BELT PROTECTION UNIT

CTS 9000 IRRD

INFRA-RED BELT RIP DETECTION UNIT

OPERATIONS

AND

INSTALLATION MANUAL

INFRA-RED RIP DETECTOR
Tools Required For Installation:
The following tools are required for the installation of the belt misalignment unit:
1. Drill and extension.
2. ½ Inch Diameter Drill Bit.
3. 2 x 9/16 inch wrenches.
4. Adjustable Wrench.
5. 6mm flat screw driver.
6. 3mm flat screw driver.

Installation:
To install the CTS 9000 IRRD drill ½” holes into the conveyor structure matching the holes on the CTS 9000 IRRD base plate, place the CTS 9000 IRRD on the conveyor structure over the holes and bolt it down with supplied bolts. To connect the CTS 9000 IRRD, refer to the CTS 9000 IRRD Control Box Wiring Diagram, and connect a cable to the COM terminal and the N/O (Normally Open) or N/C (Normally Closed) contact depending on the application.

Operation:
If an object is protruding through the belt as it passes the CTS 9000 IRRD it will break the infrared beam and the unit will trip. If there is a longitudinal rip in the conveyor belt material will fall onto the catch plate which then builds up and breaks the infra-red beam causing the
unit to trip. When the unit trips the normally open contacts will close and the normally closed contacts will open or visa versa depending on which contacts are used. If the CTS 9000 IRRD is tripped and you wish to reset it, insure the rip in the conveyor belt has been fixed or the object has been removed from the belt. Once the problem, which caused the trip, is corrected, press the wash button and clear the catch plate of any material. Then reset the CTS 9000 IRRD by pressing the reset button. The DELAY TIME SELECTOR in the control box can set the time that the infrared beam must be broken to trip the unit. When the unit is tripped the lockout led will be illuminated and the trip led will be illuminated every time the infrared beam is broken.

**Maintenance:**
If the covers of the CTS 9000 IRRD are dirty and you wish to clean them without tripping the unit, press the wash button to disable the infra-red beam. The amount of time needed to clean the lenses or wash down the unit can be set using the SET WASH TIME selector in the control box. When the unit is in wash mode the wash led will be illuminated and the covers may be cleaned without tripping the unit. An audible alarm will sound for 30 seconds before the unit returns to normal working operation.

**Trouble-Shooting:**

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Is TRIP LED Illuminated? YES
  | Check All Connections and Power Source
  | Establish Reliable Power Source

Remove Covers from Send/Recieve Units
  | Does Unit Reset? YES
  | NO

Replace/Clean Lens Covers

Does Unit Reset? YES
  | Align/Replace Boxes
  | Are Beams/Boxes Misaligned (Inside Boxes) -Damaged-

Replace/Clean Lens Covers

Consult Factory

With Beam Obstructed, will Unit TRIP? NO
  | NO

With Beam Obstructed, will Unit TRIP? YES

Return Unit to Service

NO

NO
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**Maintenance Schedule:**

1. It is recommended that all nuts, bolts, screws and connections be checked and tightened every six months.
2. The unit does not require any lubrication.

**Standard Installation Dimensions:**

![Top View Diagram]

![Side View Diagram]

**Note:** The dimensions shown are standard dimensions and may be modified to meet the requirements of a specific application.

**Specifications:**
- Supply Voltage: 110/220 VAC
- Current Requirement: 1 Amp
- Contact Rating: 10 A – 250 VAC