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PTX-TAB Android Bluetooth Target Controller

OPERATIONS GUIDE



Read and fully understand this manual before using the transmitter or app.

The included Quick Start Guide is not a substitute for this manual.

WARNINGS

- **Failure to follow the instructions in this manual may result in damage to controlled targets and/or bodily harm.**
- **Neither the tablet nor the transmitter are 100% waterproof.** Prolonged exposure to the elements may result in damage to the transmitter, and repairs may not be covered under warranty.
- **ATS does not service tablets.**
- Due to the nature of PTX target control, it is possible that **radio interference from outside sources may cause unwanted target movements.**

APPROVALS



FCC ID (Standard): MCQ-XB900HP (FHSS radio)

FCC ID (2.4 GHz): FCCID MCQ-XBEE3

Japan Approvals (2.4 GHz): R210-119309

FCC ID: 2ADMF-HC06 (Bluetooth radio)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Preparing the Transmitter for Use

The PTX-TAB kit includes the following materials:

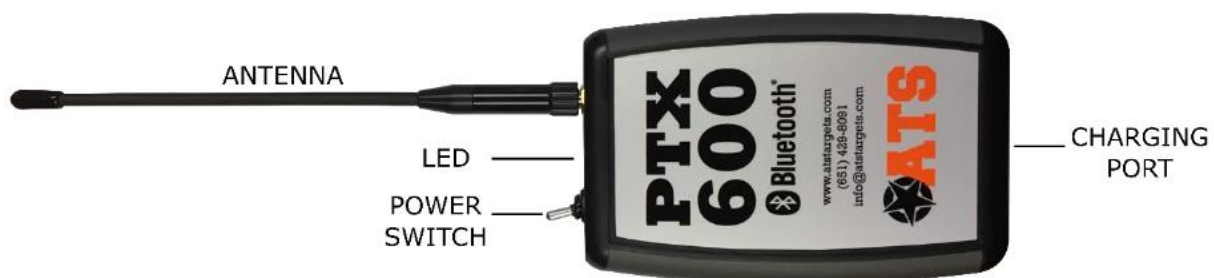
- PTX-600 Bluetooth transmitter with antenna;
- Samsung Galaxy Tab;
- Micro-USB charging cable (usable by both the tablet and transmitter);
- case for all components.

TIP: Save all original packaging, in the event the transmitter needs to be shipped back to ATS for servicing or warranty repairs. ATS does not repair tablets.

Follow the screenshots on the next pages as you proceed through setup.

1. Prepare the tablet and transmitter.¹

- Fully charge the tablet and transmitter using the included cable.
- If you are using a brand new tablet, follow the instructions on screen to set it up.
- Install the antenna.



TIP: If you have your own Micro-USB cable, you can charge both devices at the same time for faster setup.

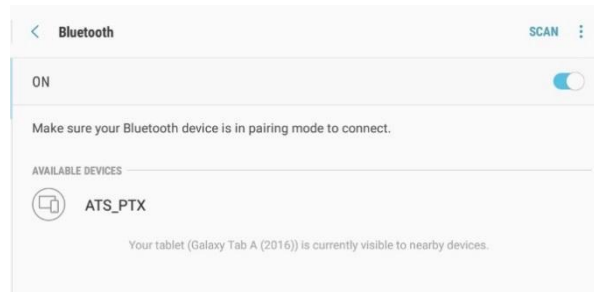
- Connect the antenna to the coaxial port on top of the transmitter.

2. Pair the tablet and transmitter.

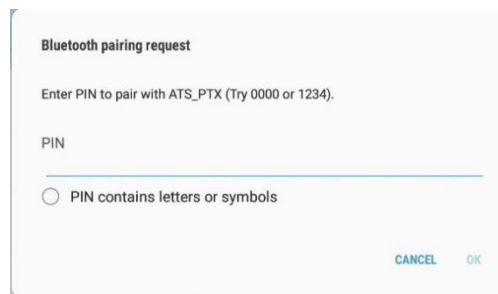
¹ https://www.youtube.com/watch?v=UA5Et2SdvZY&list=PLaM6iS2-XLpT8Mz_4UjRTsE_pHQuElmmu

- a. Flip the transmitter’s power switch to the ON position. The green light next to the switch will begin blinking rapidly, indicating that it is ready to be paired.
- b. On the tablet, make sure Bluetooth is turned on. From the home screen or app drawer, navigate to Settings → Connections → Bluetooth. A scan for devices should begin automatically.

TIP: On newer versions of Android, simply turn on Bluetooth from the notification drawer, then touch and hold the Bluetooth icon to access its settings.



- c. Select “ATS_PTX” from the list of available devices, it may take up to 15 seconds for the name to appear. Enter the PIN code 1234 when prompted, then tap OK.



TIP: It may take more than one scan for the transmitter to appear in the list. If the transmitter does not appear once the scan finishes, tap Scan to try again.

- d. The devices are successfully paired when the green light on top of the transmitter blinks slowly.

3. Install the PTX-TAB app by following the instructions in the App Installation Supplement. You can find the app at <https://atstargets.com/product-literature/?top-category=software>

4. **Set the app to control your unique transmitter.**
 - a. Open the app and tap **CONNECT**. A menu will appear listing all paired transmitters and their Bluetooth Device Addresses.
 - b. Tap the transmitter you want to use. The tablet and transmitter are now ready for use.

5. **Make sure the target units you are controlling are ON.** If you are using PT-68 or PT-68HD targets, ensure their mode switches are set to the middle (Lifter) position.

Connecting Targets to the Transmitter

Each target used with a PTX transmitter must be assigned a unique number. Target numbers are the primary means of interface with the transmitter, and are used in nearly all transmitter functions.

TIP: If you are switching from a legacy transmitter, you will not need to renumber or reconfigure your targets. This data is stored locally on each target, from when you first set them up.

WARNING: *If you assign the same number to multiple targets, operation will be unpredictable and you will have problems retrieving hit scores later. Use the group feature to safely control multiple targets with a single command.*

To connect a new target unit to the transmitter, ensure it is powered ON and fully charged. New targets must be set up in CLASSIC mode. Open the app and tap the **PTX-CLASSIC** icon.

Tap **LEARN**. Within 10 seconds, turn the target's power switch OFF, then immediately back ON.

Toggle power switch on any device... 10 sec
Press Exit to terminate

The target's serial number will be displayed on screen, along with a target number of zero. Zeroes indicate unassigned targets. You are still able to use an unassigned target with the **ALL** button, but in order to configure settings on the target, you must assign it a number.

```
Contact Made:  
Target Number 00  
Serial Number 002000
```

Tap **MENU**. Navigate to *TARGET SETUP > USE CURRENT > TARGET CONTROL > TARGET #*.

Select a new target number from the list. The target is now ready for use.

Controlling Targets with EZ Mode

The PTX-EZ mode allows you to control up to 12 targets and 3 target groups with a simple column-based design. You can control up to three targets from a single screen, and even record and playback simple “programs” to be used later.

Before proceeding to use any target with the system, perform the following pre-checks.

- Ensure the transmitter and tablet batteries are fully charged.
- Ensure the antenna is connected to the top of the transmitter.
- Ensure the target is fully charged.
- If the target is a PT-68 or PT-68HD, make sure its mode switch is set to the Lifter (middle) position.
- Ensure that there are no visual signs of damage to the target.
- Follow any specific pre-check instructions in the target's manual.

WARNING: *Ensure all personnel and obstructions are clear of the targets at all times!*

To enter EZ mode, tap the PTX-EZ icon upon opening the app. You will be greeted by this screen.

All EZ mode functions are performed from this screen.



Changing Target Faces in EZ Mode

Use any of the three columns of buttons to change target faces. The drop-down lists on top of each column allow you to select which target to change.

- **ALL** is the default selection, and will apply to every target that is powered on and connected to the transmitter.
- **Numbers** in the drop-down list correspond to single targets numbered 1-15.
- **G1, G2, and G3** control all targets in the group with that number. Targets must be assigned to groups for these list items to work; you can do this from CLASSIC mode.

Once you have selected the target you wish to control, tap **DOWN**, **FRIEND**, **EDGE**, or **FOE** in the same column to execute the change.

Recording a Sequence of Face Changes

In EZ mode, you can record and playback simple sequences of face changes for repeat use. All recording functions are performed with the bottom bar.

Begin recording by tapping **Rec**. Make any face changes you wish using the three control columns. The app will remember the timing at which you send each command. When finished, tap **Rec** again to save the program in tablet memory.

Use **Play** and **Stop** to control program playback. **Repeat** allows you to keep playing the program in a loop. The dark gray bar below the recording controls allows you to follow the progress of your sequence as it plays back.

Appending To or Deleting a Recording

Tapping **Rec** while a recording is already in memory will add the commands you execute to the end of the recording.

Recordings in EZ mode are not meant to be stored for long periods of time. The recording will remain in memory while the tablet screen is locked, but once you leave EZ mode, the recording will be deleted. You can also manually delete the recording by tapping **Clear**.

Limitations of EZ Mode

You will have to leave EZ mode to use hit-reactive functions, run programs created in CLASSIC mode or with UTC software, or adjust local target settings. Tap **CLASSIC** on the top right of the screen to enter CLASSIC mode and access these functions.

Controlling Targets with CLASSIC Mode

The PTX-CLASSIC mode allows you to control up to 200 targets and 30 target groups in a familiar, streamlined environment. The full functionality of legacy PTX transmitters is available, including timed programs, 9-TARGET mode, and hit-reactive functions.

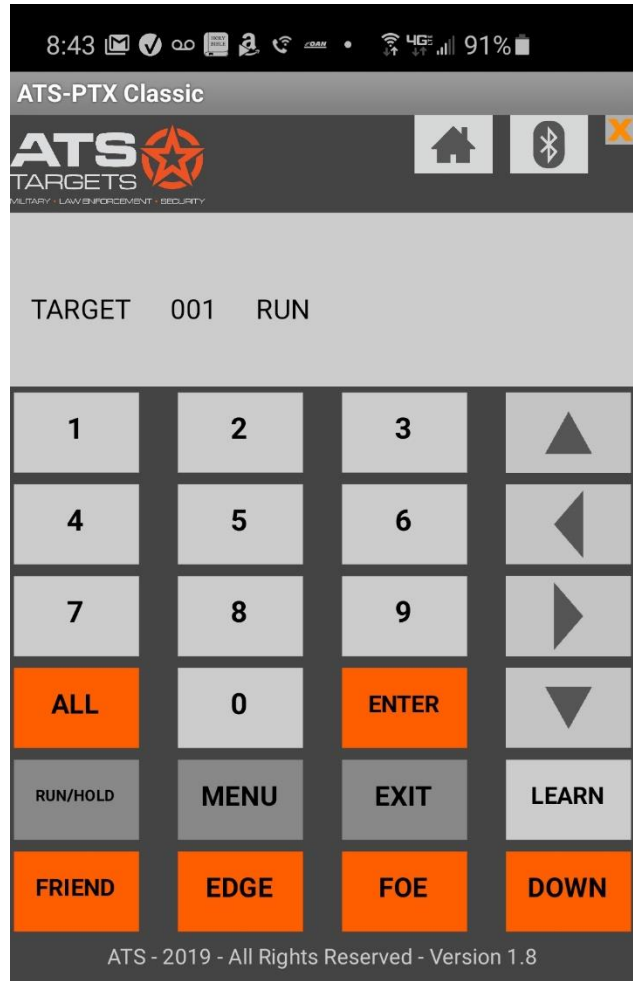
Before proceeding to use any target with the system, perform the following pre-checks.

- Ensure the transmitter and tablet batteries are fully charged.
- Ensure the antenna is connected to the top of the transmitter.
- Ensure the target is fully charged.
- If the target is a PT-68 or PT-68HD, make sure its mode switch is set to the Lifter (middle) position.
- Ensure that there are no visual signs of damage to the target.
- Follow any specific pre-check instructions in the target's manual.

WARNING: Ensure all personnel and obstructions are clear of the targets at all times!

To enter CLASSIC mode, tap the PTX-CLASSIC icon upon opening the app. You will be greeted by the keypad screen as shown here.

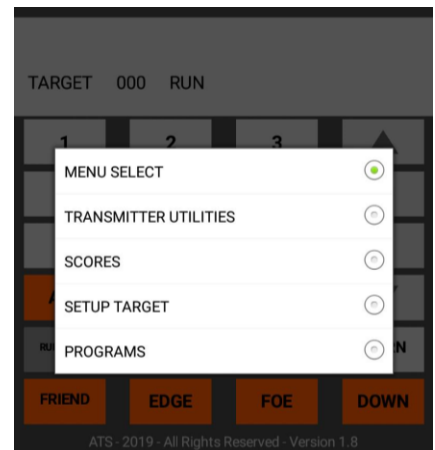
Most operations in CLASSIC mode are performed from this screen.



The CLASSIC Menu System

From any screen, tap **MENU** to open the main menu and access the menu system. Unlike legacy transmitters, menu selections can be made directly on the touchscreen.

Once you have changed your desired setting or activated your desired mode, the menu will close and you will return to the keypad screen.



Dynamic Target Control

RUN Mode

RUN is the default operation mode, used to control targets “on the fly.” You are in the mode when *TARGET 000 RUN* (can be any number) is displayed.

To raise the target and/or change its face, enter its number, then tap **FRIEND**, **FOE**, or **EDGE**. To lower the target, tap **DOWN**.

If you want to control all targets at once, even those without target numbers, tap the **ALL** key, then the key for the face you want all targets to assume.

TIP: The target or group that you entered will be kept in queue until you tap **EXIT**. To send additional commands to the same target or group, you do not need to enter its number again; just tap **FRIEND**, **FOE**, **EDGE**, or **DOWN**.

Programmable Target Control

The new table-based programming interface on the PTX-TAB app allows you greater control when it comes to managing your programs and observing their timing.

Creating New Programs

To create a new program, tap **MENU**. Navigate to *PROGRAMS > NEW*. You will be prompted to enter a name for the program; it cannot contain spaces or special characters.

Once you have named your new program, enter how long the program will be in seconds, followed by your highest target number. Tap **EDIT** to go to the program table and begin entering commands.

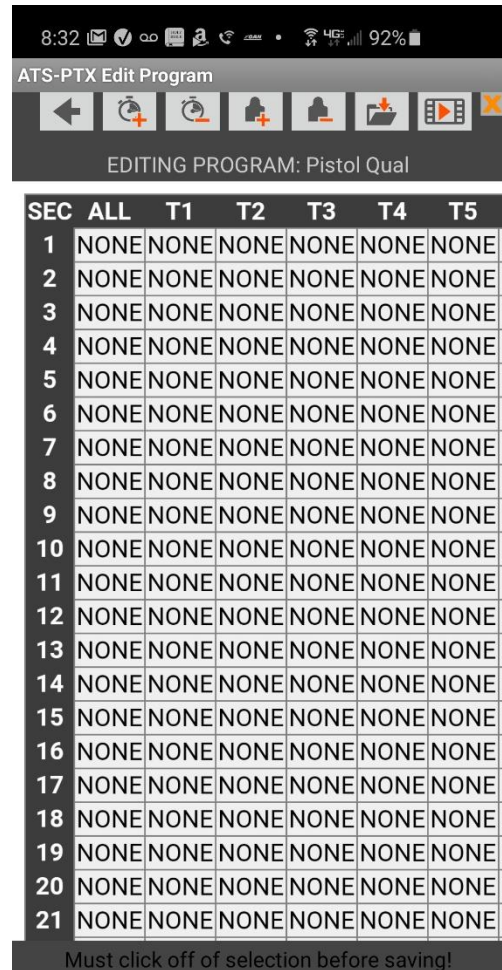
The Program Table

The program table allows you to edit your program in such a way that you can visualize its progress over time.

Each row in the table represents one second in the program. Each column represents the target with that number. There is an extra column at the beginning of the table, should you wish to send a command to ALL targets.

By default, a cell will have the NONE command assigned to it, indicating the absence of a face change for that target at that time. Select a cell to edit by tapping it twice. A drop-down list will appear, allowing you to choose between the **FRIEND**, **EDGE**, **FOE**, and **DOWN** options.

Should you need to add additional targets or time, tap **+TIME** or **+TARGETS** to create new rows or columns.



TIP: If you are adding an ALL command to your program, make sure all other cells in its row are set to NONE.

You can “live test” your program as it appears on the table at any time. Make sure your targets are powered ON, then tap **RUN** to switch to the playback screen.

When you are finished editing, unselect all cells by tapping anywhere outside the table. Tap **SAVE** to save all changes, then **BACK** to return to the keypad screen.

Running a Previously Saved Program

To run a saved program, tap **MENU**. Navigate to *PROGRAMS* > *RUN*. Tap the name of the program to be taken to the playback screen, then tap the play button to execute the program.

Editing a Program

To edit an existing program, tap **MENU**. Navigate to *PROGRAMS > EDIT*. Tap the name of the program to show its program table.

When finished editing, you can **RUN** the program or tap **EXIT** to return to the keypad screen.

Running Computer-Generated Programs

Using ATS UTC (Universal Target Control) Windows software version 3 or higher, programs can be developed, stored, edited and run by pairing the PTX-TAB with the PC. See UTC manual for details. Likewise, within UTC, programs can be exported and stored on either a micro SD or cloud drive service for transfer to an Android device.

Contacting a Target for Configuration

Contacting a target allows you to remotely configure its settings and prepare it for hit-reactive use.

Contacting with LEARN Mode

Ensure the target you want to contact is ON. From the keypad screen, tap **LEARN**. Turn the power switch of the target you want to contact OFF, then back ON. The transmitter will display the target and serial numbers on screen.

Confirm the numbers are correct for the target you want to configure; if they are, press **ENTER**. Tap **MENU** > *SETUP TARGET* > *USE CURRENT* to open the target's setup menu.

Contacting by Target or Serial Number

From the main menu, navigate to *SETUP TARGET*. Choose *SETUP BY TRG#* or *SETUP BY SRL#*. Enter the target or serial number, then tap **ENTER** to open the setup menu for that target.

Contacting the Current Target

If you have just issued a command to a target in RUN mode, you can proceed immediately to its setup menu by tapping **MENU** > *SETUP TARGET* > *USE CURRENT*.

Local Target Settings

Once a target has been contacted, local settings and hit-reactive features will be enabled. What settings and features are available to you depends on your target units and their configuration. Refer to your targets' manual for more information on each local setting.

Assigning Targets to Groups

The transmitter can control up to 30 individual groups. Each target can be a member of up to four different groups. From a target's setup menu, navigate to *TARGET CONTROL* > *ASSIGN GROUPS* to add it to a group.

Group slots are lettered A through D, but the groups themselves are given a user-defined number. Tap the slot you wish to change, then select the desired group number 1-30 from the menu. If the group does not exist, it will be created automatically. A group number of 0 indicates the target is unassigned for that particular slot.

TIP: As you group your targets, record which target numbers correspond to which group numbers. We have provided a table at the end of this manual to help you.

Hit-Reactive Target Control

TIP: To keep hit sensing accurate, be sure the target is firmly mounted. An unstable surface or improper placement may cause false hits to be counted.

Enabling Hit Sensing

The hit sensor is disabled by default. To enable hit sensing, contact the target. Select *HIT SETTINGS* from the setup menu to begin configuring the sensor.

Select *HIT COUNT* to set the number of hits required for the target to react. Hit count can range from 1 to 20. The count will reset to zero once the target reacts.

Proceed to set up your target's hit sensitivity and mode by following the instructions in your target's manual.

WARNING: *What options and hit modes are available depend on the target model and configuration you are using. Do not use hit-reactive features without familiarizing yourself with available options on your targets, as selecting an incompatible mode may damage them.*

Keeping Hit Scores

When hit sensing is enabled, the target keeps track of the total number of hits detected on each target, up to 225 hits per target. Scores accumulate until the unit is turned off or cleared with the transmitter.

To view and manage hit scores, tap **MENU**. Navigate to *SCORES > RETRIEVE SCORES*. The transmitter will take about 30 seconds to retrieve scores from each target; however, you can manually stop retrieval once your highest numbered target has been processed.

Once retrieval has finished, you will be able to scroll through the score list.

To leave the display, tap **EXIT**. You will be given the option to keep the scores in memory and continue incrementing, or clear all scores and restart from zero.

Maintenance

Transmitter Range

The transmitter operates at 902-928 MHz (standard) or optionally at 2.4GHz or WiFi, on a frequency-hopping spread spectrum scheme. The RF output power is 4 mW. Operating range depends on the model of transmitter you are using, as well as the situation in which your target is located. If your targets are part of a heavily wooded area, an indoor range, shoothouse, or urban training operation, range may be reduced depending on obstructions.

Battery Information

The transmitter is powered by an internal rechargeable lithium-ion battery. Use the micro-USB port on the bottom of the transmitter to charge the battery. When charging, the led on the top of the PTX-TAB module will blink red. When the unit is fully charged, the LED will stop blinking and will not stay lit. Most of the time, this can be done with the same cable used to charge the tablet.

Battery life will depend on how the transmitter is used. Under normal conditions, the battery can last for up to 80 hours before needing to be recharged.

To preserve the battery's longevity, we recommend you follow the below best practices, similar to those you would follow for a smartphone, tablet, or laptop.

- Extreme heat and cold can place significant stress on the battery and degrade its performance. Keep the transmitter out of direct heat and sunlight if possible and store it in a controlled environment when not in use.
- Use a reputable charger, preferably the same OEM charger used with the tablet. Third-party chargers have poor current regulation, causing inadvertent overcharging.
- Do not overcharge the battery. Once the battery has been fully charged, unplug the charging cable as soon as possible.
- If you do not plan on using the transmitter for an extended period of time, we recommend storing it at a charge of 30 - 60% to minimize stress on the battery.

PTX-TAB Transmitter Specifications

Weight	0.5 lbs.
Size (w/ bumpers)	4.5" x 3" x 1" (L x W x H)
Case	Not included, but available
Radio	900 MHz, frequency-hopping scheme Low-power Bluetooth
Number of targets connectable	Up to 220
Maximum effective range	600 m guaranteed, 1000 m typical
Run time	80 hours (50% duty cycle)
Power	Rechargeable lithium-ion battery (chargeable via micro-USB)

Tablet options include the Amazon Fire HD, Samsung Galaxy Tab (7", 8", 10",) or Microsoft Surface (Go or Pro.) However, the app should work with most Android devices.

Wireless connectivity to ATS Universal Target Control (UTC) software is available.