

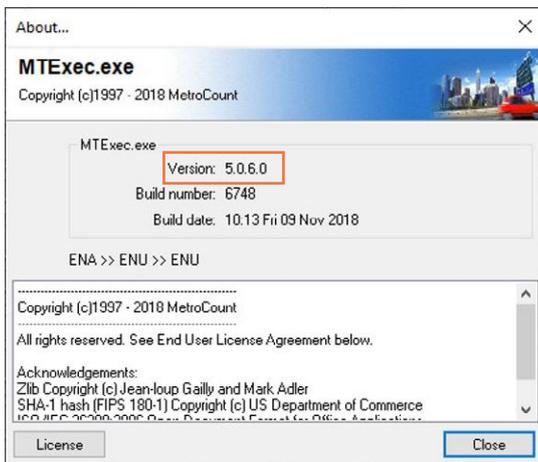
RoadPod® VT 5900 - Setup & Installation Guidelines

Setup

1. Install the MTE software

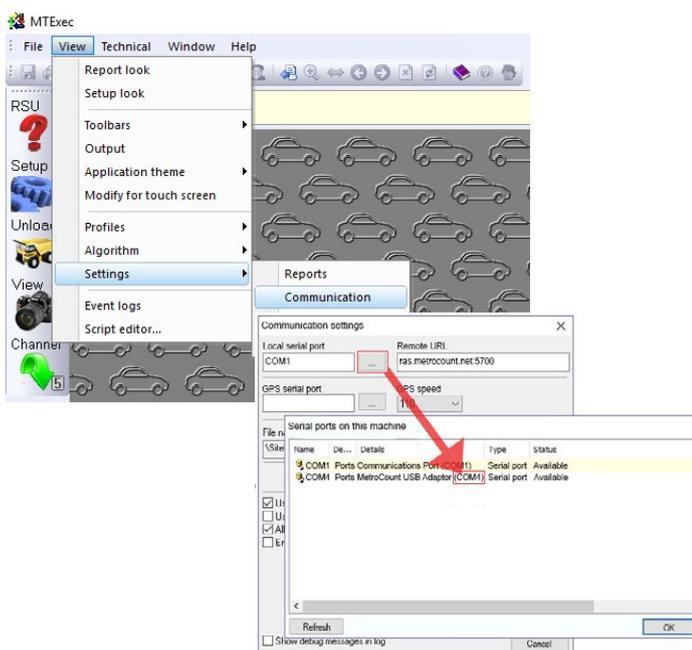
Ensure that the latest version of MTE software is loaded on your laptop.

From the top toolbar select Help >> About and confirm the version you are using.



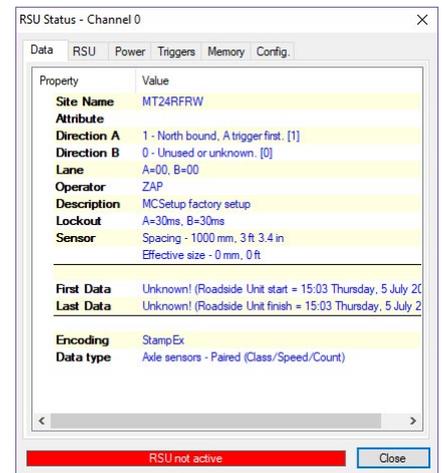
2. Confirm Communication Settings

From the top toolbar select View >> Settings >> Communication.



3. Check the RoadPod VT5900

Connect the communications cable from the USB socket to the RoadPod. Click on the *RSU* icon. A *New Connection* will be established. Click *OK*.

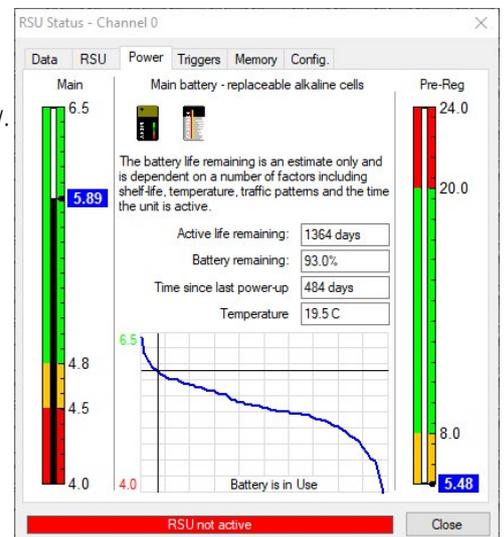


The message "RSU not active" should display.

Confirm the battery level on the *Power* page.

Active life remaining should be more than the next survey period.

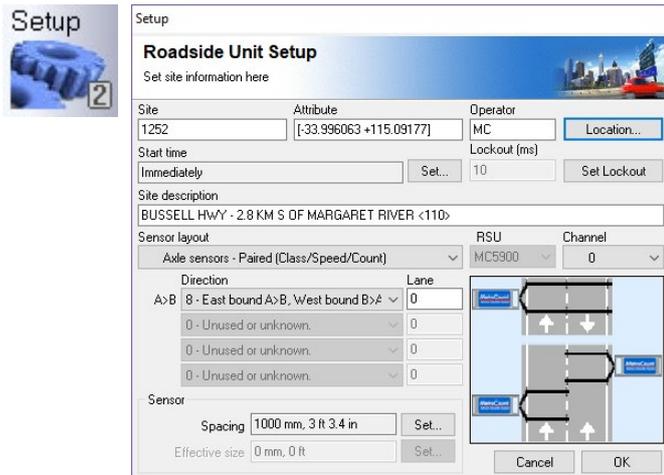
If not, change the battery now. Click *Close*.



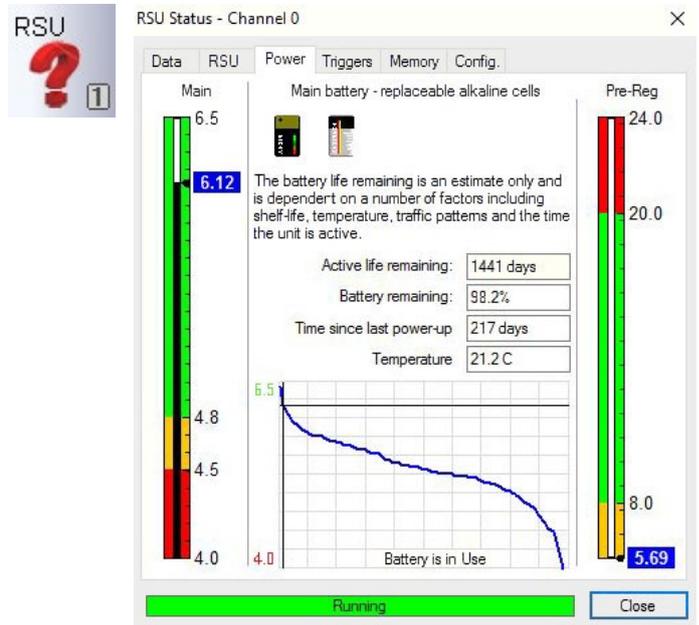
4. Set up the RoadPod VT

With the communications cable connected click the *Setup* icon.

Enter all details about the survey site; in this example only, both the Eastbound and Westbound lanes are being surveyed. Click *OK*.



5. Check all details are correct by clicking the *RSU* icon again. The status should now state "Running".

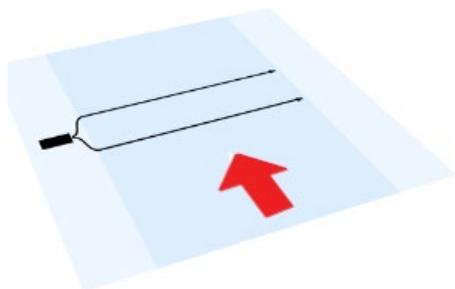


Installation - some points to note

For short-term traffic surveys where class and speed information is required, paired tubes need to be installed with precise spacing. Full coverage almost always requires a logger installed per lane.

Single lane

Paired tubes installed across a single lane.

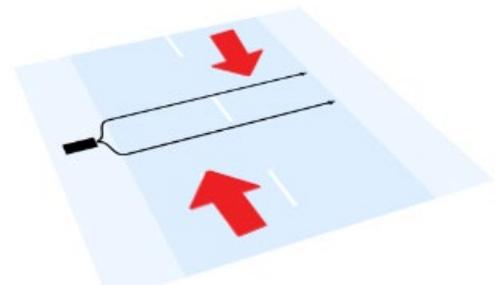


Two-lane bidirectional

Paired tubes installed across a two-lane bidirectional carriageway.



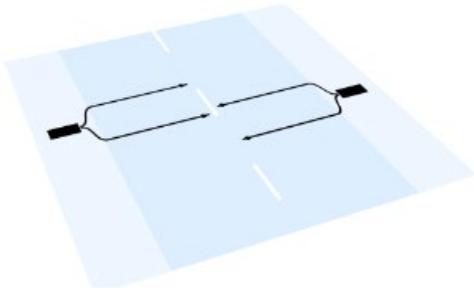
A single logger can be used for bidirectional traffic only if the occurrences of two simultaneous vehicles crossing the tubes is very low.



MetroCount[®]

Two-lane separate tubes

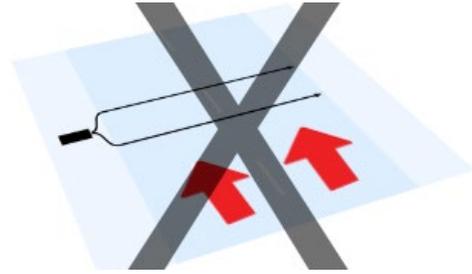
- Paired tubes installed in each lane.
- Can be used for any flow direction.
- Used at sites where anchor points are widely separated on opposite sides of the carriageway.



Two or more unidirectional lanes

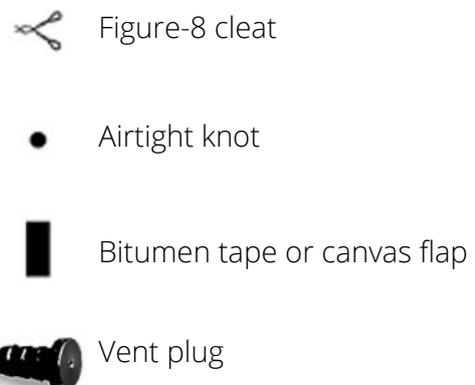
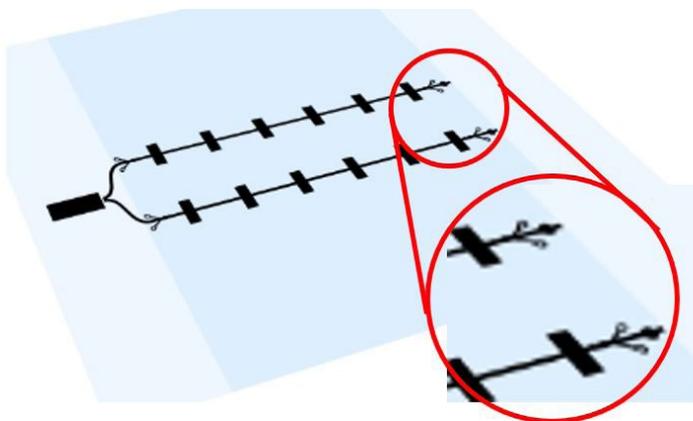
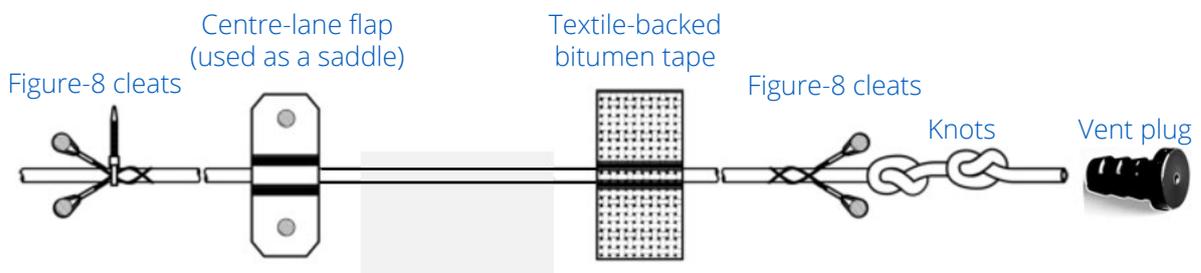


One pair of tubes should not be used across two or more uni-directional lanes. The resulted data is prone to errors as the layout tends to overestimate heavy vehicle traffic.



Installation - Procedure

A generalised tube configuration for use with one RoadPod VT unit is illustrated below.



To install pneumatic tubes (suggested method)

1. Prepare two road-tubes by cutting your roll into equal lengths, sufficiently long enough to cover the required lanes and reach the unit's securing point.
2. Using a tape measure or one-metre stick, mark the one-metre tube spacing on the road with a lumber crayon or chalk.



Spacing tubes with gauge

3. Attach Figure-8 Cleats to one end of each tube, using two per tube (see details on next page).
4. Seal the same end of each tube with vent plugs (or two knots), adjacent to the cleats.
5. Secure both tubes to the road using a road nail through the eyelet of each cleat.
6. Attach Figure-8 cleats to the kerb side of each tube, using two per tube, and secure to the road using road nails or screws. Ensure that the tubes are of equal length from the kerb to the counter, parallel to each other and perpendicular to the direction of travel.
7. Double-check that the tube spacing is one metre.
8. Stretch each tube 10-15% to reduce lateral movement. If necessary, tie a cable around the kerb side cleats to prevent slippage. Ensure that the tube length from the kerb to the air sensors is exactly the same. A difference in length will result in incorrect speed and wheelbase values.
9. Attach the *Centre-Line Flaps* as required using two road nails/screws per cleat. This will minimise lateral movement over long distances. Using one in the centre of each lane, in addition to between two lanes will maximise data

quality. As an alternative, use short lengths of textile-backed bitumen tape (8-10 cm).



Centre flap as saddle



Centre flap used folded



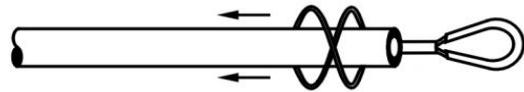
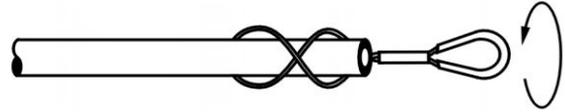
Bituman tape used as saddle

10. Remove the inner tray from the stainless steel case and feed both tubes up through the handle.
11. Place the main system unit next to the tray and attach each tube to the appropriate air sensor. Remember to use the convention of the A tube being the first hit by vehicles travelling in the lane closest to the logger. Use the *Status LEDs* or the *Traffic View* (when connected to a laptop) to verify the correct tube connections.
12. Place the main system unit into the road case and push the tubes into the locking cut-outs.

MetroCount®

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



A final checklist

When installed, tubes must be:

- Correctly spaced;
- Parallel to each other;
- Perpendicular to the direction of vehicle travel;
- Equal length from the path to the logger. This must be checked after tensioning the tubes.



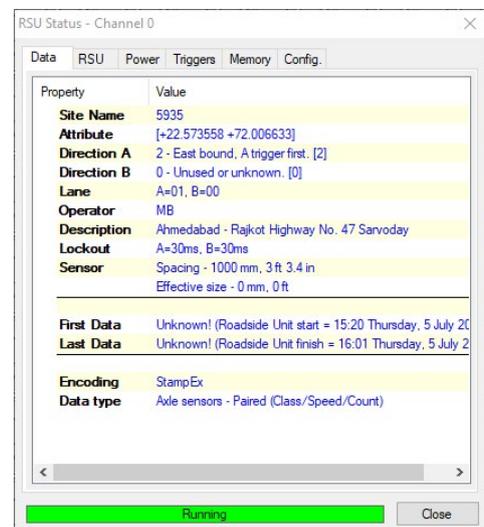
Unloading data from the RoadPod VT

1. Open MTE and connect to the Road Side Unit

Click on the *RSU* icon. A new connection will be established. Click *OK*.

The *RSU Status* page should indicate that the *RSU* is active or *Running*.

Click *Close*.



2. Click the *Unload* icon.

Ensure the file extension (.EC0, .EC1, etc) is not changed. To finish the survey check "*Stop the RSU after unloading data*". Click *Next >>*.

