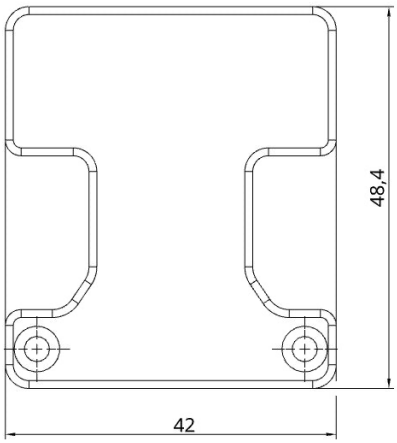
uAvionix AV-30 SD-Link - Adapter BLE Bluetooth

SkyDemon (SD) EXPERIMENTAL



Bluetooth Low Energy Adapter (BLE) for a uAvionix AV-30 Multi-Function Display (MFD).
The adapter was developed as a BLE interface between the AV-30 and the navigation software SkyDemon (SD). It enables data transfer between the navigation software (SD) and the GPS input of the AV-30 via Port 1 (Serial 1). The adapter is simply inserted between the existing wiring and the AV-30 unit and is secured to the housing using two knurled screws.
No additional power supply is required. The adapter can be powered with either 12 V or 24 V aircraft voltage. An existing AV-Link module remains functional.

No further electrical or mechanical work required!

Please note: This is a prototype intended for experimental use only!

1. Configuration of the AV-30

The following settings must be applied to the AV-30 to enable navigation data display via the SD-AV-30-E adapter.

Excerpt from the installation manual by uAvionix:

14 Installation Menu

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

To enable access the installation menu, ensure the unit is completely turned off. Press and hold the main control knob in while power is applied.

Figure 28 - Installation Menu Access

Keep the knob pressed until the startup logo has appeared. The installation menu will now be enabled for access but will not automatically appear on the screen.

Ensure the unit is in AI or DG mode; select the mode by pressing and holding the center button until the mode display changes. When in AI or DG mode, press and release the left MENU button three times until “INSTALL / ROT TO SEL” appears. The sequence of fields displayed is shown in Figure 29.

Figure 29 - Installation Menu Access

Rotating the knob left and right will access the various parameters that may be configured. Pressing the knob when the desired field is shown will allow the associated setting to be adjusted.

After adjustment, pressing the knob again will exit the editing mode but the installation menu will remain active.

Figure 30 - Exiting Edit Mode

Pressing DONE or a lack of user input for 30 seconds will exit the installation menu and return to the primary screen.

Figure 31 - Setup Done / Exit Option

Navigate to the menu item “Serial1” and select “NMEA 9600”.

2. Connector Pinout

Excerpt from the AV-30 installation manual:

11.9 Unit Pinout

Table 7 - Connector Pinout

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

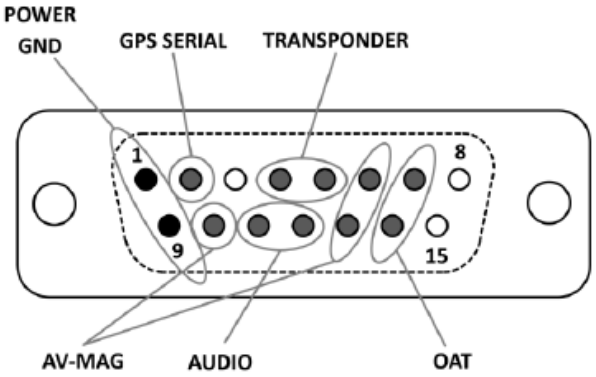


Figure 17 - Unit Connections – DB-15, Male (Rear Unit View)

3. Kontakt

In case of issues, questions, suggestions, or positive feedback, please contact:

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