# **AUTOMATION INDIA**

An ISO 9001: 2015 Company

Manufacturer of Safety Equipment Mining & Industrial

Dist.-Ramgarh, (Jharkhand) - 829122

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## Seat belt Reminder

A seat belt is a safety device used to secure the operator of a vehicle against a collision or a sudden stop. A seat belt functions to reduce causality or serious injury.

It is provided with covered spring loaded Reel and an Inertial Locking mechanism.

### **Special Features:**

#### 1. Seat Belt with covered inertial Reel:

Our Seat Belt is rolled on the spring loaded reel so that it can be pulled, slowly and gradually, when the operator is to fasten it. It will lock if pulled fast.

The seat Belt is rolled on the reel, which is properly covered when not in use. Therefore it is protected from dust and mud of the polluted environment of mines. If it is not covered like this, it will become dirty and operator may reluctant to use it.

#### 2. It is provided with Inertial Locking mechanism:

The purpose of Inertial Locking mechanism is to provide the Seated Operator some free movement in normal situation but stop the belt from extending during sudden pull in severe collision or sudden stop, and thereby restrains the Driver/Operator in position.

#### 3. It is provided with vehicle-sensitive lock:

A vehicle-sensitive lock is based on a pendulum swung away from its plumb position by rapid deceleration or rollover of the vehicle.

#### 4. It is important. How does it function?

The belt can be pulled from the reel slowly and gradually, when the occupant extends the belt to fasten it. A sudden rapid pull of the belt - as in a sudden braking or collision event - causes the reel to lock, restraining the occupant in position. The vehicle occupant can move around with relative freedom while the spring tension of the reel keeps the belt taut against the occupant. When the pendulum swings away from its normal plumb position due to sudden deceleration or rollover, a pawl is engaged, the reel locks and the strap restrains the belted occupant in position.

As per DGMS Circular No. 05 of 2010, 'Seat Belt Reminder' is necessary in every Vehicle deployed in mining area. Providing Seat Belt in the vehicle is not sufficient. Operator should also fasten it. It is therefore essential. If he forgets, a REMINDER with Visual Indicator should be provided to remind him.

**SEAT BELT WITH REMINDER**: Automation Controls has developed equipment named as "Seat Belt Reminder" which serve this purpose. If Operator forgets or does not fasten it, "Seat Belt Reminder" alert him with Visual Indicator and also remind him in Hindi.

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## **Special feature:**

The equipment reminds the driver to fasten the 'Seat Belt' in Hindi and also visually indicate through LED flash.

It reminds the driver if he does not fasten the seat belt after waiting for 15 seconds in Hindi for three times if driver do not respond, same reminder again continue after waiting for 30 Seconds. This process of reminding driver continue subsequently after interval of every one minute till either driver fasten the seat belt or he mute the equipment by pressing a button provided for this purpose.

In the seat belt reminder a button is provided, through which it can be mute or reset.

Reset - With ignition off or belt is removed the equipment is reset automatically. Wiring as shown an Alarm: RED: +24 V DC, Black: Ground, Blue: Seat Belt Wire

| Technical Specification of Seat Belt (Model: SBR-2010) |  |  |
|--|--|--|
| Functions  | A seat belt is a safety device used to secure the operator of a vehicle against a collision or a sudden  |  |
|  | stop. A seat belt functions to reduce causality or serious injury.   |  |
| Special Features                                       | 1 Seat Belt with covered inertial Reel:  |  |
|  | Our Seat Belt is rolled on the spring loaded reel so that it can be pulled, slowly and   |  |
|  | gradually, when the operator is to fasten it. It will lock if pulled fast.   |  |
|  | 2 It is provided with Inertial Locking mechanism:  |  |
|  | The purpose of Inertial Locking mechanism is to provide the Seated Operator some   |  |
|  | free movement in normal situation but stop the belt from extending during sudden pull  |  |
|  | in severe collision or sudden stop, and thereby restrains the Driver/Operator in position.   |  |
|  | 3. It is provided with vehicle-sensitive lock:   |  |
|  | A vehicle-sensitive lock is based on a pendulum swung away from its plumb position by rapid deceleration or rollover of the vehicle.  4. It is provided with pendulum: |  |
|  | When this pendulum swings away from its normal plumb position due to sudden  |  |
|  | deceleration or rollover, a pawl is engaged, the reel locks and the strap restrains the  |  |
|  | belted occupant in position.   |  |
| Protection   | The seat Belt is rolled on the reel, which is properly covered when not in use.  |  |
|  | Therefore it is protected from dust and mud of the polluted environment of mines. If it  |  |
|  | is not covered like this, it will become dirty and operator may reluctant to use it.   |  |
| Color  | Black  |  |

| Technical Specification of Seat Belt Reminder (Model: SBR-2010) |   |  |
|---|---|--|
| Functions   | If Operator forgets or does not fasten Seat Belt a REMINDER alert him with Visual Indicator and also remind him in Hindi                                    |  |
| Special Features  | <ol> <li>It is an Electronics gadget.</li> <li>It reminds Driver in HINDI (85 dB)</li> <li>Option of other language also if required in quantity</li> </ol> |  |
| Protection  | Withstand shocks & vibrations of heavy vehicles. Its electronic circuits and Speaker are sealed with the chemicals so that nothing can enter in it          |  |
| Voltage   | It operates on 24 Volts DC, (Optional 12 Volts DC also available against order)   |  |
| Current   | The maximum current consumption is 120 mA.  |  |

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| Facility to mute or | In the seat belt reminder a button is provided, through which it can be mute or reset |
|---------------------|---|
| reset               |   |
| Timer               | A Timer to reduce the Noise Pollution is also provided.                               |
| Color               | Black   |