



HASTECRail

**HASTECPRO HEIGHT
& STAGGER GAUGE
QUICK START GUIDE**

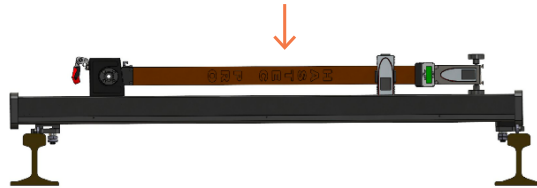
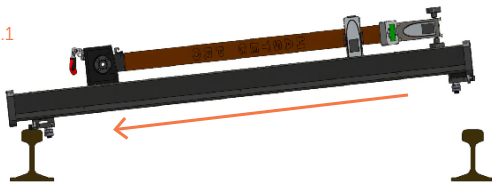


HASTECPRO (HEIGHT AND STAGGER GAUGE)



PRE-OPERATION

Fig 1.1



1

Remove the equipment from its carry case and place the case away from work area.

2

Place the left pad onto its rail and push inwards whilst lowering the right pad onto opposite rail. Fig 1.1 shows the process and completion.

3

Lift up the vertical arm into its upright position. Fig 1.2 Lock into place by using the latch clamp. Fig 1.3.

4

Gently rock the beam side to side to ensure the arm is correctly secured into place.

5

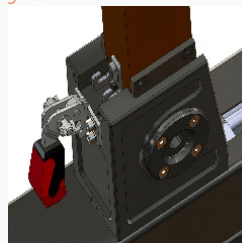
A quick visual inspection of the equipment to check for any damage and that all devices are secure and present.

Fig 1.2

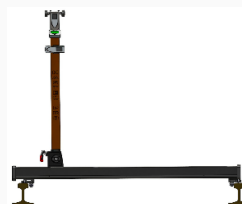


1. Lift up arm until vertical

Fig 1.3



2. Locate locking bar into clamp and pull down on handle until it locks



3. Once completed it should look like this

MEASUREMENT RECORDING

1

Turn on the tablet by pressing the power button until screen appears or until the red LED appears. Fig 1.4.



Fig 1.4

2

Once the home screen appears, swipe the screen upwards and select the "PIN" box. Fig 1.5.

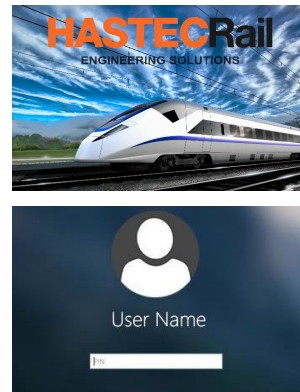


Fig 1.5

3

Log into the tablet using the PIN that is located on the rear of the tablet. Allow a minute for the H & S SURVEY button to load. Fig 1.6.

4

Turn on the laser device by pushing the main function button once. Fig 1.7.

5

On the tablet press the H & S SURVEY button, which will bring up a pop up list. Fig 1.8 on next page for details.

Fig 1.6

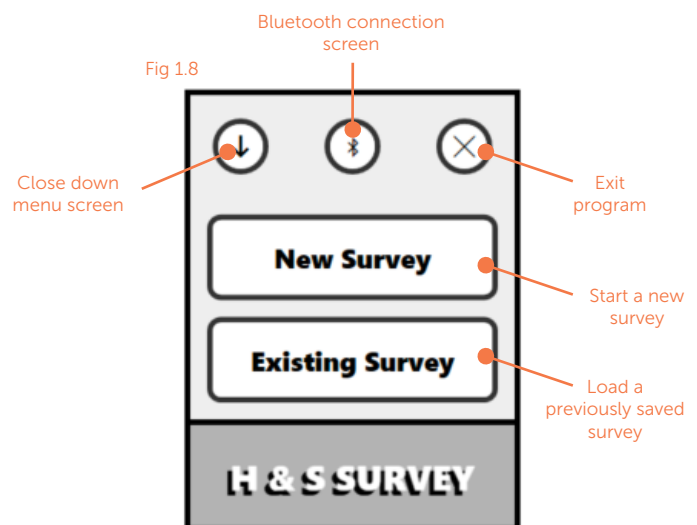


H & S Survey Software
"Interactive Button"

Fig 1.7



- **Close Down Menu Screen:**
This minimizes the menu back to the interactive button.
- **Bluetooth Connection Screen:**
Allows you to connect to the laser device before opening a document.
- **Exit Program:**
Closes down the program completely. The user will then manually re-load the program from the desktop icon.
- **Start A New Survey:**
This will open up a clean version of the survey document.
- **Existing Survey:**
This allows the user to open a previously saved survey and continue work from where they left off.



THE NEXT FEW PAGES WILL SHOW THE USER HOW TO CONNECT AND USE THE LASER AND TABLET DEVICES

The user can connect to the laser device via three separate configurations; 'Bluetooth icon', 'Start A New Survey' or 'Existing Survey'.

The user can make a choice relevant to the work being carried out.

The easiest choice is to select the 'Bluetooth icon' and then use either of the respective 'survey buttons'.

Whichever button is pressed, the user will always be presented with the Bluetooth connection screen prior to being able to take a measurement.

DEVICE CONNECTION SCREEN

The following steps assumes the user selected the Bluetooth icon but the same process is the same for the selection of "New Survey" and "Existing Survey" buttons.

1

Press the Bluetooth icon. Fig 1.8. This will then bring up the device selection screen. Fig 1.9 see next page.

2

Press the Scan for Devices button. Scan mode begins, indicated by the spinning circular arrows.

3

Select the correct device from the list presented. (The device may give a connection confirmation sound).

4

Upon connection, a notification box will appear at the bottom displaying 'Disconnect'. Fig 1.9 (This confirms the laser and the tablet are connected, however will disconnect if pressed).

5

Then press the "X" in the top right to close this screen which will then disappear.

Push the H & S SURVEY button again, bringing up the main menu screen. Fig 1.8.

6

Select either a New Survey or Existing Survey.

Note: If you have missed the previous steps you will be returned to step 2.

7

The Network Rail (NR) TRAMS survey will load up as shown in Fig 2.0.

8

Push the "Enable Content" box at the top of screen.

9

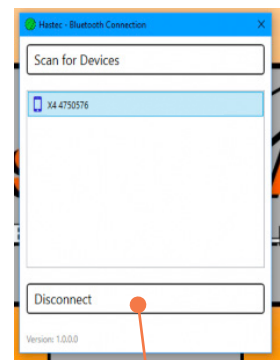
A Network Rail pop-up will display for a few seconds and close.

10

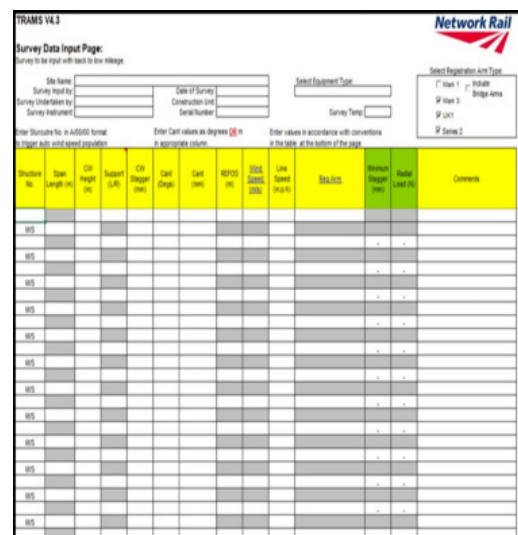
Ensure the HASTECRail Pro has been correctly set prior to taking measurements as described in the next section.



2. Device scanning



4. Device connected



Enable content

HASTEC RAIL EQUIPMENT SET UP

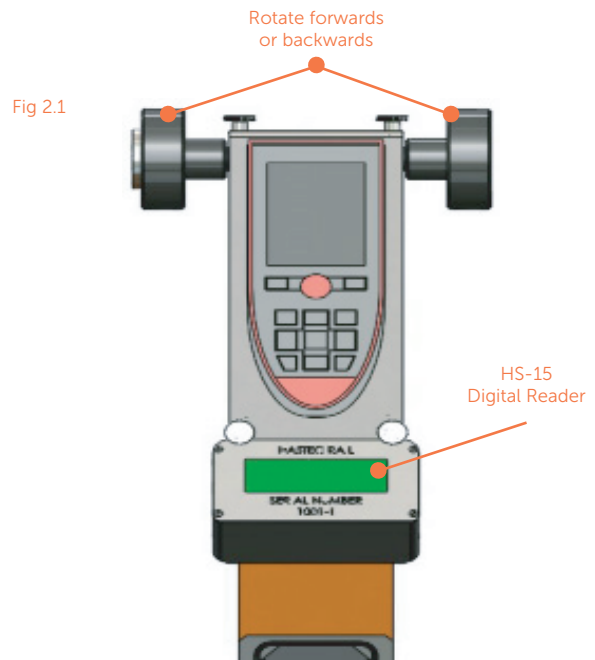
The gauge is moved into position by using the two twist knobs see fig 2.1.

In certain circumstances it may be difficult to see where the laser is taking measurements from.

To overcome this, the laser has a point finder camera allowing you to track the laser position.

Activate the camera by pressing the Main Function Button once. Press the button again to take the required measurement. Press again to return to the camera screen.

Details of the laser buttons and functions are shown on the next page. Fig 2.2.



LASER BUTTONS AND FUNCTIONS

Point Finder Camera:

- This indicates the position of the laser beam.

Cancel/Off Button:

- This button resets all previous measurements back to 0.(may require multiple presses due to camera function).
- Press and hold to turn laser device off.

Camera Zoom:

- Allows up to 4x zoom and back to 1x on the camera screen.

Main Function Button:

- This button initially turns the laser device on into the camera mode.
- Pressing again will take a measurement.
- Pressing a third time returns it to camera mode.



HEIGHT AND STAGGER MEASUREMENT

1

Using the twist knobs move the arm into the desired position. Confirmation of the laser position can be either visual by the operator or through the camera.

2

The cable stagger position will be shown on the HS-15 digital reader display. Fig 2.1. This value can be manually inputted into the NR TRAMS SURVEY if required.

3

To take a cable height measurement, select the required data cell in the TRAMS SURVEY. (This will then be highlighted with a green border. Fig 2.3).

4

With the laser in camera mode, press the main function button to take the initial measurement. This measurement will be transferred to the selected cell in the TRAMS SURVEY.

5

To take another measurement, press the main function button again taking you back into camera mode, ready for the next measurement.

Selected cell

Fig 2.3

	A	B	C	D
1				
2				
3				
4				
5				
6				
7				

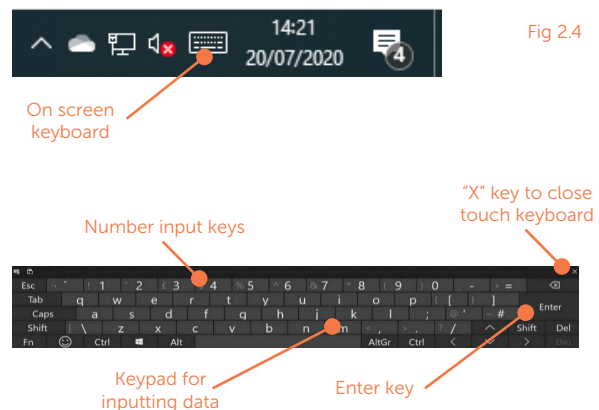
MANUALLY INPUTTING ANY INFORMATION INTO THE SPREADSHEET

1

Select the required cell to input the data/figures into.

2

Tap the on screen keyboard icon on the far right bottom of the taskbar.



HASTEC "REFOS" MEASUREMENT

1

Using the twist Knobs, position the main arm back to its "0" position as indicated on the HS-15.

2

Position the secondary laser device as shown to take the first 'REFOS' measurement. Fig 2.5.

3

Turn the laser device on by pressing the 'Main Function' button once.

4

Position the H&S gauge along the track so that the laser beam shines onto the object being measured.

5

Push the 'Main Function' button to take a measurement.

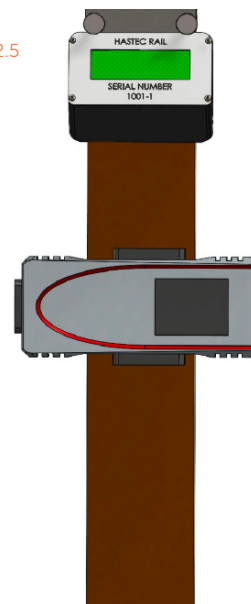
6

The measurement can be inputted into the 'TRAMS SURVEY' by highlighting the required cell and entering the value using the pop-up keyboard. Fig 2.4 & Fig 2.6.

7

If additional measurements are required repeat steps 4-6. The 'REFOS' laser can be position at 180 Deg if required. When complete press the keyboard exit 'X', (See previous page).

Fig 2.5



Please refer to previous page on how to input data

Fig 2.6

Selected cell

	A	B	C	D
1				
2				
3				
4				
5				
6				
7				

TAKING A C.A.N.T MEASUREMENT

1

Locate the secondary laser device on the arm as shown in Fig 2.7.

2

Please ensure the arm is in its upright position.

3

If required press the 'Main Function' button to turn the laser on.

4

Take a note of the angle in the top right corner of the screen and input this into the highlighted cell on the 'TRAMS SURVEY'.

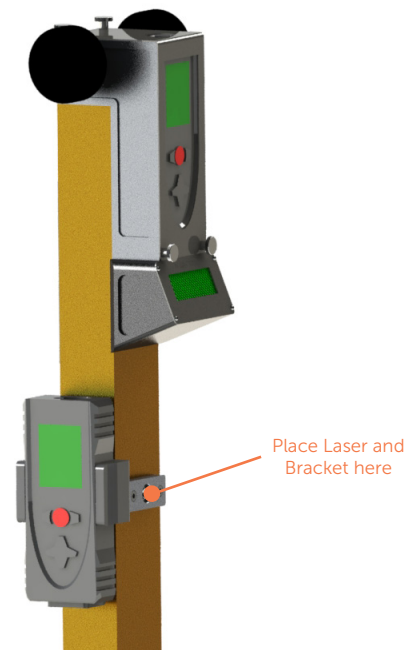
5

Repeat from step 4-5 if further readings are required, otherwise proceed to the next step.

6

When all required 'TRAMS SURVEY' data has been inputted. The survey can be saved for future reference.

Fig 2.7



SAVING THE DOCUMENT

1

Select file.

2

Select 'Save As'. Fig 2.8.

3

Select Browse. Fig 2.9.

4

Give the document a name and then press the save button.

5

If you press the save button and get an overwrite message select no and follow step 4 again giving the file a different name, otherwise proceed to step 6. (DO NOT OVERWRITE ANY DOCUMENT).

6

At this point you can close all documents down and turn off the tablet.

7

Close all documents by pressing the 'X' in the top right corner of each program.

8

Shutdown the tablet - press the Shutdown Icon in the bottom left corner of the HASTECRail home screen.

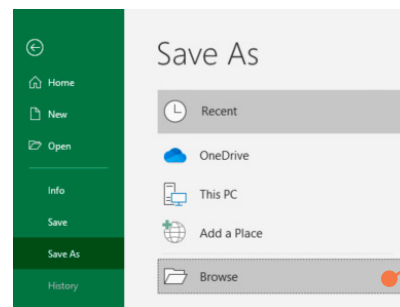


Fig 2.8

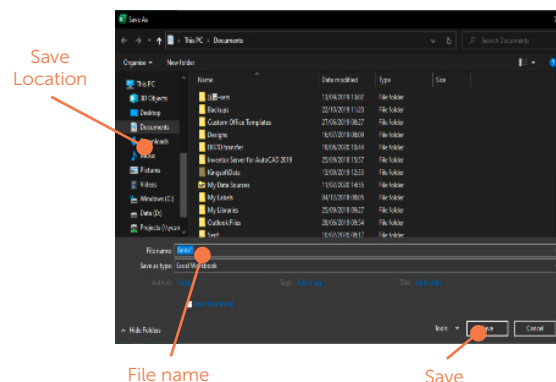


Fig 2.9

END OF OPERATION

1

Ensure that no debris or foreign objects have become lodged within the equipment, by means of a visual inspection.

2

Using the twist knobs, move the vertical arm back to the "CLOSE POSITION" as indicated on the left side of the gauge cover ensuring the right face lines up with the line. Fig 3.0.

Fig 3.0

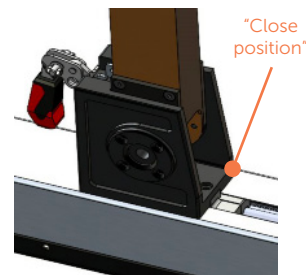
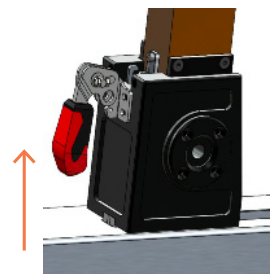


Fig 3.1



Pull up on the locking bar to unclamp the arm.

3

Release the locking mechanism so that the arm can be folded down into its horizontal transportation position. Fig 3.1 - Fig 3.3.

4

To release the equipment from the rail, hold the unit from underneath and push against the rail towards the left side. Fig 3.4.

Carefully lifting the right side away from the rail.

When it is clear the H&S gauge can be fully lifted and removed from the rails.

5

Carefully place the equipment back into its carry case.

6

We recommend that after the end of a survey, the equipment battery charge levels are checked.

Where they are indicating a low level, they should be charged in respect to the tablet and batteries replaced on the laser device.

Fig 3.2

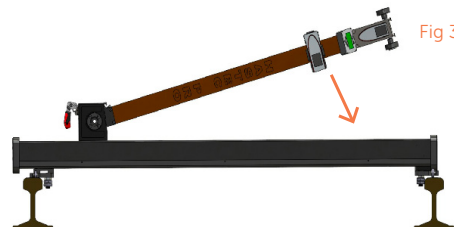


Fig 3.3



Fig 3.4



HELPLINE AND SUPPORT

Hastec Rail operates a help service to provide customers with solutions to any problems they may experience with any of our products.

Helpline number – 01246 906956

This helpline will operate during normal business working hours; however, if for any reason there are difficulties, alternative contact details at the bottom of this page.

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