



TM

AIRTURN



BT-105 Transceiver
Product Family



Includes DIGIT, ATFS-2
QUAD and StompKit

User Manual

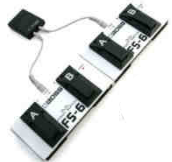


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*This manual is intended for firmware versions 28 and higher.
The firmware number is the first two digits of the serial number.*

BT-105

Thank you for your purchase of the AirTurn BT-105 hands free controller. We hope you enjoy the wonderful convenience of hands-free page turning, effects (FX) management and other creative ways to trigger events with the BT-105. Please send your suggestions and comments to support@airturn.com.

Description



The BT-105 will work with most Bluetooth-equipped MAC and PC computers. No additional software is required. It also works with most momentary switches to activate the Page Down and Page Up functions of most document and presentation programs, such as Adobe Acrobat, Microsoft Word, and PowerPoint. The BT-105 can be used with one footswitch to turn pages forwards only, or with two footswitches to turn forwards and backwards.

The BT-105 also works with select apps for Apple iOS™ iPhones, iPads, and iPods, in addition to Bluetooth-equipped Android devices with apps that have been designed to be compatible with the BT-105.

The BT-105 consists of a power switch, two 3.5mm stereo jacks for footswitches, an LED indicator, and a mini-USB charging port for the internal rechargeable battery.

Setup and Pairing

To use the BT-105 with your MAC, PC, or iPad, make sure the host computer you are using is in discovery mode. (Check the instructions that came with your computer or Bluetooth USB dongle. For iPad users, go into “Settings”, then select “Bluetooth” and make sure it is turned on). Turn on the BT-105 by pressing the red power button for **1 second**. The LED will blink green then orange several times and attempt to pair with your computer. Your host computer may require validation to accept pairing from the BT-105. If it requires a code, use 0000. If you are presented a code to validate the BT-105, accept it.

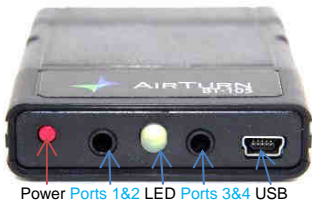
On the iPad, under the “Devices” heading within the Bluetooth settings, you should see the BT-105 appear, either as a keyboard, or as “AirTurn” with a serial number. Touch on top of Serial Number to connect and complete the pairing process. Once connected, it will blink green once every 2 seconds.

Resetting the Pairing

To reset the pairing on the BT-105, turn it on, wait 3 seconds, press and hold the red button for **8 seconds** until the LED blinks a rapid series of green and red, then release. If pairing is unsuccessful, delete the device displayed on the host computer and reset the BT-105 pairing again. Initial discovery may take up to 30 seconds (longer on some older PC and MAC computers). To delete the BT-105 from the iPad’s Bluetooth Device listing, tap the “i” in the circle opposite the BT-105’s serial number, then press the “Forget this Device” button.

Note: Reset pairing for both devices each time you change to a new host device such as using the transceiver with your desktop computer and then with your iPad.

Turning off the BT-105



Turn off the BT-105 by pressing the red button for **2-3 seconds** until the LED turns red. Release and the LED will blink 3 more times while the unit shuts down. Turning power off on the host computer will automatically turn off the BT-105 after 3 minutes.

Modes

There are four modes that come ready to use on your BT-105. Modes are used to send different signals to the host computer, depending on the computer and the application being used. The default mode, (Mode 3), is set for page turning on tablet computers such as iPads and Androids. The other most commonly used mode, (Mode 1), is for the generic use of page turning on the PC or MAC.

To change to the PC or MAC mode, (Mode1), turn off the BT-105. Then, holding down the footswitch plugged into Port 1-2 (the jack closest to the red switch), turn on the BT-105. Release both the footswitch and power switch as soon as you see the LED blink. The LED will then blink red, then green, then red, indicating the mode has been set.

To change the mode back to the iPad mode, repeat the same procedure using the footswitch in Port 3-4 (the jack closest to the USB port). Keep the switch depressed until you see the first blink, then release the footswitch and power switch. You will then see one red blink, then 3 green blinks, then one final red blink. The following table shows each mode and respective signals:

Mode 1 set using switch 1 on startup (PC/MAC Mode)

Port 1	PgUp	Port 3	PgDn
Port 2	Left Arrow	Port 4	Right Arrow

Mode 2 set using switch 1 and 3 held together

Port 1	1	Port 3	3
Port 2	2	Port 4	4

Mode 3 set using switch 3 held on startup (Default Setting – “iPad Mode”)

Port 1	Up Arrow (Prev Page)	Port 3	Dn Arrow (Next Page)
Port 2	Left Arrow	Port 4	Right Arrow

Mode 4 set using switch 2 held on startup (cable splitter required)

Port 1	~1	Port 3	~3
Port 2	~2	Port 4	~4

iOS Virtual Keyboard

Some applications require the use of the keyboard to enter text or to interact with the application. Since the BT-105 is an external keyboard, the iPad or other iOS device by default disables its own virtual keyboard.

To open the virtual keyboard, open any text box on the iPad, then tap in the text box to activate the cursor. Then quickly press and release the power switch while the BT-105 is connected to the iPad. If you close the virtual keyboard from within the application, you can press the power switch again to reactivate it.. This is a toggle switch so pressing it will toggle the virtual keyboard on and off. Note that iPhones may require toggling on the keyboard for each use.

Charging

Please charge your BT-105 1-2 hours using the mini-USB to USB charging cable and any USB wall power adapter, or 6 hours connected to your computer. Note some portable computers may not sufficiently charge the BT-105. Disabling the sleep setting on the computer may improve charging performance.

Your BT-105 should last 100 hours or many days on a charge depending on how much you use it. On a full charge, the LED will blink green. When the power is low, the LED will blink as follows:

Yellow every second = under 25% power

Red every second = under 10% power

If the BT-105 is turned off while charging, the LED indicator will not light up, but it will still charge. If you leave the BT-105 on while it is charging, the LED will remain lit and you can monitor the charging status. Red is a low charge, solid yellow is a 75% charge and orange/green is a full charge.

Note: *If you fail to charge your battery when it begins blinking red, you risk running it down completely which may require a replacement battery. Charge the BT-105 at least once per month to maintain good battery health.*

Compatible Switches



Most normally open (NO) momentary switches will work well with the BT-105. Please visit: <http://airturn.com/footswitches> for a list of compatible switches. Some footswitches have a latch mode. Be sure that the latch mode is turned off and/or the momentary mode is turned on. Port 3-4 is used to turn to the next page, and Port 1-2 is used to turn to the previous page.

For best results use the AirTurn ATFS-2 footswitch or the Boss FS-5U footswitch with AirTurn patch cables. Check the AirTurn store or your dealer for cable adapters for other brands of footswitches.

Two adapter cables are provided to work with most ¼" phone jack-equipped switches.

Tongue and Bite Switches



Tongue and Bite Switches are also available from AirTurn or your dealer for special uses. They are used the same way as any other momentary

switch.

See the specific instructions included with each switch.



Troubleshooting

The BT-105 is not connecting or pairing

1. Turn off the BT-105.
2. Delete the AirTurn device on your host computer. On an iOS device, go to the Bluetooth settings, (Settings, General, Bluetooth), and press the “i” in the circle next to the AirTurn selection and then press the Forget this Device button, then OK.
3. Turn off Bluetooth on the host device.
4. Turn on the BT-105. Wait 3 seconds. Then hold the power button for 8 seconds until you see the LED light blink red/green rapidly several times.
5. Turn on Bluetooth on the host device.
6. The BT-105 should appear after 5-10 seconds depending on the host.

7. Touch or click the listing when it appears and it will connect after another few seconds.

The BT-105 is connecting but not turning pages

1. Check the mode. This is the most common problem. (It can be inadvertently changed while turning on the BT-105 by holding down the footswitch plugged into port 1.)

To change the mode to the default mode 3:

A. Turn off the BT-105.

B. With one hand, hold down the right footswitch, (the one plugged in closest to the USB port.)

C. Turn on the BT-105.

D. Release the footswitch and power switch after 1 second or after you see the first green blinking light.

E. When you see a red blink, three greens and a red blink the mode is changed.

2. Make sure you are using an app that supports the BT-105. (Check the AirTurn website. <http://airturn.com/apps>)

3. Check the application instructions to make sure you have the application set up for the AirTurn.

4. On an iOS device, be sure you are not running too many applications. See your iOS instructions for closing apps.

5. Lastly, on an iOS device, try resetting the network. (Note: this procedure will cause you to lose network password settings and they will have to be re-entered.) Select General,

Settings, Reset, Reset Networks. Recheck connection after the device restarts.

Go to www.airturn.com/support for more information and videos on the BT-105. Additional questions can be emailed to support@airturn.com.

Unit Identification

The unit name in your Bluetooth host consists of several codes to help with support and identifying your specific device. For example:

AirTurn105v128-220A

105 refers to the model number.

V128 refers to the firmware version.

220A refers to the MAC address.

This is helpful if there are many BT-105 units in the same location. Your MAC address will always be the same so you can easily identify your unit. You will find your specific MAC address labeled on the bottom of your BT-105.

DIGIT

The AirTurn BT-105 DIGIT is a combination Bluetooth transceiver that may be used in a variety of settings. It offers a keypad with six switches. The switches are also used to change the unit's mode and send different characters in each mode. The DIGIT may also be used with up to four momentary footswitches, tongue or bite switches and in a whole array of environments. (Please see BT-105 instructions for pairing, charging and other important information.)















Setting Modes on the DIGIT

1. Turn the DIGIT off.
2. Hold down the key symbol(s) for the mode you would like to select.
3. Turn on the DIGIT.
4. Release the key as soon as you see the first LED light flash.

You will see the LED blink red once, green for X number of times based on the mode number, and then red one more time. For example, when the Down Arrow is selected for mode 3, the red light will blink once, green 3 times and red once.

Your DIGIT comes programmed ready for mode 3. The following chart shows all the options for each mode:

Mode	Mode Symbol	Description						
1		Presentation 1	PgUp	Left arrow	PgDn	Right arrow	Enter	b
2	 + 	Numbers	1	2	3	4	5	6
3		Presentation 2 & iPad	Up arrow	Left arrow	Down arrow	Right arrow	Enter	b
4		Assisted Tech	~1	~2	~3	~4	~5	~6
5		iTunes Camera, Video	Camera Volume up	Prev Song	Volume Down	Next song	Play Pause	Home

The iOS camera and iTunes mode works on all iOS devices. Note, if music is playing, the camera function is superseded by the music. The camera function will take pictures remotely and start/stop video.

When using Presentation 1 or 2 modes on a MAC or PC with PowerPoint, the tilde (~) button may be used to blank the screen.

The Assisted Tech mode, (Mode 4) is for use with applications designed for this protocol.

Two ATFS-2 Pedal Board Kit



The BT-105 or DIGIT may be purchased with 2 ATFS-2 silent footswitches. This option is ideal for many applications in which two switches are needed. For example, it could be used to go forward or backwards in a page-turning application.

The ATFS-2 footswitch uses a combination of rare earth metals to close the switch, making it silent and highly reliable for a very long time. There are no mechanical parts to break.



Mode Management

Please see the section in the BT-105 for mode management. The right footswitch is plugged into port 3 and the left switch is plugged into port 1.

Important: Be careful not to hold down one of the switches while turning on the unit, as it may inadvertently change the mode.

If you are using the DIGIT with the Pedal Board kit, see the DIGIT section for mode management.

QUAD (Four ATFS-2 Pedal Board Kit)



The QUAD (Four ATFS-2 Pedal Board Kit) comes equipped with the DIGIT. Each footswitch is plugged into the ports in order from left to right. You may change modes using the footswitches as per the Mode

directions in the BT-105 section, or using the DIGIT buttons as described in the DIGIT section of this manual.

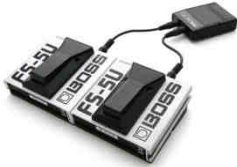
The BT-105 or DIGIT is held in place with hook and loop fasteners so that it may be easily removed and used as a standalone controller or with other footswitch systems.

There are many apps that work with the four-pedal board, such as Jamup, OnSong, PrompterPal, and many more. Check out the app section of the website for more options.



<http://airturn.com/4-pedal-apps>

StompKit (BOSS FS-5U Footswitches)



The BT-105 or DIGIT may be used with one or two BOSS FS-5U footswitches. Special cables from your dealer or AirTurn are required and are supplied when it is purchased as a kit. For extra convenience in using the FS-5U,

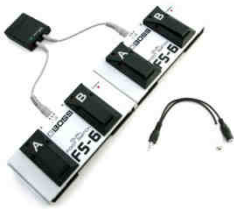
you can slide the two switches together.

It is also important to check the “polarity” switch on the FS-5U. Please make sure it is pushed to the right when operating with the BT-105 or DIGIT.



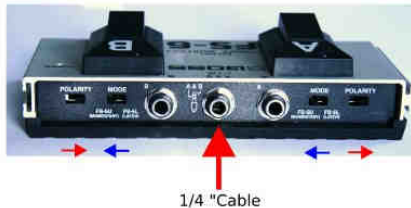
The FS-5U switches are plugged into ports 1-2 and 3-4 of the BT-105/DIGIT. See the manual sections for the BT-105/DIGIT for more information for use.

BOSS FS-6 Footswitches



The BT-105 or DIGIT may also be used with the BOSS FS-6 footswitch. Note that the FS-6 requires a separate 9V battery to function. AirTurn supplies specially made cables to function with the FS-6. You can also make your own cables with instructions available on the AirTurn website.

You may choose to have either one FS-6 or 2 FS-6 devices attached to your BT-105 or DIGIT. There is a different cable for each configuration. The cable plugs into the center jack of the FS-6. Be sure to set the switches on your FS-6 as shown here:



Please note the position of each switch. The A pedal has the Mode and Polarity switches pointing away from each other and the B pedal has both switches pointing towards each other. You can slide the FS-6 switches together to make a 4-pedal configuration by aligning the channels on each one and then

sliding one inside the other's channel. Due to impedance issues on the FS-6, you may need a splitter cable to change modes.

Changing Modes

The BT-105 comes set up by default to Mode 3 which will work with most applications. To change the mode, you will need to use the splitter cable provided with your unit (Dual FS-6 units only). To change to Mode 1, insert the splitter into port 1/2, (closest to the red power switch), on the BT-105. Then plug the cable coming from the FS-6 into the white end of the splitter to change to Mode 1, or the black end of the splitter for Mode 2.

For Modes 3 and 4, plug the splitter into port 3/4 of the BT-105 and use the white cable for Mode 3 and the black cable for Mode 4.



Turn off the BT-105.

Hold down the A pedal. Turn on the BT-105. As soon as you see the BT-105 start to blink green, release the A pedal and the

power switch. You will first see a red light blink, then a number of green lights blinking that correspond to the mode number, and then one green light blink. If you do not get that result, try again. The timing is about 1 second before you must release the power button and footswitch.

See the BT-105 section for details on characters associated with each mode.

Custom Implementation

There are many environmental options that the BT-105 can be placed in, including external power, use with custom codes, embedding with special switching, use with Behringer pedal board and more. Please see the support section of our website for details. <http://airturn.com/bt-105>

Warranty

AirTurn, Inc., ("AirTurn"), warrants to the first consumer purchaser that the AirTurn BT-105 transceiver (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for one year from date of purchase.

This warranty does not apply to any appearance items of the Product nor to any Product the exterior of which has been damaged or defaced, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design or construction, nor does it apply to cables or batteries that may be supplied.

In order to enforce the rights under this limited warranty, the purchaser should request a RMA number via email or phone following the directions on the support page at www.airturn.com/support. The purchaser shall return the product at their expense. The repaired or replaced product will be returned at the expense of AirTurn.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO ONE YEAR FROM THE DATE OF THE PURCHASE. Some states do not allow

limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The warranties described herein shall be the sole and exclusive warranties granted by AirTurn and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of AirTurn to the purchaser with respect to the Product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall AirTurn be liable, or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than an authorized servicer, nor shall AirTurn be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

Radio Information

Bluetooth 2.1/2.0/1.2/1.1

Bluetooth v2.0+EDR support

Low power

Approximate Range:

After One Wall 60 feet, After Two Walls 55 feet

After Three Walls 36 feet

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.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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 circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC ID:T9J-RN42

Part 15 Subpart B: 2008 Class B

CRF Title 47 Part 15 Subpart C



Recycling and Disposal



Electronic components and construction comply with RoHS standards.

Packaging is recyclable. Please recycle.



Contains Lithium Polymer

Battery. Battery should be disposed of according to local law.

Warnings

- Do not plug any device that generates an electric current into the BT-105 footswitch ports
- Do not get the BT-105 wet or place in direct sunlight for extended periods of time.
- Do not open the unit, as there are no user serviceable parts.
- Do not put in trash. Please recycle.

Trademarks

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Android is a trademark of Google, Inc.

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