Script.CAN.ELECTRIC.BYD.99L4T44T_H0.0250KBPS.ACK_ENBL.v1.3.0.4

BYD ELECTRIC BUS CAN Script

The compatibility if this script can only be guaranteed for:

1. Vehicles with a VIN Number that starts with: **99L4T44T_H0, 99L4T44X_00**

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
ESCR-4	V1.0.0.0	First release New BYD BUS script based on Script.CAN.ELECTRIC.BYD.LC06S44R_L4.0250KBPS.v1.0.0.0- not supported messages have been removed; New proprietary and J1939 messages added. New calculated parameters have been implemented (Power discharged – trip, Power charged – Trip)
EVF-10	V1.0.0.1	New BYD BUS script based on Script.CAN.ELECTRIC.BYD.LC06S44R_L4.0250KBPS.v1.0.0.0- not supported messages have been removed; New proprietary and J1939 messages added. New calculated parameters have been implemented (Power discharged – trip, Power charged – Trip) ***Updated Electric Vehicle Params**
FE-2510	V1.0.0.2	New BYD BUS script based on Script.CAN.ELECTRIC.BYD.LC06S44R_L4.0250KBPS.v1.0.0.0- not supported messages have been removed; New proprietary and J1939 messages added. New calculated parameters have been implemented (Power discharged – trip, Power charged – Trip) ***Added parameters required for the energy logical device. The scaling values of the required parameters for the energy logical device have been changed to doubles. Note: This change will only take effect if the existing parameters with their current scaling values are deleted on the DynaMiX servers.** **CAN ID Format in XML changed from 1 to 2 (for the script to ACK on the CAN bus).**
SCR-2631	V1.0.0.3	Added Charging status parameter [EVICS], derived from current direction and speed. Added speed sync logic.
ETS-2285	V1.1.0.3	Update Out of Trip Init value for BOKWH & BIKWH.
ETS-2285	V1.2.0.3	Registered Energy Parameters as Non-volatile Parameters

ESCR-160	v1.3.0.4	Script Overhaul based on tracers and new information provided by Bus Manufacturer
		
		• Charging Status (EVICS) is now obtained from CAN Message
		• 8 bit SOC signal replaced by 16 bit new signal
		• Battery Charger Power now obtained from new CAN message
		• New Algorithm for consumed and regenerated energy
		• Removed Fake Timeout
		• HDR Mask in XML file changed (from 0x00FFFF00 to 0x00FFFFFF). All messages have the PGN changed by adding the source
		• Added parameters:
		  ○ M1TMP: Motor 1 Temperature (Right)
		  ○ M2TMP: Motor 2 Temperature (Left)
		  ○ M1CTP: Motor 1 Coolant Temperature (Right)
		  ○ M2CTP: Motor 2 Coolant Temperature (Left)
		  ○ DM1DA: Active Trouble Codes
		  ○ INPOW: Instantaneous Power
		
		Script supports not only **99L4T44T_H0** but also **99L4T44X_00**

Supported Parameters

ACRONYM	PARAMETER NAME	PARAMETER DESCRIPTION	Return values/states (if applicable)
CAN_N	System.Scratch403	Engine RPM	
PCUIV	System.FM.CAN.PCUIV	EV CAN: PCU input voltage	
PCUIC	System.FM.CAN.PCUIC	EV CAN: PCU input current	
CANV2	CAN.CANV2	CANV2 - Wheel based speed	
HRESD	FMS.HRESD	FMS High resolution odometer	
BRKPS	System.FM.CAN.BRKPS	FM CAN: Brake Pedal State	0 = Not Engaged 1 = Engaged
DD01S	System.FM.CAN.DD01S	FM CAN: Driver Door 1	0 = Closed 1 = Open
DD02S	System.FM.CAN.DD02S	FM CAN: Driver Door 2	0 = Closed 1 = Open
EBHVA	System.FM.CAN.EBHVA	EV CAN: High voltage alarm	
EBLVA	System.FM.CAN.EBLVA	EV CAN: Low voltage alarm	
EBCST	System.FM.CAN.EBCST	EV CAN: Battery charge status	
EBDST	System.FM.CAN.EBDST	EV CAN: Battery discharge status alert	
EVPBM	System.FM.CAN.EVPBM	EV CAN: Power Battery Malfunction	
BDISC	System.FM.CAN.BDISC	EV CAN: Battery discharge	
BCKWH	System.FM.CAN.BCKWH	EV CAN: Battery charge energy	
BOKWH	System.FM.CAN.BOKWH	EV CAN: Energy consumed	
BIKWH	System.FM.CAN.BIKWH	EV CAN: Energy generated	
FMAPP	FMS.FMAPP	FMS Accelerator Pedal Position	
EVSOH	System.FM.CAN.EVSOH	EV CAN: State of health	
MINCT	System.FM.CAN.MINCT	EV CAN: Minimum battery cell temperature	
MAXCT	System.FM.CAN.MAXCT	EV CAN: Maximum battery cell temperature	
FMSGR	FMS.FMSGR	FMS Current Gear	
PBRKS	System.FM.CAN.PBRKS	FM CAN: Park Brake State	0 = Not Engaged 1 = Engaged

EBSOC	System.FM.CAN.EBSOC	EV CAN: State of charge	
EVICS	System.FM.CAN.EVICS	EV CAN: Charging status	-1 = Not Present 0 = Not Charging 1 = Charging
M1TMP	System.FM.CAN.M1TMP	EV CAN: Motor 1 temperature	
M2TMP	System.FM.CAN.M2TMP	EV CAN: Motor 2 temperature	
M1CTP	System.FM.CAN.M1CTP	EV CAN: Motor 1 coolant temperature	
M2CTP	System.FM.CAN.M2CTP	EV CAN: Motor 2 coolant temperature	
INPOW	System.FM.CAN.INPOW	EV CAN: Instantaneous Power	

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 kbps
5. Device Drivers: BAS 1.70k - E15.08.27.xx or later sets are supported

Wiring and Installation Instructions

CAN bus location	No Details
Wire colours & details	No Details
Can bus speed	CAN_250_kbps