

Dared

Model DR-100 Tube DAB/RDS/FM Receiver with USB DAC Connection, Wireless Remote Control and advanced OLED Display



WARNING!

**Read the instruction manual
completely before use.**

**IT CONTAINS VITAL SAFETY, WARRANTY
AND LIABILITY INFORMATION.**

By using the product the user acknowledges their responsibility and agrees to the warranty and liability statements and safety notices.

Manual Rev 3.2 July 16 2014

DARED AUDIO INTERNATIONAL
www.dared.com.hk

© 2010-2014 DARED Due to constant improvements, specifications and functions subject to change without notice. Failure to read and follow the guidelines established in the manual may void warranty. Customer is solely responsible for use. Tampering or modifying the unit voids warranty. Consult Warranty Statement for all details.

Dear Valued Customer:

Thank-you for purchasing our revolutionary DAB/DAB+ FM RDS Receiver for your home or office as part of your music entertainment system. This component has been designed to offer state-of-the-art high-end performance in an elegant package while retaining all the sonic hallmarks on which DARED has been recognized for since 1995. Our dedication to the "Purity of Sound" is an important reason why our products are sought after retain their value over time.

The performance of your DR-100 will continue to improve during the first 480 hours of listening. This is the result of a "break-in" period required for the numerous high quality electronic parts and ageing of the tube used throughout this integrated amplifier. Before use we encourage you to please read this manual thoroughly to properly acquaint yourself with its features. We hope you enjoy listening to our Product as much as we have had the pride that we have taken in manufacturing this fine receiver for your listening pleasure. Thank-you for choosing DARED for your audio experience!

FCC NOTICE: This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful Interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment generates RF energy and if not installed or used in accordance with the instructions, may cause harmful interference to radio communications and other devices. There is no guarantee that interference will not occur. If this equipment does cause harmful interference which can be determined by turning the equipment on or off or transmitting momentarily, the user is encouraged to try to correct the interference by one or more of the following methods:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect equipment into an outlet on a circuit that is different from that to the receiver is connected to.
- Consult the dealer or an experienced radio/TV/ communications technician.

CE DECLARATION OF CONFORMITY

Accurate Technology Co., Ltd,

Declares that this equipment complies with the essential requirements of the following application directive: 2006/95EC Low Voltage Directive
Model No. MP-5BT Vacuum Tube Amplifier.

This compliance is based on conformity with the following harmonized standards or documents:

EN 60065:2002 +A1:2006 + A11: 2008 + A2:2010

Shenzhen China March 5 2012
Place and Date of Issue
Certificate on File

Per ATC Labs
Jenny Zhou

1.0 UNPACKING: The **DARED MODEL DR-100 Tube DAB/RDS/FM Receiver** should be removed from its box with care. The following accessories should be found inside:

- | | |
|--|---------------------------------|
| AC power cable | USB Cable |
| This Owner's Manual | One set of lint free gloves |
| Wireless Antenna | Remote Control (with batteries) |
| 3.5 mm cable for input from portable audio player | |
| Warranty Information and Product Registration Card | |

As soon as the integrated preamplifier is safely removed from its packaging please perform a thorough physical inspection and report any physical damage to your dealer immediately. We suggest that you keep all of the original packaging, storing it in a safe, dry place in the event that you may need it later to transport or move this product.

At this time also please locate the Product Registration Card and write down the serial number of your new DARED DR-100 Tube DAB+RDS FM Receiver in the space provided on the card as well as below for future reference.

Serial No.: _____ **Date of Purchase:** _____

2.0 About your DR-100: World's first Tube DAB+/RDS FM Receiver!

A "Must Have" for Music lovers and audiophiles who want warm, detailed and true analog-like sound from highly compressed over-the-air digital sources in addition to MP3/MP4 players, iPods, computers or CD players when connected to the USB DAC or Line input connection.

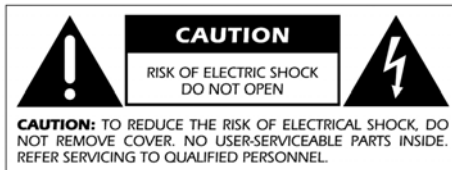
Enjoy audiophile quality music like you've never experienced it before. The DR-100 has a very good transient response offering you with every precise detail and note along with an incredible soundstage and very high resolution due to our unique design. Notably, careful selection of components are used throughout the assembly that should provide you with many years of listening pleasure. Included in your component's design and fabrication :

- All wiring used is made of Oxygen Free Copper (OFC) having enhanced conductivity advantageous to audio signal transmission.
- Custom made EI transformer with multi-core wiring to prevent noise interference
- PCB using 2 oz copper layer to maintain extreme low resistance and noise
- Japanese Nichicon high quality Electrolytic Capacitors
- Panasonic High Quality Coupling Capacitors
- High End Grade, Select Vacuum Tubes
- Gold Electroplated RCA input connectors
- OLED Display

3.0 SAFETY NOTICES:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings and follow all instructions in this Manual.
4. Do not use this apparatus near water.
5. Clean only with a dry cloth.
6. Do not block ventilation openings. Install in accordance with instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves or another apparatus that produces heat.
8. Do not defeat the safety purpose of the polarized or grounding type plug. If the provided plug does not fit into the outlet, consult your Reseller.
9. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles,, etc.. Unplug the AC mains cord as well as all other connecting cables during transportation.
10. Only use attachments and accessories specified by DARED or your Authorized DARED Dealer.
11. Use a surge protector on the main AC-Line to this component as well as all other components connected to this product. Unplug this apparatus during lightning storms or when unused for long periods of time.
12. Refer all servicing to qualified service personnel. **NO USER SERVICEABLE PARTS INSIDE.** Owner may change tubes.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



OTHER SAFETY CONSIDERATIONS

1. **ALWAYS** disconnect your entire system from the AC mains before connecting or disconnecting any cables, or when cleaning any component. To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
2. **NEVER** use flammable or combustible chemicals for cleaning audio components.
3. **NEVER** wet the inside of this component with any liquid. If a liquid substance does enter your unit, immediately disconnect it from the AC mains and take it to your DARED Dealer for inspection.
4. **NEVER** spill or pour liquids directly onto this component.
5. **NEVER** block air flow through ventilation slots or heat sinks.

6. **NEVER** bypass any fuse or replace any fuse with a value or type other than those specified.
7. **NEVER** expose the DR-100 to extremely high or low temperatures. If the DR-100 has been taken out of storage from an unheated environment, let the unit acclimate to room temperature before making any connections and applying power to the unit.
8. **ALWAYS** keep electrical equipment out of reach of children. This unit has a Protective Cage / Tube Cover which guards against accidentally touching the glass tubes that are used for either power conditioning, amplification, or serving as a VU Meter when the product is in use, thus avoiding a potential injury and burn. Keep children away. Do not handle the tubes when hot, or wet them. Only touch the tubes only when they are cold and the unit is unplugged from its source of AC Power.
9. **ALWAYS** unplug sensitive electronic equipment such as this unit during lightning storms.

CONGRATULATIONS! NOW YOU ARE READY TO START!

4.0 Installation & Placement

The DR-100 as is the case with any tube equipped device is more sensitive than most other types of audio components to EMI (electro-magnetic interference) from power supplies and motors including vibration. Consequently, it should be placed at a minimum distance of 18 inches from power supplies, turntables, tape decks, AC line filters, etc..

One should never place another component directly on top of this integrated amplifier, and as good practice, it is not recommended to directly place this component on another audio component that generates heat.

NEVER PLACE THIS COMPONENT ON TOP OF A LOUDSPEAKER.

Vibration picked up by the tubes will damage them and shorten their useful life.

When dressing cables, take care as to tuck away loose cables so someone may not trip on them.

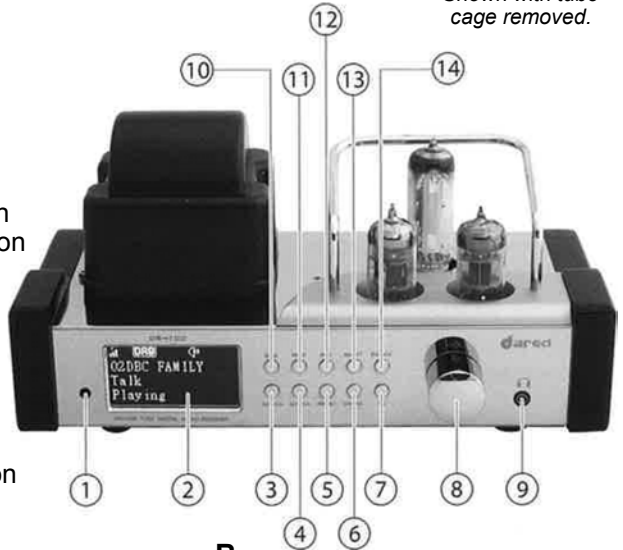
Allow also for ample air circulation around the DR-100.

5.0 FAMILIARIZING YOURSELF WITH THE DR-100

Shown with tube cage removed.

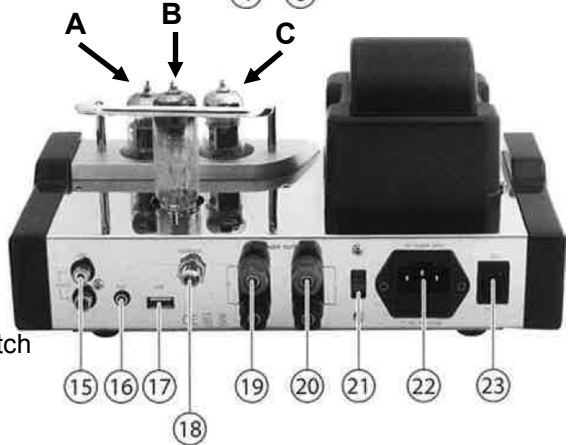
Front Panel Layout

- 1) Remote IR sensor
- 2) Display
- 3) Search + (Up)
- 4) Search—(Down)
- 5) Preset Select Button
- 6) Dimmer Select Button
- 7) EQ Select Button
- 8) Volume Control
- 9) Headphone
- 10) Scan Select Button
- 11) Menu Select Button
- 12) Information Select
- 13) Select/Enter Button
- 14) Source Select Button



Rear Panel Layout

- 15) Line-In, L & R, 2 x RCA
- 16) AUX IN; 3.5 mm
- 17) USB input
- 18) Antenna Input
- 19) Right Speaker Output
- 20) Left Speaker Output
- 21) Input Voltage Selector
- 22) IEC AC Power Input
- 23) Main Power/On/Off Switch



TUBES:

- A) 6N1
- B) 6E2 (Cats-Eye VU Meter)
- C) 12AX7

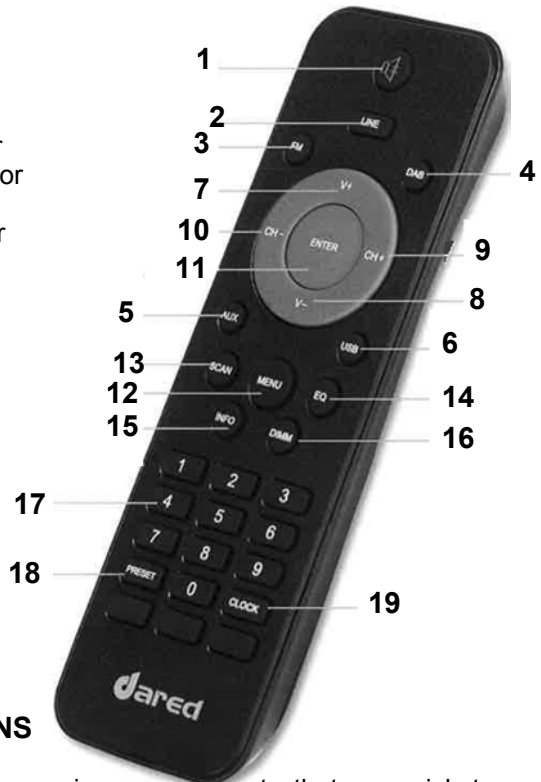
Screwdriver access holes to reach cage mounting screws, (use long screwdriver)

Location of cage Mounting screws Inside cage



Remote Control

- 1) Mute
- 2) Line input Selector
- 3) FM Radio Input Selector
- 4) DAB Digital Input Selector
- 5) AUX Input Selector
- 6) USB DAC Input Selector
- 7) Volume Up
- 8) Volume Down
- 9) Channel Up
- 10) Channel Down
- 11) Enter Key
- 12) Menu Key
- 13) Scan Key
- 14) EQ Equalizer Key
- 15) Information Key
- 16) Dimmer Button
- 17) Numerical Keys
- 18) Preset Select Key
- 19) Clock Key



6.0 SYSTEM CONNECTIONS

6.1 Connect the DR-100 to the various components that you wish to use. (Example: CD Player connected to Line Input via a pair of good quality RCA terminated shielded cables, and your DAC Input to your PC via USB cable.)

6.2 Connect the DR-100's speaker outputs using good quality designated audiophile speaker cable to your speakers. (Your Authorized DARED Dealer may be of assistance regarding cable selections.)

6.3 With all input and output connections made, select the proper input AC mains Voltage by sliding the voltage selector to the proper AC Voltage setting.

6.4 Use the supplied AC power cable connecting it to the IEC receptacle located on the rear panel of the integrated amplifier's chassis. Ensure that the AC wall outlet you use has a functioning ground. Then, it is preferable that you plug your DR-100 into a surge suppressor power bar used as well for your other audio components, then best is to connect this directly into a dedicated AC outlet. Best to avoid using an extension cord.

NOTE: In order to obtain the maximum performance from your audio system we strongly recommend that the detachable power cord does not come into physical contact with any of the interconnect cables running to and from your DR-100. In the event that this can't be avoided, you should ensure that any cables coming into contact with each other are crossed at ninety degree angle to minimize the contact area.

6.5 Insert the batteries into the Remote Control, Connect the antenna to the Receiver

7.0 BASIC OPERATION

With all connections made and secured, and with all cables tucked away, you are now steps away from enjoying the sound quality of the DR-100. *Also it is a good idea to remove the tube cage and ensure that the tubes are seated well before connecting to AC power, just in case they became loose in shipping.*

Then turn on your DR-100 Receiver in the following manner:

A. Switch the main rocker switch labeled "POWER" to the (ON) position on the Rear Panel. The Display will show a start up message: "Warm Up". You will also see the tubes starting to glow. There is a 20 second delay before all the tubes are operating normally, this is called a "Soft Start" to increase the longevity of the tubes. Allow the unit to warm up for another 1-2 minutes before using. Do not turn the Receiver on and off until you have warmed up the system for at least 3 minutes.

B. While the unit is heating up, make sure the Volume Control is turned counter-clockwise, to a lower level.

C. Select the Source Input by using the Input Selector Switch on the front panel or by using the Remote Control. Pressing SOURCE on the unit or MODE on the Remote allows you to toggle through the inputs.

You are now ready to begin listening to music. Adjust the volume control to the desired sound level. *NOTE: For the first 480 hours play your selected music at a normal listening levels at first to further burn in the tubes and all components.*

7.1 Using the DAB/DAB+ Digital Radio, Basic Operation

Select <DAB/DAB+> as the Input Source either using the Remote or front panel button. During initial use, the receiver will scan for all available DAB channels. At any time you may press the SCAN button to rescan.

Press the Search +/- buttons on the front panel or the Channel +/- keys on the Remote to change channels. When the desired channel is displayed, press the SELECT button on the front panel or the ENTER key on the Remote.

7.1.1 Saving Desired Stations into Memory: When your station that you wish to save is displayed, press and hold down the Numerical key on the Remote's keyboard until "PRESET "X"" appears on the radio's display.

7.1.2 Selecting Stored Channels in DAB/DAB+ mode: Press the PRESET key once. A stored channel will be displayed. (A) Use the Search +/- buttons on the front panel or Channel +/- on the Remote until you see the desired station. Then press the Select button or Enter key to confirm. (B) Alternatively, one may press the corresponding channel number on the numerical keypad on the remote.

7.1.3 Radio Information: When listening to the DAB/DAB+ Digital Radio, pressing the INFO key repeatedly will display the Station and Channels details such as "Channel Information, Signal Strength, Bitrate, Signal Error, and Time."

7.2 Using the FM Radio, Basic Operation

Select the FM Radio as a source. Press the Search +/- button on the front panel or using the Channel +/- keys on the remote will allow you manually tune in a station. By holding down these keys will automatically see the tuner search for a station and then stop when found.

7.3 Saving the Stations

7.3.1 Selecting Stored Channels: Press the PRESET button once. A stored channel will be displayed. Press the Search +/- button or Channel +/- key to go through the stored preset channels. Press the SELECT button or ENTER key to confirm. One may also make a numerical entry using the keypad on the remote.

7.4 Radio Information: When listening to an FM station, by pressing the INFO key on the front panel or on the remote will display RDS information such as the Channel Property, Station Signal Strength or Time.

7.5 Audio Setting: Selecting Stereo or Mono Operation: Select the FM Mode. Press the MENU key, the display will show "Audio Setting": Press the Select button or Enter key, Use the Search +/- Button or Channel +/- key to scroll between "Mono" or "Stereo". Press the Select button or Enter key to confirm.

7.6 Selecting the Line Input Source: With a traditional audio input such as a CD player connected to the Receiver using an RCA cable connected to LINE INPUT; press the Source button on the front panel until you see "LINE" displayed; or press the AUX key on the remote to select this input.

7.7 Selecting the USB DAC Input Source: The DR-100 can be used as a USB audio device for a computer. Use the supplied USB cable to connect the PC to the DR-100. On the front panel press the SOURCE button repeatedly until "USB" is displayed on the unit's display. When using the Remote, simply press the "USB" key.

7.8 Selecting the AUX Input: Used for connecting to portable audio devices such as MP3 Players, use a 3.5 mm mini-phone jack stereo cable. Connect the cable between the DR-100 and the MP3 Player. On the front panel press the SOURCE button repeatedly until "AUX" appears on the unit's display. When using the Remote, simply press the "AUX" key.

7.9 Built-in Audio Equalizer, (EQ): 5 Presets positions are available for you to tailor the output frequency: "Bass Boost", "Jazz", "Live", "Vocal Acoustic", and "EQ Off". To enter this mode, Press the "EQ" button on either the Remote or the front panel. When using the front panel control, then Press the Search +/- button to scroll through the available settings. Press the Select button to save. When using the Remote after choosing the "EQ" setting using the "EQ" key, Use the Channel +/- key to scroll through the setting. Press the ENTER button to select.

7.7 Display Dimmer: The display's brightness may be adjusted. Press the DIMMER button on the front panel or the DIMMER Key on the Remote repeatedly to scroll through and adjust the brightness setting to your liking.

7.8 Mute: Press the MUTE key on the Remote to interrupt and silence the audio output. Press the MUTE a second time to disable this function.

7.9 Clock: Once either the DAB/DAB+ or the RDS FM Radio has scanned and registered its stations and updated the DR-100's CPU, or the time has been set manually, pressing this button on the Remote will display time and date.

8.0 SYSTEM SET-UP, OPTIONS for Clock Set-up, Language, DAB/DAB+ Delete and Changing Station Pre-set Order. For these functions, Select the DAB/DAB+ or FM Radio Modes using the MENU button on the front panel or on the Remote. Use the Search +/- button on the front panel on the Channel +/- key on the Remote until you see "SYSTEM SET" appear on the display. Press the Select button or Enter key.

8.1 Time/Date Set-up: When in the "System Set" mode, scroll through the menus using the Search +/- button or the Channel +/- key on the Remote until "TIME SET" appears. Further scrolling allows you to select among: "Set Clock", "Set Date", "Auto Update" (Using DAB or RDS), AND "12/24 Hour Format".

8.2 Set Time: Select "Set Clock", the current system time will be displayed with the "Hour's digit" flashing. Use the Search +/- button or Channel +/- key to adjust the hour. Press Select/Enter to set and move to next digit. Repeat the process until the time is set. Press Select or Enter to Save.

8.3 Setting Date: Select the “Set Date” mode. The current system date will appear with the first digit of the Pre-set Day flashing. Use the Search +/- buttons or Channel +/- keys to maneuver through the date set up. Press the Select button or Enter key to Save.

8.4 Auto (Time) Update: Automatically synchronizes the clock using the DAB+ Digital Broadcast Information (available only in areas where DAB+ is available).

8.5 Set 12/24 Hour Format: Allows you to set the clock to either a 12 or 24 (military) hour format.

8.6 Language Setting: Choose between “English”, “Traditional Chinese”, and “Simplified Chinese”.

8.7 Delete Station: (Only for DAB/DAB+): Allows one to remove from the radio’s memory a digital station that is no longer available. Park on the station to be removed. (1) Select “SYSTEM SETUP” Mode; (2) Select “PRUNE STATION”; (4) Then Press Select or Enter to Confirm.

8.8 Station Order (Only for DAB/DAB+ Digital Radio Modes): Allows you to configure how the digital radio stations are displayed. In “SYSTEM SETUP” Mode, Select “STATION ORDER”. Select among: “Multiplex”, “Alphanumeric”, and “Active” order format.

8.9 Reset to Factory Default: This deletes all stored settings, stations back to factory default. In “SYSTEM SETUP” Mode, Select “FACTORY RESET”.

8.10 Software Version: The firmware revision level may be checked when required. In “SYSTEM SETUP” Model, Select “SW VERSION”. The f/w version will be displayed.

9.0 Basic Troubleshooting

Symptom	Observation	Possible Solution
A. Unit does not power up	Unit does not power up when power switch turned on	<ol style="list-style-type: none"> 1) Check equipment is plugged into electrical outlet 2) Check if power cable is plugged into the power socket on the rear panel of unit 3) Check if there is power on the outlet being used.
B. Vacuum Tube does not light up, glow.	<ol style="list-style-type: none"> 1) Faulty Vacuum Tube 2) No Power to unit 	<ol style="list-style-type: none"> 1) Replace tube 2) Consult Section (A) above
C. No Sound from Speakers	<ol style="list-style-type: none"> 1) Audio input not connected 2) Incorrect Input setting 3) Low volume 	<ol style="list-style-type: none"> 1) Check input connections and make sure that the source is in play mode if applicable 2) Check input selector 3) Check volume control, check speaker connection, check tube 4) For DAB/FM: Check antenna
D. Poor sound stage, Poor audio presence	1) Speaker polarities are reversed	1) Check speaker connections: Right Speaker Output connection for Right Speaker, Left Output connection for Left Speaker, Check that speaker polarity connections are correct: Red of Amp to Red of Speaker (+); Black of Amp to Black of Speaker (-)

If you continue to experience difficulty and cannot solve your issue or have other problems, contact your Authorized DARED Dealer for assistance.

10.0 MAINTENANCE:

10.1 Tube Replacement

When should I replace tubes? This is a hard one to answer as in this unit your tubes should last depending on use for a long time. If you have low output, distorted output, it is time to consider replacing the tubes. Your DARED Dealer may assist. Replace tubes always with the same model number and place them in the same location as shown on Page 6.

10.2 Regular Care

Keep the unit clean and free of dust.

Always turn off power and let the tubes cool before cleaning the tube area and unit.

Vacuum tubes may be removed easily with a gentle jiggle while lifting the tube upwards out of its socket. Use the same method when re-installing the tubes. Only touch when cool.

When cool the vacuum tubes may be cleaned with a soft and slightly dampened microfiber cloth.

The case may be cleaned with a slightly dampened microfiber cloth and then polished using a separate dry soft microfiber cloth.

11.0 Technical Specifications

DR-100 Tube DAB/DAB+/FM RDS Receiver with USB DAC

- Maximum Power Output:** 2 x 25 Watts
- Frequency Response:** 20-20KHz
- DAB/DAB+/RDS Receiver Sensitivity:** 98 dB
- DAB/DAB+ Receiver Frequency Range:** Band III, 174-240 MHz
- RDS/FM Tuning Range:** 87.45 -108 MHz
- OLED (Organic Light Emitting Diode) Display**
- S/N Ratio:** 86 dB
- Distortion:** 0.1%
- Input Impedance:** 47 K-Ohms
- Output Impedance:** Speaker: 4/8 Ohms
- Maximum Power Consumption:** 110 Watts
- Input Source:** DAB/DAB+/DAB III, FM/RDS, Line In (2 x RCA),
USB DAC; Aux In (3.5 mm stereo mini
phono)
- Output:** Speaker (L & R); Headphone
- Voltage Input:** AC 100-120 V, 50/60 Hz
AC 220-240 V, 50/60 Hz
- Tubes:** 6N1;12AX7; 6E2 Cats-Eye
- Dimensions:** 260 x 160 x 155 mm (L x W x H)
10 1/4" x 6 3/16" x 6 1/8" (L x W x H)
- Weight:** 3.8 kg,
8.37lbs

***Thank-you for selecting DARED
as your choice for your
audio entertainment system
and listening pleasure.***

Experience The Art of Tube

The logo for DARED, featuring a stylized lowercase 'd' followed by the word 'ared' in a bold, sans-serif font.

Tube The Purity of Sound