



SMART
TIRE TRUER



Operating Manual



IMPORTANT SAFETY INSTRUCTIONS

BEFORE USING THIS MACHINE READ ALL INSTRUCTIONS AND CAUTIONS MARKINGS IN THE MANUAL AND ON THE MACHINE

When using a Machine, basic precautions should always be followed, include the following:

WARNING

These warnings apply to the machine and also where applicable, to all tools, accessories, power supply unit or main adaptors.

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY:

1. This machine is not intended for use by persons (including children) with reduced physical, sensory or reasoning capabilities or lack of experience or knowledge, unless they have been given supervision or instructions concerning the use of machine by a person responsible for their safety.
2. Do not allow to be used as a toy. Close attention is necessary when used by or near children should be supervised to ensure that they do not play with machine.
3. Use only described in this Operation Manual. Do not carry out any maintenance other than that shown in this manual, or advised by the distributors.
4. Suitable for outdoors dry locations ONLY.
5. Do not handle any part of the plug or machine with wet hands.
6. Do not use with a damaged cord or plug. If the supply cord is damaged it must be replaced in order to avoid a hazard.
7. If the machine is not working as it should, has been dropped, damaged or drenched by liquid, please do not use and contact distributors.
8. Contact the distributors when service or repair is required. Do not disassemble the machine as incorrect reassembly may result in an electric shock or fire.
9. Do not stretch the cord or place the cord under strain. Keep the cord away from the heated surface. Do not pull the cord around sharp edges or corners. Arrange the cord away from traffic areas and where it will not be stepped on or tripped over. Do not run the machine over the cord.
10. Do not unplug by pulling on the cord. To unplug, grasp the plug, not the cord.
11. Do not put any object into openings or anything that may reduce airflow.
12. Use only recommended accessories and replacement parts.
13. Unplug from power supplies when not in use for extended periods and before maintenance or servicing.
14. Use only recommended power supply unit and battery for operating this machine; other types of power supply unit and batteries may burst, causing injury to persons and damage.

READ AND SAVE THESE INSTRUCTIONS

THIS MACHINE IS INTENDED FOR PERSONAL USE ONLY NOT FOR COMMERCIAL USE



Accessories and spare parts list:

1. Alignment Block x1 -----
2. Operating Manual x1 -----
3. Service Manual x1 -----
4. Fuses 20A x1 3A x1
(Spare Parts) -----
5. Quick setup guide x1 -----
6. Exclusive Aluminum Carrying Box x1 -----



Main features

1. Operating by 4'3" color touch screen.
2. With 6 different programmable profiles. This provides the flexibility to set the truing parameters independently for each to accommodate for nearly any needed.
3. Fully automatic truing tire diameter and edging by one touch button.
4. Truing diameter (35-84mm), truing angle (0° - 2.5°) and edging radius (3-10mm).
5. Heavy Duty Truing motor provides regulated speed for fully automatic truing.
6. Dual fuse overload protection for truing motor and CPU controller.
7. Changeable adapter for all classes – 1/8, 1/10, 1/12.
8. Extra volume collecting container for ground rubber.
9. Transparent plexiglass protective cover.
10. Emergency Switch provides a safety feature.
11. Delivered in an Exclusive Aluminum Carrying Box.

Specifications:

DC Input Voltage: 12V

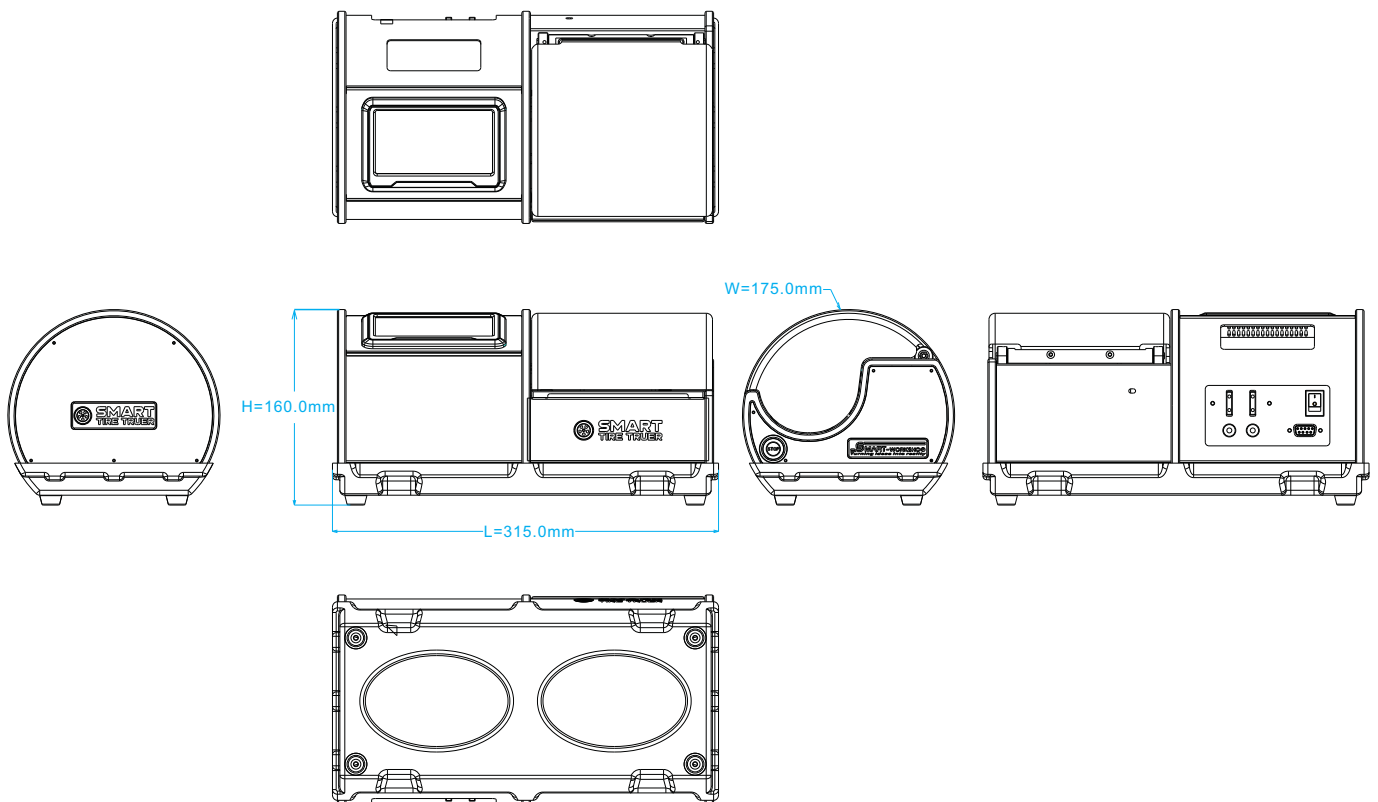
Display: LCD; color touch panel

Dimensions: L315xW175xH160mm

Weight: 4.6Kg

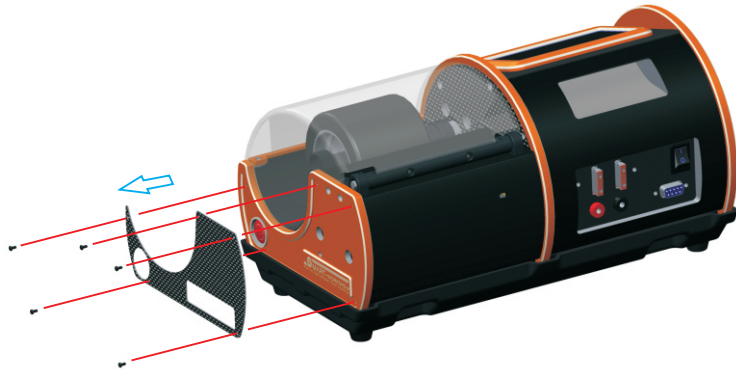
Memory: 6 different profiles

Product Dimension



1. When there is locking on X or Y axial block, please refer to the following operation guide to fix it.

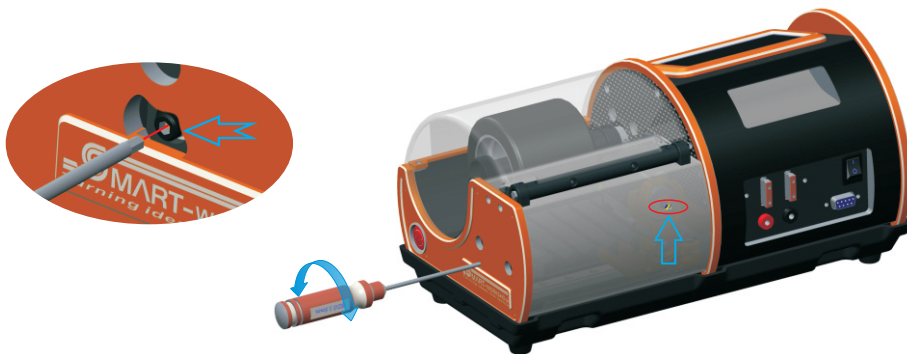
1.1 Turn off the machine and remove the carbon fibre plate on the right side.



1.2 Use 2.5 hex screwdriver turn the X axial (Clockwise moves to the left and counterclockwise moves to the right).



1.3 Turning the X axial until the Y axial near the hole on the back panel.

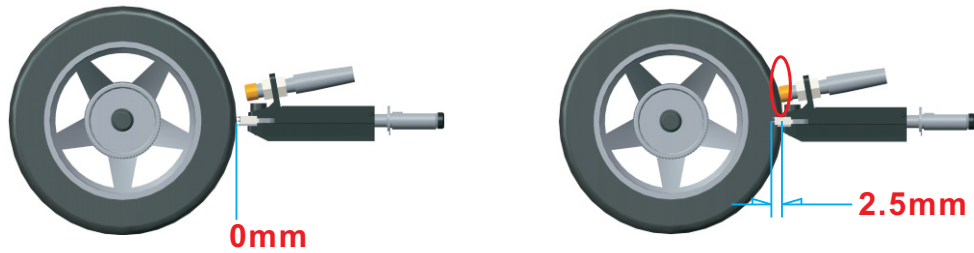


1.4 Use 2.5 hex screwdriver turn the Y axial (Clockwise moves to the front and counterclockwise moves to the back).



Note: Once X and Y axial is free, the machine will back to home position automatically once you power on the machine. Calibration needed after this.

2. During Manual operation, the truing distance can't more than 2mm in each cut, if over the limit the infrared sensors will have serious damage.



3. Clean the dust on the dust cover frequently, avoid obstructing the dust cover movement.

Clean the dust on the dust cover frequently

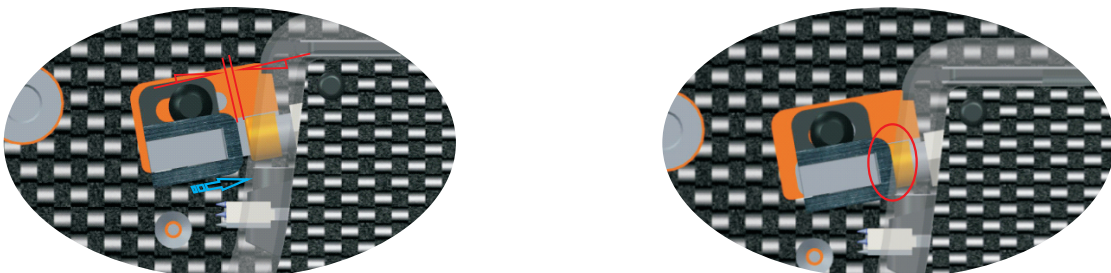


4. How to adjust the sensors cleaning block.

- 4.1 Use 2.5mm hex screwdriver to loosen up the screw as shown below.

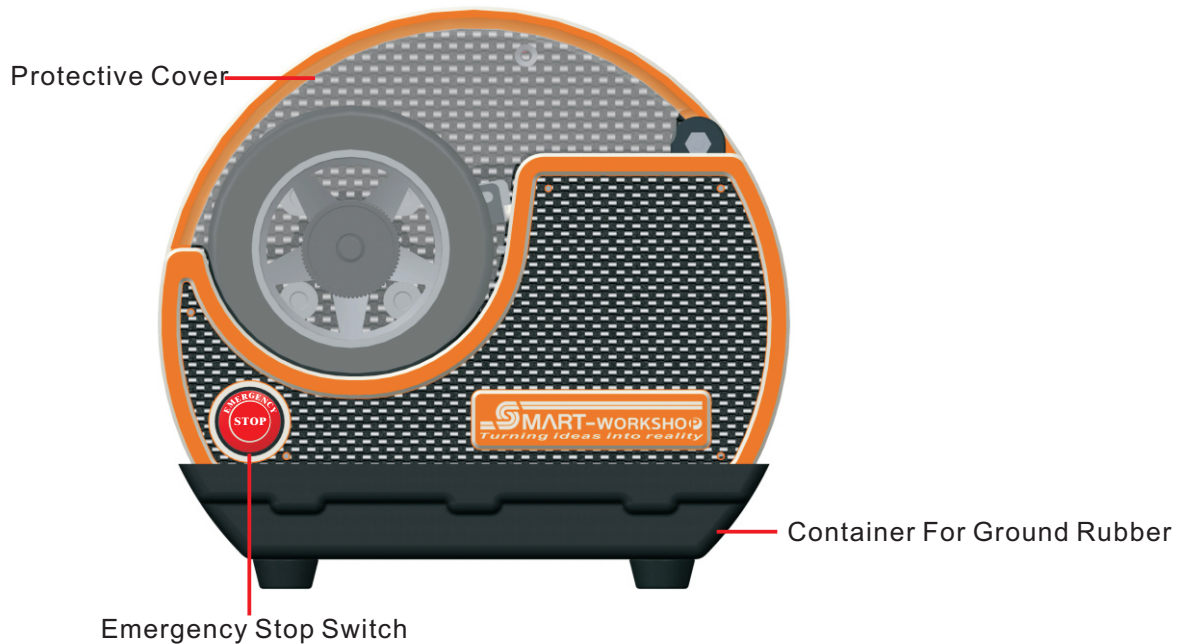
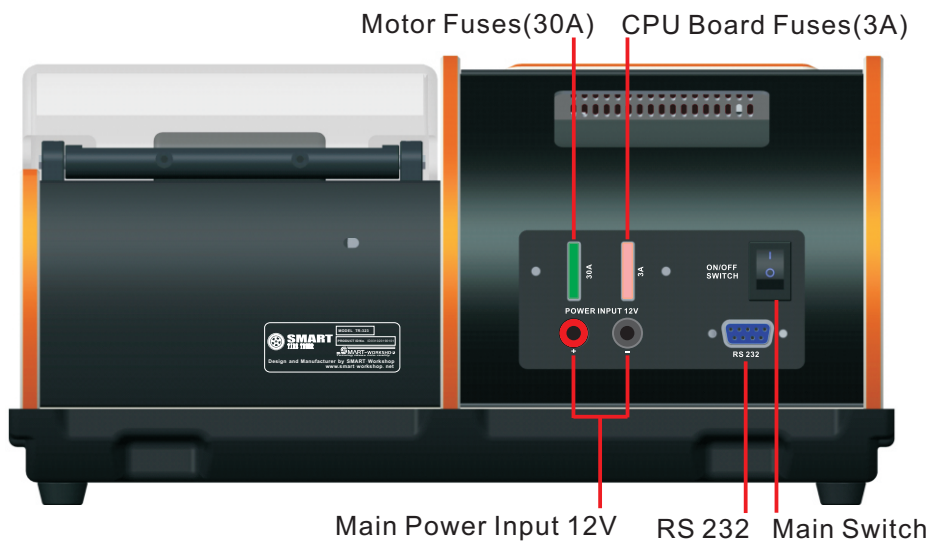
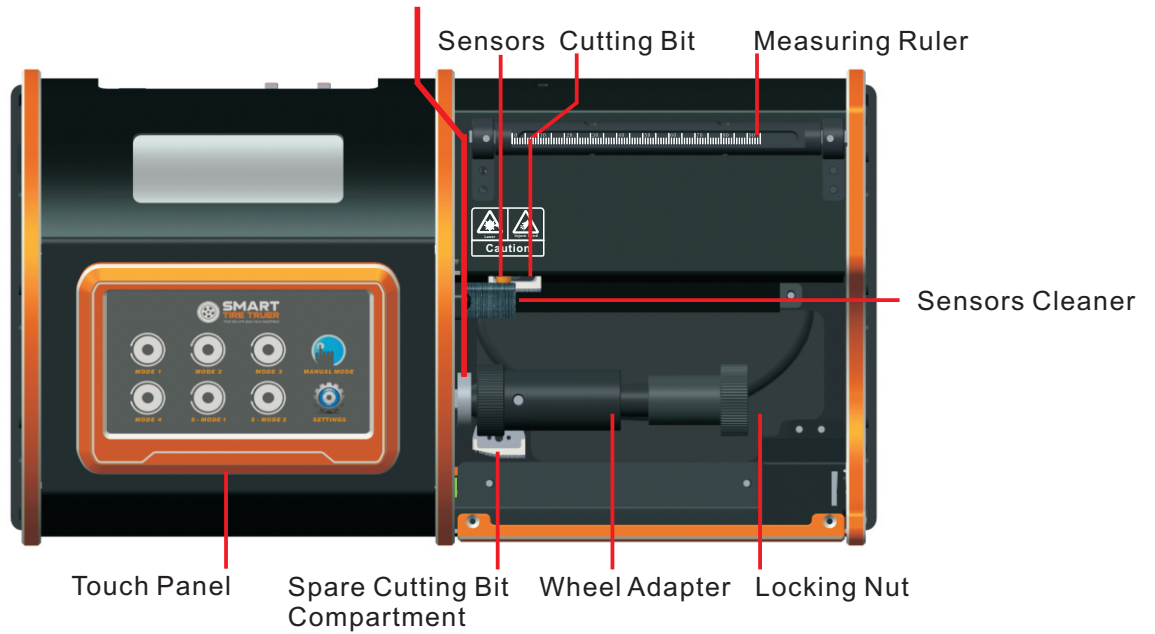


- 4.2 Adjust the cleaning block close to the sensors within the 1-1.5mm gap. (Cleaning block too close to the sensors will damage the sensors during auto cleaning).

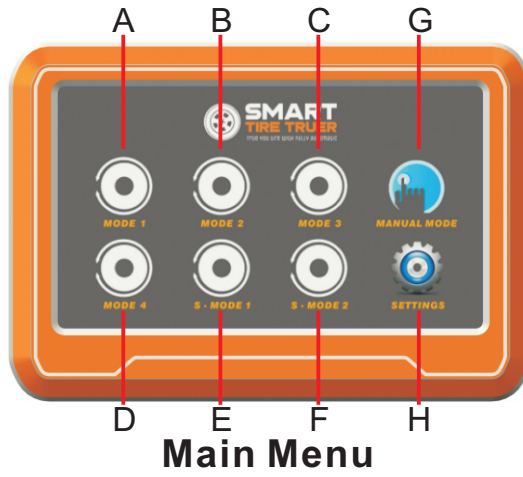


Equipment guidelines

IMPORTANT - Don't remove this stopper from the original position. If accidentally moved, must be calibrated by alignment block. Please refer to Service Manual for the calibration method.

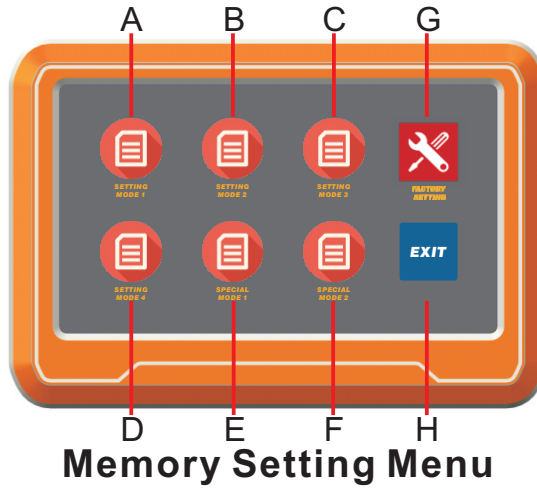


- A. Mode 1
- B. Mode 2
- C. Mode 3
- D. Mode 4



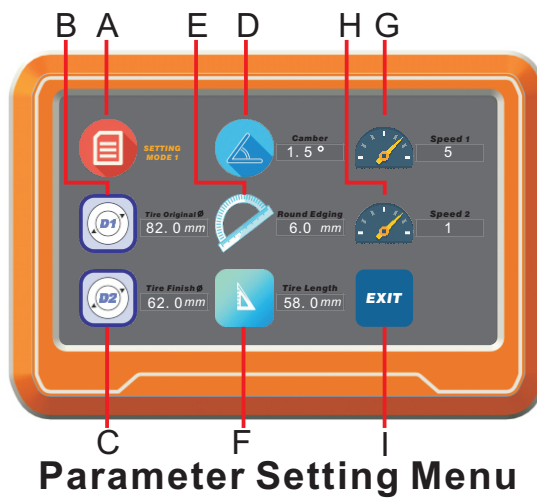
- E. Special Mode 1
- F. Special Mode 2
- G. Manual Mode
- H. Setting

- A. Setting Mode 1
- B. Setting Mode 2
- C. Setting Mode 3
- D. Setting Mode 4



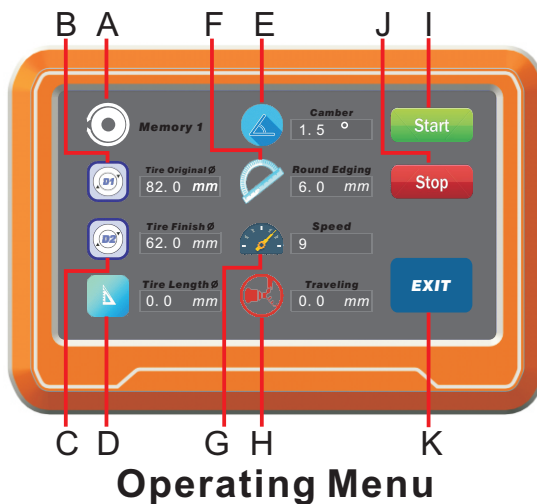
- E. Special Mode 1
- F. Special Mode 2
- G. Factory Setting
- H. Exit

- A. Setting Mode *
- B. Tire Original Diameter
- C. Tire Finish Diameter
- D. Camber
- E. Round Edging



- F. Tire Length
- G. Speed 1
- H. Speed 2
- I. Exit

- A. Memory *
- B. Tire Original Diameter
- C. Tire Finish Diameter
- D. Tire Length
- E. Camber
- F. Round Edging



- G. Speed
- H. Traveling
- I. Start
- J. Stop
- K. Exit

Mode1-4 Setting Instructions

Mode 1 to 4 is designed for fully automatic feature, you only need to measure the original outside diameter of the tire and key in all the parameters you prefer to use on the track. The measuring of tire original diameter accuracy required is not high +/-1mm is acceptable (Low accuracy will affect sensor detection).

We are not recommended to use Mode1-4 for those used tire or tire with more than 3mm round edges. The large round edge radius will affect sensors detection and accuracy of tire width measurement. But you can use our Special Mode1-2 to fulfil this job (Please refer to Special Mode setting instructions).



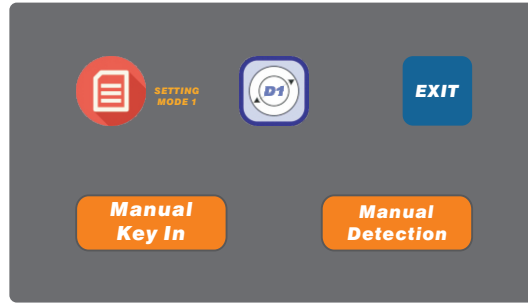
1. Press “Setting icon” enters Memory setting menu.



2. Press “Setting Mode* Icon” enters to Parameter Setting Menu.



2.1 Press “D1 icon” enters to original diameter setting menu. 



Remark:


We provide two types of the key in methods to key in the tire original diameter.


1. “Manual Key In” Direct key in the number of tire original diameter from screen.
2. “Manual Detection” Detect the tire original diameter by cutting bit under manual operating. Only one method requested.

2.1.1 Press “Manual key in Icon” enters to D1 manual key in menu. 




2.1.1 .1 Press “D1 flash cursor Icon”. 

2.1.1 .2 Key in the number of tire original diameter from screen keypad and complete with “Enter Icon”. 

2.1.1 .3 Press “Exit Icon” back to the Parameter Setting Menu. 

2.1.2 Press “Manual Detection Icon” enters to D1 manual detection menu. 

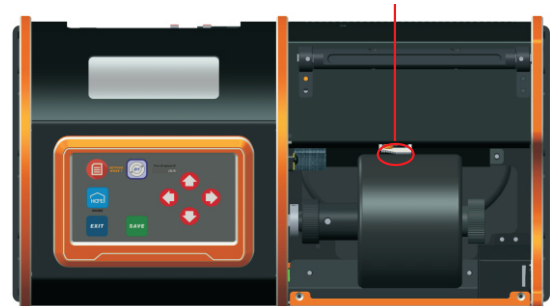
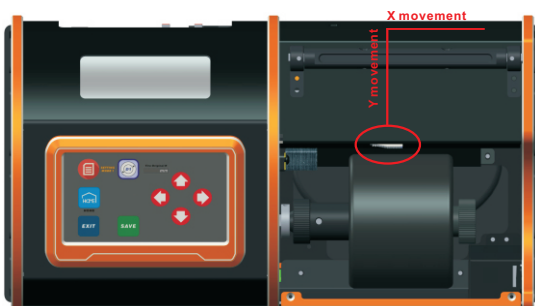


2.1.2 .1 Press “Home Icon” wait for the truer cutting bit block return to home position. 

2.1.2 .2 Use “Direction Arrow Icon” to move the truer cutting bit near to tire surface and complete with “Enter Icon”.

Move the Cutting bit near to tire surface

Move Cutting bit close to the surface of the tire





2.1.2 .3 Press “Exit Icon” back to the Parameter Setting Menu. 

2.2 Press “D2 Icon” enters to truing diameter setting menu.



2.2.1 Press “D2 flashing cursor Icon”. 


2.2.2 Key in the number of truing diameter from screen keypad and complete with “Enter Icon”. 

2.2.3 Press “Exit Icon” back to the Parameter Setting Menu. 

2.3 Press “Camber Icon” enters to camber angle setting menu.



2.3.1 Press “Camber flashing cursor Icon”. 


2.3.2 Key in the number of camber angle from screen keypad and complete with “Enter Icon”. 

2.3.3 Press “Exit Icon” back to the Parameter Setting Menu. 

2.4 Press “Round Edging Icon” enters to Round edge radius setting menu.



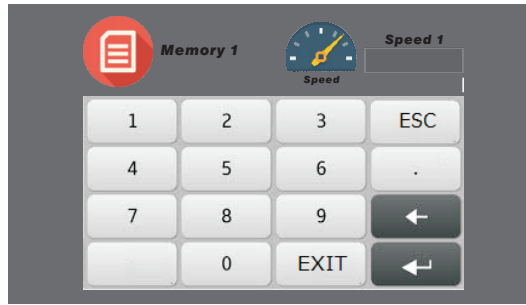
2.4.1 Press “Round Edging flash cursor Icon”. 

2.4.2 Key in the number of round edge radius from screen keypad and complete with “Enter Icon”. 


2.4.3 Press “Exit Icon” back to the Parameter Setting Menu. 

2.5 “Tire Length” setting will auto detected by machine, no parameter needed for Mode1-4. 

2.6 Press “Speed 1 Icon” enters to surface truing traveling speed level setting menu.  (Speed 9 not recommended for 1/8 Rear Tire)

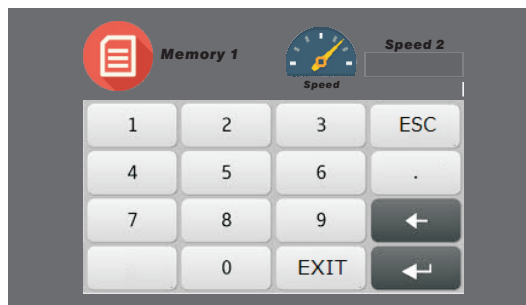


2.6.1 Press “Speed 1 flashing cursor Icon”. 


2.6.2 Key in the number of traveling Speed level from screen keypad and  complete with “Enter Icon”.

2.6.3 Press “Exit Icon” back to Parameter Setting Menu. 

2.7 Press “Speed 2 Icon” enters to round edge truing traveling speed level setting menu.  (Speed 9 not recommended for 1/8 Rear Tire)



2.7.1 Press “Speed 2 flashing cursor Icon”. 

2.7.2 Key in the number of traveling Speed from screen keypad and  complete with “Enter Icon”.

2.7.3 Press “Exit Icon” back to Parameter Setting Menu. 



2.8 Press “EXIT Icon” on Parameter Setting Menu, the parameter's entire saved and return to Memory Setting Menu. 



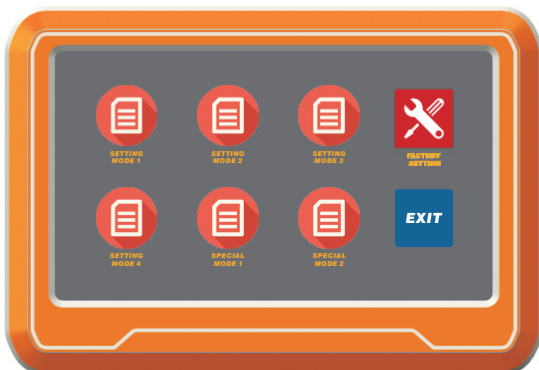
2.9 Press “EXIT Icon” on the Memory Setting Menu and return to Main Menu. 

Special Mode1-2 Setting Instructions

Special mode is designed for those tire round edge is too large, it will affect the sensors detection. Because of this, we add a manual detection function for the width of the tire.



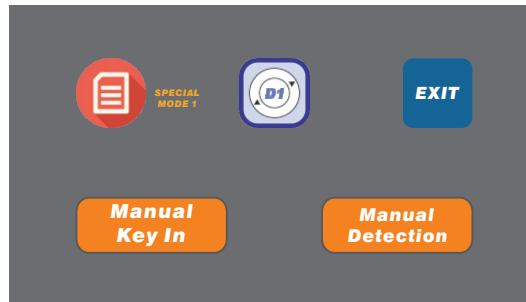
1. Press “Setting Icon” enters to Memory setting menu. 



2. Press “Setting SPECIAL Mode* Icon” enters to Parameter Setting Menu. 



2.1 Press “D1 Icon” enters to original diameter setting menu.



Remark:

We provide two types of the key in methods to key in the tire original diameter.

1. “Manual Key In” Direct key in the number of tire original diameter from screen.
2. “Manual Detection” Detect the tire original diameter by cutting bit under manual operating. Only one method requested.

2.1.1 Press “Manual key in Icon” enters to D1 manual key in menu.



2.1.1 .1 Press “D1 flashing cursor Icon”.



2.1.1 .2 Key in the number of tire original diameter from screen keypad and complete with “Enter Icon”.



2.1.1 .3 Press “Exit Icon” back to the Parameter Setting Menu.



2.1.2 Press “Manual Detection Icon” enters to D1 manual detection Menu.



2.1.2 .1 Press “Home Icon” the cutting bit block will return to home position.



2.1.2 .2 Press “Direction Arrow Icon” move the truer cutting bit near to tire surface and complete with “Save Icon”.

2.1.2 .3 Press “Exit Icon” back to the Parameter Setting Menu.

2.2 Press “D2 Icon” enters to truing diameter setting menu.



2.2.1 Press “D2 flashing cursor Icon”.

2.2.2 Key in the number of truing diameter from screen keypad and complete with “Enter Icon”.

2.2.3 Press “Exit Icon” back to the Parameter Setting Menu.

2.3 Press “Camber Icon” enters to camber angle setting menu.



2.3.1 Press “Camber flashing cursor Icon”.

2.3.2 Key in the number of camber angle from screen keypad and complete with “Enter Icon”.

2.3.3 Press “Exit Icon” back to the Parameter Setting Menu.

2.4 Press “Round Edging Icon” enters to Round edge radius setting Menu.

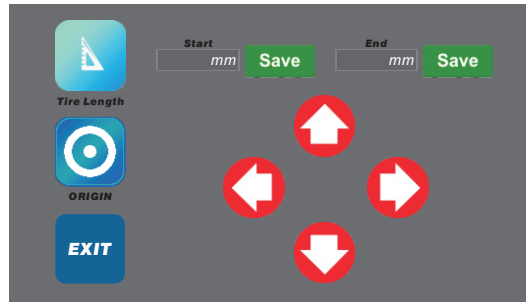


2.4.1 Press “Round Edging flashing cursor Icon”.

2.4.2 Key in the number of round edge radius from screen keypad and complete with “Enter Icon”.

2.4.3 Press “Exit Icon” back to the Parameter Setting Menu.

2.5 Press “Tire Length Icon” enters to Tire Length setting menu.



2.5.1 Press “Home Icon” wait for the cutting bit block return to the home position.



2.5.2 Use “Direction Arrow Icon” to move the right sides of the cutting bits to the left edge of the tire to get the starting point and complete with “Save Icon”.



Starting point



2.5.3 Use “Direction Arrow Icon” to move the left sides of the cutting bits to the right edge of the tire to get the ending point and complete with “Save Icon”.



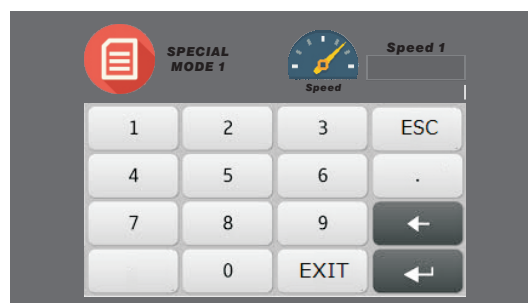
Ending point



2.5.4 Press “Exit icon” back to the parameter setting menu.

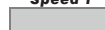


2.6 Press “Speed 1 Icon” enters to surface truing traveling speed level setting menu.



2.6.1 Press “Speed 1 flashing cursor Icon”.

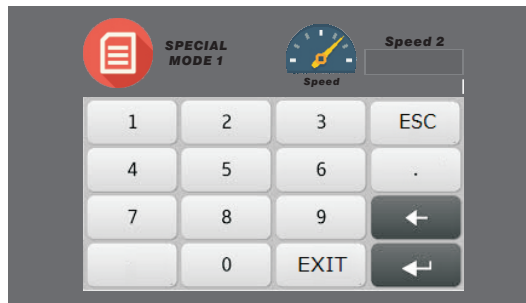
Speed 1



2.6.2 Key in the number of traveling Speed level from screen keypad and complete with “Enter Icon”.

2.6.3 Press “Exit Icon” back to the Parameter Setting Menu. 

2.7 Press “Speed 2 Icon” to enters round edge truing traveling speed setting menu. 



2.7.1 Press “Speed 2 flashing cursor Icon”. 

2.7.2 Key in the number of traveling Speed from screen keypad and complete with “Enter Icon”.

2.7.3 Press “Exit Icon” back to the Parameter Setting Menu. 



2.8 Press “EXIT Icon” on Parameter Setting Menu, the parameters entire saved and return to Memory Setting Menu. 

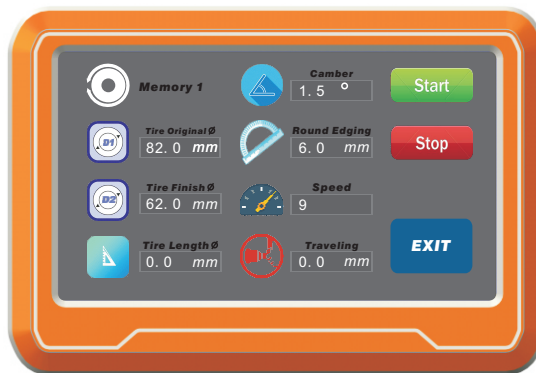


2.9 Press “EXIT Icon” on the Memory Setting Menu and return to Main Menu. 

Auto Mode Operation Instructions



1. Press “Mode Icon” enters to Operating Menu.



2. Press “Mode Icon” which you need to use enters to Operating Menu.

3. Press “Tire Length Icon” enters to auto tire length detection.



(This step is just for checking the tire length, you can skip this step if you’re confident with your tires).

3.1 The sensors will move to detect tire length and detected length will show on screen once completed.

4. Press “Start Icon” to start truing tire.



Please check all the setting parameter is correct and make sure the tire installed properly before you proceed to start. The length of the tire will show once the detection completed.

4.1 Sensors will detect the tire length automatically and show on the screen.

4.2 Truing motor will turn on automatically.

4.3 Truing the tire diameter and camber automatically.

4.4 Truing the left and right round edge automatically.

4.5 The cutting bit block will go back to the home position after the truing process completed.

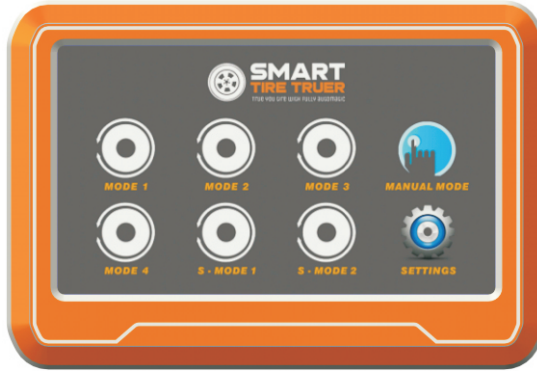
4.6 Remove the tire from wheel adapter.

4.7 Press “Start Icon” to redo tire truing with the same program.

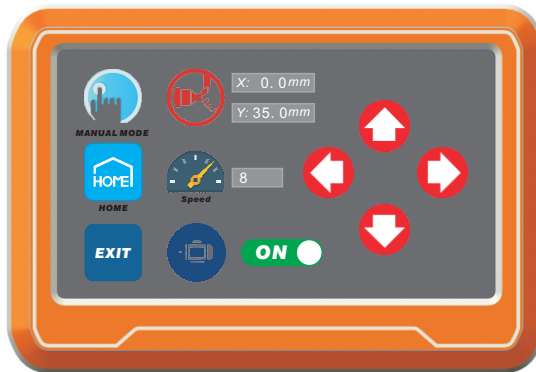
4.8 Press “EXIT Icon” back to Main Menu.

During truing operating you can “Press Stop Icon” to stop the machine or press the Emergency button cut off the power.

Manual Mode Operation Instructions



1. Press “Manual Mode Icon” enters to Manual Operating Menu.

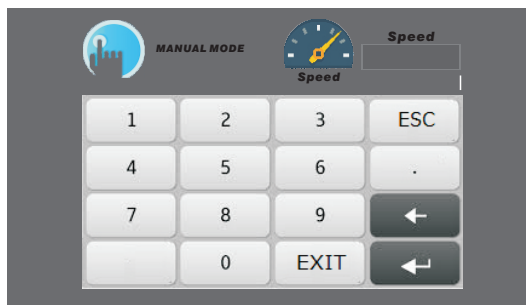


2. Press “Home Icon” machine will back to home position automatically.

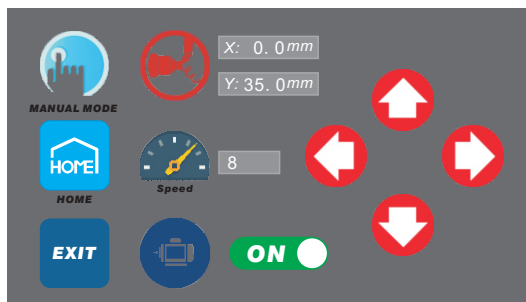
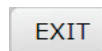
3. Press “Speed Icon” enters to Speed Setting Menu.



3.1 Key in the number of speed levels from screen keypad and complete with “Enter Icon”. **(Speed 9 not recommended for 1/8 Rear Tire)**

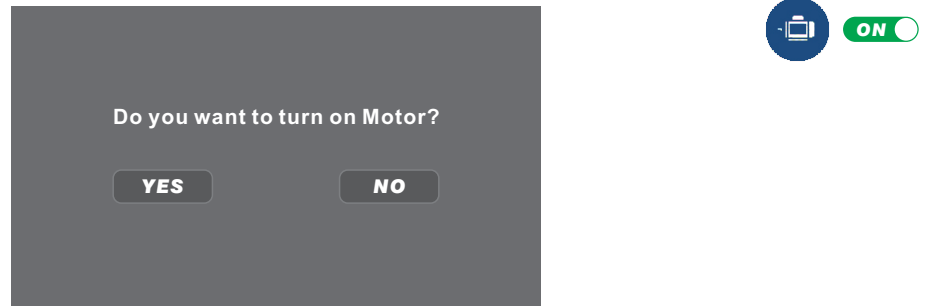


3.2 Press “EXIT Icon” return to Manual Operating Menu.

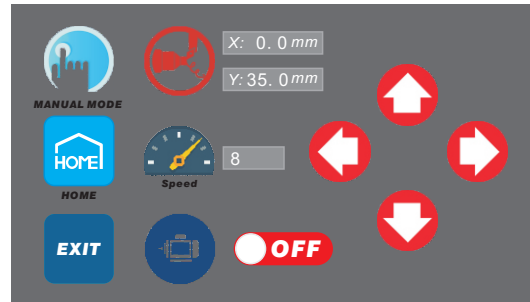


4. Press “Direction Arrow Icon” to move the truer cutting bit as you like.

5. Press “Motor Icon” enters to turn on the motor confirmation page.



5.1 Press “Yes Icon” to confirm turn on the motor. **YES**



6. Now you can move the cutting bit to cut the tire manually.

During truing operating you can “Press Motor Off Icon” to stop the motor or press the emergency button cut off the power.

7. Press “Motor Off Icon” to off the motor. **OFF**

8. Press “Exit Icon” exit the Manual Operating Menu. **EXIT**

The correct R radius value

1. Prepare a measurement tool to measure the thickness of the foam from the side of the tire.
2. Measure the thickness of the foam (only foam thickness, not included rim thickness).



3. Key in the R radius value into the truer (the thickness of the foam is the maximum of R radius value if the R angle value above the foam thickness the cutting bit will cut the tire rim during operating).

NOTE

Soft tires tend to expand when rotating. The truer cuts at the diameter of the set; however, when the tire stops spinning the tire foam will shrink and may cause the tire diameter to become smaller than what you desired. Therefore, when grinding soft compound tires we recommend that you adjust the grinding diameter to a slightly bigger diameter than the one you effectively desire.

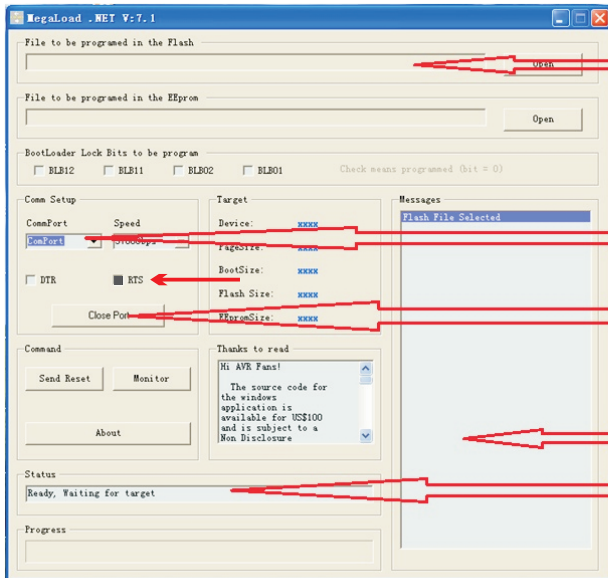
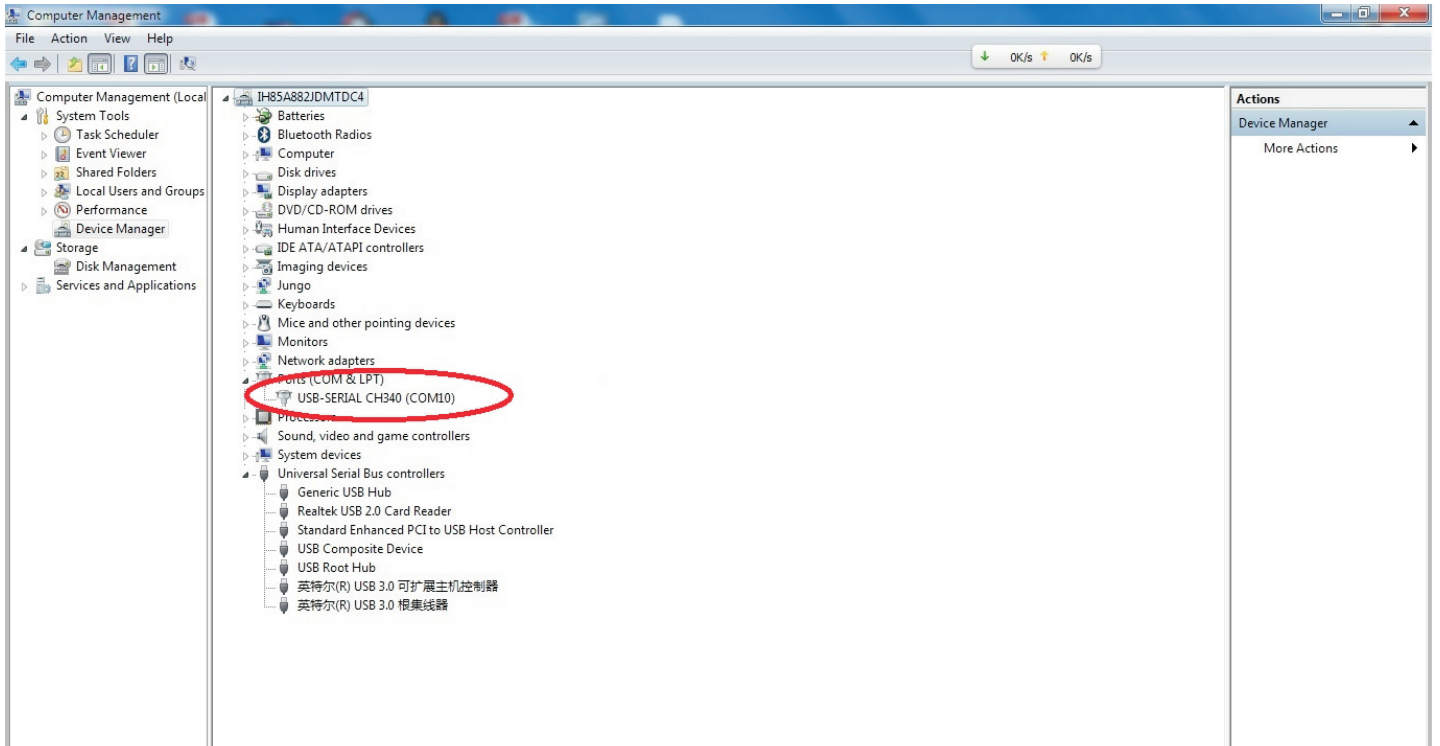


MegaLoad Installation Instructions

- 1: Insert CD into your computer drive
- 2: Click "[setup.msi](#)" to install
- 3: If you are prompted to install the "microsofte framework" during installation, please exit the installation and install the Microsoft .NET Framework 2.0.50727 Redistributable directly on the CD-ROM.
- 4: When the microsofte framework is installed, please install Megaload([setup.msi](#)) again.
- 5: Please connect USB-RS232 Cable (USB-serial) when all installations are completed
- 6: If your computer does not recognize this USB-RS232 Cable (USB-serial). Please install the driver for this cable "[driver usb-serial port](#)" from CD)
- 7, when all the above installation is completed, run "MegaLoad" and ready to upgrade the latest firmware.

Upgrade the Firmware CPU Board

1. Turn OFF the machine and connect the serial port (RS232) on the back of the machine to your PC via serial data cable
2. First, power off the machine and open the [Megaload.NET](#) software on your computer. Set the following settings (refer to the following figure for specific settings):
3. In the "[File to be programed in the Flash](#)" column, open the program's directory.
4. Select the port in the "[Commport](#)" column to **ComPort**, select the speed in the "[Speed](#)" column to **9600bps**.
5. Click "[Open Port](#)" change to **Close Port**.
6. Turn on the power switch at the back of the machine. At this time, the Messages column will display the upgrade information. After the upgrade, **Flash Prog Done** will be displayed on "[Status](#)" column, **Successful finished** and **waiting for next target** will be displayed on "[Message](#)" column. This indicates that the upgrade is complete.
7. Unplug the serial data cable from the serial port (RS232) and mechanic is ready to operate with latest firmware.



a) Open the file directory

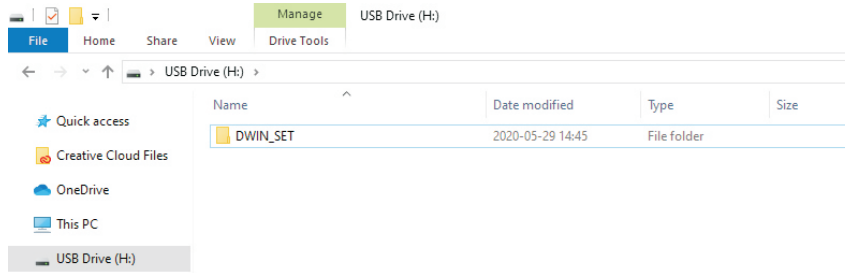
b) Select the CommPort and Speed

c) Click and Switch to Close Port

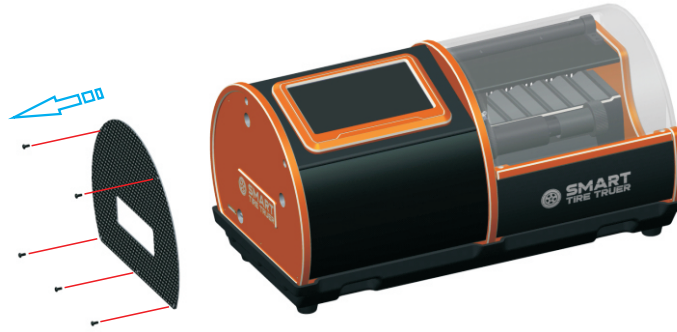
d) "Message" column will display the upgrade information. Once completed upgrade, Flash Prog Done will be displayed on the "Message" column, Successful finished, waiting for next target on "Status" column, This indicates that the upgrade is completed.

Upgrade the Firmware Touch Panel

1. Download latest touch panel firmware DWIN_SET and copy to SD card.



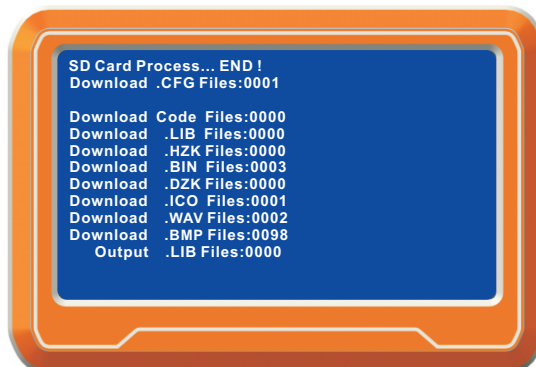
2. Turn off the machine and remove the carbon fibre plate on the left side.



3. Insert SD card with updated firmware. (SD Card not included)



4. Turn on the power switch latest firmware will loading automatically. Updated details will show on display as below picture.



5. Turn Off the power switch and Remove the SD card. Upgrade firmware done.


MEMO


MEMO

MEMO

MODEL TR-323

REV.2.3

 **SMART**
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