

BRAINSTORM ELECTRONICS INC.

Sync Solutions for Recording, Post, Broadcast and Live applications

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).

Release Notes For DXD-16

Dec 2021

DXD-16 - FirmwareVersion 2.16

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-6 manual for complete instructions.

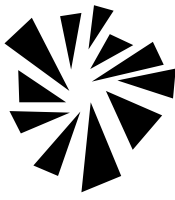
For more information, contact:

plus24

8974 Kramerwood Place - Los Angeles CA 90034 - USA

Tel: +1 323/845-1171

Web: www.plus24.net - Email: 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.

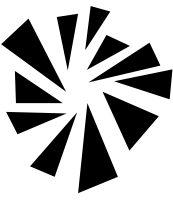
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Release Notes For DXD-16

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.

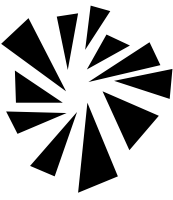
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Release Notes For DXD-16

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.

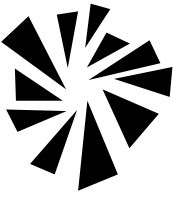
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Release Notes For DXD-16

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)

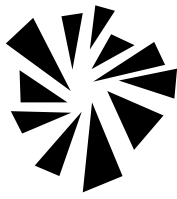
New set-up menus included:

- 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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