

BBT B-Cycle Bike Tracker Module - User and Installation Compliance Manual

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Notes:

- This version of the manual assumes installation on a Linux based Kiosk Client – For Windows based Kiosk Clients installation, please contact BCycle LLC support.
- The information in this manual should be kept confidential to prevent malicious tampering with B-Cycle equipment and installations.

Installation in 1.0 Kiosk PN 5268779

Materials Needed:

- 1.0 BBT Kiosk installation kit 5266779
- Alcohol wipes or isopropyl alcohol and a clean cloth



- #2 Phillips screwdriver and pliers



- Step bit capable of drilling a 1-1/8" hole



Caution: [BBT 1.0 Kiosk Moduel PN: 5268779](#) must be installed in the location and using the methods described in these instructions to ensure compliance with FCC requirements.

Important: The double-sided tape used to attach the 1.0 Bluetooth module to the kiosk wall is high quality, but a few points are important to remember.

- Contamination on the kiosk wall can prevent proper adhesion. Cleaning the area where the Bluetooth module will be installed is important.
- Install in warm weather. Temperatures below 60F prevent the adhesive from properly flowing and full adhesion will not be achieved.
- Pressure during installation aids in adhesive flow. Press the Bluetooth module into place and hold pressure on it for 60 seconds to allow good adhesion

Step 1

Open kiosk and locate position of drilled hole as shown. Mark or center punch the location, 9" below the existing LTE antenna mount. Clear any cables out of the way to ensure they are not damaged by the drill operation. Ensure that metal shavings will not fall into any of the kiosk electronics. A small dam of strong tape under the drilling location, sticky side up, can help to control the chips.

Step 2

Drill hole to 1-1/8" diameter through the sheet metal mounting panel and the back wall of the kiosk together. We recommend use of a step bit for ease of drilling and for a clean, round hole. The hole should exit the kiosk on the centerline, and behind the solar panel mast, if equipped. Make sure to remove any burrs before proceeding. Clean up any drill shavings from inside the kiosk. Pay special attention to keeping the nearby electronics free of shavings.

NOTE: Alternative positions behind the solar pole, along the centerline of the kiosk may be acceptable or required depending on your configuration, but a minimum of 2.00 clear inches is required to pass the enclosure into place behind the solar pole.

Step 3

Clean the area around the hole on the outside surface of the kiosk using alcohol. Be sure to clean the entire area to match the Bluetooth enclosure. Wipe dry with a clean cloth.



Step 4

Thread the USB cable from the Bluetooth module through the hole just completed, from the outside to the inside. Use care to avoid damaging the cable on any edges.



Step 5

Remove the liner from the tape on the back of the Bluetooth enclosure and carefully fit the threaded nipple on the Bluetooth enclosure through the hole. Ensure that the Bluetooth enclosure is level and properly oriented (BCycle logo upright!) before letting the tape contact the kiosk wall. Once stuck, the tape is very difficult to remove/reposition! When alignment is confirmed, press the enclosure to the back of the kiosk. Apply pressure for 60 seconds to allow the adhesive to properly wet out and adhere.



Step 6

Thread the fixing nut over the USB cable and thread it onto the nipple protruding into the kiosk. Use a pliers to tighten the fixing nut firmly, while ensuring that the USB cable is not damaged.



Commented [RA1]: here is a BCycle embossed logo on the enclosure, should we mention that as an orientation mark?

Commented [MD2R1]: I love this idea!

Commented [MD3]: Should we make a comment about the permanence of the tape? I.e., MAKE SURE YOU'VE DONE IT RIGHT BEFORE YOU PRESS IT ONTO THE KIOSK!

Commented [MM4R3]: updated

Step 7

Connect the USB cable from the Bluetooth module to the kiosk PC. If all USB ports are in use, it will be necessary to add an off-the-shelf USB hub (not included). We recommend a non-powered 4-port USB 2.0 (or better) hub to allow for additional expansion if necessary. If you plan to mount the USB hub with double-sided tape, 3M VHB tape type 4991 is an effective and durable choice.

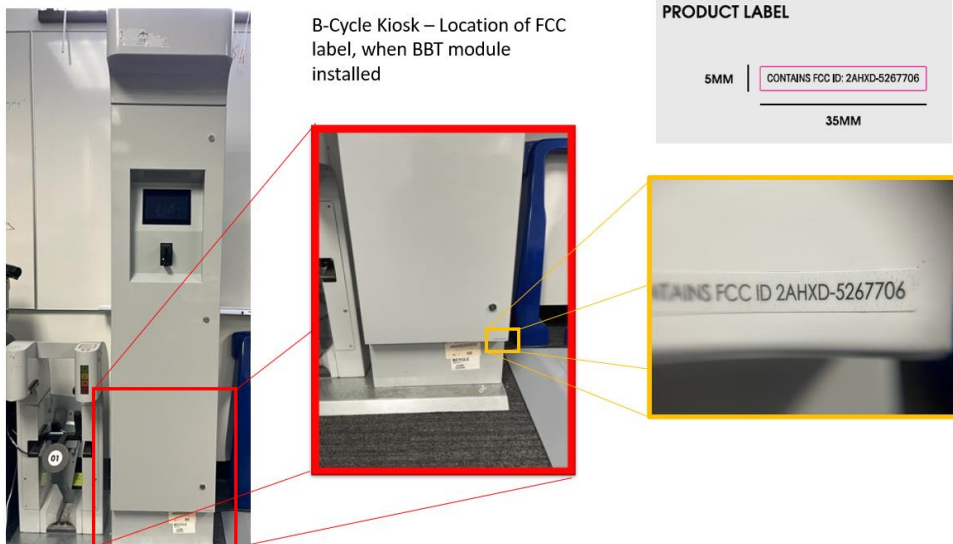
Step 8

Once installation is complete, Reboot the kiosk. Once the kiosk has been restarted and appears ready for customer use, turn on one or more BBT-Equipped BCycle Electric bikes, and verify that their data is being collected/reaching the Admin site. If you need help troubleshooting this process, reach out to the BCycle team via Help Center/Zendesk.

Step 9

Installing the included FCC ID sticker to the kiosk.

The FCC ID sticker is included in the kitted bag of parts. This sticker must be placed on the kiosk as shown in the image below. (Contains FCC ID: 2AHXD-5267706)



Installation for 3.0 Dock Kit PN 5268777

- 3.0 Dock BBT Kit PN 5268777

Caution: [BBT 3.0 Dock Module PN: 5268777](#) must be installed in the location and using the methods described in these instructions to ensure compliance with FCC requirements.

Step 1

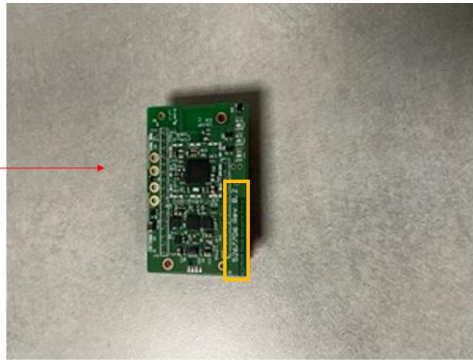
Remove the docks “topcap” and unplug the battery from the port on the main PCB.

Step 2

Install the 3.0 Dock BBT PCB by aligning the feather pins on the underside of the board with the connectors on the main 3.0 dock PCB. See images.

Step 3

Plug back in the battery and reinstall the “topcap” to the dock. Once the dock has been restarted and appears ready for customer use, turn on one or more BBT-Equipped BCycle Electric bikes, and verify that their data is being collected/reaching the Admin site. If you need help troubleshooting this process, reach out to the BCycle team via Help Center/Zendesk



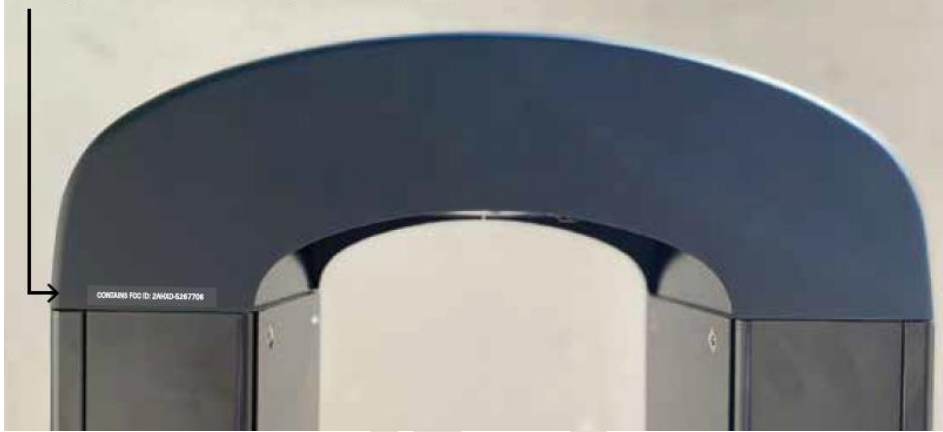
Close up of BBT 3.0 Dock module and FCC Label location on Module (yellow box).

Step 4

Installing the included FCC ID sticker to the kiosk.

The FCC ID sticker is included in the kitted bag of parts. This sticker must be placed on the kiosk as shown in the image below. (Contains FCC ID: 2AHXD-5267706)

PLACEMENT: Back side of the dock, located along the bottom left edge of the top cap.



Placement of FCC Label on exterior of BBT 3.0 Dock

Installation in 2.0 Kiosk PN 5268779

Materials Needed:

- 2.0 BBT Kiosk installation kit **5268779**
- Alcohol wipes or isopropyl alcohol and a clean cloth



Caution: **BBT 2.0 Kiosk Module PN: 5268779** must be installed in the location and using the methods described in these instructions to ensure compliance with FCC requirements.

Step 1

Open kiosk and find the mounting location of Bluetooth module bracket on the internal platform shown.



View of BBT module inside 2.0 Kiosks.

Step 2

Install the Bluetooth module as shown to the platform / shelf. Wipe dry with a clean cloth before removing the tape liner and pressing the module to the selected surface. Hold pressure for 60 seconds to ensure proper adhesion.



Step 3

Connect the USB cable from the Bluetooth module to the kiosk PC. (You may have to bend one or two of the vent slots of the lock box to fit the USB connector through).

If all USB ports are in use, it will be necessary to add an off-the-shelf USB hub (not included). We recommend a non-powered 4-port USB 2.0 (or better) hub to allow for additional expansion if necessary. If you plan to mount the USB hub with double-sided tape, 3M VHB tape type 4991 is an effective and durable choice.

Step 4

Once installation is complete, Reboot the kiosk. Once the kiosk has been restarted and appears ready for customer use, turn on one or more BBT-Equipped BCycle Electric bikes, and verify that their data is being collected/reaching the BCycle Admin site. If you need help troubleshooting this process, reach out to the BCycle team via Help Center/Zendesk.

Step 5

Installing the included FCC ID sticker to the kiosk.

The FCC ID sticker is included in the kitted bag of parts. This sticker must be placed on the kiosk as shown in the image below. (Contains FCC ID: 2AHXD-5267706)



4. Installation for Bicycle Module PN 5268780

These instructions are written for someone with experience in the assembly of bicycles. The user will learn how to securely attach the BCycle bike tracker (BBT) and correctly route the associated cabling. It is important that the installation be done properly and in accordance with these instructions.

Proper installation is important for the longevity of your investment as well as the safety of your riders. Following the instructions below will help ensure that this accessory is properly attached to the bicycle and that cabling is routed with the lowest chance of damage during use.

Caution: BBT Module must be installed in the location and using the methods described in these instructions to ensure compliance with FCC requirements.

Materials:

- BBT installation kit



- Alcohol wipes or isopropyl alcohol and a clean cloth



- T20 and T25 tamper-resistant Torx drivers



Important: The double-sided tape used to attach the BBT module to the skirt guard on the bicycle is high quality, but a few points are important to remember.

- Install in a warm place. Temperatures below 60F prevent the adhesive from properly flowing and full adhesion will not be achieved.
- Contamination on the skirt guard can prevent proper adhesion. Cleaning the inside of the skirt guard is important.
- Pressure during installation aids in adhesive flow. Press the BBT module into place and hold pressure on it for 60 seconds to allow good adhesion
- The adhesive flow critical for strength takes time. It takes 24 hours for 90% of full strength to be achieved, so do not install the product and then immediately put bicycles into service.

Step 1

Remove the non-drive side skirt guard by removing 3 fasteners shown. They require a T25 tamper-resistant Torx driver.



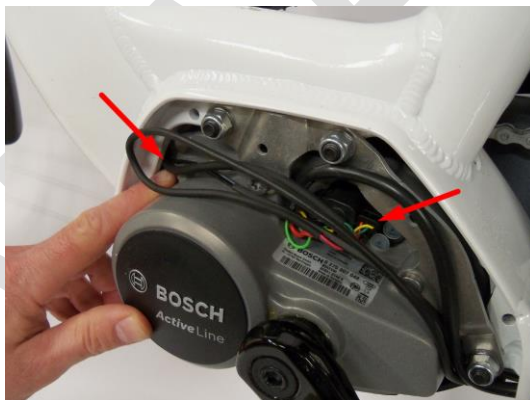
Step 4

Remove the Bosch motor cover by removing the 5 fasteners shown. The top two require a T20 Torx driver, and the remainder require #2 Philips.



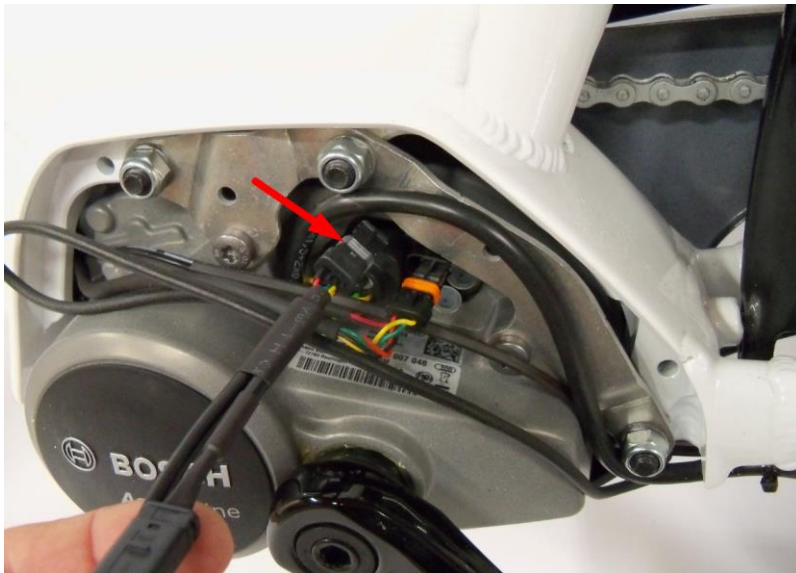
Step 5

Find and disconnect the cable from the Bosch Purion display. This cable comes from the down tube and is plugged into the top connector beside the motor power connector.



Step 6

Plug the end of the Y-harness provided in the BBT kit into the connector from which you removed the Purion cable.



Step 7

Plug the Purion cable into the mating socket on the Y-harness.



Step 8

Position the large Purion cable connector into the space under the motor connectors. This leaves space for the dust cover to be re-installed properly. Note the routing of the cables and Y-harness, ensuring that there is adequate clearance for the dust cover.



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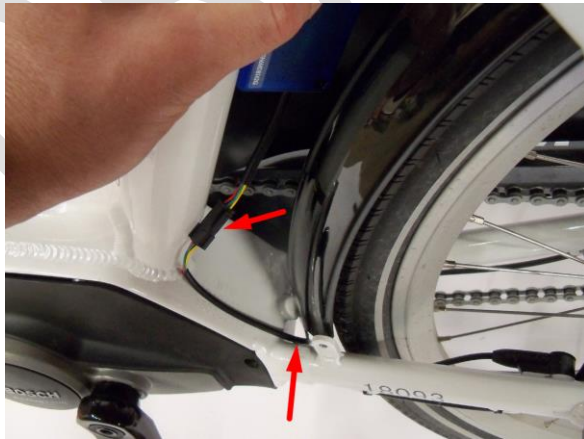
Step 9

Re-install the Bosch motor dust cover. Be sure that the cover and fasteners are not pinching cables. Pay particular attention to the new Y-harness where it exits the motor cover beneath the bottom bracket area.



Step 10

Pull the tail of the Y-harness up between the chain stays on the non-drive side of the fender bolt. This will help direct the cable away from the bicycle chain when the BBT module is installed. Connect the BBT module to the tail of the Y-harness.



Step 11

At this point, power up the Bosch system by pressing the power button on the Purion display or on the battery. With all connections properly made, you should see the green power LED within the BBT module begin to flash. Once you confirm power-up, you may turn off the e-bike.

Step 12

Clean the surface of the drive-side skirt guard with alcohol. Wipe dry.



Step 13

Prior to adhering the module, place it into place on the drive-side skirt guard to understand where it will fit. It should be positioned between the seat tube and the fender, near the top of the skirt guard. Remove the liner from the double-sided tape on the back of the BBT module. Press the module into place and apply pressure for 60 seconds to allow the adhesive to properly wet out.



Step 14

Install the provided cable tie through the loop on the BBT module and through the tab on the frame.
IMPORTANT This cable tie serves as a safety back-up to prevent the module from falling into the rear wheel should the double-sided tape fail.

Step 15

Re-install the non-drive side skirt guard, power up the system, and set up the bike in your bike tracking system.

Location of FCC ID on the Bike Tracking module



FCC Compliance Statements

1.0 Kiosk Kit PN 5268779

3.0 Dock. Kit PN 5268777

2.0 Kiosk Kit PN 5268779

Bicycle Tracking Module PN 5268780

All of the above applications utilize wireless module, FCC ID: 2AHXD-5267706

These host products do not permit installation, repair or replacement of the transmitter module by unauthorized personnel. The transmitter module meets the FCC regulations listed on the FCC Grant of certification and is limited to installation in the Trek host products listed above. This transmitter module may be collocated with LTE transmitter Quectel BG95M3 FCCID: XMR201910BG95M3, Cradlepoint IBR200 FCCID: UXXS3A748A, Inseego SkyusSC1 FCCID N7NWP76A, SkyusDS FCCID: N7NMC7355 in the 3.0 dock in the 1.0 and 2.0 Kiosk. This collocation condition has been tested and meets FCC collocation requirements for this use. This module uses a permanently attached PC board L-trace antenna. Use of any other antenna will void FCC compliance.



In all applications of the BBT module, the location of the physical FCC label is on the module itself, as shown above (yellow).

This device complies with part 15 Subpart C, Section 15.247 of the FCC Rules

Operation is subject to the following conditions: (1) these devices may not cause harmful interference, and (2) these devices must accept any interference received, including interference that may cause undesired operation.

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 experienced radio / TV technician for help.

NOTE: TREK BICYCLE CORPORATION IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY TREK BICYCLE CORPORATION OF THIS DEVICE, COULD VOID THE USER'S AUTHORITY TO OPERATE THE DEVICE.

Exposure to radio frequency energy

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter should be operated with a minimum separation distance of 5mm (¼ inches) between the equipment and a person's body. This transmitter module must not be collocated with another transmitter without further compliance evaluation in accordance with FCC multi-transmitter product procedures.