

## **APPENDIX A – MAXIMUM-MINIMUM THERMOMETER INSTRUCTIONS**

### ***WHAT IS A MAXIMUM-MINIMUM THERMOMETER?***

A thermometer which, when placed in a refrigerator (inside a box of vaccine), indicates the maximum and minimum temperatures reached since the thermometer was last read. The thermometer will not indicate how long the temperature was outside the recommended 2° to 8° range.

### ***HOW IS THE MAXIMUM-MINIMUM THERMOMETER PUT INTO PLACE?***

1. Place the sensor inside a box of vaccine. (The paper can be removed from the double-sided tape on the temperature sensor to permanently attach it to the box). The box of vaccine should then be placed on the middle shelf in the refrigerator.
2. Carefully route the wire inside and close the refrigerator door.
3. Avoid damaging and/or cutting the wire during the installation.
4. Place the thermometer unit in an upright position on the door or side wall of the refrigerator (using the double-sided tape) where it can be accessed and read. Or, use the attached stand to place the thermometer in an upright position on top of the refrigerator.
5. Press the “Clear” button to start the Max-Min temperature monitoring. If the “Clear” button has been pressed properly, the temperature will disappear and a ‘---’ line will appear.

### ***HOW IS A MAXIMUM-MINIMUM THERMOMETER READ?***

1. Pressing the Max-Min button once will display the maximum temperature (top number) and the minimum temperature (bottom number), experienced INdoor since last cleared. The INdoor temperature means the ambient temperature of the room where the refrigerator is located.
2. Pressing the Max-Min button twice will display the maximum temperature (top number) and the minimum temperature (bottom number) experienced OUTdoor since last cleared. The OUTdoor temperature means the temperature inside the box of vaccines in your refrigerator since last cleared.
3. The “Clear” button must be pressed after each reading of temperature to start the next period of monitoring.
4. On the third press of the Max-Min button (or after waiting for 8 seconds) the Max-Min thermometer will go back to normal operating mode which displays the current temperature inside the room where the refrigerator is located (top number) and inside the refrigerator (bottom number).
5. The Max-Min display only lasts a few seconds. If the button is held down, the display will stay until the button is released.

### ***WHAT SHOULD BE DONE IF THE MAXIMUM-MINIMUM THERMOMETER INDICATES THAT THE TEMPERATURE HAS BEEN OR IS OUTSIDE THE RECOMMENDED RANGE OF 2° TO 8° C?***

1. Adjust the refrigerator setting, and

2. Advise the office contact person responsible for safe storage, handling and receiving of biologic products. If the adjustment of the refrigerator setting does not resolve the problem, get professional servicing with the approval of the appropriate person.
3. If the biologic products have been or are outside the recommended range of temperature, contact the designated vaccine coordinator to discuss and assess the possible cold chain breach.
4. The battery of the thermometer will need to be changed eventually. It requires a "AAA" battery at the back of the thermometer unit.