

# Application Note

*Activation of Premium-Features  
for FOX3-2G/3G/4G and  
BOLERO40 Series*

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## Revision History

Date	Rev.	Comments
October 2014	1.0.0	Initial version.
	1.0.1	Unnamed: PAID-FEATURES to PREMIUM-FEATURES
December 2018	1.0.2	Added BOLERO40 series
October 2019	A	Initial Lantronix document. Added Lantronix document part number, logo, contact information, and links.

For the latest revision of this product document, please check our online documentation at [www.lantronix.com/support/documentation](http://www.lantronix.com/support/documentation).

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# 1 ABOUT THIS DOCUMENT

This application note provides information how to activate PREMIUM features in the ALV firmware 2.11.x and higher.

This document is applied the following PREMIUM features:

- ECO DRIVE GPS: ECOdrive is a feature based on GPS only. ECOdrive enables fleet managers and drivers to always keep track of current fuel consumption and driving style for helping them analyse to improve driving efficiency.
- AES128 (Advanced Encryption Standard): AES128 is the Advanced Encryption Standard, a United States government standard algorithm for encrypting and decrypting data that offers a higher level of security over GPRS / TCP using 128-bit group encryption with 128 key length.
- INDEXED HISTORY: The indexed history feature enables reading of specific number of lines in the history. Before using this feature you have to clear the old history records in the device.

## 1.1 What is required to activate a PREMIUM-FEATURES?

- Purchase order number
- Your company name
- A valid e-mail address where the activation code(s) should be sent back
- The device name (e.g. FOX3-3G or BOLERO45).
- The PREMIUM feature to be activated (e.g. ECO-DRIVE-GPS)
- The Production ID (Serial Number) of the device (e.g. **1234512312312345**)

The Production ID (Serial Number) of the device can be read out by executing the following PFAL command:

### Get Device Production ID (Serial Number):

EXECUTE	\$PFAL,Msg.version.Complete
ANSWER	\$<MSG.Version.Complete> \$Hardware: FOX3-3G \$HardwareRev: 11-NUCHB \$HardwareOptions: [Highspeed-CAN] [BAT] [MOTION] [AUDIO] [UBLOX] [BLE] \$Software: avl_3.2.0 \$SoftwareID: AVL3_QUAD_GPRS (YXZsXzMuMi4wX3JjOQ==) \$Production ID: <b>1111111111111111</b> \$ProductionCode: ..... \$BIOS: 2.2.1 \$GSM: SW:LISA-U201 \$GPS: UBLOX SW:1.00 (59842), HW:00070000 \$SUCCESS \$<end>

After you have got all the information listed above, contact your vendor and send all this information. Lantronix will generate the activation code(s) and send them back via email.

The generated activation code(s), should look like the following:

```
//code for productID : 1111111111111111
    $PFAL,Msg.Feature="71,E0,BA,6A,F8,E6,65,73,99,F0,DD,66,30,6A,39,4F"
//code for productID : 2222222222222222
    $PFAL,Msg.Feature="4A,D9,39,2A,45,EB,40,8B,EF,10,EA,66,65,7A,56,4A"
//code for productID : 3333333333333333
    $PFAL,Msg.Feature="5A,7C,A7,9F,EA,C6,4F,8A,D8,D0,D0,10,78,A6,8A,07"
//code for productID : 4444444444444444
    $PFAL,Msg.Feature="15,63,44,D9,C1,A0,E0,81,25,B1,A9,7A,32,B3,97,57"
```

### 1.1.1 Activating PREMIUM features

Once you get the generated activation key(s), copy the PFAL-Command (e.g. \$PFAL,MSG.Feature="71,E0,BA,6A,F8,E6,65,73,99,F0,DD,66,30,6A,39,4F") and send it to the AVL device with the corresponding Production ID (e.g. 1111111111111111). Make sure that the PFAL Command with the Hex code is sent to the device with the corresponding Production ID.

To activate a PREMIUM feature, execute the PFAL-Command:

EXECUTE	\$PFAL,msg.feature="enter the generated code"
ANSWER	\$<MSG.Feature> \$SUCCESS \$<end>

To check which feature is active/inactive by your AVL device, execute the PFAL-Command:

EXECUTE	\$PFAL,msg.feature
ANSWER	\$<MSG.Feature> \$IndexedHistory: inactive \$AES_TCP: inactive \$EcoDrive: active (never expires) \$SUCCESS \$<end>

In the above example the ECO-DRIVE-GPS is activated.