

SMART REAR VIEW ALARM



**AUTOMATION
CONTROLS**

An ISO 9001 : 2015 Company

Model: "SRVA-30A", Part no.: 1524000081



While reversing HEMM like dumpers and tippers used in mining are not free of the possibility of hazardous accidents at the rear end. Several accidents have occurred in open cast mines while reversing equipment.

Director General Mines Safety has also observed that the maximum number of fatal accidents occur during reversing of Surface Transport Machineries in open cast mines, and to reduce accidents vide their circular No. / 04 of 2008". made it compulsory to install Audio Visual Alarm in every H.E.M.M. & Surface Transportation Machineries used in Mines.

We, being leading manufacturing organization for the safety products used in Mines, have developed and Manufactured Audio Visual Alarm cum Rear Vision System. **(SMART REAR VIEW ALARM)**

We hold the **ISO 9001:2008**, Quality Assurance certificate for our product range.

During reversing the Audio Visual Alarm cum Rear Vision System operates to give Alarm as well as visual indicator to the person standing behind the vehicle, and also with the help of Camera & Monitor delivers clear view of the rear to the operator and thereby achieves zero accident target for mining vehicles.

The System provide:

1. **Audio Visual Alarm :**
2. **LCD Monitor:** to provide good quality video picture in nearly pitch dark and poor weather conditions transmitted by camera on the monitor screen before the operator.
3. **Infra-Red Day & Night Camera:** to provide clear picture of the object situated at the rear side of vehicle, Infra-Red LED to provide sufficient illumination on the object to enable Camera to provide sharp & clear picture even in dark.
4. **Power Supply switching unit:** to provide power to the electronic circuit on the screen / Camera as soon as the reverse gear is applied.

Technical Specification of Audio Visual Alarm (AVA):

TECHNICAL SPECIFICATION:	
AUDIO	Dual Pizo-Buzzer, while reversing, delivering Alarm of 110 dB (measured at a distance of 1.2-meter distance) Two buzzer are arranged in such a way that if any fault occurs in one buzzer other will work without any interface.
VISUAL	Bright focus type Red LED (25 nos. of 5 mm size) blinks continuously while reversing emitting uniform light of 400 Lux. brightness.
VOLTAGE	Operates ideally on 24 Volt D.C. and 12 Volt D.C.
CURRENT	The maximum Current consumption is 150 mA
PROTECTION	Tested as per IP 67 & as per DGMS Circular No. 01 of 2010. The electronic circuits and buzzers are totally sealed by epoxy resin, so that nothing can enter in it. Our Audio Visual Alarm is 100% Water Proof. It even works after totally immersed in water. It does not have free space to accumulate ingress dust/water into its enclose.
TIMER	To reduce the noise pollution and also to protect the smart alarm, 2.5 minutes' timer is provided, which shut off alarm automatically (as per DGMS requirements).



Manufacturer of Safety Equipments as per D.G.M.S. Circulars
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Technical Specification of Rear Vision System (RVS):

DESCRIPTIONS	WITHOUT AUTO SHUTTER CAMERA
Image Device	1/3" SHARP CCD
TV System	PAL
Effective Pixels	512 x 582 Pixels
Sensing Area	4.9 mm x 3.7 mm
Sync. System	Internal
Resolution	420 TV Lines
Horizontal Sync Frequency	15.625 kHz
Vertical Sync Frequency	50 Hz
Video output	1.0 Vp-p, 75 Ohm
Day/Night sensor	08 Infra-Red LED for night vision
White Balance	Auto
Operating Temperature	-20°C~70°C, RH 95% MAX.
Waterproof rating	IP69K
Viewing Angle	120°
Minimum Illumination	0.1 Lux
Night vision distance	8~10m
Image mode	Mirror/Normal image switch
Plug	4 Pin lock connector

TECHNICAL SPECIFICATIONS OF MONITOR



Display device	Digital TFT-LCD
Screen Size	7" Wide Screen
Display Format	16:9
Pixel	800*480
Power Consumption	5W Max.
Power Supply	9-27 VDC
System	PAL/NTSC auto switch
Weight including stand	660 gm.
Mirror/normal image switch	Available
Dimensions (mm)	W 69m x H 132 mm x L 192 mm
Contrast	350:1

DIMENSIONAL DETAILS OF SMART REAR VIEW ALARM

DIMENSION	Length 175 mm, Height – 121 mm and Depth – 70 mm
WEIGHT	1248 grams approx..
COLOUR	Black powder coated

