Hill
A U D I O

17:12

SOURCE MENU
FM RADIO
WEB RADIO

NETWORK | FM | USB
RECEIVER & PLAYER

USB

JGL
JINGLE PLAY

NAVIGATION
press to ENTER

DATA

IR

LAST PLAYED   BROWSE

SRC   **BACK**   **SET**

MUTE   **DELETE**   **ADD STATION**

TRANSPORT

USER MANUAL
RevA 10-2015

DMW-300
NETWORK | FM | USB
RECEIVER & PLAYER

Welcome

Thank you for choosing Hill Audio for your sound system. To make sure that this product meets your expectations and provides long-term, reliable performance, please read and follow this instruction manual carefully.

Manual Language

UK	This user manual is written in English. For other languages, visit	www.hill-audio.com
FR	Ce guide est écrit en anglais. Pour les autres langues, visitez:	www.hill-audio.com
DE	Diese Anleitung ist in Englisch verfasst. Für andere Sprachen:	www.hill-audio.com
ES	Este manual está escrito en Inglés. Para otros idiomas, visite:	www.hill-audio.com
PT	Este manual está escrito em Inglês. Para outros idiomas, visite:	www.hill-audio.com
IT	Questo manuale è scritto in inglese. Per altre lingue, visitare:	www.hill-audio.com

Important safety instructions

■ Read these instructions and all markings on the product. Keep these instructions.

■ Heed all warnings and instructions, both in this manual and on the product.

■ Clean only with a dry cloth. Unplug from AC supply before cleaning.

■ Do not use this product near water and avoid any exposure to water.

■ Before connecting this product to any AC supply, make sure to check whether the AC mains voltage and frequency match the indication on the product and its packaging.

■ Only connect this product to an AC supply with sufficient power handling, protective earth connection, ground-fault (earth-fault) protection and overload protection.

■ Disconnect the product from the AC supply during thunderstorms or longer periods of being unused.

■ Make sure any heat sink or other cooling surface, or any air convection slot , is exposed sufficiently to free air circulation and is not blocked.

■ Do not operate this product in environmental temperatures exceeding 35 degrees Celsius and/or 85% relative humidity.

■ Position the product in a safe and stable place for operation, out of reach of unauthorized persons.

■ Make sure any cable connections to and from the product are neither subject to potentially destructive mechanical impact nor present any risk of stumbling or other accident risk to people.

■ Audio equipment may generate sound pressure levels sufficient to cause permanent hearing damage to persons. Always start up at low volume settings and avoid prolonged exposure to sound pressure levels exceeding 90 dB.

■ Do not open this product for service purposes. There are no user-serviceable parts inside. Warranty will be void in any case of unauthorized service by the user or other not authorized persons.

■ Take any precaution required by local law, applicable regulations or good business practice to avoid injury of people or material damage by use of this product.

Explanation of symbols used in this manual and on the product:

ATTENTION!
Read manual
before installation
and operation.

DANGER!
Safety hazard.
Risk of injury or death.

WARNING!
Hazardous voltage.
Risk of severe or fatal
electric shock.

WARNING!
Fire hazard.

1.1. Description

The DMW300 is a digital program source for commercial sound systems, and can work as a stand-alone media player, as a network media player playing files from the network via UPnP, as an internet radio and also as a terrestrial radio receiver being able to receive analog FM Radio with RDS readout. It offers wired or wireless network access, an IR remote control and menu separation for the installer and user, to provide safe, simple and reliable operation.

1.2. Health advice

This unit produces and absorbs electromagnetic radiation. The strength of radiation and the sensitivity for disturbing interference matches the CE and FCC requirements. A corresponding sign is printed on the backside of the unit. Any change or modification may affect the behavior of the unit concerning electromagnetic radiation, with the CE requirements eventually not to be met any more. The manufacturer takes no responsibility in this case.

1.3. Functional advice

This unit is immune to the presence of electromagnetic disturbances – both conducted and radiated - up to a certain level. Under peak conditions, the unit is classified to show a "class C" performance criteria and may encounter temporary degradation or loss of function which may need manual help to recover. In such case, disconnect the AC power from the unit and reconnect it again to recover.

1.4. Environmental advice

This unit is built to conform to the ROHS standards and the WEEE directive 2002/96/EC of the European Parliament and of the Council of the European Union. Under these regulations, the product shall not be discarded into regular garbage at the end of its life, but shall be returned to authorized recycling stations.

1.5. Unpacking

Please check that the box contains the following items:

Main parts: 1 pc. DMW300 main unit
              1 pc. Mains cable
              1 pc. Operation manual
              1 pc. Remote Control

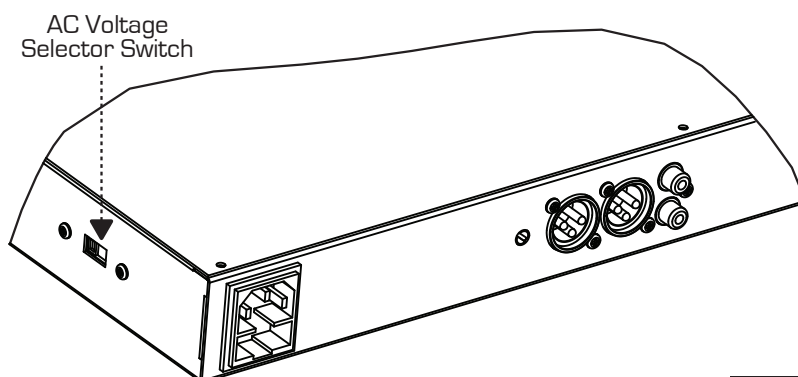If any part is missing, please contact your dealer immediately for replacement.

1.6. Warning

After unpacking, and before plugging the AC cord in the wall outlet, check whether the AC mains voltage and frequency is the same as this product is specified for (see rear panel of product). Whenever the specified voltage or your AC plug should not match the local conditions, do NOT plug the AC cord into the wall outlet and contact your dealer immediately.
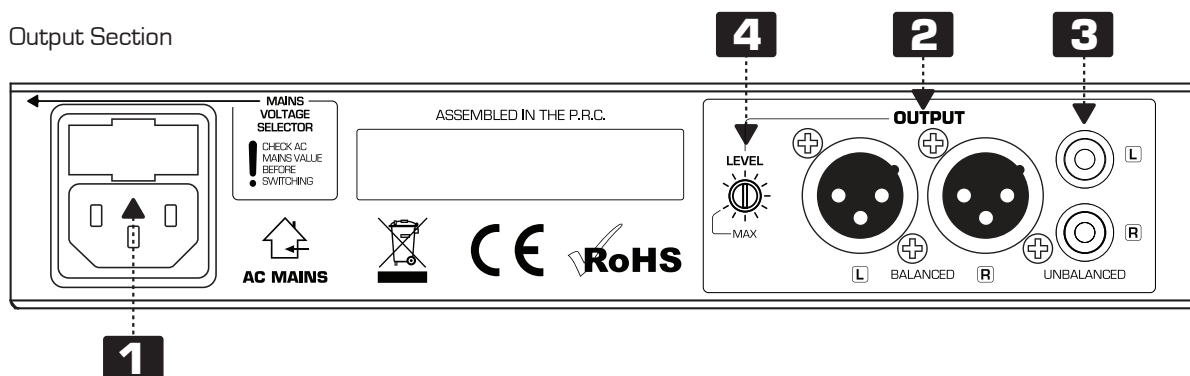
1.7. AC mains voltage setting

If the AC mains voltage of your power outlet and the setting of the AC supply voltage on your unit do not match, contact your dealer, contractor or a qualified service workshop to change the setting of the AC voltage selector. The AC voltage selector switch is located on the side panel of the unit, close to the AC inlet.
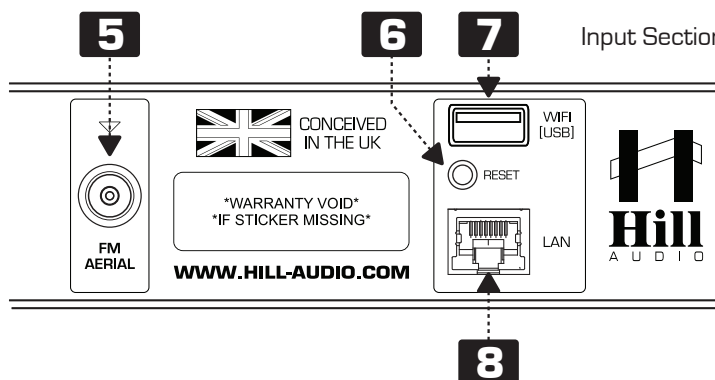
AC Voltage
Selector Switch

2.1. Controls and Connections

Connections - Rear

Output Section

4 **2** **3**

MAINS VOLTAGE SELECTOR

CHECK AC MAINS VALUE BEFORE SWITCHING

ASSEMBLED IN THE P.R.C.

OUTPUT

LEVEL

MAX

AC MAINS

RoHS

L BALANCED   R UNBALANCED   L   R

1

5 **6** **7** Input Section

FM AERIAL

CONCEIVED IN THE UK

WARRANTY VOID *IF STICKER MISSING*

WWW.HILL-AUDIO.COM

WIFI [USB]

RESET

LAN

8

Control - Front

19 **9** **10** **11** **12** **13**

17:12

SOURCE MENU
FM RADIO
WEB RADIO

NETWORK | FM | USB
RECEIVER & PLAYER

USB

JGL

JINGLE PLAY

DMW 300

NAVIGATION
press to ENTER

DATA

LAST PLAYED   BROWSE

SRC   BACK   SET

MUTE   DELETE   ADD STATION

TRANSPORT

18 **17** **16** **15** **14**

5   6   7   8   9
DIRECT 2-DIGIT ACCESS
0   1   2   3   4

R·D·S RADIO DATA SYSTEM

UPnP

ON

POWER

**20** **21**

2.2. Functional Description

The DMW300 is both a receiver for internet radio and terrestrial FM radio, as well as a USB and network media player to play the music library stored in any of the computers in the local network that are compatible with the UPnP (Universal Plug and Play) media sharing protocol. The DMW300 is specifically catering for background music replay in commercial venues and as such allows easy access to preset sources, while system settings are not easily accessible by the operator to avoid accidental change of settings by unqualified operators; this is achieved by two different user levels, named SOURCE_MENU (SRC) mode and SET_MENU (SET) mode. The DMW300 can be connected to a wired network or a wireless network via an optional USB WiFi adapter. An IR remote control is available for the main functions.

1 AC inlet and fuse holder. Use the supplied AC cord to connect the unit to AC mains. Make sure voltage and frequency stated and set on the unit comply with your local AC supply. The fuse can be accessed by the small drawer at the AC inlet. To change the fuse, unplug the AC cord first, pull out the fuse drawer and replace the fuse ONLY with a fuse of SAME voltage and rating. If the fuse blows again after replacement, hand over the unit to qualified service personnel.

2 Stereo Main output. This is a balanced stereo XLR output carrying the main output signal.

3 Stereo Main output. This is an unbalanced RCA output carrying the same signal as output (2).

4 Maximum level setting for Stereo Main output. This control allows to limit the maximum level at the outputs (2)/(3) in order to match the connected sound system. Adjustments shall be made with a small screw driver. Note that the total angle is 300 degrees; do not apply excessive force with the screw driver.

5 Aerial socket. Plug in a suitable FM antenna here, or connect any suitable antenna cable of the house installation here (75 Ohms cable). Depending on whether the antenna connector is male or female, the included adaptor may be required.

6 Reset button. In the unlikely event of an unforeseen operational status, press this button to re-boot the unit.

7 Rear USB connection. This USB-type-A socket is mainly designated for insertion of a USB WiFi adaptor in case the unit is supposed to be connected to the LAN via WiFi. Note that only Ralink RT5370-based USB WiFi adaptors are compatible with this unit.

8 LAN connection. This is a standard RJ45 jack for insertion of a network cable. Whenever possible, it is recommended to operate this unit via this input and a wired LAN access.

9 Display. This is a A 128x64 monochrome graphics display, indicating the operational status of the unit.

10 NAVIGATION wheel. This is turn/push encoder; turn left to navigate up or turn right to navigate down in a menu. Press the control to confirm an item selected in the menu (ENTER).

11 SRC (LAST PLAYED) button. SRC is the abbreviation for "SOURCE". This switch with rear illumination selects the source (continuously lit when source is confirmed, flashing when new source is under selection)

12 BACK (BROWSE) button. This switch with rear illumination allows to navigate backwards.

13 SET button. SET is the abbreviation of "SETTINGS". This switch with rear illumination switches between the two main modes of the unit (all time lit on when the unit is not in SET_MENU mode; flashing when the unit is in SET_MENU mode)

14 FWD button. FWD is the abbreviation of "FORWARD". This switch with rear illumination allows a "forward" transport function in certain menus or might be assigned to other functions.

15 BWD (DELETE) button. BWD is the abbreviation of "BACKWARD". This switch with rear illumination allows a "backward" transport function in certain menus or might be assigned to other functions.

16 PLAY/PAUSE (MUTE) button. This switch with rear illumination allows to change the replay/mute status (all time lit when PLAY, flashing when PAUSE/MUTE)

17 IR receiver. This is the optical receiver for the optional IR remote control. Make sure this area is not covered and a line of sight is provided between this receiver and the IR remote control to secure proper function.

18 JGL button. JGL is the abbreviation of "JINGLE". This switch with rear illumination activates the jingle mode and depending on other settings made, will either activate scheduled replay or allow one-shot replay of prestored jingles. The backlight is all time on when JGL is disabled, and flashing when JGL enabled.

19 Front USB connection. This USB-type-A socket is mainly designated for insertion of a USB memory device for media replay or firmware updates.

20 DIRECT ACCESS buttons. A set of 10 direct access keys. All keys have constantly lit rear illumination, and allow to choose presets directly.

21 Power switch. Switches the unit on and off. Make sure you switch the unit off when not in use.

IR Remote Control

22 SRC button. SRC is the abbreviation for "SOURCE". Replicates the unit's SRC button (11)

23 UP (BROWSE) button. Replicates the unit's BACK button (12)

24 FWD button. FWD is the abbreviation of "FORWARD". Replicates the unit's FWD button (14)

25 BWD button. BWD is the abbreviation of "BACKWARD". Replicates the unit's BWD (DELETE) button (15)

26 PLAY/PAUSE button. Replicates the unit's PLAY/PAUSE (MUTE) button (16)

27 JGL button. JGL is the abbreviation of "JINGLE". Replicates the unit's JGL button (18)

28 DIRECT ACCESS buttons. Allow to choose presets directly. Replicate the unit's relative buttons (20)

29 Special Function Buttons. Currently unassigned.
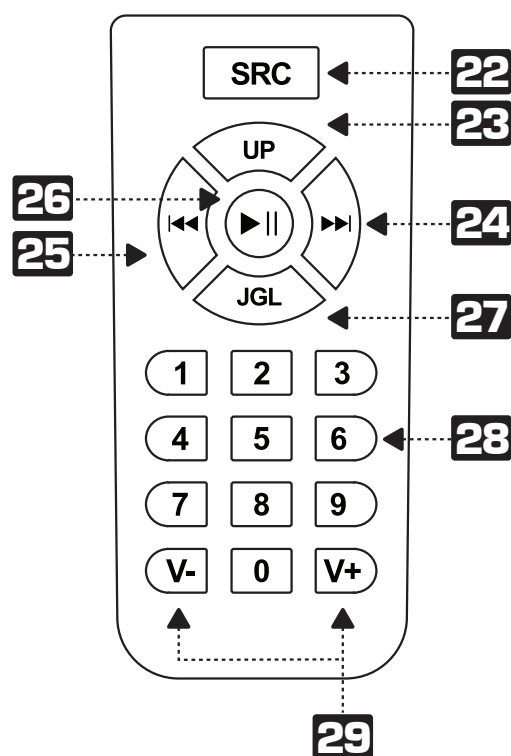
3.1. Preparation and connections

To prepare for first operation, the following points need to be taken care of:

■ Make sure that your local AC power grid supplies the voltage that the DMW300 is set to (see voltage selection switch on rear) and connect the DMW300 to AC power via the provided power cable and the rear-side IEC socket.

■ Connect a suitable aerial to the relative rear side socket to enable FM radio reception.

■ Connect the audio output to a sound system which provides the necessary amplification to listen to the DMW300's output signal. The DMW300 itself does not contain any amplifier, neither for speakers nor for headphones. Set the rear-side output level control with a small flat screwdriver to a medium level and adjust it later according to your sound system's input sensitivity.

■ For many of its functions, the DMW300 requires a broadband Internet connection, either through an RJ45 cable or through Wifi (requires additional USB WiFi dongle based on Ralink RT5370 chipset, not included). The easiest way is to connect a router set to DHCP mode (automatic assignment of IP addresses) to an ADSL modem or a cable modem provided by your ISP. You should choose a router that supports UPnP (many older routers do not support UPnP well in their initial releases and you might need to update the firmware for better UPnP support) to enable you to play music stored in PCs and NASs (network attached storage) in the local network. Enable the default DHCP function and the UPnP sharing function of your router, then plug in an RJ45 cable with Ethernet connection into the rear-side relative socket.

■ In case you use Wifi, ready the security key of the Wifi router (get it from the person setting up the Wifi router for you). For setup of the Wifi, do the set-up close to the Wifi router (within 2 meters line of sight).

■ If your network works with fixed IP addresses, assign an IP address for use with the DMW300 and read further below how to make the required settings in the DMW300.

4.1. Basic concept of operation

To make initial settings and operate the DMW300 for the first time, it is essential to understand the operational concept. The DMW300 has been designed for commercial applications, where it is assumed that the installer/configurator are not identical with the daily operator. It is thus assumed that setup is done by the installer/configurator once, and the unit is then run by the daily operator subsequently. Under this presumption, to make operation as easy and intuitive for the daily operator as possible, some of the setup, editing and advanced configuration features are not available to the daily operator. In this sense, the DMW300 operation is significanltly different from a HiFi component where all menus are accesible with same ease by the user. The DMW300 makes it intentionally more difficult for access certain functions by the daily operator.
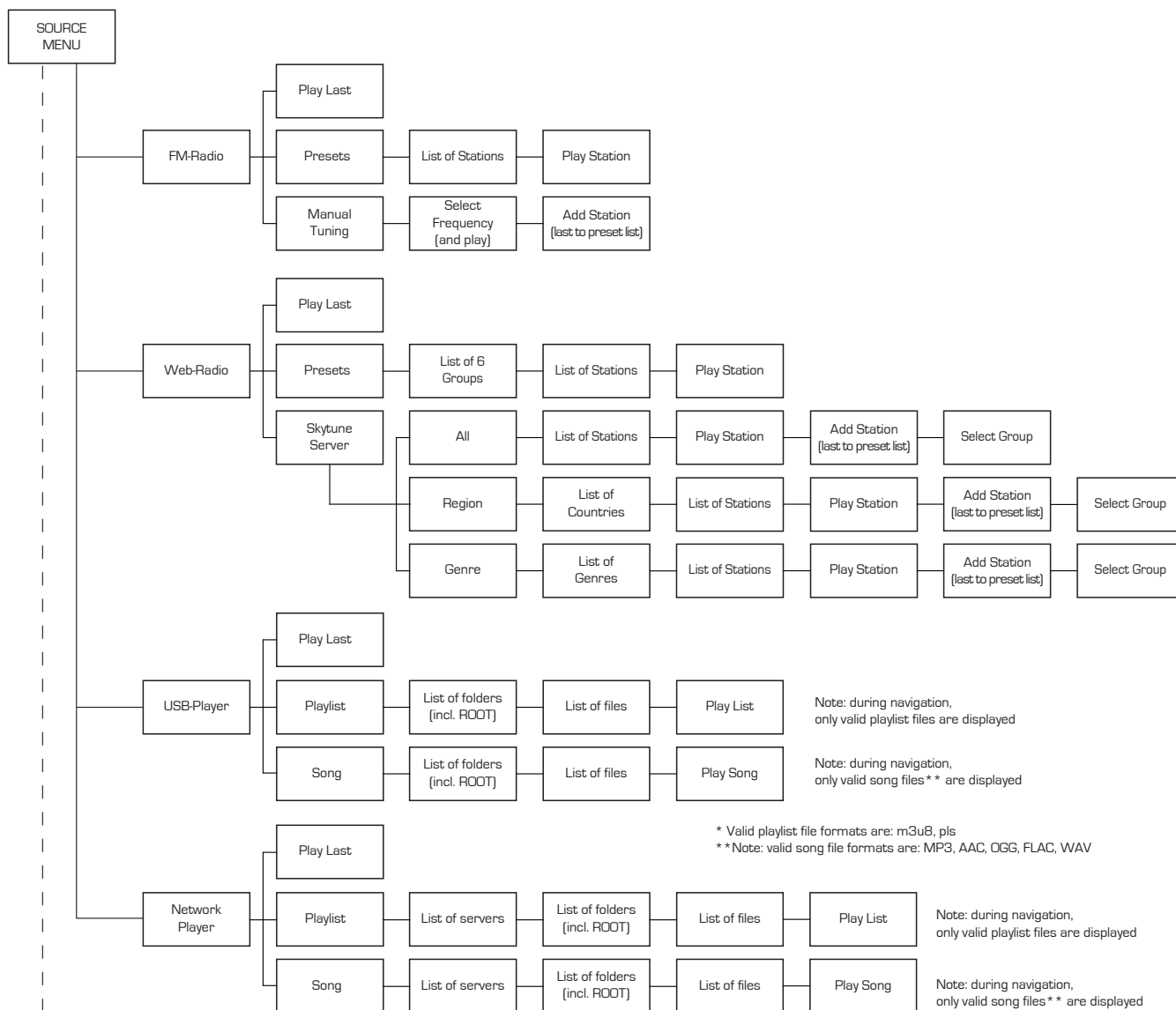
Consequently, the DMW300 has two main operation modes:

■ **SOURCE_MENU** mode – this is the mode accessible to the daily operator, where the replay sources can be chosen, and folder/file choices can be made where required to determine the program material.

■ **SET_MENU** mode – this is the mode designed to be mainly used be the installer/configurator, where all configurational settings are made, and some advanced editing features are available.

The following pages show the menu trees of the unit, separately for the SOURCE_MENU and the SET_MENU modes. Refer to the further following chapters to learn how to access and leave the SET_MENU mode.

4.2. SOURCE_MENU MODE (operator-accessible menus)

Invoked by pressing SRC button, the top level of the SOURCE_MENU will pop up, with the currently playing source highlighted, allowing navigation with NAVIGATION elements as described in the relative chapters.
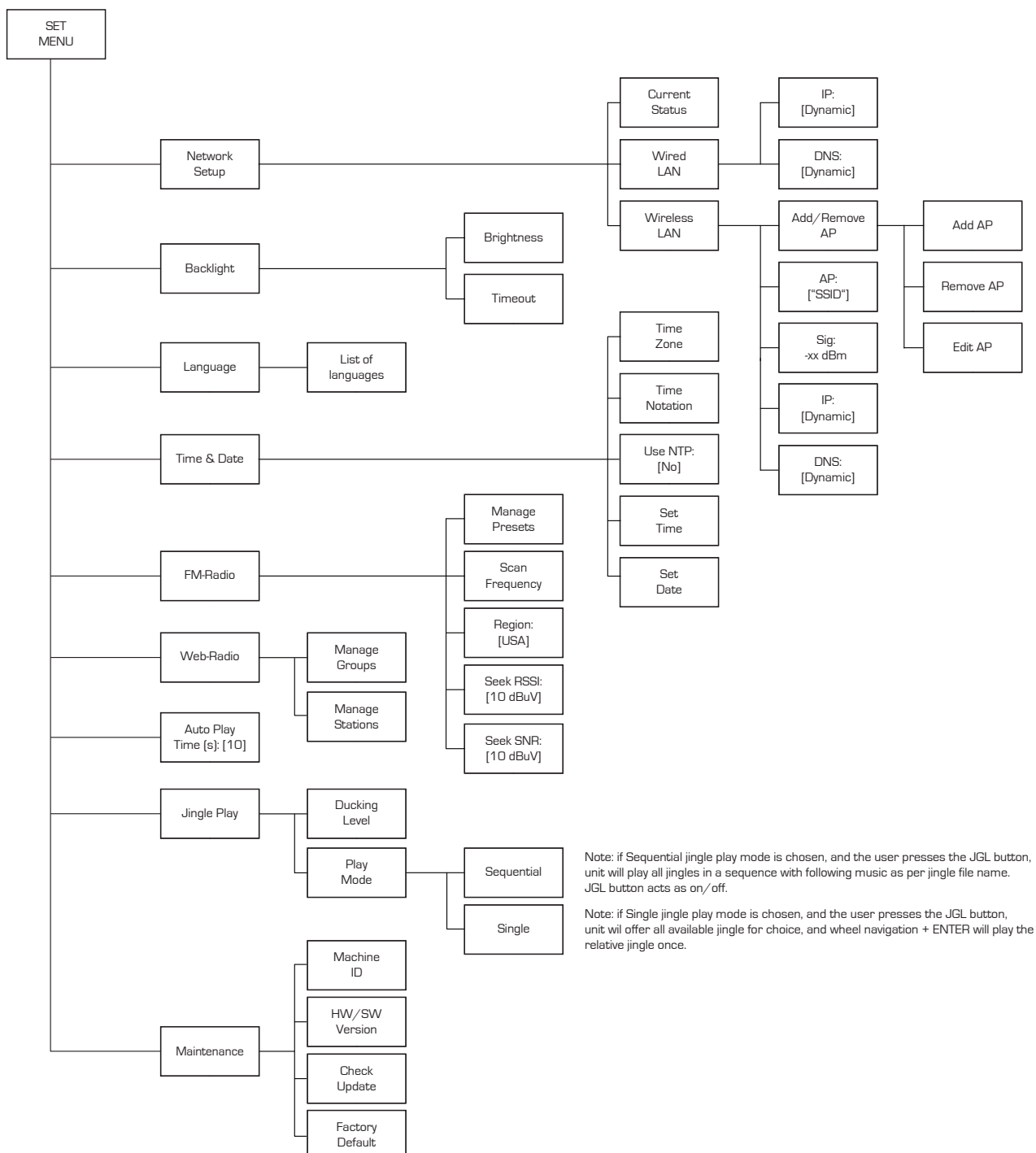
SOURCE MENU

- FM-Radio
  - Play Last
  - Presets → List of Stations → Play Station
  - Manual Tuning → Select Frequency (and play) → Add Station (last to preset list)

- Web-Radio
  - Play Last
  - Presets → List of 6 Groups → List of Stations → Play Station
  - Skytune Server
    - All → List of Stations → Play Station → Add Station (last to preset list) → Select Group
    - Region → List of Countries → List of Stations → Play Station → Add Station (last to preset list) → Select Group
    - Genre → List of Genres → List of Stations → Play Station → Add Station (last to preset list) → Select Group

- USB-Player
  - Play Last
  - Playlist → List of folders (incl. ROOT) → List of files → Play List   Note: during navigation, only valid playlist files are displayed
  - Song → List of folders (incl. ROOT) → List of files → Play Song   Note: during navigation, only valid song files** are displayed

* Valid playlist file formats are: m3u8, pls
**Note: valid song file formats are: MP3, AAC, OGG, FLAC, WAV

- Network Player
  - Play Last
  - Playlist → List of servers → List of folders (incl. ROOT) → List of files → Play List   Note: during navigation, only valid playlist files are displayed
  - Song → List of servers → List of folders (incl. ROOT) → List of files → Play Song   Note: during navigation, only valid song files** are displayed

PLAY_SETTING MENU

Invoked by pressing the SET button (for less than 2sec) while being in SOURCE_MENU mode, the PLAY_SETTING menu will pop up.

- Repeat: [None]
- Order: [Sequential]
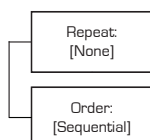
4.3. SET_MENU MODE (installer-accessible menus)

Invoked by pressing SET button for more than 2sec, the display will show „Enter SET Mode?", display will show entries "No" and "yes", default is "No" (highlighted). Scroll by turning with the navigation wheel to "Yes" (below "No"), then confirm by pressing the wheel. The display will show "press Set for 2 sec", when the user does this, the SET Mode is entered; if the user does not follow the instruction, the unit will return to the SOURCE mode with status prior to invoking SET button. Once SET mode is entered, further navigation works with NAVIGATION elements as described in the relative chapters. To leave SET Mode, navigate to the top of the menu tree and press SET for 5 seconds.

```
SET
MENU
 │
 ├── Network Setup ──────────────── Current Status
 │                                  Wired LAN ──────── IP: [Dynamic]
 │                                                     DNS: [Dynamic]
 │                                  Wireless LAN ───── Add/Remove AP ──── Add AP
 │                                                     AP: ["SSID"]        Remove AP
 │                                                     Sig: -xx dBm        Edit AP
 │                                                     IP: [Dynamic]
 │                                                     DNS: [Dynamic]
 │
 ├── Backlight ──────────────────── Brightness
 │                                  Timeout
 │
 ├── Language ───────────────────── List of languages
 │
 ├── Time & Date ────────────────── Time Zone
 │                                  Time Notation
 │                                  Use NTP: [No]
 │                                  Set Time
 │                                  Set Date
 │
 ├── FM-Radio ───────────────────── Manage Presets
 │                                  Scan Frequency
 │                                  Region: [USA]
 │                                  Seek RSSI: [10 dBuV]
 │                                  Seek SNR: [10 dBuV]
 │
 ├── Web-Radio ──────────────────── Manage Groups
 │                                  Manage Stations
 │
 ├── Auto Play Time [s]: [10]
 │
 ├── Jingle Play ────────────────── Ducking Level
 │                                  Play Mode ──────── Sequential
 │                                                     Single
 │
 └── Maintenance ────────────────── Machine ID
                                    HW/SW Version
                                    Check Update
                                    Factory Default
```

Note: if Sequential jingle play mode is chosen, and the user presses the JGL button, unit will play all jingles in a sequence with following music as per jingle file name. JGL button acts as on/off.

Note: if Single jingle play mode is chosen, and the user presses the JGL button, unit wil offer all available jingle for choice, and wheel navigation + ENTER will play the relative jingle once.

5. OPERATION

5.1. SET_MENU MODE

As explained, the SET_MENU mode mainly serves for the installer and configurator to set up the unit for first use, or to adjust the units' settings to a changed environment or changed user requirements. To avoid accidental setting changes being made, the access to the SET_MENU mode has been restricted by means of a multi-step access sequence.

To enter the SET_MENU mode, expedite the following access sequence:
- Press the SET button for more than 2sec, the display will show „Enter SET Mode?" with two below entries, "No" and "yes", default is "No" (highlighted).
- Scroll by turning with navigation wheel clockwise to "Yes" (below "No"),
- Confirm by pressing the navigation wheel
- The display will show "press Set for 2 sec", follow the instruction and press SET for 2 seconds.

After this, you will be in the SET_MENU mode, the display will show SET_MENU with entries listed below as documented in the menu tree. If you fail to complete the above access sequence, the unit will simply return to the SOURCE_MENU mode, and you will need to start over if you intend to access SET_MENU mode.

To navigate inside SET_MENU mode, do the following:
- Turn the navigation wheel to right (cw) to scroll down, to left (ccw) to scroll up
- Press the wheel to confirm current selection (enter)
- Press BACK to move one level higher in menu tree

To leave SET_MENU mode, do the following:
- Press SET for more than 5 seconds. The unit will save all applied changes and return back to SOURCE mode.

Note: the SET LED blinks during editing and turns to constantly lit onces changes are stored and the unit returns to SOURCE_MENU mode.

5.1.1. Initial setup

Power up the unit and make sure a broadband internet connection is available as described. Enter the SET mode as explained in previous chapter 5.1.

5.1.1.1. Setting the user interface language
Make sure you are in the SET_MENU root and navigate to SET_MENU>LANGUAGE, then press the wheel to invoke ENTER. A list of available language will appear Scroll to the language you require (current position is highlighted) and press press wheel to invoke ENTER. Available languages are English, German, French, Spanish, Portugese and Chinese. Once the language has been chosen, the user interface will change the language immediately and the unit returns to the higher menu level, in this case SET_MENU.
Note: For convenience - in case the unit is accidentally set to the wrong language – the menu path to the SET_MENU>LANGUAGE menu is indicated with a flag symbol to allow you to locate the language settings even if you can not read the current language.

5.1.1.2. Setting time and date

Make sure you are in the SET_MENU root and navigate to SET_MENU>TIME&DATE, then press the wheel to invoke ENTER. The following settings can be made subsequently:

■ Time zone. Scroll to TIME_ZONE, press the wheel to invoke ENTER and then scroll to the area which you know is in the same time zone as your location and press ENTER. After this, the unit will return to the higher menu level, in this case SET_MENU>TIME&DATE.

■ Time notation. Scroll to TIME_NOTATION, press the wheel to invoke ENTER and then scroll choose either 12-hour or 24-hour notation and press ENTER. After this, the unit will return to the higher menu level, in this case SET_MENU>TIME&DATE.

■ Use NTP (network time protocol). NTP is designed to synchronize a device's clock with a time server. Your Receiver will synchronize the time server you nominated (see below) every time it powers up and connects to Internet. This ensures a very high degree of accuracy in the Receivers clock. Scroll to USE_NTP and press ENTER. Scroll to select whether to use NTP or not and press ENTER. If you choose to use NTP, a pop up window will be shown to ask you to input the URL address of the NTP server of your choice. You can continue to use the default NTP server, which is using GMT (UK) time, at server 0.uk.pool.ntp.org

If you choose not to use NTP for clock synchronization, you need to enter the time and date manually. Scroll to SET_TIME and press the wheel to invoke ENTER, the unit will display hours and minutes with the hour section flashing. Use the wheel to set the desired hours value, then use the FWD button to skip to minutes and adjust again by the wheel. If you need to skip back to set hours, you can toggle between the hoiurs and minutes setting by the BWD/FWD buttons. Press BACK once done. Scroll to SET_DATE and press the wheel to invoke ENTER, the unit will display year, month and day with the year section flashing. Use the wheel to set the desired year value, then use the FWD button to skip to day and so on. Press BACK once done.

Note that any change will only be saved if you leave the SET mode with saving the changes, as described in 5.1.

5.1.1.3. Setting the backlight properties

Make sure you are in the SET_MENU root and navigate to SET_MENU>BACKLIGHT, then press the wheel to invoke ENTER. The following settings can be made subsequently:

■ Brightness. The backlight LED intensity can be programmed from Off to Maximum intensity in very fine steps. Scroll to BRIGHTNESS and press the wheel to invoke ENTER. A pop up window with a solid bar showing the current intensity level will be shown. Use the NAVIGATION wheel to tune to the intensity desired (the actual intensity will vary in real time). Press BACK once done.

■ Timeout. The backlight LED can be programmed to turn on for certain duration (10/30 seconds, 1/2/5 minutes after the last key action) or forever (always on). Scroll to TIMEOUT and press the wheel to invoke ENTER, then make the required settings. Press BACK once done.

Note that any change will only be saved if you leave the SET mode with saving the changes, as described in 5.1.

5.1.1.4. Setting the Auto play time properties

The DMW300 can be programmed to play the last media automatically after power up if the user does not operate any key for 10, 30, or 60 seconds after the radio is ready. This feature is default to be Off. The change the setting, make sure you are in the SET_MENU root and navigate to SET_MENU>AUTO_PLAY_TIME, then press the wheel to invoke ENTER. The unit will display a list containing the entries OFF (default, highlighted), 10s. 30s, 60s. Use the NAVIGATION wheel to choose the desired setting. Press BACK once done.

Note that any change will only be saved if you leave the SET mode with saving the changes, as described in 5.1.

5.1.1.5. Setting up FM Radio presets

The DMW300 provides the facility to scan the air and store the available FM broadcast frequencies. However, some of the scanned frequencies might not provide good enough reception. You can determine if any scanned frequency should be stored or not in the preview session accordingly, and also name and order the frequencies the way you like. Go to SET_MENU>FM_RADIO and then press the wheel to invoke ENTER. You can now choose various scan parameters:

- Choose REGION and scroll to the applicable entry then press ENTER; this will select the FM frequency range of your territory. The unit will return to to SET_MENU>FM_RADIO afterwards.
- Choose SEEK RSSI (received signal strength indicator). This allows the DMW300 to search for frequencies that are of higher received signal than the indicator. The default value is 10dBuV. The unit will return to SET_MENU>FM_RADIO after you made your choice.
- Choose SEEK SNR (signal to noise ratio). This allows the DMW300 to search for frequencies that have signal-to-noise value higher than the selected indicator. The default value is 10dBuV. The unit will return to SET_MENU>FM_RADIO after you made your choice.

You are now ready to run the frequency scan: Choose SCAN to enter the frequency scanning option and confirm YES by pressing ENTER once again, this will erase all your current presets and start the scanning a new. The number of scanned frequencies will be displayed. Press ENTER to preview the scanned frequencies. The radio at the lowest frequency of the scanned values will be highlighted. Press ENTER to listen and take actions per the pop up window:

- Move down - exchange the position with the frequency below it
- Delete – remove it
- Name it – assign a name to the frequency with Navigation dial and RWD/FWD buttons. Note that naming a station only replaces the displayed frequency by the defined name alias, the RDS informa tion (since displayed in a separate tag line) is not affected by this.
- Fine tune it – adjust the reception frequency in steps of 50 KHz for the best listening experience (use RWD/FWD buttons)

Press Back when you finish. Note that any change will only be saved if you leave the SET mode with saving the changes, as described in 5.1.

ADVICE: If your broadband internet connection is provided by a wired Ethernet connection via the rear-side RJ45 port from a DHCP-enabled router, and the user interface language suits you, then no further settings are necessary. The DMW300 will automatically acquire an IP address, and you are ready to go. You can skip the following steps 5.1.1.7., 5.1.1.8. and 5.1.1.9. If you connect the DMW300 however to a network with fixed IP addresses, to a WiFi network or if you wish to change the user interface language, please refer to the following:

5.1.1.7. Configure for wired access to network with fixed IP addresses

IP address and the DNS address can either be assigned by hand or automatically by the DHCP server (default) in the local network or statically. Make sure you are in the SET_MENU root and navigate to SET_MENU>NETWORK_SETUP> WIRED_LAN, then press the wheel to invoke ENTER. A pop up window will prompt you to select either Dynamic or Fixed:

- To choose Dynamic, scroll the DYNAMIC and press the wheel to invoke ENTER; no further action is needed if you choose Dynamic.
- To choose Fixed, scroll to FIXED and press the wheel to invoke ENTER; you will be prompted with IP:?, GW:?, NW:? and DNS:?. Step through each item and supply the network parameters in turn.
- Unless you are tech savvy enough, it is recommended that you stay with Dynamic to allow the local DHCP server to supply the network parameters automatically.

In the case you need to use a dedicated DNS server, you can specify one even if you choose Dynamic under IP:Dynamic. Go to SET_MENU>NET_SETUP>WIRED_LAN>DNS:[Dynamic] and press the wheel to ENTER. Choose FIXED in the pop up window and enter the desired DNS address and press the wheel to ENTER. The DMW300 will skip the DNS address supplied by the DHCP and use your designated DNA address.

Note that any change will only be saved if you leave the SET mode with saving the changes, as described in 5.1.

5.1.1.8. Installing a WiFi Dongle and setting up WiFi access.

Please insert a USB Wifi dongle into the rear-panel USB type-A socket. Make sure that the DMW300 os located in near proximity of your access point (max. 2m) to make the below settings.

Note: The USB Wifi dongle must be based on a Ralink RT5370 chipset. If you insert a different type of Wifi dongle, the unit will show "device not supported" and the WiFi function will not be available.

Once the correct WiFi dongle is inserted, make sure you are in the SET_MENU root and navigate to SET_MENU>NETWORK_SETUP>WIRELESS_LAN, then press the wheel to invoke ENTER. The following settings can be made:

■ Access point editing. Scroll to ADD/REMOVE AP and press the wheel to invoke ENTER. Scroll to ADD AP and press the wheel to ENTER. A list of APs (access points or Wi-Fi routers) around will be shown. The signal strength of each AP is shown on the right hand edge. If the AP is protected with security passkey, a lock icon will be placed at the beginning of the row. Scroll with the NAVIGATION wheel to the AP you want to connect to and press the wheel to ENTER. If the Wi-Fi router does not have security implemented, the DMW300 will connect to it immediately. In case the Wi-Fi Router implements one of the WEP, WPA or WPA2 security protocols, you will be prompted to enter the necessary passphrase in a pop-up window. Use the NAVIGATION wheel to choose the character to be applied, starting from the first digit of the passphrase. Press the wheel to ENTER when the desired character is highlighted (the central, shaded character); the chosen character will be applied to the respective digit and data entry progresses to the next digit. Press BWD to delete the last character if you make a mistake. When the correct passkey has been entered, press BACK and a pop up window will prompt you to Save & Exit or Ignore changes. Confirm Save & Exit by pressing the wheel to ENTER and this will start the authentication process. A sucessful authentication will be indicated by a brief display of "Associated!" and the display will return to the ADD/REMOVE AP. You can continue to add more Wi-Fi AP if there is more than one Wi-Fi AP in the vicinity.

Note: This is the only menu where a change can be saved without leaving the SET menu, for the convenience of being able to check whether association with a newly added AP works.

When there is more than one AP around that has been associated, you can choose the AP you want to use. Go to SET_MENU>NETWORK_SETUP>WIRELESS_LAN. Scroll to ENTER_AP and press the wheel to ENTER. Scroll and press the wheel to ENTER to choose the particular AP you want to use.

In case you want to delete an AP, go to ROOT>SETUP>NETWORK_SETUP> WIRELESS_LAN>ADD/REMOVE_AP, then scroll to REMOVE_AP and press the wheel to ENTER. Scroll and press the wheel to ENTER to choose the particular AP you want to delete.

Similarly, when you have to edit the AP (for example, the security pass key has been changed), go to ROOT>SETUP>NETWORK_SETUP>WIRELESS_LAN>EDIT_AP, and press the wheel to ENTER. Scroll to the item you want to edit and edit accordingly.

■ IP address and DNS address assignment. The IP address and the DNS address can either be assigned by hand or automatically by the DHCP server (default) in the local network or statically. Go to SET_MENU>NETWORK_SETUP>WIRELESS_LAN and choose IP:[Dynamic]. A pop up window will prompt you to select either Dynamic or Fixed. No further action is needed if you choose Dynamic. If you choose Fixed, you will be prompted with IP:?, GW:?, NW:? and DNS:?. Step through each item and supply the network parameters in turn. Unless you are tech savvy enough, it is recommended that you stay with Dynamic to allow the local DHCP server to supply the network parameters automatically. In the case you need to use a dedicated DNS server, you can specify one even if you choose Dynamic under IP:Dynamic. Go to SET_MENU>NETWORK_SETUP>WIRELESS_LAN> DNS:[Dynamic] and press the wheel to ENTER. Choose FIXED in the pop up window and enter the desired DNS address and press the wheel to ENTER. The DMW300 will skip the DNS address supplied by the DHCP and use your designated DNA address.

5.1.1.9. Checking the network status

You can always check the network connection status (the AP that is being connected, the current network parameters, Wi-Fi signal strength and the Internet connection). To do so, make sure you are in the SET_MENU root and navigate to SET_MENU>NETWORK_SETUP>CURRENT_STATUS, then press the wheel to invoke ENTER. If the network setup is correct, the network equipment and the Receiver are working and your ISP service is intact, you will see Internet: Connected. Sometimes, if your ISP provider network has a problem, even if your Wi-Fi connection is working, you still cannot connect to Internet. If the Internet connection fails, it will show Internet: No connect.

5.1.1.10. Configuring WEB radio presets

Due to the vast amount of available web radio stations, the DMW300 allows to store up to 600 preset stations in 6 groups. Editing the stations and groups can either be done via the unit's user interface in SET_MENU>WEB_RADIO or more comfortably via an externl PC and the unit's built-in web server.

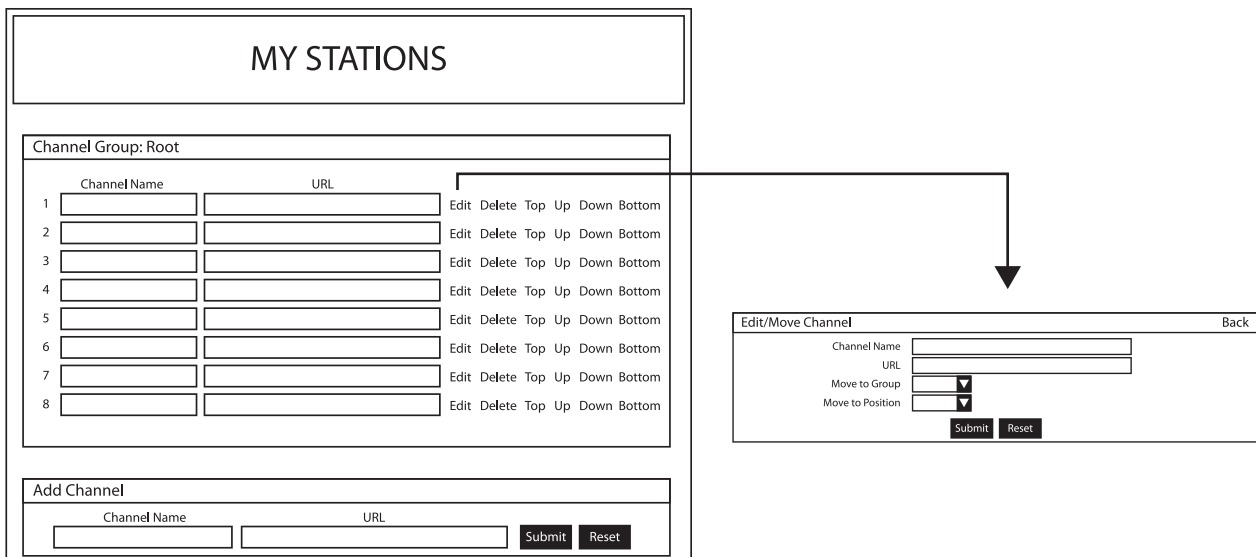### 5.1.1.10.1. Editing WEB radio presets using the user interface

Scroll to SET_MENU>WEB_RADIO>MANAGE_STATIONS, then press the wheel to invoke ENTER. Then edit as follows:

- Rename – press ENTER and the Edit name window will pop up with the current name displayed. Use the FWD/BWD buttons and the NAVIGATION wheel to edit the name. Press ENTER when you are done. You can also use the default group names: Group 1, Group 2, ...
- Move up – exchange position with the station immediately above it
- Move down - exchange position with the station immediately below it
- Delete – delete the station from the list
- Move to... – move it to a group (if you have created at least one group). The top group will be high lighted and you can choose the group (if there are more than one group) to house the station. Press ENTER to choose the group and a sub-window showing Open will be displayed. Press ENTER to open the group and scroll to choose the position to store the station and press ENTER.
- Create group – give a name to the group or use the default Group 1/2/3/4, etc... If you want to use the available default Group as suggested, press Back and choose Save & exit.
- Create station – enter the name and URL for Internet radio station and name and frequency for FM radio of the station. The frequency of FM radio station must be of the format xx.x MHz orxxx.x MHz, where x is any digit from 0~9.
- Edit URL – edit the URL as needed

Similar to the editing of stations by scrolling to SET_MENU>WEB_RADIO>MANAGE_GROUPS, you can edit the groups by highlighting it, press ENTER and choose Open. However, you cannot create groups within a group. In other words, the structure of the MY STATIONS list is Root/Group and a station can reside either in root or in groups (2-level structure).

5.1.1.10.2. Editing WEB radio presets using the embedded server

The embedded server is the most comfortable way of editing the MY STATIONS list and adding new stations. To use the embedded server, connect your PC to the same local network as the DMW300. Open the web browser in Internet Explorer or Chrome on your PC. Visit the DMW300's embedded server by typing the local IP address (the IP address of your Receiver can be found in>Setup >Network setup >Current status) in web browser's URL window. You will see the following window:

You can now comfortably do the following:
■ Choose the group (root or groups you have created)
■ Add a station. Input the name and URL of a new radio station into the ADD CHANNEL input boxes and click Submit. The new station will appear immediately in the Receiver under the root or any specific group. You can then listen to it by highlighting it and pressing [ENTER].
■ To edit an existing entry, click Edit beside the station. The edit window will open.
■ Click Delete to remove a channel.
■ Click Top (Bottom) to move the channel to the top (bottom) of the channel list.
■ Click Up (Down) will exchange the channel's position with the channel that is immediately above (below) it

Notes: URLs of the stations obtained from the integrated Skytune portal server cannot be viewed or edited. The name and position of such station can be edited, however. Please note that URL's you add will be reported to the Skytune server for possible inclusion into the Skytune portal listing.

5.1.1.11. Configuring Network (LAN) Replay via UPnP
UPnP (Universal Plug and Play) is an industry standard to allow the sharing of media resources in a local network based on standards like TCP/IP, UDP, DHCP, HTTP and XML. UPnP enables zero-configuration networking whereby a compliant device can dynamically join a network, announce its name, convey its capabilities upon request, and learn about the presence and capabilities of other devices. One common use is for a networked music player like the DMW300 to stream and play the music files stored in a PC's (or NAS's) hard disk drive. There are 3 components in an UPnP network: media server, renderer and control point. The control point discovers the media server and renderers in the network and controls how the media from the server is streamed to a renderer. For example, Windows Media player 11 and 12 contain a media server that contains and manages the media content for your DMW300 to list and play. In this case, your Receiver acts as both a control point and renderer. Your DMW300 has been tested to be compatible with the Media player 11 and 12 server implementations, the Twonky media server and the media server found in NetgearStorage NAS. You can use other media servers provided they are compliant with the UPnP specifications. To start, enable the UPnP function of both the PC and the router that connects the local network to enable your DMW300 to stream the music files in your PC for playback.

5.1.1.11.1. Enable UPnP function in Wifi AP/Router
Make sure it supports UPnP and that the function is turned on. Read the instruction manual of your Wifi AP/router carefully and make sure it's latest firmware and drivers are installed.

5.1.1.11.2. Enable UPnP in Windows XP
Windows XP (> Start > Control Panel > Add or Remove Programs > Add/Remove Windows Components)
UPnP is not enabled by default in Windows XP and you need to turn it on by yourself. Click Start, click Control Panel and then click Add or Remove Programs. In the Add or Remove Programs dialog box, click Add/Remove Windows Components. In the Windows Components Wizard, click Networking Services, click Details and then select the Universal Plug and Play check box. Click [ENTER] and then click Next in the Windows Components Wizard. Open My Network Places to check the available UPnP-enabled devices in the local network. You should be able to see at least one device, your DMW300.
A digital media server is required to make the media available to your DMW300. Windows Media Player11 has an integrated digital media server. Download and install Windows Media Player 11 if you have an earlier version. Click the arrow below the Library tab and then click Media Sharing. In the Media Sharing dialog box, select the "Share my media to" check box. In the list of devices below the "Share my media to" check box, select your DMW300, click Allow.
Media files must be stored in the monitored folders before they can be shared in Windows Media Player 11. When the player is first started, it will automatically search certain folders for digital media to add to the library. To add your contents to the library: Click the arrow below the Library tab, click Add to Library. In the Add to Library dialog box, click the folders you want the library to monitor for update.

5.1.1.11.3. Enable UPnP in Windows 7
■ Control panel>Network and sharing center>change advance sharing settings
■ Turn on network discovery
■ Choose "media streaming options" and show devices on Local network
■ Choose "Allowed" for your device (you should see at least one device - the DMW300)

5.1.1.11.4. Share Windows 7 files
■ Open Windows Media Player> Organize > Manage libraries > Music
■ Choose directories and files to share to Internet receiver and click Add
If everything is properly done, you should see your PC in the DMW300 under UPnP (for example Danny's PC). Invoke ENTER and you will be presented with the songs as organized by the Media player UPnP server.
Notes:
1. It might take some time for the UPnP server in Windows media player to organize the songs for sharing, especially if the library of songs is large.
2. The way the songs appear in the DMW300 is determined by the UPnP server and you cannot change it, except for the songs shown under Folders.

You can learn more about Windows Media Sharing by visiting below link.
http://www.microsoft.com/windows/windowsmedia/player/faq/sharing.mspx

5.2. SOURCE_MENU mode

As explained, the SOURCE_MENU mode mainly serves for the daily operator to chose the program source and the program material. To enter the SOURCE_MENU mode, simply press the SRC button. Once doing so, the unit will show SOURCE_MENU in its display with the following source entries available for choice below:
■ FM Radio
■ WEB Radio
■ USB Player
■ Network Player

The last chosen source will play in the last known settings (before switching off) and will be highlighted in the SOURCE_MENU accordingly. From here, the user has two choices:
■ Using the NAVIGATION wheel to scroll to another source, press the wheel to invoke ENTER and makes further source selection settings as described below, or
■ Press the SRC button repeatedly to toggle through the available sources with their last known play setting (PLAY LAST) directly.

Please note that choosing a new station or media does not interrupt the current replay, so you can make a new choice while the current media still plays. The new choice only becomes active once you press ENTER, otherwise you can simply not invoke any user command for more than 20 seconds and the unit will return to the currently playing media screen.
Also note that the direct access keys on the front panel only relate to station choices and hence only work when FM radio or WEB radio are chosen as the program source. The direct access key are disabled when USB player or Network player are chosen as the program source.

5.2.1. Radio Sources (FM, WEB)
Radio sources in the sense of this document are remote sources where the operator has no control over transport such as play/pause, skip backwards (BWD) or skip forward (FWD). Accordingly, the transport buttons PLAY/PAUSE, BWD and FWD are used in a different way with radio sources:
■ PLAY/PAUSE works as a MUTE function.
■ BWD has no functional assignment
■ FWD works as a storage button for a new station preset

5.2.1.1. FM Radio

Having chosen FM radio from the SOURCE_MENU bo scrolling to the relative entry in the source list and pressing the wheel to invoke ENTER, you are presented with three options:

■ Play Last. Scroll to PLAY_LAST and press the wheel to invoke ENTER, the unit will replay the last FM Radio station that was replayed before.

■ Preset. Scroll to PRESET and press the wheel to invoke ENTER, you will be presented with a list of Preset stations as stored during the automatic scan in the setup of the unit (see 5.1.1.5.). Scroll to the station of your choice and press the wheel to invoke ENTER, the preset will start to play immediately. If you want to go back to choose a different station, press the BACK (BROWSE) button and the unit will display the list of preset stations again, from where you can make a new choice by scrolling to the station of your choice. In addition, ten direct access keys are provided for immediate station preset choice. The user needs to type in the 2-digit station preset position, and is requested to not let more than 2 seconds of time pass by between typing of the two digits, as otherwise the next digit would be interpreted as the first digit of a new 2-dgit station preset position. The new station will play immediately. Note that this only works from inside the SOURCE_MENU>FM_RADIO branch of the menu tree, and will reset the menu tree position to SOURCE_MENU>FM_RADIO> LIST_OF_STATIONS_PLAY_STATION.

■ Manual Tuning. Scroll to MANUAL_TUNING and press the wheel to invoke ENTER, the display will show the current FM frequency. Use the NAVIGATION wheel to decrement/increment the frequency in 50 kHz steps, the displayed frequency will be audible in real-time. If you find a station you like and would like to store it, press the FWD(ADD_STATION) button for 2 seconds. The station will be added as the last entry into the Preset list and can be chosen next time from the PRESET submenu.

5.2.1.3. WEB Radio

Having chosen WEB radio from the SOURCE_MENU bo scrolling to the relative entry in the source list and pressing the wheel to invoke ENTER, you are presented with three options:

■ Play Last. Scroll to PLAY_LAST and press the wheel to invoke ENTER, the unit will replay the last WEB Radio station that was replayed before.

■ Preset. Scroll to PRESET and press the wheel to invoke ENTER, you will be presented with a list of Preset groups as pre-configured by the installer (see 5.1.1.10.). Scroll to the preset group of your choice and press the wheel to invoke ENTER. Scroll to the preset station of your choice and press the wheel to invoke ENTER. The chosen web radio station will start to play after buffering. If you want to go back to choose a different station or group, press the BACK(BROWSE) button once or twice and the unit will display the list of preset stations or groups again, from where you can make a new choice by scrolling to the group/station of your choice and pressing the wheel to invoke ENTER. In addition, ten direct access key are provided for immediate station preset choice. The keys can be used to (a) select the preset group, preceeded by two zeros, meaning to choose preset group 1, you need to type "001". If receiving such 3-digit code, the unit will interpret this as a change command to a new preset group, and will start to play preset # 01 inside this group (b) select the 2-digit station preset position. If a typed-in code is only two digits long, the unit will interprete this as a new preset station choice inside the current preset group. The new station will start buffering only after 2 seconds and will start playing the station once buffering is accomplished. Changing a station can thus require some patience and is not immediate. Using the direct access keys, the user is requested to not let more than 2 seconds of time pass by between typing of digits, as otherwise the next digit would be interpreted as the first digit of a new command. Note that this works only from a position inside the SOURCE_MENU>WEB_RADIO branch of the menu tree, and will reset the menu tree position SOURCE_MENU>WEB_RADIO>LIST_OF_GROUPS>LIST OF STATIONS>PLAY_STATION.

■ Skytune Server. This will let you access the categorized archive of the Skytune server service, pressorted by either Countries or Genres. Scroll to SKYTUNE_SERVER and press the wheel to invoke ENTER. You will be presented with a choice of either seeing ALL_STATIONS in alphabetical sorting, or a list of COUNTRIES or a list of GENRES. Scroll to your choice and press the wheel to invoke ENTER. You will be presented with a list of applicable stations. Scroll to your choice and press the wheel to invoke ENTER. The chosen web radio station will start to play after buffering. If you find a station you like and would like to store it, press the FWD(ADD_STATION) button for 2 seconds. A pop-up window will show the available preste groups; scroll to the group of cour choice and press the wheel to invoke ENTER. The station will be added as the last entry into the Preset list in the chosen group and can be chosen next time from the relative PRESET GROUP submenu.

5.2.2. Media Player Sources (USB, Network)

Media player sources in the sense of this document are local sources where the operator has full control over transport functions such as play/pause, skip backwards (BWD) and skip forward (FWD). Accordingly, the transport buttons PLAY/PAUSE, BWD and FWD are used in their genuine purpose:

- PLAY/PAUSE commences or pauses the replay
- BWD skips to the beginning of the current track, repeatedly invoking BWD will skip to the beginning of the previous track.
- FWD skips to the next track.

5.2.2.1. USB Player

To play from USB Media, insert a storage media (FAT32 format, max. 32GB) into the front-panel USB type-A socket. The media on such drive must be organized in a specific way to make it accessible in a useful manner. This includes only a 1-level folder structure (root and one level below), and the storage of playlists in a specific folder named PLAYLISTS. Playlists can be in M3U8 and pls formats. Replay will be expedited under the parameters set in 7.1.1.

Choose USB_PLAYER from the SOURCE_MENU by scrolling to the relative entry in the source list and pressing the wheel to invoke ENTER. You are presented with three options:

- Play Last. Scroll to PLAY_LAST and press the wheel to invoke ENTER, the unit will start replay in the last known status from USB media.
- Song. Scroll to SONG and press the wheel to invoke ENTER. You will see all folders on the media, with one additional folder named ROOT which contains all files in the root (but only displays valid file formats, in this case MP3, AAC, OGG, FLAC, WAV). Excluded from displaying is the folder "playlist". Scroll to the desired folder and press the wheel to invoke ENTER. You will see a list of songs inside the chosen folder. Scroll to the song you wish to play and press the wheel to invoke ENTER. A pop up menu will present you with 2 options: Play now and Queue up. Play now will stop the currently playing song and play the newly selected song immediately. Queue up will play the newly selected song after the currently playing song finishes. You can queue up as many songs to play as you like. The songs will be played in the order you include the songs. Please note that the queue up list will be removed when you exit from SOURCE_MENU>USB_PLAYER>SONG.

Note: For the user of the internal jingle player, the USB storage media is the only allowed source, and the jingles have to be stored in a folder "Jingles" in this USB storage media. This folder will however NOT be displayed in the folder list and the content is ONLY accessible via the Jingles menu. Read more in chapter 7.3.

- Playlist. Scroll to PLAYLIST and press the wheel to invoke ENTER. You will see all playlists stored on the media in a folder named "playlist". External playlists can have m3u and pls formats; internally created playlists will be stored as m3u. Scroll to the playlist you wish to play and press the wheel to invoke ENTER. The list of songs inside the playlist will be displayed. Scroll to the song you wish to start with and press the wheel to invoke ENTER.

5.2.2.2. Network Player

To play media from the LAN, make sure your LAN is configured for replay via UPnP (see chapter 5.1.1.11). Choose NETWORK_PLAYER from the SOURCE_MENU by scrolling to the relative entry in the source list and pressing the wheel to invoke ENTER. You are presented with three options:

- Play Last. Scroll to PLAY_LAST and press the wheel to invoke ENTER, the unit will start replay in the last known status from LAN media.
- Song. Scroll to SONG and press the wheel to invoke ENTER. You will see all available UPnP resources (e.g. a PC which has allowed your Receiver to share its files). Scroll to the desired UPnP resource and press the wheel to invoke ENTER. Excluded from displaying is the folder "playlist". Scroll to the desired folder and press the wheel to invoke ENTER. You will see a list of songs inside the chosen folder (only valid file formats, in this case MP3, AAC, OGG, FLAC, WAV). Scroll to the song you wish to play and press the wheel to invoke ENTER. A pop up menu will present you with 2 options: Play now and Queue up. Play now will stop the currently playing song and play the newly selected song immediately. Queue up will play the newly selected song after the currently playing song finishes. You can queue up as many songs to play as you like. The songs will be played in the order you include the songs. Please note that the queue up list will be removed when you exit from SOURCE_MENU>METWORK_PLAYER>SONG.

■ Playlist. Scroll to PLAYLIST and press the wheel to invoke ENTER. You will see all available UPnP resources (e.g. a PC which has allowed your Receiver to share its files). Scroll to the desired UPnP resource and press the wheel to invoke ENTER. Scroll to the desired folder and press the wheel to invoke ENTER. You will see a list of playlists inside the chosen folder. External playlists can have m3u and pls formats; internally created playlists will be stored as m3u. Scroll to the playlist you wish to play and press the wheel to invoke ENTER. The list of songs inside the playlist will be displayed. Scroll to the song you wish to start with and press the wheel to invoke ENTER. The playlist will start to play from the chosen song.

Replay will be expedited under the parameters set in 5.2.2.3.

Reminder: The PLAY_LAST status can also be accessed by toggling through the different cources in PLAY_LAST status via multiply invoking the SRC button.

5.2.2.3. Replay Properties
Media replay can be influenced in both replay sequence as well as repeatability, this applies both to replay from the USB media as well as any replay via UPnP from the local network (LAN). To make the required settings, make sure you are in SOURCE_MENU and press SET. A pop-up menu named PLAY_SETTING will appear, with the following entries:

■ Order. Scroll to ORDER and press the wheel to invoke ENTER. You will be presented with the a list of the following choices for the playback order:
  ● Sequential: Songs will be played in the order they appear in the folder or the playlist.
  ● Shuffle: Songs will be played in a pseudo-random manner (all songs will be played once before any song will be repeated if [Repeat: All songs] is selected)

Scroll to the desired option and press the wheel to invoke ENTER. Afterwards, the unit will exit the PLAY_SETTING menu and return to SOURCE_MENU.

■ Repeatability. Scroll to REPEAT and press the wheel to invoke ENTER. 4 choices are availavle to determine the way songs are repeated:
  ● Repeat (Number of times the songs will be played)
  ● None: The Receiver will stop after all songs are played once.
  ● One song: The chosen song will be repeatedly played.
  ● All songs: All the songs in the folder or playlist will be repeatedly played.

Scroll to the desired option and press the wheel to invoke ENTER. Afterwards, the unit will exit the PLAY_SETTING menu and return to SOURCE_MENU.

5.3. Jingle Playback

5.3.1. Overview
The internal jingle player is a powerful feature to deliver your branding or marketing message in a recurring manner to the listeners. This can be a special offer, your company slogan or a general company identification jingle. The jingle player allows to access 3 jingles either directly or play them automatically with a certain time gap in between.

5.3.2. Preparations
Jingles must be stored in a folder named "JINGLES" on the root level of a USB storage stick (max. 32GB) which is inserted in the front-panel USB type-A socket. The Jingles inside must be in MP3 format of fixed bitrate and must be named as follows:

J1_MM.mp3
J2_MM.mp3
J3_MM.mp3

Any other files in the folder "Jingles" will be ignored.

The file name section _MM indicates the jingle pause (meaning the time music may play) after the jingle became active in scheduled play.

5.3.3. Settings

The jingle player can be configured to work in different ways, either as a one-shot jingle player or a scheduled jingle player. Further, the level reduction of the background music during jingle replay can be set. To make the required settings., enter the SET_MENU mode as described in chapter 5.1., and scroll to SET_MENU>JINGLE_PLAY, then press the wheel to invoke ENTER. You will be presented with two submenus:

■ Ducking Level. This allows you to set the level reduction of the background music during jingle replay. Scroll to DUCKING_LEVEL and press the wheel to invoke ENTER. The current level setting will be shown and you can adjust the value via the NAVIGATION wheel between -10dB and -60dB in 3dB steps. Once the appropriate choice is made, press the wheel to invoke ENTER. The unit will return to SET_MENU>JINGLE_PLAY.

■ Play Mode. This allows to set whether the jingle player works as a one-shot player or in schedule play. Scroll to PLAY_MODE and press the wheel to invoke ENTER. Choose either SINGLE or SEQUENTIAL by scrolling and confirm the choice by pressing the wheel to invoke ENTER. The unit will return to SET_MENU>JINGLE_PLAY.

Note that any change will only be saved if you leave the SET mode with saving the changes, as described in 5.1.

5.3.4. Operation

The jingle player can only be operated from the SOURCE_MENU mode. Depending on the settings made in the SET_MENU mode (see 5.3.3.), invoking the JGL button will have the following effect:

■ If the play mode in SET_MENU>JINGLE_PLAY>PLAY_MODE is set to SEQUENTIAL (see 5.3.3.), then pressing the JGL button once will activate the sequential jingle replay. The backlight of the JGL button will change from constantly lit to flashing. The jingles stored on the USB media will be played according to the sequence found in the jingle folder, with the relative period of background music following each jingle and then this sequence loops. While playing a jingle, the background music will be lowered by the amount specified in the settings for the DUCKING_LEVEL (see 5.3.3.). Pressing the JGL button once again will stop the sequential jingle replay and the backlight of the JGL button will turn back from flashing to constantly lit.

■ If the play mode in SET_MENU>JINGLE_PLAY>PLAY_MODE is set to SINGLE, then pressing the JGL button will open a pop-up window prompting you to choose between the following options:

JINGLE1: J1 plays immediately for one time.
JINGLE2: J2 plays immediately for one time.
JINGLE3: J3 plays immediately for one time.

While playing a jingle, the background music will be lowered by the amount specified in the settings for the DUCKING_LEVEL (see 5.3.3.). During replay of the selected jingle, the JGL button flashes, and once the replay is finished, automatically turns to be constantly lit again.

6. Maintenance

The DMW300 offers various maintenance functions. Due to such functions being intended to be only used by the installer/configurator, they are located in the SET_MENU mode. Scroll with the navigation wheel to SET_MENU>MAINTENANCE and press the wheel to invoke ENTER. You will be presented with four available submenus:

■ Machine ID
■ HW/SW version
■ Check update
■ Factory default

6.1. Machine ID

You might be required to provide the machine ID to service personnel or for on-line service registration. Machine ID comprises of 8 4-character strings in hex. You may be required to provide this number to the service people for machine identification. To see the Machine ID, scroll to SET_MENU>MAINTENANCE>MACHINE_ID and and press the wheel to invoke ENTER. The machine ID will be displayed.

6.2. HW/SW version

Similar to the machine ID, you might be required to supply the information listed under this item when talking to the service personnel as the situation entails. To see the HW/SW version, scroll to SET_MENU>MAINTENANCE> HW_SW_VERSION and and press the wheel to invoke ENTER. The hardware and software versions will be displayed.

6.3. Check update

The check for possible firmware updates, you can connect to the update server of the manufacturer. Scroll to SET_MENU>MAINTENANCE>CHECK_UPDATE and and press the wheel to invoke ENTER. A check for an available update will be expedited. You will be prompted for the update if there is one. Interrupting the power supply in the course of update might damage the flash memory permanently and render the DMW300 useless. Hence only confirm to expedite a firmware update when no power supply interruption is to be expected. Note that the warranty will be void if the DMW300 is diagnosed to have a firmware-update related memory damage.

The update firmware is contained in a compressed package to be downloaded to the DMW300 when the user confirms the update to be expedited. The received compressed package will be decompressed and applied automatically. When the update is done, the DMW300 will prompt you for a Restart. Press the wheel to invoke ENTER to restart and the DMW300 will have the updated firmware in operation upon powering up again. If there is no update, the DMW300 will display "Already up to date". Normally, when you power up the unit, when Internet is connected, it will automatically check with the Update Server for any available firmware update. If there is new update, a pop up window will prompt you to update the unit. If you do not take action, the pop up window will disappear in 10 seconds. However, you can always do the manual check and then update later.

Please note that there are two components, kernel and applications, that might need to be updated. You will be prompted for an update in sequence if the new update contains both components. Just follow the steps as you are prompted. Depending on the specific update required and the bandwidth during the transmission, the file transmission, decompression and installation may take from 2 to 10 minutes. If you have not quite kept up with the firmware update, chance is that you might have to go through more than one upgrade for each component. For example, your DMW300 is using rev 1.2 firmware and the latest firmware is rev 1.8. Depending on the situation, you might have to step through some or all of the previous upgrades in order to properly upgrade to rev 1.8.

6.4. Factory default

Returning to factory default settings will clear all configurations and settings, including the station presets for FM radio and WEB radio. Use this with extreme care under the instruction of the service personnel as and when required. To reset the unit to factory default settings, scroll to SET_MENU>MAINTENANCE>FACTORY_DEFAULT and press the wheel to invoke ENTER. You will be prompted to confirm the reset. Press the wheel again to invoke ENTER and the unit will be reset to factory default settings.

7. Operation

7.1. Connections

For connecting this unit to AC mains, please note:

■ Check whether the AC mains voltage and frequency is the same as this product is specified for (see rear panel of product). Whenever the specified voltage or your AC plug should not match the local conditions, do NOT plug the AC cord into the wall outlet and contact you dealer immediately.

■ Do not operate this unit without the line cord earth ground connected. To do so may increase the risk of electric shock and increase line cord conducted emissions.

For making audio signal connections, always remember that good and reliable connections are a basic requirement for good sound and reliable operation. Bad soldering of cables can result in intermittent audio signals or temporarily lost ground connections, hence always use good cables. In case of doubt about making proper connections, please see check the standard pin assignments required for proper operation in the following section of this manual.

7.2. Powering up

Following a proper power-up sequence protects your equipment – specifically speakers – and your ears. Follow the below procedure (and the inverse for switching off):

■ Turn down all output volume controls of any equipment in your audio system.
■ Switch on your audio sources first (Tuners, CD Players, PC's with soundcards, Tapedecks, etc.)
■ Switch on the audio mixer
■ Switch on any audio processor between the mixer and the amplifier(s) [if any].
■ Switch on the amplifier(s).
■ Turn up the audio level on your sources if such controls are provided.
■ Set the audio output of your mixer to a low level.
■ Set the audio output of any audio processor between the mixer and the amplifier(s) to a medium level [if any such processors].
■ Turn up the volume controls of your amplifier(s) slowly.
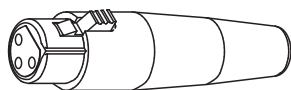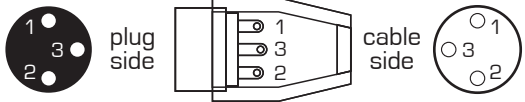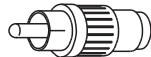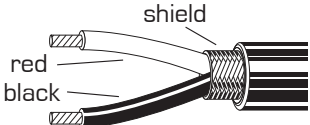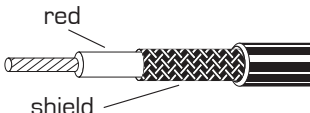■ Make adjustments to all volume settings as needed.

7.3. Use

Apart from using good equipment, good sound comes from using it correctly. Level setting mistakes are one of the common reasons why even good equipment may not perform as desired. For setting levels, please be reminded that two guidelines need to be followed:

■ Avoid distortion by leaving some headroom. Never overrun any audio-equipment's inputs. Level meters and displays allow you to make sure that signals do not enter critical levels.
■ Avoid unnecessary amplification by using as little attenuation as possible. For example, if you turn down the input gain of a mixer to minimum, and then increase the main output of the mixer to maxi mum to drive your amplifier properly, you will create unnecessary noise, as you first dispose of some already existing signal level, and then later apply amplification (tainted with noise) to make it up.

8. Connections

The DMW300 uses the below connector types, for which the pin assignment must comply with the following specification. Always make sure to use good connectors and cables to ensure proper operation. Balanced connections are to be preferred over unbalanced connections where applicable and feasible. Avoid unbalanced connections exceeding 2m of cable length.

	Structure	Balanced connection	Unbalanced connection
XLR female	1, 3, 2 plug side — 1, 3, 2 cable side	red = 2 black = 3 shield = 1	red = 2 shield = 1+3
RCA	tip, sleeve — tip, sleeve	red = tip black = sleeve shield = uncon.	red = tip shield = sleeve
CABLE Types		shield, red, black — 2-conductor shielded cable (for balanced connections)	red, shield — 1-conductor shielded cable (for unbalanced connections)

Features

Internet Radio	Compatible with stations broadcasting in HTTP, MMS, RTSP streaming formats
	Dedicated Skytune radio portal for more radio stations
	600 favorite station presets in 6 groups stored locally
	Adds preset stations on the fly or through embedded server
Music Streaming	UPnP for streaming of music stored in PC and other sources in the local network
Protocol Support	IP, TCP, UDP, RTSP, DHCP, PPPoE, NTP, UPnP
	DHCP for automatic network setup (static IP is also supported)
	Intuitive manual network setup
	WEP, WPA and WPA2 wifi security (auto-detection of TKIP and AES encryption)
Audio Formats	MP3, WMA, FLAC, AAC, WAV and OGG
Music Player	Plays compressed music in above specified audio formats
	ID3 tag support (album, song and artist)
	Folder and playlist support
FM Radio	RDS support
Audio Output	Balanced and unbalanced stereo
Network Time	12/24 hour clock tuned to atomic clock through network (Network Time Protocol)
Display	128x64 pixels backlit LCD for radiodata, ID3 tag display
	Backlight on-time adjustable (20-, 40-, 60-seconds or always-on)
	Backlight intensity from Off to maximum intensity
Operating System	Industry standard embedded Linux
Firmware Upgrade	Firmware upgrade through Internet
Connectors	2xUSB connector (1 Front, one rear)
	Unbalaned RCA & balanced XLR audio output

Technical Data

AC IN (EU setting)...........................AC220-250V~ 50Hz
AC IN (US version)..........................AC110-120V~ 60Hz
Power consumption..max. 12W

Dimensions....................W483(427)xH44.5xD183.5mm
(parentheses = without rack ears)
Weight... 2.2 kg

Maintenance and warranty

While we have chosen the best components to make this product as rugged and reliable as possible, some parts in audio products (potentiometers, faders, switches) are subject to wear which is a matter of operation cycles, and not of time. While providing a full time-based warranty according to the country's of purchase requirements on the function of the electronic circuitry, we hence have to limit the warranty on such electro-mechanical parts to 90 days from the date of purchase.
In many cases, malfunction of electro-mechanical parts occurs due to dust contamination, which may require cleaning of such parts. As the inside of such parts is not accessible, a common practice is to use cleaning fluids in the shape of sprays. Please be reminded that many of such fluids contain chemicals which may wash away the dust but at the same time corrode or damage contact surface and may cause cosmetic damage to other parts. We hence explicitly exclude any claims for exchange of damaged part due to mechanical or chemical impact.

EC Declaration of Conformity

Manufacturer: Adelto Technologies Limited
Address: Unit 2A Springfield Road, Springfield Industrial Estate
Burnham-on-Crouch, Essex CMO8UA, England

We declare on our own responsibility, that the equipment

Hill Audio DMW300

is in conformity with the following directives and standards or regulations:

EMC Directive 2004/108/EC
EN55103-1:2009 (Emissions)
EN55103-2:2009 (Immunity)
EN61000-3-2:2006 + A1:2009 + A2:2009
EN61000-3-3:2008

LVD Directive 2006/95/EC
EN60065:2002 A1:2006 + A11:2008 + A2:2010

ROHS Directive 2002/95/EC

and is marked as follows: C E

Burnham-on-Crouch, 10.09.2015
Place and date of issuing

Authorized Signature