FCC ID: M5ZTMPC

Installation and Operation Instructions for the IR Point Sensor

Point Six, Inc.

3003-01 IR Point Sensor

Installation and Operation Instructions

Description

The 3003-01 IR Point Sensor is a battery operated infrared beam People Counter with a 418 MHz radio transmitter. The sensor consists of two parts; the IR transmitter and the IR receiver. The IR receiver has an integrated 6-digit LCD counter and a radio transmitter for truly wireless installation and operation. The IR transmitter produces 16 pulses of high intensity IR each second across a distance of up to 25 feet. The nature of these IR pulses is such that the IR receiver can distinguish them from any other source of IR. This characteristic allows the IR sensor to operate in almost any environment without interference from ambient lighting.

The IR Point Sensor is designed to require very little energy; the internal 3.6 Volt Lithium batteries will operate the IR counters for up to 2.5 years in normal operation.

The service switch on the IR People provides several user functions. A momentary press of the service button on the IR People will turn the display on to allow reading the counts. Pressing and holding the service button on the IR People will reset the counts to zero. Pressing and holding the service button for 8 seconds will reset the battery fuel gauge.

The IR Transmitter and IR Receiver are powered on by an On/Off switch. There is an additional switch that allows the user to the put IR Point Sensor in either front-firing or side-firing mode of operation.

Packet Description

X2 Object Counter" (11/10)

IDSSSSSSSSooooooffggggCCCCKK<CR>

Note: All fields are in ASCII Hex

"ID"
The x2 object counter device type field: "DualCounter" has device type 11 hex. A 10 hex when in service mode.

"SSSSSSSS"
The MS-30 bits of these 4-bytes are the serial number of the sensor. The LS-2 bits are the status flags for the open and closed beam status. An Open beam exists whenever the beam cannot be seen. A Closed beam exists whenever the beam can be seen. The LS bit (bit-0) is the Open beam state flag and the next most significant bit (bit-1) is the Closed beam state flag. Whenever both these bits are low a BLOCKED state exists. Blocked occurs whenever the IR beam is blocked (Open) for more than 6.5 seconds.

"oooooo"
This 24-bit field is the Object Counter stored LS-byte first.

"ff"
This 8-bit field is the Fringe Performance Event Counter. A non-zero value in this field indicates that fringe IR reception exists and should be corrected for proper performance of the counter. This count returns to zero when proper alignment exists.

"gggg"
This 16-bit field is the Total-Blocked-Time in accumulated seconds stored LS-byte first.
This counter accumulates the total time the beam has been blocked in seconds and is cleared
To zero when the object counter is cleared.

"CCCC"
This field is the CRC-16 error check as was originally received and checked. This CRC is over the first 11 bytes of the packet starting with the device type and ending with but not including CRC-16.

"KK"
This field is the mod 256 sum of all the binary data values as represented by the ASCII hex values in the response but does not include the <CR>.

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NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.