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| LIFE SENSING<br>INSTRUMENT CO., INC. | WORK INSTRUCTION                 | Document no. I-2018 |
|                                      | LATEST REVISION DATE<br>10/22/13 |                     |
| ENGINEERING APPROVAL                 | DATE<br>10/22/13                 |                     |

## TM8D DUAL ECG TRANSMITTER

FCC ID: OF8-TM8D

LIFE SENSING INSTRUMENTS, Inc.  
329 WEST LINCOLN STREET  
TULLAHOMA, TENNESSEE 37388  
(931- 455-0262)

declares that the device manufactured as TeleMaster, model no. TM8D does conform to the regulations as outlined in Title 47 of the US code of federal regulations, Part 15 covering Class B personal computers and peripherals, and Part 95, subpart H covering Wireless Medical Telemetry Service (WMTS).

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 Parts 15 and 95 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 or television communications. However, there is no guarantee that the 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 of the interfered device. Increase the separation between the equipment and interfered device.
- Connect the equipment to a different outlet on a circuit other than the one the interfered device is connected to.
- Consult the dealer or an experienced radio/TV technician for help.

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## OPERATING INSTRUCTIONS

**CAUTION:** Changes or modifications not expressly approved by the manufacturer can void the user's authority to operate the equipment. It is the responsibility of the equipment user to maintain compliance with the FCC rules. To ensure compliance, use only those cables and/or accessories prescribed by the manufacturer.

**IMPORTANT:** To comply with the FCC RF exposure requirements, users should avoid grasping the transmitter for any extended period of time while the device is in operation.

**IMPORTANT - Operation of a TM8D requires prior coordination with the ASHE frequency coordination designator. For further guidance visit the ASHE website at:**

[www.wmtssearch.com](http://www.wmtssearch.com)

The TM8D Dual ECG Transmitter is a frequency synthesized transmitter operating in the UHF (608 - 614Mhz) range. The transmitter utilizes 5 independent patient lead wires with snap electrode adapters for disposable electrodes.

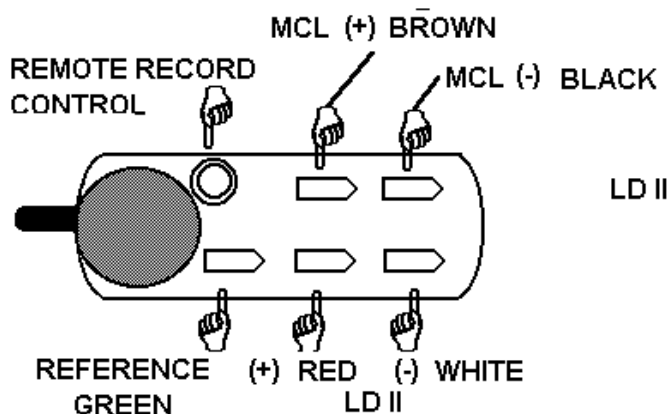
The ECG viewed from ECG1 is dependent upon the placement of the White (-) and the Red (+) electrodes. The ECG viewed from ECG2 is dependent upon the placement of the Black (-) and Brown (+) electrodes. Both ECG leads are transmitted all the time. The Green lead serves as a reference to all four ECG leads, which minimizes common mode interference.

Should an electrode become detached, a **Lead Fault** message will be displayed at the central station. The central station will switch to the other lead.

A switch on the transmitter permits remote activation of the central station recorder.

The TM8D transmitter uses 2 each 1.5 volt "AAA" batteries. Average battery life is 2 to 3 days.

When the batteries reach an unsafe operating level, a **Low Bat** message will be displayed at the central station. Approximately 1 hour battery life is left when the **Low Bat** message is first displayed.



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The TM8D transmitter utilizes 5 electrodes to provide Lead II and a Modified Chest Lead (MCL) for review at the central station. For optimum monitoring the electrodes should be placed in the following locations:

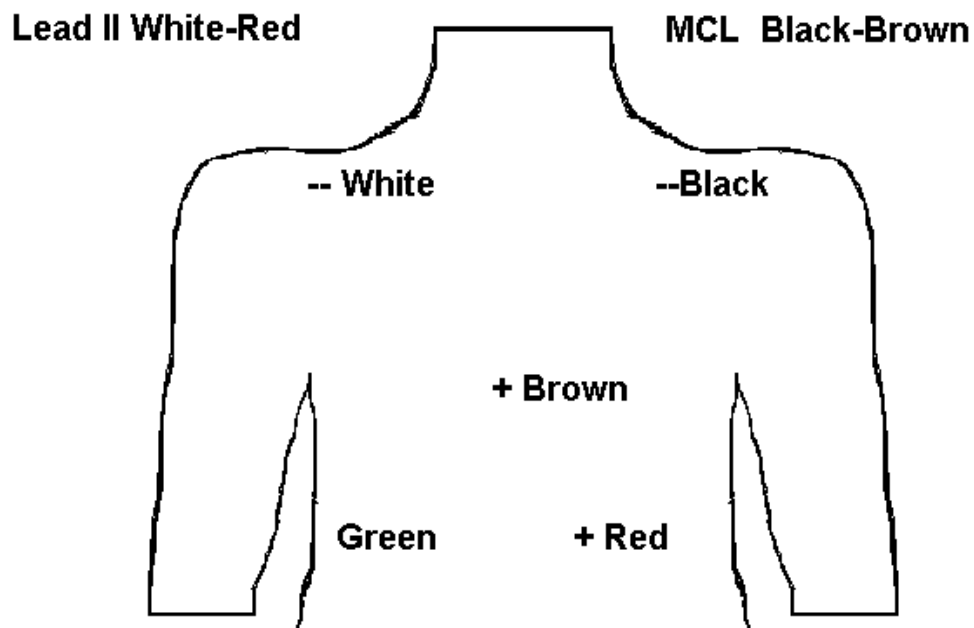
**WHITE:** ECG1 negative electrode. RIGHT CLAVICLE OR RIGHT STERNAL BORDER.

**RED:** ECG1 positive electrode. LOWER LEFT RIB CAGE.

**BLACK:** ECG2 negative electrode. LEFT CLAVICLE OR LEFT STERNAL BORDER.

**BROWN:** ECG2 positive electrode. PLACE ON ANY OF 6 V-LEAD POSITIONS.

**GREEN:** Reference electrode. LOWER RIGHT RIB CAGE.



If only one lead of ECG is required remove the brown and black lead wires from the transmitter. Refer to the section on **MULTI-VIEW WAVEFORMS** in the central station operating manual to disable lead fault on second channel.

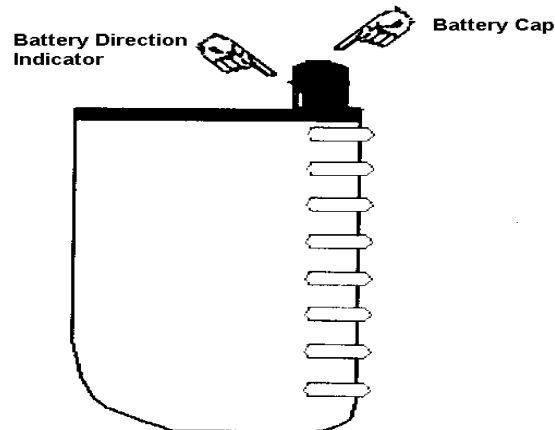
**WARNING!**  
**ONLY USE THE SAFETY LEAD WIRES SUPPLIED WITH THE TRANSMITTER.**

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## Attaching the Transmitter to the Patient

Gently abrade the electrode sites with an alcohol prep pad until slight redness is observed. Dry the site before applying the electrodes. Attach the electrodes to the lead wires.

### Insert the batteries in the transmitter as follows:



Hold the transmitter in one hand. Using the other hand thumb and index finger, grasp the battery cap and turn counter clockwise until the cap can be removed.

Insert both batteries with the positive ends up. See the battery direction indicator on the battery cap. Repeat the above instructions for the battery cap, but rotate the cap clockwise.

### CAUTION

**MAKE SURE THE BATTERIES ARE INSTALLED CORRECTLY. IF THE BATTERIES ARE INSTALLED INCORRECTLY, THE TRANSMITTER WILL NOT FUNCTION.**

**MAKE SURE THAT THE BATTERY CAP IS TIGHT. IF THE CAP IS NOT PROPERLY TIGHTENED, THE TRANSMITTER MAY BE INTERMITTENT AND THE WATER PROOFING SEAL MAY LEAK, CAUSING DAMAGE TO THE TRANSMITTER.**

Attach the electrodes to the patient on the prepared sites. Apply pressure to the outer edges of the electrode, not the center. Applying pressure to the center may cause the electrode conductive jelly to ooze out resulting in a loose electrode.

## REMOTE RECORD FUNCTION

If it is desirable to start the recorder from the transmitter, press and hold the **Remote Record** control for approximately 2 seconds. This will generate a 20-second ECG recording at the central station.