

# TRAY COLLISION WARNING


**KIT, SMART TRAY COLLISION WARNING SYSTEM**

16186

**CONTROLLER TRAY COLLISION WARNING**

16212

## Purpose & Benefits

The Muirhead® Tray Collision Warning system, part number 16186, has been designed to provide an operator a visual and audible warning of an impending tray collision when operating in a height-restricted-working area.

Operating a haul truck underground or in a height restrictive area has always been a risky practice, if the operator gets distracted at the wrong time while dumping/tipping into an underground stockpile the tray could be raised into the roof causing damage to the machine or, causing the machine to become wedged and potentially destabilising the tunnel.

The Muirhead® Tray collision warning system alerts the operator when their tray is at risk of a collision, this then prompts the operator to pay greater attention to the trays position and to slow down or stop raising the tray. In many cases this warning alone can prevent costly damages to machines and infrastructure.

## Equipment Type





Predominantly aimed at Haul trucks, both underground and surface, however the system will work with any machine that has a raisable tray.

## Target Customer

The main customer for this product will be underground mines, but any customer that is dumping in a height restricted area would see a benefit from this product.

## Functionality

### Alarm States

1. When the machine is turned on and the tray is not raised, the device will be in an idle state.	 TRAY DOWN – OK
2. When the controller senses that the tray has been raised but the sensor does not detect any close obstructions, the display will show a visual alert to warn the operator that the tray is raised. The raised tray output will also become active. When the tray returns to the lowered position, the display will return to its idle state.	 STAGE 1 – AWARENESS
3. When the controller senses that the tray has been raised and that the sensor's first trip point has been reached (1 m by default), the display will change to the stage 2 warning and begin to flash. The audible alarm will also begin to pulse on and off. The alarm output will turn on, pulsing with the audible alarm. The tray raised output and stage 2 output will be on solid. When the sensor detects that the obstruction is no longer within this set distance, the display will revert to the stage 1 warning.	 STAGE 2 – COLLISION RISK
4. When the controller senses that the tray has been raised and that the sensor's second trip point has been reached (0.5 m by default), the display will change to the stage 3 warning and continue to flash on the screen. The audible alarm will remain sounding during this stage. The alarm, tray raised, stage 2, and stage 3 outputs will all remain on during this stage. When the sensor detects that the obstructions is no longer within this set distance, the display will revert to the stage 2 warning.	 STAGE 3 – STOP ESSENTIAL

### ADDITIONAL DOCUMENTS

PRODUCT ONLINE



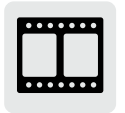
CUSTOMER DATASHEET



MANUAL



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# PRODUCT OUTLINE SHEET

## TRAY COLLISION WARNING

### Variations

None

### Key Features

- ▶ Simple and easy to install
- ▶ Three-stage visual and audio alert
- ▶ Compact and robust control panel design
- ▶ Can help prevent machine damage
- ▶ Surface or underground applications
- ▶ Ultrasonic sensor is programmable to customer requirements
- ▶ Optional warning and alarm switching outputs for customer convenience

### Parts List

PARTS LIST – QUANTITY SUPPLIED

PART #	DESCRIPTION	16186
16212	CONTROLLER TRAY COLLISION WARNING	1
16185	TRAY COLLISION WARNING LOOM	1
10323	ULTRASONIC SENSOR WITH ROCK COVER	1
<b>PROGRAMMING/SPARE PARTS</b>		
8322	PROGRAMMING LEAD	
6206	ULTRASONIC SENSOR	

### Quoting & Pricing

The kit does not come with the equipment required to customise the programming of the ultrasonic sensor, if the customer is not happy with the defaults they will require an 8322 to change it.

### Additional Documents

Item	Description	Document Number/Title
1	Datasheet	<a href="#">RCT-SBMH0721001EN-tray-collision-warning-system</a>
2	Product Manual	<a href="#">M1268</a>

# PRODUCT OUTLINE SHEET

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### Related Images

