

**Transworld**<sup>TM</sup>



**DIGITAL ELECTRONICS DIVISION**

# Mobile Eye AVL-2000

*USER MANUAL*

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Service Help Desk Telephone: +91 9960322240



## User Manual for AVL

**Revision: 1.04**

**Date: 20th Feb 2008**

**Reference: TW-PD-USM-1V01-AVLV04.DOC**

### Document History

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1.01	22 May 2007	Creation	Yuvraj Jadhav
1.02	23Nov 2007	Voice call Modification	Yuvraj Jadhav
1.03	28Jan 2008	Fleetview Functionality	Yuvraj Jadhav
1.04	20 Feb 2008	Fleetview Functionality	Yuvraj Jadhav

**PURPOSE:** The aim of this document is to provide complete information utility point of view of the product **Mobile Eye-2000 A/AP** to **TRANSWORLD** customers/users.

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## Part-I

### AVL Unit Installation

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**Chapter 1: Before Operating:**

**Warning:** This is a GSM/GPRS class-10 device. Standard safety precaution for the use of GSM devices must be followed. For the industrial use only. Not for consumer use.

**Mobile-Eye 2000A/AP brief introduction:** This is On Line Vehicle Tracking Device, gives ON LINE update of Vehicle position. This also gives real time tracking along with the violations committed on the route by the driver.

**I. Pre-Installation Inspection.****II. Recommendations.****I. Pre-Installation Inspection:** Be sure to read this section.

- Vehicle Battery must be in a fully charged condition.
- Cigarette Lighter must be in working condition (provided the supply is connected through the cigarette lighter).

**II. Recommendations:**

**Note:** This product is designed for indoor use only. Do not install in the following areas:

- Outdoors.
- In areas directly exposed to sunlight, high humidity , dust, extreme heat or extreme cold.
- In locations near fire equipment or emergency exits or any other places where it would be an obstacle in case of an emergency.
- An unstable and uneven surface.
- If possible connect the unit through the ignition supply.  
**Note:** Ignition supply connection will the give correct starting and stoppage status of the vehicle.
- Unit to be mounted at a location from where the LEDs are easily visible to the driver.
- Mounting of the GPS antenna should be done in such a way that it faces the sky.(On the section of vehicle with out any obstacles beside it/or close to the windshield inside the vehicle cabin).  
**Note:** For both, the antenna must have a clear line of sight with the sky with no obstacles or blockages.
- After installation please ensure that all wires are properly dressed up and tied through cable ties wherever needed. Also check the connection to avoid any sparks due to loose connections.

## Chapter 2: Getting started

- I. Package Contents
- II. Specifications
- III. Components of the AVL Unit

### I. Package Contents:

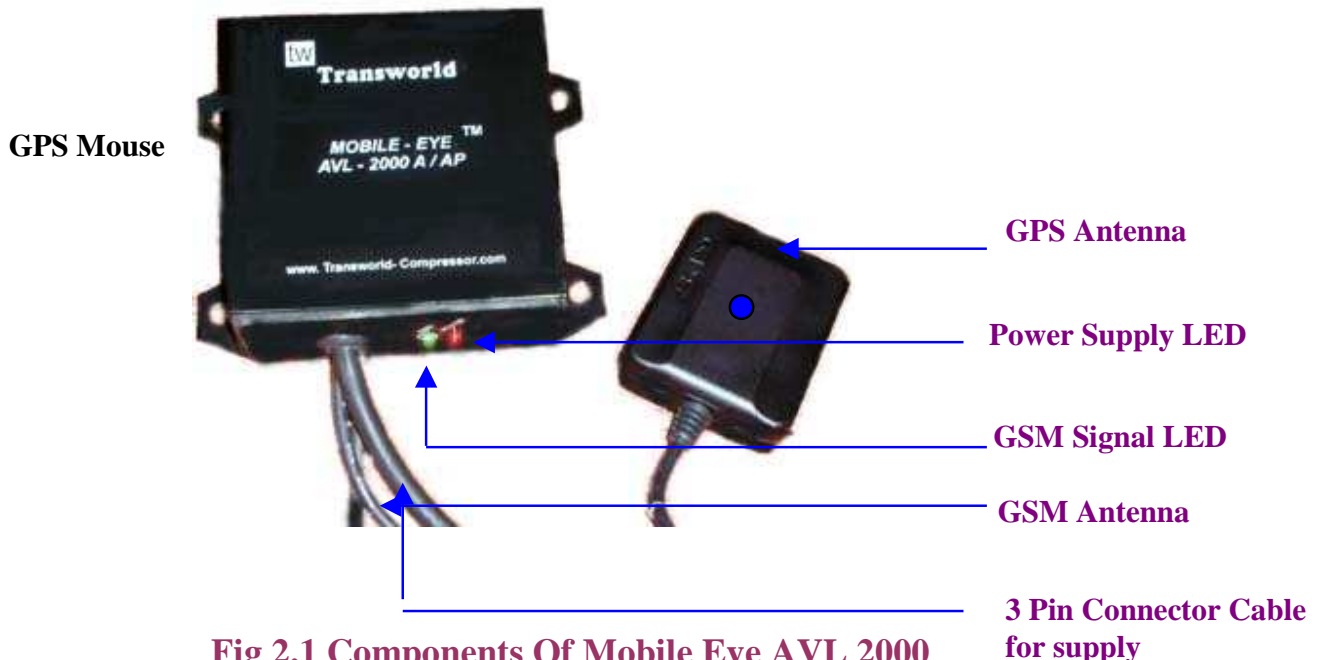
#### One Pack of an AVL Unit Contains:

- 1 no : AVL Unit with GPS and GSM antenna.
- 1 no : Power Cable (With 3 Pin Connector at one end and 2 Lugs at other )
- 6 nos. : Mounting Screws.

### II. Specifications:

- 1. Power Supply : 12 V DC to 24 V DC.
- 2. Total Current : 100 mA to 700 mA.
- 3. Dimension : 80 mm (w) \* 85 mm(d) \* 30 mm(h).
- 4. Weight : 750gm.
- 5. Supplied accessories : Harness.

### III. Components of the AVL Unit:



**Fig 2.1 Components Of Mobile Eye AVL 2000  
(Non-voice type)**

**Fig.2.2 Mobile-Eye 2000 with communication panel (Voice type)**



**Fig.2.3 Mobile-Eye 2000 with communication panel (Non-Voice type)**



### Chapter 3: Unit Installation Procedure

- I. Vehicle Mounting of AVL Unit.
- II. Power Supply Connection with Unit.
- III. Power Cable Laying.
- IV. Mounting of GPS Antenna.
- V. Confirming Correct Installation.

#### I. Vehicle Mounting of AVL :

**Step 1:** Mount the AVL unit on the dash board .At the desired position drill holes as per alignment of the mounting holes.

**Step 2:** Tighten the screws properly and ensure that unit is properly Mounted and secure.(It should not shake & be loose) .

**Step 3:** Connect the earthing wire to the body of the Vehicle.

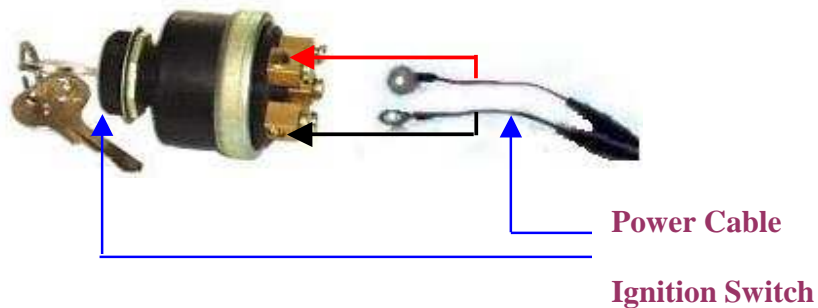


**Fig 3.1 Mounting Of AVL Unit**



## II. Power Supply Connection:

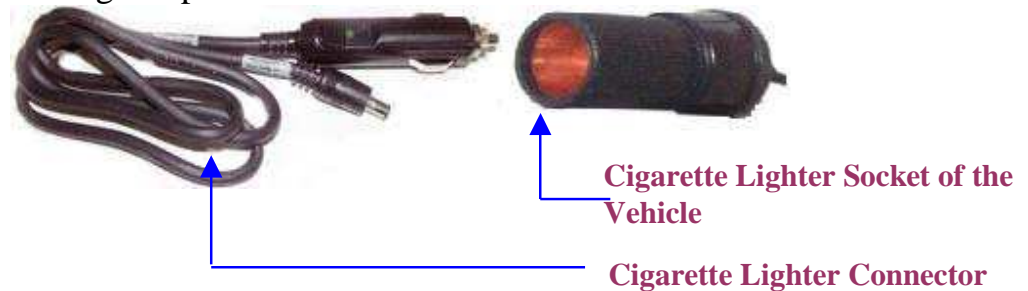
- ❖ The unit is designed to work on 12 V DC & 24 V DC.
- ❖ If the unit is to be connected through the Ignition :
  - Connect lugs provided with the cable to the wire drawn via the ignition.



**Fig 3.2 Ignition Switch Supply Connection to AVL Unit**

OR

- ❖ If the unit has come with the provision of power from the cigarette lighter jack, then just insert the connector to cigarette lighter point on the vehicle dashboard.



**Fig3.3 Cigarette Lighter Connection with Car cigarette socket**

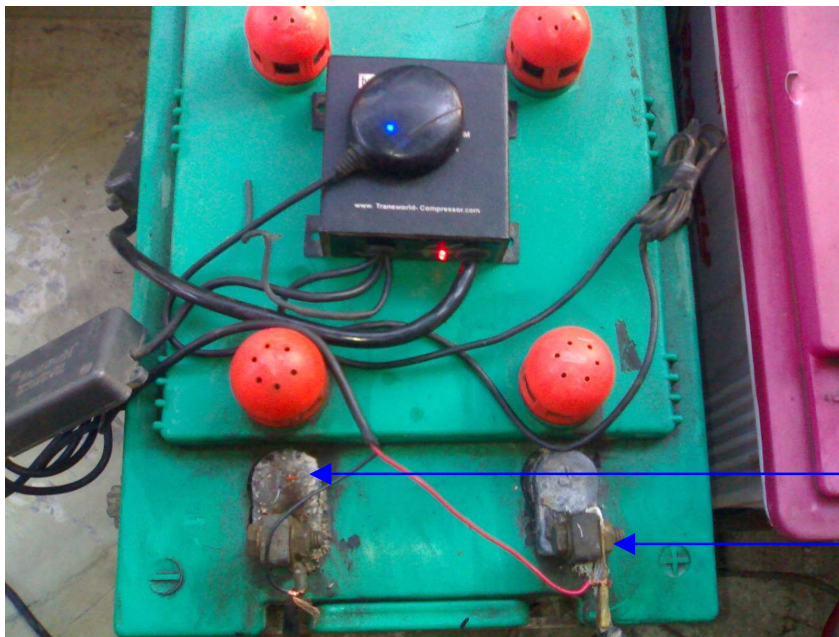
**Note :**

- **If the RED LED is on:** Indicates that the unit is connected with supply.
- **If the GREEN LED is blinking:** Indicates that the unit is registered with GSM Network.
- **If the BLUE LED of the GPS Antenna is continuously glowing(Stable) :**Indicates that the connection between the unit and satellite is established.



➤ **Battery Connection :**

AVL unit also powered on by connecting it through directly battery as shown below. This unit is designed to use at 12 V or 24 V. Open end connection of the wire is connected at the respective ends +ve end(red wire) and negative end (black wire)



**BLACK wire  
-ve connection**

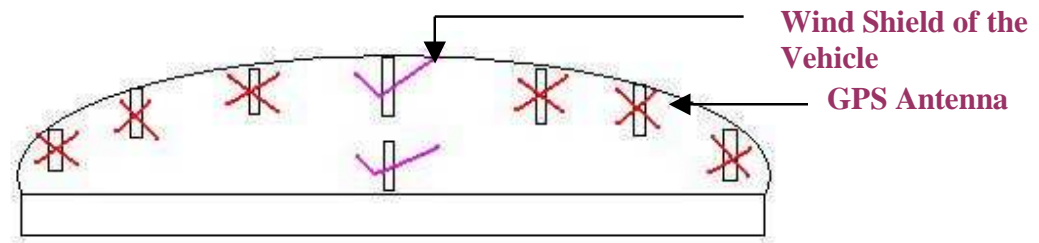
**RED wire +ve  
connection**

**Fig. 3.3: Direct Connection unit with open end wire to battery**

**III. Power Cable Laying :**

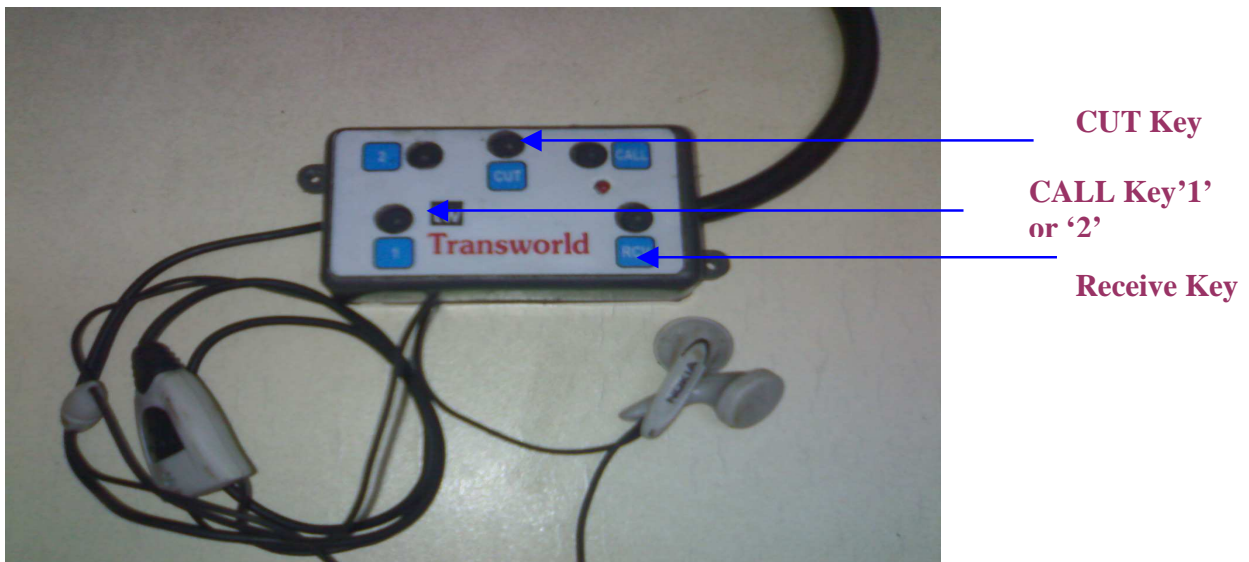
- ❖ Lay the Power cable from the Battery/Cigarette Lighter to the AVL unit, dress the cable properly use cable ties for clamping the cables. follow the vehicle harness route to the cables.

#### IV. Mounting of GPS Antenna:



**Fig 3.4 . Mounting of GPS Antenna inside the Vehicle**

- Mount the GPS antenna in the middle of the dashboard close to windshield of the vehicle or Mount the GPS antenna at the top of the vehicle's roof without
- Functionality Of Communication Panel:
  - 1] During Incoming Call user can pick up call by pressing key 'RCV'
  - 2] To end the call press 'CUT' key of communication panel.
  - 3] When user want to call from Mobile -Eye unit have to press key '1' or '2'.



**Fig.3.4 Communication Panel**

## **V. Checking Installation :**

- ❖ **Switch on the Vehicle:** AVL unit Power LED Red will turn ON and the GSM LED Green will start blinking (This shows that the unit is Functioning properly and connections are OK).
- ❖ This means that the unit is installed properly and it is functioning OK. If there is no GSM/GPRS network available then the GSM LED Green will remain continuously ON.
- ❖ If GSM/GPRS network is available, keep the unit On for the transmission interval set, check in the control center if the location data is received.
- ❖ Now the vehicle can be sent for a trial run.

## **Chapter 4. Trouble Shooting Guidelines**

- ❖ **Power LED RED of Unit is OFF: (No power supply to AVL)**
  - Check whether the power connector (3 pin auto connector) is connected properly.
  - Check for loose contact at the connector (3 pin auto Connector).
  - Check the connection at the battery terminal/Cigarette Lighter.
  - Check the Fuse (there are 2 fuse one in +ve line and other in -ve line)
  - If the fuse is blown, replace it (1 Amp 20mm Length).
  - If the problem is still persists contact our service center:
- ❖ **GSM LED Green doesn't Blink :**
  - Due to the non availability of the GSM/GPRS Network, will automatically resume once it comes within range.
- ❖ **GPS Antenna's LED Blue Blinking/ Not Stable :**
  - Put the GPS antenna at a place without any obstacles besides it.
  - If Possible place the antenna in the middle of the dashboard close to the windshield.

## FLEETVIEW FUNCTIONALITY

Fleetview 1.01 Online

Web Site.

Type www. FleetView.in in address bar of Internet Explorer.(Use Internet Explorer 6 or higher versions)

You will get the login form. Enter the User name and password to log in inside.

You will get the latest locations of all vehicles.

The screenshot shows the Transworld FleetView web application interface. The header includes the Transworld logo and navigation links: HOME, ABOUT US, CONTACT US, WELCOME : twdemo, and LOGOUT. Below the header, there are radio buttons for 'Current' and 'History', and input fields for 'From Date' and 'To Date'. A 'Show' button is located next to these fields. The main content area displays a map of India with a vehicle location marked. A list of vehicle details is visible on the left side of the map. Annotations with blue arrows point to specific features: 'Enter date from which you want the data' points to the 'From Date' field; 'History button' points to the 'History' radio button; 'Click on the 'Show' button to view the Journey' points to the 'Show' button; and 'Click on the 'Report' button will show you summary & exception' points to the 'Report' button.

This snap shows current location of the vehicle and its status.

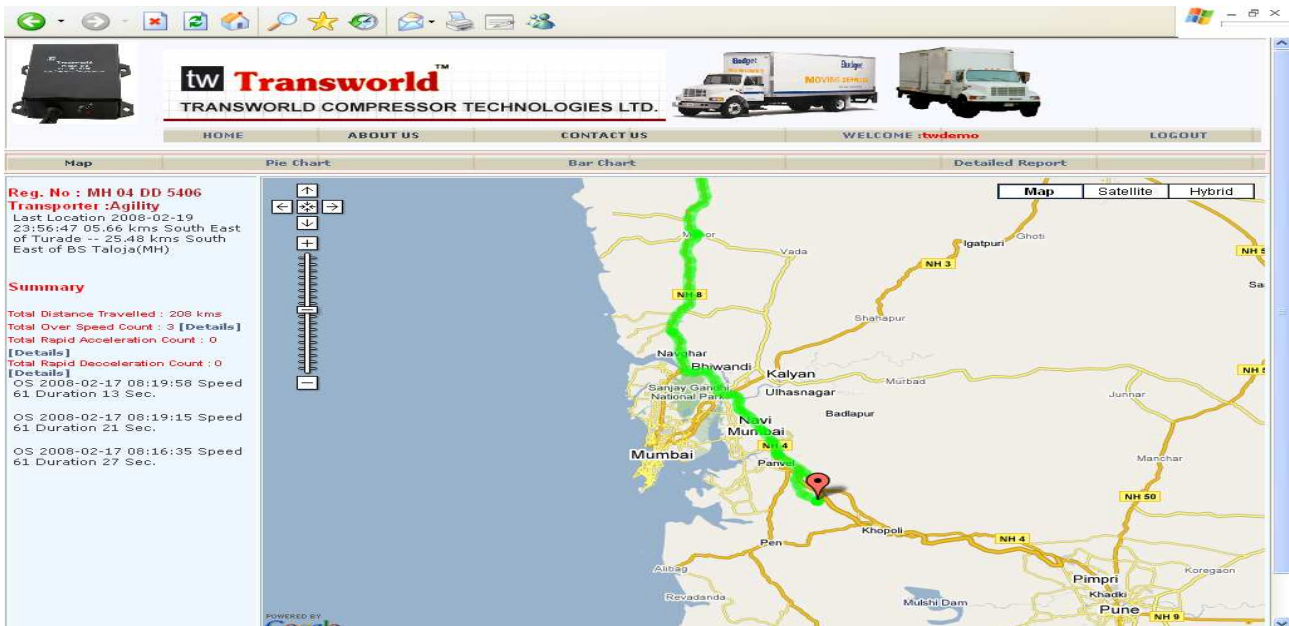
Click on the vehicle details to show it on google map.

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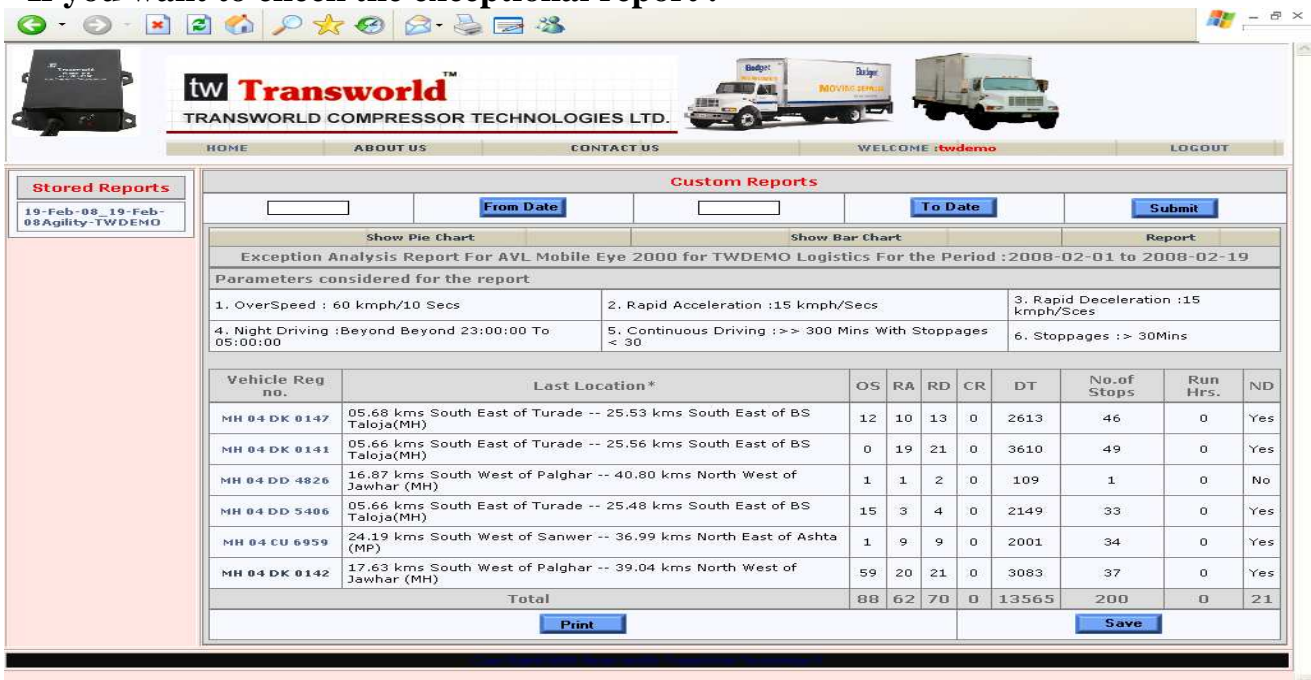
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To View History Select History Option and enter the date range and Click Show Button. You will get the path followed by the vehicle with details including violations in left side of map. Click on history button to get the summary of history journey.



If you want to check the exceptional report .



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Data for the journey is observed as below.

2008-02-20 03:03:19	0	0	05.66 kms South East of Turade -- 25.48 kms South East of BS Talaja(MH)
2008-02-20 03:08:20	0	0	05.66 kms South East of Turade -- 25.48 kms South East of BS Talaja(MH)
2008-02-20 03:13:20	0	0	05.66 kms South East of Turade -- 25.48 kms South East of BS Talaja(MH)
2008-02-20 03:18:20	0	0	05.66 kms South East of Turade -- 25.48 kms South East of BS Talaja(MH)
2008-02-20 03:23:20	0	0	05.66 kms South East of Turade -- 25.48 kms South East of BS Talaja(MH)
2008-02-20 03:28:20	7	0	05.67 kms South East of Turade -- 25.47 kms South East of BS Talaja(MH)
2008-02-20 03:33:20	42	3	02.71 kms South East of Turade -- 23.12 kms South East of BS Talaja(MH)
2008-02-20 03:38:20	43	6	09.67 kms North East of Karja -- 20.97 kms South East of BS Talaja(MH)
2008-02-20 03:43:20	45	10	07.67 kms South East of PANVEL -- 17.55 kms South East of BS Talaja(MH)
2008-02-20 03:48:20	11	12	06.19 kms South East of PANVEL -- 15.05 kms South East of BS Talaja(MH)
2008-02-20 03:53:20	45	16	07.37 kms South East of PANVEL -- 15.09 kms South East of BS Talaja(MH)
2008-02-20 03:58:20	0	16	07.12 kms South East of PANVEL -- 14.85 kms South East of BS Talaja(MH)
2008-02-20 04:03:20	0	16	07.12 kms South East of PANVEL -- 14.85 kms South East of BS Talaja(MH)
2008-02-20 04:08:20	4	16	06.74 kms South East of PANVEL -- 14.45 kms South East of BS Talaja(MH)
2008-02-20 04:13:20	45	19	04.61 kms South East of PANVEL -- 12.41 kms South East of BS Talaja(MH)
2008-02-20 04:18:20	48	22	02.47 kms South West of PANVEL -- 09.49 kms North East of BS Talaja(MH)
2008-02-20 04:23:20	48	26	17.99 kms South East of Trombay -- 08.42 kms North East of BS Talaja(MH)
2008-02-20 04:28:20	43	30	14.66 kms South East of Trombay -- 10.53 kms North East of BS Talaja(MH)
2008-02-20 04:33:20	9	34	11.51 kms South East of Trombay -- 10.14 kms South East of Thane (MH)
2008-02-20 04:38:20	54	37	09.98 kms South West of Trombay -- 13.14 kms North East of BS Talaja(MH)
2008-02-20 04:43:20	45	41	12.77 kms North East of BS Talaja(MH)
2008-02-20 04:48:20	35	44	01.40 kms North East of Thane (MH)
2008-02-20 04:53:20	24	47	10.85 kms North West of Kalyan (MH)
2008-02-20 04:58:20	46	50	13.40 kms North West of Kalyan (MH)
2008-02-20 05:03:20	3	52	15.47 kms North West of Kalyan (MH)
2008-02-20 05:08:20	40	55	15.01 kms North East of Ulhasnagar (MH)
2008-02-20 05:13:20	45	58	15.08 kms North West of Ulhasnagar (MH)
2008-02-20 05:19:18	43	62	01.03 kms South West of THANA -- 14.27 kms North West of Ulhasnagar (MH)
2008-02-20 05:24:18	38	66	03.91 kms North West of THANA -- 16.58 kms North West of Ulhasnagar (MH)
2008-02-20 05:29:18	52	70	12.70 kms North East of BHIWANDI -- 20.23 kms North West of Ulhasnagar (MH)
2008-02-20 05:34:18	33	73	15.35 kms South East of VASEI -- 22.00 kms North West of Ulhasnagar (MH)
2008-02-20 05:39:18	5	75	13.93 kms South East of VASEI -- 23.43 kms North West of Ulhasnagar (MH)
2008-02-20 05:44:18	40	76	13.11 kms South East of VASEI -- 24.08 kms North West of Ulhasnagar (MH)

Daily summary for the report is observed as below.





  
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Exception Analysis Report For AVL Mobile Eye 2000 For TWDEMO Logistics - MH 04 CU 6959 For The Period : 2008-02-01 to 2008-02-19

Date	OS	RA	RD	CR	ND	Distance Traveled	Location at EOD *	No.Of Stops
2008-02-06	0	0	0	0	No	51	09.87 kms North East of PANVEL -- 19.71 kms South East of Thane (MH)	5
2008-02-07	0	0	0	0	No	12	10.85 kms South West of Trombay -- 08.28 kms South East of Thane (MH)	0
2008-02-08	0	0	0	0	No	22	08.08 kms South East of PANVEL -- 16.08 kms South East of BS Thaloja(MH)	1
2008-02-09	0	3	2	0	No	285	02.43 kms North East of Jhodge -- 22.09 kms South West of Dhule (MH)	2
2008-02-10	0	0	0	0	No	221	12.27 kms South West of Manpur (MP)	3
2008-02-11	0	1	0	0	No	107	06.97 kms North East of DEWAS -- 43.29 kms North East of Ashta (MP)	2
2008-02-12	0	0	0	0	No	0	06.97 kms North East of DEWAS -- 43.29 kms North East of Ashta (MP)	0
2008-02-13	0	0	0	0	No	11	06.97 kms North East of DEWAS -- 43.29 kms North East of Ashta (MP)	2
2008-02-14	0	1	0	0	No	161	03.79 kms North East of Julwania -- 36.53 kms North East of Maheshwar (MP)	2
2008-02-15	0	1	2	0	Yes	412	16.28 kms North East of Igatpur (MH)	3
2008-02-16	1	0	0	0	Yes	95	19.76 kms South East of Trombay -- 08.53 kms North East of BS Thaloja(MH)	8
2008-02-17	0	1	3	0	No	287	02.47 kms North East of Jhodge -- 22.04 kms South West of Dhule (MH)	4
2008-02-18	0	1	1	0	No	216	12.29 kms South West of Manpur (MP)	2
2008-02-19	0	1	1	0	No	121	24.19 kms South West of Sanwer -- 36.99 kms North East of Ashta (MP)	0

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**Stored Reports**  
19-Feb-08\_19-Feb-08Agility-TWDEMO

**Custom Reports**

From Date: [ ] To Date: [ ] Submit

Show Pie Chart Show Bar Chart Report

Exception Analysis Report For AVL Mobile Eye 2000 for TWDEMO Logistics For the Period : 2008-02-01 to 2008-02-19

Parameters considered for the report

1. OverSpeed : 60 kmph/10 Secs 2. Rapid Acceleration :15 kmph/Secs 3. Rapid Deceleration :15 kmph/Secs  
4. Night Driving :Beyond Beyond 23:00:00 To 05:00:00 5. Continuous Driving :>> 300 Mins With Stoppages < 30 6. Stoppages :> 30Mins

Vehicle Reg no.	Last Location *	OS	RA	RD	CR	DT	No.of Stops	Run Hrs.	ND
MH 04 DK 0147	05.68 kms South East of Turade -- 25.53 kms South East of BS Talaja(MH)	12	10	13	0	2613	46	0	Yes
MH 04 DK 0141	05.66 kms South East of Turade -- 25.56 kms South East of BS Talaja(MH)	0	19	21	0	3610	49	0	Yes
MH 04 DD 4826	16.87 kms South West of Palghar -- 40.80 kms North West of Jawhar (MH)	1	1	2	0	109	1	0	No
MH 04 DD 5406	05.66 kms South East of Turade -- 25.48 kms South East of BS Talaja(MH)	15	3	4	0	2149	33	0	Yes
MH 04 CU 6959	24.19 kms South West of Sanwer -- 36.99 kms North East of Ashta (MP)	1	9	9	0	2001	34	0	Yes
MH 04 DK 0142	17.63 kms South West of Palghar -- 39.04 kms North West of Jawhar (MH)	59	20	21	0	3083	37	0	Yes
Total		88	62	70	0	13565	200	0	21

Print Save

Click on Vehicle No. to list the Detailed Exceptions for the particular vehicle shown below

RAPID ACCELERATION for Vehicle MH 04 CU 6959 On Date : 2008-02-09 Variation of Speed >= 15 kmph/Secs

Time	Speed Variation	
	From	To
15:52:33	38	57
18:57:13	35	54
18:59:37	34	54

Print Save



## **Contact Details :**

### **TRANSWORLD-COMPRESSOR TECHNOLOGIES LTD.**

<http://www.Mobile-Eye.in>  
<http://www.Transworld-Compressor.com>

#### **SALES:**

TRANSWORLD-COMPRESSOR TECHNOLOGIES LTD.

C-3/8,Rakshalekha,Koregaon Park, Pune-411001.INDIA

Tel.: +91-20-26131676 Fax: +91-20-26139599

Sales@ Transworld-Compressor.com

Contact: Ms. Juliet Fernandes (Sr. Manager-Commerce)

Cell: +91 9890644153

#### **SERVICE HELPDESK:**

1. Help desk Telephone: **+91 9960322240**

2. Mr. Santosh Jambhalkar, Team Leader (Service)

Cell: +91 9370716711 S\_Jambhalkar@Transworld-Compressor.com

3. Mr. P.K. Bansal, General Manager (Operations and Services)

Cell: +91 9890402592 P\_Bansal@Transworld-Compressor.com

