



CLEARANCE PROBLEMS?

Detect them with the RACO High Wide Clearance Detector before damage can be done.

General Description



The clearance detector consists of two units, a transceiver and reflector. The transceiver has two optical systems, one for directing a beam toward the reflector and a second for detecting the reflected beam. The two units are so mounted adjacent to the track, that interruption of either beam will result in detection of an oversize load.

Problems of vibration are minimized by shock mounting of the transceiver and by the retrodirecting characteristic of the reflector.

Transceiver and reflector may be mounted from 20 to 100 feet apart. Considerable margin has been allowed for operation under adverse field conditions.

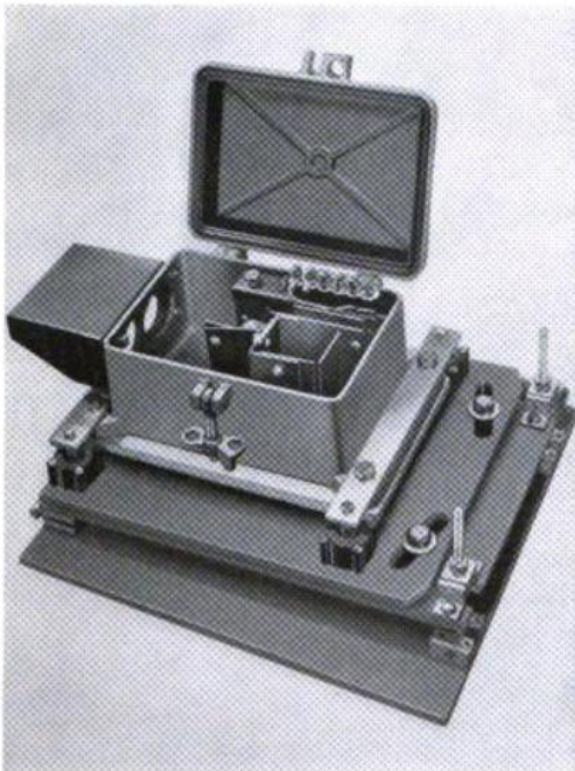
Response time is adequate to handle a one inch object at speeds from zero up to 100 mph. Separate systems are not required to detect fast and slow objects.

The transceiver is designed to operate a standard signal relay. A pulse lengthing circuit is employed, so that the detecting relay will not be energized for less than one second assuring adequate pick up time.

The transceiver is housed in a light weight weatherproof aluminum box. All interior parts are anodized aluminum and hardware is nickel plated. The transceiver is provided with adjustable mounting base for a flat surface. The reflector is equipped with mounting hardware for a four inch pipe.

Specifications

Specification	Clearance Detector
A. Input Power Requirements:	
1. Voltage	— 10-12 V DC nominal — 15.0 V DC max. — 8.0 V DC min.
2. Current	— 10.0 ma. max. less lamp & relay load — 1.8 A max. lamp load
B. Input Signal Requirements:	
1. Size	— a one inch wide object nominal — a two inch wide object max. — a half inch wide object min.
2. Duration	— .0005 sec. max.
3. Train speed	— no limit
C. Output Signal Characteristics:	
1. Load res.	— 200 ohms or greater relay
2. Load current	— 100 ma. max.
3. Duration	— one second pulse min. — relay will remain energized as long as beam is blocked.
D. Environment	— -40° F to +140° F
E. Lamp (signal precision)	
	— 10 V. — 18 watt — S 11 bulb — Sc base — 1¼ in. Lcl. — CC-6 filament
F. Transceiver (less base)	
	— length—17 in. — width—10 in. — Height—6½ in. — weight—14 lb.
G. Reflector	— 5½ in. diameter



The Transceiver for the RACO Clearance Detector CD-10 is shown on its adjustable shock resisting mounting base.

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