

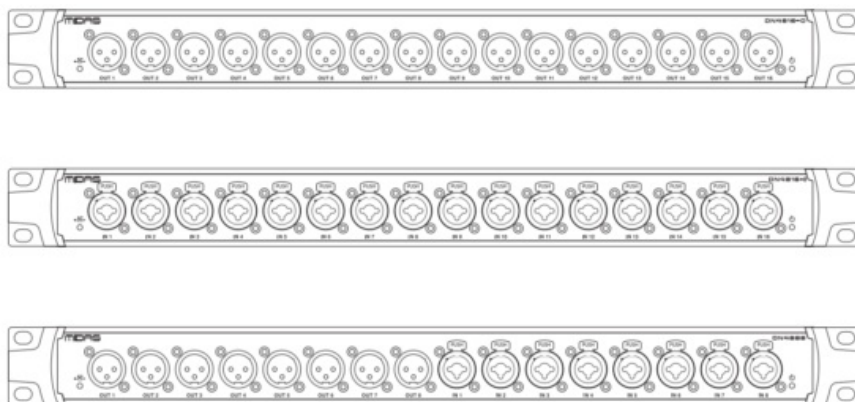


MIDAS DN4816-O Bus-Powered StageConnect Interface with 16 Analogue Outputs and Ultranet In/Out User Guide

[Home](#) » [MIDAS](#) » MIDAS DN4816-O Bus-Powered StageConnect Interface with 16 Analogue Outputs and Ultranet In/Out User Guide 



Quick Start Guide



DN4800 Series

DN4816-O

Bus-Powered StageConnect Interface with 16 Analogue Outputs and Ultranet In/Out

DN4816-I

Bus-Powered StageConnect Interface with 16 Analogue Inputs and Dual Ultranet Outputs

DN4888

Bus-Powered StageConnect Interface with 8x8 Analogue In/Out and Dual Ultranet Outputs

Important Safety Instructions

	<p style="text-align: center;">CAUTION RISK OF ELECTRIC SHOCK! DO NOT OPEN</p>	
---	---	---



Terminals marked with this symbol carry an electrical current of sufficient magnitude to constitute a risk of electric shock.

Use only high-quality professional speaker cables with 1/4" TS or twist-locking plugs pre-installed. All other installations or modifications should be performed only by qualified personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.



Caution

To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user-serviceable parts inside. Refer servicing to qualified personnel.



Caution

To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.



Caution

These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for


the replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Use only attachments/accessories specified by the manufacturer.



12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.
16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.



17.  Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office or your household waste collection service.
18. Do not install in a confined space, such as a bookcase or similar unit.
19. Do not place naked flame sources, such as lighted candles, on the apparatus.
20. Please keep the environmental aspects of battery disposal in mind. Batteries must be disposed of at a battery collection point.
21. This apparatus may be used in tropical and moderate climates up to 45°C.

Contents

- [1 LEGAL DISCLAIMER](#)
- [2 LIMITED WARRANTY](#)
- [3 DN4800 Series Hook-up](#)
 - [3.1 Step 1: Hook-Up](#)
 - [3.2 Step 2: Controls](#)
- [4 StageConnect Details](#)
- [5 Specifications](#)
- [6 Other important information](#)
- [7 Documents / Resources](#)
 - [7.1 References](#)
- [8 Related Posts](#)

LEGAL DISCLAIMER

Music Tribe accepts no liability for any loss which may be suffered by any person who relies either wholly on or in part upon any description, photograph, or statement contained herein. Technical specifications, appearances, and other information are subject to change without notice. All trademarks are the property of their respective owners. Midas, Klark Teknik, Lab Gruppen, Lake, Tannoy, Turbosound, TC Electronic, TC Helicon, Behringer, Bugera, Oberheim, Auratone, and Coolaudio are trademarks or registered trademarks of Music Tribe Global Brands Ltd. © Music Tribe Global Brands Ltd. 2021 All rights reserved.

LIMITED WARRANTY

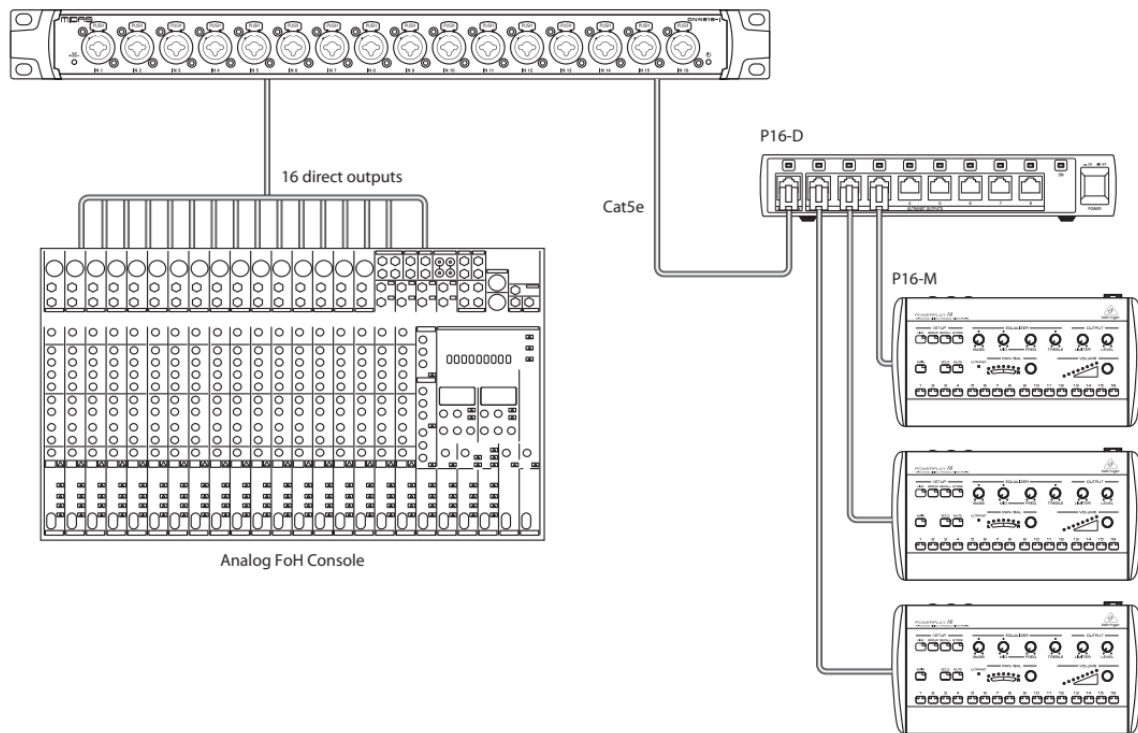
For the applicable warranty terms and conditions and additional information regarding Music Tribe's Limited Warranty, please see complete details online at musictribe.com/warranty.

DN4800 Series Hook-up

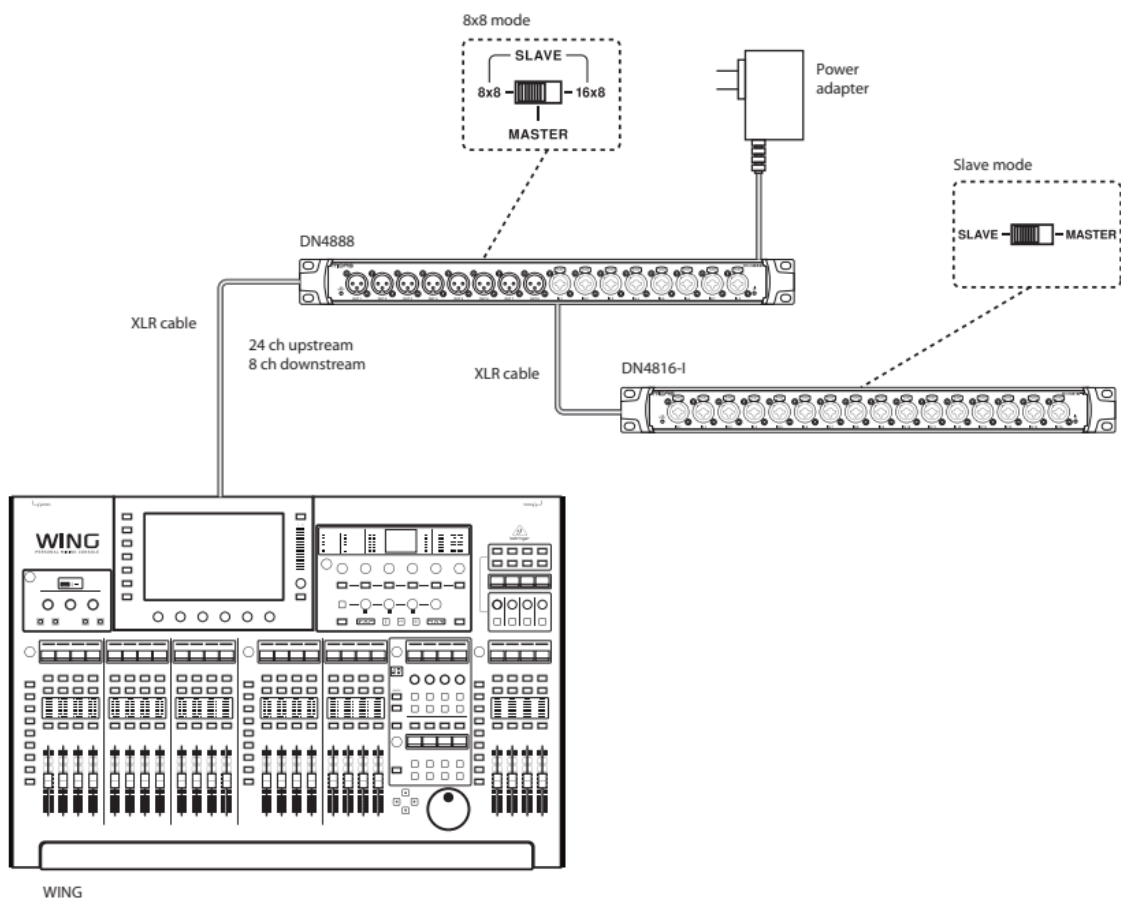
Step 1: Hook-Up

P16 monitoring setup with an analog mixer

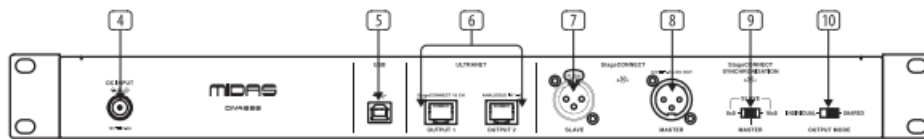
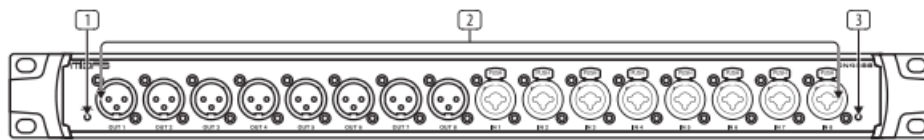
DN4816-I



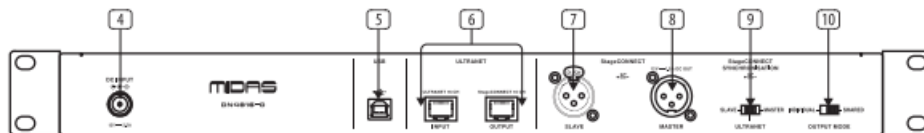
24x8 setup with WING master



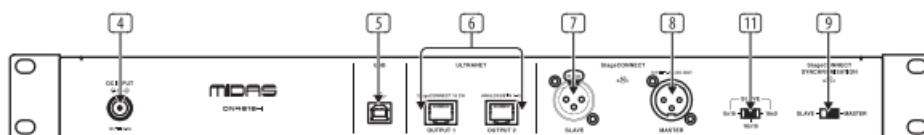
DN4800 Series Controls



DN4888



DN4816-O



DN4816-I

The StageConnect Manifesto

1. There is always one master device and up to 11 Slave devices in a StageConnect chain.
2. The Master is always the first device in the chain.
3. The StageConnect chain starts at an XLR male connector and ends with an XLR female connector.*
4. Audio can only be transferred between Master and Slaves but not between Slaves and other Slaves.
5. Audio outputs always come from the Master.
6. Audio inputs are always sent straight to the Master.
7. The Master configures the StageConnect bus.
8. The first Slave unit after the Master has the highest priority.
9. Changes in the chain shall not be done on the run.**

*Just like a microphone connected to an analog input.

**This will interrupt audio for 2 seconds, while the bus is reconfigured.

Step 2: Controls

1. **CONNECTION LED** – Lights to indicated a successful connection to a StageConnect network.
2. **INPUTS/OUTPUTS** – Connect line-level inputs and/or outputs to these jacks. Note that inputs do not have microphone preamps, and therefore any microphones should first be connected to a preamplifier before connection to a DN4816-I or DN4888 unit.
3. **POWER LED** – Lights whenever power is received from an external adapter or via StageConnect bus.
4. **POWER** – Connect the included 12 VDC / 30 W power supply for any units that cannot be powered via the StageConnect bus.
5. **USB** – Allows connection to a computer for firmware updates.

6. **ULTRANET** – Allows connection to Ultranet receivers such as P16 monitors and iQ speakers via Cat5e cable. The first output connector always carries StageConnect channels 1-16, whereas the second connector varies by model:
 - DN4888 – Outputs the 8 onboard analog input signals
 - DN4816-O – Accepts 16 channels from another Ultranet device.
 - DN4816-I – Outputs the 16 onboard analog input signals.
7. **SLAVE** – Connects to a Master unit or chain of other Slave devices, and potentially receives 18 W of bus power.
8. **MASTER** – Connects to other units in a chain, either as the Master unit or as a Slave linking to other Slave units. If a power adapter is connected, this connection can also send 18 W to other units.
9. **SYNCHRONISATION** – Selects whether a unit will operate as a Slave or Master, as well as other configurations.
 - DN4888 – Slave mode can operate as 8×8 or 16×8
 - DN4816-O – Unit can sync with Ultranet input instead of StageConnect network
 - DN4816-I – Select Slave or Master mode
10. **OUTPUT MODE** – Selects between Shared and Individual modes of output channels.
11. **SLAVE CONFIGURATION** – Changes the StageConnect bus configuration.

StageConnect Details

- 32 channel bus via standard XLR cable
- The master connector is on XLR male and the Slave connector is on XLR female
- Definition of “Upstream” and “Downstream”
 - Upstream means all signals coming from Slaves to the Master
 - Downstream means all signals coming from the Master to the Slaves
- Either the Master determines the Bus configuration alone, or it applies the ABC feature (Automatic Bus Configuration)
- ABC ruleset
 - The Master requests the upstream and downstream requirements from the Slaves and configures the bus accordingly
 - First Slave in the chain states its upstream and downstream requirements
 - Subsequent Slaves in the chain can state their upstream and downstream up to the max capacity of the bus (32 channels total)
 - The downstream to a Slave always has priority over its upstream channels
 - Depending on the **Shared/Individual Mode** the output signals taken from the downstream can differ
- The Master XLR male provides 18 W via phantom power for Slaves in the chain. If this is not enough for all devices in the chain, external power is needed. A Slave with external power can provide power to subsequent Slaves as well.
- The physical length of a StageConnect chain depends on the quality of the cable – typically up to 40 m (DMX cable) or 20 m (microphone cable).

Download the StageConnect Calculator Tool from midasconsoles.com to build simulated connection scenarios and validate channel setups, power resources, and other necessary parameters.

Individual Mode devices

using successive output signals

Example:

A chain of two DN4888 in individual mode is putting out successive channels from the downstream. The first DN4888 the chain receives downstream channels 1-8 and the second DN4888 receives channels 9-16. The Master configures the bus with 16 upstream and 16 downstream channels.



Specifications

	DN4816-O	DN4816-I
Processing		
D/A conversion		24-Bit, 48/44.1 kHz,
StageConnect bus capacity		32 ch, 24-Bit PCM a
I/O latency		≤0.5 ms
Connectors		
Analog Inputs	—	16 x XLR female jac
Impedance	—	20 kΩ unbalanced /
Max. input level	—	+21 dBu
Analog Outputs	16 x XLR male jacks, balanced	—
Impedance	100 Ω unbalanced / 200 Ω balanced	—

Max. output level	+21 dBu	—
UltraneT		2 x RJ45
Shielded CAT5e cable max. length		75 m
StageConnect		1 XLR male, 1 XLR
Shielded ball. mic/DMX cable max. length		20 m / 40 m typ.
USB		Type B
System		
Frequency response	20 Hz – 20 kHz ± 0.2 dB	
Dynamic range	110 dB	106 dB
Cross talk rejection @ 1 kHz, adjacent channels	110 dB	106 dB
Noise (20 Hz – 20 kHz bandwidth)	-90 dBu	-106 dBFS
Distortion	0.004% / 1 kHz / 0 dBu out	0.004% / 1 kHz / 0 dB
Power		
Power supply	12 VDC / 2.5 A (30 W) adapter included, remote power input via MASTER XLR (male) 12 VDC / 1.5 A	
Power consumption	9 W	8.5 W
Physical		
Standard operating temperature range	5° – 45° C (41° – 113° F)	
Dimensions	49 x 483 x 169 mm (1.9 x 19.0 x 6.7")	
Weight	2.2 kg (4.9 lbs)	

Other important information

Important information

1. **Register online.** Please register your new

Music Tribe equipment right after you purchase it by visiting musictribe.com. Registering your purchase using our simple online form helps us to process your repair claims more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.

2. **Malfunction.** Should your Music Tribe

Authorized Reseller not be located in your vicinity, you may contact the Music Tribe Authorized Fulfiller for your country listed under “Support” at musictribe.com.

Should your country not be listed, please check if your problem can be dealt with by our “Online Support” which may also be found under “Support” at musictribe.com.

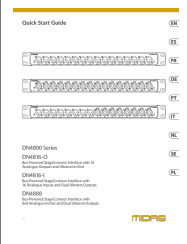
Alternatively, please submit an online warranty claim at musictribe.com BEFORE returning the product.

3. **Power Connections.** Before plugging the unit into a power socket, please make sure you are using the correct mains voltage for your particular model.

Faulty fuses must be replaced with fuses of the same type and rating without exception.



Documents / Resources

	MIDAS DN4816-O Bus-Powered StageConnect Interface with 16 Analogue Outputs and Ultranet In/Out [pdf] User Guide DN4800 Series, DN4816-O, DN4816-I, DN4888, Bus-Powered StageConnect Interface with 16 Analogue Outputs and Ultranet In Out, DN4816-O Bus-Powered StageConnect Interface with 16 Analogue Outputs and Ultranet In Out
---	---

References

-  [Midas | Home](#)
-  [Music Tribe](#)