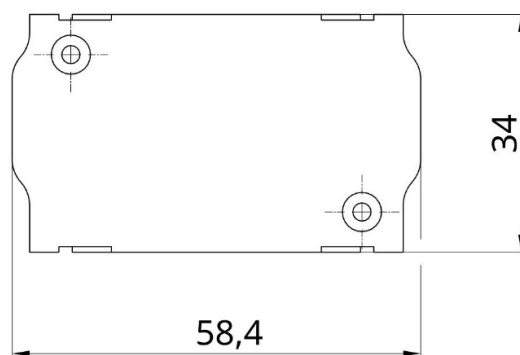# f.u.n.k.e ATR833 - BLE Bluetooth Dual Source Adapter

SkyDemon (SD) EXPERIMENTAL

The Bluetooth Low Energy adapter (BLE) for a f.u.n.k.e ATR833 VHF transceiver (aviation radio) is compatible with the following devices: **ATR833, ATR833S, ATR833A, ATR833-II, ATR833A-II.**

The adapter was originally developed for connection to the SkyDemon navigation software, but is now compatible with a variety of navigation apps that support frequency transmission. It implements the data transfer between the navigation software and the radio hardware (BLE ↔ RS-232). The adapter simply plugs in between the existing wiring and the radio and is securely held in place on the housing thanks to the Molex Spring Lock system.

No additional power supply is required. The adapter can be operated with 12 V and 24 V onboard voltage. An internal, self-resetting fuse is integrated in the housing. The power supply is protected against reverse polarity and short-circuit proof.

The adapter also works when an EFIS is already connected to the radio.

No additional electrical or mechanical work required!

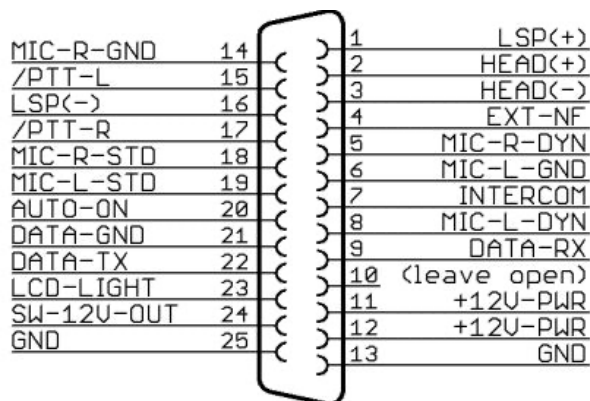> **Important:** This is a prototype for experimental use only!

1   Radio Configuration

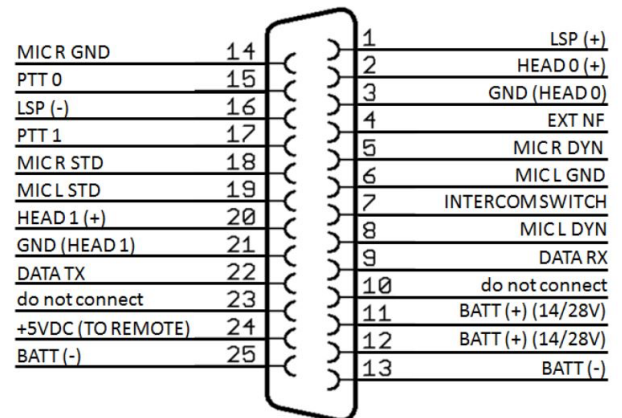No further configuration is required on the radio.

2   Connector Pin Assignment

This is an excerpt from the f.u.n.k.e installation manual:

4.7.2 Connector – Pin Allocation

	Old version (ATR833)		New version (ATR833-II)

Old version (Figure 1) — D-SUB Connector Female seen from solder side:

Left pin	#	Right pin	#	Signal
MIC-R-GND	14	1		LSP(+)
/PTT-L	15	2		HEAD(+)
LSP(-)	16	3		HEAD(-)
/PTT-R	17	4		EXT-NF
MIC-R-STD	18	5		MIC-R-DYN
MIC-L-STD	19	6		MIC-L-GND
AUTO-ON	20	7		INTERCOM
DATA-GND	21	8		MIC-L-DYN
DATA-TX	22	9		DATA-RX
LCD-LIGHT	23	10		(leave open)
SW-12V-OUT	24	11		+12V-PWR
GND	25	12		+12V-PWR
		13		GND

Figure 1: Old version (ATR833)

New version (Figure 2) — D-SUB Connector 25 Pin Female seen from solder side:

Left pin	#	Right pin	#	Signal
MIC R GND	14	1		LSP (+)
PTT 0	15	2		HEAD 0 (+)
LSP (-)	16	3		GND (HEAD 0)
PTT 1	17	4		EXT NF
MIC R STD	18	5		MIC R DYN
MIC L STD	19	6		MIC L GND
HEAD 1 (+)	20	7		INTERCOM SWITCH
GND (HEAD 1)	21	8		MIC L DYN
DATA TX	22	9		DATA RX
do not connect	23	10		do not connect
+5VDC (TO REMOTE)	24	11		BATT (+) (14/28V)
BATT (-)	25	12		BATT (+) (14/28V)
		13		BATT (-)

Figure 2: New version (ATR833-II)

Pin	Names	Functionality
1	LSP(+)	Output external Loudspeaker Positive
2	HEAD-0 (+)	Output Headset-Speaker Positive
3	GND (HEAD-0)	Output Headset-Speaker Negative
4	EXT-NF	Input external Audio-Signal
5	MIC R DYN	Input Microphone Right Dynamic
6	MIC L GND	Input Microphone Left Ground
7	INTERCOM SWITCH	Intercom Activation Switch (connect to ground for Intercom activation)
8	MIC L DYN	Input Microphone Left Dynamic
9	DATA-RX	RS232 Receive (for Remote Control)

Pin	Names	Functionality
10	do not connect	Pin 10 is used by adapters for device identification
11	+14 / +28V-PWR	Input Power Supply +12V
12	+14 / +28V-PWR	Input Power Supply +12V
13	BATT (-)	Ground Side of Power Supply
14	MIC R GND	Input Microphone Right Ground
15	PTT-0	Push-to-Talk 0 (connect to ground for transmitting)
16	LSP(−)	Output external Loudspeaker Negative (Not identical to ground!)
17	PTT-1	Push-to-Talk 1 (connect to ground for transmitting)
18	MIC R STD	Input Microphone Right (Headset 1)
19	MIC L STD	Input Microphone Left (Headset 0)
20	HEAD 1 (+)	Output 1 Headset-Speaker Positive
21	GND (HEAD 1)	Output 1 Headset-Speaker Negative
22	DATA-TX	RS232 TX (for Remote Control)
23	N/A	do not connect
24	+5VDC OUT	5VDC Power Supply for Remote Control
25	BATT (-)	Ground Side of Power Supply

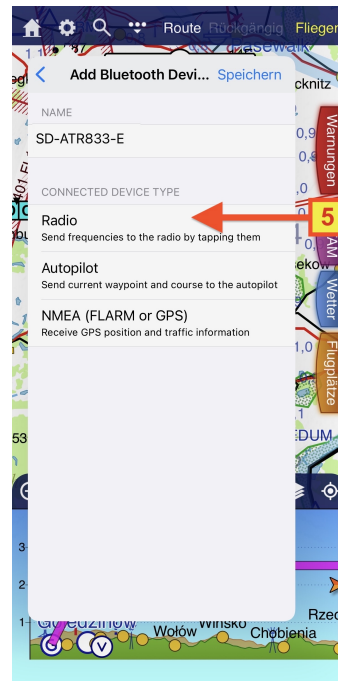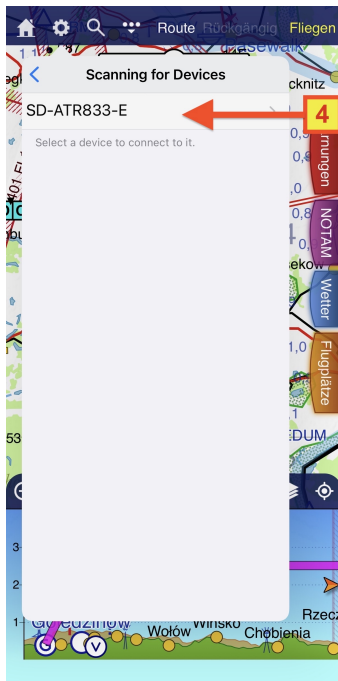# 3   Configuration in SkyDemon

> **Important:** The adapter is not connected via regular Bluetooth settings. BLE devices are usually not displayed there.
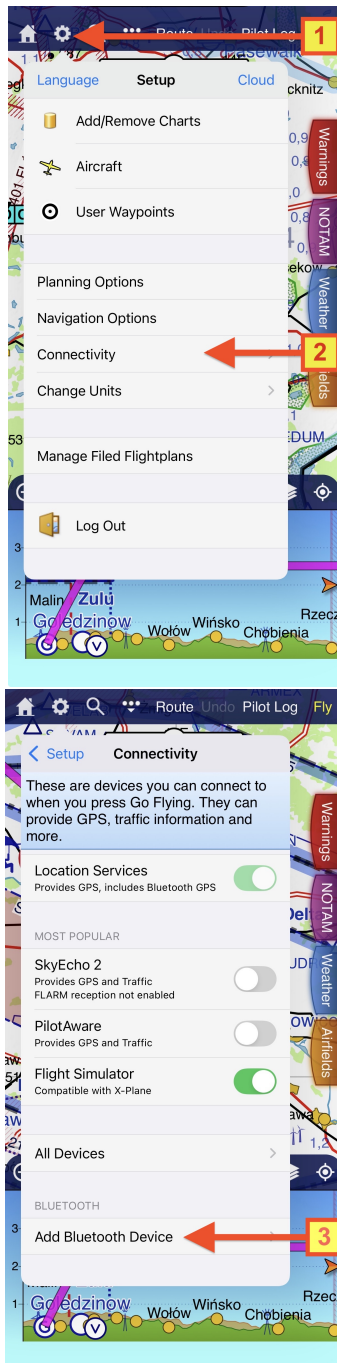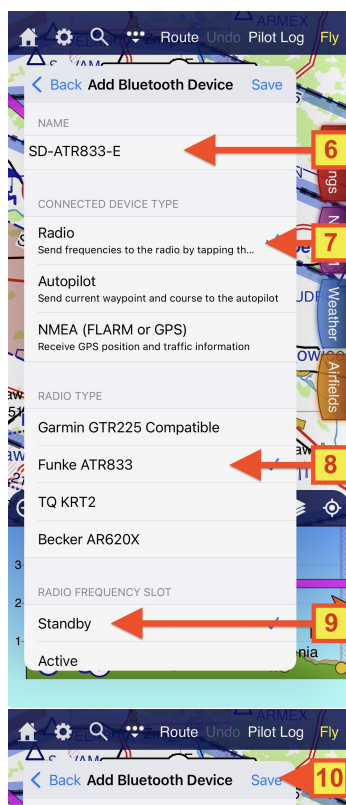
1. Open the configuration menu via the gear icon.

2. Select *Wireless Devices* in the configuration.

3. In *Wireless Devices* -> select *Add Bluetooth Device*.

4. Wait until the search for BLE devices is complete (this may take a moment). Then select the entry **SD**-**ATR833**-**DS**

5. Select the device type **Radio**.

6. The adapter name can be customized as desired.

7. The device type **Radio** must be selected.

8. Select the radio type **Funke ATR833**.

9. Choose whether to set the standby or active frequency.

10. **Save the settings with Save** - the adapter is now ready for use.

4   Contact

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

LayCom Vision GmbH – SD-Link
Michael Hoffmann

Chausseestr. 46
D-15518 Rauen, Germany

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