



## Instruction Manual

Please read carefully before use and keep for future reference.

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# Thank You

We know you have many choices when it comes to technology; thank you for choosing us here at Veritium Research. Established in 2004 in Fort Lee, New Jersey, we are dedicated to delivering products for the amateur radio community that entertain, delight, and provide years of enjoyment.

We trust that you will be happy with your purchase. Please read this manual carefully and save it for reference. You may also find the latest FAQ, documentation, and other product material at our website. Come visit us on the web at **[www.veritiumresearch.com](http://www.veritiumresearch.com)** and see all that we have to offer!

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# In the Box

Please take a moment to make sure that you have everything in the list below. Although we make every effort to ensure that each Veritium Research device is securely packed and sealed, we know a lot can happen in between us and you. If anything is missing, check back with your local retailer to get immediate assistance. If they can- not help you, please contact our Veritium Research Support team at: **[www.veritiumresearch.com/hfclock\\_support](http://www.veritiumresearch.com/hfclock_support)**.

- HFClock™ frame
- AC power adapter
- Instruction manual
- Touch Controls and Map Symbol Summary

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# At a Glance

## Power Connection



Insert Power Adapter Plug Here

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# Getting Started

1. Plug one end of the included AC adapter into the Power Input female receptacle on rear side of the frame. If hanging frame on a wall, rotate barrel of plug such that it is parallel to the back of the frame and gently route power cord behind the black rear panel and locate in vertical slot on rear bottom of frame such that the frame may lay flat against the wall when hung.
2. Plug the other end of the included AC adapter into a standard 100-240V AC electrical outlet.



*After turning on the frame, it will show the touchscreen calibration screen, and then the main setup screen after 5 seconds.*

3. If hanging frame on a wall, hang HFClock™ frame on a wall using key slot on rear top of frame. HFClock may optionally be placed on a desktop or hutch and positioned for greatest stability and best visibility.



*The adapter supports AC 100-240V power only.*

*Do not connect the power adapter to a power outlet other than that which is indicated here or on the label as this may result in the risk of fire or electric shock.*

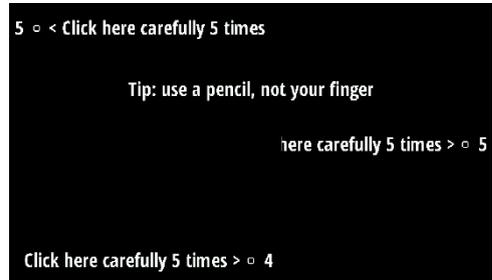
*Do not handle the power plug with wet hands. Doing so may cause electric shock. Do not use the adapter with any other power source.*

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# Operating Instructions

## Touchscreen Calibration

You will see the touchscreen calibration screen when you first power the HFClock. Although the touchscreen is precalibrated at the factory, the user may recalibrate using a stylus or similar tool at any time. If the user opts not to recalibrate the touchscreen, the HFClock will proceed to the device's setup screen automatically.



5 ◦ < Click here carefully 5 times

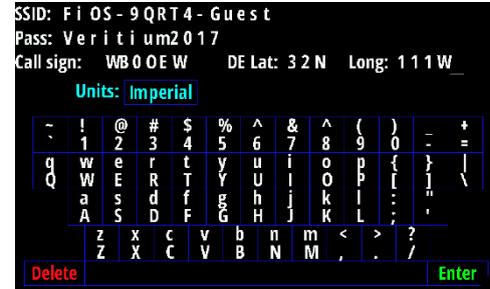
Tip: use a pencil, not your finger

here carefully 5 times > ◦ 5

Click here carefully 5 times > ◦ 4

# Setup

Please enter your Wi-Fi SSID and password, call sign or name, home (DE) position's latitude and longitude, and select metric or imperial units. Tap Enter to continue.



# Satellite Selection

The user may optionally select a satellite to track in real-time. Simply click on the box next to the desired satellite and hit OK to continue.

Select satellite, or none		Rise in HH:MM	OK
<input type="checkbox"/> 07:30 AALSA-4	<input type="checkbox"/> 05:00 DO-64	<input type="checkbox"/> 05:09 JUGNU	<input type="checkbox"/> 08:38 SRMSAT
<input checked="" type="checkbox"/> Up AO-7	<input type="checkbox"/> 05:08 LO-88	<input type="checkbox"/> 02:14 NISLKI	<input type="checkbox"/> 03:35 SIRAND-1
<input type="checkbox"/> 02:29 AO-73	<input checked="" type="checkbox"/> Up FO-29	<input type="checkbox"/> NGR-LAPAN-A2	<input type="checkbox"/> 02:39 IW-1A
<input type="checkbox"/> 05:36 AO-92	<input type="checkbox"/> 08:26 FOX-1B	<input type="checkbox"/> 09:42 LO-19	<input type="checkbox"/> 04:15 IW-1C
<input type="checkbox"/> 05:44 AO-95	<input type="checkbox"/> 06:26 HRESCO	<input type="checkbox"/> 08:29 LO-74	<input type="checkbox"/> 04:43 UNISAT-6
<input type="checkbox"/> 00:22 BEESAT-1	<input type="checkbox"/> 08:45 GO-32	<input type="checkbox"/> 00:51 NO-44	<input checked="" type="checkbox"/> 02:57 LO-11
<input type="checkbox"/> 03:11 BEESAT-2	<input type="checkbox"/> 00:12 GOMX-1	<input type="checkbox"/> 08:05 QB50P1	<input type="checkbox"/> 01:50 LW-3
<input type="checkbox"/> 02:35 BEESAT-3	<input type="checkbox"/> 00:45 HOPE-1	<input type="checkbox"/> 02:18 RS-15	<input type="checkbox"/> 03:46 XW-2A
<input type="checkbox"/> 05:48 BEESAT-4	<input type="checkbox"/> 00:27 IO-26	<input checked="" type="checkbox"/> 08:05 RS-22	<input type="checkbox"/> 00:59 XW-2B
<input type="checkbox"/> 01:25 CO-55	<input type="checkbox"/> 03:42 ISS	<input type="checkbox"/> 01:57 RS-30	<input type="checkbox"/> 00:42 XW-2C
<input type="checkbox"/> 01:02 CO-57	<input type="checkbox"/> 06:18 ITASAT-1	<input type="checkbox"/> 02:19 SO-50	<input type="checkbox"/> 01:47 XW-2D
<input type="checkbox"/> 00:29 CO-65	<input type="checkbox"/> 01:17 ITUPSA-1	<input type="checkbox"/> 01:04 SOMP	<input type="checkbox"/> 01:35 XW-2F
<input type="checkbox"/> 02:07 CO-66	<input type="checkbox"/> 06:01 JO-97	<input type="checkbox"/> 08:18 SPROUT	<input type="checkbox"/> 01:53 ZDPS-2A

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# Troubleshooting

## There is no power

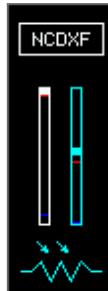
- Please check whether the plug is inserted correctly.

## Cannot access Wi-Fi

- Please confirm that the SSID and password have been entered correctly.
- Please confirm that your local Wi-Fi is active and try again.

## The screen is too bright or too dark

- Please adjust the LCD brightness on the main display screen by first disabling NCDXF and then tapping on the position of the white slide control.



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# Warnings and Precautions

	<b>CAUTION</b> WARNING: SHOCK HAZARD. DO NOT OPEN. AVIS: RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIR	
<b>CAUTION:</b> TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK) OF THE UNIT. REFER SERVICING ONLY TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of significant magnitude to constitute risk of electric shock



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and servicing instructions in the literature accompanying the appliance.

**WARNING:** This product contains lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. ***Wash hands after handling.***

**WARNING:** Please turn the unit off before inserting or removing an optional Pressure/Temperature/Humidity Sensor. Failure to do so may cause damage to the sensor device and the unit.

## CAUTION

- For indoor use only
- To avoid risk of fire or electric shock; do not expose the unit to moisture or condensation.
- To avoid overheating, do not block the ventilation holes on the back of the unit.
- Keep the unit out of direct sunlight.
- Do not disassemble the unit. There is a risk of electric shock and there are no user-serviceable parts inside. Disassembling the unit will void your warranty.

## Cleaning the Screen

- Turn the unit off and disconnect it from all power sources before cleaning it.
- Treat the screen carefully. The screen of the HFClock™ Frame is made of glass and can be broken or scratched.
- If fingerprints or dust accumulate on the screen, we recommend using a soft, non-abrasive cloth to clean the LCD screen (e.g., a camera lens cloth).
- If necessary, you may moisten the cleaning cloth with water before cleaning the screen. Do not use liquid cleaners or aerosol cleaners.
- Moisten the cleaning cloth with the cleaning solution and apply the cloth to the screen.

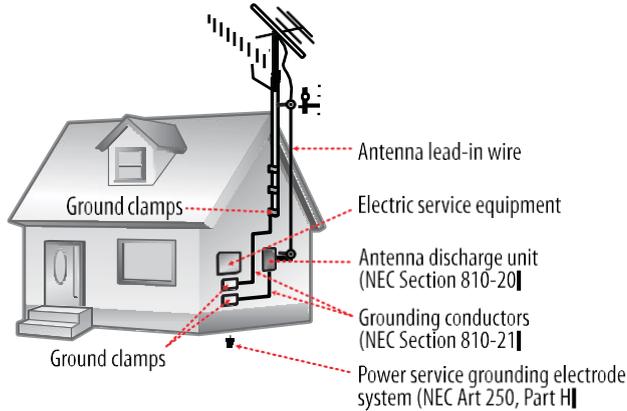
## Important Safety Information

1. **Read Instructions:** All the safety and operating instructions should be read before the product is operated.
2. **Retain Instructions:** The safety and operating instructions should be retained for future reference.
3. **Heed Warnings:** All warnings on the product and in the operating instructions should be adhered to.
4. **Follow Instructions:** All operating and usage instructions should be followed.
5. **Cleaning:** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. **Attachments:** Use only attachments recommended by the manufacturer. Use of other attachments may be hazardous.
7. **Water and Moisture:** Do not use this product near water (e.g., near a bathtub, washbowl, kitchen sink, laundry tub, in wet basements, or near a swimming pool and the like).
8. **Accessories:** Do not place this product on an unstable cart, stand, tripod, bracket, or table. Use only with carts, stands, tripods, brackets, or tables recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
9. **Ventilation:** Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings should never be blocked by placing



- the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer instructions have been adhered to.
10. **Power Sources:** This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.
11. **Grounding or Polarization:** This product may be equipped with a polarized alternating-current line plug that has one blade wider than the other. This plug will only fit into the power outlet in one direction. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the direction of the plug. If the plug should still fail to fit, contact an electrician to replace the obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. **Power-Cord Protection:** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and at the point which they exit from the product.
13. **Protective Attachment Plug:** The product may be equipped with an attachment plug with overload protection. This is a safety feature. See the operating instructions for replacement or directions to reset the protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug that has the same overload protection as the original plug as specified by the manufacturer.
14. **Outdoor Antenna Grounding:** If an outside antenna is connected to the product, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANS/NFPA70 provides information with regard to proper grounding of the mast and support-

ing structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode (see figure).



15. **Lightning:** For added protection for this product, unplug it from the wall outlet and disconnect the antenna or cable system during a lightning storm or when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning or power-line surges.
16. **Power Lines:** An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.
17. **Overloading:** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

18. **Object and Liquid Entry:** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
19. **Servicing:** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
20. **Damage Requiring Service:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: a) when the power-supply or plug is damaged; b) if liquid has been spilled or if objects have fallen into the product; c) if the product has been exposed to rain or water; d) if the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation; e) if the product has been dropped or damaged in any way; f) when the product exhibits a distinct change in performance—this indicates a need for service.
21. **Replacement Parts:** When replacement parts are required, be sure that your service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
22. **Safety Check:** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to ensure that the product is in proper operating condition.
23. **Wall Mounting:** The product should be mounted to a wall only as recommended by the manufacturer.

24. Heat: The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

## **FCC NOTICE**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **CAUTION ON MODIFICATIONS**

Any changes or modifications not expressly approved by the grantee of this device may void the authority granted to operate the equipment.

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# Specifications

Power	Adapter input: AC 100–240 V, 50/60 Hz, 310 mA max Adapter output: DC 5 V, 2.5 A 12.5 W max
Screen	Size: 9" TFT Resolution: 800 x 480 Contrast: 230:1 Aspect Ratio: 16:9 Brightness: 500 cd/m <sup>2</sup> Response time: 20 ms Viewing Angle: 70 degrees (left/right/down); 40 degrees up
Operating environment	32–104°F (0–40°C), 10–85%

Note: Products are improved continuously. We reserve the right to modify the product, firmware, and specifications without prior notice.

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# Support

If you have problems with your device, please consult the instructions in this manual. Please also visit us on the web at [www.veritiumresearch.com](http://www.veritiumresearch.com) to get up to the minute news, alerts, and documentation for your device. For additional assistance, please contact Veritium Research Technical Support.

## **Veritium Research Technical Support**

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Fort Lee, NJ 07024 USA

<https://www.veritiumresearch.com>