

# COPAR

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## Pedestrian Alert System

**NOTICE: Read this manual carefully before installing, operating or servicing this equipment. Failure to comply with the instructions may void the warranty.**

Manual #645-435  
Created: 11/12/04

## List of Equipment

<u>PART#</u>	<u>ITEM</u>	<u>MODEL</u>	<u>QTY.</u>
008-101	Pedestrian Transmitter	PT1	5
008-103	Battery Charger	BC1	1
008-102	Truck Transmitter	TT1	2
008-100	Truck Receiver (12VDC)	TR1	2
270-926	Power cable		2
270-925	Interconnect cable		2

This system is intended to warn lift/clamp truck drivers when a pedestrian or another truck is nearby.

Each truck is fitted with a front mounted receiver and rear mounted transmitter. Each truck transmits a unique ID code. The truck receiver displays the ID codes of all signals being received, including its own. Continually displaying its own ID code helps verify proper operation of each truck's receiver and transmitter. All pedestrian transmitters transmit the same ID code, which is different from any of the truck codes. The truck receiver displays a steady (non-flashing) image of a pedestrian when receiving a signal from any pedestrian transmitter. This image is also displayed at the truck transmitter, which is visible while driving backwards.

Optionally, a flashing image of a pedestrian can be displayed when receiving a signal from another truck. A four bit dip switch located in each truck receiver (SW 1) and truck transmitter (SW 2) selects one of 15 possible truck ID codes. The factory setting of these switches is printed on a sticker that is visible through the red cover. A receiver with code 0 has this feature disabled. A receiver with the same code as its corresponding transmitter has this feature enabled.

The gray power cable is used to supply 12 volts DC from the truck battery to the receiver, connect the RED wire to the positive terminal and the BLACK wire to the negative terminal. This cable has a locking feature, while pushing the plug into the receptacle twist it clockwise to lock it in place. To unplug this cable twist it counter-clockwise to unlock it.

If the available voltage is greater than 12 use receiver model TRH1, which operates on voltages from 24 to 48 volts DC. This special receiver converts the higher truck voltage to 12 VDC for use by this system.

The black interconnect cable goes from the receiver to the transmitter. Note the polarity of each end and match it to the corresponding connector. Secure each end with the blue threaded ring, similar to a garden hose.

The pedestrian transmitters are normally stored on the battery charger. They can stay there indefinitely without overcharging the internal batteries. The pedestrian transmitter will automatically turn ON when removed from the charger. The image of a pedestrian will appear on the verification display located at the right side of the charger when a operating transmitter is held nearby. NOTE: the range of the verification display is intentionally very short to avoid detecting signals from elsewhere in the building.

The Pedestrian transmitter is turned OFF when placed on the battery charger. During shipping and storage the Pedestrian transmitter is turned off by placing a small piece of conductive foam over the charging contacts and holding it in place with a rubber band.

The RF output power of any pedestrian or truck transmitter can be adjusted by removing the front red cover and adjusting PT 3 located in the upper left corner to obtain the desired range (factory set to about 35 feet).

Each transmitter transmits a fixed number of consecutive messages after which the RF carrier is turned off for approximately 1.2 seconds. This process is continually repeated while the transmitter is operating. The duration of each message is approximately 19 milliseconds.

The number of consecutive messages is determined by switches SW 2 and SW 3.

SW 2 is only provided on truck transmitters. NOTE: at least one bit of SW 2 must be ON.

SW 3 is only provided on pedestrian transmitters.

Each transmitter **MUST** transmit a unique number of messages to ensure proper operation when two or more transmitters are in close proximity.

There are 15 possible truck settings and 16 possible pedestrian settings, each produces a different number of consecutive messages, as shown below. The factory setting of each transmitter is printed on a sticker that is visible through the red cover. Truck transmitter labels show the ID code. Pedestrian transmitter labels show the switch position.

Truck transmitter settings

<u>SW 2 (4 bit dip switch)</u>				<u>consecutive messages</u>	<u>Truck ID code</u>
<u>#1</u>	<u>#2</u>	<u>#3</u>	<u>#4</u>		
ON	off	off	off	2	1
off	ON	off	off	4	2
ON	ON	off	off	6	12
off	off	ON	off	8	3
ON	off	ON	off	10	13
off	ON	ON	off	12	23
ON	ON	ON	off	14	123
off	off	off	ON	16	4
ON	off	off	ON	18	14
off	ON	off	ON	20	24
ON	ON	off	ON	22	124
off	off	ON	ON	24	34
ON	off	ON	ON	26	134
off	ON	ON	ON	28	234
ON	ON	ON	ON	30	1234

Pedestrian transmitter settings

<u>SW 3 (16 pos. rotary switch)</u>	
<u>Switch Position</u>	<u>consecutive messages</u>
0	32
1	34
2	36
3	38
4	40
5	42
6	44
7	46
8	48
9	50
A	52
B	54
C	56
D	58
E	60
F	62

## DECLARATION OF CONFORMITY

<b>TRADE NAME:</b>	Radio Receiver
<b>MODEL NUMBER:</b>	TR – 1
<b>COMPLIANCE TEST REPORT NUMBER:</b>	B41012B1
<b>COMPLIANCE TEST REPORT DATE:</b>	October 12 <sup>th</sup> 2004
<b>RESPONSIBLE PARTY (IN USA):</b>	Copar Corporation
<b>ADDRESS:</b>	5744 W. 77 <sup>th</sup> Street
<b>TELEPHONE:</b>	(708) 496-1859

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 the unit does cause harmful interference to radio to television reception, please refer to your user's manual for instructions on correcting the problem.

I undersigned, hereby declare that the equipment specified above conforms to the above requirements.

**Place:** Burbank, IL

**Signature:** 

**Date:** November 4, 2004

**Full Name:** John Doczy

**Position:** Engineering Manager

## INSTRUCTION TO THE USER

This equipment has been tested and found to comply with the limits for a class B 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 equipment has been certified to comply with the limits for a Class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user s authority to operate this equipment.

Operation is subject to the two following conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.