





SVE BULLETIN

SPECIAL VEHICLE ENGINEERING - BODY BUILDERS ADVISORY SERVICE

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QVM BULLETIN: Q-295R1 DATE: 12/March/2020

Fleet Telematics Modem Prep Kit

| REVISION | UPDATE | REVISION DATE |
|----------|---|---------------|
| Q-295-R1 | Updated with information on Installation Guidelines, Modem Temporary Shipping Location, | 03/ 17 /2020 |
| | Packaging Orientation, Service Considerations, and Normal Operation & Fault Conditions | |
| Q-295 | Initial Release | 03/ 04 /2019 |

Model(s) Affected:

2020+MY F-53 Motorhome / F-59 Commercial Stripped Chassis and 21+MY E-Series Stripped Chassis

Issue / Description:

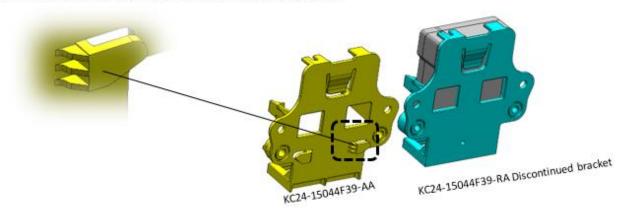
The purpose of this Bulletin is to provide information on Fleet Telematics Modem, Installation Guidelines, Modem's Temporary Shipping Location, Packaging Orientation, Service Considerations, and Normal Operation & Fault Conditions.

Fleet Telematics Modem – Onboard modem device provides access to vehicle data to support Ford Telematics™ and Ford Data Services™ via optional subscription, including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables optional telematics services through Ford or authorized providers via paid subscription. Further details about Ford Telematics™ at https://www.commercialsolutions.ford.com. Activate modems for authorized third-party telematics service providers at www.fleet.ford.com. Or call 1-833-811-FORD (1-833-811-3673)

Prep Kit

The prep kit for the Fleet Telematics Modem (also referred to as an **e**lectronic-**W**ired-In-**D**evice, eWID Module) was presented in design with a flat surface mounting area (KC24-15044F39-RA). This bracket has since been discontinued In lieu of a bracket with two retaining tabs (KC24-15044F39-AA). If this replacement bracket with the tabs interferes with your designs to properly package; recommend adding a process to remove the tabs for ease of installation.

Tab located on the back of the bracket. Cut off if not needed.



Temporary Shipping Location

All affected chassis currently ship this kit in a **Temporary Shipping Location**, reference the Figures shown below. It is the function of the intermediate or final stage manufacturer to mount the component to the vehicle using the recommendations found in the Body Builder Layout Book.

Temporary Shipping Location

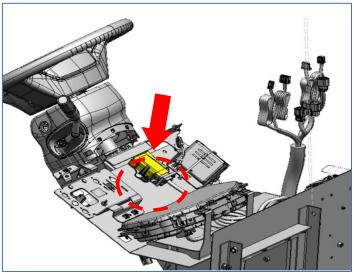


Figure 1: F-59 Commercial Stripped (Temporary Ship Location)

Figure 2: F-53 Motorhome (Temporary Ship Location)

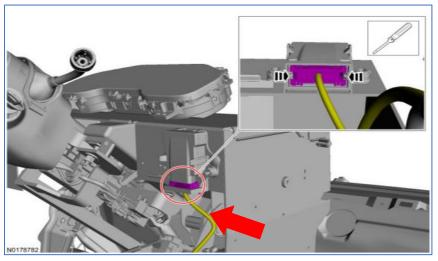


Figure 3: E-Series Stripped (Temporary Ship Location)

Packaging Orientation

The image below (Figure 4) shows the three sides of the Fleet Telematics Modem module through which antennas are exposed.

The preferred orientation of the module would be to have these **three** sides facing away from metal structural elements as much as possible.

Additional orientation recommendations are as follows:

- Orange Arrow: Towards the passenger compartment; <u>not</u> towards the firewall
- Blue Arrow: Generally, up towards the sky
- Preferred orientation for antennas is directly up
- Module has several antennas for GPS and Wi-Fi
- Change to orientation within vehicle may have an effect or interfere on signal strength for those antennas if "Package considerations" are not met.

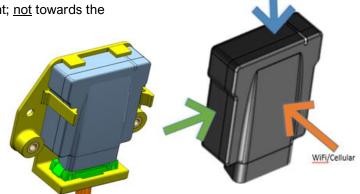


Figure 4: eWID Module

Packaging Considerations

- Module shall not be installed in an area that may interfere with moving parts or linkages.
- Module shall not be packaged where 3 sides are blocked by metal within 100mm of the desired mounting point.
- Module not to be mounted within 50mm of another electronic control module (EMC consideration).
- Module not to be mounted within 50mm of vehicle wiring harnesses, excluding the connecting harness (EMC consideration).
- Module not to be mounted in low lying areas below the vehicle submerge line (i.e. below seat level) (water intrusion consideration).
- Module should be mounted in the highest location possible in the passenger compartment (GPS and Cellular communication consideration).
- Module cannot be located in direct sunlight or near high source of heat

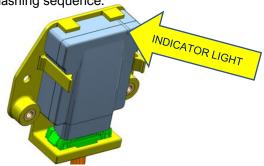
Note: EMC = Electromagnetic Noise or Interference

Service Considerations

The image below highlights the Service Indicator Light of the eWID Module.

- The preferred orientation of the module would be to access a line of sight to the Indicator Light
- The Indicator Light can Display multiple colors and solid or flashing sequence.





Normal Operation and Fault Conditions

The wired in connectivity system consists of a wired in connectivity device that enables the user to interact with the vehicle using the FordPass app on their smart phone and provides Wi-Fi connectivity within the vehicle. The connectivity device LED provides some operational and failure mode identification through color, flash illumination and flash sequence illumination, reference the following Table.

| DAQ State | HUB State | Overall State | LED Color | LED Behavior |
|--|--|---------------|--------------|--|
| Vehicle Scan, DAQ Active | Data Service Active | ACTIVE | GREEN | blink GREEN Once for 0.3 seconds every 1 second |
| Vehicle Scan, DAQ Active | Data Service Inactive | ACTIVE | GREEN | blink GREEN Once for 0.3 seconds on every 5 seconds |
| Vehicle Scan, DAQ Active | Data Service Disconnected or any other state | ACTIVE | GREEN | blink GREEN Once for 0.3 seconds on every 10 seconds |
| Vehicle Network On | Data Service Active | ACTIVE | WHITE | blink WHITE Once for 0.3 seconds every 1 second |
| Vehicle Network On | Data Service Inactive | ACTIVE | WHITE | blink WHITE Once for 0.3 seconds on every 5 seconds |
| Vehicle Network On | Data Service Disconnected or any other state | ACTIVE | WHITE | blink WHITE Once for 0.3 seconds on every 10 seconds |
| DAQ Not In Service | Data Service Active | ACTIVE | YELLOW | blink YELLOW Once for 0.3 seconds every 1 second |
| DAQ Not In Service | Data Service Inactive | ACTIVE | YELLOW | blink YELLOW Once for 0.3 seconds on every 5 seconds |
| DAQ Not In Service | Data Service Disconnected or any other state | ACTIVE | YELLOW | blink YELLOW Once for 0.3 seconds on every 10 seconds |
| Vehicle Network Error, Thermal Management | Data Service Active | ACTIVE | RED | blink RED Once for 0.3 seconds on every 1 second |
| Vehicle Network Error, Thermal Management | Data Service Inactive | ACTIVE | RED | Solid RED |
| Vehicle Network Error, Thermal Management | Data Service Disconnected or any other state | ACTIVE | RED | blink RED Once for 0.3 seconds on every 10 seconds |
| Vehicle Network Off, Light Sleep | Data Service Active | ACTIVE | BLUE | blink BLUE Once for 0.3 seconds every 1 second |
| Vehicle Network Off, Light Sleep | Data Service Inactive | LIGHT SLEEP | BLUE | blink BLUE Once for 0.3 seconds on every 10 seconds |
| Vehicle Network Off, Light Sleep | Data Service Disconnected or any other state | LIGHT SLEEP | BLUE | blink BLUE Once for 0.3 seconds on every 5 seconds |
| Transition from Light Sleep to Deep Sleep (temporary) | N/A | Temporary | PURPLE | Solid PURPLE indicating transition from Light Sleep to Deep Sleep |
| Deep Sleep | Deep Sleep | DEEP SLEEP | OFF | Off |

Refer to the Body Builder Layout Book for additional guidelines and recommendations. If you have any questions, please contact the <u>Ford Body Builders Advisory Service</u> as shown in the header of this bulletin.

Originator: BBAS