



# ***SkyScan Lightning Detector/Storm Detector***

## ***- Manual -***

### **INTRODUCTION**

Congratulations! You have purchased the finest personal, portable lightning/storm detector available today. SkyScan gives you advance weather warning technology you can use at home, indoors or out, and take wherever you go, for any kind of outdoor sports and recreation.

Your SkyScan offers you the ability to detect the presence of lightning/ thunderstorm activity occurring within 40 miles of your location. SkyScan detects the characteristic electromagnetic emissions from individual lightning strokes and uses patented technology to determine the distance to the detected stroke. The distances are indicated in four ranges: 0-3 miles; 3-8 miles; 8-20 miles; and **20-40** miles. This allows you to track the approach of dangerous storm activity.

**IMPORTANT!** SkyScan uses the latest electronic and computer technology to provide the most accurate information possible. However, thunderstorms are a dangerous and rapidly changing weather phenomenon. The information about storm activity obtained from your SkyScan should always be used in conjunction with information from your local weather professionals. Common sense and extreme caution should always be used when confronting lightning and thunderstorm activity.

### **GENERAL DESCRIPTION**

Each time SkyScan detects a lightning stroke, it emits an audible warning tone (if this feature has been turned on by the user; see Section 5 in Basic Operation) and lights the **Range indicator** column. The full column stays lit for approximately 3 seconds. The single indicator corresponding to the range of detected stroke will then blink for approximately 25 seconds. This feature allows you to quickly see the distance to the last, closest detected stroke without waiting for SkyScan to detect a new stroke.

**VERY IMPORTANT! Because the** average stroke of lightning is 6 miles long, and because thunderstorms can move at speeds of up to 25 mph or more, you are in immediate danger any time there is detected lightning activity within 8-10 miles of your location. You must also remember that SkyScan does not predict where the next lightning stroke might occur. Thunderstorms are unpredictable and should be considered extremely dangerous. **BE AWARE THAT STORMS CAN FORM DIRECTLY OVER YOUR LOCATION, OFFERING LITTLE OR NO ADVANCE WARNING, EVEN WHEN USING A SKYSCAN.**

**IMPORTANT!** Whenever thunderstorms are present, take immediate shelter and obtain more information from your local or regional weather professionals.

Your SkyScan may also identify certain types of especially strong storms. These storms can produce dangerous winds, heavy rains or tornadoes. When SkyScan detects lightning patterns indicating the presence of these storms, it activates the **Severe Thunderstorm Alarm** and emits a distinctive 15 second continuous audible tone different from the detection of normal lightning activity.

Once activated, the severe thunderstorm alarm remains on for approximately 15 minutes. At the end of this period, the SkyScan checks again for indications of severe storm activity. If none is detected, the Severe Thunderstorm Alarm is turned off. If severe thunderstorm conditions are still detected, the indicator remains on for another 15 minutes, accompanied by another 15 second warning tone.

**IMPORTANT!** There are two types of lightning produced by a thunderstorm, cloud to-ground and cloud-to-cloud. For any user on the ground, the cloud to-ground is the most dangerous. SkyScan is designed to detect cloud to-ground lightning strokes. While it may detect cloud-to-cloud lightning strokes, there may be occasions where storms will produce cloud-to-cloud lightning strokes that are not detected by the SkyScan. User should therefore still exercise extreme caution when exposed to lightning storms.

SkyScan is designed to operate in a vertical position. The case is designed for proper orientation when placed on a flat, stable surface. An alternative is to use the Optional Wall Mount (see the Accessory Order Form included with this manual). If the SkyScan is used in any other fashion, loss of accuracy and sensitivity may result.

Your SkyScan contains hardware and ware protection against false triggering. False triggering is defined as displaying strikes that are not real. Certain electronic products and other devices (TVs, corm computer displays, motors, gasoline engines, radio transmitters, or other high power communications equipment) emit high levels of **electromagnetic noise which** interfere with the normal detection of lightning/storm activity, and will cause the unit to false trigger. This is particularly true of some brands of older TVs at computer equipment. SkyScan has the ability to identify this type of problem alert you by continuously cycling all o indicators on the unit, as it does whet unit is first turned on.

**IMPORTANT!** The false triggering alert process takes approximately 60 seconds to initiate. During this time, the SkyScan may continue to display false triggers as if they were lightning strokes. When the noise source has been identified as coming from something other than lightning, the SkyScan will start the continuous cycling of its indicators. Turn the SkyScan OFF, move the unit to a different location, turn it ON.

## BASIC OPERATION

### **1.) BATTERY INSTALLATION**

The SkyScan operates on two standard 9-volt batteries. These are installed by first removing the battery compartment door on the lower back portion of the

SkyScan. Proper installation position of the batteries is shown on the diagram inside the battery compartment.

**IMPORTANT!** Always install batteries in the proper direction and polarity to avoid damaging the unit. It is recommended that you use only batteries which fit securely into the SkyScan unit.

Under typical conditions, your SkyScan will operate for more than 50 hours on fresh 9-volt batteries. To extend battery life, use the Battery Save function whenever possible. This feature is described in Section 6. Whenever the reserve battery power falls to approximately 5 hours of operation, the Low Battery Indicator will activate.

**IMPORTANT!** Always replace the batteries as soon as the Low Battery indicator comes on. As battery power drops, the SkyScan loses accuracy and sensitivity.

SkyScan is programmed to automatically turn off if left unattended, and if no storm activity is detected for a period of 5 hours. This automatic turn-off feature can be deactivated by using the Battery Save switch described in Section 6.

## **2.) OPTIONAL EXTERNAL A/C POWER ADAPTER**

Your SkyScan can also be powered by attaching the Optional External Power Adapter. Insert the plug into the Jack located on the right side of the SkyScan. The External Power Adapter can also be used with batteries installed in the unit.

When using the SkyScan with an External Power Adapter, press the Battery Save switch twice to deactivate the automatic turn-off feature. The automatic turn-off function is reactivated by turning off the Power On/Off switch.

**IMPORTANT!** Use of an External Power Adapter other than that supplied by SkyScan will damage the unit or result in a loss of sensitivity and performance. See the list of Optional Accessories (at the end of this manual). Many adapters available through normal retail outlets produce high levels of noise which can produce false triggering of your SkyScan.

## **3.) POWER ON/OFF SWITCH**

Pressing the switch turns the unit on or off. When the SkyScan is turned on, the indicators cycle once, beginning with the severe thunderstorm indicator and ending with the On/Off Indicator. This allows the user to be certain that all indicators are functioning. After several seconds, the On/Off Indicator will begin to blink. The SkyScan is now operating normally.

## **4.) RANGE SELECT SWITCH**

**Range Select** allows you to choose the distance at which detected lightning strokes will trigger the **Audible Warning Tone**.

**IMPORTANT!** It is recommended you use the **Audible Warning Tone** at maximum range whenever possible.

To activate the **Range Select** function, press the switch repeatedly until the desired range category indicator is on. Do not touch the switch for a period of 3 seconds, and this range will be entered in the computer. To change the selected

range, simply repeat the process.

### **5.) TONE SWITCH**

The **Audible Warning Tone** sounds for approximately 1 second each time the SkyScan detects a lightning stroke. The **Audible Warning Tone** can be turned on or off by pressing the **Tone Switch**. When the **Tone** indicator is blinking, the **Tone** is operational. When the indicator is off, the **Tone** has been deactivated.

**IMPORTANT!** The **Tone** function must always be turned on by the user when SkyScan is turned on. ALWAYS check to see that the tone indicator is blinking to be sure it is active.

### **6.) BATTERY SAVE SWITCH**

The **Battery Save** feature allows you to extend the operational life of the 9-volt batteries by deactivating most of the SkyScan visual indicators. To activate the **Battery Save** feature, simply press the **Battery Save** switch once. The **Battery Save** indicator will blink, and all other indicators on the SkyScan will turn off. Activating the **Battery Save** feature automatically turns on the **Audible Tone**, even if this function has been previously turned off. **once in Battery Save** mode, the SkyScan continues to detect lightning strokes. Now, however, each detected stroke is indicated only by a 1 second warning tone at the range set by the user (see Section 4). To return the SkyScan to normal visual display of detected lightning strokes, simply press the **Battery Save** switch once.

**IMPORTANT!** if the **Audible Tone** was deactivated before selecting **Battery Save** it will be disabled when the SkyScan is returned to normal display mode.

Pressing the **Battery Save** switch twice in quick succession turns off the automatic 5 hour turn-off feature. To indicate activation of this feature, the **On/Off** indicator stays on continuously, without blinking.

**IMPORTANT!** This feature should be used only when SkyScan is connected to an external power source via the optional **External Power Adapter**.

Even in **Battery Save** mode, the **Severe Thunderstorm indicator** will illuminate whenever this type of storm has been identified by the SkyScan.

### **CARE AND MAINTENANCE**

SkyScan has been manufactured of the highest quality materials and components. It should provide you with years of service with minimum maintenance. A few important tips will maximize the operational life of your SkyScan.

Remember, SkyScan is weather-resistant, but it is NOT waterproof. Your SkyScan should NEVER be immersed in water.

Whenever you have used your SkyScan under damp, humid or rainy conditions, it is recommended you remove the batteries and dry the battery terminals to prevent corrosion.

If SkyScan is to be stored for an extended period of time, the batteries should be removed and the unit should be stored away from high temperature, high

humidity, or corrosive substances.

**IMPORTANT!** Your SkyScan contains no user serviceable parts and is not intended to be opened, other than to insert or remove the 9-volt batteries. Opening the case will void the Product Warranty.

#### **CUSTOMER SERVICE AND SUPPORT**

As a SkyScan customer, we are committed to your satisfaction for the life of your SkyScan product. The SkyScan service and customer support system is designed to ensure fast and friendly solutions to any problems you may have with this quality SkyScan product.

#### **ONE-YEAR LIMITED WARRANTY**

Xtreme Research Corporation, P.O. Box 336, Port Richey, FL 34673 agrees to repair or replace this product for one year from the original date of purchase absolutely free. This warranty does not include any physical damage to the unit or any of its accessory items and does not cover damage to the SkyScan unit resulting from the use of accessories not manufactured or authorized for use by SkyScan. Any modifications or repairs by unauthorized service personnel will void this warranty. The warranty card included in with the product package MUST be completed and returned to Xtreme Research Corporation in Port Richey within 30 days of purchase to validate the warranty. If the warranty card included has not been completed and returned to SkyScan, when a unit is presented for warranty service, a copy of the original sales receipt will be required. You are responsible for all shipping charges to SkyScan. SkyScan will pay for ground UPS back to the customer.

NO OTHER EXPRESS WARRANTY HAS BEEN MADE OR WILL BE MADE WITH RESPECT TO THE UNIT AND NO PERSON IS AUTHORIZED TO PROVIDE ANY OTHER WARRANTY IN CONNECTION WITH THE SALE OF OUR PRODUCTS BEYOND THE DESCRIPTION ON THE FACE HEREOF.

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