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13 February 2024

Our ref LTA/RPS/E21.005.000/001

Your ref

DID 6553 5128 Fax 6585 7260

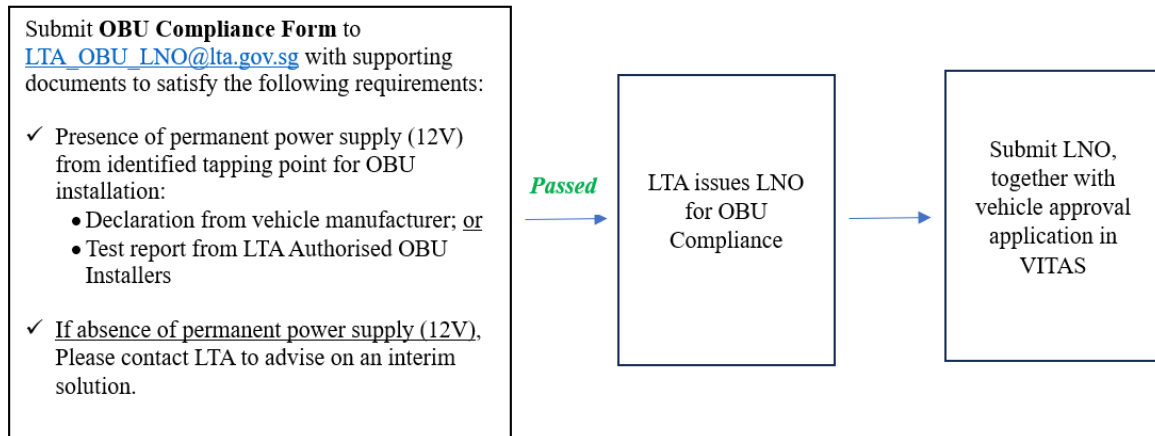
The President  
Singapore Motor Cycle Trade Association  
9 Jurong Town Hall Road  
#03-13  
Singapore 609431  
([mail@smcta.org.sg](mailto:mail@smcta.org.sg))

Dear Sir/ Madam

## **IMPLEMENTATION OF ON-BOARD UNIT FOR 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 motorcycles/scooters 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 15 May 2024**, any motor dealer, distributor, or importer who wishes to register any make and model of 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 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. 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 motorcycles/scooters, in the Vehicle Inspection and Type Approval System (VITAS) from 15 May 2024 onwards.

5. If the relevant motorcycles/scooters do not present a permanent 12V power supply that can be used for OBU installation, please contact LTA, who will then advise the applicant on an interim solution.
6. An overview of the procedure for obtaining the LNO is shown in **Figure 1** below.



*Figure 1: Procedure to obtain LNO*

7. 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)

8. Thank you.

Yours sincerely

Xin Jingjing  
Director, ERP 2.0 Taskforce

Enc:

Appendix A – OBU Compliance Form, Template for Declaration / Test Report & Technical Requirements for OBU Installation in Motorcycles/Scooters

Appendix B – Frequently Asked Questions on the New Pre-Registration Approval Procedure for Motorcycles/Scooters

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

Category	Technical Requirements for OBU Installation in <u>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 50V</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 2.97V when vehicle ignition / state is on and must not exceed DC 2.97V 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</b> : 3.0Ah @12V
<b>Current Rating</b>	Vehicle's battery must support the following OBU current rating: <b>Typical</b> : 0.6-0.8A @12V <b>Maximum</b> (high load situation): 1.0A @12V

Note: If the relevant motorcycle/scooter 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 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 - ii. Ignition Source -
<b><u>Attach files here :</u></b>	

<b>Template for Declaration / Test Report</b>			
<b>Permanent Power Source (Indicate electrical point: _____ )</b>			
<b>No.</b>	<b>Test Description</b>	<b>Expected Result</b>	<b>Actual Result (Provide pictures)</b>
1	Test electrical point for permanent power using multimeter when motorcycle in Ignition OFF / Sleep State	Minimum 12V present at electrical point	
2	Test same electrical point 30 mins later, for permanent power using multimeter when motorcycle in Ignition OFF / Sleep State	Continue to have minimum 12V present at electrical point	
<b>Ignition / State Source (Indicate electrical point: _____ )</b>			
<b>No.</b>	<b>Test Description</b>	<b>Expected Result</b>	<b>Actual Result (Provide pictures)</b>
1	Test electrical point for Ignition / State using multimeter when motorcycle in Ignition ON / Active State	Voltage measure within 12V	
2	Test electrical point for Ignition / State using multimeter when motorcycle 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 Motorcycles/ Scooters**

### **1. Will my vehicle type-approval be affected in the meantime if I do not submit any OBU Compliance Form before 15 May 2024?**

The new pre-registration approval procedure will only take effect from 15 May 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 motorcycle/scooter needs to undergo type-approval on/from 15 May 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 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.