



CB Electronics TMC-1-DMon Monitor Remote

Use with the TMC-1Reference

Version 1.0





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Trinnov D-Mon

TMC-1-DMon User guide

This document only describes the Ethernet connections of the TMC-1 and any differences in operation. Please refer to the TMC-1 Reference which is available from the TMC-1-DMon Web Page.

<http://www.colinbroad.com/cbsoft/tmc1/tmc1dmon.html>

Ethernet Connection

The TMC-1 communicates to the D-Mon via Ethernet, when connected to the network it will discover any connected D-Mon's and display them. If it has been paired with a D-Mon and recognised the Serial number it will select the paired D-Mon.

To check the Ethernet connection depress [Select] and [Page] together to enable the Page select menu. From the Page select menu depress the [E-Net] key to display the D-Mon pages. Use the [<] and [>] keys to step through.

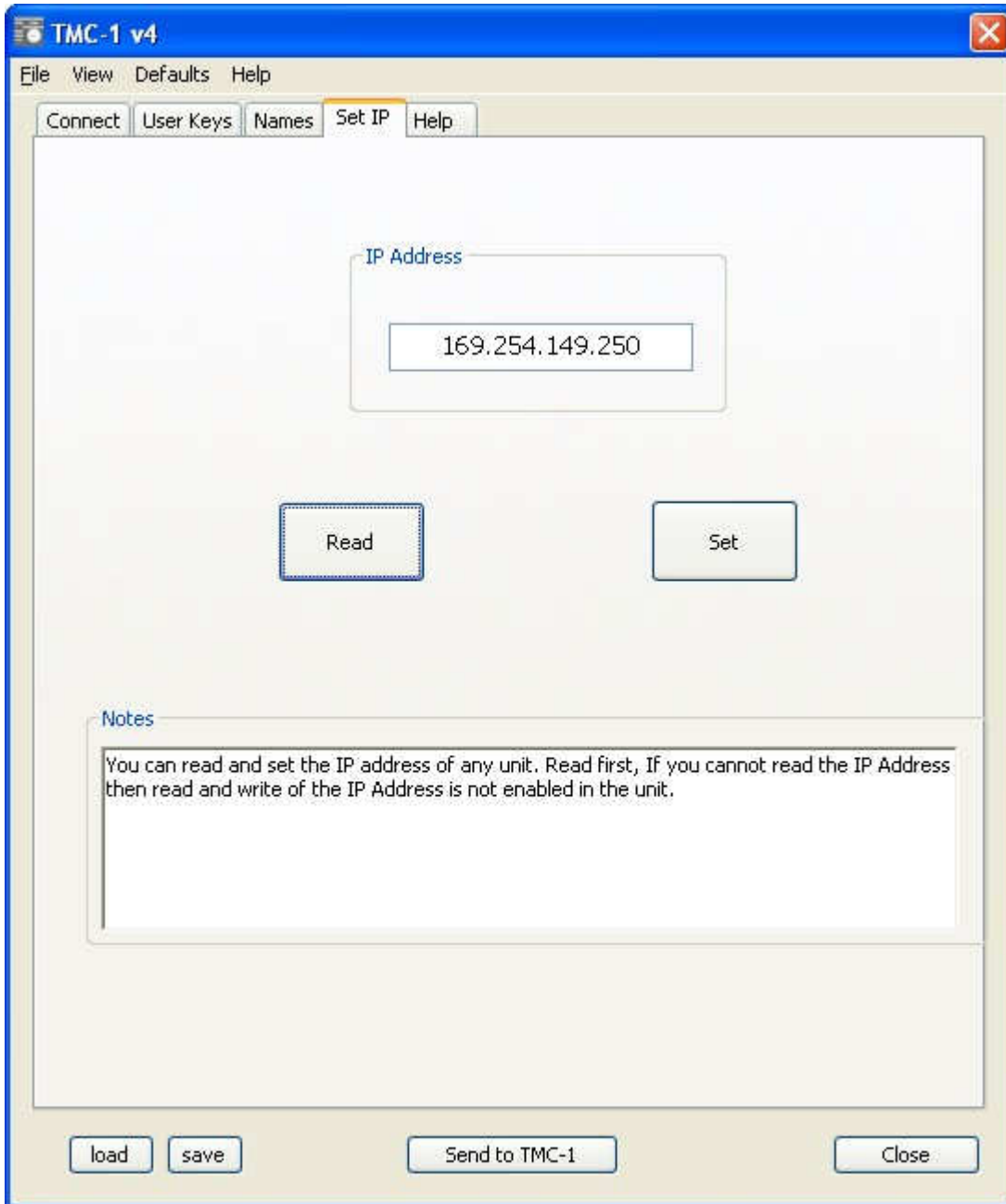
Note 1: The current version of the D-Mon software does not support discovery on different sub-nets, the D-Mon and TMC-1 must be on the same subnet address. You can set the TMC-1 IP Address using Midiupd or TMC-1-mac/win programs.

Note 2: The TMC-1 now supports DHCP, the default IP of the TMC-1 is 169.254.149.250. If not using a DHCP Server you can change the IP Address of the TMC-1 using the TMC-1 or Midiupd Mac/Windows programs.

Note 3: The D-Mon serial number is unique to each unit and is used to define the destination instead of the IP address.



Setting the TMC-1 IP Address from the TMC-1-win/mac program





D-Mon Engineer Headphone Source Selection

The engineers Headphone output allows the engineer to monitor different inputs and outputs without disturbing the main monitor output.

The [PH Source] user key is used to access the headphone source selection page. Currently two pages are available with a [More] key to switch between the pages.

The following user keys are provided for the D-Mon Headphone feed

[Ph Follow]: Headphones follow output selection – also available on phones source page

[Phones]: Headphone Enable, hold down and use knob to adjust gain

[PFL->Ph]: Route AFL/PFL to Phones

[Ph Source]: Access the Phones source selection page, hold down and use knob to adjust gain.

D-Mon Inputs

The D-Mon does not differentiate between Inputs and Cue inputs, the TMC-1 will assume that the last 3 inputs are Cue inputs 1, 2 and 3 and can be sent to the cue outputs.

D-Mon Dim

The TMC-1 reads the D-Mon “Auto-Dim on Talkback” Option and determines the Dim as follows

If Set: the fixed 20dB D-Mon Dim is used

If not Set: the programmable TMC-1 Dim is used



D-Mon 4.1 Implementation

The TMC-1-DMon and D-Mon are both new, not everything is implemented at this time, currently the TMC-1 can control anything that is available on the D-Mon Web interface.

Function	Details	Connection/Notes
Metering	metering is available from the D-Mon 4.1.2	
Input and output names	TMC-1 reads names from D-Mon and displays the first 7 characters	
Control Room Gain Control	1 dB steps	Control from both web page and TMC-1
Dim	The Dim action is set by the Trinnov "Auto-Dim on Talkback" flag (TMC-1 Talk Dim Key), when enabled the Trinnov dim is used, when not enabled the TMC-1 dim is used	Control from web page or TMC-1 Variable Dim available from TMC-1 20dB Dim fixed on D-Mon,
Mute	Control from both web page and TMC-1	
Cal-A, Cal-B	Independent on web page and TMC-1	
Source Selection	6 inputs Main, Alt, Inputs 1-4	Control from both web page and TMC-1
Source Summing	Maximum of 5 inputs on D-Mon-6 and D-Mon-8	Control from both web page and TMC-1
Speakers Selection	Up to 4 Sets –Default 3 Sets Main, Alt, Mini	Control from both web page and TMC-1
Speaker naming	The TMC-1 reads the fist 7 characters of the speaker name from the D-Mon	
Cue Inputs	The TMC-1 will select the last 3 inputs as Cue in 1, Cue in 2, Cue in 3. The TMC-1 reads the names from D-Mon	



TMC1-DMon Monitor Controller

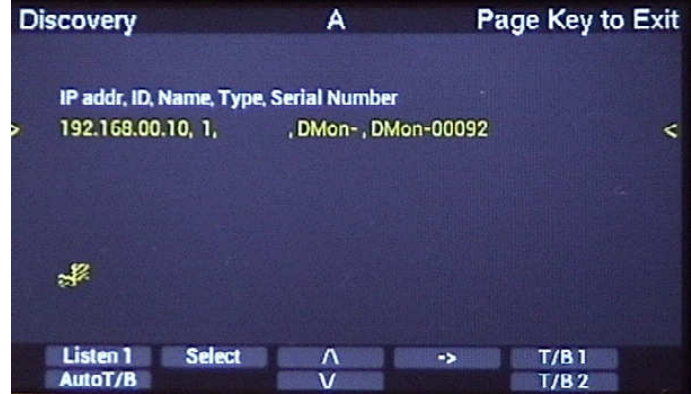
Cue outputs	Define on the D-mon, the TMC-1 can control up to 4 cue sends and will read the first 7 characters of the name	
Cue output source selection	Link to Control room source, Cue in 1, Cue in 2, Cue in 3, T/B 1, T/B 2	
Talkback Input	Internal and External T/B Mic's can be defined	Routing controlled from TMC-1 only displayed on D-Mon web page. Gain control from both web page and TMC-1
Listen Input	One input only	Control from both web page and TMC-1. Gain control from both web page and TMC-1
Bass management	Use the [Bass-X] user key on the TMC-1	Control from both web page and TMC-1.
LFE +10dB	Use the [LFE+10] user key on the TMC-1	Control from both web page and TMC-1.
Alt Input Insert	Both [Alt Active] and [Alt enable] implemented as user keys on TMC-1	
D-Mon Phones O/P	[Phones], [Ph Gain], [Ph Source] and [Ph Follow] from TMC-1 as user keys	Controlled from both web page and TMC-1
AFL Gain and Switching	,	
Mono, Stereo, 5.1	implemented as user keys on TMC-1	
Individual Speaker Trims	Disabled in TMC-1, Included in D-Mon Speaker correction	
Input Trims	Implement by changing main output gain	
Listen back 2 input	Not implemented in D-Mon	



D-Mon E-Net Pages

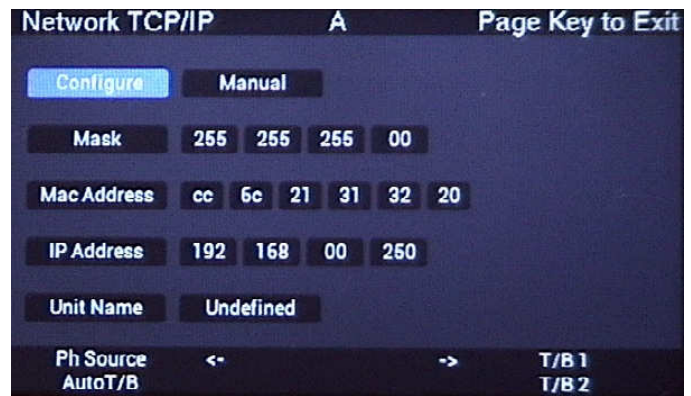
Discovery

This page displays the D-Mon units discovered by the TMC-1 (Max 4). The unit highlighted in Yellow is the currently connected unit. To select, use the [<] and [>] keys and then depress the [Select] key.



Network Page:

This Page shows the current setup of the Network connection. The TMC-1 copies the subnet address from the selected D-Mon on the Discovery page, the last number (249 in the image) may be defined from the "TMC1-DMon" program on Mac or Windows with the Unit Name.



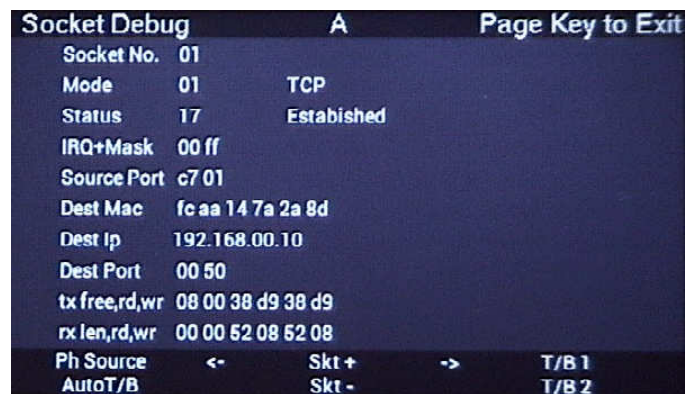
Socket Debug:

Used to debug systems, You can change the socket number using the [+] or [-] keys.

Socket 00 = Discovery and setup

Socket 01 = D-Mon Control

Socket 02 = Meters



Other D-Mon Pages

Cue Sends Page:

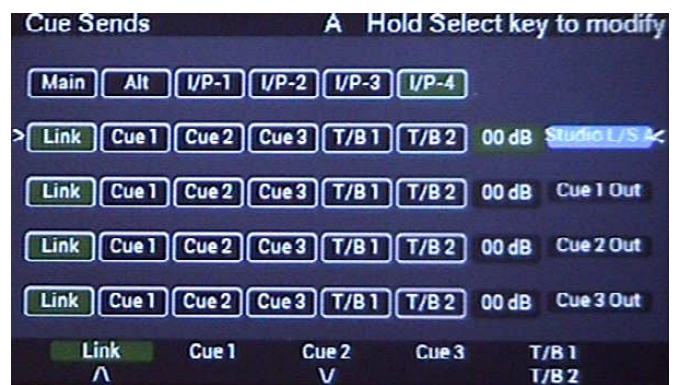
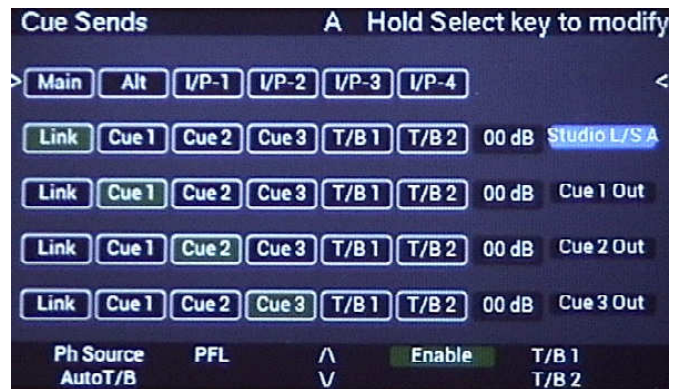
[Enable] mute/unmute the selected output.

[PFL] will route the selected cue output to the current monitor output

[Link] with route the current control room source to the selected cue output

Talkback routing must be specified on this page

Depress the [Select] key to enable the source selection and gain for the selected cue output as shown in the lower picture.



Session Snapshots Page:

Studio Presets page:

Access using the [Preset] user key

Use [^] and [v] keys to select and then enable using the [Apply] key.

Use the [More] key to switch between Session Snapshots and Studio presets

Phones Source Page

Access using the [Ph Source] key

Two pages with a [More]/[Less] key to select between the pages

(Todo: Display the names from D-mon)



TMC1-DMon Monitor Controller



HD15 Connector (XMon)

The XMon connector is available on the TMC-1-DMon for the following

Talkback Microphone and Headphone

The TMC-1 provides an analogue Talkback Microphone with preamp and Headphone connection which are connected to the HD15 connector. To use connect to Analogue Inputs and outputs on the D-Mon.

The TMC-1 is designed for systems that sum the two mic inputs and then have two separate routings both of which are available to each input. To achieve this the talkback routing **MUST** be setup on the TMC-1 as this overrides the talkback routing in the D-Mon.

Internal Talkback Microphone

An electret mic amplifier is provided on the TMC-1, normally connected to the internal microphone. A 3.5mm Jack on the rear is provided to that a suitable external "Laptop Mic" may be used. The mic output is on the HP15 pin connector and may be configured with a balanced or unbalanced output.

Headphone Jack

The headphone jack is connected directly to the HD15 pin connector. The input is unbalanced with two ground returns.



TMC1-DMon Monitor Controller

Connecting to a Icon Console (D-Control or D-Command)

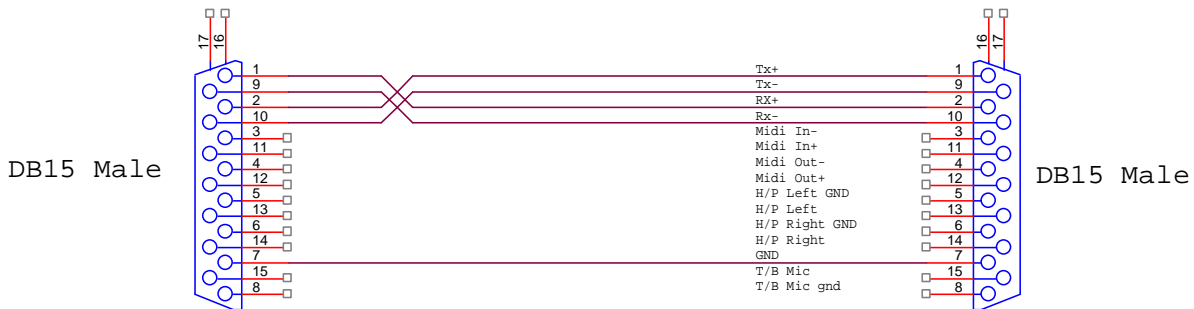
The D-Control or D-Command monitor control may be used to control the TMC-1-DMon using a special cable. The Icon monitor control panel has no tally back from the XMon so that although the TMC-1 will display all changes made by the Icon monitor control any changes made on the TMC-1 will not be displayed on the Icon Monitor Control display!



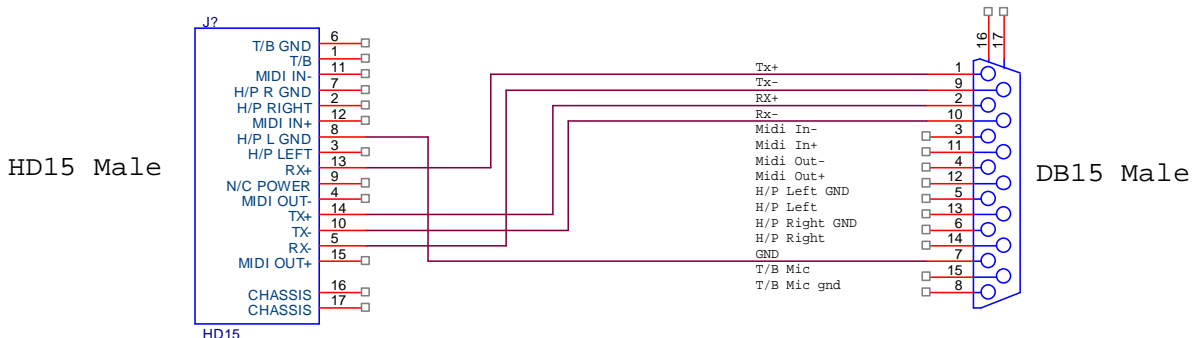
ICON/D-COMMAND/D-CONTROL CABLE

MIDI OVER RS422

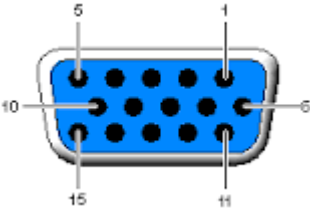
USING Original DB15 Connector on TMC-1



USING New HD15 Connector on TMC-1



HD 15 Connector fitted to TMC-1 units

HD 15 Connector is fitted to later TMC-1 Units			
Pin	Hardware configuration	Function	Note
1	Analog Output	T/B Mic O/P	Screened
2	Analog Input	Headphone Right I/P	Screened
3	Analog Input	Headphone left I/P	Screened
4	O/P	Midi Out -	Check Connected in Cable
5	I/P	RS422 Rx -	Normally Connected in Cable
6	Gnd	T/B Mic Ground	
7	Gnd	Headphone ground	
8	Gnd	Headphone ground	
9	Gnd	Ground	
10	O/P	RS422 Tx -	Normally Connected in Cable
11	I/P	Midi In -	Check Connected in Cable
12	I/P	Midi In +	Check Connected in Cable
13	I/P	RS422 Rx +	Normally Connected in Cable
14	O/P	RS422 Tx +	Normally Connected in Cable
15	O/P	Midi Out +	Check Connected in Cable



15 pin “XMON” Headphone and Microphone Connections

Pin No.	Hardware Configuration	Function	Note
5	Input	Headphone Ground	Avid Doc incorrect
13	Input	Headphone Left	Avid Doc incorrect
6	Input	Headphone Ground	Avid Doc incorrect
14	Input	Headphone Right	Avid Doc incorrect
7	Ground		
15	Output	Internal Talkback Mic+	
8	Output	Internal Talkback Mic-	Link J13 between pins 2 and 3
		Mic Ground	Link J13 between pins 1 and 2



D-Mon

Trinnov Main Page



Note: The Trinnov web page is designed for a 4x3 aspect ratio screen, to see the Headphones feed reduce the width of the window on a 16x9 screen.

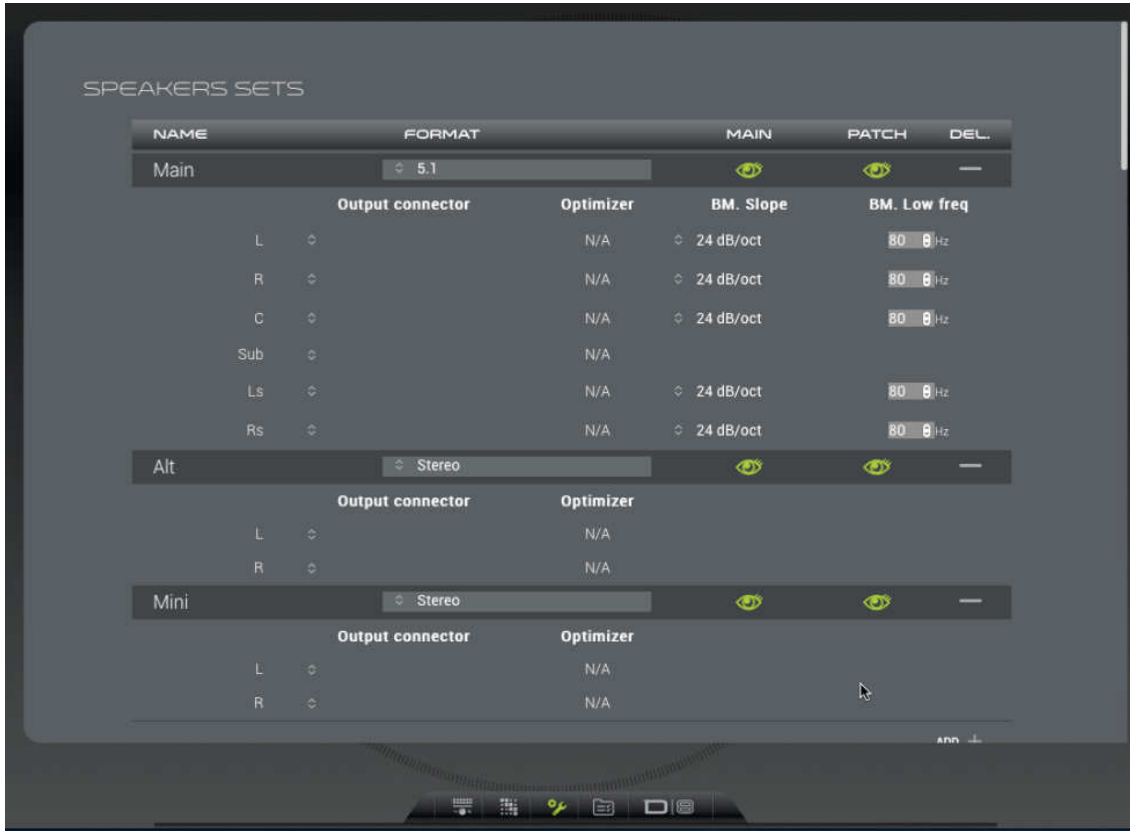
For these images we have setup the Trinnov with the TMC-1 default names, In future versions the TMC-1 will read the names from the D-Mon.

The following two images show how the D-Mon is configured. Not all inputs and outputs have to be connected. Using this layout will allow the TMC-1 to operate correctly.

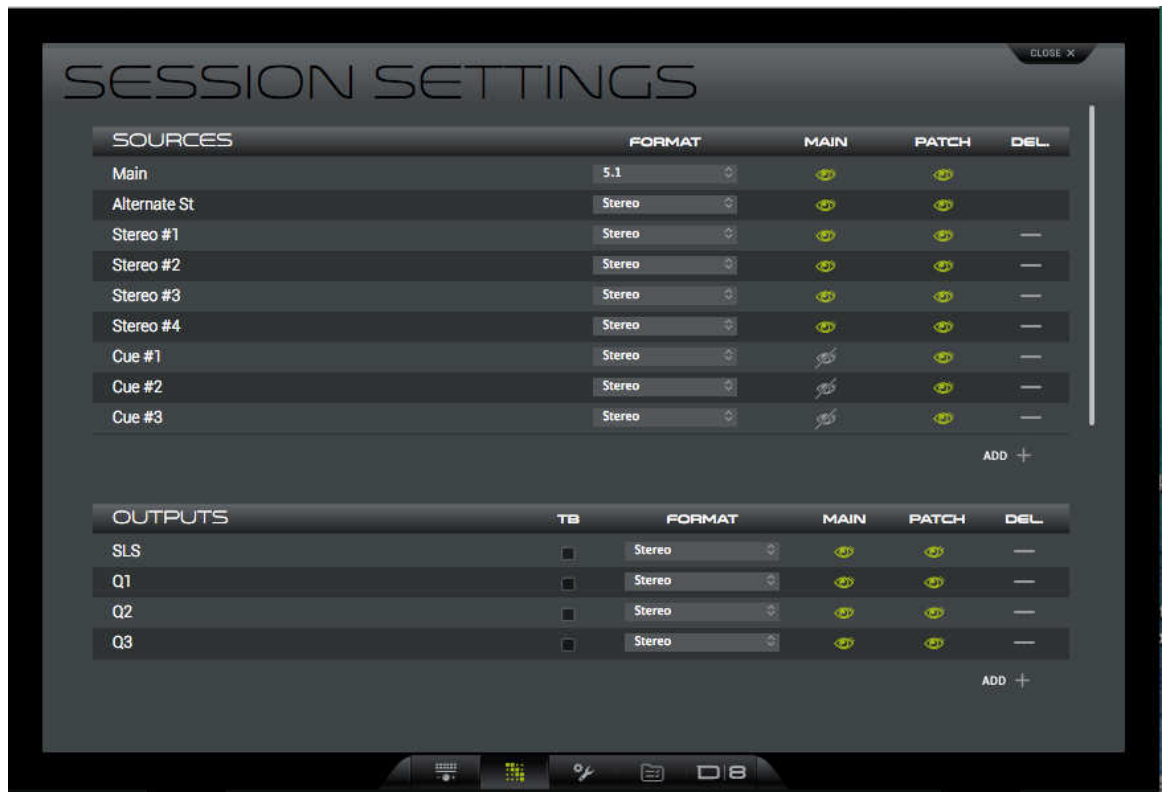


TMC1-DMon Monitor Controller

Trinnov Studio Setup Page

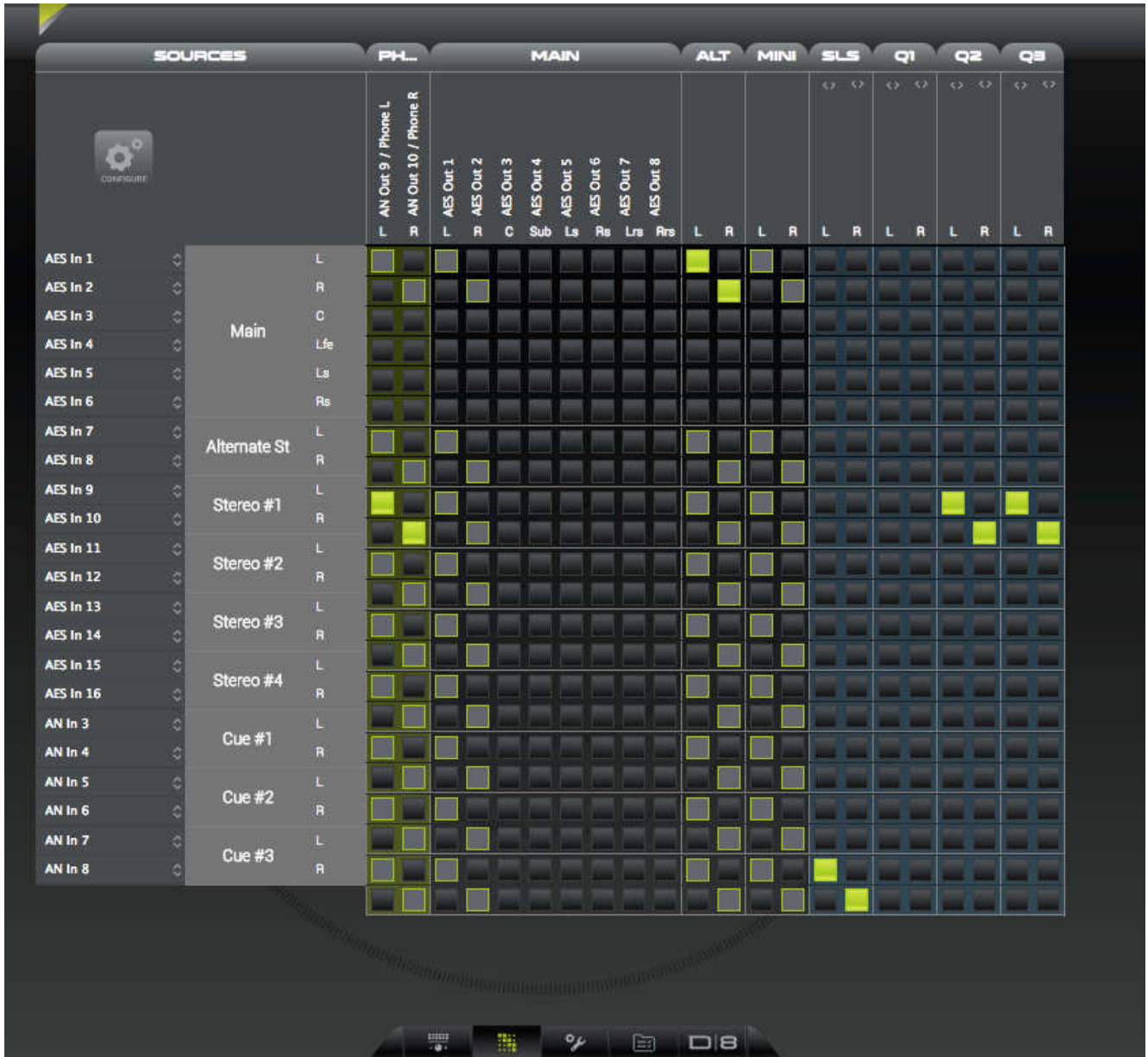


Trinnov Session Configure





Trinnov Session Routing



Bass Extension

The [BassX] user switch will enable/disable the Bass Extension settings on the D-Mon

The [LFE+10] user switch will enable/disable the LFE +10 setting on the D-Mon



Surround Switching

The [Mono], [Stereo], [5.1] and [7.1] userkeys will enable/disable the appropriate downmix on the D-Mon.

Talkback

Different names are used on the TMC-1 and D-Mon as follows

TMC-1 Function	D-Mon Function	Description
T/B 1	TB#1	Internal (Engineer) Talkback Routing 1
T/B2		Internal (Engineer) Talkback Routing 2
T/B1x	TB#2	External (Producer) Talkback Routing 1
T/B2x		External (Producer) Talkback Routing 2

The Main difference between TMC-1 and D-Mon is the provision of two routings for the talkback allowing two different destinations or groups of destinations to be selected when activating talkback.

To use Internal talkback on any output proceed as follows

- 1) Enable TB#1 for the input on the on the Session page of the trinnov software
- 2) Enable Routing 1 (T/B1) and/or Routing 2 (T/B2) on the cues page of the TMC-1 as required

Auto-Dim

If "Auto-Dim on Talkback" is enabled on the D-Mon session settings then the D-Mon Dim control will be used by the TMC-1. If not then the TMC-1 will use its Dim Setting to adjust the gain of the D-Mon.

Monitoring Mixer

The source selection only controlled on the TMC-1 cues page, this will override ny selection on the Trinnov GUI.

[Link](#)



When Linkis activated on the TMC-1 cues page the monitor source (input) will be routed to the Cue output, this is updated when you select a new input. The Levels are not controlled by the TMC-1.

Case Study:



TMC-1 Software Update

The software is updated via the USB port using our MIDIUPD program which is available from the TMC-1-DMon or TMC-1-XMon web page.

<http://www.colinbroad.com/cbsoft/tmc1/tmc1DMon.html>

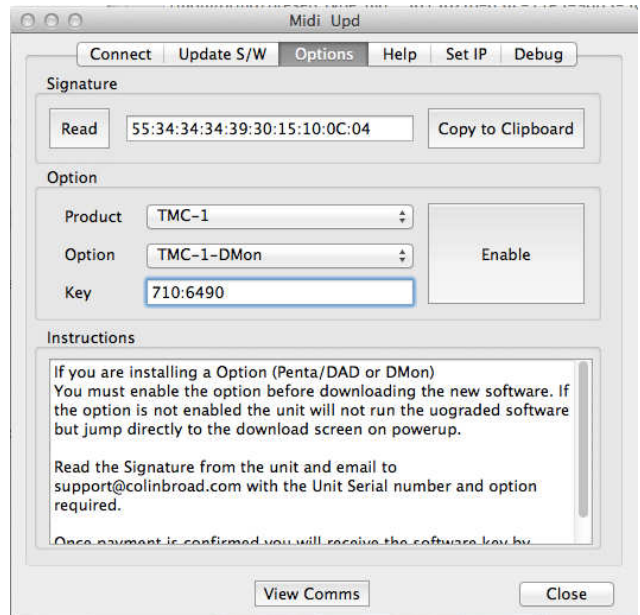
Note. When upgrading from TMC-1-Xmon to TMC-1-DMon an upgrade key must be purchased and the D-Mon Option enabled before the D-Mon software is installed. If you install without enabling the D-Mon Option the TMC-1 will jump directly to the software Installation page.

Installing the D-Mon Option

Connect to the TMC-1, (you may have to select the in and out ports). Read the Signature (55:34:34:34:39:30:15:10:0c:04 in this example) from the chip.

E-Mail to support@colinbroad.com

Once confirmed you will receive the software key (710:6490 in this example) by email, cut and paste this into the key window, Make sure that the Option Window shows "TMC-1-DMon" and click on the Enable button.





TMC-1 Fault Finding

Actual Faults reported and cause

Fault	Cause
D-Mon Not Discovered	Check that the D-Mon and TMC-1 are on the same subnet. The TMC-1 has a 100Mbps Ethernet connection, check that the computer port or network switch is set correctly
Talkback not working	The talkback routing must be specified in the TMC-1 cue sends page which will override any settings on the D-Mon Web Page
Input Selection Not Working	Check that L/B is Not enabled
Unexpected L/B, talkback, SLS or Monitor Enable/mute	Check Auto-Mute



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