



Fohhn-Net TCP Text Protocol Instructions

(for devices with integrated Brooklyn II Dante modules only)

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1. Introduction

Fohhn® devices can be controlled via an integrated Dante™ module, or Fohhn **ABX-5** adapter, using a simple text-based TCP protocol. The Fohhn Dante module's firmware must be updated to Version **1.0.3** or later. The Dante module listens for text commands on **TCP Port 8374**. Each command is terminated with **CRLF**; many systems send this automatically, but it must otherwise be stated through the addition of **\r\n** at the end. The Dante module's replies are also terminated with **CRLF**. After each reply, the Dante module shuts down the TCP connection; it must be newly re-established for each command.

Commands always have the following format:

```
GET COMMAND ID (PARAMETER) <CR><LF>
```

```
SET COMMAND ID (PARAMETER) <CR><LF>
```

With GET commands, information is retrieved from the respective device; with SET commands, settings on the device are changed – the reply to SET commands is always **OK**. If the command is correct, but there is no reply from the device, this will be shown as a **TIMEOUT** response. The reply for an invalid command is **INVALID REQUEST** and for incorrect parameters it is **INVALID PARAMETERS**.

Always make sure that the correct **Fohhn-Net ID** has been entered in the **ID** field, otherwise the device will ignore the command and the Dante module will respond with **TIMEOUT**. You can determine the (Fohhn-Net) ID using **Fohhn Audio Soft**.

Control via the TCP text protocol only works if **Fohhn Audio Soft** is not communicating via the Dante module at the same time. Close Fohhn Audio Soft, or take it offline so that control via the text protocol is possible.

Numerical values are always written without their decimal separators and without the unit descriptor:

So **-32.5 dB** will become **-325** and **+5.0 dB** will become **50**.

For output channels, the channel number can simply be used: **1** for Output Channel 1, **2** for Output Channel 2 etc. If input channels are to be addressed, the number of output channels must always be added up. For example, on a device with one output channel, the first input channel will have the channel number **2** and the second input channel will have the channel number **3**. On a device with four output- and four input channels, the first input channel will have the channel number **5**. (The Routing command is an exception: Here, input channels for the input parameters always start from **1**.) The DSP functions on input channels are not available on all devices. See also the section at the end of this document, which describes particularities relating to some older devices.

Using the Fohhn-Net TCP text protocol, commands for *Info*, *Preset*, *Volume*, *Mute*, *Routing*, *Standby* and *Status* are all available. These are explained in detail on the following pages.

2. Device Information

2.1 Device information retrieval (identification and firmware version)

GET INFO *ID*

Reply: **IDENTIFICATION VERSION**

Example, to retrieve info from the device with ID 1:

GET INFO 1

Reply (Example for Linea Focus DLI-130):

0D20 3.0.5

Example, to retrieve info from the device with ID 2:

GET INFO 2

Reply (Example for Linea Focus DLI-130):

0D20 3.0.5

The GET INFO command is suitable as a test for whether the device responds.

Note: The firmware version of the Fohhn device is shown here – not that of the Dante module!

3. Presets

3.1 Loading presets

SET PRESET *ID NR*

Reply: **OK**

Example, to load Preset 20 on the device with ID 1:

SET PRESET 1 20

Reply: **OK**

3.2 Calling up current preset numbers and preset names

GET PRESET *ID*

Reply: **NR NAME**

Example, to call up a currently loaded preset on the device with ID 1:

GET PRESET 1

Reply:

020 Preset Name

4. Volume

4.1 Setting absolute volume levels

SET VOL ID CHANNEL GAIN ON [INV]

Reply: **OK**

The last parameter [INV] is optional and must only be used if the signal on the channel should be inverted.

Example, to set the volume level on Channel 1 of the device with ID 1 to -20.5 dB:

SET VOL 1 1 -20.5 1

Example, to set the volume level on Channel 2 of the device with ID 1 to 3.0 dB:

SET VOL 1 2 3.0 1

Example, to set the volume level on Channel 1 of the device with ID 1 to -3 dB (Mute):

SET VOL 1 1 0 0

Example, to set the volume level on Channel 2 of the device with ID 1 to 3.0 dB and inverted:

SET VOL 1 2 3.0 1 1

4.2 Volume level readout

GET VOL *ID CHANNEL*

Reply: **GAIN ON INV**

Example, to obtain a readout of the volume level on Channel 1 of the device with ID 1:

GET VOL 1 1

Reply:

-205 1 0

Example, to obtain a readout of the volume level on Channel 2 of the device with ID 1:

GET VOL 1 2

Reply:

30 1 0

4.3 Relative adjustment of volume levels

SET RVOL *ID CHANNEL GAIN*

Reply: **OK**

Example, to reduce the volume level by -3.0 dB on Channel 1 of the device with ID 1:

SET RVOL 1 1 -30

Example, to raise the volume level by +1.5 dB on Channel 2 of the device with ID 1:

SET RVOL 1 2 15

5. Channels

5.1 Channel activation / muting

SET MUTE *ID CHANNEL ON*

Reply: **OK**

Example, to mute Channel 2 on the device with ID 1:

SET MUTE 1 2 0

Example, to reactivate Channel 2 on the device with ID 1:

SET MUTE 1 2 1

5.2 Mute status readout

GET MUTE *ID CHANNEL*

Reply: **ON**

Example, to obtain a readout from Channel 2 of the device with ID 1:

GET MUTE 1 2

Reply: **1** (if the channel is on)

Reply: **0** (if the channel is muted)

Note: The mute status is also displayed in the second parameter during readout of the volume level.

6. Routing

6.1 Change routing settings

SET ROUTING ID CHANNEL INPUT GAIN ON [INV]

Reply: **OK**

The last parameter [INV] is optional and must only be used if the signal on the channel should be inverted.

Example, to change the routing on the device with ID 1 from input channel 3 to output channel 2 with a Gain of -10.0 dB:

SET ROUTING 1 2 3 -100 1

Example, to mute the routing on the device with ID 1 from input channel 3 to input channel 2 with a Gain of -10.0 dB:

SET ROUTING 1 2 3 -100 0

6.2 Routing settings readout

GET ROUTING ID CHANNEL INPUT

Reply: **GAIN ON INV**

Example, to obtain a readout of the routing on the device with ID 1 from input channel 3 to output channel 2:

GET ROUTING 1 2 3

Reply:

-100 1 0

7. Standby

7.1 Putting devices in standby

SET STANDBY *ID ON*

Reply: **OK**

Example, to put the device with ID 1 in standby:

SET STANDBY 1 1

Example, to reactivate the device with ID 1:

SET STANDBY 1 0

7.2 Standby status readout

GET STANDBY *ID*

Reply: **ON**

Example, to obtain a standby status readout for the device with ID 1:

GET STANDBY 1

Reply: **1** (if the device is in standby)

Reply: **0** (if the device is active)

Note: Not all devices support standby status readout.

8. Status

8.1 Status readout

GET STAT *ID*

Reply: F1 F2 F3 F4 F5 F6 F7 F8

Example, to obtain a status readout for the device with ID 1:

GET STAT 1

Reply: 0 1 0 0 0 0 0 0

Note: Depending on the device, responses have to be evaluated differently. Unused flags should be ignored. 0 means "ok", 1 means an error.

Fohhn Devices	F1	F2	F3	F4	F5	F6	F7	F8
<i>DLI-130</i> <i>DLI-230</i> <i>DLI-330</i> <i>DLI-430</i>	<i>Fault</i>	<i>Audio (AES)</i>	<i>Pilot tone</i>					
<i>FV-100</i> <i>FV-200</i>	<i>Fault</i>	<i>Audio (AES)</i>						
<i>LFI-120</i> <i>LFI-220</i> <i>LFI-350</i> <i>LFI-450</i>	<i>Fault</i>	<i>Pilot tone</i>						
<i>FMI-100</i> <i>FMI-110</i> <i>FMI-400</i>	<i>Fault</i>	<i>Pilot tone</i>						
<i>D-2.750</i> <i>D-2.1500</i>	<i>Protect 1</i>	<i>Protect 2</i>						
<i>D-4.750</i> <i>D-4.1200</i>	<i>Protect 1</i>	<i>Protect 2</i>	<i>Protect 3</i>	<i>Protect 4</i>				
<i>DI-2.2000</i>	<i>Protect 1</i>	<i>Protect 2</i>						
<i>DI-4.1000</i>	<i>Protect 1</i>	<i>Protect 2</i>	<i>Protect 3</i>	<i>Protect 4</i>				

9. Troubleshooting

If the TCP communication is functioning normally but nothing is changing on the device, it may be locked. The Dante module cannot recognise whether or not the device is locked. Check the settings with the help of **Fohhn Audio Soft**.

Fohhn Audio Soft cannot communicate via the Dante module at the same time! Close Fohhn Audio Soft or take it offline before sending any commands via the TCP interface.

Further possible sources of error:

- Has the correct **Fohhn-Net ID** been specified?
- Has the correct **IP Address** or the right **Host name** been specified?
- Has the correct **TCP Port 8374** been specified?
- Is the text command correctly terminated with **CRLF (\r\n)**?
- Are all command parameters correct?
- Are all parameters within valid ranges?
- Did you wait for a reply to arrive before sending the next request via TCP? The system can only process one request at a time: Wait until you have a reply before sending a new request.

10. Specific channel addressing: D-4.750, D-4.1200, FC-8 and FC-9

If one of these Fohhn devices is controlled via an **ABX-5**, please note that different channel addressing is involved. These devices only have DSP functions on their output channels; each output channel is addressed using a specific value.

Output channel 1	1
Output channel 2	2
Output channel 3	4
Output channel 4	8
Output channel 5	16
Output channel 6	32

11. Appendix

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