Tilt Meter Operation

The meter has three screw terminals and three buttons for operation.

Starting from the left the screw terminals are 1) Relay Output (12V 250mA) 2) 12Volt positive external input power. 3) GND or chassis Negative power return.

The left most button (closest to the center is the top menu control button). The next button is for decreasing the parameter value and the third button is for increasing the parameter value.

Main mode comes up on power up. Power up happens when there is a short push of the menu button.

The menu button operates based on duration. A short push while in the running display mode will reset the maximum tilt angle value. Holding the button after a few seconds the display mode will change to the setup screen. In run mode the adjust buttons control contrast. Holding longer will change to Powering Off Display so that when the button is released the meter will turn off.

Setup screen mode.

Short presses of the menu button change which parameter is editable. Default is the selection of active preset. There are 6 presets.

The adjust buttons can be used to alter a parameter. Holding in a button will accelerate the buttons change rate. The value to be edited will have <\*> adjacent to its field. If the Critical Angle is edited, the width and height fields are changed to ----, meaning that they are ignored. The meter will use the value set to be the Critical Angle. To revert to a calculated Critical Angle edit either the width or height fields. Then the Critical Angle will update to the calculated value.

After editing, hold in the menu button until the screen reverts to run mode. Upon returning to run mode the setups are saved into non-volatile memory.

The unit will power off if there is no movement for about 15 minutes.

Battery.

The battery will charge from the USB mini connector or external 12V if applied to the screw terminals. Charge time is 6 hours if the device is off or 10 hours if running. LOW BATTERY will be displayed when the expected runtime is less than 15 minutes. Runtime will be between 30 and 100 hours depending on ambient light for a fully charged battery. Minimum runtime occurs when the display back light is brightest. This occurs in low lighting. When lighting is very low, the backlight dims. The longest runtime is in bright light. The display back light is off in bright light. As the battery wears, expect shorter runtimes

Display while running.

The display will show the lateral tilt angle in degrees as well as a horizon line. When the angle is at or above the Critical Angle minus the Warning Angle the Yellow LED will light and the Alarm will sound continuously. The relay will also activate. When the angle is at or above the Critical Angle minus the Alarm Angle the Red LED will flash and the Alarm will pulse. The relay will continue to be active. The maximum tilt angle will indicate below the horizon line. It can be reset with a short push of the menu button.

Screen contrast can be adjusted with the edit buttons.