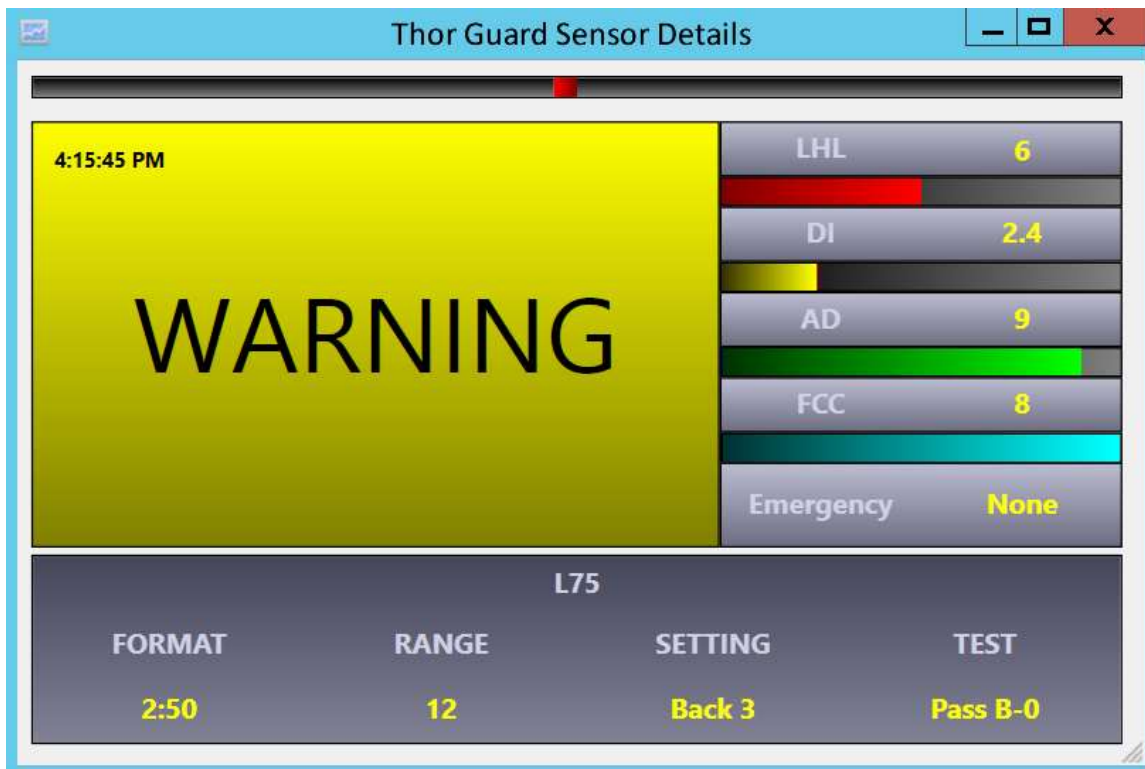


THOR GUARD DATA REFERENCE GUIDE


Background: A THOR GUARD Lightning Prediction System looks at the electrostatic “charge” of the atmosphere to determine when conditions are favorable for lightning to occur. In order to have a lightning strike in your area, there must be a “build-up” of the electrostatic field. A THOR GUARD Lightning Prediction System has the following basic components:

- 1) **Energy Level:** At the top of the display (just below logo) will be the Energy Level indicator that displays the relative amount of positive (yellow) or negative (red) charge in the atmosphere. Under normal conditions (no rain, storms, or high wind) the energy display will only show a small amount of charge and it is normally positive (yellow). When storms approach or develop nearby, you will see a build-up of positive charge. As lightning moves in closer, or when a storm is developing closer to your area, you will normally see a build-up of negative energy. Typically, when a strike occurs within the sensor range, you will see a transition from negative to positive. The faster this reversal in charge occurs, the closer the strike. During high winds, you will normally see a build-up of positive charge. As the “charge” in the atmosphere increases, the Thor Guard will give you an alert level corresponding to the threat of lightning. These levels will be displayed in the graphic display immediately below the Energy Level.



- 2) **Warning Levels:** Warning level window is located just below Energy Level

ALL CLEAR – No Threat

CAUTION – No immediate threat, but situation should be monitored if storms are developing or rain is in the area. A “Caution” level is normal with rain showers.

WARNING – Thunderstorms and/or high wind are in the area. Unit should be closely monitored. Lightning is in the area or a t-storm is developing nearby or overhead.

RED ALERT – The potential for lightning is high, all activities should stop. Safety has been compromised. Seek shelter immediately.

- 3) **Emergency Alert:** User-activated feature available on ThorPCX.

NO ALERT – No Active Emergency

EMERGENCY ALERT – Active Emergency



Thor Guard Data Reference Guide
SUPPORT DOCUMENT

- 4) **Lightning Information Box:** Located below the Lightning Alert and Emergency Alert indication area is the Lightning Information Area that contains the following information:

LHL: Lightning Hazard Level is a numerical value ranging from 0-9. The LHL represents how much energy is within the **Sensor Range (normally 12-15 miles)**. This value can be equated to mean the percentage chance of lightning (0 = 0% chance of lightning and 9 = 90% chance of lightning within the Sensor's range). A LHL of 5 or more indicates lightning is occurring or has the potential of occurring within your Sensor's range.

DI: Dynamic Index is a numerical value ranging from 0.0 - 9.9. The DI represents the amount of energy change within your Sensor's inner range (normally 2-2.5 miles – depends if your Sensor's Range is 12, 15, etc.). This value can be equated to mean the percentage chance of lightning within your Sensor's inner range (0.0 = 0% chance and 9.9 = 99% chance of lightning within close proximity of your sensor location).

A DI > 0.0 means there is lightning in the area!

AD: Activity Detector is a numerical value ranging from 0-10. Any time you get a Red Alert, the AD will start at 10 which means you have at least 10 minutes until you could get an All Clear signal. The AD will reset itself to 5 or 10 until all static charge is out of the area and play can resume. The AD will count down to 0 when no "new" surges in energy have been detected.

FCC: Field Collapse Count is a numerical value representing an idea of how many lightning strikes (including return strokes) have occurred within the sensor range. It is helpful to watch the FCC count as the system goes from Caution to Warning to Red Alert because it allows you to see how "active" a storm is in terms of lightning strikes.

Typical readings on a THOR GUARD System during the development and/or approach of a storm:

LHL = 6 - 9

DI = 1.6 - 4.0 (If a DI of 3.0 occurs, then the system will go to Red Alert)

AD = 10

FCC = 10 - 50

****The most important value is the DI!!!!** If the DI is greater than zero (typically 1.6-2.8), then you have storms within the sensor range. If the DI starts at 1.6, then climbs to 2.5-2.8 and it looks like the storm is coming at you – chances are you will have lightning in your area within 8-20 minutes.



Thor Guard Data Reference Guide

SUPPORT DOCUMENT

L75			
FORMAT	RANGE	SETTING	TEST
2:50	12	Back 3	Pass B-0

- 5) **THOR GUARD System Information Box:** In ThorPCX, below the Lightning Information Box, this area contains the following information regarding your THOR GUARD System...

Model Type: Indicates what model type of THOR GUARD Lightning Prediction System you are currently operating.

Format: Identifies the formatting of your THOR GUARD data.

Range: Displays the Sensor range of the THOR GUARD System. Typical ranges are 12-15 miles but may be set to lower values. For example, when the system range is set at 12 miles, this means that the sensor is “sampling” the atmosphere out to a 12 mile radius.

Settings: Displays the Front and Back settings of the THOR GUARD. The factory setting is most commonly Front=2 and Back=5, however this can vary per customer/system. This should only be adjusted at the instruction of Thor Guard employees and representatives.

Test Result: This area displays the result of the daily test automatically performed on the THOR GUARD SYSTEM. If the system is failing its daily test, contact your local Thor Guard Territory Manager or Thor Guard at 800-571-1212. If there is a lot of dew and/or moisture in the air, the system may fail the morning test. It is advisable to wait until conditions are drier to manually re-test.



Thor Guard Data Reference Guide SUPPORT DOCUMENT

THOR GUARD DATA — QUICK REFERENCE

Energy Level: Shows fluctuations in the static field within the sensor range.

All Clear and Red Alert Buttons: Only used for systems with horns.

LHL: Lightning Hazard Level (% Chance of having a lightning strike within sensor range)

LHL Value	
0 - 4	Normal Values. "4" is common with showers and/or strong winds, but should be monitored if storms are in the area.
5 - 9	Lightning is in the area and DI value should be monitored closely.

DI: Dynamic Index (% Chance of having lightning near the sensor location or within 2.25 miles)

DI Value	<i>MOST IMPORTANT VALUE TO MONITOR!!!!</i>
0	No lightning in sensor range
1.6 - 2.3	Lightning is occurring (or will occur shortly) within sensor range. Monitor Situation!
2.4 - 2.9	Lightning is occurring (or will occur shortly) near your location (~2.5-5 miles). Monitor Situation!!
3.0 or higher	System will be in "Red Alert". High likelihood of lightning occurring within 2.25 miles. Cease all activities!
Above 5.0	Lightning most likely occurring on property. Extremely dangerous!!

AD: Alarm Reset Time or time in minutes before "All Clear" will sound. Usually starts at 10 minutes, but can reset at 5 minutes during a storm.

FCC: Field Collapse Count or number of lightning "discharges" in the sensor range. A good indicator of how many lightning strikes within the sensor range.