

HYDRAJAWS Bluetooth Digital

Issue 3

Operating Instructions



HYDRAJAWS[®]
Bluetooth[™] DIGITAL

GENERAL DESCRIPTION

Hydrajaws revolutionary digital technology captures test results using a mobile phone or tablet device, allowing for instant visual graphs on-site for anchors, eyebolts and lifelines. Results are currently recorded manually using an analogue gauge; however with our unique digital system using Bluetooth it produces real time visual graphs for each test.

This revolutionary method has many advantages over the current industry technique which include:

- Results are visual and recorded with time, date and GPS location of each test.
- Graphs can be viewed with clients to explain why tests may not have met the required standard (not possible using analogue gauges).
- This system allows for more accountability for time spent on-site.
- Test evidence can be provided electronically from site to clients in a completed report, saving time on unnecessary paperwork (requires Wi-Fi or Mobile Network Signal).
- Compatible with Android or Apple based devices such as smartphone/tablet.

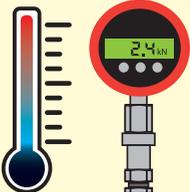




Please avoid exposing equipment to extremes of temperature where possible.



If equipment has been used in very wet weather it is advised to peel back the outer rubber casing and leave to dry out before next use.



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It is essential that the operating instructions are read before a test is carried out for the first time and that the system is fully tested before going out on-site, to get accustomed to the equipment.

Always keep these operating instructions together with the tester.

Ensure that the operating instructions are with the tester when it is given to other persons.

All screenshots and operating methods in this manual may vary from one device to another. For more information, please consult the operating manual of your specific device.

HYDRAJAWS BLUETOOTH DIGITAL KIT CONTENTS



1. Box

Retain this for return of unit for annual calibration.

2. Gauge

With appropriate face sticker and MAN number sticker.

3. 2 x 2mm Allen keys

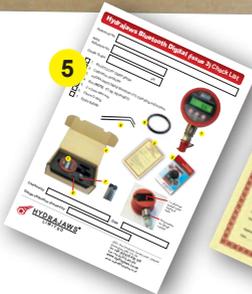
(1 located at back of gauge).

4. Spare battery

5. Check sheet

6. Calibration Certificate

7. Operating Instructions



DEVICE REQUIREMENTS

Before purchasing a new device, please check it meets ALL specifications required.



Android Devices

System: Android 4.4 OS onwards compatible mobile device with GPS.

Bluetooth: Low Energy, Smart or Bluetooth 4.0+.

For installation of software a data enabled SIM with email function or a connection to the Google Play Store is required.

For emailing reports, a data enabled SIM with email function is required.



Apple Devices

Any Apple iPod, iPhone or iPad with operating system of iOS 7 onwards.

Bluetooth: Low Energy, Smart or Bluetooth 4.0+,
GPS and access to the Apple app store.

For emailing reports, a data enabled SIM with email function is required.

1A. THE ANDROID DEVICE INTERFACE



The Hydrajaws Bluetooth Digital App appearance will vary slightly from one device to another but the operating interface will function the same way.



The Android device interface

Bluetooth Connect button

Timer

Load applied

Displacement

Site folders Button

Current target, site and test name

Test button (starts recording)

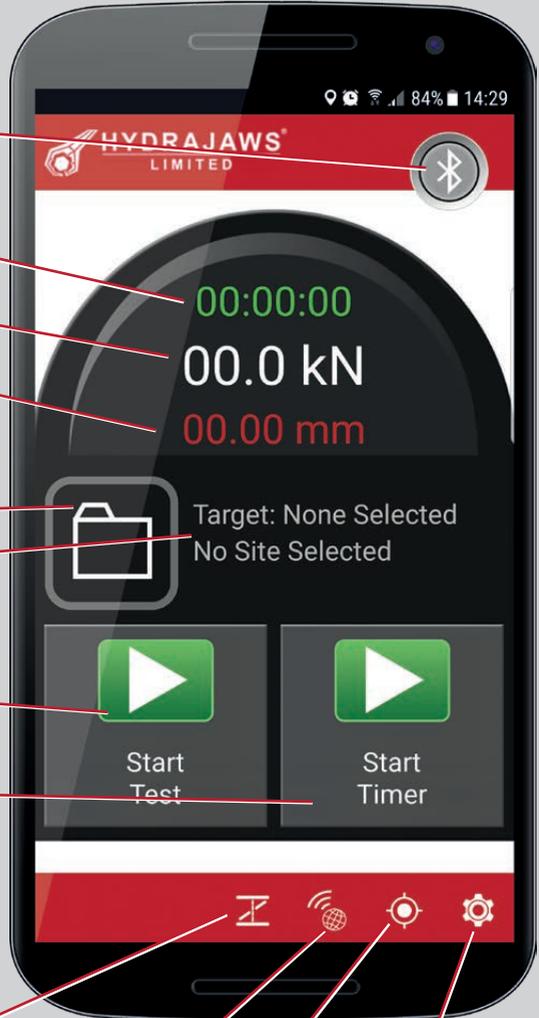
Timer button

Zero Load and/or Displacement

Remote technical assistance*

GPS indicator

Displacement on/off



* Advised when needed.



The Hydr jaws Bluetooth Digital App appearance will vary slightly from one Apple device to another but the operating interface will function the same way.

The Apple device interface

Bluetooth Connect button

Timer

Load applied

Displacement

Site folders Button

Current target, site and test name

Test button (starts recording)

Timer button

Zero Load and/or Displacement

Remote technical assistance*

GPS indicator

Displacement on/off

* Advised when needed.

2A. APP INSTALLATION ON APPLE DEVICES



To install the app on your Apple device go to the Apple App Store usually located on your home screen.

In the App Store search for 'Hydrajaws Bluetooth Digital'.



This will bring up the Hydrajaws App.



Select 'GET' and then 'Install App'.

The App is free and so payment will not be needed but you may have to sign in to your Apple account.

2A.1 ENABLE GPS AND BLUETOOTH ON THE APPLE DEVICE

To enable Bluetooth:

Go to Settings and switch Bluetooth to on.



To allow GPS:

Go to Settings then Privacy:
Switch Location services on.



This may vary from one device to another. Please consult your device's operating manual.

2B. APP INSTALLATION ON ANDROID DEVICES



The Hydrajaws Bluetooth Digital Application can be loaded onto an Android device by downloading it from the Google Play store or the Hydrajaws website.

Installation screens and methods may vary. For more information, please consult the operating manual of your device. To receive information on upgrades please use the preferred method of downloading from Google Play. If not using Google Play then please check the website for updated versions.

2B.1 PREPARE DEVICE FOR INSTALLATION

If not installing the Hydrajaws app from Google Play, the Android device must be set up to allow installation of apps from sources other than Google Play Store.

Open settings.

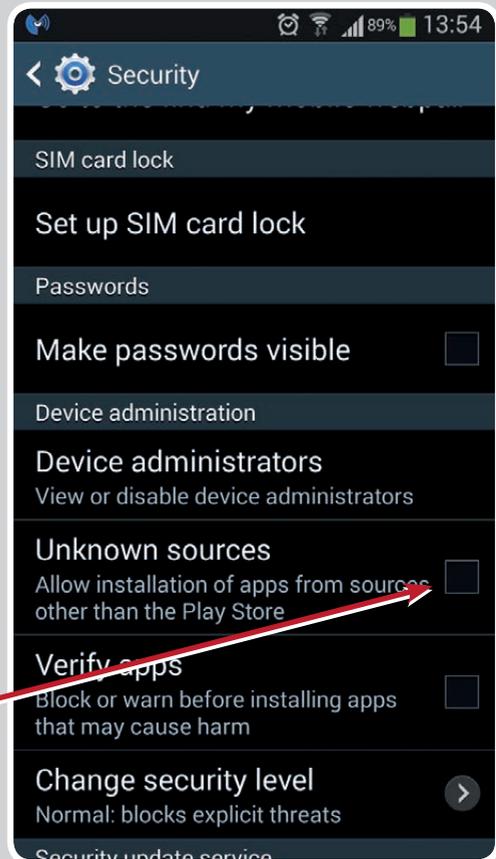
Select Security

Enable 'Unknown Sources'

Press OK

Exit settings.

When installation is complete - disable 'Unknown Sources' again.



2B.2 DOWNLOAD FROM THE HYDRAJAWS SITE

Go to the Hydrajaws website:

[www.hydrajaws.co.uk/Products/
NEW-Bluetooth-Digital-System](http://www.hydrajaws.co.uk/Products/NEW-Bluetooth-Digital-System)

Right click on the app download file apk.

'hydrajaws.apk'

Select Save.

(If saved to PC then email or use a USB stick to transfer to the Android device).

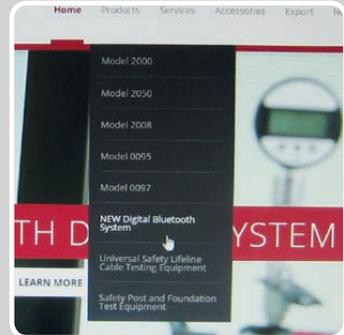
Navigate to the saved file.

Select install.

Decline any Google messages (if asked).

Press Done.

Disable 'Unknown Sources' in settings.



2B.3 DOWNLOAD FROM THE GOOGLE PLAY STORE

Go to the Google Play Store on Android device.

Search for : Hydrajaws Bluetooth Digital.

Install App.

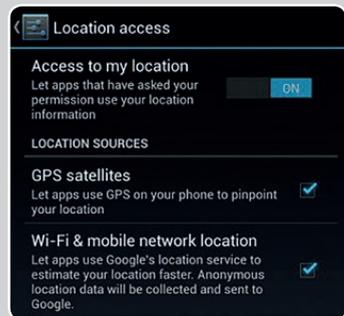


2B.4 ENABLE GPS AND BLUETOOTH ON THE ANDROID DEVICE

For operation of the GPS ensure that your device has enabled GPS.

This will usually be under Settings and Location access. Depending on your device and version of the Android OS, make sure all options such as Location, Location services, and Location reporting are enabled.

If Bluetooth is switched off it will be requested when starting the app (see Pair up with Gauge by Bluetooth).



3. PREPARATION FOR TESTING

3.1 ACTIVATE THE GAUGE

Press the left 'power' button to turn on the gauge. The bluetooth will start - indicated by a flashing bluetooth symbol. This will try to connect for 60 seconds.



When connected the Bluetooth symbol will stop flashing and remain on.



TURN ON GAUGE

A

Press the left 'A' button to turn on 'Peak Hold Mode'. This will be indicated by an arrow on screen.



B

Press and Hold the button 'B' to activate the backlight. *To preserve battery life it is recommended the backlight is used only when needed and is switched off when the gauge is not in use.*

A

If the gauge is reading a small amount (0.3 for example) when no load is applied - use the following instructions to re-set the display to zero. Press AND HOLD the 'A' button to zero the gauge.

CAUTION: DO NOT ZERO THE GAUGE WHEN IT IS UNDER LOAD.

Low battery



When the battery is low an indicator will appear on screen.

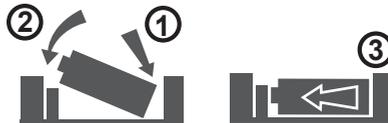
The battery is changed by unscrewing the cover on the back of the gauge using the 2mm Allen key provided.

The gauge comes with a **6LR 61 9V** battery. Please use a **6LR 61 9V** battery and fit as shown below.

Remove battery



Fit battery



3.2 OPEN THE APP

Find the Hydrajaws Bluetooth Digital Launch Icon and click it to open the app.



3.3 PAIR UP WITH GAUGE BY BLUETOOTH

Press the Bluetooth Connect button.



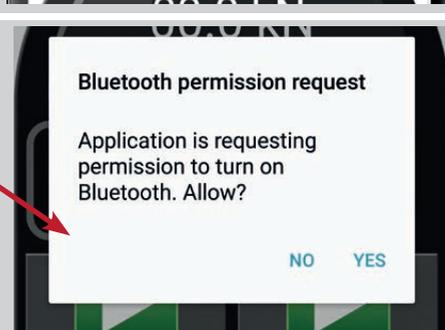
If Bluetooth is switched off, permission will be requested.



Android: Select 'Yes' (Bluetooth will be turned on).

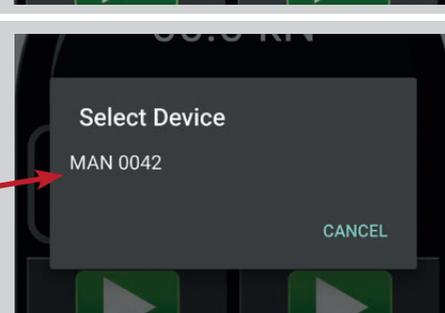


Apple: Go to Settings and turn Bluetooth on.

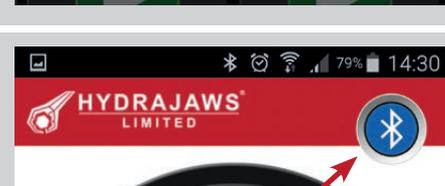


A Bluetooth device list will appear with a list of devices in range (approx. 10 to 20 metres).

Select the device matching the Gauge reference number. This will be the number labelled on the bottom of the gauge and usually begins with 'MAN'.



The Bluetooth icon will change colour to blue indicating the pairing is successful.



4. TEST PROCEDURE

4.1 SETTING UP THE TEST

Ensure the gauge is connected to the app by Bluetooth. The Bluetooth symbol will be blue to indicate this (see 'Preparation for testing' section).

Before starting a test a site folder will need to be selected. This Site will contain details such as client name, site address, fixing details, etc. and all of the test results and details. This will be used to generate the report at the end of the testing.

Press the Site folder button.
A list of any previous sites will be displayed. If testing under an existing site then select the required one.



PLEASE NOTE: Testing will not begin unless a site has been selected.

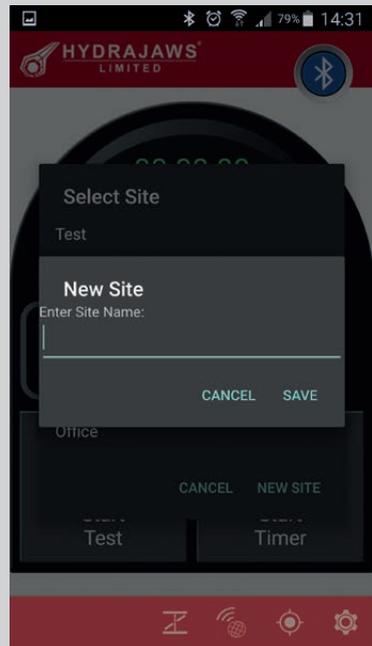
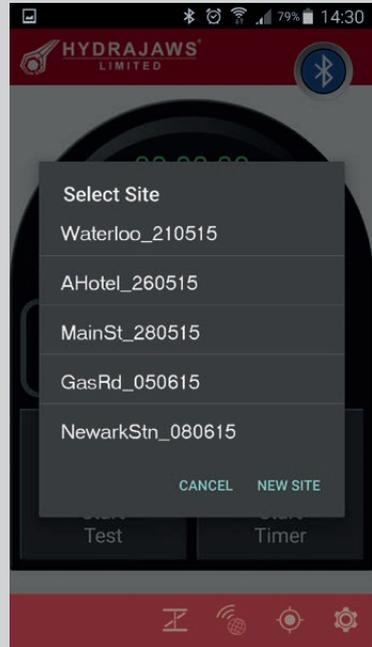
If working on a new site select New Site and enter a name when prompted. This will be a reference name of up to 16 characters.

*It is recommended that a Site name contains a good reference to the job (eg. location & date or ref number).
For example: **Waterloo_120515**.*

Press SAVE. This new site will now appear in the site list.



Due to the limitations of mobile phones and tablets it is recommended that no more than 50 tests are put into a single site folder.



Press Site folder button to display the list of sites.

Now select the required site to display its list of tests.

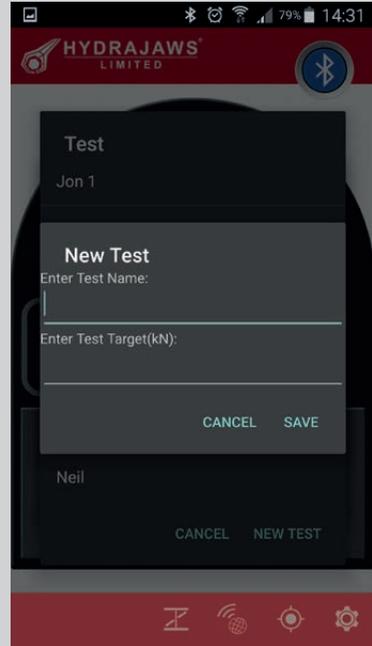
Select 'New Test'.

Enter a test name (up to 16 characters) when prompted.

*It is recommended that a Test name contains a good reference to the test (eg. test number, location ref etc.).
For example: **Test1_Floor5**.*

Enter a target load in kN.

Note: Tests can be performed without a target load but the result will not feature a FAIL/PASS result.

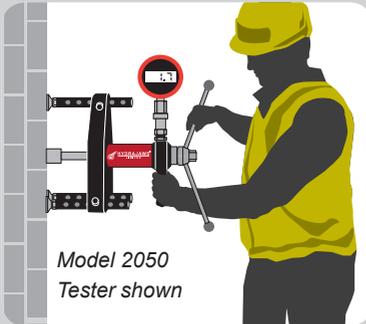


You will now return to the home screen with the site name and test name filled in.



4.2 CARRYING OUT A TEST

1. To start test recording press the START TEST button. This will change to a STOP TEST button to indicate recording has started.
2. Wind fixing up to the desired holding point.



3. To time the test, press START TIMER.

This will change to STOP TIMER and background will change to red. The green timer will start.

Keep the fixing/cable held for the desired holding time.

Note: Tests can be performed without using the timer.

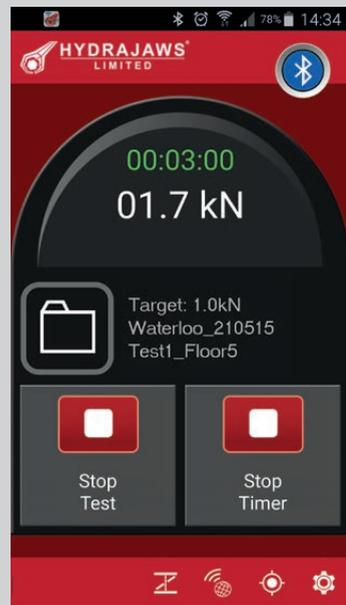
4. When the desired holding time has elapsed, press STOP TIMER.

If further timings are required, repeat steps 2 to 4.

PLEASE NOTE: The PASS/FAIL test will only be applied to the last timed section.

5. When all testing is completed release the load (wind down to zero) and then press STOP TEST.

The screen will now change to the test review screen.



It is advised that the gauge and Bluetooth are switched off after every test to preserve battery life.

4.3 REVIEWING A TEST

After completing a test the screen will display the results:

- Site name
- Test name
- Date
- GPS Position
- Button to show position on Google Map*
- Target Load
- High
- Displacement at high
- PASS or FAIL result
- Graph results (see below)

HYDRAJAWS LIMITED

Waterloo_210515

Test1_Floor5

Date: 03/07/2017

Longitude: -1.711764931678772
Latitude: 52.51369094848633

View Map

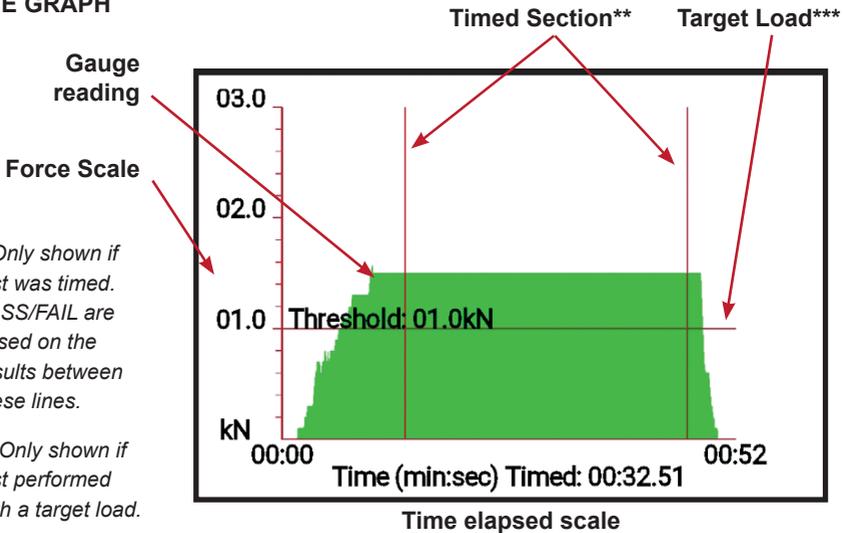
Threshold: 01.0 kN
High: 01.6 kN
Displacement at High: N/A

Result: **Pass**

A 'PASS' is achieved when the actual load does not fall below the desired target load entered for the last timed session.

A 'PASS' or 'FAIL' result will only be provided if the test was timed with a target load.

THE GRAPH



This test will now be saved under the site name selected.

Pressing return will display the home screen again ready for further tests.

*If Google Map is enabled on device. Other mapping functions are available.

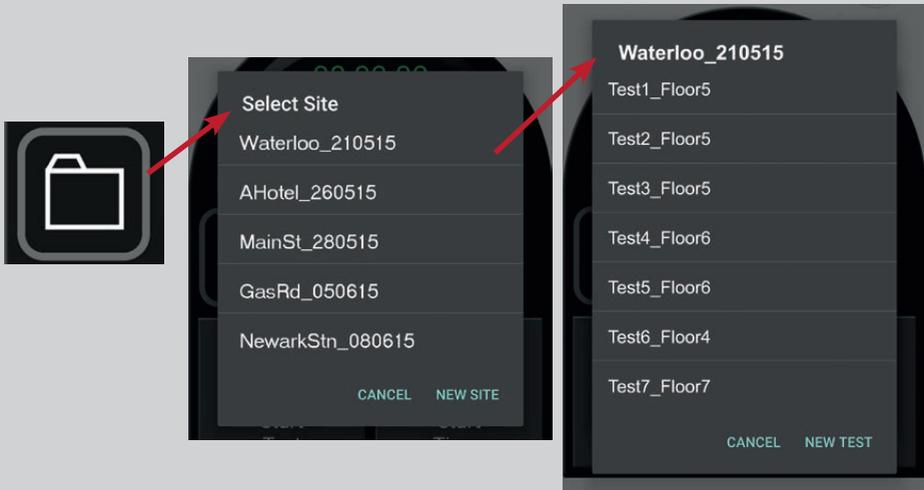
5. CREATING A REPORT

5.1 REVIEWING A REPORT AND ITS TESTS

Pressing the site folder button will bring up a list of saved sites.

Pressing once on a site will bring up a list of tests carried out under that site name.

Pressing a test will take you to the test review screen (see section 4.3).



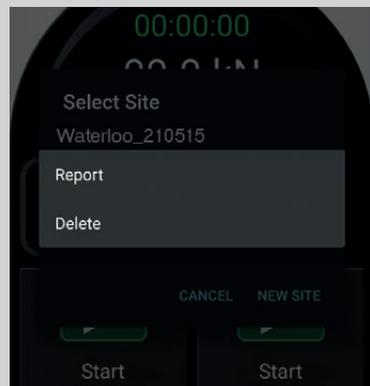
To edit or view a site report.

- **press and hold its name** until a menu appears. Select 'Report'.

This will take you to the Editing Report Screen (see section 5.2).

You will also be given the option to delete the site.

Note: A site cannot be deleted while it contains test data. These have to be removed first.



Be careful not to accidentally delete site data as this cannot be retrieved.



5.2 COMPLETING A REPORT

The Editing Report Screen has all the selected site details, test results, comments and information ready to create a full report.

Some details are automatically filled in (eg. Date) and some will need to be manually filled in depending on requirements (e.g.. comments box).

HYDRAJAWS LIMITED

Project(Site Name):
Office
Reference Number:

Date:
19/05/2015

Client Details

Client:

Contact:

Address:

Telephone:

Email:

Site Details

Site Location:

Site Contact(s):

Telephone:

Email:

Witnesses Present:

Fixings Details

Fixing 1:
Manufacturer:

Size:

Type:

Description:
Fixing
Material/Substrate:

Application:

Embedment:

Testing Details

Testing Company:
ABC Pull Testing Limited
Testing Personnel:

Test Equipment Used:

Test Conclusions:

Test Additional Info:

Report Graphs


Date: 19/05/2015
Time: 12:47

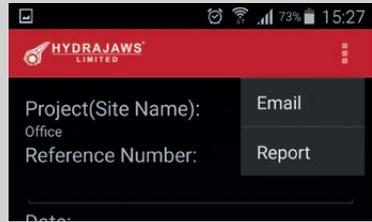
5.3 GENERATING OR SENDING A REPORT

When you are satisfied all site details required have been filled in you can email or generate a PDF.



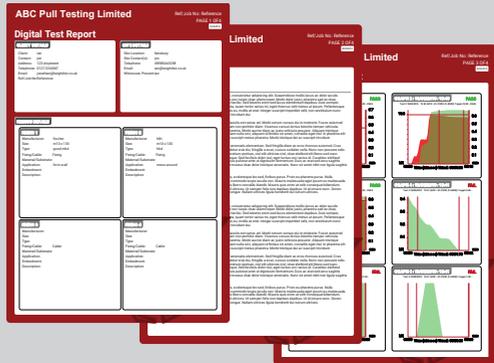
From the Editing Report Screen press the menu icon on the top right and select Email or Report.

Note: On some devices this menu icon may be replaced by the default menu button on the device.



Report

Will generate a PDF of the site report and request where to save it. This saved PDF can be stored, attached to an email or printed as a standard PDF.



From the Editing Report Screen press the Preview button on the top right of the screen to go to a PDF preview of the report.

From this report screen press the email button (top right) to email the report.



Personalisation

Reports will be personalised at the top with the name that is entered for 'Testing Company' when the report is filled in.



Email

Selecting 'Email' will open up the email client on your device and attach a PDF of the report to a blank message.

Any photos or documents attached to the tests can now be also added to the email.

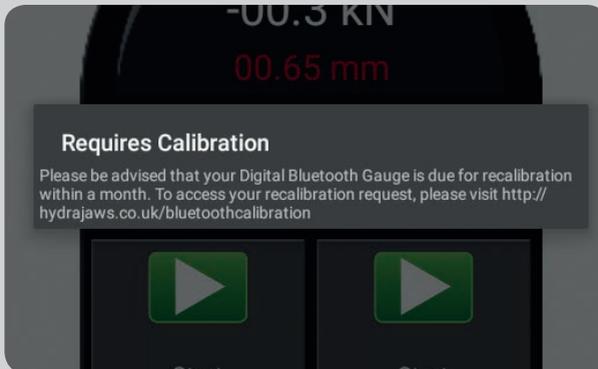
It is recommended that a PDF is generated or emailed and saved onto a separate device as a backup in case the device is stolen or reset - losing all data.

6. CALIBRATION PROCEDURE

6.1 ANNUAL CALIBRATION

After twelve months the gauge will be out of calibration and the software will not operate. A reminder will appear on screen one month before calibration is due.

Go to www.hydrajaws.co.uk/bluetoothcalibration or contact Hydrajaws to arrange return of the gauge to Hydrajaws.



Please return the gauge in the original gauge packaging provided or other suitable container to protect it from damage in transit.

6.2 SOFTWARE UTILIZATION

When required the gauge Bluetooth software can be reactivated. A fee may be applicable.

This can be achieved remotely via the 'Remote Technical Assistance' button.

You will be advised when this is required.



7. TROUBLESHOOTING PROBLEMS

My Android Device won't allow the app to be installed?

If not downloaded from Google Play, the app is said to be from an Unknown Source. Please ensure that for the duration of Installation, Unknown Sources is enabled.

Getting 'Parse Error' on Android device when trying to install?

Ensure your device has an operating system of 4.4 or newer.

The app is not working on my Apple device when first installed?

If there is no test data, remove the app and reinstall it again.

Why are there no visible digits on my gauge?

Please ensure that a fully charged battery is fitted in the gauge and then ensure that the gauge is switched on.

Why won't my gauge pair with my Android device?

Once the Bluetooth function on the gauge has been activated, you have 1 minute to pair your gauge with your Android device. If you exceed this limit, please repeat the process of pairing your gauge and Android device. Begin by switching the Bluetooth function OFF and ON again.

Why won't the app let me start a test?

Please make sure you are connected to a gauge, and have set up a Site file and an individual test file.

Why won't the timer start?

Please ensure you have started a test. The START TEST button will change to STOP TEST when a test is live.

I've misspelt something! Can I change it?

A long press on a File Name (individual test file) will enable you to edit the File.

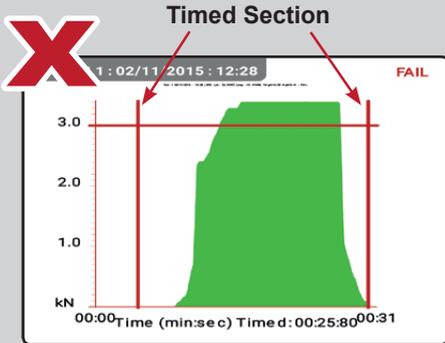
Why is my mobile/tablet running slow when reporting a test? Why is my app crashing when I try to open it?

Check the battery is fully charged and there is plenty of memory available. Due to limitations of mobile phones and tablets it is recommended that no more than 50 tests are put into a single site folder.

Why won't the app install and I get a 'device not compatible' message instead?

Check your tablet/mobile is in the compatible devices list in the app store and that you have the latest operating system installed.

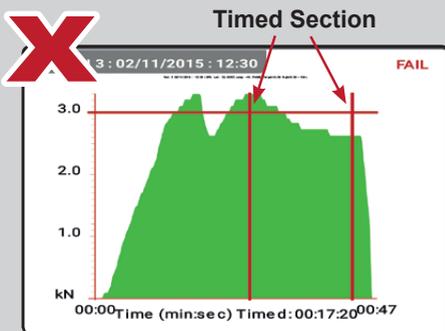
Why does the graph show a FAIL when it has reached the target load? (see example graphs below)



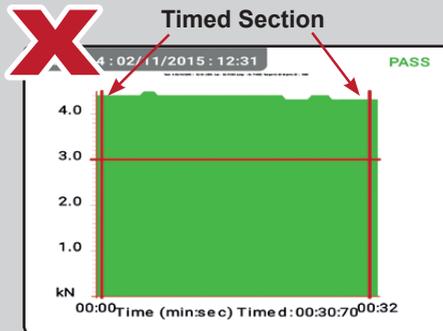
The timer was started before the load was wound up. The app result is performed on the results between the timed section (when wind up load was below target) and so produces a FAIL.



The timer was left to run during the wind down. The app result is performed on the results between the timed section (when wind down load was below target) and so produces a FAIL.



Although the target load was achieved, the load dropped between the timed section and so a FAIL was produced.



Test was started after wind up and before the wind down of load. Although this correctly shows a PASS, it is not recommended practice.

Please see section 4.2 Carrying out a test.

**FOR MORE INFORMATION
ON HYDRAJAWS AND A
FULL RANGE OF TESTING
APPLICATIONS PLEASE VISIT
THE WEBSITE AT:
WWW.HYDRAJAWS.CO.UK**



20/21 The Courtyard
Gorse Lane
Coleshill
Birmingham
B46 1JA

Tel: +44 (0)1675 430 370
Fax: +44 (0)1675 465 950

email: tester@hydrajaws.co.uk
www.hydrajaws.co.uk