Script.CAN.EV.WRIGHTBUS.STREETDECK-ELECTROLINER.SC5DDREX_23.ACK_ENBL.v1.3.0.0

WRIGHTBUS STREETDECK-ELECTROLINER 2021 CAN Script

The compatibility if this script can only be guaranteed for:

1. Wrightbus Streetdeck-Electroliner 2021 model
2. Vehicles with a VIN Number that starts with: **SC5DDREX_23**

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-2483	V1.0.0.0	The script supports the standard system Parameters: Vehicle Speed, Engine Speed, Charging status, Odometer, State of charge, Trip energy consumed, Trip energy generated, ECMST, Accelerator pedal position, Ambient air temperature, Battery charge power, Battery discharge power, Battery overtemperature alert, Battery under temperature alert, Brake pedal switch, Brake pedal position, Clutch switch, Cruise control active, Cruise control states, Current gear, Driver cab temperature, Driver cab temperature setpoint, Engine torque, Fuel type, HVESS current, HVESS voltage, HVESS internal charger status, Lower saloon temperature, Lower saloon temperature setpoint, Park brake switch, Selected gear, TCO direction indicator, TCO driver 1 driver card, TCO driver 1 time related state, TCO driver 1 working state, TCO driver 2 driver card, TCO driver 2 time related state, TCO driver 2 working state, TCO handling information, TCO system event, TCO tachograph performance, TCO vehicle motion, TCO vehicle overspeed, Trip distance, Upper saloon temperature, Upper saloon temperature setpoint, Vehicle status, **The script should be compatible with vehicles with a VIN starting with: SC5DDREX_23**

SCR-2483	V1.1.0.0	Adjusted energy generated and consumed calculation. Incorrect parameter **"ESS Power"** has been replaced with **EV CAN: Battery current charge power** and **EV CAN: Battery current discharge power** to accommodate the charging and discharging power reported from the vehicle. Likewise **"EV CAN: HVESS current"** has been replaced by **HV Battery Current** which more accurately represents the CAN data from the vehicle. **EV CAN: Total trip energy consumed** and **EV CAN: Total trip energy generated** have been replaced by **EV CAN: Energy consumed** and **EV CAN: Energy generated** which are available in energy reports on MFM.
SCR-2483	V1.1.0.0	Production release
SCR-2696	V1.2.0.0	Added Signed Instantaneous Power Parameter
SCR-2696 SR-21104	V1.3.0.0	Reversed Current & Power Polarity (+ → Charging | | - → Discharging)

Supported Parameters

ACRONYM	PARAMETER NAME	PARAMETER DESCRIPTION	Return values/states (if applicable)
CANV1	CAN.CANV1	CANV1 - Tachograph vehicle speed	
CANV2	CAN.CANV2	CANV2 - Wheel based speed	
CAN_N	System.Scratch40C	Engine RPM	
EVICS	System.FM.CAN.EVICS	EV CAN: Charging status	0 = Not charging 1 = Charging 100 = Charging error 200 = Not available
HRESD	FMS.HRESD	FMS High resolution odometer	
EBSOC	System.FM.CAN.EBSOC	EV CAN: State of charge	
BIKWH	System.FMS.CAN.BIKWH	EV CAN: Energy consumed	
BOKWH	System.FMS.CAN.BOKWH	EV CAN: Energy generated	
FMAPP	FMS.FMAPP	FMS AcceleratorPedalPosition	
FMAAT	FMS.FMAAT	FMS Ambient Air Temperature	
EBIEN	System.FM.CAN.EBIEN	EV CAN: Battery current charge power	
EBOEN	System.FM.CAN.EBOEN	EV CAN: Battery current discharge power	
INPOW	System.FM.CAN.INPOW	EV CAN: Instantaneous Power	≥ 0 → Charging < 0 → Discharging
EBOTA	System.FMS.CAN.EBOTA	EV CAN: Battery overtemperature alert	0 = No warning 1 = Severity 1 2 = Severity 2 3-13 = Reserved 14 = Signal error 15 = Not available
EBUTA	System.FMS.CAN.EBUTA	EV CAN: Battery undertemperature alert	0 = No warning 1 = Severity 1 2 = Severity 2 3-13 = Reserved 14 = Signal error 15 = Not available
FMBPS	FMS.FMBPS	FMS Brake Pedal Switch	0 = Pedal released 1 = Pedal depressed 2 = Error

FMSPP	FMS.FMSPP	FMS Brake Pedal Position	
FMSCS	FMS.FMSCS	FMS Clutch Switch	0 = Pedal released 1 = Pedal depressed
FMSCC	FMS.FMSCC	FMS Cruise Control Active	0 = Switched off 1 = Switched on
CCSWI	CAN.CCSWI	FM Cruise Control Set Switch	0 = Disabled 1 = Hold 2 = Accelerate 3 = Decelerate 4 = Resume 5 = Set 6 = Accelerator override 7 = Not available
FMSGR	FMS.FMSGR	FMS Current Gear	-125 = Neutral 126 = Park Negative gears are reverse gears.
FMSCI	FMS.FMSCI	FMS Cab Interior Temperature	
DCTSP	System.FMS.CAN.DCTSP	FMS Driver Cab Temperature Setpoint	
FMSTQ	FMS.FMSTQ	FMS Engine torque	
FMSFT	System.FMS.CAN.FMSFT	FMS Fuel Type	0 = Not available 8 = Battery/electric
HVICS	System.FMS.CAN.HVICS	EV CAN: HVESS Internal Charger Status	0 = Charging off 1 = Charging on 2 = Error 3 = Not available
HVVOL	System.FMS.CAN.HVVOL	EV CAN: HVESS voltage level	
HVBCR	System.FMS.CAN.HVBCR	HV Battery Current	≥ 0 → Charging < 0 → Discharging
INTLS	FMS.INTLS	FMS Inside Temperature Lower Saloon	
LSTSP	System.FMS.CAN.LSTSP	FMS Lower Saloon Temperature Setpoint	
FMSPB	FMS.FMSPB	FMS Park Brake Switch	0 = Park brake not set 1 = Park brake set
FMSSG	FMS.FMSSG	FMS Selected Gear	-125 = Neutral 126 = Park Negative gears are reverse gears.

TCODI	CAN.TCODI	FM TCO vehicle reversing	0 = Forward direction 1 = Reverse direction
TCD1C	FMS.TCD1C	FMS Driver card driver 1	0 = Card not present 1 = Card present
TCD1T	CAN.TCD1T	FMS Driver 1 time related state	0 = Normal 1 = 15 minutes before 4.5 hours 2 = 4.5 hours reached 3 = 15 minutes before 9 hours 4 = 9 hours reached 5= 15 minutes before 16 hours 6 = 16 hours reached 14 = Error 15 = Not available
TCD1W	FMS.TCD1W	FMS Driver 1 working state	0 = Rest 1 = Driver available 2 = Work 3 = Drive 6 = Error 7 = Not available
TCD2C	FMS.TCD2C	FMS Driver card driver 2	0 = Card not present 1 = Card present
TCD2T	CAN.TCD2T	FMS Driver 2 time related state	0 = Normal 1 = 15 minutes before 4.5 hours 2 = 4.5 hours reached 3 = 15 minutes before 9 hours 4 = 9 hours reached 5= 15 minutes before 16 hours 6 = 16 hours reached 14 = Error 15 = Not available
TCD2W	FMS.TCD2W	FMS Driver 2 working state	0 = Rest 1 = Driver available 2 = Work 3 = Drive 6 = Error 7 = Not available
TCOHI	CAN.TCOHI	FM TCO handling information	0 = No handling information 1 = Handling information

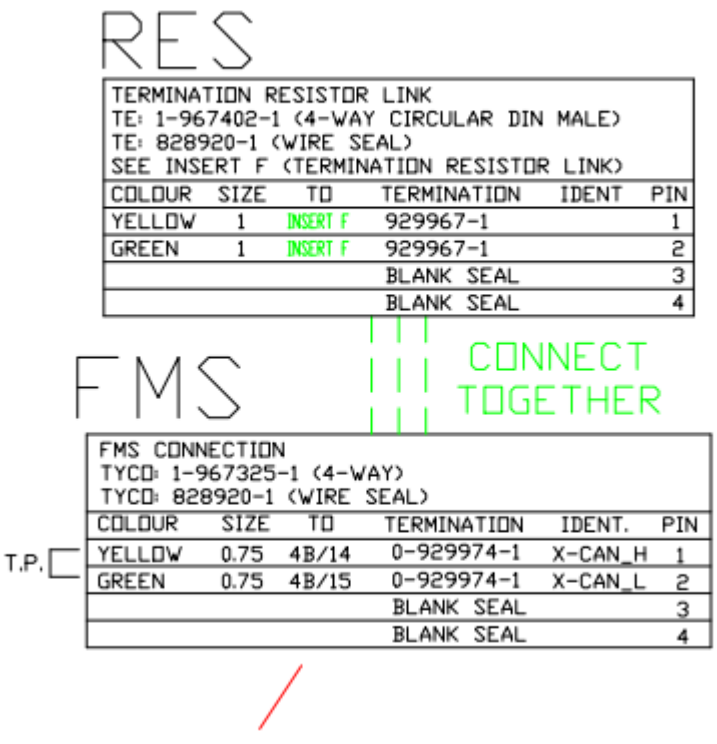
TCOSE	CAN.TCOSE	FM TCO system event	0 = No tachograph event 1 = Tachograph event
TCPER	CAN.TCPER	FM tachograph performance	0 = Normal performance 1 = Performance analysis
TCODR	CAN.TCODR	FM TCO driving detected	0 = Vehicle motion not detected 1 = Vehicle motion detected
TCOOS	CAN.TCOOS	FM TCO overspeed warning	0 = No overspeed 1 = Overspeed
HRTRP	FMS.HRTRP	High-Res Trip Distance	
INTUS	FMS.INTUS	FMS Inside Temperature Upper Saloon	
USTSP	System.FMS.CAN.USTSP	FMS Upper Saloon Temperature Setpoint	
VEHST	System.FM.CAN.VEHST	Vehicle Status	0 = Offline 1 = Battery master 2 = Ignition 3 = Drive ready (Drive mode only) 4 = Charging (Plug-in charge) 5 = Charging (Opportunity charge) 6-250 = Reserved

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	Video Box. XCan FMS 4pin Connector Usually. Sometimes 2 pin white spade connector.
Wire colours & details	CANH - yellow, CANL-green
Can bus speed	CAN_250_kbps



RES

FMS CONNECTION
TYCO: 1-967325-1 (4-WAY)
TYCO: 828920-1 (WIRE SEAL)

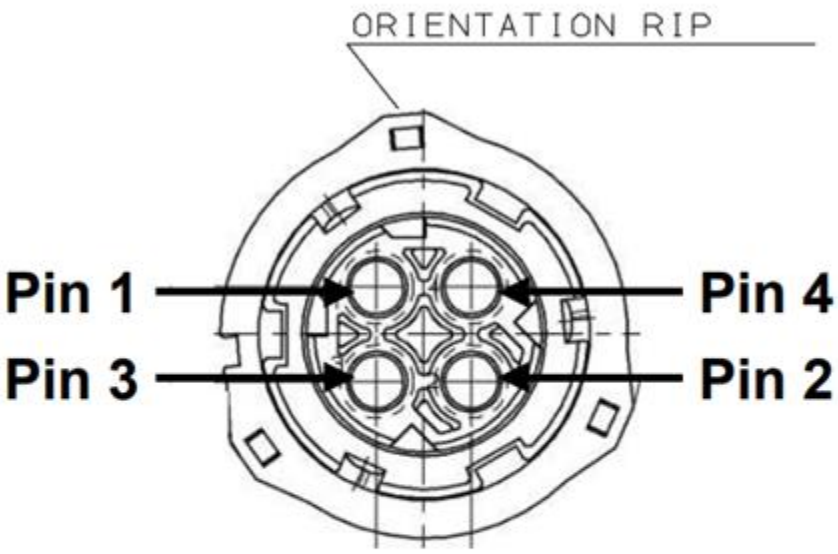
COLOUR	SIZE	TO	TERMINATION	IDENT.	PIN
YELLOW	0.75	FMS/1	0-929974-1	X-CAN_H	1
GREEN	0.75	FMS/2	0-929974-1	X-CAN_L	2
			BLANK SEAL		3
			BLANK SEAL		4

T.P.

FMS

FMS
TE: 1-967402-1 (4-WAY CIRCULAR DIN MALE)
TE: 828920-1 (WIRE SEAL)

COLOUR	SIZE	TO	TERMINATION	IDENT	PIN
YELLOW	1	X-CAN/1	929967-1	X-CAN_H	1
YELLOW	1	RES/1	929967-1	X-CAN_H	1
GREEN	1	X-CAN/2	929967-1	X-CAN_L	2
GREEN	1	RES/2	929967-1	X-CAN_L	2
			BLANK SEAL		3
			BLANK SEAL		4



Pin Layout:

Pin 1	CAN high
Pin 2	CAN low
Pin 3	Option CAN ground
Pin 4	not used by Bus-FMS-Standard