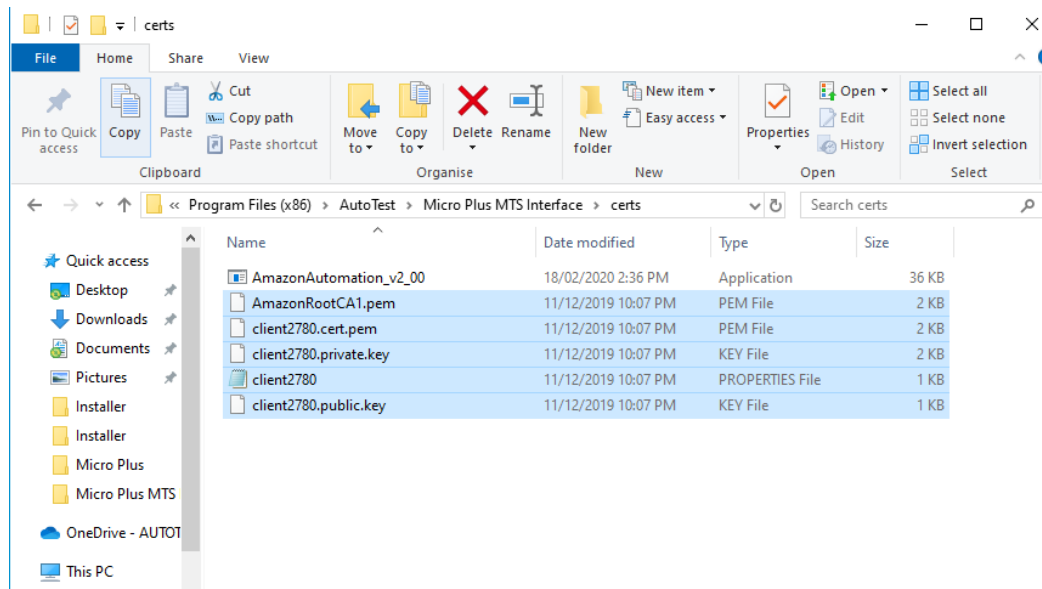


Using AutoStop Micro+ MTS Interface v_1.1.4

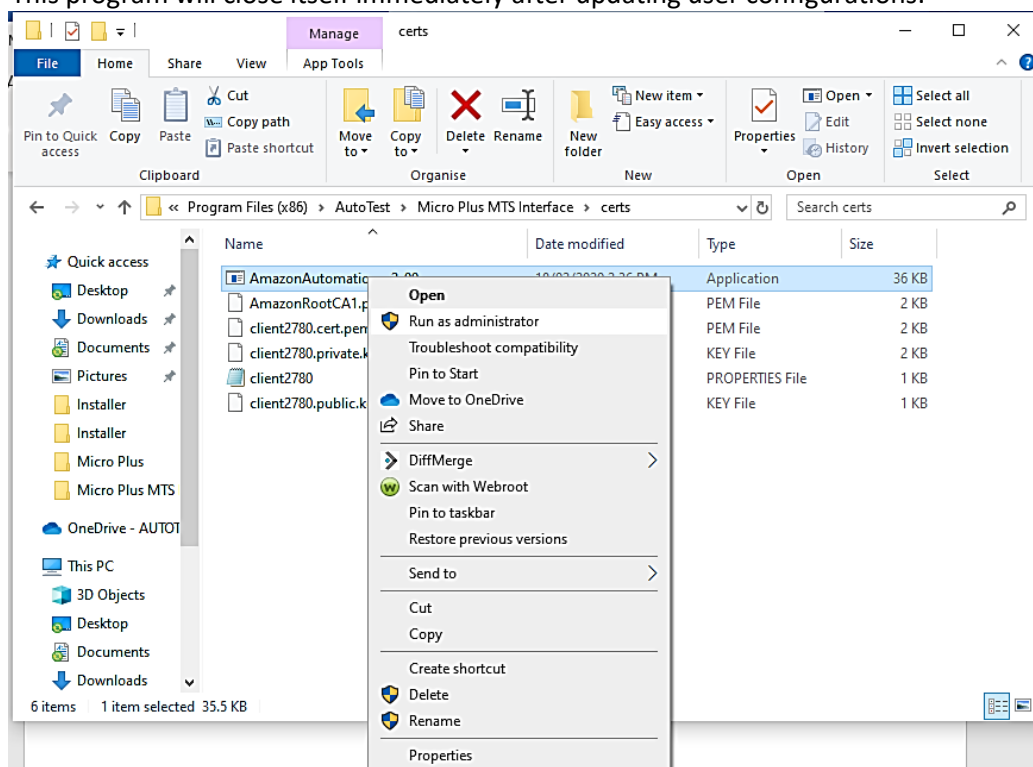
Pre-requisites:

- Follow the software installation guide for instructions on installing and opening “AutoStop Micro+ MTS Interface”.
- Go to software installation directory which is, “C:\Program Files (x86)\AutoTest\Micro Plus MTS Interface” and copy your MTS authentication keys inside “certs” folder.



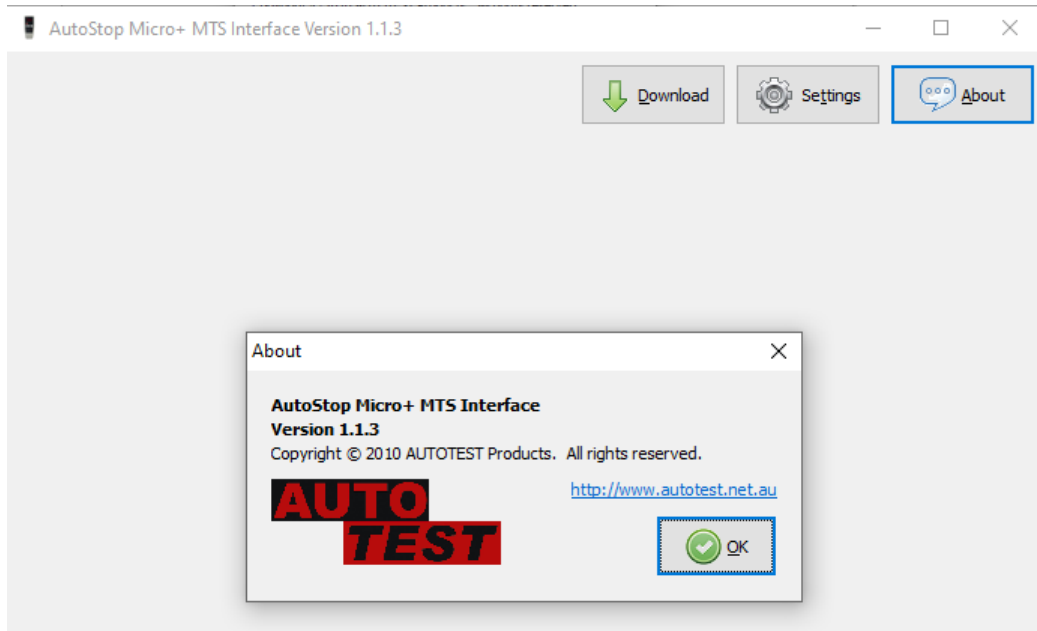
- Right click on the application file named “AmazonAutomation_v2_00” and select “Run as administrator”. You may need to input admin credentials for the software to run under administrator privileges.

This program will close itself immediately after updating user configurations.

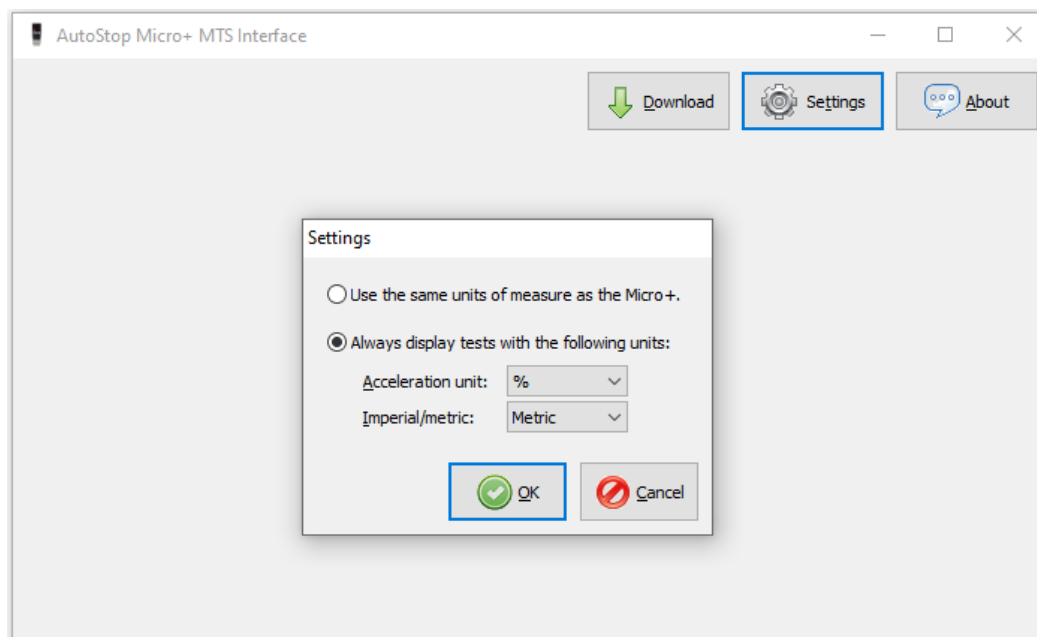


Step 1: Connect the Micro Plus to your computer using the supplied serial cable. Plug the 3.5mm Stereo plug (head-phone jack) of the cable into the top of the Micro Plus. Attach the D9 connector end to a serial port on your computer. Open the Autostop Micro+ MTS Interface window as per the installation guide.

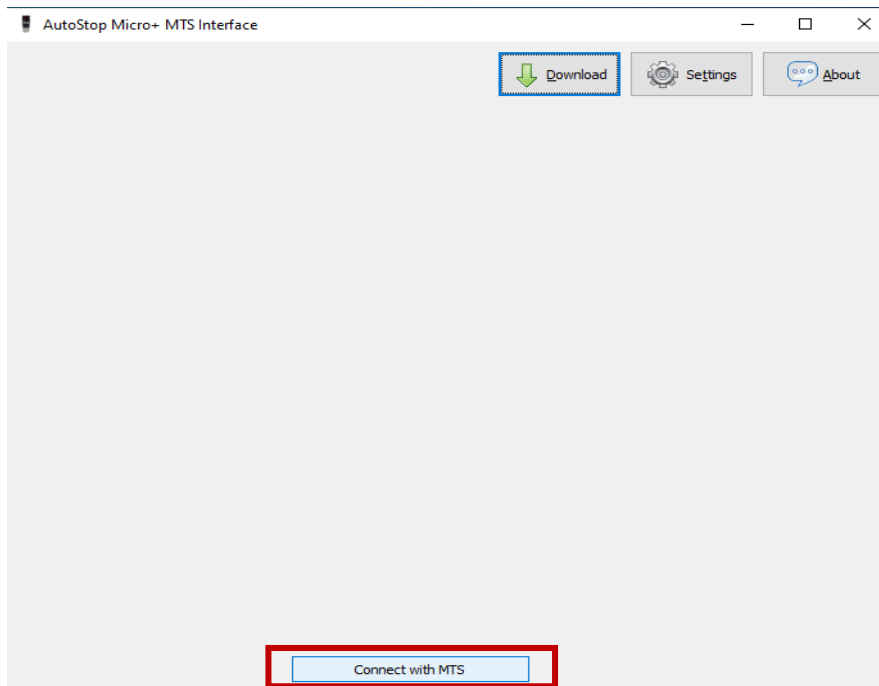
“**About**” tab provides the software version and company details.



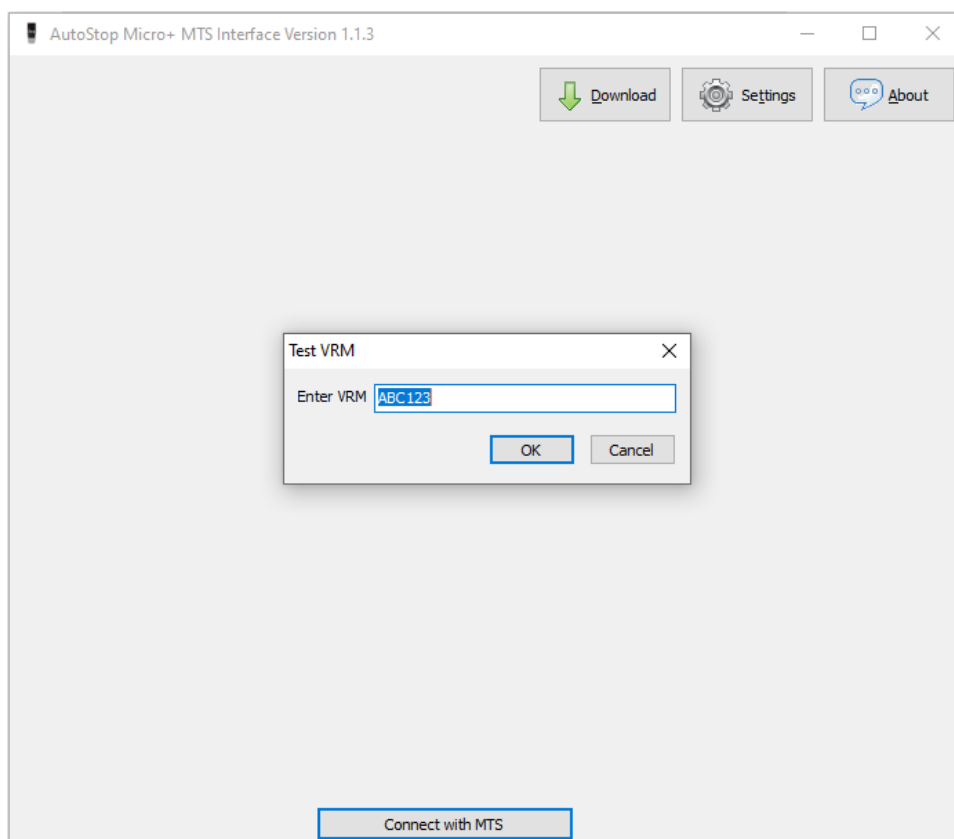
“**Settings**” option can be used to view the test results in the units set by the Micro Plus or select a different unit to view the test results.



Step 2: Click on “Connect with MTS”.



Step 3: Enter vehicle registration number in “Test VRM” input dialog.



Click “OK” to continue.

Step 4: Wait until you receive the relevant work order request from MTS.

```
C:\Windows\system32\cmd.exe
:352 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::3411:77d8
[INFO] Fri Jan 2 16:40:25 1970
:368 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::36c2:f1ee
[INFO] Fri Jan 2 16:40:46 1970
:378 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::22f1:117c
[INFO] Fri Jan 2 16:41:07 1970
:380 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::6c80:3c98
[INFO] Fri Jan 2 16:41:28 1970
:380 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::22ff:2f05
[INFO] Fri Jan 2 16:41:49 1970
:381 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::3648:199e
[ERROR] Fri Jan 2 16:42:10 1970
:382 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::PerformSSLConnect:L402] : TCP Connection error
[INFO] Fri Jan 2 16:42:10 1970
:405 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 34.246.102.99
[INFO] Fri Jan 2 16:42:11 1970
:664 [Network Read] [8540] [awsiodsdk::mqtt::NetworkReadActionRunner::HandleConnack:L228] : Network Connect Response. Success : SD
K Code 0.

*****
Matching against target VRM: ABC123
Received message on topic : mot/in/client2780
Payload Length : 232
Payload : {"siteNumber":"client2780","testNumber":"5001","vehicle":{"vrm":"123456","firstRegistrationDate":"2016-12-20","fuelType":
"PETROL","vehicleClass":"4","model":"Vehicle","vin":"12345678901234567","make":"Dummy"},"workOrderState":"NEW"}

*****
Waiting for work request .
```

NOTE: The software will match against your vrm to identify the relevant work order request. Therefore, it will display “Waiting for work request ...” message until you receive the correct work order request from MTS.

```
C:\Windows\system32\cmd.exe
[INFO] Fri Jan 2 16:40:25 1970
:368 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::36c2:f1ee
[INFO] Fri Jan 2 16:40:46 1970
:378 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::22f1:117c
[INFO] Fri Jan 2 16:41:07 1970
:380 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::6c80:3c98
[INFO] Fri Jan 2 16:41:28 1970
:380 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::22ff:2f05
[INFO] Fri Jan 2 16:41:49 1970
:381 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 2a01:578:3::3648:199e
[ERROR] Fri Jan 2 16:42:10 1970
:382 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::PerformSSLConnect:L402] : TCP Connection error
[INFO] Fri Jan 2 16:42:10 1970
:405 [OpenSSL Wrapper] [18944] [awsiodsdk::network::OpenSSLConnection::ConnectTCPsocket:L271] : resolved a21k9hb9bk41au-ats.iot.eu
-west-1.amazonaws.com to 34.246.102.99
[INFO] Fri Jan 2 16:42:11 1970
:664 [Network Read] [8540] [awsiodsdk::mqtt::NetworkReadActionRunner::HandleConnack:L228] : Network Connect Response. Success : SD
K Code 0.

*****
Matching against target VRM: ABC123
Received message on topic : mot/in/client2780
Payload Length : 232
Payload : {"siteNumber":"client2780","testNumber":"5001","vehicle":{"vrm":"123456","firstRegistrationDate":"2016-12-20","fuelType":
"PETROL","vehicleClass":"4","model":"Vehicle","vin":"12345678901234567","make":"Dummy"},"workOrderState":"NEW"}

*****
Waiting for work request ...

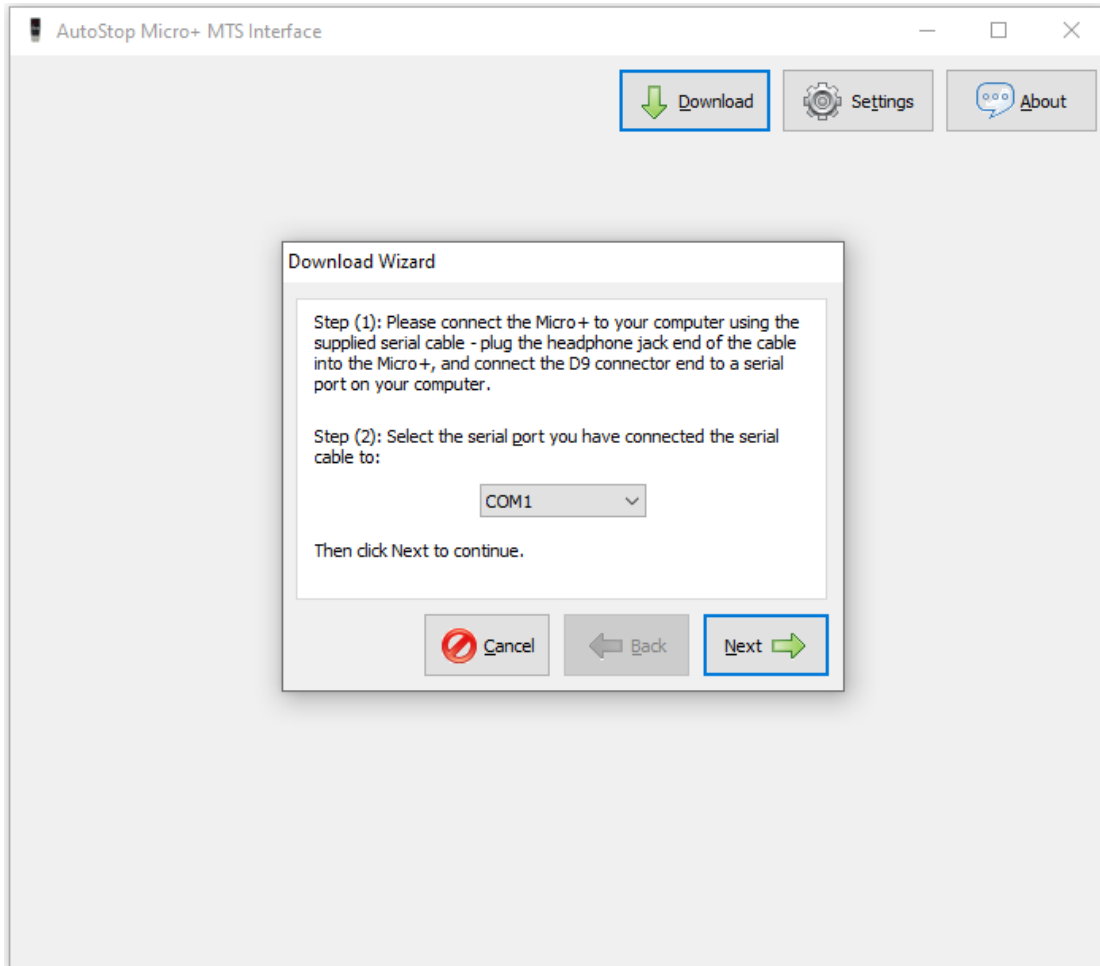
*****
Matching against target VRM: ABC123
Received message on topic : mot/in/client2780
Payload Length : 232
Payload : {"siteNumber":"client2780","testNumber":"5001","vehicle":{"make":"Dummy","model":"Vehicle","vrm":"ABC123","vin":"1234567
8901234567","vehicleClass":"4","firstRegistrationDate":"2016-12-20","fuelType":"PETROL"},"workOrderState":"NEW"}

*****
WorkOrder data Saved Successfully

*****
*****Entering Publish with no queuing delay unless queue is full!*****
Waiting for test results ...
```

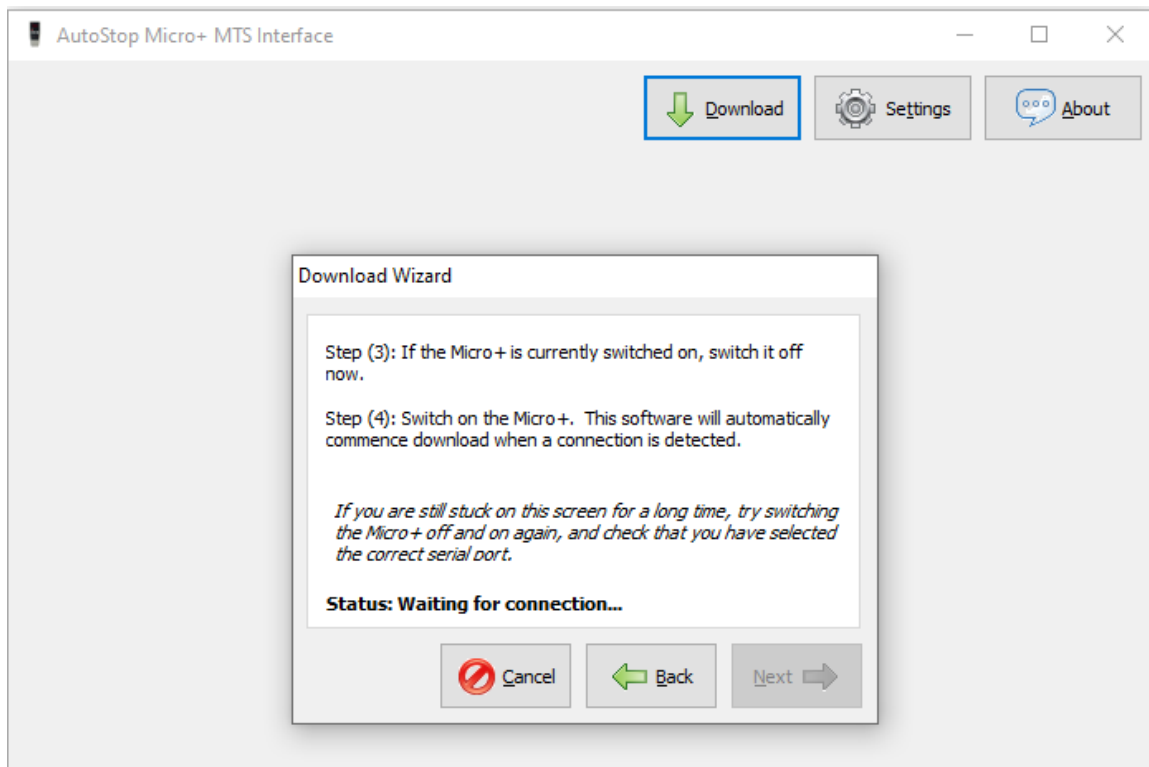
If the vrm in work order matches the vrm you entered in Step 3, the display will show “WorkOrder data Saved Successfully”.

Step 5: When the console display “Waiting for test results ...”, click on “**Download**” to download the brake meter results. A smaller window will appear, select the serial port you have connected the serial cable to.



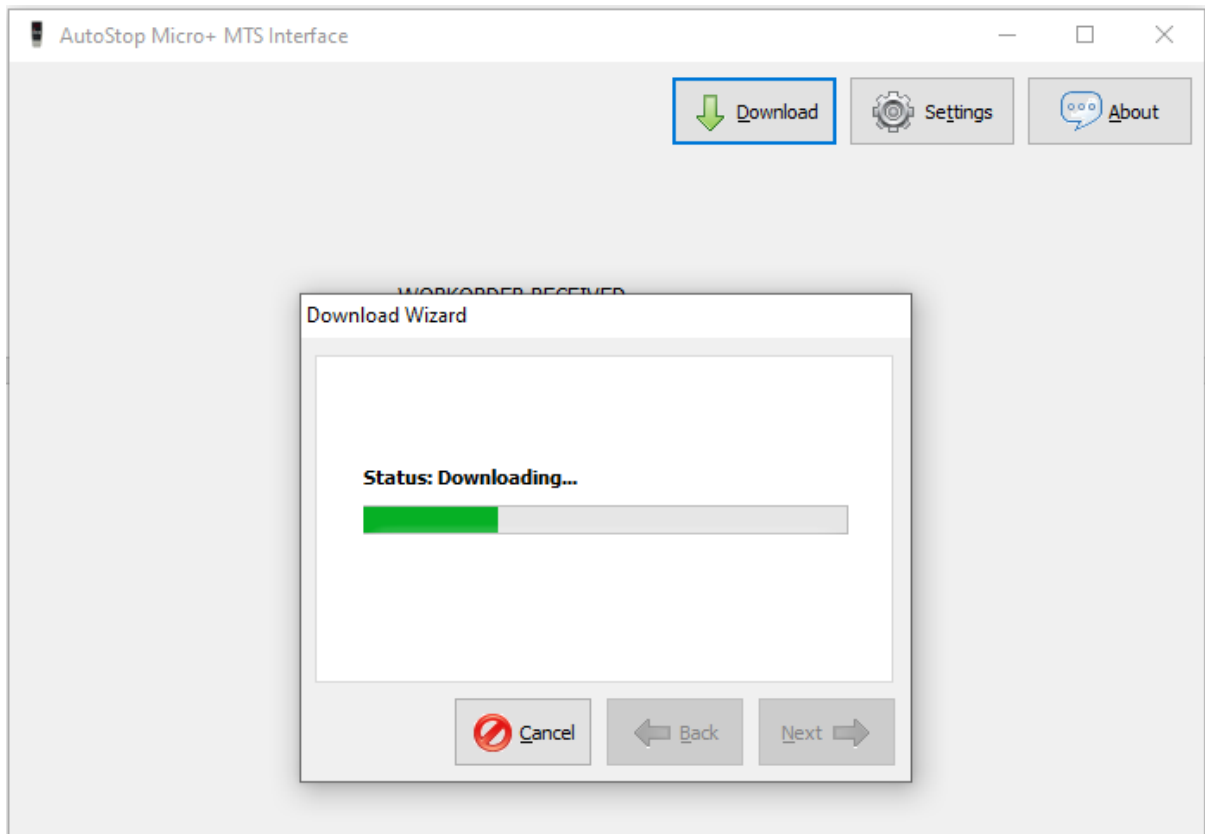
Click “**Next**” to continue.

Step 6: Follow instructions in “**Download Wizard**” window.

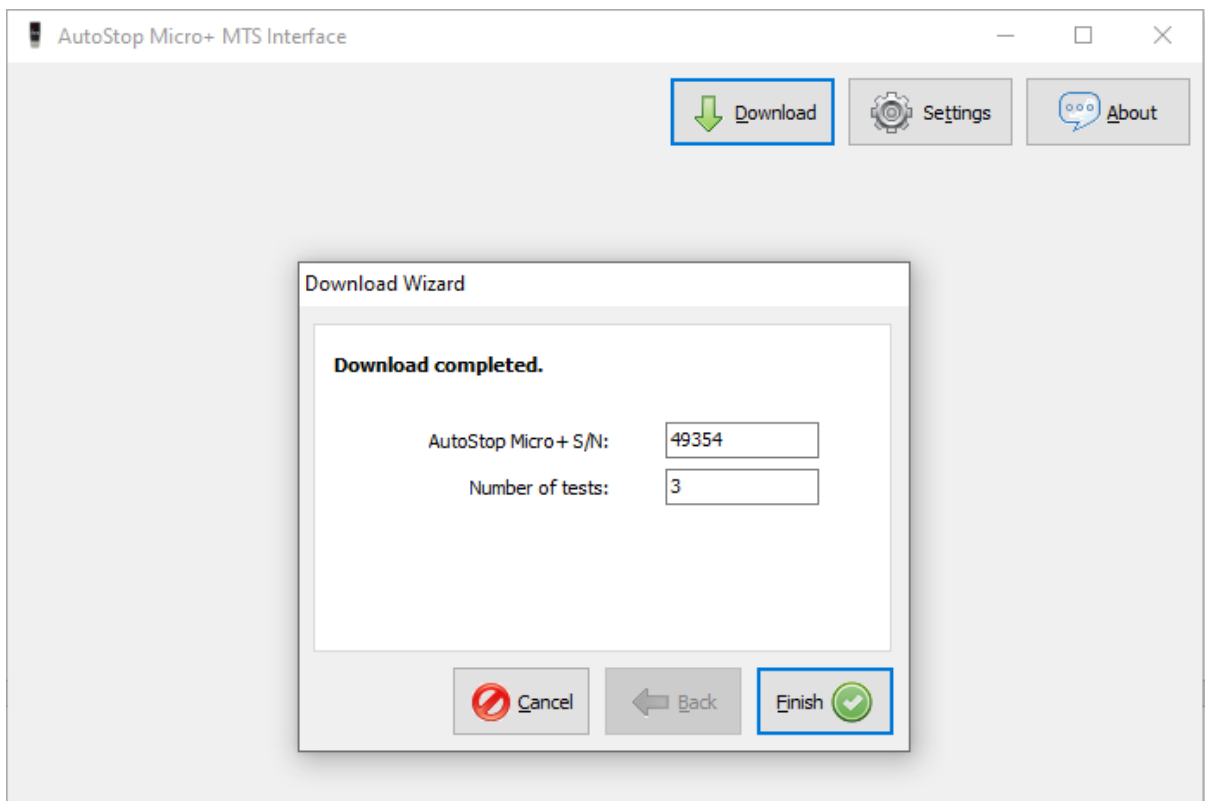


NOTE: If you remain on the same screen after step 6, try switching the Micro Plus off and then on again and/or go back to step 5 and ensure that you have selected the correct serial port.

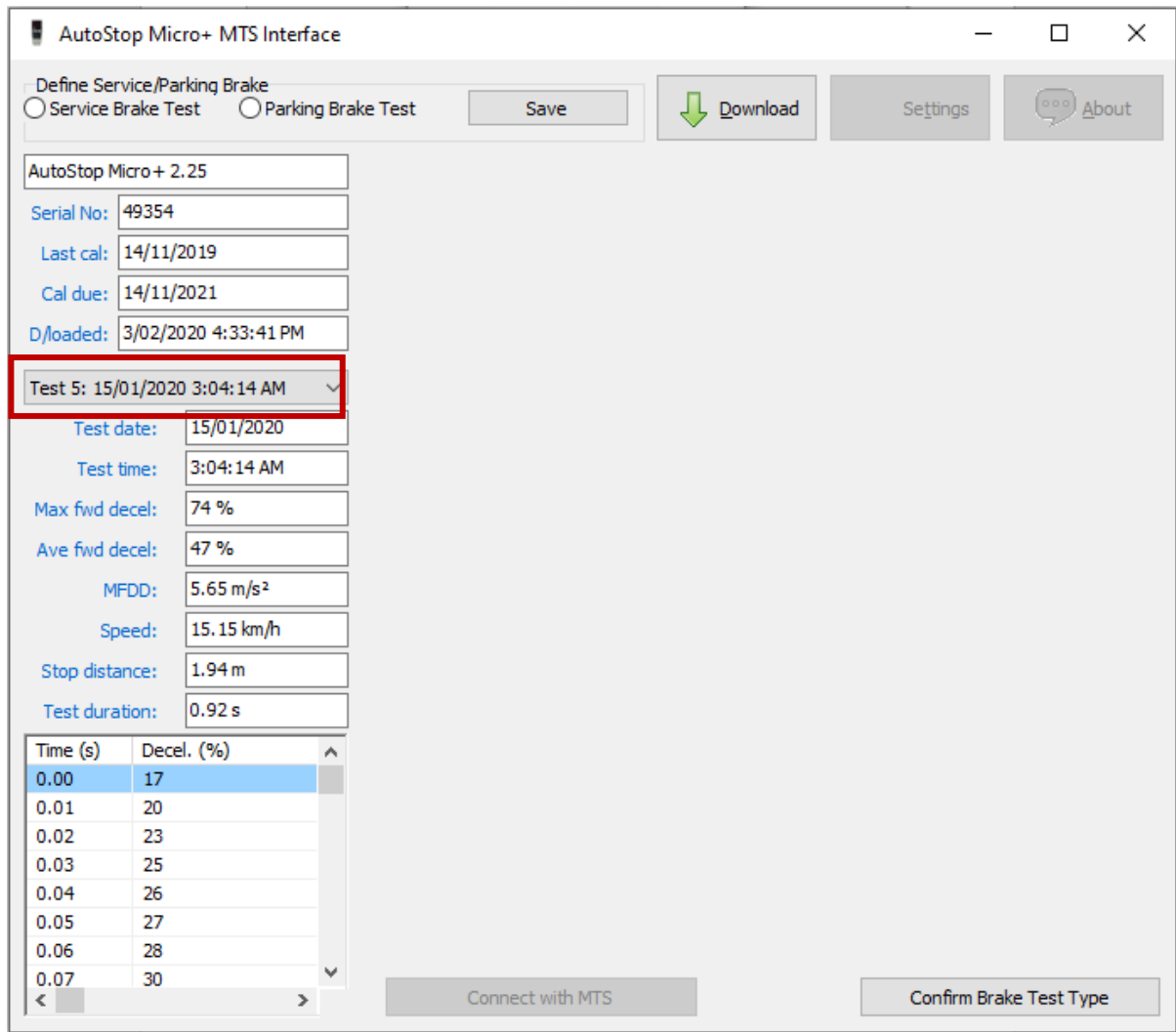
Step 7: The software will automatically commence download when a connection is detected. The Micro Plus display will show “dL..” for downloading.



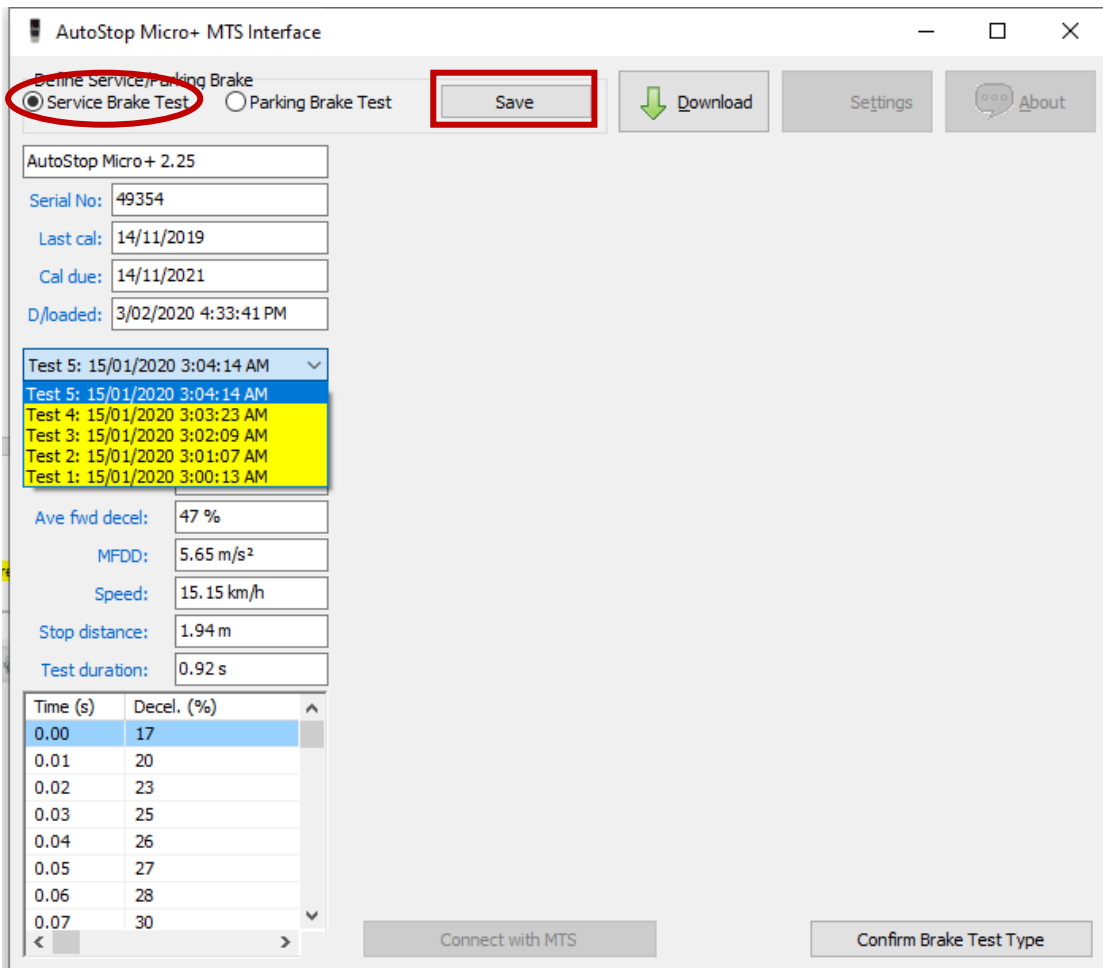
The next screen should read: **Download Completed.**



Step 8: The application will display all the saved tests and you can view the results of a particular test by selecting the relevant test from the drop-down menu in the left pane.



Step 9: Select relevant tests from the drop-down menu and configure them as Service/Parking brake tests. And **“Save”** each setting.



NOTE: If you select a wrong test and try to save it as Service/Parking brake test, an error message will appear as below. The correct tests will be the last two tests (assuming that the tester performs both service and parking brake tests of the vehicle prior downloading test results via AutoStop Micro+ MTS Interface) you perform with the brake meter.


Define Service/Parking Brake
 Service Brake Test Parking Brake Test

AutoStop Micro+ 2.25
Serial No: 49354
Last cal: 14/11/2019
Cal due: 14/11/2021
D/loaded: 3/02/2020 4:33:41 PM

Test 3: 15/01/2020 3:02:09 AM
Test date: 15/01/2020
Test time: 3:02:09 AM
Max fwd decel: 85 %
Ave fwd decel: 25 %
MFDD: 5.11 m/s²
Speed: 37.19 km/h
Stop distance: 21.85 m
Test duration: 4.23 s

Time (s)	Decel. (%)
0.00	12
0.01	14
0.02	15
0.03	16
0.04	17
0.05	18
0.06	19
0.07	20
0.08	21

AutoStop Micro+ MTS Interface

 Please select the correct test from the list.

AutoStop Micro+ MTS Interface

Define Service/Parking Brake
 Service Brake Test Parking Brake Test Save Download Settings About

AutoStop Micro+ 2.25

Serial No: 49354

Last cal: 14/11/2019

Cal due: 14/11/2021

D/loaded: 3/02/2020 4:33:41 PM

Service Brake Efficiency: 74%
 Parking Brake Efficiency: 51%

Test 4: 15/01/2020 3:03:23 AM

Test date: 15/01/2020

Test time: 3:03:23 AM

Max fwd decel: 51 %

Ave fwd decel: 35 %

MFDD: 4.49 m/s²

Speed: 6.19 km/h

Stop distance: 0.43 m

Test duration: 0.50 s

Time (s)	Decel. (%)
0.00	18
0.01	21
0.02	24
0.03	26
0.04	29
0.05	31
0.06	33
0.07	36
0.08	39

Connect with MTS Confirm Brake Test Type

Step 10: Click on **“Confirm Brake Test Type”** to save changes to brake test type. The **“Decelerometer Test Results”** will indicate **“Service Brake Efficiency”** and **“Parking Brake Efficiency”** based on the tester’s input. (Maximum forward deceleration will be considered as the brake efficiency for each brake test type)

NOTE: If you made any mistake while configuring the brake test type, you can change it before publishing brake test results to MTS. You can re-select the tests and configure them accurately before clicking **“Confirm Brake Test Type”**.

AutoStop Micro+ MTS Interface

Define Service/Parking Brake
 Service Brake Test Parking Brake Test

AutoStop Micro+ 2.25

Serial No: 49354
 Last cal: 14/11/2019
 Cal due: 14/11/2021
 D/loaded: 3/02/2020 4:33:41 PM

Test 4: 15/01/2020 3:03:23 AM

Test date: 15/01/2020
 Test time: 3:03:23 AM
 Max fwd decel: 51 %
 Ave fwd decel: 35 %
 MFDD: 4.49 m/s²
 Speed: 6.19 km/h
 Stop distance: 0.43 m
 Test duration: 0.50 s

WORKORDER RECEIVED

Vehicle: "Dummy" "Vehicle"
 Reg: "ABC 123V"

SENDING RESULTS ...

Decelerometer Test Results:
 Vehicle: "Dummy" "Vehicle"
 Reg: "ABC 123V"
 Service Brake Efficiency: 74
 Parking Brake Efficiency: 51

Time (s)	Decel. (%)
0.00	18
0.01	21
0.02	24
0.03	26
0.04	29
0.05	31
0.06	33
0.07	36
0.08	39

Step 11: Brake test results will be automatically published to MTS as soon as the user click on "Confirm Brake Test Type". You will see "Results submitted successfully" message on the screen.

AutoStop Micro+ MTS Interface

Define Service/Parking Brake
 Service Brake Test Parking Brake Test Save Download Settings About

AutoStop Micro+ 2.25

Serial No: 49354
 Last cal: 14/11/2019
 Cal due: 14/11/2021
 D/loaded: 19/02/2020 4:05:26 PM

Test 4: 15/01/2020 3:03:23 AM

Test date: 15/01/2020
 Test time: 3:03:23 AM
 Max fwd decel: 51 %
 Ave fwd decel: 35 %
 MFDD: 4.49 m/s²
 Speed: 6.19 km/h
 Stop distance: 0.43 m
 Test duration: 0.50 s

WORKORDER RECEIVED
 Vehicle: "Dummy" "Vehicle"
 Reg: "ABC123"

SENDING RESULTS ...

Decelerometer Test Results:
 Vehicle: "Dummy" "Vehicle"
 Reg: "ABC123"
 Service Brake Efficiency:74
 Parking Brake Efficiency:51

Results submitted successfully

Time (s)	Decel. (%)
0.00	18
0.01	21
0.02	24
0.03	26
0.04	29
0.05	31
0.06	33
0.07	36
0.08	39

Connect with MTS Confirm Brake Test Type

Troubleshooting: Required dll files are included in Microsoft Visual C++ redistributable packages. Therefore, user should follow each and every instruction in installation wizard which will install all relevant redistributable packages in the machine. This process may involve restarting your computer.