

MFJ Enterprises, Inc.
300 Industrial Park Rd
Starkville, MS 39759 USA

MFJ-123 Atomic Clock
Instruction Manual

The MFJ-123 works by receiving the time radio signal generated by the US Atomic Clock located in Colorado. Any place that can receive the signal can use the MFJ-123. Any place that cannot receive the signal will have to set the time manually. The Atomic Clock in Colorado is operated by the US Department of Commerce's National Institute Standards and Technology. To enhance good reception of the signal, avoid placing your MFJ-123 near television sets, metal surfaces, computers, or any other electrical device that may interfere with the reception of the radio signal.

The upper LCD display show the time and radio signal mark. The lower LCD display shows the current relative humidity and temperature readings. The unit can be placed on a desktop by pulling out the stand at the back or mounted on a wall (mounting hardware not included).

Battery Replacement and Initialization

The MFJ-123 uses two AAA batteries (not included). Before inserting the batteries select the 12/24HR display format by placing the 12/24 HR SELECTION SWITCH (on the back of the unit) to the desired position (Note: the 12/24 HR SELECTION SWITCH will have no affect after the batteries are inserted). Now open the battery cover and insert the batteries. If the LCD Display becomes dim, replace the batteries with new ones.

After installing the batteries, the relative humidity and temperature readings might have all segments lit. If this is this case, the MFJ-123 must be re-initialized by pressing the MIN button on the back of the clock. If the relative humidity and temperature readings appear normal re-initialization is not needed. The hygrometer and thermometer sensors must be initialized before locating the unit to receive the radio signal. To initialize the MFJ-123 push the MIN button on the back of the clock and the readings will be displayed after a few seconds.

Selecting the Appropriate Time Zone

With the MFJ-123 in the normal time display mode, press the SET button (on the back of the unit) three times to enter the Time Zone Selection Mode. The upper LCD will show “H-0”, “H-1”, etc. (It will be “H-0” if no time zone was previously selected). Select the appropriate time zone by pressing the HOUR button to increase the number or the MIN button to decrease the number. In most cases the time zone will need to be changed twice a year: when changing from standard time to daylight saving time in the Spring and when changing from daylight saving time to standard time in the Fall. Please refer to the table below for setting the time zone of your area in the USA. After setting the appropriate time zone, press the SET button again and the unit will display the current time.

Time Zone	Standard Time Setting	Daylight Savings Time Setting
Pacific	“H-8”	“H-7”
Mountain	“H-7”	“H-6”
Central	“H-6”	“H-5”
Eastern	“H-5”	“H-4”
GMT	“H-0”	“H-0”

Note: The number following the “H-” indicates the number of hours difference from GMT.

Receiving the Time Radio Signal

The unit will search for the time signal automatically after battery installation. The radio signal mark on the right on the Time Display will pulse to show that the clock is searching for the radio signal. If the time signal is received, synchronization will take 3 - 10 minutes. When the radio signal is received and synchronization has taken place, the radio signal mark will stop pulsing and display three solid curves above the mark. If no signal is received, go to the next section on SETTING THE TIME MANUALLY. Note: If you do not set the correct time zone, the clock will display the incorrect time for your area.

To receive the radio signal at any time after initialization, press the SET button and hold it for a few seconds. The process of receiving and synchronizing stated above will again take place. The clock will automatically search for the radio signal once a day and synchronize itself to the radio signal. This will occur at 2:00 AM.

Setting the Time Manually

Since the unit works on receiving the time radio signal, there may be locations that the signal is weak and cannot be properly received. Under such conditions, the radio signal mark will not display any curves. Try to rotate the unit or place it in another location to achieve better reception. Re-install the batteries to initialize the reception again. If the radio signal still cannot be received, the time should be set manually.

In the normal time display, press the SET button (on the back of the unit) once to bring the unit to time setting mode. The time display will flash. Press the HR and MIN buttons to

advance the hour and minute respectively. After setting the time, press the SET button three times to return to the normal time display.

Setting the Alarm Time

In the normal time display, press the SET button two times to go to the alarm setting mode. The time display will flash, but the “:” will not flash. Press the HR and MIN buttons to advance the hour and minute respectively. After setting the alarm, press the SET buttons two times to return to the normal time display.

To activate the alarm, press the HR button in the normal time display mode and the alarm bell will be displayed above the “:” on the time display. The alarm will sound for 1 minute when the current time reaches the alarm time. Press the HR or SET button to stop the alarm. Press the MIN button to activate the snooze function. If the MIN button is pressed, the alarm will sound again after 8 minutes.

Setting the Temperature For ‘°C’ or ‘°F’

Slide the Temperature Scale Switch at the back of the unit to the ‘°C’ position for temperature display in Celsius (Centigrade) or the ‘°F’ position for temperature display in Fahrenheit.

Ranges for Temperature and Humidity

The temperature range is 0°C to 50°C (32°F to 122°F). The relative humidity measuring range is 20% to 90%. If the measured humidity is out of this region, the display will show “-”. The display will reset to 20% and continue increasing until out of range. This process will be repeated until the MFJ-123 is moved to a place in the relative humidity range of 20% to 90%.

ATTENTION: There will be certain places (especially near the eastern coast, Alaska, and Canada) where the radio signal is too weak to be received. Under such circumstances, please set the time manually.

12 MONTH LIMITED WARRANTY

MFJ Enterprises, Inc. warrants to the original owner of this product, if manufactured by MFJ Enterprises, Inc. and purchased from an authorized dealer or directly from MFJ Enterprises, Inc. to be free from defects in material and workmanship for a period of 12 months from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original or machine reproduction of such proof-of-purchase to MFJ Enterprises, Inc. at the time of warranty service. MFJ Enterprises, Inc. shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.
2. MFJ Enterprises, Inc. agrees to repair or replace at MFJ's option without charge to the original owner any defective product under warranty, provided the product is returned postage prepaid to MFJ Enterprises, Inc. with a personal check, cashiers check, or money order for \$7.00 covering postage and handling.
3. MFJ Enterprises, Inc. will supply replacement parts free of charge for any MFJ product under warranty upon request. A dated proof-of-purchase and a \$5.00 personal check, cashiers check, or money order must be provided to cover postage and handling.
4. This warranty is **NOT** void for owners who attempt to repair defective units. Technical consultation is available by calling (601) 323-5869.
5. This warranty does not apply to kits sold by or manufactured by MFJ Enterprises, Inc.
6. Wired and tested PC board products are covered by this warranty provided **only the wired and tested PC board product is returned**. Wired and tested PC boards installed in the owner's cabinet or connected to switches, jacks, or cables, etc. sent to MFJ Enterprises, Inc. will be returned at the owner's expense unrepaired.
7. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or property by the use of any MFJ products.
8. Out-of-warranty Service: MFJ Enterprises, Inc. will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.
9. This warranty is given in lieu of any other warranty expressed or implied.
10. MFJ Enterprises, Inc. reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.
11. All MFJ products to be serviced in-warranty or out-of-warranty should be addressed to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, Mississippi 39759, USA and must be

accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.

12. This warranty gives you specific rights, and you may also have other rights which vary from state to state.