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**ELWOOD CORPORATION/AUTOTRON GROUP
OAK CREEK, WI 53154 USA**

**OPERATING INSTRUCTIONS
A988A CONTROL
&
L257 OR LRDHML LIGHT SOURCE**

12VDC - POWER CONSUMPTION 7VA TOTAL

FEATURES:

The above long range LED detection system features a modulated LED light beam for extremely long life and high immunity to ambient light, even sunlight. The control also provides a plug-in relay for easy maintenance. The receiver circuit is designed to sense only light from its matching modulated LED source. The maximum operating range is 300'. Both the control and light source are equipped with lens heaters. The A988 Control is equipped with an active isolated relay drive.

THESE DEVICES ARE FOR USE IN NON-VITAL APPLICATIONS ONLY!

PARTS LIST: P1186 Phototransistor P846 Plug-in Relay F5D1 Infrared LED

OPERATION:

The A988A Control is a "LIGHT" energized, "TIME OUT LIGHT" receiver. The relay will de-energize when the beam is blocked and then delay energizing for one (1) second after the light beam is restored. The sensitivity adjustment is used to decrease the sensitivity if the light beam will not be completely blocked or if the object breaking the beam is slightly translucent. This adjustment is also used in initial alignment as described below.

The units should be mounted to a very secure foundation so there is no chance that the units will shift with time and cause the system to fall out of alignment and give erratic operation.

The red alignment indicator on the control, which is visible through the back cover, shows the condition of the phototransistor. The LED glows when light is shining on the phototransistor receiver. The LED intensity is proportional. The brighter the LED glows, the better the alignment.

TO ALIGN CONTROL:

For most reliable operation, the light source and control must be mounted to a stable foundation to prevent mis-alignment from occurring after the original installation. Apply power to both the light source and control. "Aim" the light source so the light beam is centered on the control lens. The beam diameter at 100' is about three (3) feet and at 50' is about two (2) feet.

Now align the control by rotating it from side to side and up and down for best alignment. Turn the sensitivity adjustment fully clockwise to the maximum sensitivity. Align the control until the red alignment indicator is glowing as brightly as possible. If the indicator glows to its maximum intensity, decrease the sensitivity adjustment until the intensity reduces to a faint glow and continue alignment to achieve the brightest LED indicator glow at the lowest possible sensitivity setting. Now readjust the LED light source for the brightest LED indicator glow on the control at the lowest possible control sensitivity setting. If you are spanning a long distance, you will need a helper to signal you when the indicator increases in brightness. When this is accomplished, alignment is complete. Turn the sensitivity to maximum. Then replace covers and secure mountings of control and light source.

TROUBLESHOOTING

Relay does not energize.

Improper alignment.
Dirty lens.

Relay does not de-energize.

Incomplete light beam blockage
Relay contacts welded