

CHIUEAST HD-1688 Long Shaft

CHIUEAST UK MSF Atomic Radio Controlled Quartz Clock Movement Repair Kit User Manual

Model: HD-1688 Long Shaft

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your CHIUEAST UK MSF Atomic Radio Controlled Quartz Clock Movement Repair Kit. This kit is designed for repairing or creating wall clocks, featuring automatic synchronization with the official UK MSF time signal for accurate timekeeping.

Please read these instructions carefully before proceeding with installation to ensure proper function and longevity of the product.

2. PRODUCT COMPONENTS

The CHIUEAST clock movement repair kit includes the following components:

- Quartz Clock Movement (HD-1688)
- Hour Hand
- Minute Hand
- Second Hand
- Mounting Hardware (Washer, Spring Washer, Hex Nut)



Figure 2.1: Overview of the clock movement, hour hand, minute hand, second hand, and mounting hardware.

3. SPECIFICATIONS

Feature	Specification
Movement Type	Quartz, UK MSF Atomic Radio Controlled
Quartz Crystal Frequency	32.768KHz
Run Time Accuracy	±30 seconds / month (at 1.5V, 25°C)
Power Consumption	Less than 190µA (at 1.5V)
Operating Voltage	1.3V to 1.7V
Nominal Voltage	1.5V (UM-3 battery recommended)
Operating Temperature	-10°C to 50°C

Feature	Specification
Battery Life (Approx.)	One year (with UM-3 battery)
Second Hand Output Torque	0.6 gf-cm (at 1.5V)
Minute Hand Output Torque	30 gf-cm (at 1.5V)
Movement Dimensions	Approx. 56 x 56 x 19mm (2.20 x 2.20 x 0.75 inches)
Shaft Length	Approx. 17mm (0.67 inches)
Thread Length	17mm (0.67 inches)
Suitable Clock Panel Thickness	Up to 5mm



Figure 3.1: Detailed dimensions of the clock movement, including shaft and thread length.

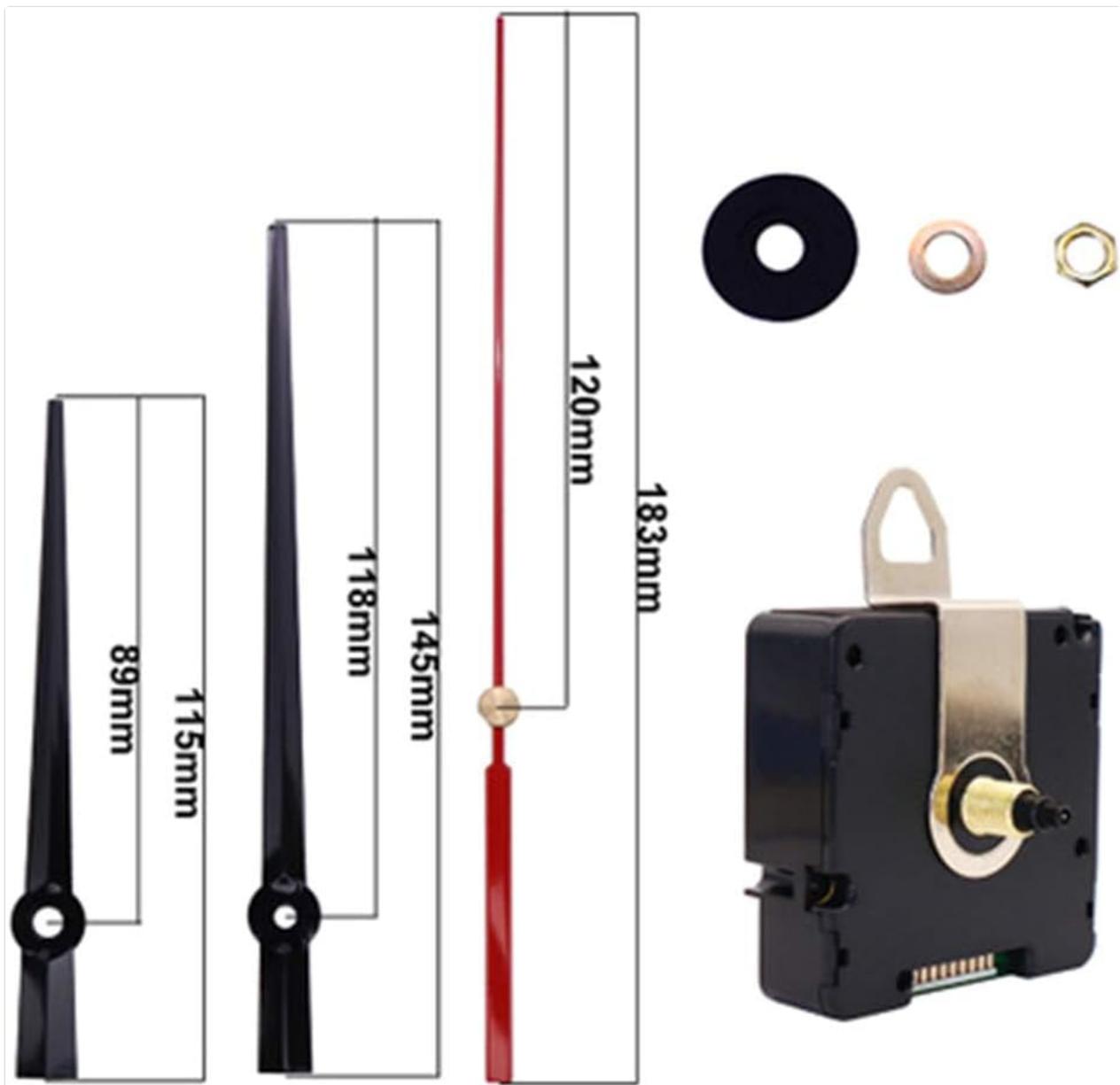


Figure 3.2: Lengths of the hour, minute, and second hands provided with the kit.

4. SETUP AND INSTALLATION

Follow these steps to install the clock movement and hands into your clock panel.

- 1. Prepare the Clock Panel:** Ensure your clock panel has a central hole suitable for the movement shaft. The shaft length is 17mm, suitable for panels up to 5mm thick.
- 2. Insert the Movement:** Insert the clock movement shaft through the central hole from the back of the clock panel.
- 3. Secure the Movement:**
 - Place the rubber washer (if included) over the shaft on the front side of the clock panel.
 - Thread the brass washer onto the shaft.
 - Secure with the hex nut, tightening gently to hold the movement firmly in place without overtightening.
- 4. Install the Hands:**
 - First, gently press the **hour hand** onto the hour shaft (the wider, shorter shaft). Ensure it is seated firmly.

- Next, gently press the **minute hand** onto the minute shaft (the narrower, longer shaft). Ensure it is seated firmly and parallel to the hour hand.
- Finally, press the **second hand** onto the central pin.

Important: Ensure all hands are parallel to each other and do not touch when rotating. If they touch, gently bend them slightly to create clearance.

5. **Insert Battery:** Insert one UM-3 (AA) 1.5V battery into the battery compartment on the back of the movement, observing the correct polarity (+/-).

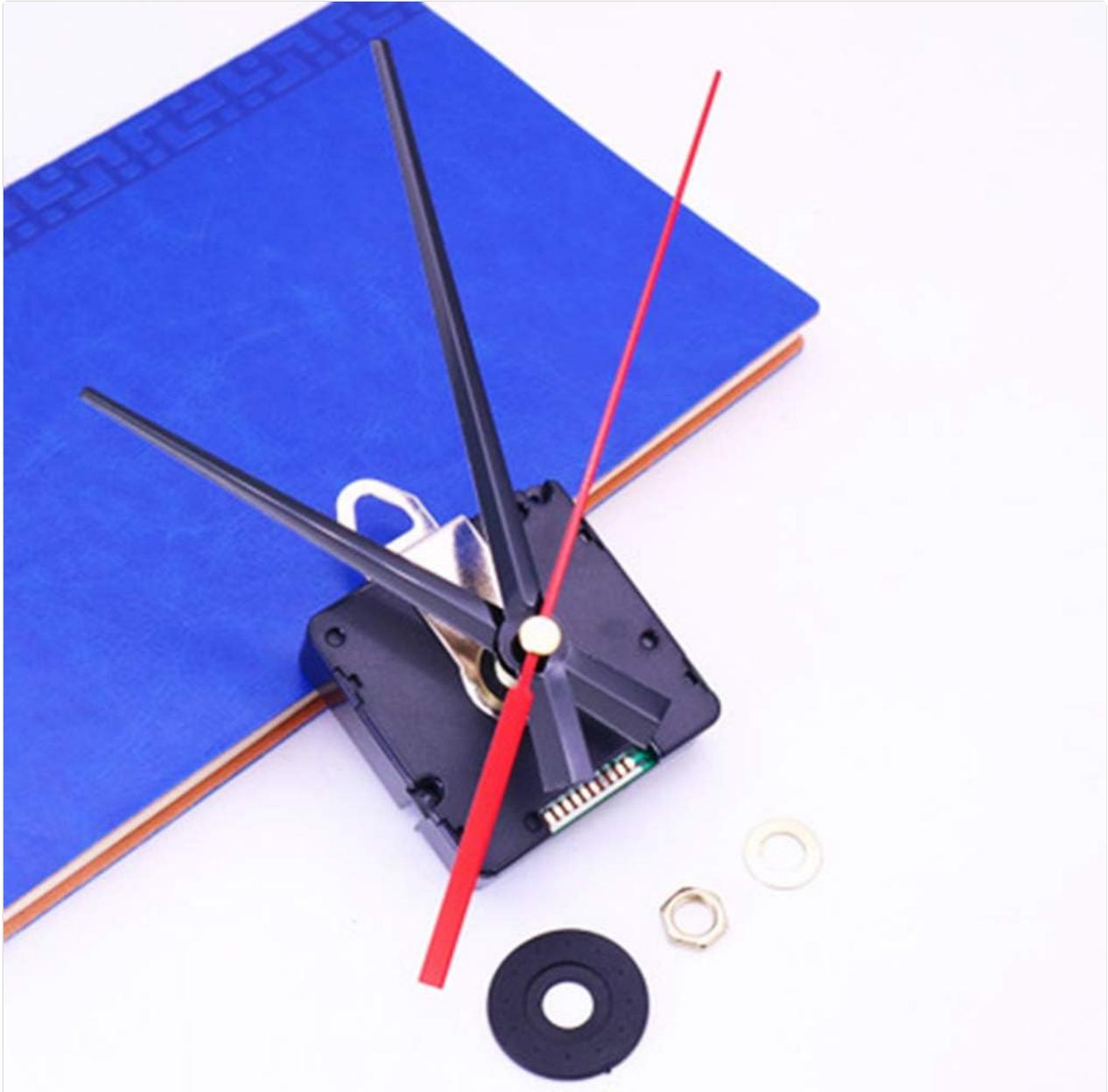


Figure 4.1: The clock movement with all hands correctly installed and aligned.

5. OPERATING INSTRUCTIONS

Once the battery is inserted, the clock movement will begin to operate.

5.1 Initial Time Setting and MSF Synchronization

The clock movement is designed to automatically synchronize with the UK MSF radio time signal. This process typically occurs within 24 hours after battery insertion, especially during nighttime hours when signal reception is usually stronger.

- After inserting the battery, the hands will typically move to the 12 o'clock position and wait for the MSF signal.
- Place the clock in a location with good reception, away from large metal objects or electronic devices that may cause interference.
- The movement will attempt to receive the MSF signal and set the correct time automatically. This may take several minutes to several hours.
- A small red LED indicator on the back of the movement (if present, refer to Figure 3.1) may flash to indicate signal reception attempts.

5.2 Manual Time Adjustment (if necessary)

While automatic synchronization is the primary method, a manual adjustment wheel is usually present on the back of the movement (refer to Figure 3.1). This can be used for initial setup or if the automatic synchronization is taking too long or failing.

- Locate the small adjustment wheel or knob on the back of the movement.
- Gently turn the wheel to move the minute and hour hands to the correct time.
- The second hand will continue to operate independently.
- After manual adjustment, the movement will continue to attempt MSF synchronization and may override manual settings once a strong signal is received.

6. MAINTENANCE

The CHIUEAST clock movement is designed for low maintenance. Follow these guidelines to ensure optimal performance:

- **Battery Replacement:** Replace the UM-3 (AA) 1.5V battery approximately once a year, or when the clock hands stop moving or become sluggish. Always use a fresh, good quality battery.
- **Cleaning:** Keep the movement free from dust and debris. Use a soft, dry cloth to gently wipe the exterior of the movement. Do not use liquid cleaners or immerse the movement in water.
- **Environment:** Avoid exposing the clock movement to extreme temperatures, high humidity, or strong magnetic fields, as these can affect accuracy and lifespan.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Clock hands do not move.	<ul style="list-style-type: none"> ◦ Battery is dead or incorrectly inserted. ◦ Hands are touching each other or the clock face. ◦ Movement is defective. 	<ul style="list-style-type: none"> ◦ Check battery polarity and replace with a fresh UM-3 (AA) 1.5V battery. ◦ Gently adjust hands to ensure they do not obstruct each other. ◦ If hands still do not move after checking battery and alignment, the movement may need replacement.
Clock is not keeping accurate time.	<ul style="list-style-type: none"> ◦ Poor MSF signal reception. ◦ Weak battery. ◦ Environmental interference. 	<ul style="list-style-type: none"> ◦ Relocate the clock to an area with better signal reception (e.g., near a window, away from electronics). ◦ Replace the battery. ◦ Ensure the clock is not near strong magnetic fields or large metal objects. ◦ Allow up to 24 hours for automatic synchronization.

Problem	Possible Cause	Solution
Hands are loose or fall off.	<ul style="list-style-type: none"> Hands not pressed on firmly enough. Shafts are damaged. 	<ul style="list-style-type: none"> Gently but firmly press the hands onto their respective shafts until secure. If shafts are damaged, the movement may need replacement.

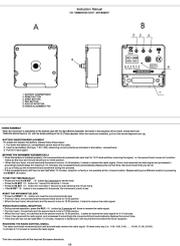
8. WARRANTY AND SUPPORT

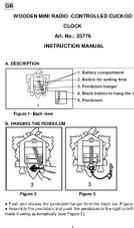
This product is manufactured by CHIUEAST. For any issues or inquiries regarding your clock movement repair kit, please refer to your purchase documentation or contact the retailer from whom you purchased the product. Keep your proof of purchase for warranty claims.

Please note that specific warranty terms and conditions may vary by region and retailer. Damage caused by improper installation, misuse, or unauthorized modifications is not covered under warranty.

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Related Documents - HD-1688 Long Shaft

	<p>HD-1688 Radio Clock Movement: Installation and Operation Manual</p> <p>Comprehensive guide for the HD-1688 radio-controlled clock movement, detailing installation steps, automatic time synchronization, manual adjustments, and troubleshooting for DEEWISH clock mechanisms.</p>
	<p>HD-1688MRCSD (DCF) Radio Controlled Movement Instruction Manual</p> <p>Instruction manual for the Sheng Bang HD-1688MRCSD (DCF) radio-controlled quartz clock movement. Covers hands assembly, battery insertion, automatic and manual time setting, reset procedures, and radio signal reception.</p>
	<p>HD-1688 Radio Clock Movement Instruction Manual</p> <p>Instruction manual for the HD-1688 Radio Clock Movement, detailing installation, time adjustment, and automatic calibration features.</p>



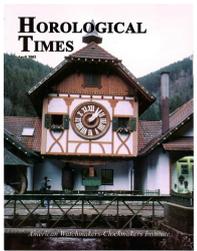
[Wooden Mini Radio-Controlled Cuckoo Clock Instruction Manual](#)

Instruction manual for the Wooden Mini Radio-Controlled Cuckoo Clock, model 25776. Provides details on description, pendulum hanging, battery insertion, automatic and manual time setting, reset, radio signal reception, troubleshooting, notices, and disposal.



[Antelope Audio OCX HD 768kHz HD Master Clock User Manual](#)

User manual for the Antelope Audio OCX HD, a 768kHz HD Master Clock featuring 4th generation Acoustically Focused Clocking (AFC) and an oven-controlled crystal oscillator. Covers product activation, panel explanations, control software, warranty, support, and technical specifications.



[Horological Times - April 2002 Issue | Watchmaking & Clockmaking Industry News](#)

Explore the April 2002 issue of Horological Times, featuring articles on the World's Largest Cuckoo Clock, Breitling Chrono Avenger M1, watch repair tools, sapphire crystals, and industry insights from the American Watchmakers-Clockmakers Institute (AWI).