

STANDARD OPERATING PROCEDURE FOR VEHICLE LOCATION TRACKING (VLT) REGISTRATION & ACTIVATION IN VAHAN



ISSUED BY
TRANSPORT DEPARTMENT
GOVERNMENT OF MIZORAM



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Transport Department, Government of Mizoram
Standard Operating Procedures for Vehicle Location Tracking (VLT)
registration and activation in VAHAN

1. Introduction

The Standard Operating Procedure (SOP) specifies the operational procedure, prerequisites, and other details for compliance as per AIS-140 Standard for Vehicle Location Tracking registration and activation in VAHAN / State Registration Application.

2. Background

As part of the scheme, MoRTH intends to support States/ UTs in implementation of the Vehicle Tracking Platform as per AIS-140 specifications under Nirbhaya Framework.

As per MoRTH S.O 5453 (E) dated October 25th, 2018, the installation of Vehicle Location Tracking Device and Emergency button on the public service vehicle shall be done as follows: -

- The VLT device manufacturer/OEM dealer/Authorised dealer should get their device tested from any of the testing agencies referred to in Rule 126 of the Central Motor Vehicles Rules (CMVR), 1989¹
- The States/ UTs shall ensure compliance to Rule 125H of Central Motor Vehicles Rules, 1989 and check fitment and functional status of the VLT device in the public service vehicles at the time of fitness certification of the vehicle.
- The VLT device manufacturer/OEM dealer/Authorised dealer using its secured authenticated access shall upload the details of each VLT device on the VAHAN along with details of vehicle on the corresponding Monitoring Center in real-time.
- The authorised dealer of the VLT device manufacturer/OEM dealer/Authorised dealer shall enter the Unique Identification number in VAHAN for the purposes of linking the VLT device to the specific public service vehicle. In case the public service vehicle manufacturer installs the VLT device, then the vehicle manufacturer shall undertake the above process.
- District Transport Offices shall verify the unique identification number of VLT device at the time of fitness testing.

¹ Rule 126 of Central Motor Vehicle Rules, 1989(CMVR) mandates that every manufacturer of motor vehicles other than trailers and semi-trailers requires to submit the prototype of the vehicle to be manufactured by him for test by any of the agencies

specified therein for granting a certificate to the compliance of the provision of the Central Motor Vehicle Act, 1989 and Central Motor Vehicle Rules, 1989

² Rule 125H of the Central Motor Vehicle Rules (CMVR) 1989 mandates the installation of Vehicle Location Tracking (VLT) device and emergency button for the new public service vehicle registered after 1st January 2019. This rule is not applicable for two wheelers, e-rickshaw, three-wheelers and any transport vehicles for which permit is not required under the Motor Vehicle Act, 1988. VLT device manufacturers will have to get their devices tested and certified from the testing agencies referred to in rule 126 of the CMVR for compliance with the rule 125H of CMVR

These Guidelines were detailed in Annexure C of Nirbhaya scheme published by MoRTH:

3. General Guidelines for Implementation of State-wise Monitoring Center for VLT devices as per AIS-140

- i. The specified public service vehicle owners have to ensure that the VLT devices installed in their vehicles are in working condition and regularly send Vehicle Private, Health Monitoring, Emergency and Login data to the corresponding Monitoring Center through cellular connectivity.
- ii. The specified new public service vehicles shall not be registered in the State/UT, if the vehicles are not equipped with or fitted with vehicle location tracking device and one or more emergency buttons, in compliance with the CMVR 1989.
- iii. The Unique Identification number and others details of each VLT device shall be uploaded in the VAHAN by the Vehicle manufacturer or its authorized agency, in case of New Vehicles using their secured authenticated access. The Unique Identification number of VLTD shall be tagged to vehicles details (Engine no. /Chassis Number) in VAHAN for the purpose of linking the VLT device to the specific public service vehicle. For the registration of new PSV in VAHAN, the VLTD shall be activated and functional and the Unique ID of VLTD shall be tagged to the vehicles in VAHAN.
- iv. In case of retro-fitment in vehicles, the VLT device manufacturer/OEM dealer/Authorised dealer shall install the VLT devices in public service vehicles and register the devices along with Unique Identification number and other details on VAHAN and the corresponding Monitoring Center systems in real-time.

- v. The State/UT shall enforce fitment/functional status of device at the time of registration/ permit issuance/ renewal/ fitness check of the vehicle in VAHAN or the respective state vehicle registration/ permit system and the State/UT Monitoring System.
- vi. The VLT device shall be activated on the Monitoring Center as per the process set out in AIS 140 and the functional status shall be updated in VAHAN / State Registration Backend of the State.
- vii. The State/UTs shall ensure compliance to rule 125 H of Central Motor Vehicles Rules, 1989 and check fitment and functional status of the VLT device in the public service vehicles at the time of checking of the vehicles for fitness certification in VAHAN and State/UT Monitoring Center.

4. Standard Operating Procedure (SOP) for VLT Device Registration and Activation

4.1. Pre-Requisites of VLT Device Registration and Activation

- i. The VLT device manufacturer/OEM dealer/Authorised dealer should get their devices tested from any of the testing agencies referred to in rule 126 of the Central Motor Vehicles Rules, 1989
- ii. VLT devices shall be tested for conformity of production every year after the first certification, from the testing agencies referred to in rule 126 of the Central Motor Vehicles Rules, 1989
- iii. The testing agencies shall upload the details of the VLT devices certified by them on the VAHAN database. Testing agencies shall also update the status relating to the Conformity of Production (CoP) on the VAHAN / State Registration Application
- iv. Approved VLT Device manufacturer shall empanel to the State of Mizoram by submitting application in the prescribed format as in Annexure to Transport Department, Govt of Mizoram.

4.2. VLT Device Registration and Activation in Case of New Vehicles

- i. VLT device registration & activation on VAHAN for new vehicles shall be carried out by vehicle manufacturers or their authorised agencies.
- ii. NIC will provide credentials of all vehicle manufacturers on VAHAN for VLT device registration and activation. The VAHAN will have facility for the vehicle

manufacturers to create their authorised agencies to carry out VLT device registration and activation on their behalf.

- iii. The Vehicle manufacturer or its authorized agency, using its secured authenticated access will upload the following details of VLT devices on VAHAN.
 - VLTD Make & Model
 - Unique Identification Number of VLTD
 - IMEI number
 - ICCID number
- iv. At the time of tagging of VLTD on a vehicle, the Vehicle manufacturer or its authorized agency will tag/link the VLTD with the corresponding vehicle details (Engine no. /Chassis Number) in VAHAN / state registration application.
- v. Only those VLT Devices registered as per 4.2.3 will be allowed to be tagged against the vehicle type and model.
- vi. The vehicle manufacturer will ensure that the VLTD has an active cellular plan with minimum two years validity at the time of registration of vehicle.
- vii. The Vehicle manufacturer or its authorised agency will upload the details of VLTD on State monitoring center as per the following steps. The Vehicle manufacturer or its authorised agency will enter the Unique Identification number of VLTD and the State monitoring center will pull the corresponding details of VLTD and vehicle from VAHAN.
- viii. The Vehicle manufacturer or its authorised agency will enter the following details on State monitoring center-
 - Model Code
 - M2M Service Provider details
 - Sim Details (Mobile Numbers, International Mobile Subscriber identity (IMSI))
 - Vehicle Details (Vehicle Type, Make, Model)
 - Permit Holder Details (Name of Permit holder, number of Permit holder)
- ix. The State monitoring center will ensure that VLTD connected and sending data as per communication protocol AIS-140.
- x. The State monitoring center will check the Sim Validity (24months) with M2M/Telecom service provider.
- xi. The State Monitoring Center will ensure that VLTD is sending the health status as per AIS-140 to the State Monitoring Center.
- xii. The State Monitoring Center will ensure that Device responds to activation command sent by the State backend as per AIS-140 and the VLT device manufacturer/OEM dealer/ Authorised dealer updates the OTP send to permit holder.

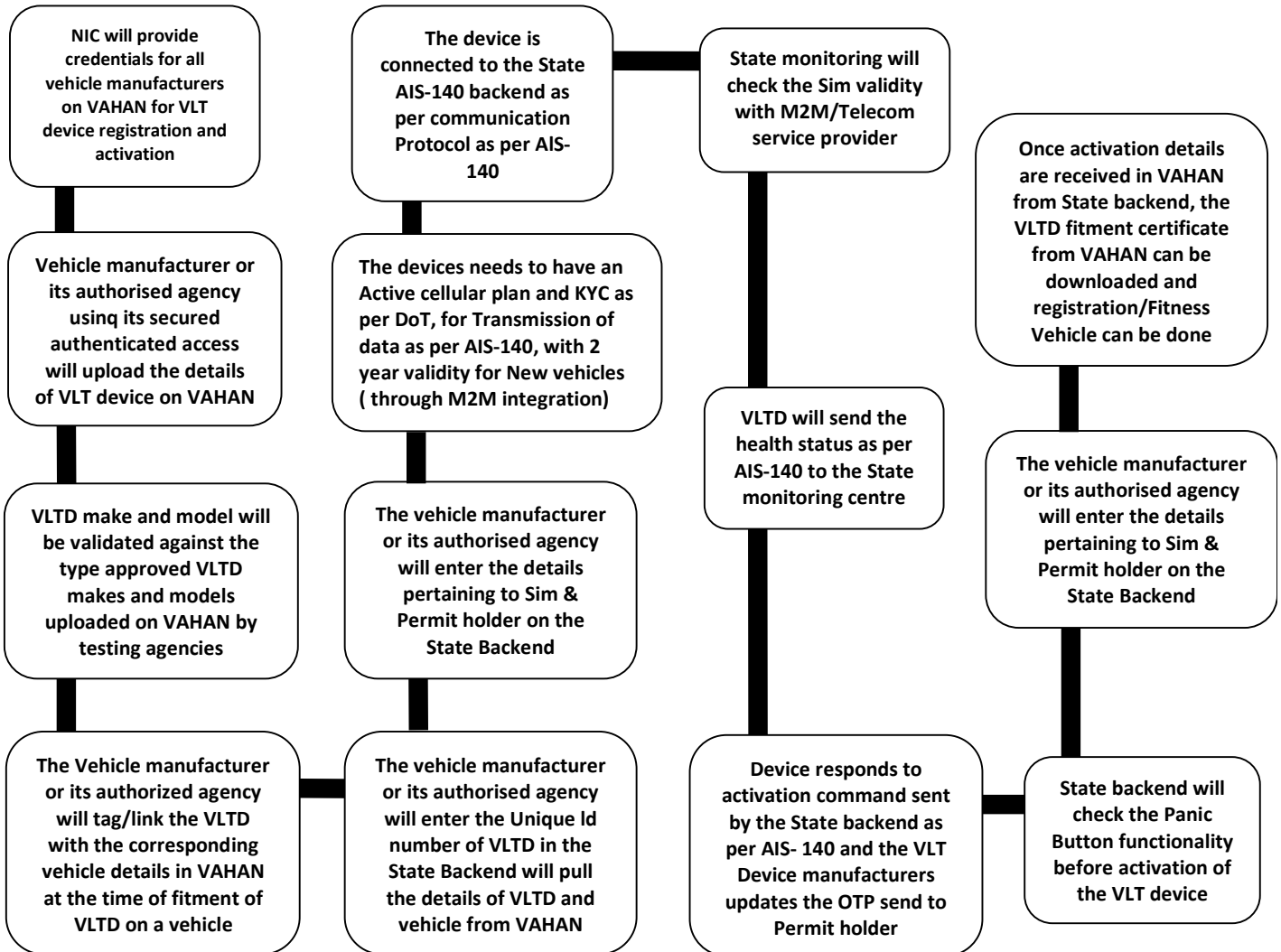
- xiii. The State Monitoring Center will check the Panic Button functionality as per AIS-140 before activation of the VLT device.
- xiv. State Monitoring Center will update activation details/health status of the VLTD in VAHAN/ State Registration Software
- xv. Once activation details are received in VAHAN from State AIS-140 backend/Common layer, the VLTD fitment certificate from VAHAN can be downloaded and registration/Fitness of Vehicle can be processed.
- xvi. The specified public service vehicle owners have to ensure that the VLT devices installed in their vehicles, are in working condition and regularly send required data to the corresponding state Monitoring Center through cellular connectivity.
- xvii. After obtaining VLTS Fitment Certificate, if any issue arises regarding the installation of VLTD, VLT Device Manufacturer/authorised dealer shall informed the Command-and-Control Center to rectify the problem
- xviii. If there is any requirement to re-install or alter the fitment of VLTD, Command and Control Center should be notified beforehand and request for clearance by the VLTD device manufacturer/authorised dealer.

Note:

The backend should be tested by the testing agency referred to in rule 126 of the Central Motor Vehicles Rules, 1989 to check the compliance as per AIS-140

Standard Operating Procedures for Vehicle Location Tracking (VLT) registration and activation in VAHAN

Process flow for Vehicle Registration (in case of New Vehicles)



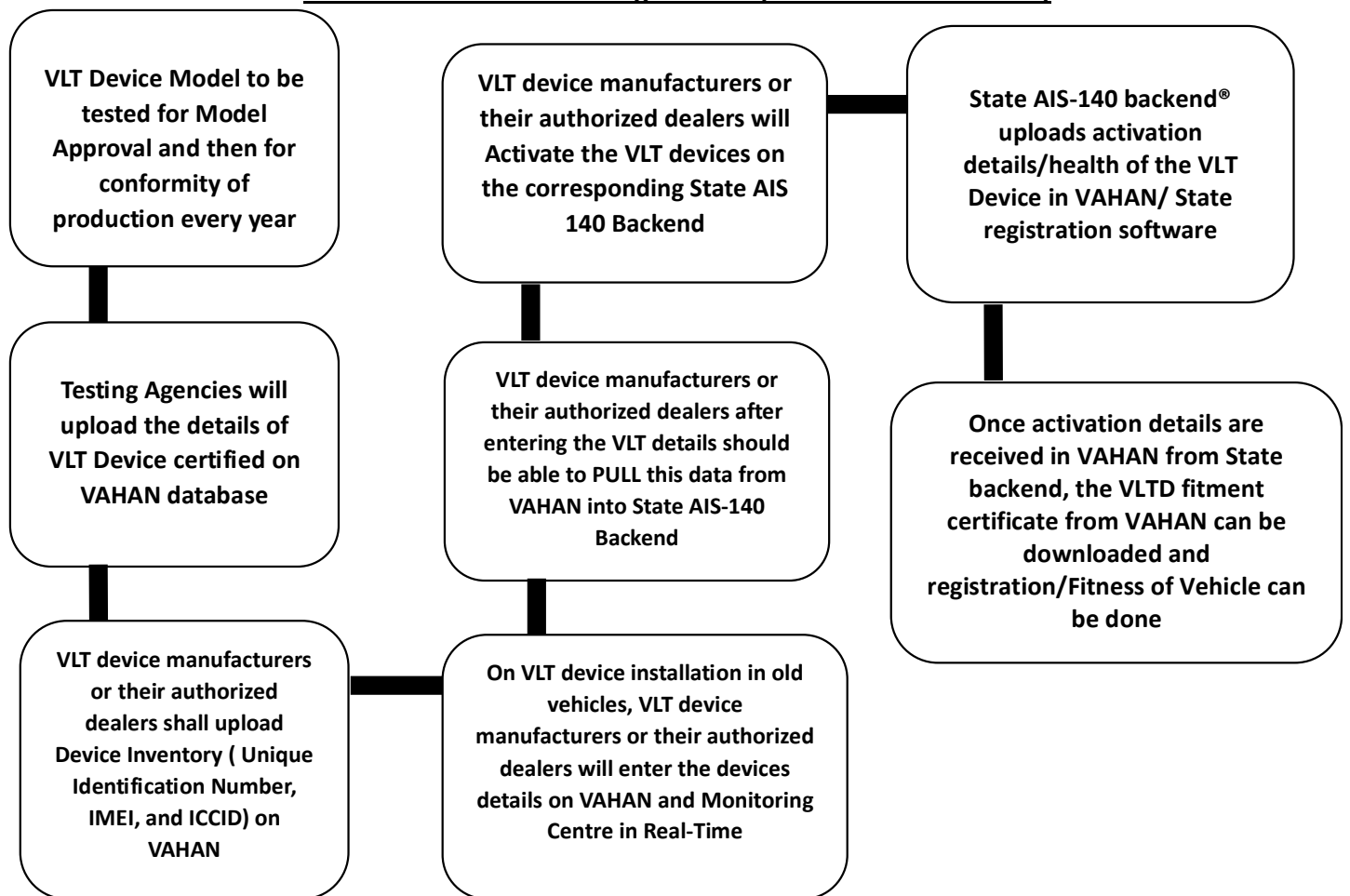
4.3. SOP for VLT Device Registration and Activation in Case of Old Vehicles

- i. In case of retro-fitment in vehicles, the VLT device manufacturers or their authorized dealers shall install the VLT devices in public service vehicles and register the devices along with Unique Identification number and other details on VAHAN and the State Monitoring Center in real-time.
- ii. The State/UT shall enforce fitment/functional status of device at the time of registration/ permit issuance/ renewal/ fitness check of the vehicle in VAHAN or the respective state vehicle registration/ permit system and the State Monitoring Center.
- iii. After the type approval, NIC shall provide credentials for all the VLT Device manufacturer for uploading the Type approval data on VAHAN
- iv. VLT device manufacturers or their authorized dealers using its secured authenticated access will upload the following details of VLTD on VAHAN.
 - VLTD Make & Model
 - Unique Identification Number of VLTD
 - IMEI number
 - ICCID number
- v. VLTD make and model will be validated against the type approved VLTD makes and models uploaded on VAHAN by the test agencies.
- vi. The VLT device manufacturers or their authorized dealers will ensure that the VLTD has an active cellular plan with minimum two years validity for any public service vehicle less than 8 years old and one-year validity for any public service vehicle older than 8 years
- vii. The VLT device manufacturers or their authorized dealers shall install the VLT devices in public service vehicles and register the devices along with details of vehicle on the corresponding State Monitoring Center in real-time.
- viii. The VLT device manufacturers or their authorized dealers will enter the following details of the VLTD on State monitoring center-
 - Model Code
 - M2M Service Provider details
 - Sim Details (Mobile Numbers, International Mobile Subscriber Identity(IMSI))
 - Vehicle Details (Vehicle Type, Make, Model)
 - Permit Holder Details (Name of Permit holder, number of Permit holder)
- ix. The State monitoring center will establish connectivity with the VLTD and confirm that data is being received from the VLTD as per communication protocol as per AIS-140.
- x. The State monitoring center will check the Sim Validity (12 months) with M2M/Telecom service provider.
- xi. The VLTD will send the health status as per AIS-140 to the State monitoring center.

- xii. The Device responds to activation command as per AIS-140 and the VLT device manufacturers or their authorized dealers updates the OTP send to Permit holder
- xiii. The State Monitoring Center will check the Panic Button functionality as per AIS-140 before activation of the VLT device
- xiv. State monitoring center will upload activation details/health status of the VLTD in VAHAN/ State Registration Software.
- xv. Once activation details are received in VAHAN from State AIS-140 backend/Common layer, the VLTD fitment certificate from VAHAN can be downloaded by the VLT device manufacturers or their authorized dealers and registration/Fitness of Vehicle can be processed.
- xvi. The specified public service vehicle owners have to ensure that the VLT devices installed in their vehicles, are in working condition and regularly send required data to the corresponding Monitoring Center through cellular connectivity.

Standard Operating Procedures for Vehicle Location Tracking (VLT) registration and activation in VAHAN

Process flow for Vehicle Registration (in case of Old Vehicles)



4.4 SOP for Vehicle Owners

4.4.1. Fitment of Device

- i. Owner/ Customer have to approach the dealer of any of the approved VLT Device Manufacturer.
- ii. Vehicle Owner is free to choose any approved VLTD Manufacturers and VLT device. This solely depends on the preference of the vehicle owner.
- iii. Vehicle Owner may have to give the KYC details, RC book and mobile number to the dealer
- iv. Approved Technician from the dealer will fit the device as per the process flow for vehicle registration mentioned above.
- v. After successful fitment and completion of data entry the owner will produce his vehicle for inspection to MVI to check the functionality of VLT Device as per AIS 140 Standard.
- vi. MVI will inspect the vehicle to verify the fitment of device and panic buttons. If found satisfactory, MVI will approve it, else they may reject the device. In case of rejection, owner has to approach the dealer to rectify or replace the device.

4.4.2. Operation of Device

- i. Once the device is approved the Monitoring & Control Centre (MCC) will continuously monitor the vehicle.
- ii. The information generated by the device is monitored at the control room 24x7.
- iii. The device should not be removed from the vehicle and should be continuously powered.
- iv. The device and the panic buttons should always be in working condition without any failure.
- v. Tampering or non-functional device will be deemed as violation of permit condition and other prevailing Rules/Acts.
- vi. Most of the device have LED indications of its working status.
- vii. If the device is found to be faulty or the vehicle need some maintenance which require disconnection of the device, then it has to be immediately conveyed to the concerned dealer or vendor, dealer or vendor will inform State's Command and Control Centre for immediate rectification, and request for repair/replacements. This will avoid unnecessary alerts like Panic wire cut, Tilt, Main power removal etc.

4.4.3 Operation of Panic Buttons

- i. Panic buttons are part and parcel of AIS140 implementation. These buttons are placed for the safety of passengers and drivers.
- ii. In case of any emergency, the passenger or driver can press the panic button to inform the control room about the emergency situation.

- iii. All panic buttons have a continuous glowing LED to indicate that the button is working. On pressing of the button the LED will start blinking and the hooter (optional) will start making sound. The device will also send SMS about the emergency condition to control room as well as the owner.
- iv. If any repair or maintenance is required for which panic button needs to be removed, dealer or vendor should be informed immediately to forward the issue to the Command and Control Center.

4.4.4 Renewal of Subscription

- i. Vehicle owner should renew the subscription of the device every year before the test for certificate of fitness.
- ii. The vehicle owner should get a renewal certificate from the manufacturer stating that the subscription has been renewed.

Note: The Backend should be tested by the testing agency referred to in rule 126 of the Central Motor Vehicles Rules, 1989 to check the compliance as per AIS-140 State Monitoring Center means Monitoring Center with AIS 140 State Backend System