NEW FEATURES!
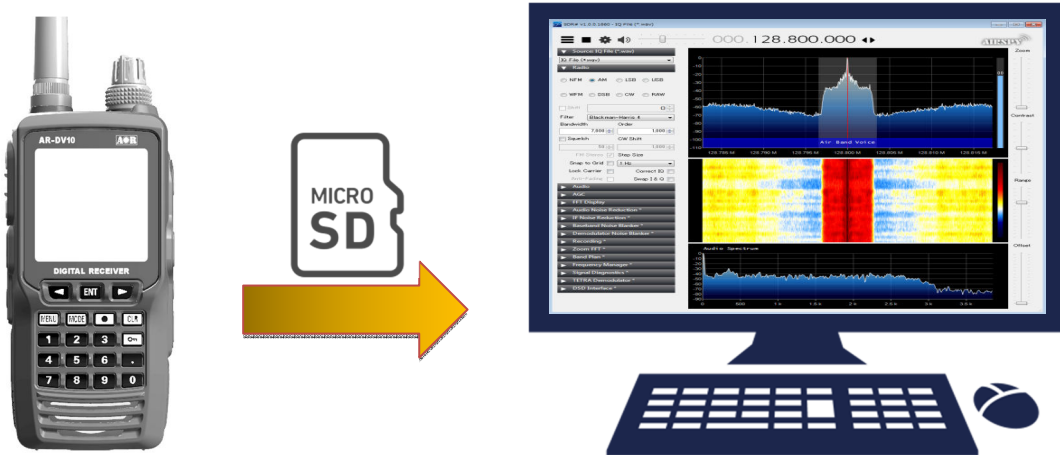
➢ **Record I/Q data on SD card, playback with SDR# software** (since v.1810A)

Instructions:

- Insert the SD card into the receiver
- MENU
- → CONF + ENT
- → SAVE TYPE + ENT
- Select IQ by rotating the dial selector + ENT
- Press ● to start recording
- Press ● to stop recording
- Insert the SD card into your PCs SD card reader
- Download the SDR# software at https://airspy.com/download (select the WINDOWS SDR   SOFTWARE PACKAGE.
- Extract the zip file to the PC folder of your choice. (No driver installation is required)
- To start the SDR# software, double click the file SDRSharp.exe

① In SOURCE, select IQ FILE
② Click that wheel shaped button and select your
   IQ recording file inside the SD card
③ Click the play button to start playback
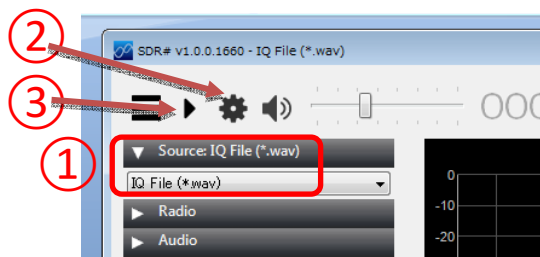
File format:

- 30 kHz bandwidth (+/-15kHz), 38.4kS, 16 bit
- The I/Q files will be saved in this file format: q-------.wav
- Long recordings will automatically be split in chunks of 100MB (approx. 10 min.)

Hint:
To have SDR# display the correct center frequency,
Instead of 000.000, it is advised to rename your IQ
recording file to the following format: ------khz.wav
------ is the frequency in kHz, for example:
128800kHz.wav for 128.8MHz
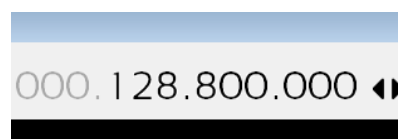
➢ **Discriminator audio recording** (since v.1810A)

- Insert the SD card into the receiver
- MENU
  → CONF + ENT
  → SAVE TYPE + ENT
- Select DISC + ENT
- Press ● to start recording
- Press ● to stop recording

The discriminator audio files will be saved in this file format: d-------.wav

Discriminator audio is an unfiltered signal, also called baseband audio. It is required by some PC applications decoding data signals such as CTCSS, SCA, FSK, RTTY, FAX, Pager data, and trunked system control data, etc. For details we invite you to ask Google.

➢ **Manual XTAL offset** (since v.1810A)

(For advanced users only. Do not change unless you know exactly what you are doing.)
This setting allows manual adjustment of the receive frequency accuracy, in addition to the automatic temperature dependant drift compensation.
The offset value is a relative value, it does not correspond to ppm.

- MENU
  → CONF + ENT
  → XTAL OFFSET + ENT
- Rotate the dial selector knob until reaching the desired value (between -9990 and + 9990)
- ENT

➢ **Power-save** (since v.1812C)

To activate it, MENU + 7, then go to page 2/3.
To reduce battery drain, this function cycles sleep/awake state by the ratio 100ms awake / 900ms sleep.
Note: When the power save mode is set to ON, following might be noticed:
Some displayed characters might look thinner than usual.
The first few milliseconds of a signal's audio might be truncated in some cases, especially in digital modes.
During SCAN/SEARCH, power-save is automatically disabled.
For full performance, set the power-save function to off.

➢ **LOG-REC** (since v.1812C)

To activate it, MENU + 7, then go to page 2/3. (Can only be activated when SAVE TYPE is set to AUDIO)
Logs of audio recordings are written into the wav file.
Use the PC utility LOGEXTRACT (http://www.aorja.com/receivers/ar-dv10.html) to access the logs and playback related audio files on your PC.

➢ **Sound gain** (since v.1812C)

To operate it, MENU + 7, then go to page 2/3. Can be set from 01.00 (normal) to 15.94 (loudest)
To be used only if maximum sound volume obtained with VOL ATT set to 00, is insufficient.

➢ T-TC mode addition (since v.1904A BETA)

Allows voice decoding of the traffic channels of TETRA TRUNKING networks.
To enable this new mode, select the newly added T-TC button in the MODE menu (second page).
Slot selection: Long press on MODE + 5. Press the left arrow key twice to select "TC SLOT". Press ENT and rotate the sub-dial to chose either slot 1, 2, 3, 4 or AUTO. Press ENT twice to validate.
As your target frequencies are probably in the 400MHz area, make sure to use the supplied telescopic antenna, reduced to 1 element for optimal S/N ratio.

➢ AR DATA EDITOR (Requires v.1912A to support the Tetra slot number feature)

A convenient browser-based memory data editor for AR-DV10 at:

http://www.aorja.com/AR-DATA-EDITOR/help.html

• Load, edit and save your receiver's memory channel data.
• Create new frequency databases
• File format conversion between AR-DV1 and AR-DV10. In other words, a frequency database of one receiver can be opened and saved into a format the other receiver can understand.

➢ Band plan (since v.1912A BETA)

Addition of band plan per region (Japan, Europe, USA) based on the AR2300/AR5001D/AR6000 series receivers.

MENU+7
Press the arrow key until the line AUTO REGION.
Press ENT and select the desired region by rotating the sub-dial.
Validate with ENT.
Select the new receive mode A-AUTO (see below).

➢ A-AUTO (since v.1912A BETA)

Addition of ANALOG-AUTO mode (A-AUTO in the mode menu).

MODE+3

When enabled, "A.Au" will be displayed at the right of the LCD.

➢ Shortcuts (since v.1912A BETA)

Addition of up to nine user-defined keyboard shortcuts to most used functions. (Settings not remembered after battery is removed. This is a BETA version for experimentation.)

NEW: Since v. 2101A, shortcuts are now saved in memory, even after battery removal. However, shortcut data is not yet part of a system backup to SD card. This will be added in the future.

Create a shortcut:

1. Press the LOCK key.
2. Press the [.] key for EDIT.
3. Press ENT to create a shortcut.
4. Select the shortcut number to assign with the arrow key and press ENT.

5. You are now in the main VFO screen, with the key-lock sign blinking at the top left of the screen.
6. All keys you press from now on will be recorded for the shortcut: Press the necessary keys to go to your target function. Once arrived at destination, press the key-lock key again to stop recording your key presses.
7. This brings you to the title edit page. Enter a name for your shortcut (Refer to user manual chapter 10.3 for instructions) and press ENT to validate.

Activate a previously created shortcut:

1. Lock key
2. Select desired shortcut.
3. ENT

Edit a previously saved shortcut title:

1. LOCK key
2. [.]
3. 2
4. Select title to edit + ENT.
5. Edit as needed.
6. ENT to validate.

Erase a shortcut:

1. LOCK key
2. [.]
3. 3
4. Select shortcut to erase.
5. ENT to validate

➢ **SD file delete** (since v.1912A BETA)

SD card files can now be deleted directly on the receiver.

Long press the record key.
3
Using the arrow key, select the file to be deleted.
ENT twice.

➢ **Ease of use** (since v.1912A BETA)

○ Faster way to set a PASS frequency during SEARCH: Press the CRL key.
○ Faster way to toggle PASS frequencies ON/OFF during MEMCH: Press the CRL key.
○ Faster way to toggle between MEMCH and SCAN functions: Press the [.] key.
○ The SEARCH GROUP NUMBER and SCAN GROUP NUMBER can now also be set via the sub-dial, in addition to via the numerical keys.
○ In MENU-CONFIG to change a value on a selected line, no need any more to press ENT before turning the sub-dial.
○ AUT1 mode: When CTCSS or DCS is set, long press on SQL now allows monitoring.

User manual addendum:

Chapter 4. ANTENNA

The rubber antenna has been fine tuned for AIRBAND. For other bands, use the supplied telescopic antenna for optimum performance. For 400MHz, reduce the antenna length to minimum (1 segment) for optimal signal to noise ratio.

Chapter 10.7. ADVANCED DIGITAL MODE SETTINGS

Please note that from firmware version 1912A, the NXDN auto-descramble activation has been moved from the KEY LOCK key to the POWER key.

Receiver specifications erratum:

Page 59:

Frequency stability   ±5ppm (+14°Fto +122°F [-10°C to +50°C])
                       ↓
                       Considering the significant excursion of longer wavelengths, below 25 MHz, it may be possible to notice a
                       degradation of the frequency stability over the "+/- 5ppm" parameter.

➢ Optional PRO feature: Tetra GSSI user group filtering (since v.2101A)

(This PRO feature is fitted as standard on the high-end AR5700D receiver, but a chargeable option for the AR-DV10.)

- To activate this PRO feature, first you have to purchase an activation key at: https://www.aordirect.jp/. Then, the 15-digit activation key has to be registered into your receiver as follows:

Press MENU+5+9
Input the 15-digit key via the numeric keypad. After the last digit has been input, the screen will be automatically reverted to the standard VFO mode.
Reboot the receiver

To check if activation has been successful:
Press MENU+7+left arrow
If a "T" amends the firmware version number (for ex. 2101A**T**), activation has been successful.
If unsuccessful, re-enter carefully the activation code as described above.

The activation code will remain in memory even after a firmware update (to a higher version), a system reset and a full reset.

How to use the optional TETRA GSSI user group filtering PRO feature for AR-DV10

① VFO mode

In T-TC mode, tune to any traffic channel of the target TETRA network. The receiver will automatically switch to its main traffic channel.
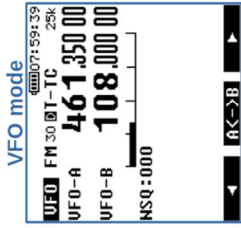
② Press MENU+5+1

Monitored traffic channel & GSSI favorites

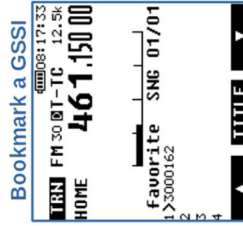If it's your first use, the dotted "favorites" area will be empty.
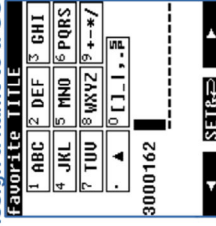
③ Press MENU+5+2

GSSI list

Here is where the GSSI numbers of the monitored TETRA network will be automatically listed. As there need to be some activity on a GSSI to be listed, it may take some time to be completed.

Press MENU+5+1

Bookmark a GSSI

Press ENT

Assign a name to a GSSI

Enter characters via the keypad. Press an arrow to move the cursor.

④ SNG ↔ MUL

Choose between GSSI single or multi receive

Rotate the dial selector knob to change the selection. If in SINGLE mode, only the selected GSSI will be heard.

Press MENU + 5 + 4 for multi
Press MENU + 5 + 5 for single

SINGLE: Only the selected GSSI is received
MULTI: All active GSSIs are received

Selected GSSI >3000162

Muted GSSI X3000111   Press CLR to mute or unmute this GSSI.

GSSI list page 01/04   GSSI list page number. Max. 7 pages (or 50 entries).

To leave the GSSI function: Press MENU+1+1

GSSI received now 3000444*

GSSI with activity 3000106*

Received GSSI info 3000460(13204850)   GSSI#(user ID)
BAGGAGE   Assigned favorite name

How to delete a favorite

Select the bookmark with the dial selector knob
Press MENU+8
Press the left arrow until "FAVO LIST DEL" is selected.
Press ENT
Press ENT