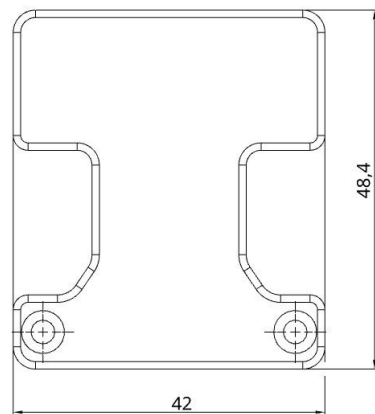


uAvionix AV-30 BLE Bluetooth Adapter

sky-map EXPERIMENTAL



Bluetooth Low Energy (BLE) adapter for a uAvionix AV-30 Multi-Function Display (MFD). The adapter was developed as a BLE interface for an AV-30 to the navigation software sky-map. It realizes the data transfer between the navigation software (SD) and the GPS input of the AV-30 on Port 1 (Serial 1). The adapter is simply plugged between the existing wiring and the AV-30 and is held securely to the housing thanks to two knurled screws.

No additional power supply is necessary. The adapter can be operated with 12 V and 24 V on-board voltage. An existing AV-Link module remains functional.

No further electrical or mechanical work necessary!

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:

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.

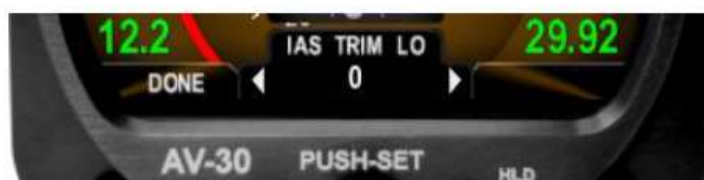


Figure 30 - Exiting Edit Mode

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

Figure 1: Serial1 Setting

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:

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 |

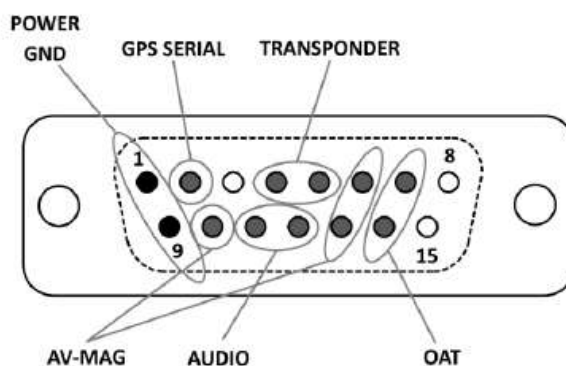
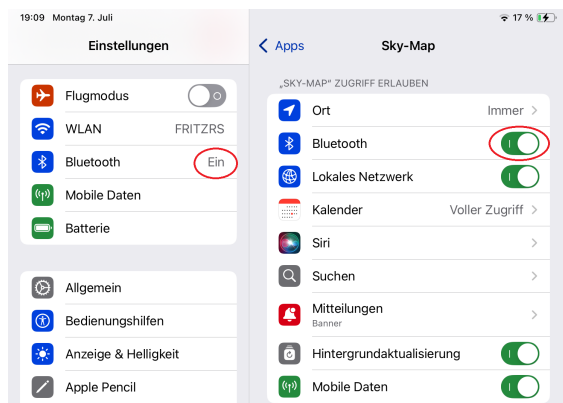


Figure 17 - Unit Connections – DB-15, Male (Rear Unit View)

Figure 2: AV-30 Connector Pin Assignment

3 Configuration in sky-map

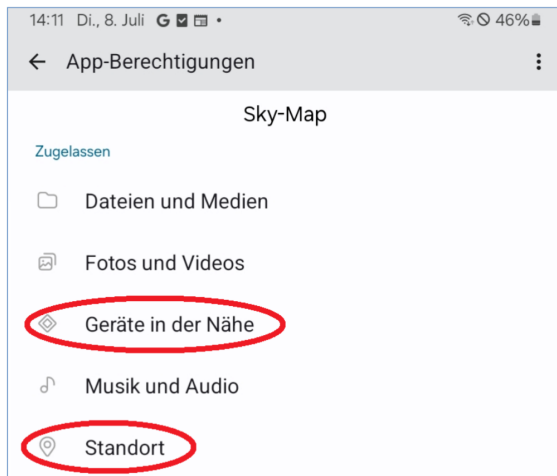
3.1 Prerequisites and Configuration in iOS



iOS Settings:

1. Bluetooth must be enabled in the iOS settings.
2. Under *Apps/sky-map*, access to Bluetooth must be granted.

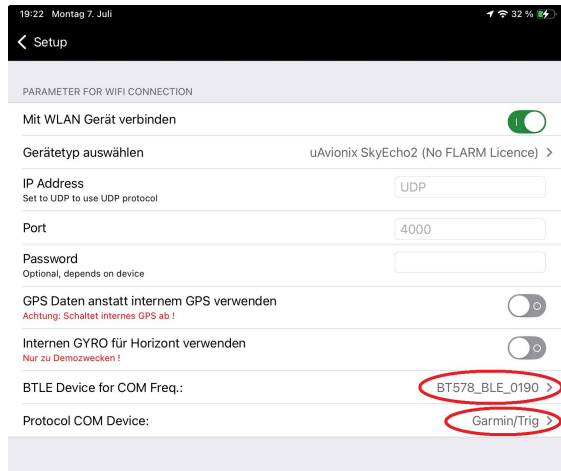
3.2 Prerequisites and Configuration in Android



Android Settings:

1. Bluetooth must be enabled in the Android settings.
2. Under *Apps/sky-map*, access to **Nearby devices** and **Location** must be granted.

3.3 Establishing Connection with the Adapter



3. Turn on the radio with the adapter.
4. Open in sky-map:
Menü → Setup → Wireless Interface Setup
5. Select **SD-AV-30-E** (if multiple are available).
6. Select the appropriate protocol for your radio:
uAvionix AV-30
7. Exit the setup.

At the next program start, sky-map will automatically reconnect to the last selected BTLE adapter.

Important: For the automatic connection at program start to work, the radio and BTLE adapter must be turned on **before** sky-map is started. If this is not the case, the connection must be established manually by accessing the setup (see step 4).

4 Contact

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

LayCom Vision GmbH – SD-Link
Michael Hoffmann

Chausseestr. 46
D-15518 Rauen, Germany

E-Mail: info@sdlink.de
Phone: +49 3361 710253

