

RidePod BT – Installation

Note: Video instruction on the installation of the RidePod BT can be found at this web link:

<https://youtu.be/-DZd0SU4E4o>

Items needed for tube installation:

- Masonry/Concrete Bolt/Screws 6mm x 50mm with driver bit, Masonry screw bits 6mm (for pre-drilling hole for Bolt/Screw), two battery operated (cordless) drills.
- Side cutters or pliers
- Chalk or crayon
- Tape measure, or pre-cut measuring stick
- Security Strop or chain, padlock (per each counter – for anti-theft/security)
- Safety equipment required by any relevant statutes or regulations

Installation Procedure - To be read in conjunction with document: RidePod BT for Bicycle Counting – Dec 2022

1. Rubber Tube roll (30mtrs) to be cut into equal lengths. Tube lengths will depend on the Bicycle Lane/Path width, so tube length could be between 7.5mtrs and 15 mtrs per length – *this is to be advised on a site-by-site basis.*
2. At the installation site, mark the tube spacing onto the Bike Path surface, using Chalk or Crayon – *see pic 1 below.* The sensor spacing will differ depending on the location of your study. In all cases, the tubes are to parallel to each other and perpendicular to the wheel track.
 - For a shared path: 400mm spacing
 - For an on-road bicycle lane: 600mm spacing
3. Anchor/Fix one end of Tube A (opposite end to where counter is to be installed) using the Figure 8 wire cleats, and *Bolt/Screws – *see pics 2, 3 below.* At this stage, insert a **Vent Plug** (supplied) into the end of Tube A. (*use a drill with masonry bit to pre-drill the hole into the path/road surface, then use another drill to insert the Bolt/Screws through the figure 8 cleat into the path/road surface).
4. Repeat step above to anchor/fix Tube A where it meets the edge of the Bike Path - closest to the RidePod BT counter device – This actual end of Tube A (closest to the counter) will be attached to the Air Sensor “A” on the RidePod BT counter device.

Note: During process above - stretch the tube approx. 10% to minimize lateral movement, however it is important to ensure that the tube lengths from edge of the Bike Path to the Counter Device air sensors are exactly the same (a difference in length will result in incorrect speeds and wheelbases).

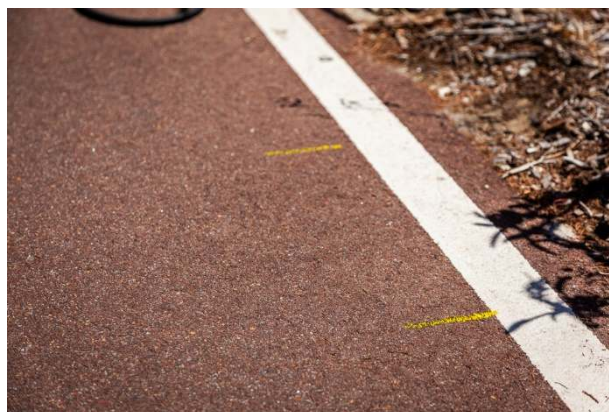
5. Repeat steps above to install **Tube B** – see point 2 above for recommended spacing of the two tubes. The counter end of Tube B will be attached to the “B” Air Sensor.

6. Cut strips of Bitumen Tape (supplied) into approx. 15 cm strips – Note: the total number of bitumen tape strips needed will depend on the width of the path. Remove the paper backing from the bitumen tape and place the tape over the rubber tube (**as per pic 4 below**) making sure the tape surrounds most of the circumference of the tube (to minimize air pockets). The strips of Bitumen Tape should be spaced along the length of the A and B tubes at a minimum of 50cm intervals – to further reduce lateral movement of tubes.

7. The counter device can be inserted into the steel roadcase, with the tubes passed through the roadcase handle (**as per pic 5 below**) then connect the A and B tubes to the counter device’s A and B air sensors and then pressed into the two roadcase “indents”. The RoadCase (with counter fitted) can then be secured to a nearby street pole (or any fixed street “furniture”) using the supplied security strap and padlock (for anti-theft/security).

Note: Prior to step 6 above – the counter device needs to be set-up and activated for the Bicycle Count Survey using the MetroCount MTE software – this can be done at the roadside using a Laptop PC or suitable Tablet Device **OR** set up can be performed in advance using a Desktop PC, with the start time set as immediate OR deferred. *Note: see other documentation regarding the MTE software, counter set-up, Data download and Data analysis.*

Installation Pics/Diagrams:



Pic 1. above: Mark the tube spacing on Bike Path at edges of path using chalk/crayon – see point 2 above for spacing measurements

To attach a Figure-8 Cleat

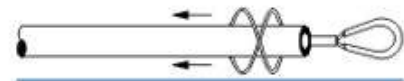
1. Place one end of the pneumatic tube over the large loop of a Figure-8 Cleat.



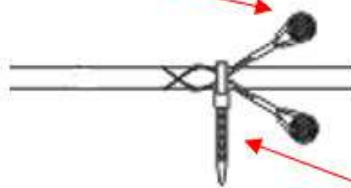
2. Twist the Figure-8 Cleat to form a second loop, and slide over the end of the pneumatic tube.



3. Bunch the two loops together, and pull the tube through as required.



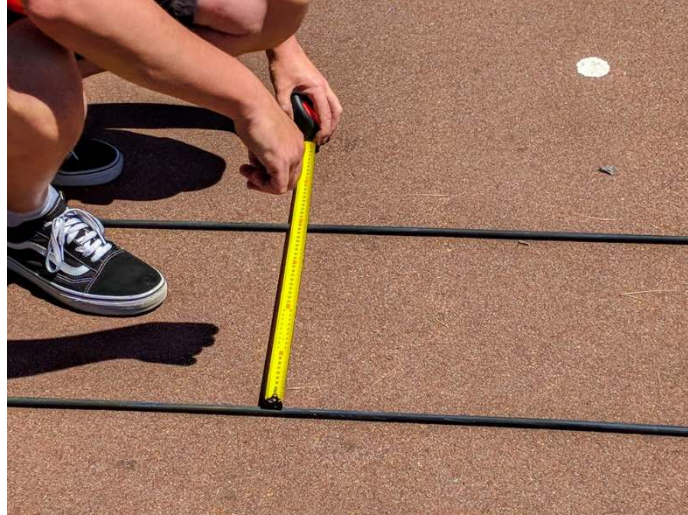
Screw/Bolt anchors drilled through the Figure 8 Cleat eyelet/s, and into the path/road surface



Optional – attach 2 Figure 8 Cleats

Optional - Cable-tie to secure the Figure 8 Cleat/s and further prevent slippage

Pic 2. above: Method for attaching the Figure 8 cleat/s to the rubber tube etc.



Important - check tube spacing with tape measure or pre-cut measuring stick, during the tube installation – see point 2 above for spacing measurements



Pic 3. above: tube ends with figure 8 cleats and screw/bolt anchors – optional to use 2 x cleats per each tube end. Vent plugs (supplied) to be inserted in the tube ends,



Pic 4. above: Using strips of Bitumen Tape across the length of the tubes to secure the tubes to the Bike path surface



Note: pic above - excess tube, at the counter end, can be wrapped around any nearby street pole/furniture before tubes are attached the counter device. The supplied steel security strop can be used to attach the roadcase handle to the pole and padlocked for anti-theft/security.



Pic 5. above: A and B tube ends are passed under and through the road case handle, pressed into the case “indents” and attached to the corresponding counter device A and B Air Sensors.

Note: Counter needs to be set-up/activated using the MTE software before closing and locking the counter road case – see pic below.



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