

Configuration of the Remote Interface on Delta DSP Amplifiers

To configure the remote interface, from the home screen, press MENU, choose the INTERFACE Sub-Menu and press ENTER.



Use the encoder or BACK and NEXT keys to select External Interface and press ENTER.



Use the encoder or BACK and NEXT keys to choose the required interface and press ENTER.

For the purposes of working with the DeltaDirect app, the interface should be set to "Ethernet Only". This will invoke a series of further options depending on the interface chosen – these are explained below:

Mode = Ethernet. Only: The Ethernet control port on the rear panel is active. Selecting this choice will then ask for the following further information to be confirmed:

RS485 Relay: Set to OFF.

Remote ID Number: Set a device ID (still required even on Ethernet connections). This must be unique to the connected unit – setting the same ID on multiple units may cause comms problems for all devices.

IP Mode: Choose either Static or Auto IP. Auto IP will generate an IP address based on unique hardware features such as MAC address. Choose Static if you need to select the IP address to lie within a specific range, for instance when working within a larger infrastructure.

Gtulae: The gateway address is used for external access to the Internet and should be left at the default setting.

Subt: The subnet mask is used to subdivide IP addresses into groups that allow further sub-groups addressing to be defined, so further extending the address range. Leave at default 255.255.255.0 unless specifically required.

IP: The IP address specifies the amplifier's unique identifier on the Ethernet network. It is used in conjunction with the amplifier's Remote ID number to identify individual devices on the network. Make sure this is not set to the same value as any other devices or comms problems will occur.

Delta Series: DeltaDirect Quick Start Guide



DeltaDirect connects to your WiFi network and to your Delta DSP amplifiers via a wireless router. All amplifiers must be connected via their Ethernet control port to the router, and we recommend that there is a DHCP Server on the system to issue IP addresses automatically (this is normally the case and most routers have this feature built-in - Ethernet **switches** may not so check the specs!)



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Going On-Line and Initialising...

Once the app is opened and on-line (pressing the on-line button does this!) the amplifiers will be sending out identity messages and the app will recognise these and inform that an amp (or a number of amps) are available to connect. Press the orange button that appears to start the process.



If grouping has been used, or previously configured using DeltaCore or AudioCore, a dialogue will appear asking do you want to use the most recent grouping session configuration found with a time and date of this session's last set-up. If you are unsure about the grouping session data, choose "Clear SessionData and Add" to start without using grouping architecture.





No SIM 🗢		08:42			C 🕑 51 % 🔳 🗆
		perties			
	ID	1			
O DELTA DSP80	Name	Device MC2 Delta 80			
	Firmware	v1.08	Input A-D	Output 1-4	Aux 5-8
	Power State	On >			
U DSP80	Status	Online	NET NET AES AES	LINCOLD	
	Temperature	Ok / 40.0°	Input A-D	Output 1-4	Aux 5-8
	PowerAmp A+B bridged	individual >			
	PowerAmp C+D bridged	bridged >			
	Network Card Type	DANTE Card			
	XLR-C Mode	Analog >			
	XLR-D Mode	AES/EBU >			
	Network Output Source	Muted >			
	Network Output Settings	N/A			
All Devices Ab	solute Relative Mains	EQ Fours Sub			

Once connected, all the amps appear on the default "All Devices" view, and real time metering should start.

The amp's icon on the left hand side of the virtual panel will show blue if the amplifier is running, grey in standby and red if there is a fault or the amp goes off line (stops communicating). The meter group for the outputs will also switch to show meters in greyscale if the power amp is in standby.



DSP continues to run and the aux outputs continue to function in standby, as does the network audio interface (if fitted).

The left hand icon on the amp's panel can be touched to reveal more info and adjust a selection of device properties including its name (touch to edit), standby switching, AES switching, bridging modes, and network output source selection (if audio network card is fitted).

The buttons along the bottom of the screen allow quick access to see all device, and all absolute and relative groups. If grouping session data has been retrieved from amplifiers on the network, then this area may populate with further buttons.



Editing an Individual Device

No SIM 🗢 C Devices System Mute	08:39 Online 0:19:23 TCP		€ € 52 % ■
2 Device MC2 Delta 80 Status: Online Power: Standby Temperature: Ok		Filters Delay Limit PowerAmp Out 1: Sub C [grouped]	in Mute
Mute Gain Filters Delay Input A: SD10 L (grouped) Mute Gain Filters Delay Mute Gain Filters Delay		PowerAmp Out 3: Lowmid	m Mute
Mute Cain Filters Capacity Mute Cain Filters Capacity Input C: Backup L (grou		Filters Delay Limit & Ga Aux Out 5: Bass Aux (grouped)	in Mute
nipur p. packup in (grou		Aux Out 6: LM	in Mute
		Aux Out 8: High [grouped]	

Touching an amplifier panel will open it up for editing:

Mute buttons directly mute outputs (if a meter is outlined in red it is muted elsewhere by a group mute).

The inputs are shown on the left of the screen, and the outputs are arranged in two banks of four on the right - main power amp DSP channels, then aux line level output DSP channels. Input channel sources are accessed through the Gain buttons, and output polarity is accessed through the output Gain buttons.

Delay and Limit buttons access input or output delays (polarity switching is additionally shown on output delays tabs), with Limit opening the RMS and Peak Limiters (plus auto time constants selection - across outputs or auxes in a bank of four). Filters will open a channel's EQ for editing...





Individual bands may be edited by touching them in the table and directly moving slides or typing in values. On outputs, the crossover filters are accessed at the bottom of the table. Bypassed bands numbers are grey (like 3, 8 and 9 above). Touch the options top right on the window to reset all bands and access copy and paste.

No SIM 🗢		08:41		L 🕑 52 % 💻
	System Mute Online			
	A B	C D	Filters M Delay ∠ Limit → G	ain
2 Device MC2 Delta 80	Hitters)		PowerAmp Out 1: Sub C [grouped]	Mute
Power: Standby 5 Temperature: Ok 48 -3 -9			bridged to PowerAmp Out 1	
Mute Gain Filte	40 80 160 320 840 1.3k 2.6 Parametric 3429.0 Hz	Q 0.79 5.6 dB	Filters Dolay	ain Mute
Mute Gain Filte 2	Parametric 381.9 Hz	Q 5.99 -3.6 dB	Filters Delay 🖉 Limit	ain Mute
Input B: 3	Parametric 1000.0 Hz	Q 3.00 > 0.0 dB	PowerAmp Out 4: High	
Mute & Gain Filte 4	Parametric 340.2 Hz	Q 1.59 2.0 dB	Filters	ain Mute
Input C: 5	Parametric 1000.0 Hz	Q 3.00 > 0.0 dB	Aux Out 5: Bass Aux [grouped]	
Mute Gain Filte	Copy Filter Dat	a		ain Mute
	Paste Filter Dat	a	Filters	ain Mute
	Reset all PEQs		Aux Out 7: Mids	
	Cancel		Aux Out 8: High [grouped]	Mute





Touch the response graph to open full screen filter editing...

Drag filter nodes to adjust frequency and gain. Pinch to adjust filter 'Q'. Touch the filter information above the graph to edit directly with sliders and numeric input.

Touch options (top right) to reset a band, all bands and change what's shown - channel gain offset, Xovers included, phase response. Also, select Autolock to move in one axis only when sweeping curves - start moving vertically (adjusting a filter gain) and the frequency will lock and vice versa.



No SIM 🗢	08:39 System Online Online: 0:19:56		C 62 %
New Market	Done Routing Ganging N		
	ROUTING-MODE	ilay 🖉	imit Gain Mute
2 Device MC2 Delta 80	Matrix-Mode Amp	C [grouped]	
Status: Unline Power: Standby Temperatura: Ok	Matrix-Mode Aux	\bigcirc	
Temperature: Ok	POWERAMP OUT	Out 1	
Gain Filters 1	Amp 1: Sub C	A >	imit Gain Mute
Mute I Input A: SD10 L fg	Amp 2: Sub Br	A > mid	
Muto CA Gain Filters	Amp 3: Lowmid	A > lay	imit Gain Mute
Input B: SD10 R [g	Amp 4: High	A > 1	
Gain Filters	AUX OUT		
Input C: Backup L	Aux 1: Bass Aux	A >	Mute
Mute Cain Filters	Aux 2: LM	B >	
Input D: Backup R	Aux 3: Mids	c >	Mute
	Aux 4: High	D >	init 🕞 Gain
			Mute
		lay 🖉	imit Gain Muto
		Aux Out 8: High [grouped]	A Mate
		Aux our a. High [grouped]	undulum on the second s

Touch routing matrix to access routing, channel ganging and channel naming. Full matrix mode can also be enabled independently for the power amplifier channels and aux channels.



Working With Groups

Advanced grouping architecture can be directly configured from the app, and grouping information is stored in the amplifiers so can be retrieved when reconnecting. Touch the options in the top right of the devices screen to select "Configure Grouping":

No SIM 🗢	ļ		08:45		© @ 61% ■ ⊃
			Mute Online Online 0:25:21		
DEPRO DEPRO	ID 002 Status: Power: Temp: ID 001 Status: Power: Temp:	Device MC Online Standby Ok Device M Online On Ok	C2 Delta 80 C3 Delta 80 C3 Delta 80 C4 Device Mc2 Delta 80 In A SD10 L In B SD10 R In C Backup L In D Backup R Amp 11 Sub C (wrong channel type)	Output 1-4	Aux 5-8
			Amp 1 Sub C (wrong channel type) Amp 2 Sub Br (wrong channel type) Amp 3 Lowmid (wrong channel type) Amp 4 High (wrong channel type) Aux 1 Bass Aux (wrong channel type) Aux 2 LM (wrong channel type) Aux 3 Mids (wrong channel type)		
All A Devices Absc	ll olute R	All elative	Mains EQ Aux Bass and Fours Sub		

32 absolute groups and 32 relative groups are available. Absolute groups control multiple channels' EQ at once, and all will track identically. Input and output channels cannot be mixed in a group.

Relative groups control the gains, delays and limiters (outputs only) by applying relative offsets to all group members so they maintain their gain and delay relationships.

Limiter thresholds can only be adjusted down from their original settings (i.e. threshold lowered for more protection).

All channels available for adding (or removing) from a group will be listed – adding the first member will prompt for the group to be named. Channels can be added to multiple relative groups, but channels can only exist in a single absolute group as these control EQ functions.



No SIM	10:00 System Online Online: 0:00:23 TCP		€ @ 2% ⊡ ≁
	Relative Group 01 Subs trim 6 members	Delay Limit B Gain	Aute
S DELTA DSP80	ID 003 Device MC2 Delta 80 Status: Online Power: Standby Temp: Ok	ANA ANA ANA ANA Input A-D Output 1-4 Aux	< 5-8
S C DELTA DSP80	ID 002 Device MC2 Delta 80 Status: Online Power: Standby Temp: Ok	ANA ANA ANA ANA ANA Input A-D Output 1-4 Aux	< 5-8
S C DELTA DSP80	ID 001 Device MC2 Delta 80 Status: Online Power: Standby Temp: Ok	ANA ANA ANA ANA ANA Input A-D Output 1-4 Aux	< 5-8
All Devices Abso	ul All Aux EQ Sub EQ Mix	R Subs trim Mid Hi Group	R Rel Group

Groups appear below the devices on the main screen - Absolute groups have an "A" top left, relative groups have an "R".

Touch a group to see its members (dots above channels on devices that are part of the group). Controls for the group appear above the devices and can be directly edited. Muting a relative group will make the group button turn red. Meters outlined in red indicate that they are muted at an individual output level.



You can still access individual device channels when using grouping, but channels in absolute groups will not allow EQ to be edited – they will show the EQ and detail which group they are part of so it's quick to switch to that group and make changes as required.





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No SIM		10:16				U @ 7% 🗔 H
Devices	System Mute	nline Online Category				
2 Device MC2 Delta 80 Status: Online Power: Standby		Gain [C	broup -4.5dB]	0.0 dB	Gain Gain	Mute
Temperature: OK		Phases	shift 180°			
Mute Gain Filters			PowerAmp Out 3: Outp	ut 3 [grouped]		Mute
Mute Gain Filters	[grouped]		Filters	ut 4 [grouped]	Gain	Mute
Mute Gain Filters	Delay [grouped]		Filters	ay	Gain	Mute
Mute Gain Fiters	Delay [grouped]		Filters	ay	Gain	Mute
			Filters	ay	Gain	Mute
			Filters	ay Limit ouped]	Gain	Mute

This value will be the aggregated value of all group memberships' offsets. Channel meters outlined in red show that this channel is muted by a group.

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