Blue-Link™ ELD-9 and ELD-16
Mobile Vehicle Interfaces

PNs EESM606 and EESM607

Common Support

- Seamless background OTA firmware updates

- Secure communications and firmware updates

  - ❖ Limited access to BLE bondable mode via physical pushbutton on device with built-in timeout.

  - ❖ All communications between mobile client and device employ standard BLE encryption.

  - ❖ Authentication required between mobile client and device to enable datalink communications, and to enable OTA device firmware update.

  - ❖ Encrypted firmware update file.

  - ❖ Running firmware locked and encrypted to prevent data extraction.

- Automatic vehicle link detection for ELD data of interest (engine controller)

  - ❖ CAN auto-baud detection

- Calculated odometer support if no ECM support

- Fully documented driver/device API for developing mobile apps to communicate with the ELD

During Active Bluetooth Application Connection

- Device notification of powered-on date and time

- Log record parameter support with selectable raw data or pre-scaled format, with the following information:

  - ❖ GPS position and UTC time data

  - ❖ VIN

- ❖ Engine serial number
- ❖ Odometer
- ❖ Engine hours
- ❖ Vehicle speed

- Log records notifications automatically occur at 15-minute intervals

- Updated log record can also be requested immediately by mobile client

- Automatic notification of each ignition key state change
  - ❖ Key Off
  - ❖ Key On - Engine Off
  - ❖ Key On - Engine Running

- Automatic notification of each vehicle motion state change
  - ❖ In-Motion event = vehicle exceeds 5mph after being considered Motionless.
  - ❖ Motionless = vehicle motionless for more than 3 seconds after being considered in-Motion.

- Automatic Data Capture Timeout notifications
  - ❖ Device checks for more than 5 seconds without one or more required core parameters being received from expected source (ECM or calculated), and sends notification to client application on each occurrence. The following parameters subject to DCT check:
    - o Odometer
    - o Engine Hours
    - o Engine Speed
    - o Vehicle Speed

- Configurable Distance Traveled notifications
  - ❖ Device sends periodic odometer notifications to mobile client for specified distance traveled. Default trigger is 5 miles, configurable via API call.

- Configurable Hard Driving detection and notifications
  - ❖ User-configurable mph/s threshold for device detecting hard acceleration/deceleration events and sending notifications back to mobile client

During Vehicle Activity with No Bluetooth Application Connection (Unidentified Driver State)

- Log Record on-device archiving, with flag indication of reason for each capture. On subsequent mobile application connection, archived log records can then be retrieved via defined API commands.

  - ❖ 15-minute periodic capture when engine running
  - ❖ Ignition-on (engine running) / Ignition-off events
  - ❖ Driving / Not Driving Events
    - o Driving = 5mph or greater detected.
    - o Not Driving = motionless for more than 5 minutes after "Driving" event detected.
  - ❖ Initial Data Capture Timeout event, i.e., first time any of 4 core parameters not received within 5-second timeout is detected.
  - ❖ Data Capture Recovery event, i.e., all 4 core parameters received within 5-second window after initial Data Capture Timeout event has been previously captured.

9-Pin HD Device-Specific

- J1939 Protocol
- J1708 (J1587) Protocol
- Diagnostic Trouble Codes
  - ❖ Support for mobile application to retrieve vehicle fault codes from active link.
  - ❖ Fault code notification automatically occurs on detection of change in monitored vehicle fault code data.
  - ❖ Support for client application to request immediate fault code update.
- Discrete Parameters
  - ❖ Command support for client to request specific parameter data at any time.
  - ❖ List of supported parameters provided with API specification.
- Snapshot Parameter Lists
  - ❖ Support for mobile client to configure a list of parameters to be stored on the ELD device and then retrieved during active BLE connection.
  - ❖ 15-minute periodic updates during BLE connection for configured list.
  - ❖ Support for client application to request immediate updated parameter list.
  - ❖ List of supported parameters provided with API specification.

16-Pin J1962 Device-Specific

- J1939 protocol
- OBD CAN (ISO15765) protocol
- Calculated engine hours if no ECM support

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