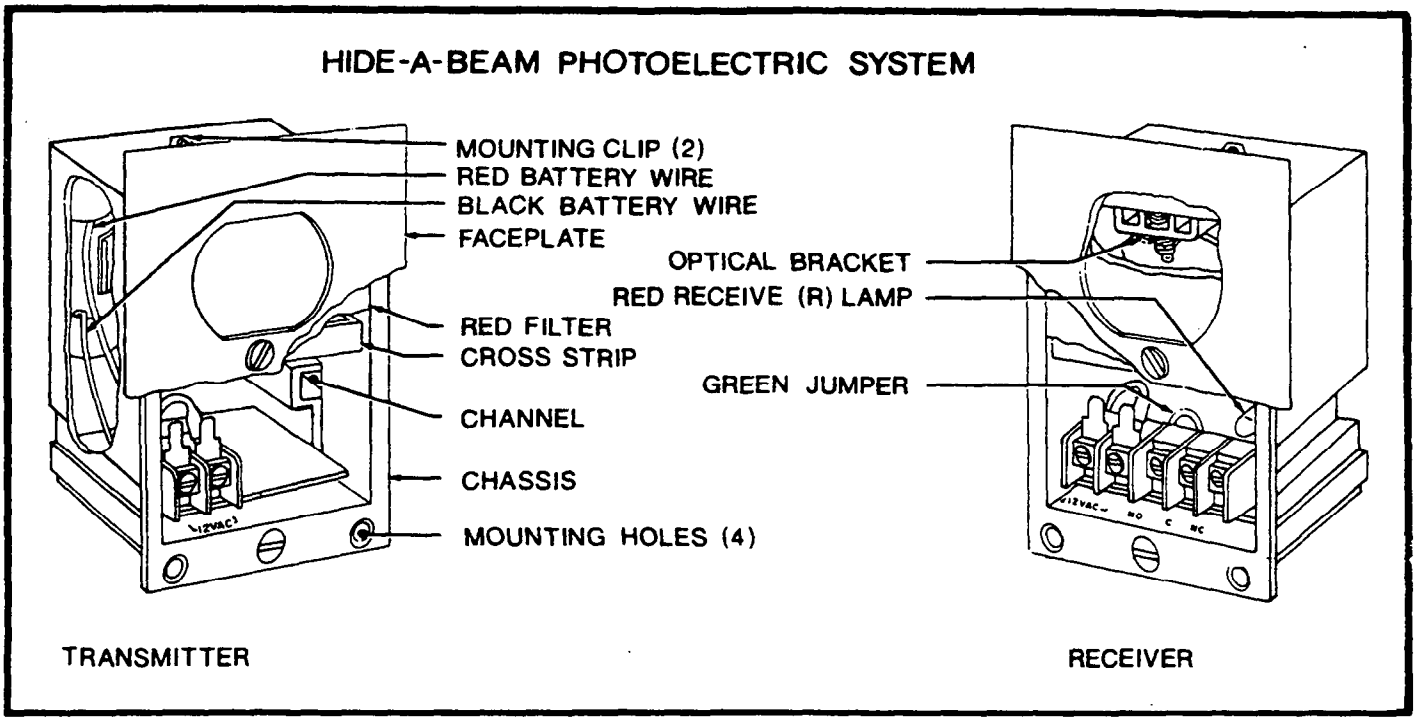
No.1356 HIDE-A-BEAM PHOTOELECTRIC SYSTEM



GENERAL

The 1356 Hide-A-Beam Photoelectric System is used to detect intruders when they break an invisible pulsed infrared beam between the transmitter and receiver. The 1356 Hide-A-Beam is designed to be recess mounted into plasterboard, paneled or similarly constructed walls. Each system consists of a 12V. AC transmitter and receiver. The transmitter and receiver may be located up to 150 feet apart at a horizontal angle of up to ± 45 degrees, vertical angle ± 20 degrees.

The transmitter transmits a pulsed infrared beam.

The receiver receives pulsed infrared energy from the transmitter. It has a RECEIVE lamp and terminal block connections for power and a conventional protective circuit. The receiver alarm relay output may be connected to a burglar alarm control instrument through conventional protective circuit wiring.

INSTALLATION

Select locations for the transmitter and receiver which offer an unobstructed line of sight between the units. The units should be mounted 2 to 3 feet off the floor with the receiver slightly higher than the transmitter.

Transmitters - remove faceplate and red filter. Use Wall Cutout Template to cut hole in wall (plasterboard, paneling, etc.). Bring wires from unpowered 12V. source through wall. Slip wires through channel in right side of chassis.

Mount chassis flush to wall using four screws or mounting clips depending on wall material. Connect 12V. wires to terminals.

Receivers - receivers are supplied with a Relay Time Delay of .2 to 1.5 seconds. A momentary break of the beam will cause the receiver relay to de-energize (alarm condition). It will remain de-energized for .2 to 1.5 seconds and then it will re-energize. If desired, this time delay can be increased to 3 to 15 seconds by connecting the green jumper.

Mount receivers same as transmitters (slightly higher). Connect 12V. wires to terminals. Connect conventional protective circuit wires to NO-C-NC terminals according to conventional practice. (NO-C for closed circuits).

On transmitters and receivers, snap circuit module out of chassis by grasping terminal block with fingers and pulling outward. Plug-in black BATTERY (-) wires. Snap circuit modules back into chassis making sure guide pin snaps into chassis hole. Connect 12V. wires to 12V. AC transformer (No. 1320 supplied). Plug transformer into 24 hour continuous outlet. Transmitters and receivers are now ready for alignment.

Plug 1316 Alignment Light Fixture wires onto 12V. AC terminals of receiver. For brighter light in long range applications, connect 1316 to 1322 transformer (not supplied). Hang alignment light fixture on CROSS STRIP of receiver. Aim blinking light fixture at transmitter. Go to transmitter and adjust mirror so image of blinking light falls into hole in center of white alignment plane. To assist in mirror adjustment, a screwdriver in the slot of, or a 3/8 wrench on the outside of, the optical bracket may be used. Remove the alignment light fixture from the receiver, carefully removing light fixture from 12V. AC terminals. Take alignment light fixture to transmitter. Connect alignment light fixture wires in same manner as was done on receiver. Hang alignment light fixture on CROSS STRIP of transmitter. Aim blinking alignment light fixture at receiver. Go to receiver and adjust so image of blinking light falls into hole in center of white alignment plane. Remove alignment light fixture from transmitter, carefully removing alignment light fixture wires from 12V. AC terminals. The system should now be operating.

OPERATION

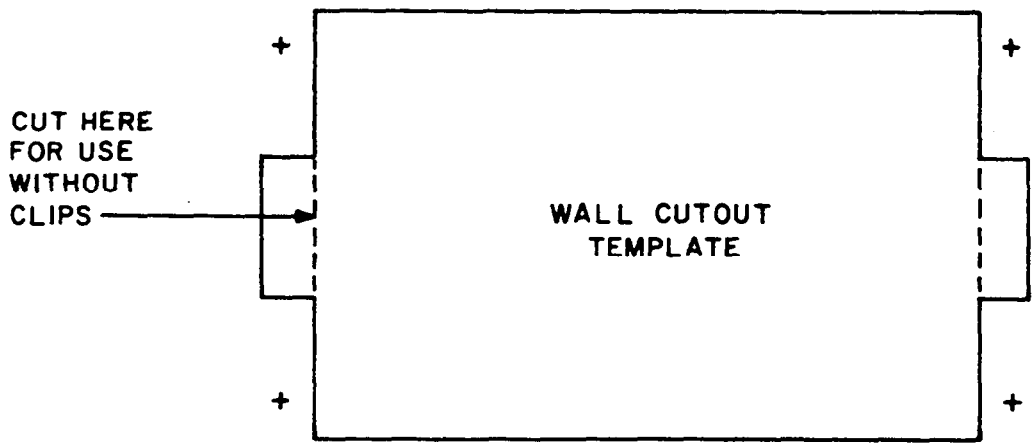
When the infrared beam between transmitter and receiver is interrupted, the receiver alarm relay will de-energize and the red RECEIVE (R) lamp in the receiver will light. When both transmitter and receiver are properly aligned, the alarm relay will not de-energize with 75% of beam blocked.

Put the 75% Cutoff Tool, supplied, onto the receiver. The red RECEIVE (R) lamp should not light. Momentarily interrupt beam between transmitter and receiver; the red RECEIVE (R) lamp will light and alarm relay will de-energize. The lamp will remain lit and relay de-energized for .2 to 1.5 seconds (if green jumper connected: 3 to 15 seconds) and then the lamp will extinguish and relay will re-energize. Remove 75% Cutoff Tool.

When proper operation has been established, properly route wires near terminal block. Check and make sure that the black battery wire and green jumper are not positioned over or near the alignment plane. Replace transmitter and receiver filter and faceplate. Check operation again with 75% Cutoff Tool.

TROUBLESHOOTING

RECEIVER RED RECEIVE (R) LAMP LIT CONTINUOUSLY: Receiver not receiving infrared energy. Check between transmitter and receiver - remove any obstruction. Check transmitter power input, wiring and connections. Check alignment on transmitter or receiver. If transmitter or receiver is not working, return circuit module.



RECEIVER RED RECEIVE (R) LAMP DOES NOT LIGHT WHEN BEAM IS BLOCKED: No power to unit, check power input, wiring and connections and check plug-in battery connections. If not working return circuit module.

TRANSMITTER OR RECEIVER WILL NOT REMAIN IN ALIGNMENT: Loose mounting (check clips or screws used in mounting chassis - chassis should be secure in wall) or circuit module not snapped in chassis properly (check module's guide pin - should be snapped into chassis hole).

SYSTEM ALARMS AT RANDOM: Marginal alignment (check operation using 75% Cutoff Tool) or power input being interrupted (check connections and wiring, if correct, check condition of power source. If correct, check condition of standby batteries).

MAINTENANCE

Periodic inspection should be made of the installation. The inspection should consist of, but not be limited to: Mounting, loose, broken or overheated wiring or components, cleaning of filter, lenses and mirrors and performance of OPERATION and TROUBLESHOOTING as required.

SERVICE

Equipment in need of repair should be returned with black and/or red battery wires unplugged to: ADEMCO, 165 EILEEN WAY, SYOSSET, LI, NEW YORK 11791

SPECIFICATIONS

Range: 150 ft. (45,7m) with 75% of infrared energy blocked.
Beam: 1.00 in. (2.54cm) dia., 9400 Angstroms, pulsed infrared.
Interruption Time for Alarm: 66 milliseconds or longer.
Alignment Angle: ±45 degrees horizontal, ± 20 degrees vertical, internal mirror adjustment.

TRANSMITTER - contains optics. electronics and battery.
Physical: 4.50in H, 2.78in W, 2.85in D, .56 lb.
11.43cm H, 7.06cm W, 7.24cm D, .25kg.
Construction: ABS black plastic chassis, chrome plated steel faceplate, components on printed circuit board.
Power Input: 12V. AC (12V, AC to 15V. AC), 75mA rms max.
Standby Time: 16 hrs., rechargeable nickel cadmium battery.

RECEIVER - contains receiver optics, electronics and battery.
Physical: 4.50in H, 2.78in W, 2.85in D, .59 lb.
11.43cm H, 7.06cm W, 7.24cm D, .27kg.
Constrution: ABS black plastic chassis, chrome plated steel faceplate, components on printed circuit board.
Power Input: 12V. AC (12V. AC to 15V. AC), 75mA rms max.
Standby Time: 16 hrs., rechargeable nickel cadmium battery.
LED Indicator Lamp: red=RECEIVE (R), indicates infrared beam is interrupted.
Relay Output: NO-C-NC, 1A DC at 28V. DC or 1A rms at 115V. AC resistive.
Relay Delay Time: .2 to 1.5 seconds or 3 to 15 seconds optional, green wire plug-in connection.