

POWERED LOUDSPEAKER

DZR 315
DZR 315-D
DZR 15
DZR 15-D
DZR 12
DZR 12-D
DZR 10
DZR 10-D

POWERED SUBWOOFER

DXS 18xLF
DXS 18xLF-D
DXS 15xLF
DXS 15xLF-D

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Introduction

Thank you for purchasing the Yamaha DZR(-D) series POWERED LOUDSPEAKER and DXS-XLF(-D) series POWERED SUBWOOFER. (See the series product lineup below.) These products are designed for live performance, sound reinforcement and fixed installation sound system applications. This manual provides instructions on installation, setup, configuring of the connections, and detailed operation of these speakers for installers, constructors, or general users familiar with speakers. Please read this manual together with the Owner's Manual that comes packaged with the product to get full use out of this product and its functions.

* Unless specifically noted otherwise, illustrations in this manual are based on the DZR12-D and DXS18XLF-D.

* In this manual the Dante model (-D) series is referred to as DZR-D, DXS-XLF-D.

DZR(-D), DXS-XLF(-D) Series Product Lineup

Type	Standard Model	Dante Model (-D)	
Full Range	3-way 15"	DZR315	DZR315-D
	2-way 15"	DZR15	DZR15-D
	2-way 12"	DZR12	DZR12-D
	2-way 10"	DZR10	DZR10-D
Subwoofer	18"	DXS18XLF	DXS18XLF-D
	15"	DXS15XLF	DXS15XLF-D

Main Features

- Strong plywood cabinet features a high output Class D amplifier. Full-range models feature powerful sound pressure capability in a lightweight package by using neodymium magnets.
- Optimized pairing of a highly durable speaker unit with a fixed directional horn, for sparkling highs with punchy and powerful bass.
- Full-range models feature an FIR filter for crossover and frequency adjustments. Low latency for DSP and AD/DA, thanks to 96 kHz sampling rate.
- LCD screen for loading presets, and for making precise graphical adjustments to EQ, delay, and routings. Easily transfer settings by using a USB flash drive.
- Dante models (-D) support the transmission of digital audio and remote control via a Dante network.
- 2-way models support use on a stand or use as a floor monitor. Rotation of the horn, several rigging points, and optional brackets allow a variety of installation methods.

Main Functions

● Processing

Incorporates new FIR filter technology in addition to signal processing know-how built up through years of product development experience in order to deliver the next level in sound quality. The DSP, AD/DA sampling frequency (Fs) is 96 kHz.

● Display → [See page 6](#)

The display enables users to set a broad range of functions using simple commands while finely tuning EQ, delay, routing and other settings using a graphical interface. Includes a back light for adjusting luminance.

● Presets → [See pages 11, 13](#)

A set of recall-only factory presets (one to three) and savable user presets (eight) are available. Select the desired preset from the factory presets when using the DZR and DXS-XLF series product together.

● Network → [See pages 8, 29](#)

Dante-compatible models not only allow for audio input/output across a Dante network, they also enable users to control and monitor this product on a computer, etc.

● Integration with Yamaha digital mixers → [See page 31](#)

Connect a Dante-compatible model with a TF series, CL series or QL series device over a network to monitor patching and device status without a Dante Controller. Yamaha provides a unique system solution centered around its digital mixers.

● Other useful functions

- Safeguard functions are in place to prevent malfunction. Alert messages and other notifications are used to inform users when an issue occurs. → [See page 12](#)
- Comes equipped with a panel lock feature preventing operational errors and tampering. Connect a USB flash drive with the PIN code saved to it to temporarily unlock the panel. Remove the stick to lock the panel again. → [See page 20](#)
- Internal data can be stored on a USB flash drive, making it easy to copy the same settings to a replacement device. → [See page 23](#)

Structure of Manuals

• Owner's Manual (included with the product)

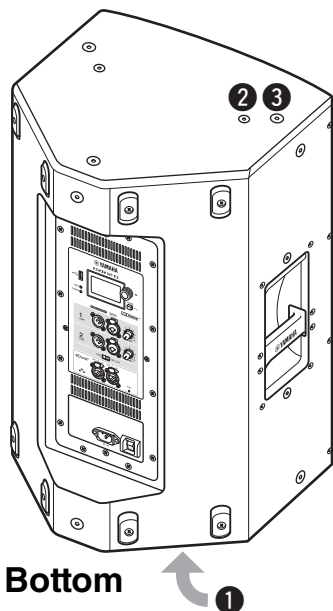
This manual describes product functions and basic product operation.

• Reference Manual (this manual)

This manual describes settings and operations in detail.

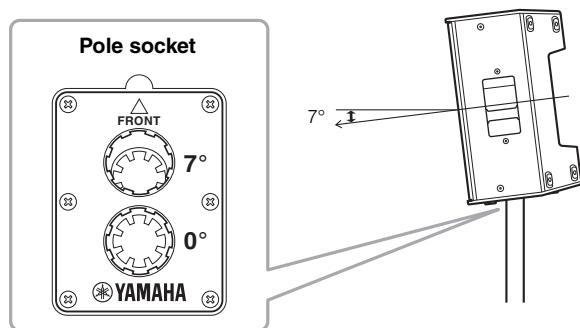
Functions

Full-range Speaker (Rear)



1 Tiltable pole socket

This mount has two pole sockets. You can choose the angle of the speaker so that it is positioned horizontal to the floor or tilting down toward the floor by 7 degrees. Compatible with commercially available speaker stands and speaker poles of 35 mm diameter. (These sockets are not available on the DZR315(-D).)



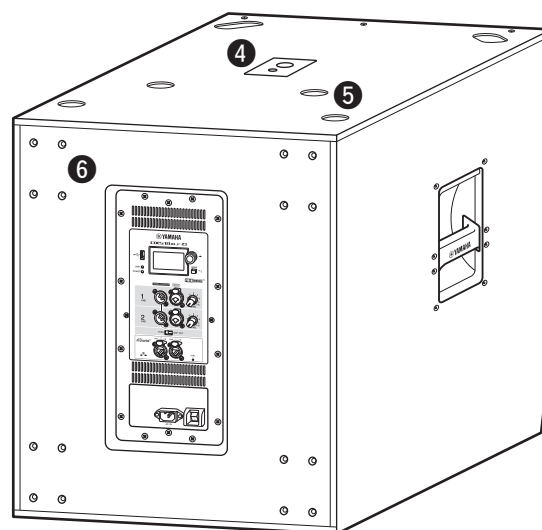
2 Screw holes for U-bracket

For installing with the separately sold U-brackets. (These sockets are not available on the DZR315(-D).)

3 Screw holes for eye bolts

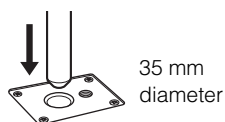
For installing the speaker using eye bolts. The screw holes for eye bolts go through the cabinet wall.

Subwoofer (Rear)



4 Dual pole sockets

Compatible with commercially available speaker poles of 35 mm diameter and M20 screw.



When using a pole socket to install a speaker, observe the following conditions for safety.

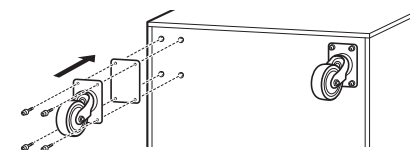
Subwoofer	Speaker to be installed	Length of the pole
DXS18XLF(-D)	Weight: 26 kg or less Height: 76.0 cm or less (DZR15(-D) or smaller)	104 cm or less
DXS15XLF(-D)	Weight: 22 kg or less Height: 64.5 cm or less (DZR12(-D) or smaller)	82 cm or less
	Weight: 18 kg or less Height: 53.7 cm or less (DZR10(-D) or smaller)	104 cm or less

5 Feet cups

When stacking multiple speakers, align the rubber feet of the upper speaker to the feet cups of the lower one.

6 Wheel mounting screws

For installing the separately sold Yamaha SPW-1 wheels. If you are not using wheels, do not remove these screws. Otherwise, the leakage of air will affect sound quality.

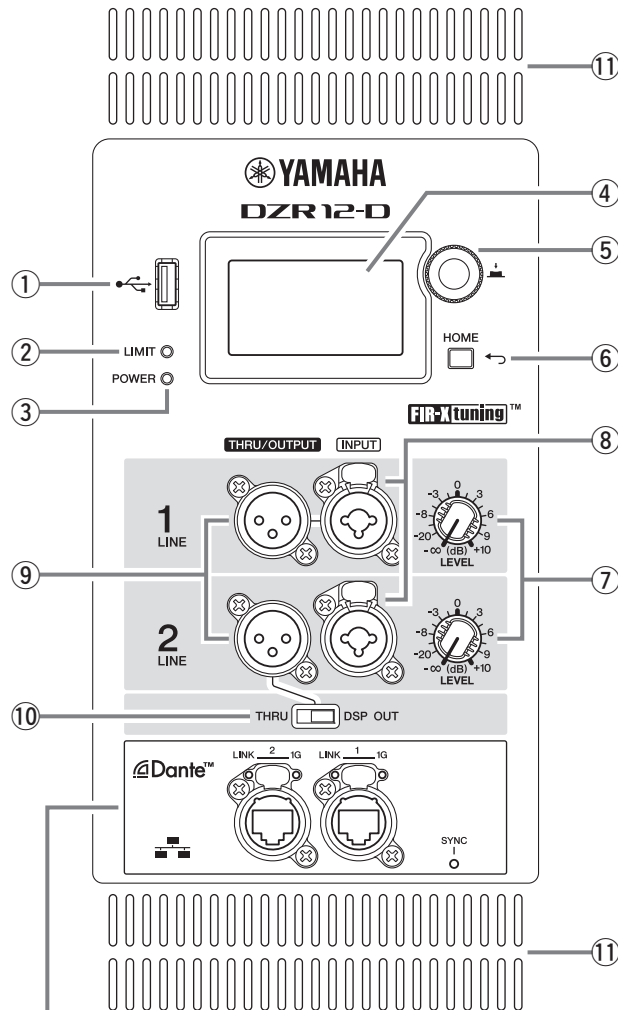


NOTE

- For more information about installing wheels and related precautions, refer to the corresponding manual for the wheels.
- Do not install any item other than the SPW-1 wheels.

Rear Panel

Full range Subwoofer



Available only on Dante models. See the “**Dante Section**” (page 8).

① USB terminal

Connect a USB flash drive to save/load internal memory on this product. USB flash drives are also used to perform firmware updates. You can also save a PIN code used to lock the panel to a USB flash drive, and then connect the USB flash drive to temporarily unlock the panel.

For more information about using the USB terminal and USB flash drives, see “[Precautions when Using the USB Terminal](#)” and “[Using USB Flash Drives](#)” (page 33).

② [LIMIT] indicator

Lights red when the limiter for protecting the speaker is active. If the indicator remains on, lower the level of the input signal. This flashes together with the ③ [POWER] indicator when a serious system error is detected at product startup. This indicator will turn off automatically when BLACKOUT is ON (see page 20).

③ [POWER] indicator

Lights green when the power is on. Flashes when the protection function is active and the output is muted. (“MUTED” appears on the HOME screen in the display at this time.) This flashes together with the ② [LIMIT] indicator when a serious system error is detected at product startup.

NOTE

The [POWER] indicator will not automatically turn off even if BLACKOUT (page 20) is ON.

④ Display

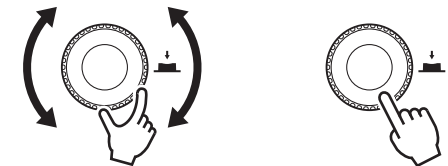
Shows the settings for various functions. Users can finely tune EQ, delay, routing and other settings using a graphical interface. The display includes a back light, enabling users to adjust the brightness and contrast of the display, configure BLACKOUT (automatic off) settings (see page 20).

NOTE

- The display will darken after one minute of panel inactivity and turn off after 25 minutes of inactivity to protect the display, even if the BLACKOUT (page 20) setting is off. Either press a key on the rear panel or press the main knob to wake the display.
- The display will start flashing when the Identify function is used on a Dante Controller or Dante devices (each of the TF, CL, and QL series, etc.).

⑤ Main knob

Turn the knob to move the cursor that appears in the display and change parameter values. Press the knob to execute a setting.



⑥ [←] (Back) key

Press this button to return to the previous screen. Press and hold this button for at least one second to return to the HOME screen.

⑦ [LEVEL] controls

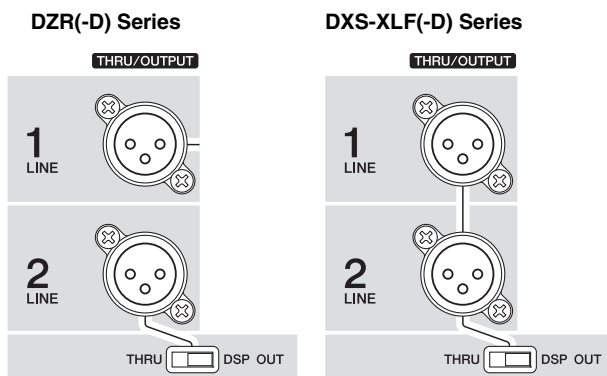
Adjust the level that is input to the [INPUT] jacks.

⑧ [INPUT] jacks

Combo jacks for line level input. Accept both XLR and phone plugs. This enables you to mix levels for two input signals separately. Not compatible with mic input.

⑨ [THRU/OUTPUT] jacks

XLR output jacks. Switch the DZR(-D) series channel 2 and DXS-XLF(-D) series channel 1 and 2 output signals using the ⑩ [THRU/DSP OUT] switch. The DZR(-D) series channel 1 output is fixed to [THRU].



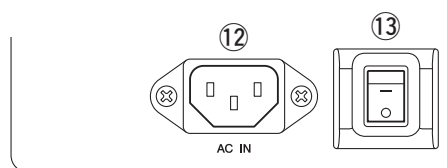
⑩ [THRU/DSP OUT] switch

This switch determines whether signals output from the output jack are passed through the input jack as is ([THRU]), or whether the signal receives DSP processing before input ([DSP OUT]). When this is set to [DSP OUT], you can set the output signal. For more information about signals that can be output, see “ROUTER Screen” – “③ OUTPUT” (page 19).

⑪ Vents

A cooling fan is installed on the exhaust side. The fan will start once the amp exceeds a certain temperature. Fan speed is controlled based on the temperature of the amp and power source. When the speaker is in use, make sure that all of the vents are free from obstruction.

■ Power Section



⑫ [AC IN] jack

Connect the supplied AC power cord here. First, connect the power cord to this product, then insert the power cord plug into the AC outlet. When removing the power cord, perform this procedure in reverse order. While the internal power supply functions within the 100V – 240V range, the limiter may not work properly if a different voltage to that shown is used, since the maximum output and limiter setting are optimized according to the voltage used. Do not use a voltage setting other than that shown.



WARNING

Use only the supplied power cord/plug.



CAUTION

Be sure to turn the power off before connecting or disconnecting the power cord.

Insert the power cord fully until it is locked by the latching lock mechanism (V-Lock). Press the V-Lock latch to disconnect the power cord.

⑬ Power switch

Turns the power supply on [–] or off [○].



WARNING

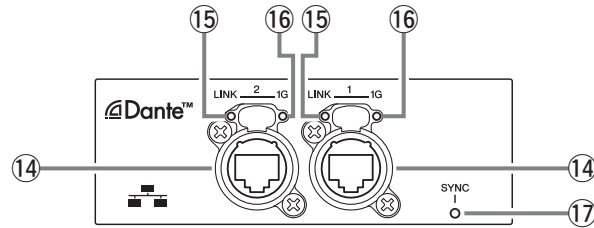
A small amount of current flows even when the power switch is off. If you intend to not use the speaker for a long time, be sure to unplug the power cord from the outlet.

NOTE

- Depending on the timing when the power switch is turned on/off, it might take up to 15 seconds for the power to turn on.
- When using multiple devices, we recommend turning each device on one at a time. If multiple devices are turned on at the same time, the devices might not start up correctly due to a voltage drop at the power supply.

■ Dante Section

Dante model



14 Dante jacks

These are etherCON jacks for connecting with Dante devices and computers. The two jacks are primary connectors that can be linked in a daisy chain connection (see page 29). This connection cannot be used in a redundant (secondary) network.

NOTE

Use STP (Shielded Twisted Pair) cables to prevent electromagnetic interference. Make sure that the metal parts of the plugs are electrically connected to the STP cable shield by conductive tape or comparable means.

15 [LINK] indicator

Shows the communication status of Dante jacks. Lights green when an Ethernet cable is connected correctly to the Dante jack. This indicator will turn off automatically when BLACKOUT is ON (see page 20).

NOTE

This indicator may flash for 30 seconds when the power is turned on when connected to a network device.

16 [1G] indicator

This indicator will light up in orange when the Dante network is functioning as a Giga-bit Ethernet. This indicator will turn off automatically when BLACKOUT is ON (see page 20).

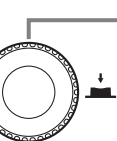
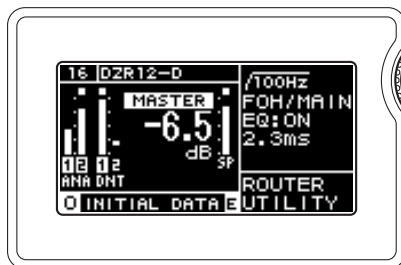
17 [SYNC] indicator

Lights steady or flashes green according to the Dante communication status, as shown in the following table. This indicator will turn off automatically when BLACKOUT is ON (see page 20).

Steady	Operating normally as a clock slave on the Dante network
Continuously flashes	Operating normally as a clock master on the Dante network
Periodically flashes one time	Incorrect DANTE FS setting
Periodically flashes two times	Dante network cable not connected
Periodically flashes three times	Incorrect Dante network connection

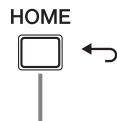
Panel Operations

Basic Operations



Main knob

The main knob is used to move the cursor and adjust parameter values. Parameters with a broad range of values can be adjusted more quickly based on the speed at which the main knob is turned.

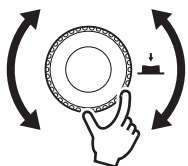


[↶] (Back) key

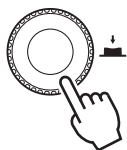
Press this key to move up one level from the current level, or to return to the previous screen. Press and hold this button for at least one second to return to the HOME screen.

1. Turn the main knob to select an item. The selected item is highlighted.

The ► on the right indicates that there are deeper menu items.



2. Press the main knob to execute a selection.



3. Repeat steps 1 and 2 until you reach the edit parameter screen.

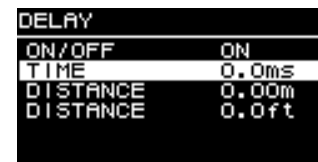
Edit selectable parameters

Turn the main knob to select. The value will be updated and the sound will change when you press the main knob to execute the change.



Edit continuous parameters

Turn the main knob to change the parameter value. The value is changed in real time as you turn the knob.



4. For selectable parameters, press the main knob to execute the edited value.

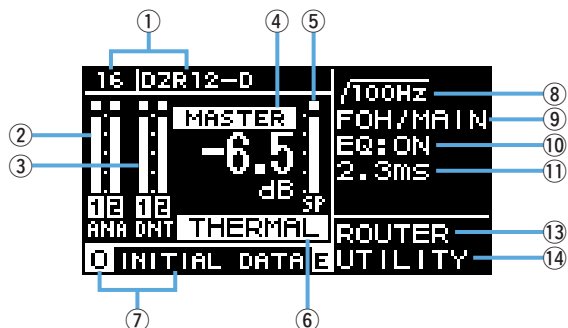
Press the [↶] (Back) key to return to the previous screen (press and hold for at least one second to return to the HOME screen).

HOME Screen and Its Functions

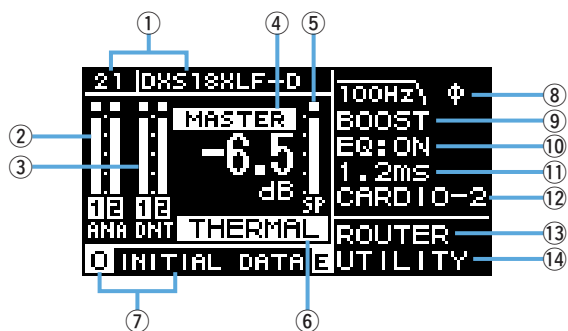
The HOME screen will appear when the power switch is turned on.
Refer to the HOME screen for the model in use.

Dante model

■ DZR-D series

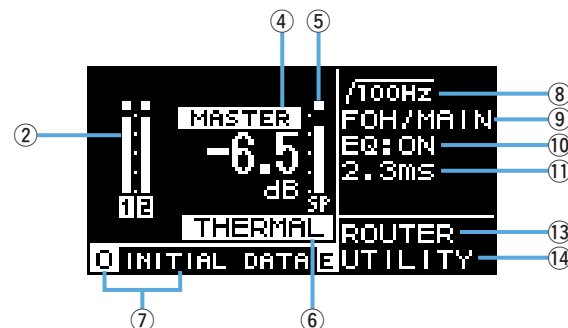


■ DXS-XLF-D series

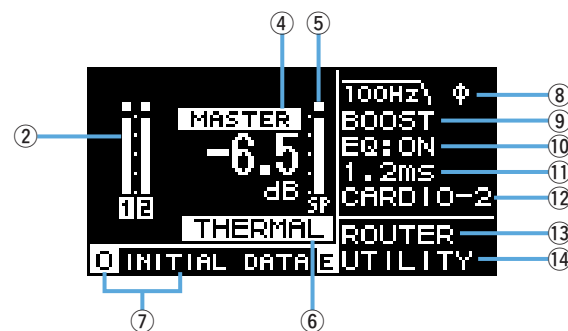


Standard model

■ DZR series



■ DXS-XLF series



NOTE

- Even while displaying other than the HOME screen, if you do not operate the panel for 5 minutes, the screen automatically returns to the HOME screen.
- The above screens of the Dante models are examples when setting LABEL of ① to "DZR12-D" and "DXS18XLF-D," respectively.

① UNIT ID, LABEL **Dante model**

Shows the UNIT ID and label assigned so that DZR-D or DXS-XLF-D series devices on the Dante network can be recognized. When the DANTE MODE (page 23) is set to Quick Config, this will show as “QC,” and the name of the selected TF series output channel. Go to the DANTE SETUP screen to configure and display Dante settings.

② Input Meter

Shows analog input signal levels. On Dante models this will appear as ANA. Clipped input signals will light up at the top when clipping occurs.

③ Input Meter (DNT) **Dante model**

Shows digital input signal (Dante) levels. Clipped input signals will light up at the top when clipping occurs.

④ MASTER Level

Sets and displays output levels. (Unit: dB)

⑤ SP Output Meter

Shows output levels. Sigma (Σ) clipping at the top will light up when clipping occurs within a channel.

⑥ Protection (THERMAL, MUTED)

Appears when safeguard functions have been activated. “THERMAL” is shown when a high temperature is detected in the amplifier, and output levels are reduced. If operating conditions further deteriorate, this will change to “MUTED,” and the output signal will be muted.

⑦ PRESET

Shows the preset number and title of the set preset. This enables you to save, load and change audio settings. **E** (E symbol) will appear when parameters have been changed.

⑧ HPF **Full range**

Sets and displays the high-pass filter frequency.

LPF **Subwoofer**

Sets and displays the low-pass filter frequency and the POLARITY. An indication \emptyset will appear when POLARITY is set to INVERTED.

⑨ D-CONTOUR **Full range**

Sets and display the D-CONTOUR mode.

D-XSUB **Subwoofer**

Sets and displays the D-XSUB mode.

⑩ EQ

Shows whether the equalizer (6 Band EQ) is on or off. You can configure EQ settings while checking the frequency response characteristics.

⑪ DELAY

Sets and displays the delay.

⑫ CARDIOID **Subwoofer**

Sets and displays the cardioid mode.

⑬ ROUTER

Configures the routing of the audio signal.

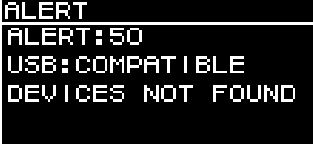
⑭ UTILITY

Sets and displays the device operating settings.

- **PANEL SETUP:** Sets the brightness and contrast of the display, and automatic turn off settings for the display and indicators.
- **PANEL LOCK:** Configures panel lock settings, and saves and loads PIN codes.
- **DEVICE BACKUP:** Saves and loads settings data.
- **DANTE SETUP** **Dante model** : Sets and displays Dante-related settings.
- **NETWORK** **Dante model** : Sets and displays network-related settings.
- **DEVICE INFORMATION:** Shows device status, and device-specific information.
- **INITIALIZE:** Resets to the default settings.
- **LOG:** Shows recorded logs and saves logs to a USB flash drive.
- **UPDATE FIRMWARE:** Updates the firmware for the device, and the Dante module.

Alert Messages

When an error occurs, an alert message will appear on the display. For more details on each error message and notification, see the “[Message List](#)” (page 37).

E.g.) 

Initialization

You can reset to the default settings for this product in the following two ways.

- **Initializing to the default settings by navigating from the HOME screen and selecting UTILITY → INITIALIZE**

(See page 26.)

- **Initializing to the default settings when you have forgotten your PIN code, etc.**

Use the following method to reset to the default settings if you are unable to select INITIALIZE on the UTILITY screen because of a forgotten PIN code, etc.

- 1. Disconnect all the cables except the power cord.**



WARNING

A sudden loud sound might occur when initializing is completed, if an audio signal is present.

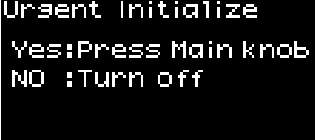
- 2. Turn the power switch off.**

- 3. After the [POWER] indicator turns off, turn the power switch back on.**

- 4. While pressing and holding the main knob, turn the main knob at least five clicks in a counter-clockwise direction within two seconds of the [POWER] indicator light coming on. (Keep pressing and holding the main knob.)**

If the procedure is not finished properly in time, the model name logo will appear. In this case, repeat the procedure again from step 2.

- 5. When the [POWER] indicator starts flashing and the screen shown below appears, release the main knob.**



NOTE

To cancel the initialization process at this point, turn the power switch off.

- 6. Press the main knob.**

This product will be restarted automatically.

- 7. Wait until the HOME screen appears.**

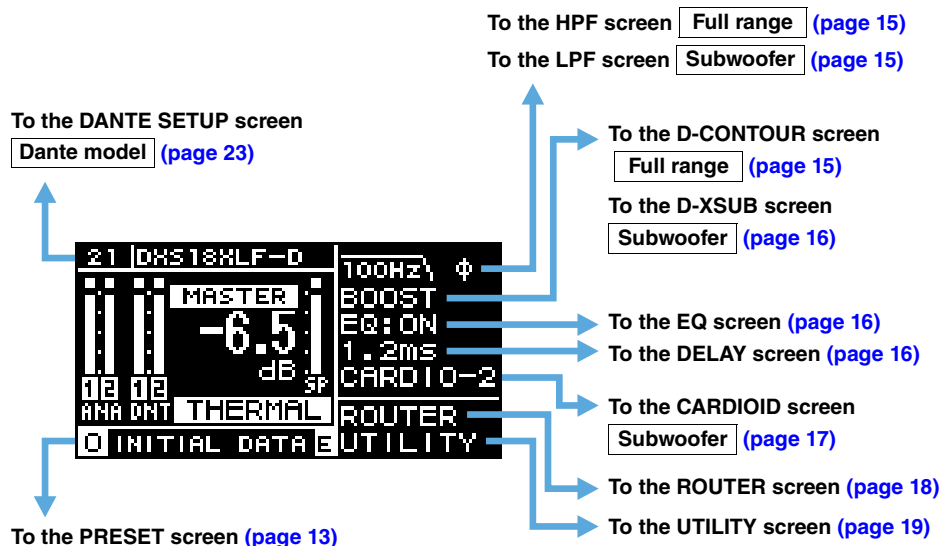
NOTICE

Turning the power switch off before the HOME screen appears could cause a malfunction.

Screen Functions

Screen Structure

Turn the main knob to move the cursor to the desired menu item and select it to move to the corresponding screen.



PRESET Screen

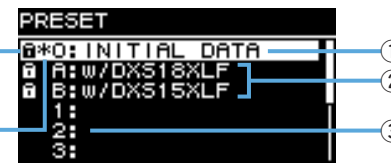
As presets which is sound related setting, allows you to recall/store/clear the settings, edit titles, and set the protection of the settings. The recall-only presets are always protected. An **E** (E symbol) (page 11) will appear on the HOME screen when parameters have been changed.

Full range (factory default settings)

Key mark **E**:

Indicates a protected preset

*: Indicates the currently selected preset



Subwoofer (factory default settings)



① INITIAL DATA

Resets to the default settings. Recall only.

② Factory presets

When using DZR and DXS-XLF series models in combination with one another, you can optimize the crossover frequency, levels and delay by loading presets for each model name. Recall only.

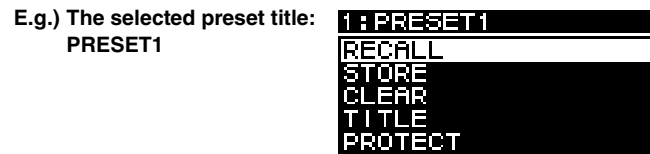
NOTE

The presets are equipped assuming that one DZR and one DXS-XLF having the same signal routes are set up. When analog inputs are used together with Dante inputs, or when several DZR and DXS-XLF are set up, each setting must be adjusted manually.

③ User preset list

Save up to eight settings. It allows you to recall/store/clear the settings, edit titles, and set protection for the settings.

Turn the main knob to select the preset, and press the main knob to execute it. A screen showing a list of possible actions will appear.



■ RECALL

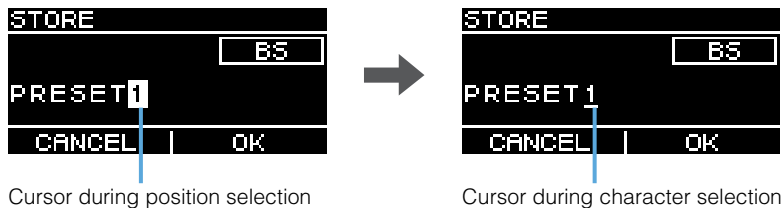
Loads a saved preset.

The preset number and title of the preset selected will appear.



■ STORE

Adds a title to the current setting configurations and stores it to a preset.



Turn the main knob to select the position to enter text, and then press the main knob to enter text input mode. When in text input mode, turn the main knob to select the character you wish to enter, and then press the main knob to enter the character.

Move the cursor to BS and press the main knob to delete the last character entered. When in text input mode, press the [↵] (Back) key to resume position selection. During position selection, select OK to execute the title, or CANCEL to cancel the text entry. Note that protected presets cannot be overwritten.

■ CLEAR

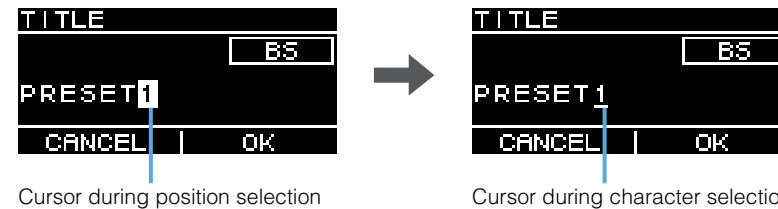
Deletes a stored preset.



Note that protected presets, and the currently selected preset cannot be deleted.

■ TITLE

Edits the title of a stored preset.



Turn the main knob to select the position to edit text, and then press the main knob to enter text input mode. When in text input mode, turn the main knob to select the character you wish to enter, and then press the main knob to enter the character. Move the cursor to BS and press the main knob to delete the last character entered. When in text input mode, press the [↵] (Back) key to resume position selection. During position selection, select OK to execute the title, or CANCEL to cancel the title changes. Note that titles of protected presets cannot be edited.

■ PROTECT

Turns protected for a stored preset on/off.



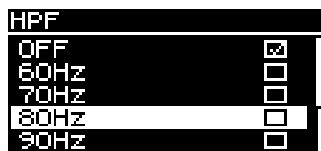
Set this to ON to prevent presets from being overwritten (STORE), deleted (CLEAR) or preset title changes (TITLE). A key mark (page 13) will appear on the left side of the preset title on the PRESET screen.

NOTE

Be aware that using RESTORE FROM USB (page 23, "■ DEVICE BACKUP" ②) will overwrite presets even if they are protected.

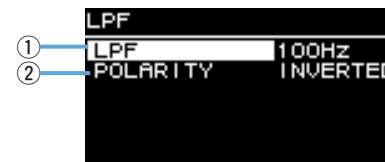
HPF Screen Full range

Sets the HPF (high-pass filter) cutoff frequency.
Select OFF or set a specific frequency.



LPF Screen Subwoofer

Sets the LPF (low-pass filter) cutoff frequency and the polarity.



① LPF

Select the LPF cutoff frequency.

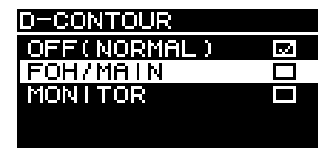
② POLARITY

Select the polarity. When set to INVERTED, a ∅ symbol will appear on the HOME screen.

D-CONTOUR Screen Full range

Switches a D-CONTOUR preset.

Set to the optimal frequency response characteristics according to the application.

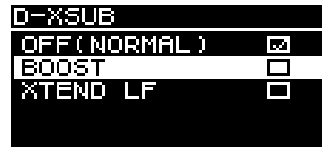


- **OFF (NORMAL):** Turns D-CONTOUR off. This is a general-purpose frequency response characteristic setting.
- **FOH/MAIN:** Boosts the high and low frequency components so that the frequency response characteristic is suitable for main speaker use. The boost amount is automatically adjusted to provide well-balanced, clear audio based on the volume.
- **MONITOR:** Reduces the low frequency range, which could otherwise tend to be boomy if the speaker is set directly on the floor, providing vital clarity when using as a floor monitor. This reduces latency and changes the phase characteristics.

D-XSUB Screen Subwoofer

Switches a D-XSUB preset.

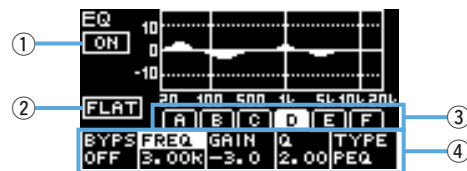
Set to the optimal frequency response characteristics according to the application and genre of music.



- **OFF (NORMAL):** Turns D-XSUB off. This is a general-purpose frequency response characteristic setting.
- **BOOST:** Boosts the frequency band accentuating a sense of punch in the audio.
- **XTEND LF (extended LF):** Extends playback frequencies to cover lower frequencies.

EQ Screen

Adjusts the frequency response characteristics for all speakers. Adjust the 6 Band EQ parameters to your liking as well the intended application.



① ON/OFF

Turns the 6 Band EQ on/off. When off, only the outline of EQ characteristics will be shown on the display.

② FLAT

Sets the amount of gain on all bands to 0 dB.

③ Bands A – F

Select the desired band whose parameters you wish to check. Press the main knob on the selected band to have the cursor move to the parameter display.

④ Parameter Display

Shows the parameters of each band. Move the cursor to a parameter name and press the main knob to start setting parameter values. Press the [↶] (Back) key to return the cursor to the parameter name. Press the [↷] (Back) key again to return to the band selection screen.

DELAY Screen

Sets the delay time. This is used to compensate for the distance between speakers, etc. Set this by time or distance.



① ON/OFF

Turns the delay on/off.

② TIME [ms]

Sets the delay time in milliseconds.

③ DISTANCE [m, ft]

Sets the delay time by physical distance (in meters or in feet).

NOTE

The three delay time indications change in conjunction. The last edited unit will appear on the HOME screen.

CARDIOID Screen Subwoofer

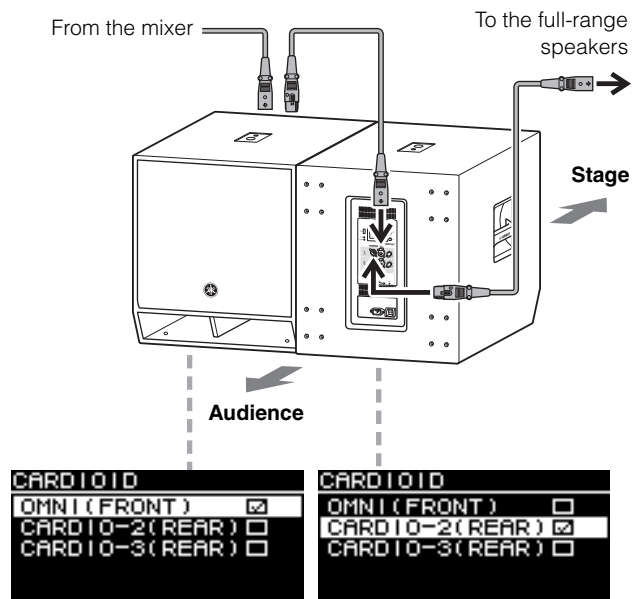
Sets the cardioid mode.

Change settings based on the number of speakers in use and their orientation. Set this to OMNI (FRONT) when not using the cardioid mode.

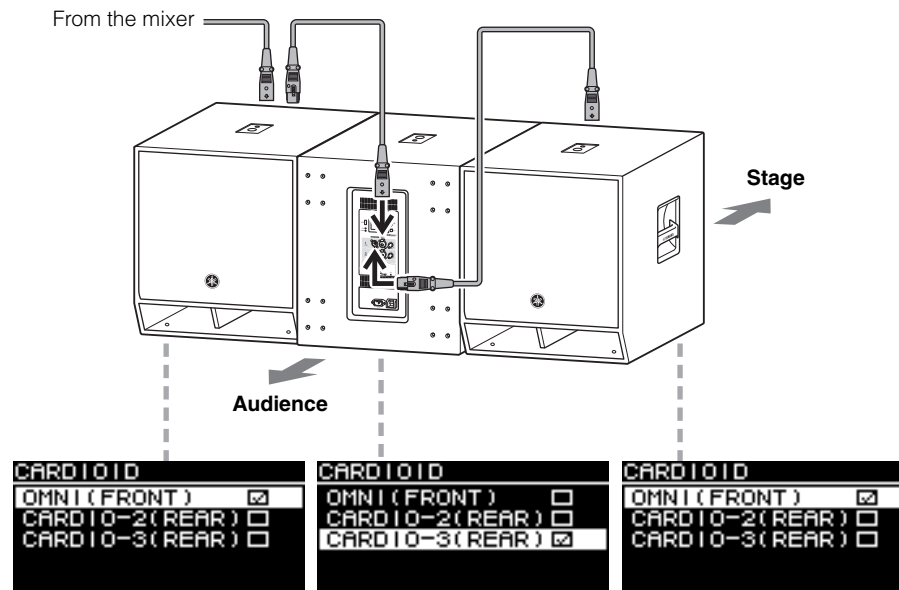
NOTE

For more information about setting up cardioid mode, see the Owner's Manual.

● **Screen when two subwoofers are placed side by side**



● **Screen when three subwoofers are placed side by side**



ROUTER Screen

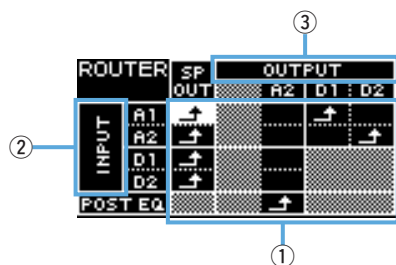
Sets routing, Dante input levels, analog output levels and output levels to a Dante network.

NOTE

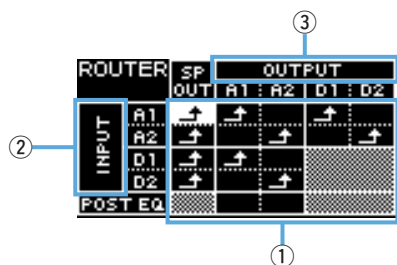
- On Dante models, the analog signal sent to the DZR-D or DXS-XLF-D can be output to the Dante network and set as the input source for the mixer. (This will be supported in a future version).
- For more information about the signal flow in routing, see the “Block Diagram” (page 52).

Dante model

■ DZR-D series



■ DXS-XLF-D series

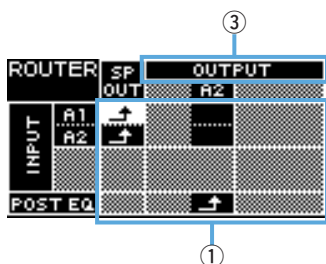


NOTE

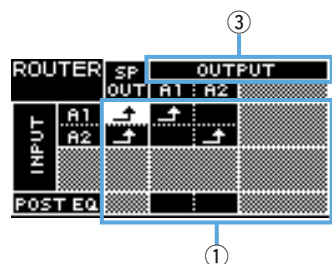
In the above screens, routing for OUTPUT D1/D2 and setting of the D1/D2 output level will be supported in a future version.

Standard model

■ DZR series




■ DXS-XLF series



① Routing

Configure the routing of the audio signal.

Check the input source (INPUT) and output destination (OUTPUT), and set  at the intersecting points. By default, signals from all input jacks will be output from the speakers. Routing cannot be performed for shaded areas on the screen.

② INPUT Dante model

Sets two Dante input levels, sensitivity and the degree of delay compensation.

```
ROUTER> INPUT
DNT. IN1 LVL  +1.0dB
DNT. IN2 LVL  +1.0dB
DNT. SENS.    -14dBFS
ALIGNMENT     OFF
              1.70ms
```

- **DNT. IN1 LVL:** Sets Dante input level D1. It can be set in 0.5 dB increments.
- **DNT. IN2 LVL:** Sets Dante input level D2. It can be set in 0.5 dB increments.
- **DNT. SENS. (DANTE SENSITIVITY):** Sets the input sensitivity for the digital signal sent from the Dante network to the amplifier. The input sensitivity set acts as the clip level for the speakers. Set this to either -14 dBFS (default setting) or -6 dBFS. When the [LEVEL] control is in the center position (0 dB), set this to -14 dBFS to ensure proper balance with the input level from the Dante network and the analog input level from devices having a maximum output of +24 dBu (which include many of Yamaha digital mixers). Make fine adjustment with DNT. IN1 LVL/ DNT. IN2 LVL.
- **ALIGNMENT (DELAY ALIGNMENT):** Set this to ON, and set a delay here to compensate for the time lag between the analog input and the Dante input. Note that the appropriate delay setting will vary depending on the Dante settings configured and the combination of connected devices. As the Dante input typically lags behind, this delay setting will apply to the analog input. When you set the ALIGNMENT, refer to the “Route Latency Values” (page 44).

③ OUTPUT

Sets the output level. Output levels can be set in 0.5 dB increments.

Dante model

■ DZR-D series

```
ROUTER>OUTPUT
ANA.OUT2 LVL 0.0dB
DNT.OUT1 LVL 0.0dB
DNT.OUT2 LVL 0.0dB
```

■ DXS-XLF-D series

```
ROUTER>OUTPUT
ANA.OUT1 LVL 0.0dB
ANA.OUT2 LVL 0.0dB
DNT.OUT1 LVL 0.0dB
DNT.OUT2 LVL 0.0dB
```

Standard model

■ DZR series

```
ROUTER>OUTPUT
ANA.OUT2 LVL 0.0dB
```

■ DXS-XLF series

```
ROUTER>OUTPUT
ANA.OUT1 LVL 0.0dB
ANA.OUT2 LVL 0.0dB
```

- **ANA. OUT1 LVL:** Sets analog output level A1 (page 7 ⑨, channel 1 output level).
- **ANA. OUT2 LVL:** Sets analog output level A2 (page 7 ⑨, channel 2 output level).
- **DNT. OUT1 LVL:** Sets Dante output level D1.
- **DNT. OUT2 LVL:** Sets Dante output level D2.

NOTE

Settings of DNT. OUT1 LVL and DNT. OUT2 LVL will be supported in a future version.

UTILITY Screen

The UTILITY screen is used to configure device settings, and save and load settings data to and from a USB flash drive.

Dante model

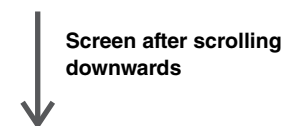
```
UTILITY
PANEL SETUP >
PANEL LOCK >
DEVICE BACKUP >
DANTE SETUP >
NETWORK >
DEVICE INFORMATION >
```

Standard model

```
UTILITY
PANEL SETUP >
PANEL LOCK >
DEVICE BACKUP >
DEVICE INFORMATION >
INITIALIZE >
LOG >
```



```
UTILITY
DANTE SETUP >
NETWORK >
DEVICE INFORMATION >
INITIALIZE >
LOG >
UPDATE FIRMWARE >
```



```
UTILITY
PANEL LOCK >
DEVICE BACKUP >
DEVICE INFORMATION >
INITIALIZE >
LOG >
UPDATE FIRMWARE >
```

■ PANEL SETUP

Sets the rear panel display method.

```
UTILITY>PANEL SETUP
① BRIGHTNESS 6
② CONTRAST 5
③ BLACKOUT OFF
```

① BRIGHTNESS

Sets the brightness of the back light of the display. This setting can be set in 10 steps from 1 to 10.

② CONTRAST

Sets the contrast of the display.

This setting can be set in 16 steps from 1 to 16. Configure your display according to the operating environment so that it is easy to see. A higher contrast is recommended when viewing the display from above, such as with a subwoofer. Note, however, that setting the contrast too high may make the display harder to see directly from the front.

③ BLACKOUT

The BLACKOUT setting is used to automatically turn the display and indicators off when the panel is not in use.

Turn this on to have the display and indicators automatically turn off as follows.

- **After five seconds of panel inactivity:** The display darkens slightly.
- **After 15 seconds of panel inactivity:** The display/indicators except the [POWER] indicator will turn off (see the table below).

Either press a key on the rear panel or press the main knob to wake the display/turn on the indicators.

Display/indicator	Automatically turns off when BLACKOUT is on
[POWER] indicator (page 6 ③)	Does not automatically turn off
Display (page 6 ④)	Off
[LIMIT] indicator (page 6 ②)	Off
[LINK] indicator (page 8 ⑱)	Off
[1G] indicator (page 8 ⑲)	Off
[SYNC] indicator (page 8 ⑳)	Off

NOTE

- The [POWER] indicator will always remain on, even when the BLACKOUT setting is turned on.
- The display will darken after one minute of panel inactivity and turn off after 25 minutes of inactivity to protect the display, even if the BLACKOUT setting is off.

■ PANEL LOCK

Locks the operating panel to prevent inadvertent operating errors.

When doing so, users will be able to set a four-digit PIN code identifying the user. Also, the PIN code can be saved to and loaded from a USB flash drive.



① PANEL LOCK

Sets the panel lock.



- **OFF:** Panel lock is off.
- **PARTIAL:** Locks off operations appearing on the display panel. MASTER Level settings can still be configured.
- **ALL:** Disables all actions except to remove the panel lock.

NOTE

- For more information on releasing the panel lock, see "Removing a Panel Lock" [\(page 22\)](#).
- If a PIN code has been set, the PIN code must be entered even when the setting of the panel lock is changed from OFF to PARTIAL or ALL.

② PIN CODE

Sets a PIN code (any four digits) for the panel lock.

Once a PIN code has been set, the PIN code must be entered to release the panel lock.

NOTE

- If you have forgotten the PIN code, you can still release the panel lock by initializing this product. See "Initializing to the default settings when you have forgotten your PIN code, etc." [\(page 12\)](#).
- The default PIN code setting is 0000. You will not be required to enter the PIN code to release the panel lock when the PIN code is set to 0000.

● Setting PIN Codes

1. Open the PIN code input screen.

Navigate from the HOME screen to select UTILITY → PANEL LOCK → PIN CODE.
The cursor is on the first digit of the PIN code.



2. Turn the main knob to select a number, and then press the main knob to enter it.

Once entered, the cursor will move to the next digit.

3. Enter subsequent numbers in the same way.

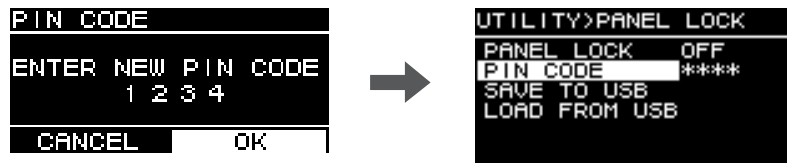


NOTE

You can correct the PIN code while it is being input by pressing the [↶] (Back) key and selecting the desired digit with the main knob.

4. Press the main knob to execute OK.

This will determine the PIN code.



NOTE

If the PIN code is set to 0000, the PIN code has not been set. In this state, PIN code input is not needed to set or release the panel lock.

③ SAVE TO USB

Saves the PIN code to a USB flash drive.

Connect the USB flash drive to the USB terminal, and then select SAVE TO USB. Select YES on the confirmation screen. If "SAVE SUCCEEDED" appears, the process is complete. Select OK to return to the previous screen.

NOTE

- If the PIN code saved to a USB flash drive matches the PIN code saved to this product, the panel lock will be released while the USB flash drive is connected to this product. (This is useful for avoiding the regular lock release process when you wish to temporarily release the lock to change a parameter, for example.)
- For more details on potential alert messages, see the "Message List" (page 37).

④ LOAD FROM USB

Loads the PIN code saved to a USB flash drive.

You can set the same PIN code for multiple DZR, DXS-XLF series devices. Connect the USB flash drive to the USB terminal, and then select LOAD FROM USB. Select YES on the confirmation screen. If "LOAD SUCCEEDED" appears, the process is complete. Select OK to return to the previous screen.

NOTE

- Retrieving a PIN code from a USB flash drive when the panel lock is turned off will set the panel lock setting to PARTIAL.
- For more details on potential alert messages, see the "Message List" (page 37).

● Removing a Panel Lock

If a PIN code has not been set

The default PIN code setting is 0000. You will not be required to enter the PIN code when the PIN code is set to 0000.

When the panel controls are operated while the panel is locked, the following message appears in the display.

```
PANEL LOCKED
UNLOCK
PERMANENTLY: [OK]
TEMPORARILY: [TEMP]
CANCEL OK TEMP
```

- **To permanently remove the panel lock:** Turn the main knob to select OK, and then press the main knob to execute it.
- **To temporarily remove the panel lock:** Turn the main knob to select TEMP, and then press the main knob to execute it. Note that turning the power back on or panel inactivity for five minutes will restore the panel lock setting.

If a PIN code has been set

When the panel controls are operated while the panel is locked, the following message appears in the display.

```
PANEL LOCKED
ENTER PIN CODE
0 * * *
CANCEL
```

Enter the four-digit PIN code you set.

Turn the main knob to select a number, and then press the main knob to enter it.

E.g.) PIN code: 1234

```
PANEL LOCKED
ENTER PIN CODE
1 2 3 4
CANCEL OK TEMP
```

- **To permanently remove the panel lock:** Turn the main knob to select OK, and then press the main knob to execute it.
- **To temporarily remove the panel lock:** Turn the main knob to select TEMP, and then press the main knob to execute it. Note that turning the power back on or panel inactivity for five minutes will restore the panel lock setting.

NOTE

You will not be required to enter the PIN code when the PIN code is set to 0000 (the default setting).

If the PIN code has been saved to a USB flash drive

Connect the USB flash drive the PIN code has been saved to this product. The panel lock will be removed for the duration that the USB flash drive is connected to this product. Remove the USB flash drive to restore the panel lock.

(For more information about saving PIN codes, see “UTILITY Screen” – “■ PANEL LOCK” – “③ SAVE TO USB”; [page 21](#)).

■ DEVICE BACKUP

Saves and loads the user settings to and from a USB flash drive.

Use this function when you want to set multiple DZR, DXS-XLF series devices to the same setting configuration, or change to another DZR, DXS-XLF series device while retaining the same settings.



① SAVE TO USB

Saves settings data to a USB flash drive.

Connect the USB flash drive to the USB terminal, and then select SAVE TO USB and enter the file name. File names can be up to 16 characters long. Only half-width alphanumeric characters and some symbols are supported.

Turn the main knob to select the position to enter text, and then press the main knob to enter text input mode. When in text input mode, turn the main knob to select a character, and then press the main knob to enter the character.

NOTE

For more details on potential alert messages, see the “Message List” (page 37).

② RESTORE FROM USB

Loads settings files stored to a USB flash drive.

Connect the USB flash drive to the USB terminal, and then select RESTORE FROM USB. A list of files stored to the USB flash drive will appear on the screen. Select the file you want to load. Up to 20 files can be displayed on the screen.

NOTE

- Audio will be muted temporarily when settings are changed to avoid noise being output.
- For more details on potential alert messages, see the “Message List” (page 37).
- When changing file names on your computer, make sure the new file name is 16 characters or less and only uses half-width alphanumeric characters or the following symbols: !, #, \$, %, &, \, (,), +, ,, -, ., =, @, [,] , ^, _ , ` , { , } , (space). Note that you will not be able to load a file that does not follow these naming conventions.
- Be aware that using RESTORE FROM USB will overwrite presets even if they are protected (see page 15, “■ PROTECT”).

■ DANTE SETUP Dante model

This screen is used to configure Dante settings and display the Dante network status.



Screen after scrolling downwards



① MODE (DANTE MODE)

Sets the mode used when connecting this product to the Dante network.



- **STANDARD:** Select this when not using the TF series Quick Config function.
- **Quick Config:** Select this when using the TF series Quick Config function.

NOTE

If there are multiple TF series devices on the Dante network, only select the TF series “with OUT-PUT” check box for one device. Patches will not be applied correctly if multiple devices are selected.

*** PATCH**

Set the MODE to Quick Config to display the PATCH screen and add PATCH item. Select the TF series output channel to be patched to this product on the PATCH screen. For more details, see [“Patch Correspondence Chart when Using Quick Config” \(page 39\)](#).

NOTE

It will take several seconds for patches to actually change after changing the setting of PATCH.



PATCH screen



When the MODE is set to Quick Config

② UNIT ID

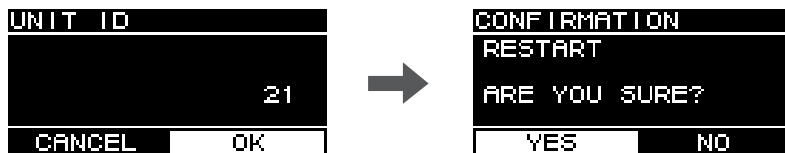
Sets an ID assigned so that DZR-D or DXS-XLF-D series devices on the Dante network can be recognized individually. The UNIT ID set will be applied after restarting this product. Avoid using the same ID for the same model devices on the same network.

NOTE

- The setting range is 01 to FE (hexadecimal range).
- This is the same UNIT ID as that on NETWORK (page 25). A UNIT ID can be changed from either menu location.



Turn the main knob to select the character you wish to enter, and then press the main knob to enter the character. When the restart confirmation screen appears, select YES. The setting will be applied after restarting this product.



The UNIT ID set will appear on the HOME screen.

③ LABEL

Sets a label for this product. Set a label that clearly identifies this product to make it easier to find from the Dante Controller, etc.

NOTE

- Label names can contain a maximum of 12 characters.
- Only half-width alphanumeric characters and some symbols are supported.
- The label set will form part of the Device Label.

If a LABEL is not set (default setting):

Y###-Yamaha-xxxxxxx-*****
 #: UNIT ID
 x: Model name (maximum of 10 characters)
 *****: Last six digits of the MAC address

If a LABEL has been set:

Y###-zzzzzzzzzz-*****
 #: UNIT ID
 z: LABEL (maximum of 12 characters)
 *****: Last six digits of the MAC address

④ FS (DANTE FS)

Sets the sampling frequency for Dante input/output. Select a sampling frequency from 44.1 kHz, 48 kHz, 88.2 kHz or 96 kHz.

⑤ LATENCY (DANTE LATENCY)

Sets the signal latency (Dante latency) for transmitting and receiving over the Dante network. Select a latency amount from 1 ms, 2 ms or 5 ms.

The Dante latency must correspond to the connection method used and the size of the network.

1ms	Use this setting when signals pass through up to 10 devices, including network switches
2ms	This setting is suited to Giga-bit Ethernet networks that include 100 Mbps nodes
5ms	This setting can be safely applied to just about any network environment

The 1 ms setting may not allow enough time for data transmission on systems with 10 or more Dante devices, including network switches, etc., connected in a daisy chain, resulting in audio skips. If skipping occurs, increase the latency time setting.

NOTE

If two devices with different latency settings are patched together, the slower latency time setting will be applied.

⑥ LOCK

Shows the Dante Device Lock status. Use the Dante Controller to configure settings. “LOCKED” will appear when the lock setting is applied, and “UNLOCKED” will appear when the lock is released. When locked, you will not be able to change Dante settings.

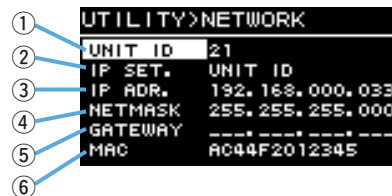
⑦ DDM (Dante Domain Manager)

This shows the status of any DDM servers on the network, and domain participation status.

- **STATE:** Shows the domain participation status.
 - **DOMAIN:** Participating in a domain.
 - **DISCONNECTED:** Participating in a domain, but not connected to a DDM server.
 - **UNMANAGED:** Not participating in a domain.
- **LOCAL:** Shows the access status for Dante settings (including DANTE PATCH) configured for this product currently in use.
 - **READ WRITE:** Changes permitted.
 - **READ ONLY:** Changes not permitted.

■ NETWORK Dante model

Configures network settings used to control this product with an external device. The settings changed will be applied after restarting this product.

**① UNIT ID**

Sets an ID assigned so that DZR-D or DXS-XLF-D series devices on the Dante network can be recognized individually. See “UTILITY Screen” – “■ DANTE SETUP” – “② UNIT ID” (page 24).

② IP SET. (IP SETTING)

Select how the IP address is set.

- **UNIT ID:** Set to 192.168.0.### (### = UNIT ID).
- **DHCP:** Sets an IP address assigned from the DHCP server. The IP address, NET-MASK and GATEWAY will be retrieved automatically. If the DHCP server is not on the network, a link-local address (169.254.xxx.xxx) will be used.
- **STATIC IP:** Sets an IP address manually.

NOTE

When using this product while connected to a CL series or QL series device, set a different address using the same subnet as the IP address set on the FOR DEVICE CONTROL on the mixer.

③ IP ADR.

Shows the IP address. Use this to set the IP address if STATIC IP is selected as the IP SET. setting.

④ NETMASK

Shows the subnet mask. Use this to set the subnet mask if STATIC IP is selected as the IP SET. setting.

⑤ GATEWAY

Shows the default gateway. Use this to set the default gateway if STATIC IP is selected as the IP SET. setting.

⑥ MAC

Shows the MAC address. This address is shown for reference and cannot be changed.

■ DEVICE INFORMATION

Shows device status, and device-specific information.

Dante model

```
UTILITY>DEVICE INFO
① THERMAL    ■■■■■
② VERSION    V1.1.0
   FIRMWARE   4.00.08.19
   Dante      4.00.08.04
              1.00.00.00
```

Standard model

```
UTILITY>DEVICE INFO
① THERMAL    ■■■■■
② VERSION    V1.1.0
   FIRMWARE   V1.1.0
```

Screen after scrolling downwards

```
UTILITY>DEVICE INFO
VERSION
FIRMWARE   V1.1.0
Dante      4.00.08.19
              4.00.08.04
              1.00.00.00
③ SERIAL    JFY001001
```

① THERMAL

Shows the amplifier temperature in five stages. The limiter will be activated based on the temperature detected.

② VERSION

- **FIRMWARE:** Shows the firmware version.
- **Dante:** Shows three Dante versions.

③ SERIAL

Shows the serial number.

■ INITIALIZE

Initializes the data of all settings.



WARNING

Disconnect all the cables except the power cord before this operation. A sudden loud sound might occur when initializing is completed, if an audio signal is present.

For initializing, when the screen shown below appears, press the main knob. When a confirmation screen appears, select YES to restart this product. If you cancel the initialization procedure, press the [↶] (Back) key when the screen shown below appears.

```
UTILITY>INITIALIZE
Reset all settings
Are you sure?
Yes:Press Main knob
No :Press Back key
```

NOTICE

The HOME screen will appear after restarting, indicating that the initialization procedure is complete. Turning the power switch off before the HOME screen appears could cause a malfunction.

■ LOG

Shows internal action logs, and saves them to a USB flash drive.



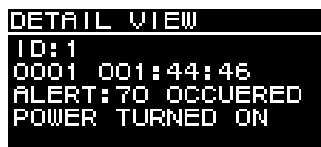
① LOG LIST

Shows all internally recorded action logs.

Logs will be shown in the order that events occur. Time is displayed in “NNNN HHH:MM:SS” format. This indicates that the event occurred HHH (hours) MM (minutes) SS (seconds) after the NNNNth time the power was turned on. The column on the right shows the alert ID.



Turn the main knob to select an event, and then press the main knob to execute and display the DETAIL VIEW screen. For more details on each event message, see the “Message List” (page 37).



② SAVE TO USB

Saves the latest action log to a USB flash drive. This function is provided for user support.

■ UPDATE FIRMWARE

Use a USB flash drive to update this product firmware and Dante module firmware.

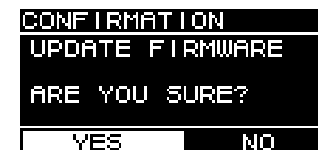
Download the latest update files from the Yamaha Pro Audio website.

<http://www.yamahaproaudio.com/>

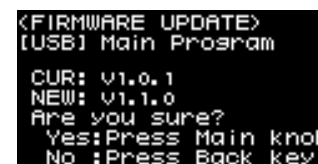
Save the update files to the USB flash drive. Connect the USB flash drive to the USB terminal, and then select UPDATE FIRMWARE.



Select YES on the confirmation screen to restart this product.



When restarting, the following confirmation screen will appear.



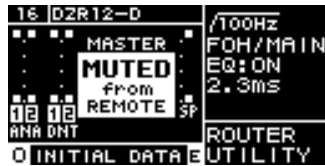
- **To update:** Press the main knob. The update progress will be shown as a percentage (%). When the update is complete, this product will start normally. Do not disconnect the USB flash drive while the update is in progress.
- **To cancel the update:** Press the [←] (Back) key.

Muting from an External Device Dante model

You can mute speaker audio using an external device (such as the TF, CL, and QL series). When muted, "MUTED from REMOTE" will appear on the HOME screen. This device can only be used to unmute muted audio. Turning the power off and on while audio is muted from an external device will cancel the mute setting.

● Unmuting audio muted from an external device

1. Turn the main knob to select "MUTED from REMOTE":



2. Press the main knob to select this and unmute the audio.

For more information about muting audio with an external device, see the Owner's Manual supplied with the external device in use.

Dante Network System

● Outline of Dante

The DZR-D and DXS-XLF-D feature not only analog input/output signals, but also Dante technology to transmit digital audio signals. Dante is a network audio protocol developed by Audinate. It is designed to deliver multi-channel audio signals at various sampling frequencies and bit rates as well as device control signals in the same network, over a Gigabit Ethernet (GbE) network.

Visit the Audinate website for more information on Dante.

<http://www.audinate.com/>

More information on Dante is also posted on the Yamaha Pro Audio website.

<http://www.yamahaproaudio.com/>

NOTE

Please do not use the EEE function (*) of network switches in a Dante network. Although power management should be negotiated automatically in switches that support EEE, some switches do not perform the negotiation properly. This may cause EEE to be enabled in Dante networks when it is not appropriate, resulting in poor synchronization performance and occasional dropouts.

Therefore we strongly recommend that:

- If you use managed switches, ensure that they allow EEE to be disabled. Make sure that EEE is disabled on all ports used for real-time Dante traffic.
- If you use unmanaged switches, make sure to not use network switches that support the EEE function, since EEE operation cannot be disabled in these switches.

* EEE (Energy Efficient Ethernet) is a technology that reduces switch power consumption during periods of low network traffic. It is also known as Green Ethernet and IEEE802.3az.

● Connections

There are two ways to connect the DZR-D and DXS-XLF-D to a Dante network. Both devices can be used in combination with one another.

Daisy Chain Network

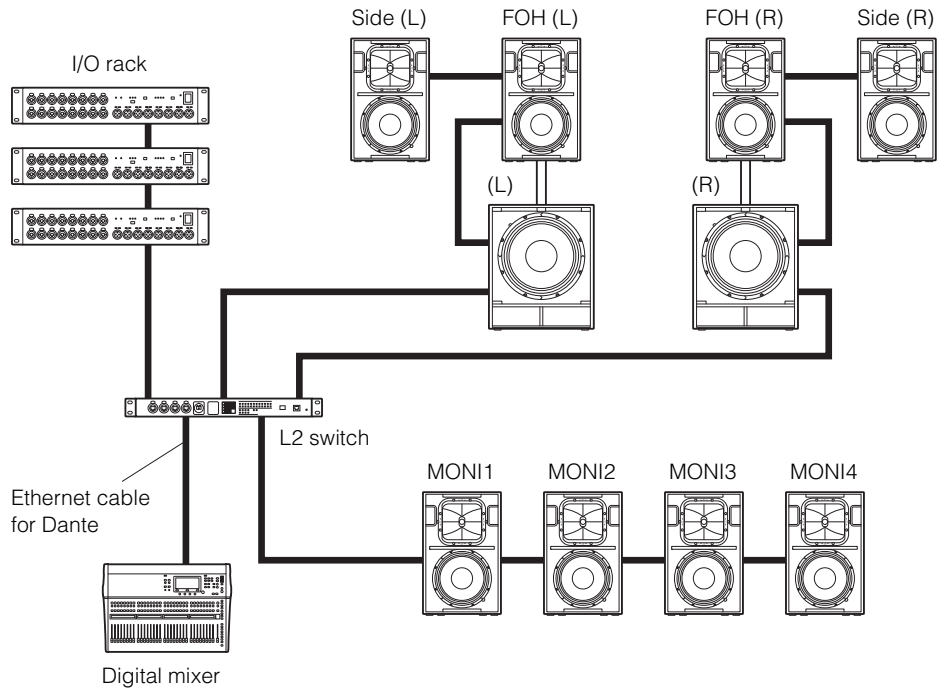
A daisy chain is a wiring scheme in which multiple devices are connected together in sequence. In this way, networking is simple and requires no network switches. If you connect a large number of devices, you must set a higher latency value to avoid audio glitches that could be caused by an increased delay in signal transfer among the devices. Also, if a connection is broken in a daisy chain network, the signal flow is interrupted at that point and no signal will be transferred beyond that point.

Star Network

In a star network, each device is connected to a central network switch. Using a GbE-compatible network switch enables you to configure a wide-band, large-scale network. We recommend a network switch that features various functions to control and monitor the network (such as QoS, the ability to assign priority to data flows—for example, clock synchronization or audio transmission on certain circuits). DZR-D and DXS-XLF-D cannot be used in a redundant (secondary) network because the two Dante jacks of DZR-D and DXS-XLF-D are primary connectors.

System setup example

This example uses only DZR-D and DXS-XLF-D series speakers.



Configuration with Dante Models

Limit the number of Dante devices to within 10 units, including switches, in a single daisy chain. If the number of Dante devices exceeds 10 units, communication latency within the network will increase and the audio might drop out. To prevent this, set a higher Dante Latency value (page 24, ⑤ LATENCY), or use an L2 switch (that supports Giga-bit Ethernet) to create branches in the network.

NOTE

It is important to setup a well-balanced system that leverages the advantages offered by both daisy chain and star network connections.

Dante Settings

When using the DZR-D and DXS-XLF-D in a connection to a Dante network, use the DANTE SETUP screen to configure various Dante settings.

Navigate from the HOME screen and select UTILITY → DANTE SETUP to open the DANTE SETUP screen. To open the DANTE SETUP screen, you can also navigate from the HOME screen and select UNIT ID, LABEL (the upper left of the HOME screen). See page 13.

DANTE SETUP screen

UTILITY>DANTE SETUP	
MODE	STANDARD
UNIT ID	21
LABEL	
FS	48kHz
LATENCY	1ms
LOCK	UNLOCKED

* For more information about each function, see “Screen Functions” – “UTILITY Screen” – “■ DANTE SETUP” (page 23).

Connecting to Dante Devices

● About Dante Controller

Dante Controller is a software application that allows configuration and audio routing of Dante networks. Use this application if you plan to connect to Dante devices other than Yamaha digital mixers compatible to integration with DZR-D and DXS-XLF-D, or apply more advanced settings.

Please download the latest version of the Dante Controller application from the website listed below.

<http://www.yamahaproaudio.com/>

To run Dante Controller, the computer must feature a GbE (Giga-bit Ethernet)-compatible connector.

In Dante Controller, you can apply the following main settings.

- I/O patch settings on the Routing tab in Network View
- Clock master settings on the Clock Status tab in Network View
- Sampling rate settings on the Device Config tab in Device View

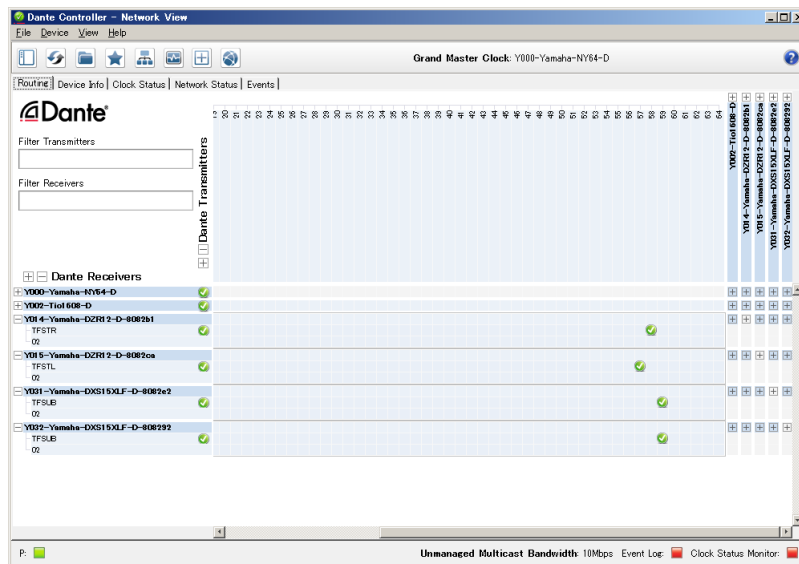
NOTE

I/O patch settings and other Dante-related settings cannot be changed if Dante Device Lock has been enabled on the Dante Controller. To change these settings, first remove the Dante Device Lock on the Dante Controller.

● Dante Controller Settings

Start Dante Controller and open Network View.

Set the audio routing between Dante devices in Network View. All Dante devices on the network will appear on this screen. Click the cells [+] where transmitting and receiving devices intersect to show all the channels, and then establish audio routes. A green check box icon will appear when a route has been set.



For more details, see the Dante Controller User's Manual.

Also, for more information about the Dante channels assigned to the output signals from the transmitting devices (digital mixers, etc.), see the relevant manuals for the transmitting devices.

Integration with Yamaha Digital Mixers

The DZR-D and DXS-XLF-D can be patched with Yamaha digital mixers (each of the TF, CL, or QL series) without using Dante Controller. In such cases, the number of the devices which can be patched is 24 at the maximum, including other Dante devices. When patching with more than 25 devices, use Dante Controller.

If each of the TF, CL, or QL series devices being patched has a clock rate of 48 kHz, the DANTE FS setting of DZR-D and DXS-XLF-D must also be set to 48 kHz. Even when this is set to 48 kHz, the DZR-D and DXS-XLF-D will still run at 96 kHz internally using an internal SRC (Sampling Rate Converter). Use Dante Controller when establishing a complex system that requires advanced settings, or large-scale systems.

The following functions are available when using the DZR-D and DXS-XLF-D in combination.

● TF series

- Automatic patch settings by Quick Config function (See [page 23](#), "DANTE SETUP" ①)
- Major status monitoring
- Mute control
- Identify function

● CL series, QL series

- Patch settings from the mixer screen (Set a different UNIT ID for the DZR-D and DXS-XLF-D devices connected.)
- Major status monitoring
- Major parameters control
- Identify function

NOTE

If the digital mixer cannot recognize the DZR-D or DXS-XLF-D, and the DZR-D or DXS-XLF-D does not appear on the digital mixer screen, check the digital mixer firmware version.

The Yamaha digital mixers compatible to integration with DZR-D and DXS-XLF-D, and supported firmware versions are as follows.

Digital mixer	Supported firmware version
TF series	V3.6 and later
CL series	V5.1 and later
QL series	V5.1 and later

To use the abovementioned functions, you will need to update to the supported firmware version.

For more information on the use of Yamaha digital mixers, see the relevant manual for the model in use.

<http://www.yamahaproaudio.com/>

Reference

Precautions when Using the USB Terminal

● Compatible USB devices

- Use a USB flash drive. You will not be able to use any other USB device (USB hub, mouse, computer keyboard, etc.) when connected.
- This product is compatible with USB1.1 to 2.0 USB flash drives (however, not all USB flash drives have been verified for compatibility).

NOTICE

The USB terminal is rated at a maximum of 5V/500mA. An alert message will appear on the display when attempting to connect a device that requires a current exceeding 500mA, and the power supply will be stopped.

● Connecting a USB flash drive

- Do not insert or remove a USB flash drive while a message appears on the screen. Doing so may prevent the product from functioning properly, or may damage the USB flash drive itself and the data contained within.
- Wait several seconds before reinserting a USB flash drive after removing it.

NOTICE

When using a USB extension cable, use a cable that is no longer than 1 m.

Using USB Flash Drives

● USB flash drive format

Use a USB flash drive formatted to FAT32 or FAT16. Format the flash drive on your computer. Note that USB flash drives formatted on other devices may not work properly with this product.

● Preventing accidental data erasure

Your USB flash drive may come with a write-protect function to prevent accidental data erasure. Use the write-protect feature to prevent important data from being overwritten. Conversely, when saving data, check that the USB flash drive's write-protect function is off before using the flash drive.

● Turning the power off when connecting the USB flash drive

Make sure the system is not accessing the USB flash drive (check that there are no messages on the display) before turning the power off. Failure to do so may damage the USB flash drive itself and the data contained within.

Function Tree

Function	Category	Settings	Default value	Setting range	Full range		Subwoofer		Page number
					Standard	Dante	Standard	Dante	
METER	Input Meter	Shows analog input signal levels. (On Dante models this will appear as ANA.)	—	-∞ to 0dBFS	✓ (x2)	✓ (x2)	✓ (x2)	✓ (x2)	11
	Input Meter (DNT)	Shows digital input signal (Dante) levels.	—	-∞ to 0dBFS		✓ (x2)		✓ (x2)	11
	UNIT ID	Shows the ID assigned so that DZR-D or DXS-XLF-D series devices on the Dante network can be recognized.	01	01 to FE		✓		✓	11, 24, 25
	LABEL	Shows the label.	—	12 characters		✓		✓	11, 24
	MASTER Level	Sets the output level. (Unit: dB)	0.0dB	-∞, -80 to +10.0dB	✓	✓	✓	✓	11
	SP Output Meter	Shows the output level.	—	-∞ to 0dBFS	✓	✓	✓	✓	11
	Protection (THERMAL, MUTED)	Appears when safeguard functions have been activated.	Hidden	THERMAL, MUTED	✓	✓	✓	✓	11
	MUTED from REMOTE	Mutes audio from an external device.	Off	—		✓		✓	28

Function	Category	Parameter	Default value	Setting range	Full range		Subwoofer		Page number
					Standard	Dante	Standard	Dante	
TUNING	HPF	OFF, 60Hz, 70Hz, 80Hz, 90Hz, 100Hz, 110Hz, 120Hz	OFF	60Hz to 120Hz	✓	✓			11, 15
	LPF	60Hz, 70Hz, 80Hz, 90Hz, 100Hz, 110Hz, 120Hz	120Hz	60Hz to 120Hz			✓	✓	11, 15
		POLARITY	NORMAL	NORMAL, INVERTED			✓	✓	
	D-CONTOUR	OFF (NORMAL), FOH/MAIN, MONITOR	OFF (NORMAL)	OFF (NORMAL), FOH/MAIN, MONITOR	✓	✓			11, 15
	D-XSUB	OFF (NORMAL), BOOST, XTEND LF	OFF (NORMAL)	OFF (NORMAL), BOOST, XTEND LF			✓	✓	11, 16
	EQ (6 bands)	ON, OFF	ON	ON, OFF	✓	✓	✓	✓	11, 16
		BYPS <Bypass>	ON	ON, OFF	✓ (x6)	✓ (x6)	✓ (x6)	✓ (x6)	
		FREQ <Frequency>	<Each Band>	20.0Hz to 20.0kHz	✓ (x6)	✓ (x6)	✓ (x6)	✓ (x6)	
		GAIN	0.0	-10.0 to +10.0dB	✓ (x6)	✓ (x6)	✓ (x6)	✓ (x6)	
		Q	2.00	0.7 to 10.0	✓ (x6)	✓ (x6)	✓ (x6)	✓ (x6)	
		TYPE	PEQ	PEQ, LO SHELF 6dB, LO SHELF 12dB, HI SHELF 6dB, HI SHELF 12dB, HPF, LPF	✓ (x6)	✓ (x6)	✓ (x6)	✓ (x6)	
	DELAY	ON, OFF	ON	ON, OFF	✓	✓	✓	✓	11, 16
		ms	0.0ms	0.0 to 140.0ms	✓	✓	✓	✓	
		m	0.00m	0.00 to 48.10m	✓	✓	✓	✓	
ft		0.0ft	0.0 to 157.8ft	✓	✓	✓	✓		
CARDIOID	OMNI (FRONT), CARDIO-2 (REAR), CARDIO-3 (REAR)	OMNI (FRONT)	OMNI (FRONT), CARDIO-2 (REAR), CARDIO-3 (REAR)			✓	✓	11, 17	

Function	Category	Parameter	Default value	Setting range	Full range		Subwoofer		Page number
					Standard	Dante	Standard	Dante	
ROUTER	Routing	SP OUT	⬆	⬆ (On), — (Off)	✓	✓	✓	✓	18
		A1 <Analog OUTPUT 1>	⬆	⬆ (On), — (Off)			✓	✓	
		A2 <Analog OUTPUT 2>	⬆	⬆ (On), — (Off)	✓	✓	✓	✓	
		D1 <Dante OUTPUT 1>	⬆	⬆ (On), — (Off)		✓		✓	
		D2 <Dante OUTPUT 2>	⬆	⬆ (On), — (Off)		✓		✓	
	INPUT	DNT. IN1 LVL <Dante Input Level 1>	+1.0dB	-∞, -80.0 to +10.0dB		✓		✓	18
		DNT. IN2 LVL <Dante Input Level 2>	+1.0dB	-∞, -80.0 to +10.0dB		✓		✓	
		DNT. SENS. (DANTE SENSITIVITY)	-14dBFS	-14dBFS, -6dBFS		✓		✓	
		ALIGNMENT (DELAY ALIGNMENT)	OFF 1.70ms	OFF, ON 0.00ms to 20.00ms		✓		✓	
	OUTPUT	ANA. OUT1 LVL <Analog Output Level 1>	0.0dB	-∞, -80.0 to +10.0dB			✓	✓	19
		ANA. OUT2 LVL <Analog Output Level 2>	0.0dB	-∞, -80.0 to +10.0dB	✓	✓	✓	✓	
		DNT. OUT1 LVL <Dante Output Level 1>	0.0dB	-∞, -80.0 to +10.0dB		✓		✓	
		DNT. OUT2 LVL <Dante Output Level 2>	0.0dB	-∞, -80.0 to +10.0dB		✓		✓	
UTILITY	PANEL SETUP	BRIGHTNESS	6	1 to 10	✓	✓	✓	✓	19
		CONTRAST	Full range: 5, Subwoofer: 12	1 to 16	✓	✓	✓	✓	20
		BLACKOUT	OFF	OFF, ON	✓	✓	✓	✓	
	PANEL LOCK	PANEL LOCK	OFF	OFF, ON	✓	✓	✓	✓	20
		PIN CODE	0000	Four-digit numeral	✓	✓	✓	✓	
	DEVICE BACKUP	SAVE TO USB	—	—	✓	✓	✓	✓	21
		LOAD FROM USB	—	—	✓	✓	✓	✓	
RESTORE FROM USB		—	—	✓	✓	✓	✓	23	

Function	Category	Parameter	Default value	Setting range	Full range		Subwoofer		Page number
					Standard	Dante	Standard	Dante	
UTILITY	DANTE SETUP	MODE (DANTE MODE)	STANDARD	STANDARD, Quick Config		✓		✓	23
		*PATCH <If the MODE is set to Quick Config>	NO ASSIGN	See the "Patch Correspondence Chart when Using Quick Config" (page 39)		✓		✓	24
		UNIT ID	01	01 to FE		✓		✓	11, 24
		LABEL	—	12 characters (alphanumeric characters, -)		✓		✓	
		FS (DANTE FS)	48kHz	44.1kHz, 48kHz, 88.2kHz, 96kHz		✓		✓	24
		LATENCY (DANTE LATENCY)	1ms	1ms, 2ms, 5ms		✓		✓	
		LOCK <For display only>	UNLOCKED	UNLOCKED, LOCKED		✓		✓	25
		DDM	—	—	—	—	—	—	
		STATE <For display only>	DISCONNECTED	DOMAIN, DISCONNECTED, UNMANAGED		✓		✓	
		LOCAL <For display only>	READ ONLY	READ WRITE, READ ONLY		✓		✓	
	NETWORK	UNIT ID	01	01 to FE		✓		✓	11, 25
		IP SET. (IP SETTING)	DHCP	UNIT ID, DHCP, STATIC IP		✓		✓	
		IP ADR.	—	IPv4		✓		✓	25
		NETMASK	—	IPv4		✓		✓	
		GATEWAY	—	IPv4		✓		✓	
		MAC <For display only>	—	—		✓		✓	
	DEVECE INFORMATION	THERMAL <For display only>	—	—	✓	✓	✓	✓	26
		VERSION	—	—	—	—	—	—	
		FIRMWARE <For display only>	—	—	✓	✓	✓	✓	
		Dante <For display only>	—	—		✓		✓	
SERIAL <For display only>		—	—		✓		✓		
INITIALIZE	—	—	—	✓	✓	✓	✓	26	
LOG	LOG LIST	—	—	✓	✓	✓	✓	27	
	SAVE TO USB	—	—	✓	✓	✓	✓		
UPDATE FIRMWARE	—	—	—	✓	✓	✓	✓	27	
PRESET	0: INITIAL DATA A to C(*): Factory presets 1 to 8: User presets * Number values may change depending on the model in use.	RECALL	—	—	✓	✓	✓	✓	14
		STORE	—	—	✓	✓	✓	✓	
		CLEAR	—	—	✓	✓	✓	✓	
		TITLE	—	—	✓	✓	✓	✓	
		PROTECT	—	—	✓	✓	✓	✓	15

Message List

Number	Message	Symptom	Countermeasure
01-11	SYSTEM ERROR	The product does not start up properly.	Turn the power off and wait at least six seconds before turning the power back on. If the problem persists, try initializing this product. If this still does not resolve the problem, please contact your Yamaha dealer.
12	CURRENT MEMORY ERROR		
13	PRESET MEMORY ERROR		
14	SYSTEM ERROR		
15			
17	DUPLICATE IP ADDRESS	A duplicate IP address is in use.	Set the IP address to one that does not overlap with another IP address.
20	OUTPUT CURRENT OVER	Circuit protection has been activated due to excess amplifier output current.	The product may be faulty. Please contact your Yamaha dealer.
22	AMP TEMP TOO HIGH step1[*]	An output limiter has been applied due to excess temperature detected in the amplifier. (*: HF or LF)	Either reduce the output level, or wait for the heat to subside before using again. Alternatively, keep the rear panel out of direct sunlight, and ensure that the area around the rear panel is well ventilated.
23	AMP TEMP TOO HIGH step2[*]		
25	AMP TEMP TOO HIGH step3[*]	Audio output has been muted due to excess temperature detected in the amplifier. (*: HF or LF)	Wait for the heat to subside before using again. Alternatively, keep the rear panel out of direct sunlight, and ensure that the area around the rear panel is well ventilated.
27	POWER SUPPLY TEMP TOO HIGH[*]	A limiter was applied due to an abnormally high temperature detected in the power supply unit. (*: HF or LF)	Continuing use may cause the power supply unit to malfunction. Reduce the output level before using again.
34	AMP PROTECT (LIMIT)[*]	An output limiter has been applied due to an abnormality detected in the amplifier. (*: HF or LF)	Wait for the heat to subside before using again. The product may be faulty if symptoms persist even after cooling down. Please contact your Yamaha dealer.
35	HF/OVER TEMP PROTECT (DOWN)	Audio output has been muted due to an abnormality detected in the amplifier.	
50	USB: COMPATIBLE DEVICES NOT FOUND	Compatible USB flash drive not connected.	Only use supported USB flash drives. For a list of USB flash drives tested to work, visit the Yamaha Pro Audio website (http://www.yamahaproaudio.com/).
51	USB: NO FILE SYSTEM	The USB flash drive's file system is inaccessible.	Use a USB flash drive that has been properly formatted to FAT32 or FAT16.
52	USB: FILE NOT FOUND	The relevant file cannot be found on the USB flash drive.	Check that the file has been saved properly to the USB flash drive, and then try again.
53	USB: ILLEGAL FILE	Invalid file used.	Replace the invalid file with a compatible file and try again.
54	USB: INCOMPATIBLE FORMAT	Incompatible file format used.	Replace the invalid file with a compatible file and try again.
55	USB: I/O ERROR	Cannot read/write USB flash drive properly.	Check that the USB flash drive in use works properly on a computer or some other device. Use a USB flash drive that has been tested to work. For a list of USB flash drives tested to work, visit the Yamaha Pro Audio website (http://www.yamahaproaudio.com/). If this still does not resolve the problem, please contact your Yamaha dealer.

Number	Message	Symptom	Countermeasure
56	USB: STORAGE FULL!	Insufficient USB flash drive space.	Use a USB flash drive with a sufficient amount of available space.
58	USB: LOAD ERROR	An error occurred while loading a file from a USB flash drive. Internal data corruption may have occurred within this product.	Please try again. A message appears on the display while the USB flash drive is being accessed. Do not remove the USB flash drive while the message appears.
59	USB: OVER CURRENT	The power supply stopped due to excess current flowing to the USB terminal.	Remove the USB flash drive from the USB terminal, and then turn on the power again.
65	INCOMPATIBLE DATA LOADED	Changed incompatible data contained within the loaded file to the default settings.	—
70	POWER TURNED ON	The power turned on.	—
71	POWER TURNED OFF	The power turned off.	—
72	SHORT INTERRUPTION	Restarted system after performing a shutdown due to an instantaneous power failure.	Connect to a stable power source.
73	HOST FIRMWARE UPDATE COMPLETED	Firmware update completed.	—
74	PANEL UNLOCKED	Removed panel lock.	—
77	PRESET RECALLED[*]	Recalled preset. (*: Preset number)	—
78	PRESET STORED[*]	Stored preset. (*: Preset number)	—
79	PRESET CLEARED[*]	Cleared preset. (*: Preset number)	—
80	BACKUP DATA LOADED	Loaded settings data from the USB flash drive using RESTORE FROM USB on the DEVICE BACKUP screen.	—
81	PIN CODE LOADED	Loaded PIN code from the USB flash drive.	—
82	PIN CODE CHANGED	PIN code has been changed.	—
83	WRONG PIN CODE	Wrong PIN code entered.	—
85	Dante FIRMWARE UPDATE COMPLETED	Successfully updated the Dante firmware.	—
90	ALL DATA INITIALIZED	All parameter settings reset back to their default values.	—
91			—

Patch Correspondence Chart when Using Quick Config

DZR-D, DXS-XLF-D		TF series	DZR-D, DXS-XLF-D		TF series	DZR-D, DXS-XLF-D		TF series
Option on the PATCH screen (see page 24)	ROUTER INPUT	Output channel	Option on the PATCH screen (see page 24)	ROUTER INPUT	Output channel	Option on the PATCH screen (see page 24)	ROUTER INPUT	Output channel
NO ASSIGN	D1	—	AUX 9	D1	AUX 9	ST R/SUB	D1	ST R
	D2	—		D2	—		D2	SUB
ST L	D1	ST L	AUX10	D1	AUX10	MTRX1/2	D1	MTRX1
	D2	—		D2	—		D2	MTRX2
ST R	D1	ST R	AUX11	D1	AUX11	MTRX3/4	D1	MTRX3
	D2	—		D2	—		D2	MTRX4
SUB	D1	SUB	AUX12	D1	AUX12	AUX 1/2	D1	AUX 1
	D2	—		D2	—		D2	AUX 2
MTRX1	D1	MTRX1	AUX13	D1	AUX13	AUX 3/4	D1	AUX 3
	D2	—		D2	—		D2	AUX 4
MTRX2	D1	MTRX2	AUX14	D1	AUX14	AUX 5/6	D1	AUX 5
	D2	—		D2	—		D2	AUX 6
MTRX3	D1	MTRX3	AUX15	D1	AUX15	AUX 7/8	D1	AUX 7
	D2	—		D2	—		D2	AUX 8
MTRX4	D1	MTRX4	AUX16	D1	AUX16	AUX 9/10	D1	AUX 9
	D2	—		D2	—		D2	AUX10
AUX 1	D1	AUX 1	AUX17	D1	AUX17	AUX11/12	D1	AUX11
	D2	—		D2	—		D2	AUX12
AUX 2	D1	AUX 2	AUX18	D1	AUX18	AUX13/14	D1	AUX13
	D2	—		D2	—		D2	AUX14
AUX 3	D1	AUX 3	AUX19	D1	AUX19	AUX15/16	D1	AUX15
	D2	—		D2	—		D2	AUX16
AUX 4	D1	AUX 4	AUX20	D1	AUX20	AUX17/18	D1	AUX17
	D2	—		D2	—		D2	AUX18
AUX 5	D1	AUX 5	MONI L	D1	MONI L	AUX19/20	D1	AUX19
	D2	—		D2	—		D2	AUX20
AUX 6	D1	AUX 6	MONI R	D1	MONI R	MONI L/R	D1	MONI L
	D2	—		D2	—		D2	MONI R
AUX 7	D1	AUX 7	ST L/R	D1	ST L	ST L/SUB	D1	ST L
	D2	—		D2	ST R		D2	SUB
AUX 8	D1	AUX 8						
	D2	—						

Troubleshooting

Symptom	Possible causes	Possible solution
Power does not come on.	Time between turning the power on/off is too short.	Wait about 20 seconds after turning the power off before turning it back on again.
No sound.	Routing is not appropriate.	On the HOME screen, if there is a signal in the INPUT meter but no signal in the SP Output Meter, check if the signal is routed to SP OUT under ROUTER in the settings.
	Dante model Level is low in DSP.	Check the INPUT level on the ROUTER screen, and raise the level if it is too low.
No sound, or intermittent sound.	Dante model Too many Dante devices in the daisy chain for the current latency settings.	With the default setting (1 msec), a single daisy chain can have up to 10 units. When connecting more than 10 units, use an L2 switch (that supports Giga-bit Ethernet) to create branches in the network.
Volume becomes low suddenly.	Protection function is active because the amp is too hot, triggering the limiter.	In such cases, "THERMAL" is displayed on the HOME screen. To reduce the amplifier temperature, reduce the output level and improve the ventilation around the rear panel. Additionally, shield the rear panel from direct sunlight.
Sound is interrupted suddenly.	Protection function is active because the amp became hotter, triggering the mute function.	In such cases, "MUTED" is displayed on the HOME screen, and at the same time the [POWER] indicator flashes. To reduce the amplifier temperature, reduce the output level and improve the ventilation around the rear panel. Additionally, shield the rear panel from direct sunlight. The system will recover once the temperature goes down.
	The speaker units are damaged.	If there is no sound even though MUTED is not displayed on the HOME screen and there is a signal in the SP Output Meter, the speaker units might be damaged. Please contact your Yamaha dealer.
Display goes off after a few moments.	The protection function for the display is active.	Press either the main knob or the [←] (Back) key to return to the normal display.
The screen display goes off in a few seconds.	The BLACKOUT function has been set to ON.	Press either the main knob or the [←] (Back) key to return to the normal display. To turn this setting off permanently, navigate from the HOME screen to UTILITY → PANEL SETUP → BLACKOUT and turn the setting off.
The [LIMIT] indicator remains lit. Or, the indicator frequently lights up.	The input signal is too large.	To reduce the degree to which the [LIMIT] indicator turns on, either reduce the MASTER Level, or reduce the level of the input signal.
The operating panel locks up after turning the power back on, even after removing the PANEL LOCK.	This occurs when TEMPORARILY (TEMP) is selected when removing the PANEL LOCK.	When TEMPORARILY (TEMP) is selected, the panel lock is temporarily released, but it is applied again when turning the power back on. To permanently remove the panel lock, select PERMANENTLY (OK). (See page 22)
Screen commands are unavailable for use.	You have forgotten/entered the wrong PIN code.	Follow the procedure described in "Initializing to the default settings when you have forgotten your PIN code, etc." to reset this product. (See page 12)
A "USB: OVER CURRENT" message appears on the screen. Or, the USB flash drive does not work.	The connection between the product and the USB device has been cut due to excess current flowing to the USB terminal.	Remove the USB flash drive from the USB terminal, and then turn on the power to this product again.
"Diagnosis mode" or "Service mode" appears on the screen.	This product is in the mode used for service purposes.	Turn the power switch off and then turn the power switch back on.

Dante-related Terms

Ultimo (ULT/UXT)	This is a Dante module for small models. The DZR-D and the DXS-XLF-D use the 2-in/2-out Ultimo module.
Dante Device Lock	This is a lock function that prevents Dante settings from being changed. Set this in Dante Controller.
Daisy Chain	A daisy chain is a wiring scheme in which multiple devices are connected together in sequence. Also referred to as a switched connection. The DZR-D and DXS-XLF-D contain an internal L2 switch, and the two Dante jacks are primary connectors that can be linked in a daisy chain connection. This connection cannot be used in a redundant (secondary) network.
Latency	This is a time setting that affects audio signal buffering. This setting is dependent on the Dante device and the number of network switch hops present. As more hops increase the transmission delay, setting too low a latency may cause the audio transmission to lag, resulting in skips in the audio. Increasing the latency is safer, but also results in a larger delay. The minimum value for the Ultimo module is 1 ms. If two devices with different latency settings are patched together, the slower latency time setting will be applied.
UNIT ID	Sets an ID so that connected devices recognize individual DZR-D and DXS-XLF-D devices. This enables the transmitting and receiving of audio signals over a Dante network, and the use of a remote controller. Avoid using the same ID for the same model devices on the same network.
Device Label	<p>This is used to identify Dante devices on a Dante network. Under normal circumstances, the Dante device receiving the transmission identifies the Dante device sending the transmission using its Device Label.</p> <p>By default, Yamaha devices are identified as:</p> <p>Y### - Yamaha - Model name - Last six digits of the MAC address (Where ### is three-digit hexadecimal representing the UNIT ID.)</p> <p>E.g.) Y001-Yamaha-DXS15XLF-D-*****</p> <p>When setting this on this product, up to 12 characters can be used, not including the initial five characters (Y###-) and the last 7 characters (-*****).</p> <p>When setting this on Dante Controller, though all characters can be input, the initial five characters will revert back to their original Y###- when restarting this product. To use the characters you input, keep using the initial five characters (Y###-) without changing, and set other characters as desired. This enables characters other than the initial five characters (Y###-) to appear in the LABEL (page 24). In this case, if the last six characters are matched to the MAC address of this product, these characters don't appear in the LABEL.</p> <p>In a system combining this product with CL series or QL series devices, should a malfunctioning unit be replaced, setting the same UNIT ID as the UNIT ID of the original unit to the replaced unit enables automatic restoring of the original patches.</p>

Specifications

The contents of this manual apply to the latest specifications as of the publishing date. To obtain the latest manual, access the Yamaha website then download the manual file.

● General Specifications

0 dBu is referenced to 0.775 Vrms.

	DZR315(-D)	DZR15(-D)	DZR12(-D)	DZR10(-D)	DXS18XLF(-D)	DXS15XLF(-D)	
System Type	3-way, Bi-amplified Powered speaker, Bass-reflex	2-way, Bi-amplified powered speaker, Bass-reflex			Powered subwoofer, Bass-reflex		
Frequency Range (-10 dB)	31 Hz – 20 kHz	34 Hz – 20 kHz	39 Hz – 20 kHz	44 Hz – 20 kHz	30 Hz – 150 Hz	33 Hz – 150 Hz	
Coverage Angle	H75° × V50°	H90° × V50° (Rotatable)	H90° × V60° (Rotatable)	H90° × V60° (Rotatable)	—		
Crossover Frequency, Type	700 Hz (FIR-X) 2.5 kHz (Passive)	1.7 kHz (FIR-X)	1.8 kHz (FIR-X)	1.8 kHz (FIR-X)	—		
Maximum SPL *1	143 dB SPL	139 dB SPL	139 dB SPL	137 dB SPL	136 dB SPL	136 dB SPL	
Transducers	LF	15" Cone, 3" Voice coil, Neodymium magnet	15" Cone, 3" Voice coil, Neodymium magnet	12" Cone, 3" Voice coil, Neodymium magnet	10" Cone, 3" Voice coil, Neodymium magnet	18" Cone, 4" Voice coil, Ferrite magnet	15" Cone, 4" Voice coil, Ferrite magnet
	MF	8" Cone, 1.5" Voice coil, Ferrite magnet	—			—	
	HF	2" Voice coil, 1" Throat compression driver, Titanium diaphragm, Neodymium magnet				—	
Enclosure Material, Finish, Color	Plywood, Durable polyurea coating, Black						
Floor Monitor Angle	—	50° Symmetrical	50° Symmetrical	50°	—		
Dimensions (W × H × D, with rubber feet)	550 × 897 × 520 mm	450 × 761 × 460 mm	410 × 646 × 394 mm	315 × 537 × 345 mm	550 × 657 × 720 mm	450 × 587 × 600 mm	
Weight	41.6 kg	25.2 kg	21.4 kg	17.9 kg	48.9 kg	40.0 kg	
Grille	Matte black powder coated perforated steel grille with cloth mesh						
Handles	Aluminium die-cast, Side × 2			Aluminium die-cast, Top × 1, Side × 1	Aluminium die-cast, Side × 2		
Pole Socket	—	Ø35 mm × 2 (0° or -7°)			Ø35 mm (Depth 80 mm), M20 (Threaded depth 25 mm)		
Rigging Points	M10 × 16	M10 × 12		M10 × 8, M8 × 2	—		
Magnetically Shield	Non magnetically shielded						
Amplifier Type	Class-D				Class-D		
Power Rating *2	Dynamic	2,000 W (LF: 1,000 W, MF/HF: 1,000 W)				1,600 W	
	Burst (20 ms)	1,100 W (LF: 1,000 W, MF/HF: 100 W)				1,300 W	
	Continuous	950 W (LF: 850 W, MF/HF: 100 W)				1,200 W	
Cooling	Fan cooling, Variable speeds.						

		DZR315(-D)	DZR15(-D)	DZR12(-D)	DZR10(-D)	DXS18XLF(-D)	DXS15XLF(-D)
Latency: Analog IN to SP OUT	Except MONITOR Mode	≤ 4.5 ms	≤ 3.4 ms			≤ 0.6 ms	
	MONITOR Mode	≤ 1.5 ms	≤ 2.0 ms				
Controllable Signal Processing		MASTER Level, HPF (OFF, 60 Hz–120 Hz, 24 dB/oct BW), D-CONTOUR, EQ (6 bands), DELAY (0–140 ms), Routing				MASTER Level, LPF (60 Hz–120 Hz, 24 dB/oct BW), POLARITY, D-XSUB, EQ (6 bands), DELAY (0–140 ms), CARDIOID, Routing	
Protection	Speaker	Clip limiting, Integral power protection DC-fault					
	Amplifier	Thermal, Output over current					
	Power Supply	Thermal, Output over voltage, Output over current					
DSP, AD/DA		96 kHz processing with 96 kHz AD/DA and FIR filter					
Connectors	Analog IN	Combo × 2, Line level (Maximum +24 dBu), Input impedance 20 kΩ					
	Input Sensitivity	0 dBu (Volume: max), +10 dBu (Volume: center)					
	Analog OUT	XLR3-32 × 2, CH1: THRU (fix), CH2: THRU or DSP OUT				XLR3-32 × 2, CH1/2: THRU or DSP OUT	
	Dante (-D model only)	etherCON CAT5e × 2 (Daisy Chain), 2 IN / 2 OUT (Fs: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz) and Remote Control, 1000BASE-T					
	USB	USB2.0 host: 5 V 500 mA					
	AC IN	IEC AC inlet × 1 (V-Lock)					
Residual Noise	LEVEL: Min	LF: -59 dBu, HF: -60 dBu				-59 dBu	
Fan noise level (1m from rear panel)	Highest Speed	NC 40				NC 40	
	Lowest Speed	NC 30				NC 30	
Idle Power Consumption		45 W				40 W	
1/8 Power Consumption		150 W				180 W	
Heat Dissipation		129 kcal/h				155 kcal/h	
AC Power Requirements *3		Depending on area of purchase; 100–240 V or 220–240 V, 50/60 Hz					
Inrush Current (1 msec)		5.6 A (AC 220–240 V), 6.6 A (AC 120 V), 6.8 A (AC 100 V),				2.5 A (AC 220–240 V), 4.4 A (AC 120 V), 5.0 A (AC 100 V)	
Temperature Range		Operation: 5°C to 40°C, Storage: -20°C to 50°C					
AC Cord		2.5 m (V-Lock)					
Options	U-bracket	—	UB-DZR15H, UB-DZR15V	UB-DZR12H, UB-DZR12V	UB-DZR10H, UB-DZR10V	—	
	Cover	SPCVR-DZR315	SPCVR-DZR15	SPCVR-DZR12	SPCVR-DZR10	SPCVR-DXS18X	SPCVR-DXS15X
	Wheel	—				SPW-1	

*1: Measured peak SPL with pink noise @1 m.

*2: Dynamic: Total peak power of individual outputs. Measured at minimum load impedance, with protection released.

Burst/Continuous: Measured at nominal impedance, with protection activated.

*3: While both devices will work at a voltage of between 100 V to 240 V, as limiter settings vary depending on the supply voltage, make sure to use this product at the supply voltage indicated on the rear panel of this product.

● Route Latency Values

		DZR315(-D)		DZR15(-D), DZR12(-D), DZR10(-D)		DXS18XLF(-D), DXS15XLF(-D)
		D-CONTOUR mode				—
		OFF (NORMAL), FOH/MAIN	MONITOR	OFF (NORMAL), FOH/MAIN	MONITOR	—
Analog IN → SP OUT		≤ 4.5 ms	≤ 1.5 ms	≤ 3.3 ms	≤ 2.0 ms	≤ 0.5 ms
Dante IN → SP OUT	DANTE FS = 96 kHz	≤ 6.0 ms	≤ 3.0 ms	≤ 4.8 ms	≤ 3.5 ms	≤ 2.0 ms *1
	DANTE FS = 88.2 kHz	≤ 6.0 ms	≤ 3.0 ms	≤ 4.8 ms	≤ 3.5 ms	≤ 2.0 ms *1
	DANTE FS = 48 kHz	≤ 6.5 ms	≤ 3.5 ms	≤ 5.3 ms	≤ 4.0 ms	≤ 2.5 ms *1
	DANTE FS = 44.1 kHz	≤ 6.6 ms	≤ 3.6 ms	≤ 5.4 ms	≤ 4.1 ms	≤ 2.6 ms *1

		All models
Analog IN → LINE OUT		≤ 0.2 ms
Analog IN → Dante OUT	DANTE FS = 96 kHz	≤ 1.7 ms *1
	DANTE FS = 88.2 kHz	≤ 1.7 ms *1
	DANTE FS = 48 kHz	≤ 2.2 ms *1
	DANTE FS = 44.1 kHz	≤ 2.3 ms *1
Dante IN → LINE OUT	DANTE FS = 96 kHz	≤ 1.7 ms *1
	DANTE FS = 88.2 kHz	≤ 1.7 ms *1
	DANTE FS = 48 kHz	≤ 2.2 ms *1
	DANTE FS = 44.1 kHz	≤ 2.3 ms *1

*1: Includes Dante latency of 1 ms.

● Current Draw and Power Consumption

1 Btu = 1,005.06 J = 0.252 kcal, 1 W = 0.86 kcal

DZR315(-D), DZR15(-D), DZR12(-D), DZR10(-D)

100V/50Hz		Current Draw (A) @ 100 V	Watt (W)			Thermal Dissipation	
			Power Consumption (In)	Power Consumption (Out)	Watts Dissipated	Btu/h	kcal/h
Idle		0.9	45	0	45	154	39
1/8 out	LF: 3Ω / HF: 8Ω	2.3	150	78	72	512	129
1/3 out	LF: 3Ω / HF: 8Ω	5.3	345	207	138	1,177	297

110V–120V/60Hz		Current Draw (A) @ 120 V	Watt (W)			Thermal Dissipation	
			Power Consumption (In)	Power Consumption (Out)	Watts Dissipated	Btu/h	kcal/h
Idle		0.7	45	0	45	154	39
1/8 out	LF: 3Ω / HF: 8Ω	2.1	150	78	72	512	129
1/3 out	LF: 3Ω / HF: 8Ω	4.4	340	207	133	1,160	292

220V–240V/50Hz		Current Draw (A) @ 230 V	Watt (W)			Thermal Dissipation	
			Power Consumption (In)	Power Consumption (Out)	Watts Dissipated	Btu/h	kcal/h
Idle		0.5	45	0	45	154	39
1/8 out	LF: 3Ω / HF: 8Ω	1.3	150	78	72	512	129
1/3 out	LF: 3Ω / HF: 8Ω	2.7	325	207	118	1,109	280

DXS18XLF(-D), DXS15XLF(-D)

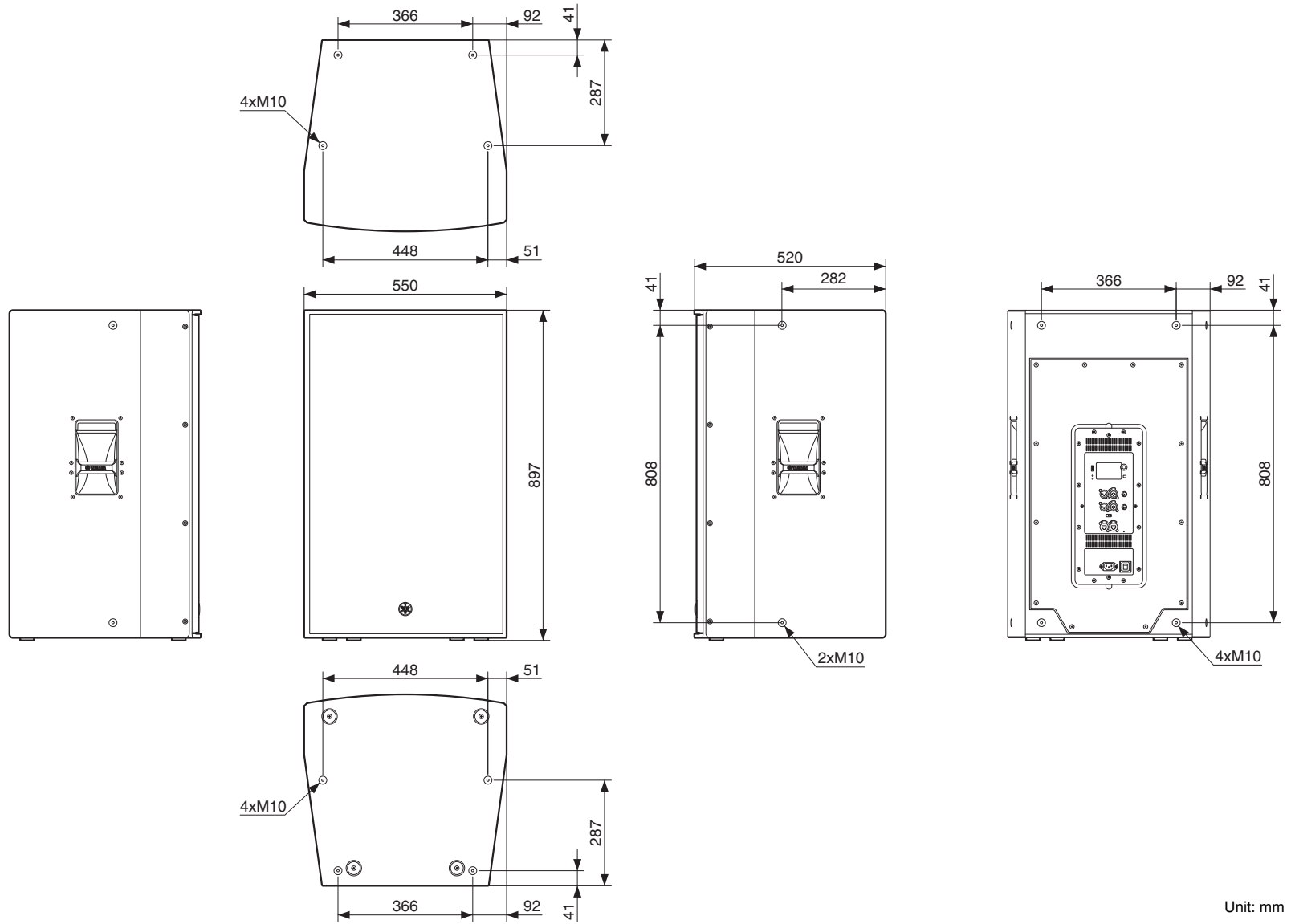
100V/50Hz		Current Draw (A) @ 100 V	Watt (W)			Thermal Dissipation	
			Power Consumption (In)	Power Consumption (Out)	Watts Dissipated	Btu/h	kcal/h
Idle		0.7	40	0	40	137	34
1/8 out	LF: 4Ω	2.7	180	100	80	614	155
1/3 out	LF: 4Ω	6.1	404	267	137	1,379	347

110V–120V/60Hz		Current Draw (A) @ 120 V	Watt (W)			Thermal Dissipation	
			Power Consumption (In)	Power Consumption (Out)	Watts Dissipated	Btu/h	kcal/h
Idle		0.6	40	0	40	137	34
1/8 out	LF: 4Ω	2.2	180	100	80	614	155
1/3 out	LF: 4Ω	5.0	396	267	129	1,351	341

220V–240V/50Hz		Current Draw (A) @ 230 V	Watt (W)			Thermal Dissipation	
			Power Consumption (In)	Power Consumption (Out)	Watts Dissipated	Btu/h	kcal/h
Idle		0.5	40	0	40	137	34
1/8 out	LF: 4Ω	1.4	180	100	80	614	155
1/3 out	LF: 4Ω	2.7	380	267	113	1,297	327

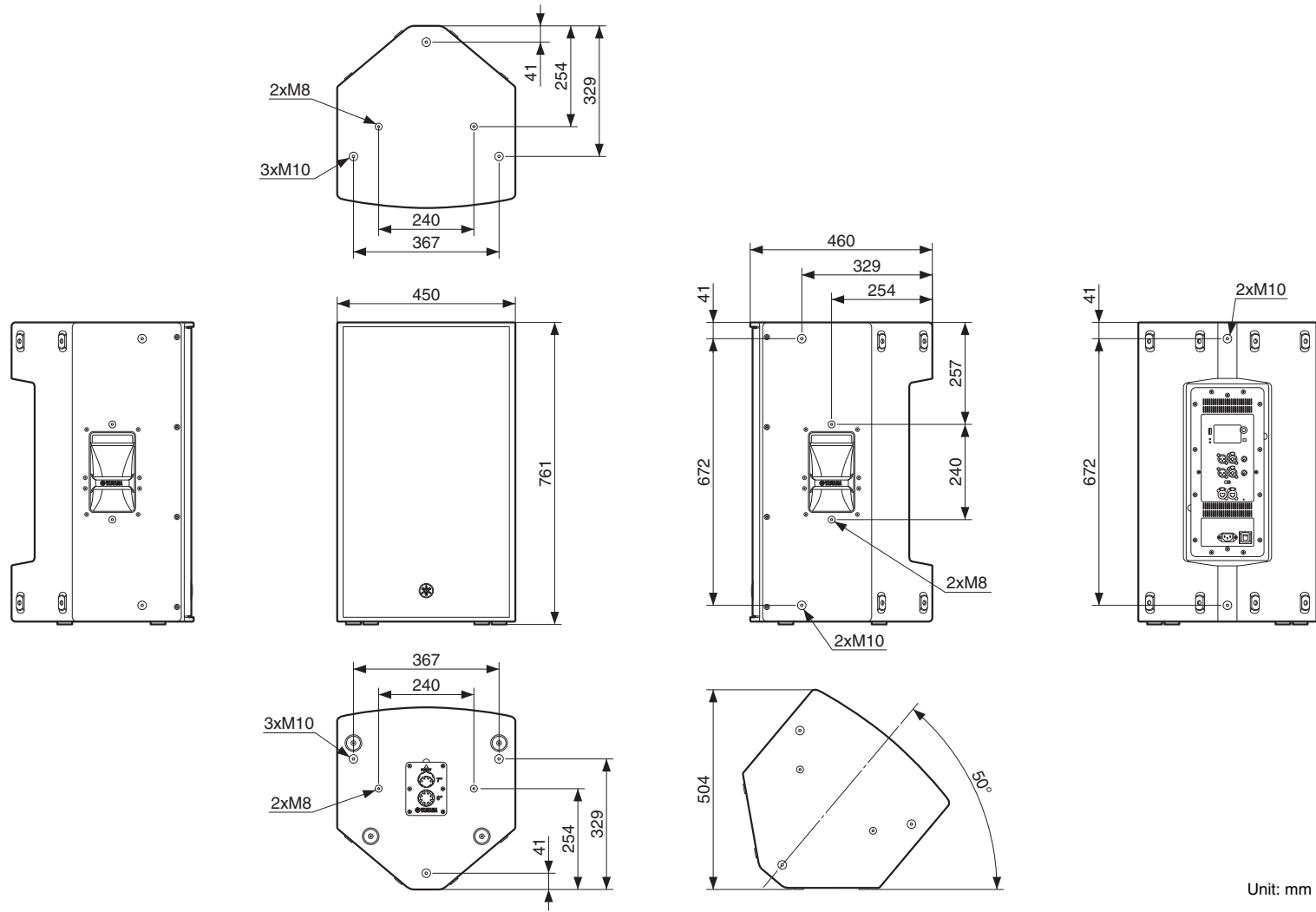
Dimensions

■ DZR315(-D)

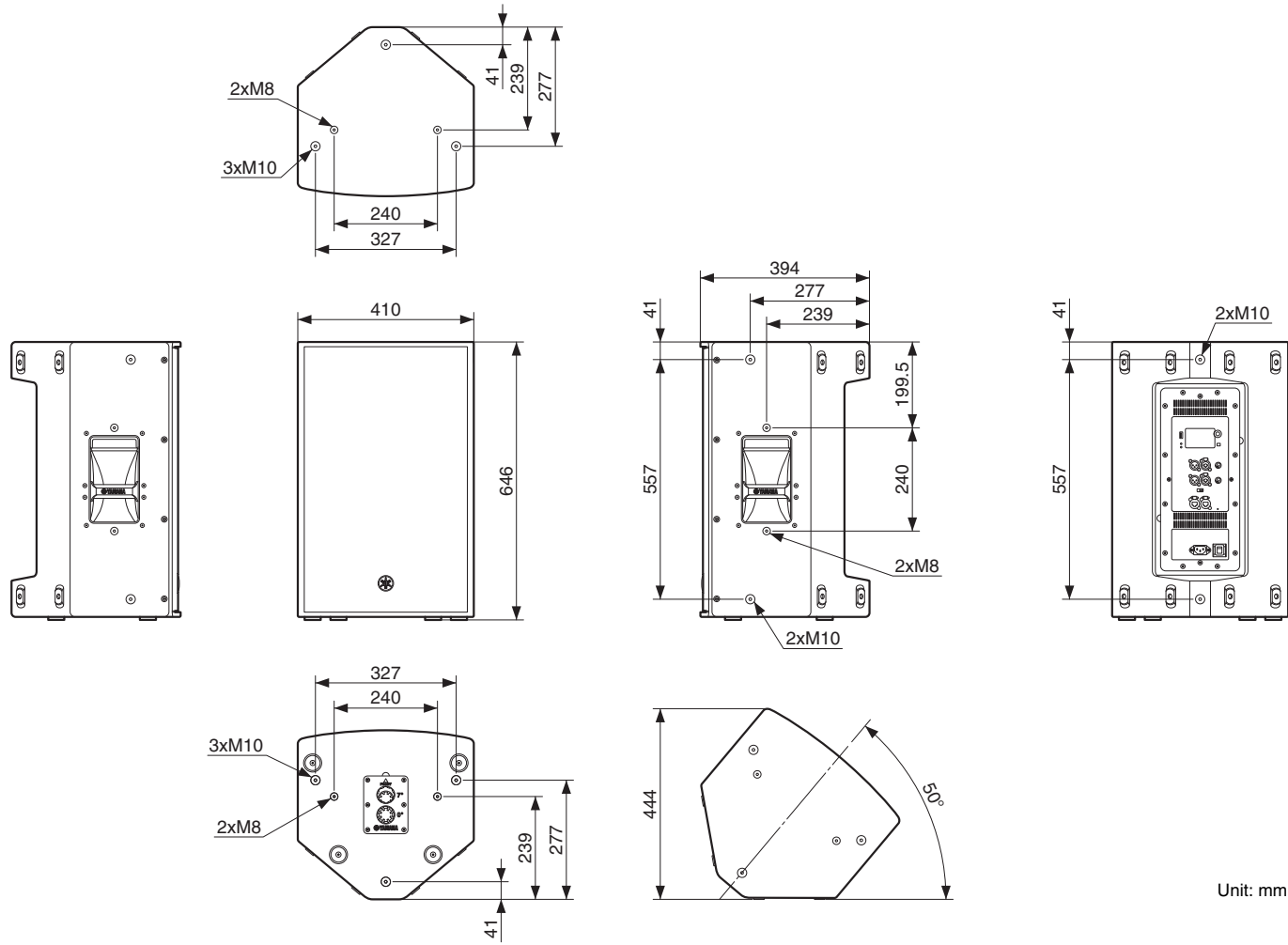


Unit: mm

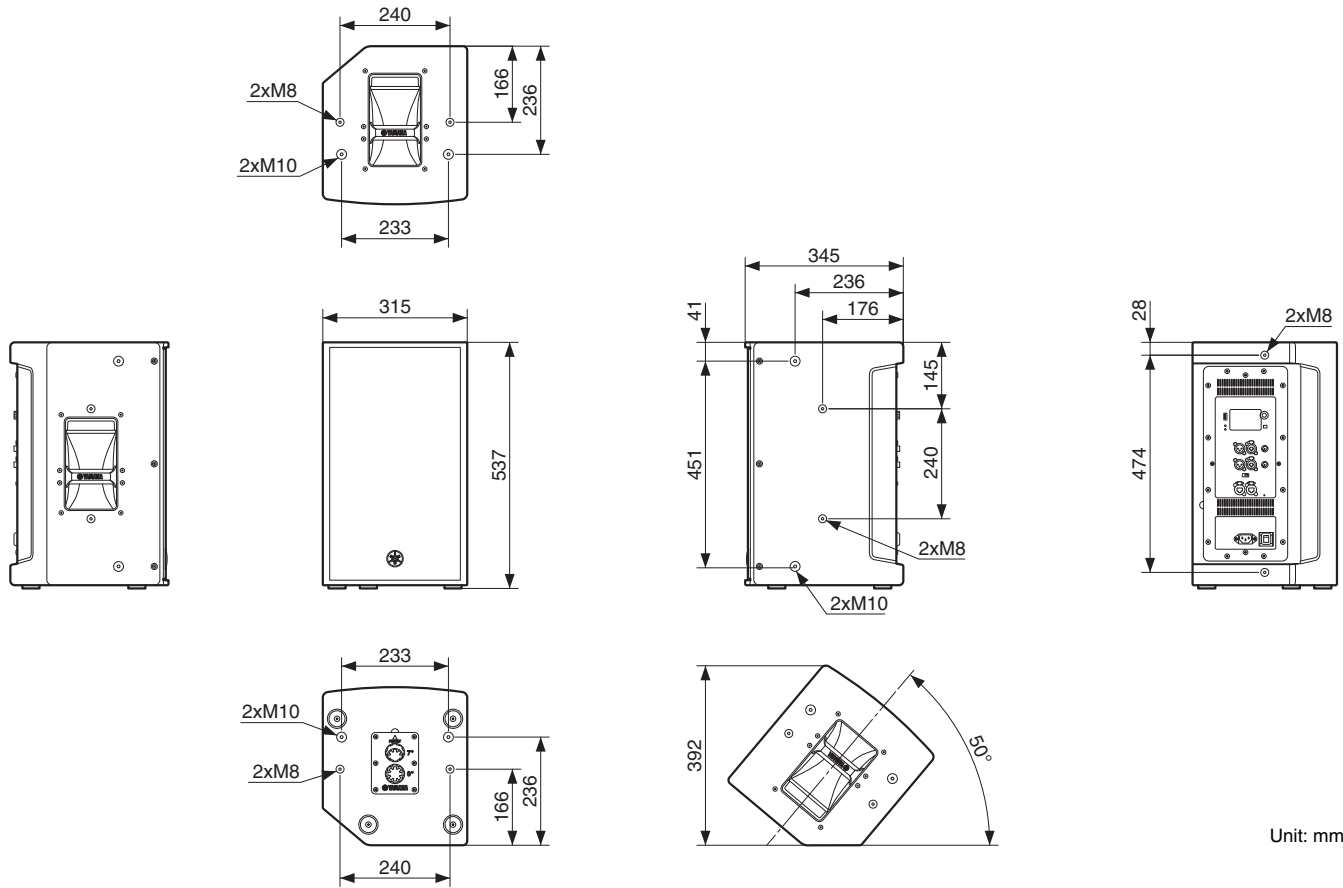
■ DZR15(-D)



■ DZR12(-D)

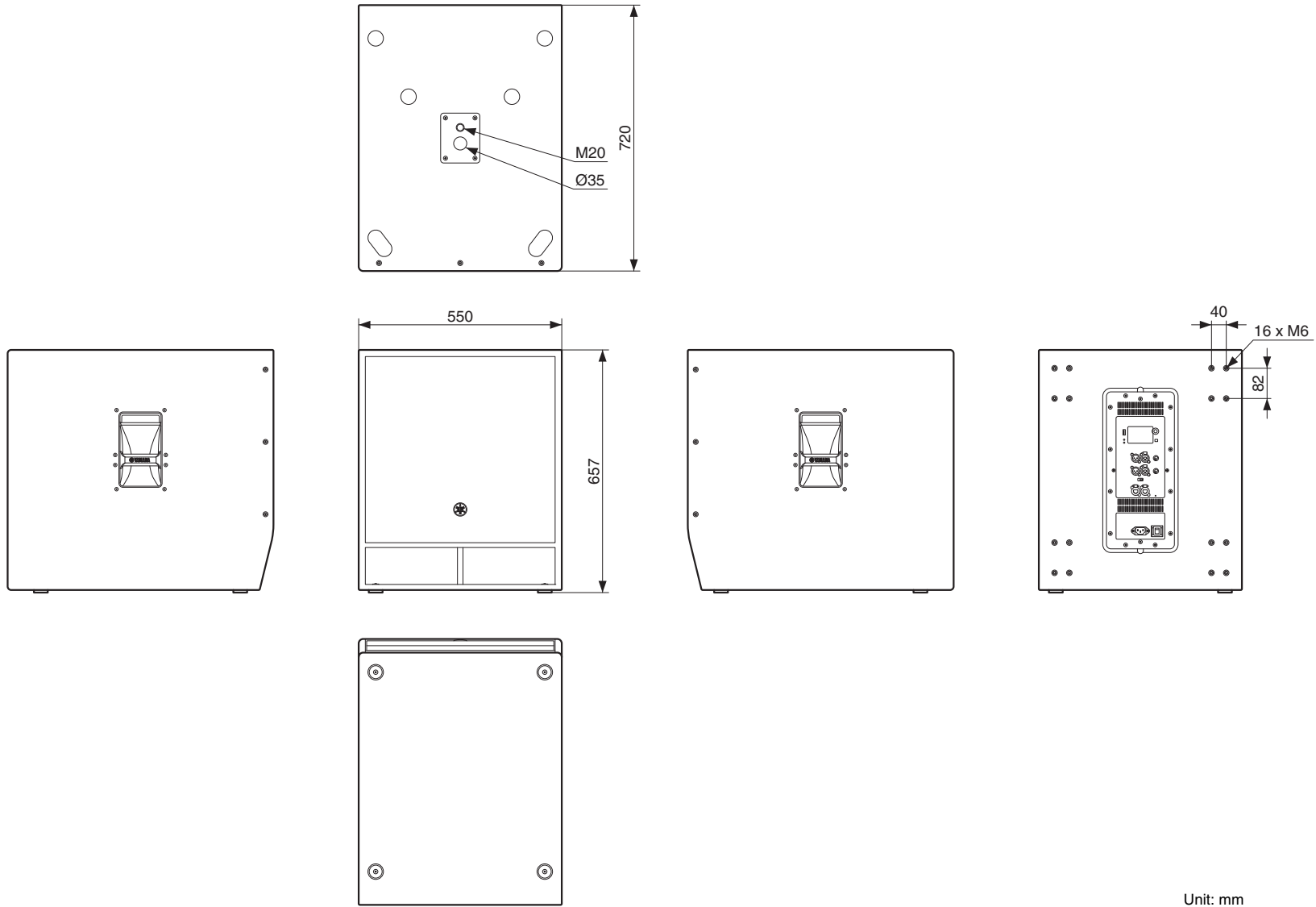


■ DZR10(-D)



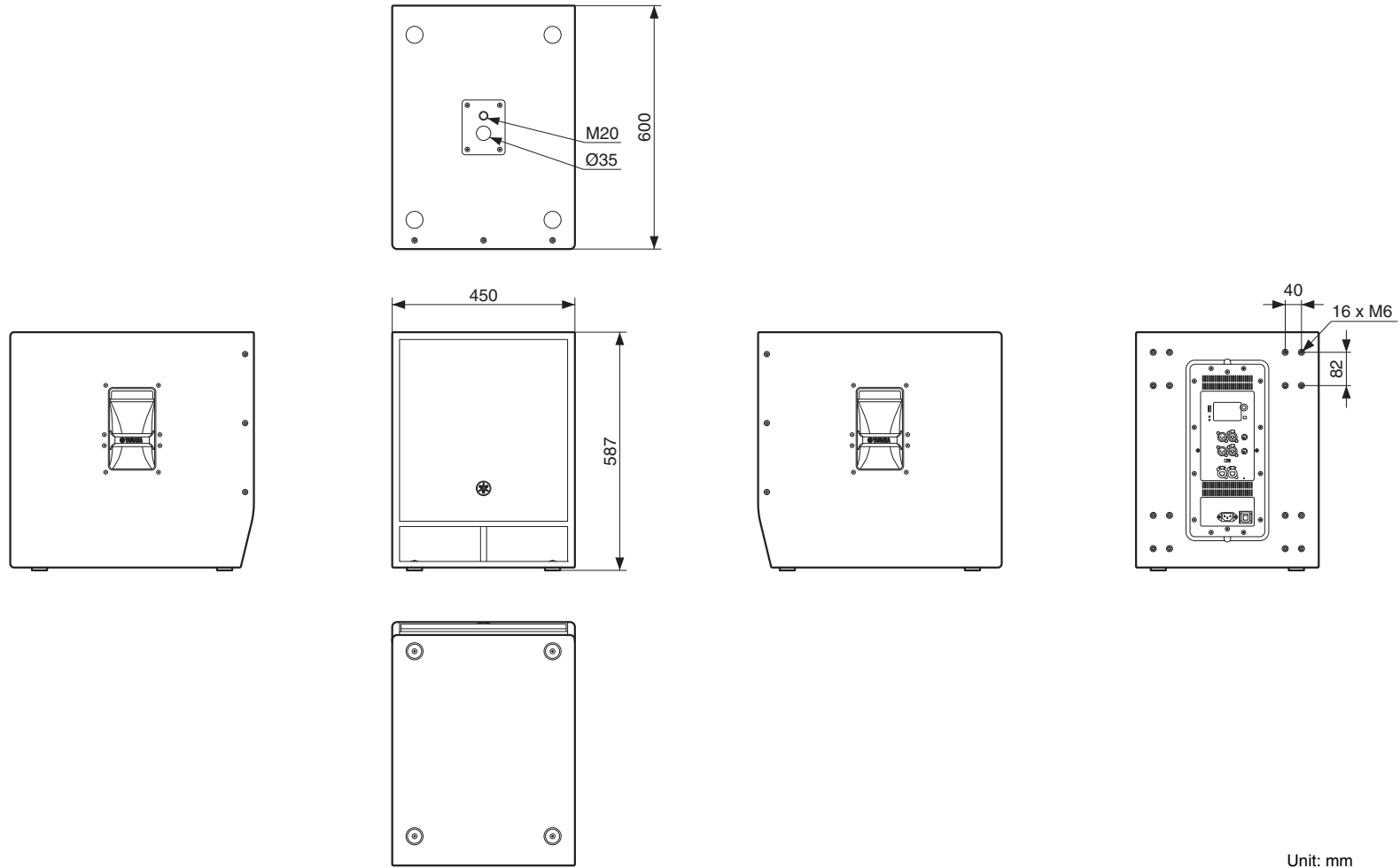
Unit: mm

■ DXS18-XLF(-D)



Unit: mm

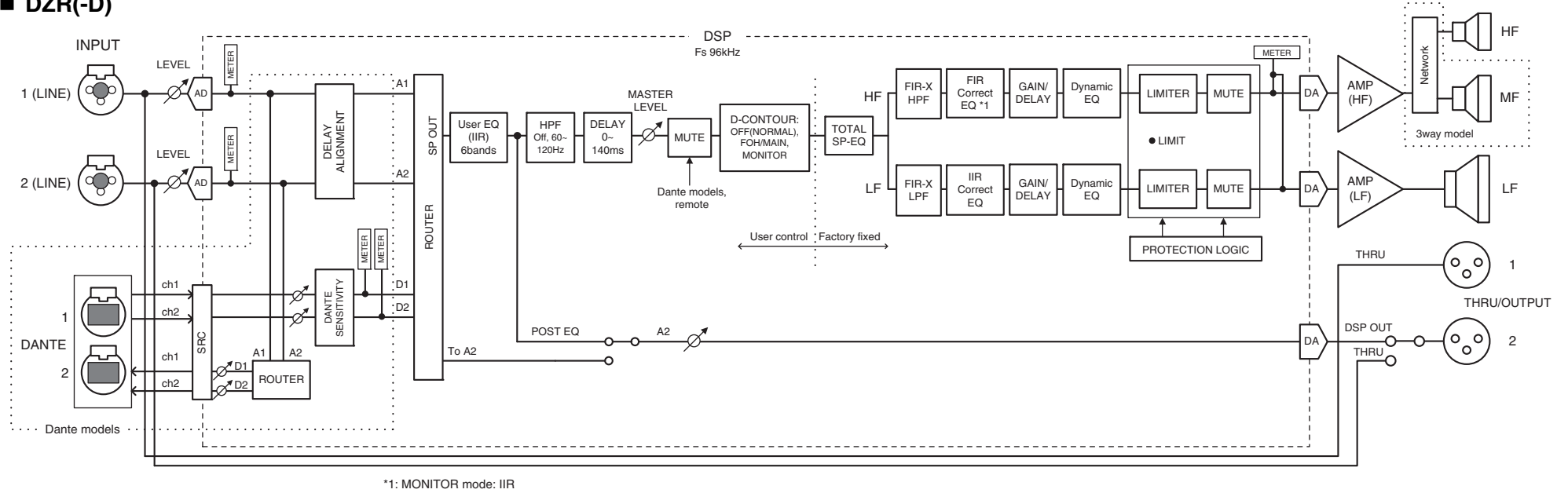
■ DXS15-XLF(-D)



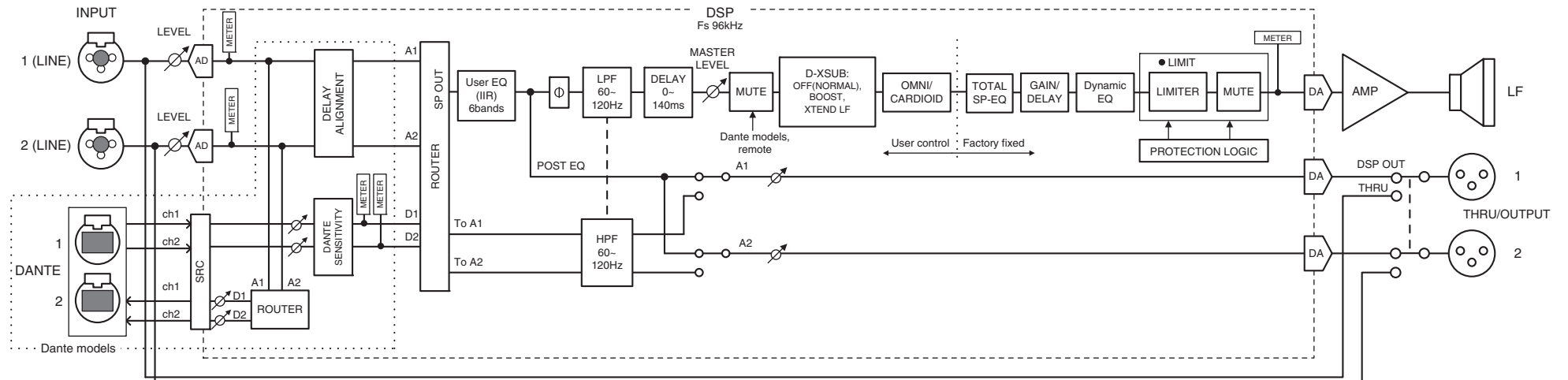
Unit: mm

Block Diagram

■ DZR(-D)



■ DXS-XLF(-D)



NOTE

Dante output settings will be supported in a future version.

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