

# DBI-04/44 I/O INTERFACE



Dante



Dante

# DBT-04/44 I/O INTERFACE



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# OSC PROTOCOL INSTRUCTION SET V1.0

## ENGLISH

### Getting started Manual

Other languages can be downloaded from:  
[WWW.SYNQ-AUDIO.COM](http://WWW.SYNQ-AUDIO.COM)



# OSC-PROTOCOL instruction set

## INTRODUCTION

Thank you for buying this Synq® product.

This document is only a brief introduction and mainly describes the OSC Protocol instructions supported by the Synq® DBI and DBT Dante network audio bridges.

This is NOT a full course on OSC, the internet is already full of very useful information about OSC.

To take full advantage of all possibilities of the Synq® DBI and DBT Dante network audio bridges, please download and read the separate operating instructions very carefully. Also the webpages of the DBI and DBT have an intuitive help function that explains all functions easily.

## REVISION HISTORY

This is a work in progress, so check the Synq website regularly for new updates!

Revision	Date (dd/mm/yyyy)	Description
V0.1	23/08/2020	- Initial draft
V0.2	30/08/2020	- Added the compressor commands - Added general settings
V1.0	07/02/2022	- First release of the document - Added the trim parameter

## WHAT IS OSC ?

Open Sound/System Control (OSC) was created as a successor to the MIDI control protocol. It enables communication between computer software, sound synths and other multimedia devices that support OSC.

Its advantages over MIDI include:

- An open-ended and dynamic URL-style symbolic naming scheme
- Symbolic and high-resolution numeric argument data
- Pattern matching language to specify multiple recipients of a single message
- High resolution time tags and “bundles” of messages whose effects must occur simultaneously.

The protocol is also not bound by specific hardware (i.e. MIDI cables and ports) and can be transferred across any network connection, even remotely via the internet.

This makes OSC much more powerful than MIDI, but due to its open-ended specification, both the OSC client (sends OSC requests) and the OSC server (receives and executes requests) must be separately configured, unlike MIDI which is essentially “Plug & Play”.

For more general information about OSC, check these links:

- [OSC Wikipedia page](#)
- [Official OSC homepage](#)

## SET UP

Parameter	Value	Description
Protocol	UDP	
Incoming port	9000	
Outgoing port	9001	
Incoming IP	Broadcast/Unicast	
Outgoing IP	Broadcast/Unicast	Responses to a command are in unicast.

## API

An API is a set of instructions (often in the form of URLs), written by the developer, to give other developers a common standard method for writing software that connects different systems or components of a system, without having to understand all the complexity. In short: an API reduces the complexity and greatly increases the speed of programming.

Below you can find the current set of URLs and descriptions for each function that can be controlled on the Sync® DBI and DBT units, using OSC.

If a URL is sent without a parameter value, the command will be interpreted as a "get": the device will return the current state.

Each URL ends with "/<device\_name>": this allows multiple devices on a network to be accessed via broadcasting.

Each command can also work with the type as "float".

### GENERAL CONTROLS

URL	Type	Range	Description
/ping	-	-	Sends back the same command to test if a device is on the network
/sync	-	-	Get all the current settings from the device.

### CONTROLS FOR THE PROCESSING OF EACH CHANNEL

URL	Type	Range	Description
/gain/input/<input_index>/<output_index>	float	-120 - 10	Gain for the input matrix
/gain/output/<output_index>	float	-120 - 10	Gain for the outputs
/trim/<input_index>	float	-10 - 10	Trim value for the inputs
/phase/input/<input_index>	bool	-	Input phase state
/phase/output/<output_index>	bool	-	Output phase state
/mute/input/<input_index>	bool	-	Input mute state
/mute/output/<output_index>	bool	-	Output mute state
/eqenable/input/<input_index>	bool	-	Input eq enable state
/eqenable/output/<output_index>	bool	-	Output eq enable state
/pad/<input_index>	bool	-	Input pad state – only for analog inputs
/48v/<input_index>	bool	-	Input 48v state – only for analog inputs
/delay/<output_index>	float	0 - 100	Delay for the analog outputs in ms
/comp/enable/input/<input_index>	bool	-	Input compressor enable state
/comp/enable/output/<output_index>	bool	-	Output compressor enable state
/comp/threshold/input/<input_index>	float	-135-21	Input compressor threshold
/comp/threshold/output/<output_index>	float	-135-21	Output compressor threshold
/comp/ratio/input/<input_index>	float	1-100	Input compressor ratio
/comp/ratio/output/<output_index>	float	1-100	Output compressor ratio
/comp/softknee/input/<input_index>	bool	-	Input compressor softknee state
/comp/softknee/output/<output_index>	bool	-	Output compressor softknee state
/comp/attack/input/<input_index>	Int32	1-500	Input compressor attack in ms
/comp/attack/output/<output_index>	Int32	1-500	Output compressor attack in ms
/comp/hold/input/<input_index>	Int32	1-500	Input compressor hold in ms
/comp/hold/output/<output_index>	Int32	1-500	Output compressor hold in ms
/comp/release/input/<input_index>	Int32	1-2000	Input compressor release in ms
/comp/release/output/<output_index>	Int32	1-2000	Output compressor release in ms

**CONTROLS FOR EQ-PROCESSING**

Control parameters for each of the EQ points. The <index> (a value from 0 to 9) specifies the EQ point.

URL	Type	Range	Description
/eq/gain/input/<input_index>/<index>	float	-20 - 20	Gain, note that an HPF or LPF has no gain
/eq/gain/output/<output_index>/<index>	float	-20 - 20	Gain, note that an HPF or LPF has no gain
/eq/freq/input/<input_index>/<index>	integer	20 - 20000	Frequency
/eq/freq/output/<output_index>/<index>	integer	20 - 20000	Frequency
/eq/q/input/<input_index>/<index>	float	0.1 - 20	Q factor, note that an HSF, LSF, LPF or HPF has a range of 0.1 - 2.
/eq/q/output/<output_index>/<index>	float	0.1 - 20	Q factor, note that an HSF, LSF, LPF or HPF has a range of 0.1 - 2.
/eq/enable/input/<input_index>/<index>	bool	-	State of a specific point
/eq/enable/output/<output_index>/<index>	bool	-	State of a specific point

**INTERNET LINKS TO USEFUL OSC-SOFTWARE**

Below is a list with some links to interesting OSC software to build your own apps or just to learn more about using OSC. Some are freeware, others are paying: the choice is yours.

- [www.hexler.net/touchosc](http://www.hexler.net/touchosc) *(The ultimate software to create your own OSC apps)*
- [www.oscpilot.com/](http://www.oscpilot.com/) *(Functionality comparable with Touch OSC)*
- [www.qlab.app/](http://www qlab.app/) *(Show control software, only for MAC)*
- [www.liminalet.com/zoomosc](http://www.liminalet.com/zoomosc) *(Used for OSC communication between ZOOM and Synq DBI / DBT)*
- [www.ableton.com/](http://www.ableton.com/) *(Well-known music production software with OSC support)*
- [www.openstagecontrol.ammd.net/](http://www.openstagecontrol.ammd.net/) *(Free OSC software: not simple to use but with a lot of possibilities)*
- [www.elgato.com](http://www.elgato.com) *(Customizable hardware keys to send OSC commands to the DBI / DBT)*

**CONTACT US**

At any time you can contact us to report any syntax errors, bugs, or other problems. Also, we are of course open to suggestions to improve our equipment.

Please contact us using the links:

- <https://synq-audio.com/contacts/>
- [info@synq-audio.com](mailto:info@synq-audio.com)

**All information in this document is subject to change without notice.**

You can download the latest version of this document from our website: [www.synq-audio.com](http://www.synq-audio.com)



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**ES: Suscríbete hoy a nuestra lista de correo para recibir las últimas noticias!**

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