

## Release Notes For DXD-16

June 2023

### DXD-16 - FirmwareVersion 3.00

#### IMPORTANT NOTE

Updating from a version earlier than 2.00 must be done via the **UPLOADER MODE**  
(reboot unit while holding the [DOWN] and the [SET UP] keys).

We are pleased to announce the release of **firmware version 3.00** for the DXD-16.

#### New functions:

- **Remote Control:** Firmware 3.00 brings Remote Control functionality to the DXD Universal Clocks via embedded web pages. This new GUI allows an operator to control and monitor the DXD from a standard web browser by pointing to the IP address of the device.
  - A home page provides an overview of the main DXD settings
  - A header at the top of each page displays critical information such as the lock status
  - Set up pages give access to all the parameters for editing
  - Multiple pages can be opened simultaneously to view different groups of settings
  - 3 modes are available: Full Access / Status Only / Status + Preset Recall
- **IGMP v3:** The DXD-16 is now compatible with IGMP v3.

#### Menus changes:

- **Menu 12.2: Control Lockout:** This menu adds restrictions for the web pages.

**Please refer to the new DXD-16 manual for complete instructions.**

*(See next pages for details on previous releases)*

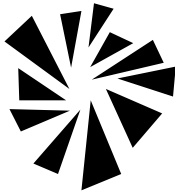
For more information, contact:

**plus24**

8974 Kramerwood Place - Los Angeles CA 90034 - USA

Tel: +1 323/845-1171

Web: [www.plus24.net](http://www.plus24.net) - Email: [info@plus24.net](mailto:info@plus24.net)



# BRAINSTORM ELECTRONICS INC.

Sync Solutions for Recording, Post, Broadcast and Live applications

## Release Notes For DXD-16

Oct 2022

### DXD-16 - FirmwareVersion 2.18

#### IMPORTANT NOTE

Updating from a version earlier than 2.00 must be done via the **UPLOADER MODE**  
(reboot unit while holding the [DOWN] and the [SET UP] keys).

We are pleased to announce the release of **firmware version 2.18** for the DXD-16.

Updating to 2.18 is **recommended for all DXD-16**.

#### New functions:

- **GPIO Presets Recall:** this function enables presets to be recalled using GPIO's.

#### Bug fix

- **IGMP:** Firmware version 2.18 fixes some issues that were observed with IGMP.

*(See next pages for details on previous releases)*

**Please refer to the new DXD-16 manual for complete instructions.**

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**Release Notes For DXD-16**

May 2022

DXD-16 - FirmwareVersion 2.17

**IMPORTANT NOTE**

**Updating from a version earlier than 2.00 must be done via the UPLOADER MODE  
(reboot unit while holding the [DOWN] and the [SET UP] keys).**

We are pleased to announce the release of **firmware version 2.17** bringing new features to the DXD-16.

Firmware 2.17 also includes efficiency improvements to some internal functions and for that reason should be considered as an ESSENTIAL UPDATE for all users.

New functions:

- **NTP Server Mode:** this function enables the DXD to send its System Time (Time-of-Day) to NTP clients. This mode can be enabled on each of the DXD-16 ports.
- **NTP Client Mode:** this function enables the DXD to receive Time-of-Day data from an external NTP server and supports manual transfer to its System Time. The user can select any of the 4 ports as the NTP client.

Menus changes:

- Menu 6: NTP: This menu includes all the NTP sub-menus:
  - Menu 6.1: Server Mode
  - Menu 6.2: Pseudo Client Mode
  - Menu 6.3: Ext Server Name A
  - Menu 6.4: Ext Server Name B
  - Menu 6.5: Poll Timing

Display pages changes:

- TIME & DATE - *Main Rotation page*: the time from the external NTP server can be displayed
- NTP PORT STATUS - *Status page*: a new status page is available for each of the DXD-16 ports

**Please refer to the new DXD-16 manual for complete instructions.**

*(See next pages for details on previous releases)*

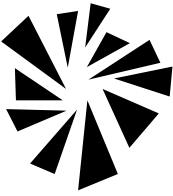
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Sync Solutions for Recording, Post, Broadcast and Live applications

## Release Notes For DXD-16

Dec 2021

### DXD-16 - FirmwareVersion 2.16

#### IMPORTANT NOTE

Updating from a version earlier than 2.00 must be done via the UPLOADER MODE  
(reboot unit while holding the [DOWN] and the [SET UP] keys).

Firmware version 2.16 does not bring any new feature but includes a minor bug fix.

Updating to 2.16 is recommended for all DXD-16.

With video sync set as the reference, if the source is unstable, in rare occasions the front panel could become unresponsive. Version 2.16 corrects that.

*(See next pages for details on previous releases)*

**Please refer to the new DXD-16 manual for complete instructions.**

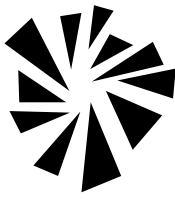
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**plus24**

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Web: [www.plus24.net](http://www.plus24.net) - Email: [info@plus24.net](mailto:info@plus24.net)



## Release Notes For DXD-16

Oct 2021

### DXD-16 - FirmwareVersion 2.15

#### IMPORTANT NOTE

Updating from a version earlier than 2.00 must be done via the **UPLOADER MODE**  
(reboot unit while holding the [DOWN] and the [SET UP] keys).

We are pleased to announce the release of **firmware version 2.15** bringing the following to the DXD-16.

#### New functions:

- Support for **AVB 2011 & 2020** (requires AVB option, purchased separately)
- Support for **PTP v2.1**
- Support for **Layer 2 PTP (v2.0 & 2.1)**
- New system **LOCATION** (Menu 11.7 and UNIT INFO status)
- New **Status pages** (see below)
- **DHCP Acquisition Process** can be restarted from the front panel without rebooting the unit
- A minor **Time Jam** problem was fixed
- When connecting a **GPS antenna** through a splitter box blocking DC, the GPS receiver no longer interprets that as a disconnected antenna and therefore proceeds normally.

#### Menus changes:

- **Port Controls Menus** (5.3.1, 5.4.1, 5.5.1, 5.6.1): PTP Version and Profile have now been placed in 2 separate fields. Choices for PTP Versions are (\* requires a Feature Key):
  - PTP Version 1\*
  - PTP 2.0
  - PTP 2.1
  - PTP (Layer 2) 2.0
  - PTP (Layer 2) 2.1
  - AVB 2011\*
  - AVB 2020\*
- Menu 11.7 (Utility): Location

#### New Status Pages:

- **Grandmaster ID:** includes Primary Clocks, Grandmaster credentials and Path Trace information
- **PTP Port Status (4 pages):** info on each port + message counters (Announce, Sync, Delay Request & Response, PDelay Request & Response) + Mean Path Delay
- **WC Out Termination:** displays a measurement in ohms for each BNC output set to Word Clock.

*(See next pages for details on previous releases)*

**Please refer to the new DXD-16 manual for complete descriptions and instructions.**

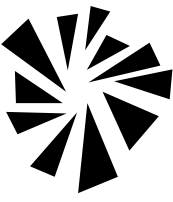
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**Release Notes For DXD-16**

April 2021

DXD-16 - Firmware Version 2.14

**IMPORTANT NOTE**

**Updating from a version earlier than 2.00 must be done via the UPLOADER MODE  
(reboot unit while holding the [DOWN] and the [SET UP] keys).**

We are pleased to announce the release of **firmware version 2.14** bringing the following to the DXD-16.

New functions included:

- Support for **PTPv1** (option purchased separately)
  - PTP v1 can be selected for each port individually as a PTP Profile
  - Feature Key was added to enable PTP v1
- New system **NAME** (Menu and UNIT INFO status)
- Use higher priority **DSCP values** (original PTP: 46 and 0; new: 56 and 46)
- New **LOCK statuses**: PTP SYNC 0,1,2,3 (Main Rotation bottom line)
- Add **Network Filtering** to eliminate receipt of unwanted messages and reduce CPU loading
- **Buffer** and **queue** sizes in DRAM, used by software for network message reception, have been increased substantially.

Menus changes:

- Menus 5.3.1, 5.4.1, 5.5.1, 5.6.1 (Port Controls): PTP v1 (Profile & Version)
- Menu 11.5 (Utility): Feature Keys (PTP v1)
- Menu 11.6 (Utility): Name
- Menu 4.5.1: Advanced Networking: Internal VLAN ID's
- Menu 4.5.2: Advanced Networking: DSCP Transmit Values

*(See next pages for details on previous releases)*

**Please refer to the new DXD-16 manual for complete descriptions and instructions.**

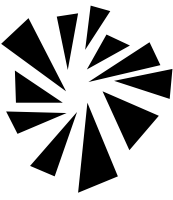
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## Release Notes For DXD-16

January 2021

### DXD-16 - Firmware Version 2.10

#### IMPORTANT NOTE

Updating from a version earlier than 2.00 must be done via the **UPLOADER MODE**  
(reboot unit while holding the [DOWN] and the [SET UP] keys).

We are pleased to announce the release of **firmware version 2.10** bringing the following to the DXD-16.

#### New functions included:

- **Support for the DXD/LTC** optional time code generator firmware. It can generate 2 separate streams of time code simultaneously at different formats. Each stream can be set as a Time-Of-Day time code generator or as a traditional Run/Stop/Cue generator locked to the selected reference.
- BNC Outputs **delay/advance adjustment**. Available for WC, AES and Video Sync.
- **TIME JAM** mode, allows the DXD-16 to jam time information from an external source such as PTP or GPS (optional) when using a reference without time such as video sync, AES or word clock (see ch. 8.2 in manual).

#### Menus changes:

- Menu 1.2: Sync Parameters (Time Jam)
- Menus 3.1-3.6: BNC Outputs (supports Time Code and includes delay/advance adjustments)
- Menu 5.1: PTP Port Modes (Time Jam)
- Menu 5.X.4: PTP Port - Time Jam domain (Time Jam)
- Menu 7.3: Time & Date Display (supports TC Gen)
- Menu 8.1: SMPTE 2059 Set Up (Time Code)
- Menu 8.2: TC Generator 1 (Time Code)
- Menu 8.3: TC Generator 2 (Time Code)
- Menus 9.1-9.2: GPIO (Time Code)

#### Display pages changes:

- PTP PORTS - *Main rotation*: includes Time Jam modes and states
- TIME & DATE - *Main rotation*: can display both TC Generators outputs and commands
- OUTPUTS - *Main Rotation*: indicates a delay/advance adjustment was applied
- TIMES - *Status mode*: includes TOD/GM Offset. Also includes TCG 1 & 2, Previous & Next Daily Jam

**Please refer to the new DXD-16 and the DXD/LTC manuals for complete descriptions and instructions.**

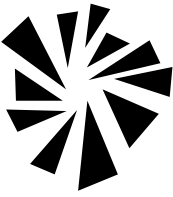
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## Release Notes For DXD-16

December 2020

### DXD-16 - Firmware Version 2.00

#### IMPORTANT NOTE

Updating to firmware 2.00 must be done via the UPLOADER MODE  
(reboot unit while holding the [DOWN] and the [SET UP] keys).

We are pleased to announce the release of firmware version 2.00, a major firmware update bringing many new functions to the DXD-16.

#### New functions included:

- **PTP v2**
- **Color Framing** alignment and synchronization
- **GPS** support (optional GPS receiver)
- **GPIO**
- **Mute on Unlock** (BNC Outputs)
- **Output deviations monitoring** (see ch. 13 in the manual)
- **Feature key** for future time code implementation (menu 11.5)

#### New set-up menus included:

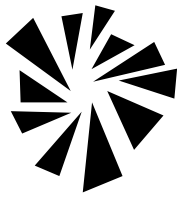
- Menu 1.2: Sync Parameters
- Menu 3. 9: Mute on Unlock
- Menu 5: PTP
- Menu 6: GPS (optional GPS receiver required)
- Menu 7: Time
- Menu 8: Time Code (optional LTC option required for menus 8.2 & 8.3)
- Menu 9: GPIO
- Menu 11.5: Feature Key

#### New display pages included:

- PTP Ports - Main rotation
- Time & Date - Main rotation
- Installed Options - Status mode (Unit Information page)
- Network Addresses - Status mode
- Times - Status mode
- GPS Receiver (option required) - Status mode

**Please refer to the new DXD-16 manual for complete descriptions and instructions.**





**Release Notes For DXD-16**

December 2020

DXD-16 - FirmwareVersion 2.00

Note that the following are NOT INCLUDED in this release:

- Web Page GUI - Remote Control
- PTP - AVB
- NTP - Source for TOD jam
- PTP - Unicast & Peer to Peer delay mechanism

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