

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> <ul style="list-style-type: none"> 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>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	
HVVOL	System.FMS.CAN.HVVOL	EV CAN: HVES voltage level	
HVCUR	System.FMS.CAN.HVCUR	EV CAN: HVES 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	

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%
FMSPP	FMS.FMSPP	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

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	

FMFWS	FMS.FMFWS	FMS Front Wiper Switch	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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

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
 	
	