



**BRAMWELL  
BROWN**  
MECHANIMATED CLOCKS

An Instruction Manual  
and Handy Guide to your  
**Tide Clock**



# Ahoy there!

We would dearly like to thank you for purchasing your Mechanimated Tide Clock. We hope it will be a super addition to your home and help you plan many sunny trips to the beach!

We've provided this booklet not just as an instruction manual but to tell you a bit about our little clock making business, Bramwell Brown.

To maximise your enjoyment of the clock's tidal movements we thoroughly recommend reading our explanation as to how this function of the clock works. You'll also find useful tips and details of how to register your clock's serial number on our website to extend its warranty.

Once you've hung your clock on the wall, please do share a picture of it on Instagram by tagging @bramwellbrown. Or email one to us at: [hello@bramwellbrown.com](mailto:hello@bramwellbrown.com) - the team adores seeing pictures of the clocks they make in new homes around the world.

We hope your clock will be enjoyed for many years to come!

Warmest regards,

The image shows two handwritten signatures in black ink. The first signature is 'Rob' and the second is 'Sarah', with a small 'e' between them. The handwriting is cursive and fluid.

(Brother & Sister, Founders of Bramwell Brown)



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## ***Extend Your Warranty***

All Bramwell Brown clocks come with an automatic one year warranty provided you retain proof of purchase. We also offer the opportunity to extend this to two years by registering the serial number on the back of your clock with us.

To register go to: [www.bramwellbrown.com](http://www.bramwellbrown.com) and follow the links in the 'Contact Us' Section.

## ***Taking Care of Your Clock***

We have taken every care to ensure your clock is of the highest build quality so it can be enjoyed for many years to come. However, being a complex mechanism, there is a certain degree of fragility that will obviously not withstand extreme forces or temperatures. As with any mechanical instrument, please bear this in mind when handling it and when choosing where to position it in your home. For advice on where you should or should not hang your clock, please see the "Hanging Your Clock" section.

The layers of mechanical scenery in your clock have been carefully optimised to work with the clock in an upright position, as hung on a wall. Therefore, to avoid putting unnecessary strain on the mechanism, do not allow the clock to move mechanically when laid horizontal. This is important to remember when first switching the clock on.

If storage is required, please store in an upright position and switched off to avoid risk of damage to the clock's mechanics. We also recommend removing the batteries if it is not going to be used for some time.

# Setting and Using Your Tide Clock



## **Setting the Time:**

To activate the clock mechanism (which runs independently to the harbour scenery), locate the AA battery which is included with your clock and insert it into the central quartz clock movement on the back.

Adjust the time by rotating the green knob found next to where you inserted the battery.

## **Activating the Mechanimated tide and tide dial:**

Now for the exciting part!

- Ensure the red on-off switch on the back is first in its "O" (off) position
- Unscrew and open both battery covers.
- Install the 8 D-Cell batteries provided, ensuring all are correctly orientated and making good contact. Replace the covers, which may be a tight fit and flex over the batteries, especially while the clock is laid flat.
- Turn the switch to 'on' only when the clock is in an upright

position. (Remember to turn the clock off again any time the clock is to be laid flat.) It's worth taking care here as the batteries can spring up and out of position.

- As the clock is switched on, the Mechanimated harbour scenery and tide dial will immediately move to display High Tide. From then on, both will move in synchronisation to update the tide level and forecast every 30 minutes, following a semi-diurnal (12 hours, 25 minutes) timer.

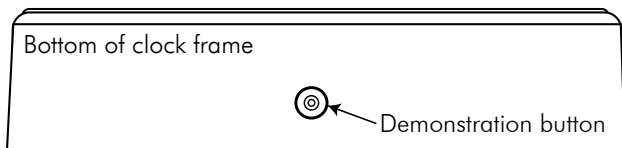
## **Setting Your Tide Clock:**

- The clock will move to display High Tide every time it is switched from 'off' to 'on'. The tide state can be manually adjusted by pressing and holding the demonstration button. After holding the button down for 5 seconds, the dial and scenery will start to move. Simply release the button when the desired tide state is reached. This a quick way to set your clock initially, however, for a more accurate display we recommend the below:
- Firstly, consult a tide timetable for accurate timings. Timetables are usually available in local shops or, alternatively, go to [www.tide-forecast.com](http://www.tide-forecast.com) and search for your nearest section of coastline.
- Make a note of when the next conveniently timed High Tide is and, at that time, switch the clock off and on again. The clock will then move to exactly High Water at exactly that time.
- The clock is now set and can be relied upon to show tidal indications based on the semi-diurnal timer.

N.B. For maximum accuracy, we recommend this is done at full moon!



## *Bringing the Harbour Scene to life with the Demonstration Function*



### ***Top Tip!***

Your Tide Clock will move on its own every fifteen minutes, however, pressing the demonstration button allows you to show a full loop of the tide scene and dials, as would be normally be shown over the course of an entire lunar day.

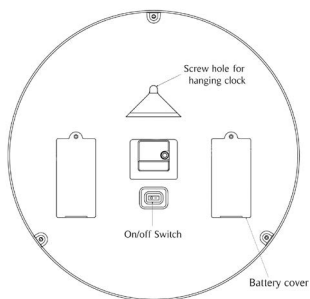
You can activate this 'Mechanisation Function' any time by pressing the button on the bottom of the clock. You'll need to hold the button down momentarily (approximately one second) for it to activate.

The button can be a little stiff but press it firmly until you hear a click. We always recommend holding the clock with your other hand whilst pressing the button. If the button is pushed too enthusiastically with one hand only, it could lift off its wall fixing!

How often the demonstration button is pressed will determine how long the batteries last. When the batteries get low on power, the lighthouse will start to do a double flash, at which point it's probably time to buy a new set of D-cell batteries.

# Hanging Your Clock

Hanging your clock shouldn't be stressful! Just follow the below guidance and your clock can be safely and securely mounted in its new home.



Included as part of the clock's packaging is a clock hanging template which provides further instructions and allows you to easily locate exactly where to drill and position the screw, on which to hang your clock. We don't include wall fixings or recommend any specific type as this will depend on the nature of your wall.

Start by working out where and at what height you want to hang your clock. It's worth noting that there are two locations not to hang your clock:

- Within 50cm of a radiator or stove that creates heat (or steam from cooking);
- By your bed, as the clock will make a burble noise every 30 minutes.

Position the drilling guide to match the desired clock outline. (If you have some masking tape to hold the guide to the wall this would make things easier!)

You can then mark the wall through the card (perhaps with the tip of a nail) and remove the template prior to drilling on the newly marked location.

Please take care to ensure you use a drill bit, wall plugs and screws that are appropriate to your wall type as well as taking appropriate safety precautions when using a drill. This includes ensuring the section of wall is suitable to drill into, for example, free of electrical wires. Take advice if necessary or ask a professional for help!

Top tip: make a note of the unique reference number on the back of your clock before you hang it on the wall! You will then have it easily to hand when registering the clock for its extended warranty on our website.

Finally, once your screw is securely in place in the wall, remind yourself where, on the backcover of the clock, the slotted screw hole is. (See above image for guidance.) This is where your screw head needs to nestle inside of. We recommend you hold the clock at head height and peer round the back so you can guide the screw head into the slotted screw hole. The patterned backcover is more than strong enough to hold the clock once the screw head is in place.

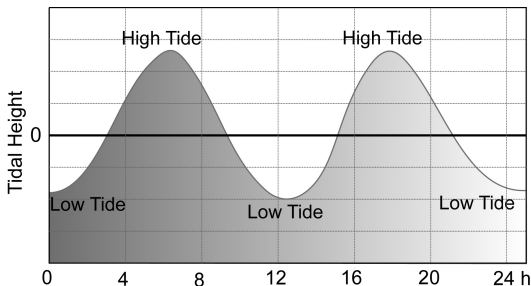
You can now stand back and enjoy your new piece of Mechanimated artwork!

## How your Tide Clock Works

As mentioned above, your Tide Clock works on a semi-diurnal mechanism. This means that it works by timing the Moon's orbit around the Earth (which takes 24 hours, 50 minutes and 30 seconds), and therefore the gravitational force behind the twice daily rise and fall of a standard semi-diurnal tide. This tidal pattern is shown in the diagram below.

The circuit board inside the clock precisely measures the average 6 hours, 12½ minutes between high and low tides and instructs the motor when to turn and so move the sea level in the display.

To fully enjoy your Tide Clock you need to appreciate that the gravitational pull of the moon is not completely consistent over the lunar month. As a result of this, there are slight fluctuations in the time between daily high and low tides and, as mentioned already, the 6 hours and 12½ minutes is an *average*.



Each month, as the time between High Water and Low Water deviates slightly away from that average 6 hours and 12½ minutes, the Tide Clock's accuracy will gradually reduce. Then over the following days, as the time between High Water and

Low Water returns to that average 6 hours and 12½ minutes, as it will do within every lunar month, the Tide Clock will correct itself again. As all semi-diurnal tide clocks work in the same way, these monthly variations are to be expected of any tide clock.

Please note, your clock will also not account for Spring and Neap tides when High and Low Water are more extreme.

Throughout the month your Tide Clock should remain a useful, practical guide to the condition of your local tide. If, however, you are having difficulties with getting it to synchronise with local tide timings it is *not* useful to keep changing the settings. Try setting the clock to High Tide at a full or new moon to ensure maximum accuracy.

Finally, please remember that not every coastal location has a standard semi-diurnal tide. In such locations, other factors such as the shape of the coastline are coming into play and no semi-diurnal Tide Clock will follow that *exact* same unusual pattern of tidal flow in and out.

One example on the British coast is the Solent area where the effect of the water moving around the Isle of Wight causes different tide patterns on the nearby coast. There are still two High Waters each day, spread approximately 12 hours and 25 minutes apart (so it is still semi-diurnal, as everywhere else on the British coast), however the ebb and flow of the tide either side of High Water may be a more uneven pattern.

## ***Tedious But Important Formalities***

At every childhood trip to the beach, like many of us, we were told that we mustn't swim too soon after munching our sandy sandwiches. Whether there was any good reason behind this alleged extreme danger or whether it was simple parental swim-

avoidance tactics we're still unsure!

However, what we can and must advise are the following vital rules to follow for your own beach trips and for general use of your Tide Clock:

- Do not use your Tide Clock as a replacement for publicly available tide timetables in situations where you or others depend on such information for personal safety or security. Tides and sea currents can be very powerful and your Tide Clock must be used as an artistic guide only.
- Your Tide Clock is not to be used as a navigational tool, for example, for sailing purposes.
- Remember your Tide Clock is primarily for visual enjoyment rather than a serious indicator of the tide's exact movements.

## ***Changing the Batteries & Recycling Advice***

The batteries included with your Tide Clock will, of course, not last forever but should, in normal circumstances, continue to work for well over a year.

When the battery life in the D-cell batteries that power the moving dials and scenery reaches a lower level, the lighthouse will start to give a double flash every few seconds. This signals that it is good time to consider buying some replacements.

When they have expired, please dispose of the batteries responsibly and recycle them where local facilities allow. If you are in the UK you can find out where your nearest recycling service is by entering your postcode at: [www.recycle-more.co.uk](http://www.recycle-more.co.uk)

Bramwell Brown has also gone to great lengths in making sure that your clock has been designed in a way that has minimal environmental impact. Central to this is the ability to have any of the clocks in the Bramwell Brown range serviced, repaired and updated, like you would with any other family clock or valuable timepiece. We hope, therefore, that you would never consider simply 'throwing out' your Tide Clock before either seeking repairs undertaken by Bramwell Brown, another expert or perhaps even yourself. No matter the age of your clock (or possible accidental damage inflicted on it), please see the 'Contact Us' page on the website for further advice and how to get in touch with the team.

## ***About Bramwell Brown Clocks***

We are proud to design and build all of our Tide Clocks and Barometric Weather Clocks in Great Britain. All our clocks are assembled by our dedicated workshop team in Hampshire, where, for every Tide Clock, almost 100 parts are carefully pieced together by hand before being hung on the wall for a thorough test. A short video of this in action can be found on the website!

## ***The Inspiration***

Bramwell Brown was founded with the simple idea of using imaginative design to reinvent classic time-pieces and barometers for the 21st century.

We are a brother and sister team from Lancashire in the North of England. Our inspiration came from the analogue displays and mechanics of traditional time pieces that our Dad tinkered with at home, plus a desire to create clocks that were simply a bit more exciting!

It is our aim that through modern innovation we give our time-pieces functionality to match any digital device. By incorporating intriguing mechanics and inventive design they are more visually engaging and bring a smile to your face!

Our range of 'Mechanimated' clocks, which also includes Weather Clocks, is always developing. To see the currently available range, do revisit our website, follow us on social media or sign up to our mailing list.

## *Our Barometric Weather Clock*

A reinvented  
barometer  
with five  
mechanical  
forecasts



Weather Scenery  
moves with Air  
Pressure Changes



## ***Problem Solving, FAQs and Servicing***

We, of course, hope you do not have any concerns over the functioning of your clock, however, below you will see a list of the most commonly seen issues and how to solve them. There are also more in-depth answers to FAQs on our website if you cannot find the answer to your query here.

### ***There's a problem with the clock hands or time-keeping***

The fragility of the clocks means that the hands are quite vulnerable to loosening during shipping. This can, on occasion, mean that they slip slightly over time and may affect their alignment or time-keeping. Should you have any concerns of this nature, there is a link on our 'Contact Us' page which is the best place to get in touch to let us know. We can then advise the best course of action to sort it out for you.

### ***I've dropped my clock and it's broken (or it just needs a service)***

Our friendly workshop team will be happy to accept your clock back and get it repaired for you (at a fair cost if accidentally damaged or outside of warranty). Please visit the website and go to the 'Contact Us' page to let us know what's happened and we'll get back in touch with suggestions and/or a plan of action to help you out.

### ***After a long period of happily working, my clock has recently struggled to move its scenery***

It is natural to assume this signifies that there is a problem or a

jam in the mechanism, however, fear not! This is in fact a well-recognized sign that the motor is receiving insufficient power from the batteries because either (a.) The batteries are running low and need replacing or (b.) One or more of the batteries have popped out of position and so are not making good contact with the circuit. If the lighthouse is not flashing at all or doing a double-flash, it's a likely sign that the batteries are dead. Try checking the batteries are correctly installed or replace with new ones and normal working order should be restored.

## ***The tidal movements do not match what I see the sea doing at my local beach or harbour***

If you haven't done so already, we thoroughly recommend reading the previous section "How your Tide Clock works".

This explains how the clock's tide mechanism works to match the timings of the gravitational pull of the Moon as it orbits the Earth. Reading this section should help you to recognise that any tide clock will have its limitations because there are additional geographical factors at play that create your local tidal pattern each day and lunar month.

Please also refer back to the "Setting your Tide Clock" section and follow the steps outlined that help you set the clock for maximum accuracy.

For more information, please take a look at the FAQs section on our website where we have included links to websites that explain this in more detail.





To contact us or see the rest of our range  
of Mechanimated Clocks and accessories,  
Please visit our website:

[www.bramwellbrown.com](http://www.bramwellbrown.com)

 [bramwellbrown](https://www.instagram.com/bramwellbrown)

 [Bramwell Brown Clocks](https://www.facebook.com/BramwellBrownClocks)

[#mybramwellbrown](https://www.instagram.com/bramwellbrown)