

Script.CAN.EV.EBUSCO_2.2.POS5.XL901E3T_NF.ACK_ENBL.v1.1.0.1

EBUSCO 2.2 2023 CAN Script



The compatibility of this script can only be guaranteed for:

1. EBUSCO 2.2 2023 models.
2. Vehicles with a VIN Number that starts with: **XL901E3T_NF**

This script can be used with the following devices:

1. MiX 4000
2. MiX 6000
3. FM3316 and FM3306 Communicators
4. FM3517i and FM3507i Communicators
5. FM3617i and FM3607i Communicators
6. FM3717i and FM3707i Communicators
7. FM3817i and FM3807i Communicators

Version History

| Reference | Version | Changes |
|--------------------------|----------|---|
| SCR-2662 | v1.0.0.0 | <p>The script supports the standard system parameters:</p> <p>Speed, RPM, ECMST Accelerator Pedal Position, HV Battery Voltage, HV Battery Current, State of Charge, State of health, Maximum Cell Voltage, Minimum cell Voltage, Max Battery Cell Temperature, Min Battery Cell Temp, Average Cell Temperature, Hazard light status, Main Light Switch, Left Turn Indicator, Right Turn Indicator, Brake Pedal Switch, Park Brake Switch, High-Res Trip Distance, High-Res odometer, Range Remaining, Brake Pedal Position, Charging status, Propulsion System Status, Stored Energy Source Level, External energy source connection status, Motor/Generator 2 Total Energy Consumed, Motor/Generator 2 Total Energy Generated, Motor/Generator 3 Total Energy Consumed, Motor/Generator 3 Total Energy Generated, Bus Door Position Status, Bus Ramp Position Status, Status 2 of doors, Engine Coolant Temperature, Fuel Level (%), Washer Fluid Level (%), Ambient Air Temperature, Barometric Pressure, Cab Interior Temperature, Front Wiper Switch, Air Compressor Status, Engine Percent Torque, Service Brake Air Pressure Circuit 1, Service Brake Air Pressure Circuit 2, Air Suspension Supply Pressure 1, Axle Weight, Trip net energy usage, Energy Consumed, Energy Generated, Battery Current Charge Power, Battery Current Discharge Power.</p> <p>The script should be compatible with vehicles with a VIN starting with: XL901E3T_NF</p> |
| SCR-2662 | v1.1.0.1 | <p>Removed Fuel Level, Barometric Pressure and Cab Interior Temperature. Enabled Odo Sync. Converted to Production.</p> |

Supported Parameters

| ACRONYM | PARAMETER NAME | PARAMETER DESCRIPTION | Return values/states (if applicable) |
|---------|----------------------|--|---|
| CAN_V | System.Scratch40D | Road Speed | |
| CAN_N | System.Scratch40C | Engine RPM | |
| CAN_T | CAN.CAN_T | FM Engine Torque | |
| HRTRP | FMS.HRTRP | High-Res Trip Distance | |
| HRESO | FMS.HRESO | FMS High resolution odometer | |
| ECMST | System.ECMST | Electronic Control Module Status | |
| HWVOL | System.FMS.CAN.HWVOL | EV CAN: HVESS voltage level | |
| HVCUR | System.FMS.CAN.HVCUR | EV CAN: HVESS current | |
| EBSOC | System.FM.CAN.EBSOC | EV CAN: State of charge | 0-100% |
| EVSOH | System.FM.CAN.EVSOH | EV CAN: State of health | 0-100% |
| EVRNG | System.FM.CAN.EVRNG | EV CAN: Vehicle range remaining | |
| CVMAX | System.FM.CAN.CVMAX | EV CAN: Maximum cell voltage | |
| CVMIN | System.FM.CAN.CVMIN | EV CAN: Minimum cell voltage | |
| BOKWH | System.FMS.CAN.BOKWH | EV CAN: Energy consumed | |
| BIKWH | System.FM.CAN.BIKWH | EV CAN: Energy generated | |
| EBOEN | System.FM.CAN.EBOEN | EV CAN: Battery current discharge power | |
| EBIEN | System.FM.CAN.EBIEN | EV CAN: Battery current charge power | |
| TNETE | System.FM.CAN.TNETE | EV CAN: Trip net energy usage | |
| SBAP1 | FMS.SBAP1 | FMS Service Brake Air Pressure Circuit 1 | |
| SBAP2 | FMS.SBAP2 | FMS Service Brake Air Pressure Circuit 2 | |
| ASSP1 | FMS.ASSP1 | Air Suspension Supply Pressure 1 | |
| AXLW0 | FMS.AXLW0 | FMS Vehicle Weight Axle 0 | |
| AXLW1 | FMS.AXLW1 | FMS Vehicle Weight Axle 1 | |
| AXLW2 | FMS.AXLW2 | FMS Vehicle Weight Axle 2 | |

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|-----------|----------------------|--|---|
| FMS.AXLW3 | FMS.AXLW3 | FMS Vehicle Weight Axle 3 | |
| AXLW4 | FMS.AXLW4 | FMS Vehicle Weight Axle 4 | |
| FMBPS | FMS.FMBPS | FMS Brake Pedal Switch | 0 = Released 1 = Depressed 2 = Error 3 = Not available |
| FMSPB | FMS.FMSPB | FMS Parking brake switch | 0 = Not set 1 = Set 2 = Error 3 = Not available |
| FMAPP | FMS.FMAPP | FMS AcceleratorPedalPosition | 0-100% |
| FMSP | FMS.FMSP | FMS Brake Pedal Position | 0-100% |
| MAXCT | System.FM.CAN.MAXCT | EV CAN: Maximum battery cell temperature | |
| MINCT | System.FM.CAN.MINCT | EV CAN: Minimum battery cell temperature | |
| HVACT | System.FMS.CAN.HVACT | EV CAN: HVESS Average Cell Temperature | |
| HZRDS | System.FM.CAN.HZRDS | FM CAN: Hazard light status | 0 = Off 1 = Flashing 2 = Error 3 = NA |
| MLISW | FMS.MLISW | FMS Main Light Switch | 0 = Off 1 = Park On 2 = Head light on 3 = Head light and park 4 = Automatic Lights 14 = Error 15 = NA |
| LTSSI | System.FM.CAN.LTSSI | FM CAN: Left Turn Indicator | 1 = On 2 = Off 3 - 13 = Reserved 14 = Error 15 = NA |
| RTSSI | System.FM.CAN.RTSSI | FM CAN: Right Turn Indicator | 1 = On 2 = Off 3 - 13 = Reserved 14 = Error 15 = NA |
| PSYSA | FMS.PSYSA | FMS Propulsion System Active | 0 = Not ready 1 = Ready to move 3 = NA |




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|-------|----------------------|--|---|
| SESLV | System.FMS.CAN.SESLV | EV CAN: Stored Energy Source Level | *Alternative SOC |
| EVICS | System.FM.CAN.EVICS | EV CAN: Charging status | -1 = Not available 0 = Not charging 1 = Charging |
| EESCS | System.FM.CAN.EESCS | EV CAN: External energy source connection status | 0 = No connection 1 = Connection error 2 = Conn. verification in process 3 = Conn1 energy source and drain 4 = Conn1 energy source 5 = Conn1 energy drain 6 = Error 7 = Conn2 verification in process 8 = Conn2 energy source and drain 9 = Conn2 energy source 10 = Conn2 energy drain 11 = Conn3 energy source and drain 12 = Conn3 energy source 13 = Conn3 energy drain 14 = Error 15 = NA |
| DOORS | CAN.DOORS | Bus Door Position Status | 0 = At least 1 door open 1 = Closing last door 2 = All doors closed 3 - 13 = Not defined 14 = Error 15 = Not available |
| RAMPS | CAN.RAMPS | Bus Ramp or Chairlift Position Status | 0 = Inside bus 1 = Outside bus 2 = Error 3 = NA |
| DRST2 | System.FMS.CAN.DRST2 | Status 2 of doors | 0 = All bus doors disabled 1 = At least 1 bus door enabled 3 = NA |
| FMSCT | FMS.FMSCT | FMS Engine Coolant Temperature | |
| WSHFL | System.FM.CAN.WSHFL | FM CAN: Percentage Washer Fluid Level | |
| FMAAT | FMS.FMAAT | FMS Ambient Air Temperature | |

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| FMFWS | FMS.FMFWS | FMS Front Wiper Switch | 0 = Off 1 = Low 2 = Medium 3 = High 4 = Delayed 1 5 = Delayed 2 6 = Mist 15 = NA |
| ACSTA | System.FM.CAN.ACSTA | Air Compressor Status | 0 = Compressor not active 1 = Compressor active 2 = Error 3 = NA |
| MG2EC | System.FMS.CAN.MG2EC | EV CAN: Motor/Generator 2 Total Energy Consumed | |
| MG2EG | System.FMS.CAN.MG2EG | EV CAN: Motor/Generator 2 Total Energy Generated | |
| MG3EC | System.FMS.CAN.MG3EC | EV CAN: Motor/Generator 3 Total Energy Consumed | |
| MG3EG | System.FMS.CAN.MG3EG | EV CAN: Motor/Generator 3 Total Energy Generated | |

Installation Notes

1. **The script is NOT compatible with TRACERS**
2. The CAN jumpers must be in a position to ONLY allow **read** actions on the CAN bus (Passive Mode)
3. The script supports 29-bit CAN headers.
4. The script only supports a CAN bus with a speed of 250 kb/s
5. Device Drivers: [BAS 1.70k - E15.08.27.xx](#) or later sets are supported

Wiring and Installation Instructions

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|--|--|
| CAN bus location | 5) Other Overhead compartment, above driver seat, at FMS1 or FMS2 connector |
| Wire colours & details | Yellow-CANH, Green-CANL |
| Can bus speed | CAN_250_kbps |
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