

# MODEL LGF

## OPERATING INSTRUCTIONS

Part No. 552882

**Moisture Register Products**  
A Div. of Aqua Measure Instrument Co.

1712 Earhart Ct.  
La Verne, CA 91750  
Tel: +1 (909) 392 5833  
Fax: +1 (909) 392 5838  
E-mail: [sales@aquameasure.com](mailto:sales@aquameasure.com)  
[www.MoistureRegisterProducts.com](http://www.MoistureRegisterProducts.com)

# OPERATING INSTRUCTIONS

## MODEL LGF

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## Operating Instructions

This is a one-piece instrument designed for use in either hand. The electrode is placed directly beneath the handle. The adjustment knob on the panel adjusts the meter pointer to "0" and compensates for battery voltage. The pointer knob on the panel is for the built-in electrical reference standard and must be in "OUT" position for moisture testing.

1. **Turn On:** By pressing the switch bar in the handle.
2. **Adjust Zero:** By turning the adjustment knob to bring the meter pointer exactly to the "0" line. Hold electrode at least 3" away from any object. Pointer position should be checked before each test or series of tests.
3. **Measure Sample:** Press the electrode solidly against gypsum board to be tested. Make sure that the entire electrode is in contact with the board.
4. **Read the Dial:** If the reading falls in the GREEN zone of the scale, the moisture content of the board should be correct for normal use. If this zone is not correct for a particular type of board, then use the 0-50 numerical scale. This is not a percentage scale, higher readings indicate higher moistures.

The Model LGF can also be used to test boards as they travel on a conveyor machine. Hold the instrument just above the machine and press the electrode down against each board as it passes under the instrument.

### Use of Reference Standard and Trimmer

This instrument has a built in electrical reference standard to check the calibration setting of the circuit and a trimmer to make corrections when necessary. The instrument should be checked on the STANDARD approximately once a week.

The STANDARD is inserted into the circuit by the standard switch. The TRIMMER is located on the side of the instrument case and is exposed when the "TRIMMER ADJUSTMENT" plate is swung aside.

1. **Test the Standard:** With the pointer knob in "OUT" (left) position, zero instrument in normal manner. Rotate switch to "IN" (right) position. The meter pointer should read within the red circle marked on the meter scale. If too high or too low, the TRIMMER should be adjusted.
2. **Adjust Trimmer:** If the standard reading was too high, rotate the TRIMMER very slightly to the left. If too low, rotate to the right. Rotate standard switch "OUT" and readjust the meter pointer to "0"
3. **Test Standard Again:** Repeat these procedures until the correct reading is obtained. This TRIMMER will compensate for minor variations in the circuit over a period of time, but cannot correct for worn out batteries, etc. If the meter can be zeroed but the STANDARD reading cannot be adjusted properly, the instrument should be returned to the factory for service.

## **Care and Maintenance of Instrument**

Keep instrument in carrying case when not in use. Keep electrode clean by using an alcohol type solvent. Dirty electrode contacts may cause low readings. The meter pointer should rest exactly over "0" to the extreme left of the dial when switch is "OFF". If pointer has been moved, reset pointer by slowly turning the screw located at the base of the pointer on the face of the meter case.

## **Battery Recharging**

This instrument is equipped with a rechargeable battery. A small connector plug is located on the back of the instrument just above the electrode. The power cord furnished with the instrument is connected between this plug and a 110-volt electrical outlet.

The circuit is designed so the instrument cannot be operated if the battery voltage falls too low. As the battery approaches this condition the instrument will start to become erratic, and it will be difficult to hold a STANDARD reading. This is a sign that the battery should be recharged.

If your unit is equipped with the Nickel Cadmium battery, normal usage from a fully charged battery will be about a week for extensive testing, and up to several weeks under more moderate testing. It is recommended that the battery be plugged in and recharged overnight about every two weeks or sooner depending upon usage. Overcharging cannot damage the battery, but it is not recommended that it be charged for more than 24 hours at one time. If caught unexpectedly with a discharged battery, you can get a considerable number of tests after a charging period of just one hour.

For units with Serial No. 5D198L and up, your moisture meter has been fitted with a Nickel Metal Hydride replacement battery to provide you with better battery life and longer instrument operation.

This battery is designed to allow trickle charging as well as long term charging. When you first receive the instrument, it is recommended that you charge it for a minimum of 24 hours or longer. For those applications where the instrument is used 24 hours per day, simply plug it in to charge it at times when it is not being used.

This type of battery should not be periodically completely discharged.

## **Repair Service**

The construction of your moisture register is as rugged as possible. However, like all electronic equipment, it should be kept clean and receive careful handling at all times. It should be serviced periodically. We urge you not to attempt any repairs on this instrument. Our factory is the only place equipped to properly repair and service your instrument. The factory does not pay shipping charges for instruments sent to us for repair.

## **Static Electricity Hazards**

This instrument is completely transistorized. Transistors are affected by static electricity and may be damaged if subject to a static charge. As this instrument is designed for use on stationary lumber, you probably will not encounter static except on hot, low humidity days. If testing under these conditions, do not slide the electrode along the board as this might create a static charge. Instead, lift instrument from the board after each test and place instrument down on board for next test. Guarantee does not apply on Transistors damaged by a static charge.

**Notes:**

Moisture Register Products manufacture Continuous On-Line Systems and Hand-Held Portable Meters that are designed for optimum performance, essential convenience and complete reliability to accomplish a multitude of applications in a wide range of industries.

Our Continuous On-Line Systems offer Near Infrared and Radio Frequency Sensors to constantly measure your process moisture. These systems assist you in analyzing, recording and controlling moisture on your product line.

Our Hand-Held Portable Moisture Meters offer on the spot measurement as well as flexibility for use on a variety of materials such as:

Moisture Register Products has portable moisture meters for use on a wide variety of materials, some of which are listed below.

**LUMBER  
PLASTER WALL  
GYPSUM BOARD  
NONWOVENS  
CORK**

**VENEER  
DRY WALL  
TEXTILES  
PAPER PRODUCTS  
AIRCRAFT RADOMES**

Moisture Register Products and AQUA Measure Instrument Company are fully committed in providing products and services at a quality level that continues to improve and that meets our customer's expectations.

**[www.MoistureRegisterProducts.com](http://www.MoistureRegisterProducts.com)**