

INSTALLATION MANUAL

uAvionix AV-30 BLE Bluetooth Adapter

EasyVFR · EXPERIMENTAL

Bluetooth Low Energy adapter (BLE) that handles the data transfer between the navigation software and the GPS input of a uAvionix AV-30 Multi-Function Display (MFD) (BLE ↔ RS-232). The adapter simply plugs in between the existing wiring and the AV-30 – **no further electrical work required.**



SPECIFICATIONS

COMPATIBILITY	uAvionix AV-30 (MFD)
OPERATING SYSTEM	Android · iOS
INTERFACE	BLE ↔ RS-232
CONFIGURATION	NMEA 9600 · Serial 1
POWER SUPPLY	5–28 V

IMPORTANT

This is a prototype for exclusively experimental use!

1 AV-30 Configuration

The following settings must be made on the AV-30 to display navigation data via the SD-AV-30-E adapter. Here is an excerpt from the uAvionix installation manual:

1.1 Opening the installation menu

The installation menu is used to configure the AV-30 after installation. It should only be accessed on the ground and changed by the installer.

To enable access:

- ① First turn the unit off completely.
- ② Press and hold the main control knob while power is applied.



Figure 1 · Installation menu access

- ③ Keep the knob pressed until the startup logo appears. The installation menu is now enabled but does not appear on the screen automatically.
- ④ Make sure the unit is in **AI** or **DG** mode. Select the mode by pressing and holding the centre button until the mode display changes.
- ⑤ In **AI** or **DG** mode, briefly press the left **MENU** button three times until **INSTALL / ROT TO SEL** appears. Figure 2 shows the sequence of the displayed fields.



Figure 2 · Field sequence in the installation menu

1.2 Adjusting parameters

- ① Turn the knob left and right to reach the various adjustable parameters.
- ② Press the knob on the desired field to adjust the associated setting.
- ③ After adjusting, press the knob again to exit edit mode; the installation menu stays active.



Figure 3 · Exiting edit mode

- ④ Press **DONE**, or wait 30 seconds without input, to exit the installation menu and return to the main screen.



Figure 4 · Completing the setting and exiting the menu

IMPORTANT

Now work your way to the menu item **Serial1** and select **NMEA 9600**.

2 Connector Pin Assignment

This is an excerpt from the AV-30 installation manual:

PIN	FUNCTION	TYPE	COMMENT
1	Power	Power	+12 to +28 VDC
2	GPS Navigator	Input	GPS RS-232
3	Spare Serial	Output	Reserved – Do Not Connect
4	Serial 2	Input	Transponder RS-232
5	Serial 2	Output	Transponder RS-232
6	Serial 4	Input	AV-Mag Data
7	OAT Supply	Output	White Probe Wire
8	MFG Serial	Input	Reserved – Field Update
9	Ground	Power	Aircraft Ground
10	Aux Power Ret	Power	AV-Mag / Auxiliary Power return
11	Audio H	Output	Audio Alerts Hi
12	Audio L	Output	Audio Panel Lo
13	Aux Power Out	Power	AV-Mag / Auxiliary Power
14	OAT Return	Input	White / Blue Probe Wire
15	MFG Serial	Output	Reserved – Field Update

Source: uAvionix AV-30 manual.

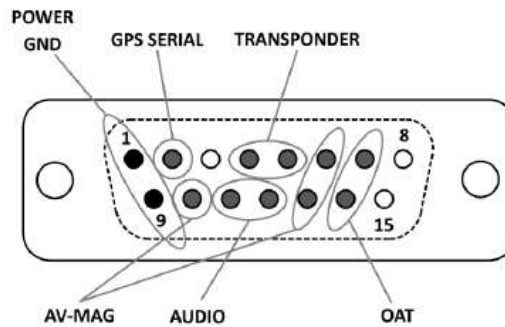


Figure 5 · AV-30 Connector Pin Assignment

3 Configuration in EasyVFR

IMPORTANT

Do not pair the SD-Link in the Bluetooth settings

The SD-Link adapter is a Bluetooth Low Energy (BLE) device. BLE devices are not paired via the Bluetooth settings of your tablet or phone like regular Bluetooth devices such as headsets or speakers.

Therefore, please do not open the Bluetooth settings of iOS, Android or Windows to search for or pair the SD-Link there.

The connection to the SD-Link is set up exclusively within the navigation app itself, e.g. in SkyDemon, Sky-Map, VFRnav, EasyVFR or another supported app. Pairing at operating-system level is not required and can even prevent the connection.

Regular Bluetooth devices such as headsets, intercoms or speakers can still be used in parallel. They are paired via the operating system as usual. The SD-Link, however, is addressed directly by the navigation app.

If the SD-Link has already been paired in the Bluetooth settings: Please remove the SD-Link completely from the Bluetooth device list of your tablet or phone. Do not pair it again via the operating system afterwards; instead, set it up again exclusively within the navigation app.

REMEMBER

**Do not pair the SD-Link in the operating system.
Always set up the SD-Link directly in the navigation app.**

3.1 Enable Bluetooth and select radio

- Switch on aircraft power, turn on the radio.
- Enable Bluetooth on your phone / tablet.
- Start EasyVFR4.

GPS, RADIO and AutoPilot Settings

Port Not Set

Bluetooth (BLE)

Enable Bluetooth BLE ☒

Radio

Trig, Garmin (GTR225 format) ☒8.33 Spacing ☒F.u.n.k.e ATR833 ☐TQ KRT2 ☐Send SL-30 format (PMRRV) ☐Send SL-40 format (PMRRC) ☐

BLE Device Manager



List of discovered Bluetooth BLE Devices and their assigned usage in EasyVFR

BT578_BLE_03EA Discovered	Type: Undefine
BT578_BLE_03EA Connected	Type: Radio

3.1.1 Enable Bluetooth BLE in EasyVFR

- ① Open menu
- ② **System** → **GPS, Radio and AutoPilot Settings**
- ③ Scroll down and activate option **Enable Bluetooth BLE**

3.1.2 Select radio protocol

- ④ Continue scrolling down to the Radio section
- ⑤ Select matching radio/protocol
- ⑥ If your device is not listed: test protocols, recommended from top to bottom
 - **GTR225** is the most comprehensive (incl. 8.33 kHz),
 - **SL40/SL30** are older legacy protocols.

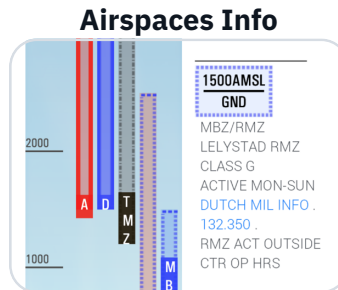
3.1.3 Open BLE device list and assign adapter

- ⑦ EasyVFR now continuously scans for BLE devices
- ⑧ Menu → **Bluetooth BLE devices**
- ⑨ Select the adapter from the list (e.g. **SD-AV-30**)
- ⑩ Tap the Type until **Radio** is set (cycle: AutoPilot / GPS/Traffic / Radio / undefined)
- ⑪ EasyVFR connects; indicated by "Connected" (incl. Bluetooth icon).

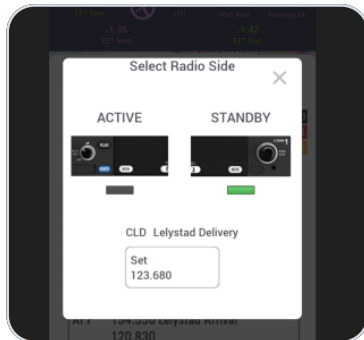
3.1.4 Send frequencies (Remote Tuning)

- ⑫ Tap frequency in:

Airfield Info	
TWR	135.180 Lelystad Tower 123.830
ATIS	120.730 Lelystad Information H24
CLD	123.680 Lelystad Delivery 123.830 Start-up and clearance delivery
APP	134.530 Lelystad Arrival 120.830



Radio and Position	
N52 27 31.0 E005 31 27.7 0.5NM NE of EHLE-Lelystad 3.6NM S of Lelystad (NL)	
Departure EHLE Lelystad, -12ft Density Altitude -396ft	
ATIS	120.730 Lelystad Information
CLD	123.680 Lelystad Delivery
TWR	135.180 Lelystad Tower
APP	134.530 Lelystad Arrival



- ⑬ Then select **Active** or **Standby** (depending on the radio, only Standby may be possible) → press **Set**.

3.1.5 Optional control aids (Radio Card)

Radio and Position	
N52 27 31.0 E005 31 27.7 0.5NM NE of EHLE-Lelystad 3.6NM S of Lelystad (NL)	
List of previously selected frequencies	
RDO	121.005 Teuge Radio
	132.350 DUTCH MIL INFO
APP	119.055 Schiphol Approach
CLD	123.680 Lelystad Delivery
TWR	135.180 Lelystad Tower
ATIS	120.730 Lelystad Information
MISC	134.480 Gilze Monitor
APP	134.530 Lelystad Arrival

- ⑭ Keypad icon: manual frequency entry

- ⑮ Clock icon: recently set frequencies (History)

4 Contact

For problems, questions, hints or positive feedback, please contact:

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