# MFJ-121B Dual Radio Controlled Clock with Auto-Backlight

The unit works on receiving the time radio signal. The time signal is generated by the US Atomic Clock which is located in Colorado. The Atomic Clock is operated by the US Department of Commerce's National Institute of Standards and Technology. To enhance good reception, avoid placing the unit near television sets, metal surfaces, computers or electric devices as these equipment will interfere the reception of radio signal.

The dual radio controlled wall clock features:

- Dual clock: two clocks in one unit, each can be operated independently.
- GMT time zone with Day Light Saving Time (DST) selectable to OFF. .
- Radio controlled (WWVB) with automatic daylight saving time adjustment. .
- Auto-Backlight. The display will be lighted for 8 hours continuously after . this function is activated.
- Battery-low indicator.
- Big display shows time in hour, minute, second.
- 12/24HR display format user selectable.
- Mounted on wall or standing on desktop (with built-in easel stand).



CONTROL PANEL 1 (FOR CLOCK 1)

BATTERY COMPARTMENT FOR



BATTERY COMPARTMENT FOR CLOCK

CONTROL PANEL 2 (FOR CLOCK 2)

## Battery installation and replacement

The unit uses 2 pieces of AA batteries (or equivalent) for running the clock and 2 pieces of AA batteries for the Auto-backlight function. There are two battery compartments, located at the back of the unit. The left one is the battery compartment for the clock and the right one is the battery compartment for the auto-backlight.

Please use alkaline batteries. To install the batteries, slide open the battery cover and insert the batteries by following the polarity marked. After battery installation (for the clock), please press the RESET BUTTON once to initialize the unit. Now close the battery covers and the unit is ready for use.

## IMPORTANT NOTES:

- The two separated battery compartments allow the clock to run even 1 without the batteries for auto-backlight.
- If the batteries for auto-backlight run out of power (or not installed), the 2 backlight function will stop (no backlight). Under such case, the clock will still work as usual and keep the time accurate.

When the battery power (for running the clock) is low, the "Battery-Low" indicator will be flashing to remind the user. If this is the case, please replace the batteries (for the clock) with new ones.

When the battery power (for the auto-backlight) is low, the light will become dim or there will be no backlight. If this is the case, please replace the batteries (for the auto-backlight) with new ones.

## Time radio signal reception

To activate the unit to receive the time signal automatically, place the AUTO-RECEPTION SWITCH at "ON" position.

## IMPORTANT NOTE:

If the AUTO-RECEPTION SWITCH is place at "OFF" position, the unit will not start to receive time signal automatically (manual reception is still available).

The unit will search for time radio signals automatically after batteries are installed, if the AUTO-RECEPTION SWITCH is placed at "ON" position before battery installation. The radio signal mark on the right of the upper and lower display will start pulsing to show the receiving status. If time signal is received and decoded successfully, the time will be updated automatically.

Remarks: During signal reception, if the time is set manually, reception will be terminated.

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 circumstance, the radio signal mark will disappear to indicate reception failed. Try to rotate the unit or place it in other location to achieve better reception and re-start reception by pressing the SET BUTTON once. If finally, radio signal cannot be received, time of both Clock 1 and clock 2 should be set manually.

## IMPORTANT NOTE:

Press the SET BUTTON of CONTROL PANEL 1 will only start the manual reception of Clock 1. To start the manual reception of both Clock 1 and Clock 2, please press the SET BUTTON at both CONTROL PANEL 1 and CONTROL PANEL 2.

Select the appropriate time zone Press the TIME ZONE BUTTON at CONTROL PANEL 1 and CONTROL PANEL 2 to select the appropriate time zone for Clock 1 and Clock 2 respectively (Clock 1 and Clock 2 can be set to a different time zone). Otherwise the unit may not be showing the correct time. If your desire time zone is not on the display map you must set the time manually. See "manual time setting" instruction below.

## Daylight saving time adjustment

The unit will adjust to daylight saving time automatically after successful time signal reception, if the DST ON OFF SWITCH is placed at "ON" position. When the time is shown as daylight saving time, the daylight saving time mark will be shown.

To deactivate this function, place the DST ON OFF SWITCH at "OFF" position, and the unit will not be adjusted to daylight saving time automatically. If you selected the GMT time zone the DST Switch should be placed at OFF.

### Note:

Please place the DST ON OFF SWITCH at both CONTROL PANEL 1 and CONTROL PANEL 2 at the appropriate position.

## Select the 12-Hour and 24-Hour display format.

Place the 12H-24H SWITCH at CONTROL PANEL 1 and CONTROL PANEL 2 to select the display format of the time (Clock 1 and Clock 2 can be set to a different display format).

## Set the time manually

## To set the time of Clock 1

Press and hold the SET BUTTON (at CONTROL PANEL 1) for about 2 seconds. The time digit will start to flash.

Press the A or V BUTTON to set the time. Each push of the A or V BUTTON will advance the minute by one, while the hour will be updated when "00" minute is run through. Press and hold the ▲ or ▼ BUTTON and the digits will fast advance.

After setting, press the SET BUTTON once to end the setting mode, or the unit will quit the setting mode automatically after the unit is idle for about 30 seconds.

### To set the time of Clock 2:

Press and hold the SET BUTTON (at CONTROL PANEL 2) for about 2 seconds. The time digit will start to flash.

## The setting method is the same as Clock 1.

The Auto-Backlight When the Auto-Backlight function is activated, the display will be lighted for 8 hours continuously. To set the starting time of activating the Auto-Backlight, place the AUTO LIGHT SWITCH at "SET" position. The hour and minute digits at Clock 1 will flash.

Press the ▲ or ▼ BUTTON to set the starting time. Each push of the ▲ or ▼ BUTTON will advance the minute by one, while the hour will be updated when "00" minute is run through. Press and hold the ▲ or ▼ BUTTON and the digits will fast advance.

After setting, place the AUTO LIGHT SWITCH at "ON" position to activate the function, or place at "OFF" position to quit the setting mode (without activating the function).

# 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-ofpurchase (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.
- MFJ Enterprises, Inc. will supply replacement parts free of charge for any MFJ product under warranty upon request. A dated proof-ofpurchase and a \$7.00 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 (662) 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 un-repaired.
- 7. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or property by the use of any MFJ products.
- 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.
- 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-ofpurchase.
- 12. This warranty gives you specific rights, and you may also have other rights which vary from state to state.