted unit with a **crisp** call will provide for a clean release and an enjoyable shooting experience.

***   DELAY   (Delay time)

By using the (U/D/L/R) arrow keys, allows the user to program up a delay between calling for the bird and the actual release by the system in 2 hundredths of a second increments. (Max is 5*08) or 5.08 seconds delay.

***   DLY*FR   (Delay * Fixed or Random)

Allows the user to select up whether the (DELAY), see above is a fixed value or a random value.

***   DL*FIX (Delay fixed mode)

The system will delay the release of the bird for the exact time interval set under the (DELAY time).

***   DL*RND(Delay random mode)

The system will randomly delay the release of the bird not to exceed the value programmed under the (DELAY time).

***   CLUB   (Club ID select)

Allows the user to select the "Club ID" of the club they are at. By touching the (EDT) key the user can check if any birds are available for release at this club. Touching the (L/A or R/A) keys at this time will show the next "Club ID". The unit will remain on the last "Club ID" that was selected AND the bird(s) were checked by touching the (EDT) key.

***   OTDOOR   (Outdoor mode)

Does not require the purchase of birds to be able to release a bird. Note that this **mode** will only work with "Outdoor" receivers. This mode will NOT function with "Club ID" receivers.

***   PIN*NB   (Pin number)

Touching the (EDT) key allows for the unlocking/loading of your personal pin number for security purposes. Note that the unit knows which mode it is in and displays the opposite mode upon entering this function. If the unit is locked it will ask you first if you want to "UNLOCK" its self. By touching (EDT) you can accept this and then type in the "Pin Number", followed by touching the (EDT) key again to accept the number. If the unit accepts the code it will display "STD*BY" (Stand By) and you are ready to use the unit. If the unit fails to accept the code it will display "FAILURE" and you must retype the code and touch (EDT) again. Note that if no keys are touched or no birds are thrown, it will go back to sleep in approximately 15 minutes.

Note, use the (EDT) "edit" key to accept the selected/entered data. Use the (SEL) "select" key to exit the current function.
By using the (ARROW) keys you may select any of the other two functions. If you wish to "EDIT" the "Pin Number" it will ask you to enter your current "Pin Number" before you can enter your "NEW" pin number. Upon entering your "NEW" pin number it will ask you to verify it a second time. If you fail to properly "VERIFY" it, it will return to asking you for a "NEW" pin number and expect you to properly "VERIFY" the number. At any time touching the (SEL) will exit you from the function.

***   UNLOCK   (Unlock mode)

     Allows the user to enter their personal pin number.

***   LOCK   (Lock mode)

     Allows the user to lock the unit eliminating unwanted use.

***   EDIT   (Edit mode)

     Allows the user to change the pin number. One must have the current pin number to be able to complete this function.

***   AM*MIC   (Auto Mic)

Allows for the automatically turning off of the mic each time the shooter completes a station. It is recommended that the unit be run in the "UNLOCK" mode as a minimum for Sporting Clays.

***   UNLOCK   (Unlock mode)

Each time the unit throws the **last** bird on any given station it will turn the mic off. This can also be accomplished by touching the down arrow when logged onto a field. To turn the mic back on the user simply touches the up arrow.

***   LOCK   (Lock mode)

Does NOT allow the unit to turn off the mic after completing a station. This can still be accomplished by touching the down arrow when logged onto a field. To turn the mic back on the user simply touches the up arrow.

***   SCORE   (Score value, programming)

Displays and allows the keeping/programming of the shooters score. Each time the shooter logs onto a field this value is set to 25.
***   N/B   (No Bird key)

If this key is pressed during this mode the score will be reset to zero (0) and the shooter may reload it to a specific value. If the shooter is going to shoot 4 rounds of TRAP they can load 100 in place of the 25.

***   OPT   (Option key)

Each time the (OPT) "option" key is depressed the unit will subtract one from the count.

***   SEQ*FR   (Sequence * Fixed or Random, **CUSTOM game only**)

Allows the user to select up whether the Sequence of programmed commands, (see "LD*CMD" below) is run in the fixed order as programmed or in a random order until all the commands have been used.

***   SQ*FIX   (Sequence fixed mode)

The system will release the birds in the exact sequence programmed under the "LD*CMD" function.

***   SQ*RND (Sequence random mode)

The system will randomly release the birds programmed under the "LD*CMD" function until all the birds have been released.

***   LD*CMD   (Load Command, **CUSTOM game only**)

Allows the user to program their unit for the (CUSTOM) game.

***   POS*99   (Position of command in game)

Using the (L/R/U/D) arrow keys, select the position 1,2,3,4,5, etc that you wish to load a command into. Touch the (EDT) key to accept the position and display the current command that is loaded in that position. Using the (L/R/U/D) arrow keys, select, change, the command you wish to load. Touch the (EDT) key to accept the command. The unit will automatically advance expecting you to load a time using the (L/R/U/D) arrow keys. Note that the LEFT and RIGHT arrow keys will change the time in 0.20 second steps while the UP and DOWN arrow keys will change he value in 0.02 second steps. This "Time" is how long the system will delay before releasing the bird when the command is called. Typically a time value other than zero would only be loaded if the CUSTOM game is going to be run in the automatic sequence mode. Touching the (EDT) key will accept the time even if it is zero (0) and the unit will advance to the next position. You may repeat this procedure up to 73 times. At any given position you may load a station command allowing you to jump to that station to start or change the game. The last command loaded must be a (END) command identifying the end of the game. See **Appendix (C)** for commands/order/position.

***   AUTO*R   (Automatic Run/Stop mode, **CUSTOM game only**)

If the "Run" mode is selected by touching the (U/A) up arrow key, the XT2004 transmitter will automatically run through the command/time sequence until the end of the sequence or until placed into the "Stop" mode using the (D/A) down arrow key.

***   *LIFE*   (Life time birds)

By pressing the (OPT) key when NOT logged onto a field the unit will display and allows the keeping/programming of a running total of birds called for. By pressing the (OPT) key a second time the shooter can enter their pin number and reset the value to zero (0). This is a useful mode for a club to use if they own and distribute the transmitters to customers. By setting it to zero (0) before giving it to the customer the "Club" can look at the value after being returned by the shooter and know exactly how many birds or dollars the shooter called for. Without knowing the PIN NUMBER the user cannot reset the value.

***   NO*BRD   (No birds)

By pressing the (N/B) key when NOT logged onto a field the unit will display the number of times the user pressed the (N/B) key while logged onto a field. This value can only be reset by the "Club" when more birds are purchased.

Also, when in the menu and loading a value, if you type a wrong value, touching the (N/B) key will typically clear the value back to zero.

Keys include:

***   (OPT) key   (Option key)

By pressing this key when logged onto a field the "SCORE" will be decremented by one bird. For (SKET*S), provides for the option shot. See (*LIFE*) function for additional information.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (N/B) key   (No bird key)

By pressing this key when logged onto a field the unit will repeat the previous command and log the count to the No Bird function. Note that each time this key is pressed the shooter must throw a bird before the key will function again. See (NO*BRD) function for additional information.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (FLD) key   (Field key)

By pressing this key (FLD), and entering the field number you are at, and then pressing (FLD) again you will log "ON" to a field. For example, by touching (FLD)(7)(FLD) you have just logged onto field seven and that is the only field that your unit will currently throw birds at. By touching (FLD)(FLD) again you have logged off the field. When logged OFF the field the display will show "STD*BY". You **cannot** log OFF a field if you have entered the menu function. The display must show (END, MIC*OF, or a Station Position) to log OFF the field.

***   (STA) key   (Station key)

By pressing this key, when logged onto a field, and typing the station number and touching (STA) again the unit will position itself to the first bird of that station.

***   (1/H) key   (Number (1), High)

        Loads the number one into the screen.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (2/D) key   (Number (2), Doubles)

        Loads the number two into the screen.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (3/L) key   (Number (3), Low)

        Loads the number three into the screen.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (4) key   (Number (4))

        Loads the number four into the screen.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (5) key   (Number (5))

        Loads the number five into the screen.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (6) key   (Number (6))

        Loads the number six into the screen.

For Trap see (Appendix A),
For Skeet see (Appendix B),
For 5 Stand functions see (Appendix C),
For Sporting Clays functions see (Appendix D).

***   (7) & (LEFT ARROW)   (L/A)

        Loads the number seven into the screen.
Moves thought the menu items, decreases certain values by 25.
When logged onto a field, moves backwards thru commands.
For 5 Stand functions see (Appendix C),

***   (8) & (DOWN ARROW)   (D/A)

        Loads the number eight into the screen.
Moves thought the menu items, selects certain values.
When logged onto a field, turns mic off.

For 5 Stand functions see (Appendix C),

***   (9) & (UP ARROW)   (U/A)

Loads the number nine into the screen.
Moves thought the menu items, selects certain values.
When logged onto a field, turns mic on.

For 5 Stand functions see (Appendix C),

***   (0) & (RIGHT ARROW)   (R/A)

Loads the number zero into the screen.
Moves thought the menu items, increases certain values by 25.
When logged onto a field, moves forward thru commands.

For 5 Stand functions see (Appendix C),

***   (4) + (6) keys (simultaneously) **(EXTERNAL MANUAL MODE)**

Allows the unit to be programmed for use on a dedicated field and game group. By touching one key the game can be activated and made ready to release birds on the dedicated field.

Make sure the unit is programmed for the (GAME) you desire to shoot.
Example, Trap type games, or Skeet games, 5 stand games, etc.

Make sure the (MODE), is set to the voice auto **(V*AUTO)** mode.

By touching the (4) and (6) keys at the same time, you can enter the mode to set the dedicated field number. Using the (U/D/L/R) arrow keys, you can program the field (receiver) number you want the unit to function on. After selecting the field number touch the (EDT) key to save the value. The unit will automatically go to sleep. Touch the (SEL) key to exit without making any changes. **To deactivate this function set this number to (0) zero.**

Note: You only need to do the above steps one time. However, the unit must be in the sleep mode for the following steps to function.

Touch any key to wake the unit up. After completing the power up routine, unit will enter the Stand By mode (STD*BY).
If you wish to change to the game, touch the left arrow (L/A) or right arrow (R/A) keys to change the game.

Touch the field (FLD) key. The unit will automatically turn on, and be ready to run in the game selected above.

Touch the field (FLD) key again to shut the unit off.

Unlocking the unit via the PIN*NB will deactivate this function until the unit is put to sleep again. To put the unit to sleep, use the PIN*NB function and "LOCK" the unit.

APPENDIX (A):   Trap Singles, Handicap, Doubles Functions.

When any of the Trap games, (TRAP*S) Trap Singles, or (TRAP*D) Trap Doubles are selected and you are **LOGGED ONTO** a field the following keys provide special functions for these game.

Trap command examples:

TRS*xy   Trap 16 yard and Handicap.
TRD*xy   Trap Doubles.

     x = Station number
     y = Bird number

***   (OPT) key   (Option key)

By pressing this key when logged onto a field the "SCORE" will be decremented by one bird.

***   (N/B) key   (No bird key)

Identifies bad birds.

***   (FLD) key   (Field key)

Used to log on/off a field.

***   (STA) key   (Station key)

Used to select the station you are on. Automatically set the command to the first command of the station.

***	(1/H) key	(Number (1), H)
***	(2/D) key	(Number (2), D)
***	(3/L) key	(Number (3), L)
***	(4) key	(Number (4))
***	(5) key	(Number (5))
***	(6) key	(Number (6))

Manually releases the trap machine.

***   (7) & (LEFT ARROW)   (L/A)

Moves back one command.

***   (8) & (DOWN ARROW)   (D/A)

Turns the mic off.
***   (9) & (UP ARROW)   (U/A)

Turns the mic on.

***   (0) & (RIGHT ARROW)   (R/A)

Moves forward one command.

APPENDIX (B): Skeet functions.

When any of the Skeet games (SKET*S) Skeet Standard, (SKET*I) Skeet International, or (SKET*D) Skeet Doubles are selected and you are **LOGGED ONTO** a field the following keys provide special functions for these game.

Skeet command examples:

SKH*xx	High
SKD*xx	Doubles
SKL*xx	Low

xx = Station number

***   (OPT) key   (Option key)

By pressing this key when logged onto a field the "SCORE" will be decremented by one bird. If the game of Skeet (SKET*S) is selected the unit will also back up once allowing the shooter to repeat the missed shot. If the missed shot was on a double, touching the key once will set the option to the going away bird (1st shot) and touching it a second time will set the option to the opposite bird, (second shot). Repeated pressing of the key will simply toggle between which "House, High or Low" it throws. Once the option shot is taken touching the key again will only decrease the score by one.

***   (N/B) key   (No bird key)

Identifies bad birds.

***   (FLD) key   (Field key)

Used to log on/off a field.

***   (STA) key   (Station key)

Used to select the station you are on. Automatically set the command to the first command of the station.

***   (1/H) key   (Number (1), H)
***   (4) key   (Number (4))

(SKET*S)	Manually releases the High machine.
(SKET*I)	Manually releases the High machine.
(SKET*D)	Manually releases the High machine.

***	(2/D) key	(Number (2), D)
***	(5) key	(Number (5))

(SKET*S)	Manually releases Doubles.
(SKET*I)	Manually releases Doubles.
(SKET*D)	Manually releases Doubles.

***	(3/L) key	(Number (3), L)
***	(6) key	(Number (6))

(SKET*S)	Manually releases the Low machine.
(SKET*I)	Manually releases the Low machine.
(SKET*D)	Manually releases the Low machine.

***   (7) & (LEFT ARROW)   (L/A)

Moves back one command.

***   (8) & (DOWN ARROW)   (D/A)

Turns the mic off.

***   (9) & (UP ARROW)   (U/A)

Turns the mic on.

***   (0) & (RIGHT ARROW)   (R/A)

Moves forward one command.

APPENDIX (C): 5 Stand functions.

When any of the 5 stand games (5STD*B) Beginner, (5STD*I) Intermediate, or (5STD*P) Professional, are selected and you are **LOGGED ONTO** a field the following keys provide special functions for these games.

***   (OPT) key   (Option key)

If you are in the **(V*AUTO)** Voice Auto mode, pressing this key will **NOT** have any effect on the unit. However, if you are in the **(V*MAN)** mode, the display will show the (LD*CMD) Load Command function. At this time you may press any of the ten **number buttons**, (each button corresponds to a machine), to load the sequence in which you want each repetitive call for a bird to release. For example, pressing the following sequence of keys,

(OPT) (1) (3) (4) (6) (OPT)

will cause the unit to release machine 1 on the first call, machine 3 on the second call, machine 4 on the third call, and machine 6 on the fourth call. If you call a fifth time you will repeat the sequence with the fifth call releasing machine 1 again, etc.

If you wish to throw doubles, you could load the following,

(OPT) (1) (3) (N/B) (4) (6) (OPT)

This will release machine 1 on the first call, machine 3 and 4 (doubles) on the second call, and machine 6 on the third call. The fourth call would repeat the sequence, releasing machine 1 again, etc.

If you wish to throw triples, you could load the following,

(OPT) (1) (3) (N/B) (4) (N/B) (6) (5) (7) (3) (OPT)

This will release machine 1 on the first call, machine 3, 4, and 6 (triples) on the second call, machine 5 on the third call, machine 7 on the fourth, and machine 3 again on the fifth call. The sixth call would repeat the sequence, releasing machine 1 again, etc.

You can release 4,5,6, etc. machines all at the same time by using the above technique. Note that the receiver(s) must be setup to accept the appropriate key commands.

***   (N/B) key   (No bird)

Reference the (OPT) Option key above for the functionality of this key.
When not used with the (OPT) Option key identifies a bad bird.

***   (FLD) key   (Field key)

Used to log on/off a field.

***   (STA) key   (Station key)

When in the (V*AUTO) mode, used to select the starting station of the game. The unit will (END) the game upon finding this station again.

***   (1/H) key   (Number (1), H)

When **not** used with the (OPT) Option key manual releases machine 1.
When in the (V*MAN) mode used to select machine 1, (See (OPT) key).

***   (2/D) key   (Number (2), D)

When **not** used with the (OPT) Option key manual releases machine 2.
When in the (V*MAN) mode used to select machine 2, (See (OPT) key).

***   (3/L) key   (Number (3), L)

When **not** used with the (OPT) Option key manual releases machine 3.
When in the (V*MAN) mode used to select machine 3, (See (OPT) key).

***   (4) key   (Number (4))

When **not** used with the (OPT) Option key manual releases machine 4.
When in the (V*MAN) mode used to select machine 4, (See (OPT) key).

***   (5) key   (Number (5))

When **not** used with the (OPT) Option key manual releases machine 5.
When in the (V*MAN) mode used to select machine 5, (See (OPT) key).

***   (6) key   (Number (6))

When **not** used with the (OPT) Option key manual releases machine 6.
When in the (V*MAN) mode used to select machine 6, (See (OPT) key).

***   (7) & (LEFT ARROW)   (L/A)

When in the (V*MAN) mode used to select machine 7, (See (OPT) key).
When in the (V*AUTO) mode, backs up one command.

***   (8) & (DOWN ARROW)   (D/A)

When **not** used with the (OPT) Option key, turns the mic off.
When in the (V*MAN) mode used to select machine 8, (See (OPT) key).

***   (9) & (UP ARROW)   (U/A)

When **not** used with the (OPT) Option key, turns the mic on.
When in the (V*MAN) mode used to select machine 9, (See (OPT) key).

***   (0) & (RIGHT ARROW)   (R/A)

When in the (V*MAN) mode used to select machine 10, (See (OPT) key).
When in the (V*AUTO) mode, moves forward one command.

5 Stand command examples:

B5S*xy	Beginning Single
P5D*xy	Professional Doubles

13

x = Station number
y = Bird number

      BUT*01 Button 01   (Programming)

etc.

      BUT*06 Button 06   (Programming)

APPENDIX (D):   Sporting Clays Functions.

When the game of (SPRT*C) Sporting Clays is selected and you are **LOGGED ONTO** a field the following keys provide special functions for this game. When you log onto the field the standard function of the unit is to throw true doubles from two machine. This will be indicated by the display showing the doubles command when you select a station. (See the (STA) Station key).

Sporting Clays command examples:

SCL*xx   Left machine
SCD*xx   Doubles
SCR*xx   Right machine

xx = Station number

***   (OPT) key   (Option key)

Pressing this key will show the (LD*CMD) Load Command function. At this time you may press the 4, or 6, programming keys. For example, pressing the following sequence of keys,

(OPT) (4) (4) (OPT)   Left machine releases.
     or
(OPT) (6) (6) (OPT)   Right machine releases.

Will cause the unit to release a set of **FOLLOWING** birds from the appropriate machine at a 2 second interval when called for. Repeated calls will repeat the function.

(OPT) (4) (6) (OPT)   Left machine 1st, Right machine 2nd release.
     or
(OPT) (6) (4) (OPT)   Right machine 1st, Left machine 2nd release.

Will cause the unit to release a set of **REPORT** birds from the appropriate machine. Calling for the bird will release the first bird and the report of the gun will release the second bird. Repeated calls will repeat the function.

***   (N/B) key   (No bird key)

Identifies bad birds.

***   (FLD) key   (Field key)

Used to log on/off a field.

***   (STA) key   (Station key)

Used to select the station you are on. Automatically set the bird to the double command.

***   (1/H) key   (Number (1), H)

Manually releases the left machine.

***   (2/D) key   (Number (2), D)

Manually releases doubles.

***   (3/L) key   (Number (3), L)

Manually releases the right machine.

***   (4) key   (Number (4))

Programs a **FOLLOWING** or **REPORT** bird, see the (OPT) option key.

***   (5) key   (Number (5))

Not used.

***   (6) key   (Number (6))

Programs a **FOLLOWING** or **REPORT** bird, see the (OPT) option key.

***   (7) & (LEFT ARROW)   (L/A)

Moves back one command.

***   (8) & (DOWN ARROW)   (D/A)

Turns the mic off.

***   (9) & (UP ARROW)   (U/A)

Turns the mic on.

***   (0) & (RIGHT ARROW)   (R/A)

Moves forward one command.

APPENDIX (E):   Command order.

```
END
SKH*xx      I5S*33      SCL*06      AA1*11
SKL*xx      I5D*34      SCD*06      BB1*12
SKD*xx      I5S*41      SCR*06      CC2*13
TRS*xx      I5S*42      SCL*07      DD2*14
TRD*xx      I5S*43      SCD*07      EE3*15
B5S*11      I5D*44      SCR*07      FF3*16
B5S*12      I5S*51      SCL*08      GG4*17
B5S*13      I5S*52      SCD*08
B5S*14      I5S*53      SCR*08
B5S*15      I5D*54      SCL*09
B5S*21      P5S*11      SCD*09
B5S*22      P5D*12      SCR*09
B5S*23      P5D*13      SCL*10
B5S*24      P5S*21      SCD*10
B5S*25      P5D*22      SCR*10
B5S*31      P5D*23      SCL*11
B5S*32      P5S*31      SCD*11
B5S*33      P5D*32      SCR*11
B5S*34      P5D*33      SCL*12
B5S*35      P5S*41      SCD*12
B5S*41      P5D*42      SCR*12
B5S*42      P5D*43      SCL*13
B5S*43      P5S*51      SCD*13
B5S*44      P5D*52      SCR*13
B5S*45      P5D*53      SCL*14
B5S*51      SCL*01      SCD*14
B5S*52      SCD*01      SCR*14
B5S*53      SCR*01      SCL*15
B5S*54      SCL*02      SCD*15
B5S*55      SCD*02      SCR*15
I5S*11      SCR*02      BUT*01
I5S*12      SCL*03      BUT*02
I5S*13      SCD*03      BUT*03
I5D*14      SCR*03      BUT*04
I5S*21      SCL*04      BUT*05
I5S*22      SCD*04      BUT*06
I5S*23      SCR*04      BUT*07
I5D*24      SCL*05      BUT*08
I5S*31      SCD*05      BUT*09
```

Voice call information

E R A D recommends the following format be used to call for a bird. Listed are acceptable CALL formats and unacceptable CALL formats.

Acceptable: **Unacceptable:**

PULL
PULLLL

PULLLL

PUUULLL

Volume   (Volume sensitivity, **Typical setting 650**)

> **NOTE:**   For **"Skeet International" "Low gun"** you may need to adjust the position of the unit and the volume of the mic. Using this **function** with the gun in the low position, adjust the mic sensitivity and unit position to obtain the highest setting and still release a bird.

Also, if you are running the mic at levels below 600 you might consider unlocking **(UNLOCK)** the "Auto Mic" function for games other than Trap.

The user can program the sensitivity of the XT2004 to the call of the bird. Note that this should be set as **HIGH** as possible and still release a bird when called. This will minimize the chances of the system releasing uncalled for birds. While in this mode the mic is automatically turned on and the shooter can **TEST** to see if the unit will hear their voice. This testing **MUST BE DONE OUTDOORS** with the unit **PROPERLY ATTACHED** to the shooter and the gun **POSITIONED** ready to call for a bird. If the unit hears your voice it will beep three times. This does **NOT** charge you for birds, and you may call as many times as you wish. Note that this test function only works if you are logged **OFF** the field. If you enter this mode while logged onto a field you can change the release level of the mic but the test function will not work. It is **highly** recommended that the shooter speak up allowing for a high volume setting to **minimize** the chances of throwing unwanted birds, especially when talking. A typical setting of **650** or greater will virtually eliminate all unwanted releases. If possible, it is recommended that you practice releasing birds at this level or higher. By practicing with the higher settings and becoming proficient at releasing the birds, you can minimize the chance of ever releasing an unwanted bird. Also note that experience shows that as the shooter moves through the game and gets towards the end stations they tend to trail off in the intensity of their call, so please, practice keeping the intensity your call the same throughout the game. Using a call that has a sharp starting edge, such as **"PUP"** (example) provides for a clean detection without the need to scream for the release of the bird. Remember, ... a **properly** mounted unit with a **crisp** call will provide for a clean release and an enjoyable shooting experience.

See (AM*MIC) function.

Quick (partial) menu tree

NOTE: **( )**   **Defines a key stroke**
                  [ ]   **Data in the display**
                  { }   **Defines a comment**

NOTE: **To navigate through the menu use the U/D/L/R arrow keys.**
                  The (EDT) "Edit" key is the same as the (ENTER) key on your computer.
                  The (SEL) "Select" key is the same as the (Escape) key on your computer.

TOUCH A KEY TO WAKE THE UNIT UP.
:
[C3*249]   **{Compiler revision number}**
:
[REV*07]   **{Software revision number}**
:
[STD*BY]   **{Stand By, waiting for key stroke}**
:
(SEL)   **[PIN*NB]**   **{Pin number}**
:
(EDT)   **[UNLOCK]**   **{Do you want to unlock the transmitter}**
:
(EDT)   **[******] or [FAILED]**   **{Ready to load pin number}**
:
(999999)   **{Enter your pin number}**
:
(EDT)   **[STD*BY] or [FAILED]**   **{If failed re-enter pin number}**
:
(SEL) -----   **[MODE]**   **{Voice Mode for transmitter operation}**
:   :
:   **(EDT) -----**   **[V*MAN]**   **{Does not follow a game}**

```
:                                              [V*AUTO]                          {Typical mode for practicing a game}
:                                              [COMPET]                          {Special mode for shooting competitions}
:                                              [JUDGE]                           {Special mode for controlling competitions}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [GAME]                                                        {Game type}
:                                 :
:                    (EDT) -----   [TRAP*S]                                      {Trap 16 yrd and Handicap}
:                                              [TRAP*D]                          {Trap Doubles}
:                                              [SKET*S]                          {Skeet Standard}
:                                              [SKET*I]                          {Skeet International, see DLY*FR}
:                                              [SKET*D]                          {Skeet Doubles}
:                                              [CUST*G]                          {Custom Game}
:                                              [SPRT*C]                          {Sporting Clays}
:                                              [5STD*B]                          {5 Stand Beginner}
:                                              [5STD*I]                          {5 Stand Intermediate}
:                                              [5STD*P]                          {5 Stand Professional}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [VOLUME]                                                      {Call Volume adjust}
:                                 :
:                    (EDT) -----   [650]                                         {500 = softer call, 1000 = louder call}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [DELAY]                                                       {User programmed release Delay}
:                                 :
:                    (EDT) -----   [5*08]                                        {0 to 5.08 seconds}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [DLY*FR]                                                      {Delay Fixed or Random}
:                                 :
:                    (EDT) -----   [DL*FIX]                                       {Use programmed delay}
:                                              [DL*RND]                          {Random from 0 to programmed DELAY}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [CLUB]                                                        {Select Club ID}
:                                 :
:                    (EDT) -----   [   ONE   ]                                   {Select one of 10 different Club ID's}
:                                                         :
:                                 [   TEN   ]
:                                 [OTDOOR]                                        {Outdoor mode for Outdoor receivers}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [PIN*NB]                                                      {Pin number}
:                                 :
:                    (EDT) -----   [LOCK]                                        {Do you want to lock the transmitter}
:                                              [UNLOCK]                          {Do you want to unlock the transmitter}
:                                              [EDIT]                            {Do you want to edit the Pin Number}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [AM*MIC]                                                      {Automatic Mic off mode}
:                                 :
:                    (EDT) -----   [LOCK]                                        {Mode is NOT active}
:                                              [UNLOCK]                          {Shuts the mic off after completing station}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [SCORE]                                                       {Score value, programming}
:                                 :
:                    (EDT) -----   [999]                                         {Shows current score}
:                                                         :
:                    (N/B) -----   [000]                                         {Program to desired value}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
(U/A) -----        [SEQ*FR]                                                      {Command Sequence Custom Game only}
:                                 :
:                    (EDT) -----   [SQ*FIX]                                       {Use programmed sequence}
:                                              [SQ*RND]                          {Randomly select sequence}
:                                                         :                      {Press (EDT) to accept change}
:                                      (EDT) or (SEL)                            {Press (SEL) to refuse change}
:
```

17

```
(U/A) ----- [LD*CMD]                                           {Load Commands Custom Game only}
:                              :
:                          (EDT) -----        [POS*99]                      {Select one of 73 command positions}
:                                          : ----- [5*08]              {Time delay for Auto run mode}
:                                             :
:                                          [END]
:                                             :                     {Press (EDT) to accept change}
:                          (EDT) or (SEL)               {Press (SEL) to exit function}
:
(U/A) -----          [AUTO*R]                                          {Auto Run mode}
:                              :
:                          (U/A) -----        [TRS*11]         {Automatically run command sequence}
:                          (D/A) -----        [STOP]                    {Stop auto run sequence}
:                                          :
                           (SEL)                              {Press (SEL) to exit function}
```

Other functions

To log onto a field:

```
(FLD) -----          [FIELD]                                          {Log onto a field touch the (FLD) key}
:                              :
:                          (999999)                            {Type in the field number to shoot on}
:                              :
                           (FLD) -----        [MIC*OF]            {Touch (FLD) again, displays MIC*OF}
                           (U/A) -----        [MIC ON]         {Turns mic on, displays for 0.5 seconds}
                    [SKH*01]              {Then shows command and station}
```

To log off a field:

```
(FLD) -----          [FIELD]                                          {Log off a field, touch the (FLD) key twice}
:                              :
:                          (FLD) -----        [STD*BY]                      {Logged off display shows STD*BY}
```

To jump to the start of a station:

```
(STA) -----          [STA]                                          {Jump to the start of a station}
:                              :
:                          (999999)                            {Type in the station number}
:                              :
                           (STA) ------        [SKH*03]                      {Touch (STA) again}
```

To back up or move forward one command:

```
(L/A) -----          [XXX*99]                                          {Backs up one command}
(R/A) -----          [XXX*99]                                          {Moves forward one command}
```

Option shot for skeet:

```
(OPT) -----          [SKX*99]                                          {Backs up one command, for doubles touch
                    The key once if you missed your first shot
                    and twice if you missed your second shot}
```

No Bird key for broken birds:

```
(N/B) ----- [TRS*99]                              {Repeats the previous call}
```

RC2004X Wireless Receiver/Transceiver

418 MHZ

Wiring:

The RC2004X receiver has the ability to control up to 8 machines thru the contact closure of specific relays. Each relay can switch 1.0 amp @ 200 VAC/VDC. Units can be custom ordered with higher voltage relays if necessary.

The power requirement is split into 2 separate groups.

1)   LOW voltage receiver will handle all voltages, both AC and DC, from 7 volts to 26 volts.

2)   HIGH(er) voltage receiver will handle all voltages, both AC and DC, above 26 volts and up to 240 volts.

3)   MIXED LOW and HIGH voltage unit. This is a custom unit where one or more machines are of the LOW voltage type and one or more machines are of the HIGH voltage type. This is NOT typical and usually in this case only the machines with common voltages would be used to power the receiver. The other machines would simply be wired for the release function. Typically the LOW voltage machine(s) would be used as the power source.

VOLTAGE type is based on the voltage that the release coil or motor of the mechanism that the receiver is controlling, has applied to it. For example, if the release mechanism has 115 VAC tied to one end and the other end runs out to the pull cord, than this would be considered a HIGH voltage circuit. If the 115 VAC was run to the pull cord first, and pressing the button supplied this voltage back to the release mechanism, it would still be considered a HIGH voltage circuit. If this is the case it is recommended that the release mechanism be rewired so the voltage out to the pull cord passes thru the release mechanism FIRST and then to the pull cord. This is not a requirement of the RC2004X, it is simply a matter of providing as much safety to the holder of the pull cord as possible by providing some minimal current limiting thru the coil of the release device. Note, that many times there is an intermediate release relay that is controlled by the pull cord at a lower voltage level and the actuation of this relay through its contacts actually applies voltage to the release solenoid or motor. If this is the case, then the voltage that is used to control the intermediate relay is what the RC2004X receiver is concerned with, NOT the voltage that runs through the contacts of the intermediate relay to the release solenoid or motor. See chart in Appendix (G) for wiring from the machine to a specific relay via the terminal strips. See Appendix (F) for mounting of the RC2004X. It is **IMPORTANT** that the receiver be mounted as specified for optimum performance.

For additional mounting configurations please contact **E R A D**.

Functions include:

***   CLUB   (Changing the Club ID stored in receiver)

   NOTE: To change the   "Club ID"   of a receiver, you must have a PC along with E R A D software RC2004-xxx and cable assembly CA2004-xx, or an XT2004 transmitter. See XT2004_xx_Club.doc for instructions on how to change the "Club ID" using the XT2004 transmitter. Valid characters for a "Club ID" are:

   ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789-/*\+ (space)

***   FIELD   (Changing field number stored in receiver)

   NOTE: To change the "Field number" of a receiver, you must have a PC along with E R A D software RC2004-xxx and cable assembly CA2004-xx, or an XT2004 transmitter. See XT2004_xx_Club.doc for instructions on how to change the "Field number" using the XT2004 transmitter.

***   COMNDS   (Adds, removes commands from receiver)

   NOTE: To change the commands stored in a receiver, you must have a PC along with E R A D software RC2004-xxx and cable assembly CA2004-xx, or an XT2004 transmitter. See XT2004_xx_Club.doc for instructions on how to "Add or Remove" commands using the XT2004 transmitter.

APPENDIX (F):   MOUNTING POSITION:

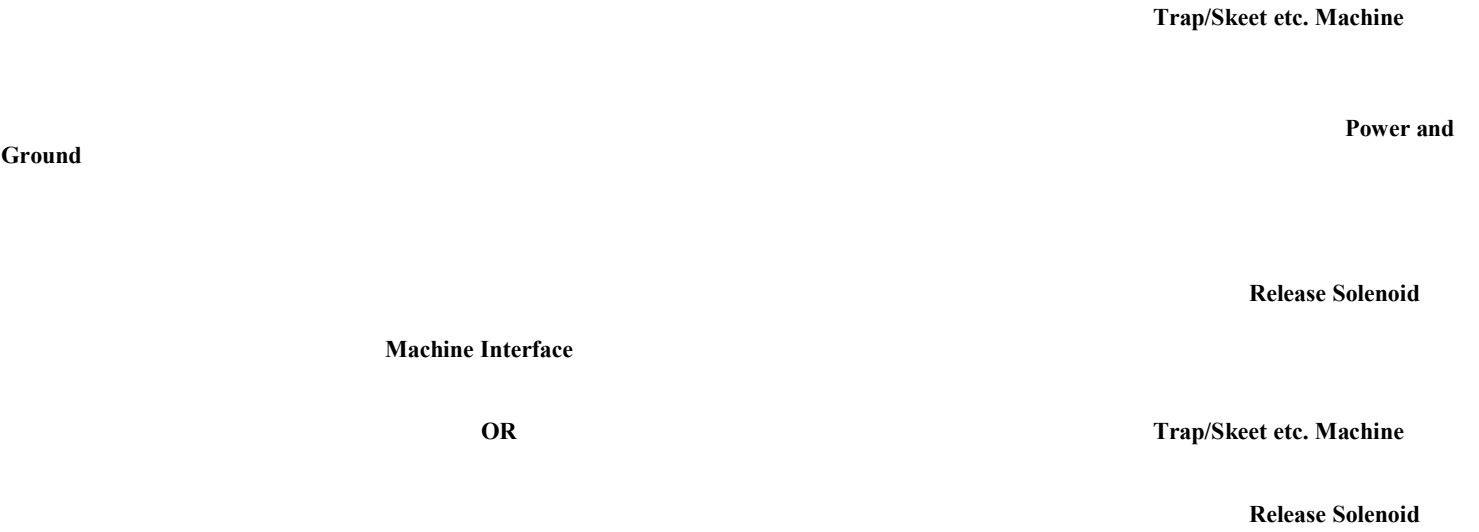<center>**Sky**</center>

12 Inches MINIMUM

Earth

It is important that the receiver be mounted in a vertical position with the cable hanging downwards and the antenna pointing skywards. The machine should never be between the shooter and the receiver. In a Trap house for example, mount the receiver to the back wall inside the trap house (wall closest to the shooting line), just below the ceiling with the antenna, pointing STRAIGHT up (skywards). Mount the receiver so the tip of the antenna (when stood straight up) just clears the roof of the trap house. Make sure when you stack targets, etc. nothing will be between the receiver and the shooters except the wall of the trap house. If possible, center the receiver on the wall, but mounting it off to one side, a few inches in from the sidewall, is perfectly acceptable and very typical. If you have metal sign(s) on the back wall of the trap house (field number for example), make sure the receiver is located as far off to one side or the other as possible from the sign(s). It is recommended that the receiver be thoroughly tested after mounting from all angles and expected distances to verify functionality in all conditions.

APPENDIX (G):   WIRING SCHEMATIC:

RC2004X RECEIVER/TRANSCEIVER

TERMINAL STRIP (MACHINE) INTERFACE POSITIONS

Trap/Skeet etc. Machine

Power and

Ground

Release Solenoid

Machine Interface

OR

Trap/Skeet etc. Machine

Release Solenoid

Machine Interface

NOTE: **NEVER wire to pin 3 of the terminal strip without FIRST contacting E R A D. (817-244-1761 or eradusa@earthlink.net)**

APPENDIX (F):   FCC instructions to the User:

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

* Reorient or relocate the receiving antenna.

* Increase the separation between the equipment and receiver.

* Connect the equipment into an outlet on a different circuit.

* Consult the dealer or an experienced radio/TV technician for help.

This equipment has been certified to comply with the limits for a class B computing device, pursuant to FCC Rules. Operation with non-approved equipment may result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

E R A D
9832 Hwy 80W
Ft. Worth, TX 76116

Ph: 817-244-1761
Fax: 817-244-1796
Email: eradusa@earthlink.net