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5 April 2024

Our ref LTA/RPS/E21.005.000/002

Your ref

DID 6553 5128 Fax 6585 7260

All Motor Vehicle Dealers / Importers  
All Electronic Service Agents

Dear Sir/ Madam

### **IMPLEMENTATION OF ON-BOARD UNIT FOR VEHICLES (NON-MOTORCYCLES / SCOOTERS) REGISTERED IN SINGAPORE**

1. The Land Transport Authority (LTA) will be replacing the existing Electronic Road Pricing (ERP) system with the ERP 2.0 system that uses Global Navigation Satellite System (GNSS) technology. With that, the existing In-Vehicle Unit (IU) will be replaced with the new On-Board Unit (OBU).
2. LTA will update the pre-registration procedure for new and imported used vehicles (non-motorcycles/scooters)<sup>1</sup> in Singapore to facilitate OBU installation. We are working closely with various industry stakeholders to familiarise them with the new procedure before implementation.
3. **With effect from 1 November 2024**, any motor dealer, distributor, or importer who wishes to register any make and model of vehicles (non-motorcycles/scooters) with LTA in Singapore, is required to submit an OBU Compliance Form, and attach the relevant declaration or test report to LTA for verification. Please refer to **Appendix A** for the OBU Compliance Form, the template for submitting declaration / test report, as well as details of the technical requirements for OBU installation in vehicles (non-motorcycles/scooters). The application shall be sent to the email address ([LTA\\_OBU\\_LNO@lta.gov.sg](mailto:LTA_OBU_LNO@lta.gov.sg)) which shall also be used for subsequent correspondences with LTA.
4. For new and imported used motorcycles/scooters, this pre-registration procedure will take effect from 15 May 2024, as announced in an industry circular issued by LTA in February 2024.<sup>2</sup>

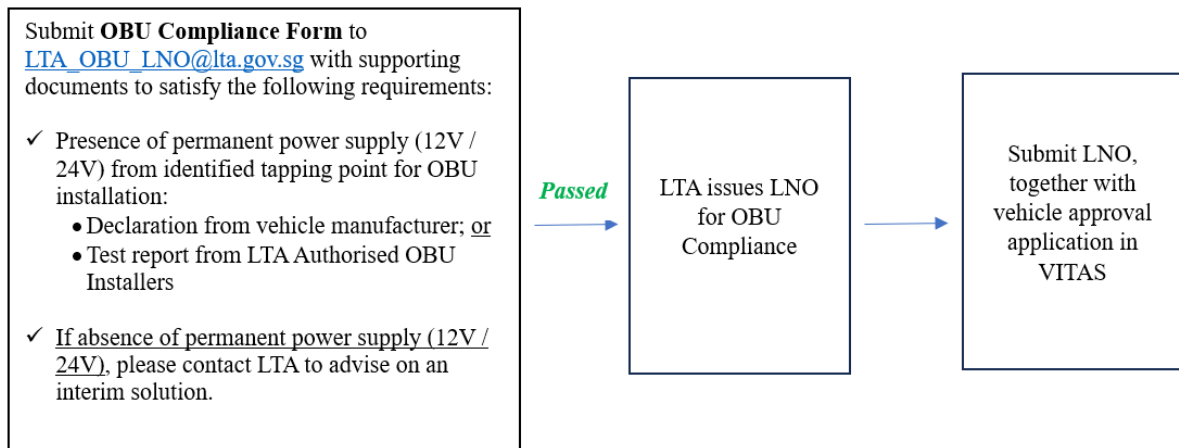
<sup>1</sup> It shall be mandatory for all Singapore-registered vehicles to install the new OBU following the end of the OBU installation exercise, except for: (i) Singapore-registered vehicles that are not allowed to travel on mainland public roads such as tractors, locomotives, construction equipment; (ii) vehicles on Restricted Use Scheme such as airport vehicles, port vehicles, Pulau Ubin vehicles, vehicles used in offshore islands only, vehicles on laid-up status, and vehicles under the Keeping Scheme; (iii) non-mechanically propelled vehicles such as trailers; and (iv) classic/vintage vehicles as they are more sparingly used and subject to usage restrictions.

<sup>2</sup> See <https://go.gov.sg/obucomplianceformotorcycles-scooters> for the industry circular issued in February 2024.

5. A Letter of No Objection (LNO) will be issued by LTA to the applicant if the submitted documents and information are found to be in order. Please note that you will be required to submit the LNO, as part of your vehicle approval application for any new and imported used vehicles (non-motorcycles/scooters), in the Vehicle Inspection and Type Approval System (VITAS) from 1 November 2024 onwards.

6. If the relevant vehicle does not present a permanent 12V / 24V power supply that can be used for OBU installation, please contact LTA, who will then advise the applicant on an interim solution.

7. An overview of the procedure for obtaining the LNO is shown in **Figure 1** below.



*Figure 1: Procedure to obtain LNO*

8. Please inform your members of the above, and encourage them to start adopting and familiarising themselves with this new procedure. Should you have any enquires on the new pre-registration approval procedure or the contents of this circular, you may email us at [LTA\\_OBU\\_LNO@lta.gov.sg](mailto:LTA_OBU_LNO@lta.gov.sg)

9. Thank you.

Yours sincerely

Xin Jingjing  
Director, ERP 2.0 Taskforce

Enc:

- Appendix A – OBU Compliance Form, Format for Declaration / Test Report & Technical Requirements for OBU Installation in Vehicles (Non-Motorcycles/Scooters)
- Appendix B – Frequently Asked Questions on the New Pre-Registration Approval Procedure

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**Appendix A – OBU Compliance Form, Template for Declaration / Test Report & Technical Requirements for OBU Installation in Vehicles (Non- Motorcycles/Scooters)**

Category	Technical Requirements for OBU Installation in <u>Vehicles (Non-Motorcycles/Scooters)</u>
<b>+B Permanent Power (OBU Yellow Cable)</b>	OBU requires a permanent power source: <ul style="list-style-type: none"> <li>• <b>Minimum of DC 12V</b></li> <li>• <b>Maximum of DC 36V</b></li> </ul> This <b>permanent</b> power source shall be available <b><u>regardless of vehicle engine on/off</u></b> and even during the charging of the vehicle's battery.
<b>Ignition / State Detection Line (OBU Red Cable)</b>	Must exceed DC 4.16V when vehicle ignition / state is on and must not exceed DC 4.16V when vehicle ignition / state is off, even if certain accessories remain active.
<b>Ground (OBU Black Cable)</b>	Use of vehicle battery or vehicle chassis ground
<b>Battery Capacity</b>	Vehicle battery capacity shall meet <b>minimum: 34Ah @12V</b>
<b>Current Rating</b>	Vehicle's battery must support the following OBU current rating: <p><b>Typical: 0.6-0.8A @12V</b></p> <p><b>Maximum (high load situation): 1.2A @12V</b></p> <p><b>Sleep state: 850uA (&lt; 1mA)</b></p>

Note: If the relevant vehicle is not able to fulfil the technical requirements for OBU installation, please contact LTA to advise on an interim solution.

OBU Compliance Form	
<b>Application Date</b>	DD/MM/YYYY
<b>Company Name</b>	"SAMPLE XYZ" Pte Ltd
<b>UEN</b>	<i>Applicant to provide UEN</i>
<b>Local Registered Office Address</b>	<i>Applicant to provide Singapore Registered Office Address</i>
<b>Contact Person Name / Phone No. / Email Address</b>	<i>Applicant to provide contact details</i>
<b>Vehicle Brand</b>	<i>Applicant to provide brand of vehicle</i>
<b>Vehicle Type</b>	<i>Applicant to provide type of vehicle and if ICE or Hybrid or Electric</i>
<b>Vehicle Models</b>	<i>Applicant to provide model/s of vehicle</i>
<b>Battery Capacity</b>	xx Ah
<b>Permanent Power 12V/24V source available for OBU installation</b>	Yes/No
<b>Indicate with illustrations of actual vehicle (e.g. pictures, schematics, datasheet) on where power sources are tapped</b>	Please indicate the following electrical points clearly: i. Permanent 12V/24V - ii. Ignition Source -
<b><u>Attach files here :</u></b>	

**Template for Declaration / Test Report  
Vehicles (Non-Motorcycles/Scooters)**

**Permanent Power Source (Indicate electrical point: \_\_\_\_\_ )**

No.	Test Description	Expected Result	Actual Result (Provide pictures)
1	Test electrical point for permanent power using multimeter when vehicle in Ignition OFF / Sleep state	Minimum 12V / 24V present at electrical point	
2	Test same electrical point 30 mins later, for permanent power using multimeter when vehicle in Ignition OFF / Sleep state <b>(Dependent on vehicle design please adjust to the correct waiting time if the vehicle takes more than 30 mins to be in sleep state)</b>	Continue to have minimum 12V / 24V present at electrical point	

**Ignition / State Source (Indicate electrical point: \_\_\_\_\_ )**

No.	Test Description	Expected Result	Actual Result (Provide pictures)
1	Test electrical point for Ignition / state using multimeter when vehicle in Ignition ON / Active state	Voltage measure within 12V / 24V	
2	Test electrical point for Ignition / state using multimeter when vehicle in Ignition OFF / Sleep state	Voltage measure 0V	

<b>Company Name:</b>	
<b>Name of Tester:</b>	
<b>NRIC/FIN (Last 4 digit):</b>	
<b>Email:</b>	
<b>Contact Number:</b>	

## **Appendix B – Frequently Asked Questions on the New Pre-Registration Approval Procedure for Vehicles (Non-Motorcycles/Scooters)**

### **1. Will my vehicle type-approval for non-motorcycles/scooters be affected in the meantime if I do not submit any OBU Compliance Form before 1 November 2024?**

The new pre-registration approval procedure for vehicles (non-motorcycles/scooters) will only take effect from 1 November 2024. But we strongly encourage all motor dealers, distributors, or importers to start adopting and familiarising themselves with this new procedure in the meantime so that you can be ready with the submission by the time your new and imported used vehicles (non-motorcycles/scooters) needs to undergo type-approval on/from 1 November 2024.

### **2. How fast can I expect to receive the Letter of No Objection after I submit my application?**

This depends on the complexity of the application and whether the supporting documents are properly submitted, and all requirements are met. We suggest all motor dealers, distributors, or importers to set aside at least 3 weeks for the application to be processed.

### **3. What if I am unable to meet the permanent 12V / 24V power supply requirement in the OBU Compliance Form?**

Please contact LTA at [LTA\\_OBU\\_LNO@lta.gov.sg](mailto:LTA_OBU_LNO@lta.gov.sg) for advice and assistance. LTA will inform the applicant of an interim solution.