

# RELEASE NOTES

## Broadweigh Load Shackle — Generation 3

### DOCUMENT INFORMATION

This document lists the features and improvements of the next generation of BW-S475 & BW-S325 load shackles.



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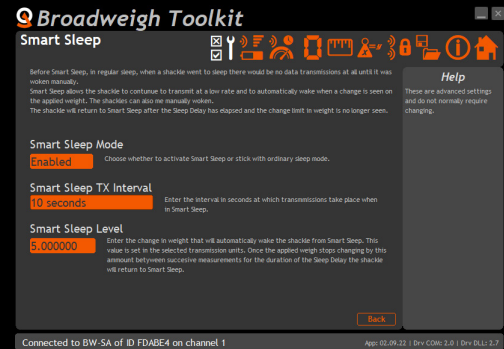
## NEW Features Firmware

### SMART SLEEP SLEEPS WITH ONE EYE OPEN

Generation 3 load shackles features a smart sleep mode where shackles monitor and transmit the load at a slower interval (user set, default every 10 seconds) and checks the difference between the last two transmissions. If the difference is greater than the user set level (default 5 kg) it then becomes fully awake and transmits at the faster rate (default once every second). If the readings are then stable for more than the sleep delay period, the shackle will return to smart sleep.

The shackle utilises the existing sleep/wake/stay awake commands that existing handhelds and base stations etc. use. When the smart sleeping Gen 3 shackle receives a wake command, it will shift into fully awake mode until it doesn't see a stay awake command and the load stabilises for longer than the sleep delay period.

If the load is not stable or keep awake commands are being received, it will stay in fast mode. The shackle will only go back to smart sleep/slow mode if both the load is stable and hasn't had a stay awake command for more than the sleep delay time. The other way to put it back into smart sleep is to send a sleep command.



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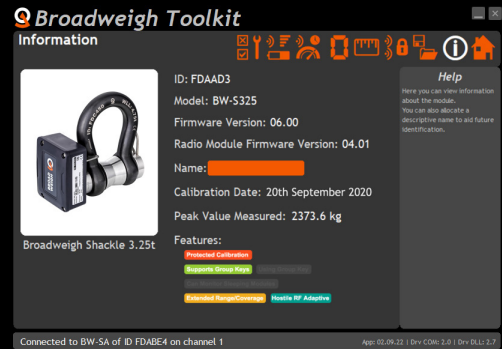
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## NEW Features Firmware

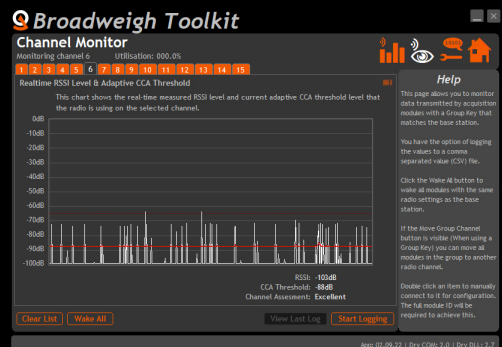
### DATE OF CALIBRATION & PEAK VALUE MEASURED

Updated firmware in the shackles stores the most recent calibration date and the largest load that the shackle has seen. This data can then be accessed using the Toolkit



### ADAPTIVE CCA THRESHOLD

This looks at the background noise/traffic and determines how forceful it need to be to successfully transmit. To conform with radio standards and allow coexistence with other technology, Broadweigh Gen 3 shackles wait for a level of quiet before they transmit. If there are high levels of background noise then the shackle will recognise this and not wait for so much 'silence' before it transmits.



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## NEW Features Hardware

### BROADWEIGH ORIGINAL STAINLESS STEEL BOW

Our custom-manufactured stainless steel bow will seamlessly blend into the eaves.

Featuring a black Tufftride® surface heat treatment, the bow has greatly improved tolerances and is designed to our own specification. The Tufftride® treatment enhances corrosion and indentation resistance and brings superior fatigue strength. The bow is UK manufactured and leaves our factory with slick laser-etched markings of the load pin ID, the shackle's working load limit and regulatory approval markings. This removes the requirement for the current clear sleeve.

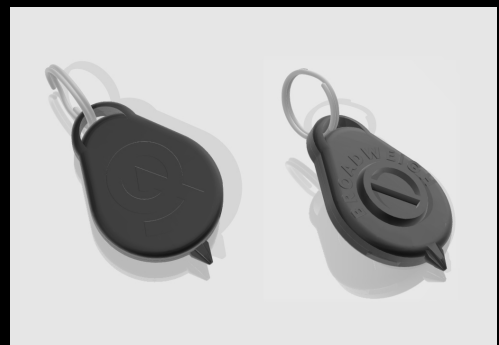


### POWER CYCLE MADE EASY

Access to batteries for hard-pairing can present a challenge. We have approached a solution in 2 ways; the first by changing the slotted screws for pozidrive screws (careful not to over-tighten) on our electronics enclosures.

The second completely removes the need to open the enclosure for hard pair. A built-in magnetic switch ensures the unit can be power cycled simply by moving a magnetic fob past the enclosure unit.

No need to open the shackle enclosure and remove batteries.



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## Recently Released July 2020

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### TOOLKIT FEATURES

The Broadweigh Toolkit was updated in July with a series of improvements to simplify the initial shackle set up, especially for new users of the system or rental houses.

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### PRE-DEFINED PARAMETERS

A new mode was introduced which automatically loads pre-defined parameters to the shackles. These are parameters that will give optimum performance for initial use.

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### MAXIMUM POWER

This applies mainly to users in the USA + Canada but means that, should local legislation allow, the radio output on Broadweigh modules can be increased.

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### END OF NOTES

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