PLD Amplifier

Quick Start Guide

QSC™

EXPLANATION OF TERMS AND SYMBOLS

The term "**WARNING!**" indicates instructions regarding personal safety. If the instructions are not followed the result may be bodily injury or death.

The term "**CAUTION!**" indicates instructions regarding possible damage to physical equipment. If these instructions are not followed, it may result in damage to the equipment that may not be covered under the warranty.

The term "**IMPORTANT!**" indicates instructions or information that are vital to the successful completion of the procedure.

The term "**NOTE**" is used to indicate additional useful information.

⚡ The intent of the lightning flash with arrowhead symbol in a triangle is to alert the user to the presence of un-insulated "dangerous" voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to humans.

⚠ The intent of the exclamation point within an equilateral triangle is to alert the user to the presence of important safety, and operating and maintenance instructions in this manual.

⚠ **NOTE:** This Quick Start Guide is based on the basic configuration as the amplifier comes from the factory. Four separate inputs, and four separate outputs. For detailed instructions for custom configurations refer to the PLD User Guide (TD-000368).

Rack-Mount the Amplifier

1. Secure the amplifier in the rack with eight screws (not supplied), four in front, four in back.
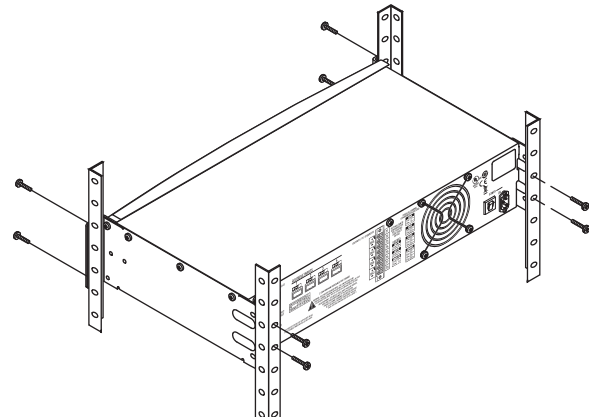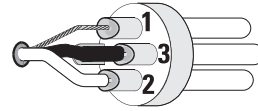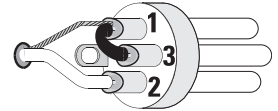

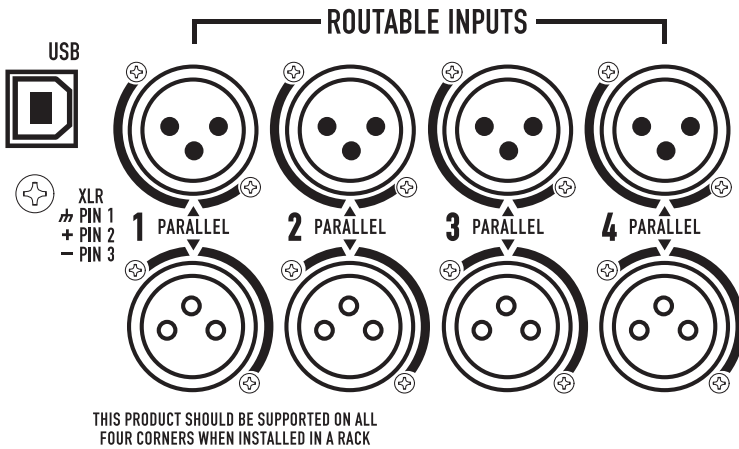— Figure 1 —

Connections

Inputs

1. Wire the audio line-level source to four male XLR connectors. You may use either balanced inputs (Figure 2) or unbalanced inputs (Figure 3).

2. Plug the male XLR connectors into the appropriate receptacles (Routable Inputs 1, 2, 3, 4) Figure 4. If you are daisy-chaining inputs with another amplifier, plug the female XLR connectors, from the other amplifier, into the XLR's on the bottom row of the Routable Inputs.
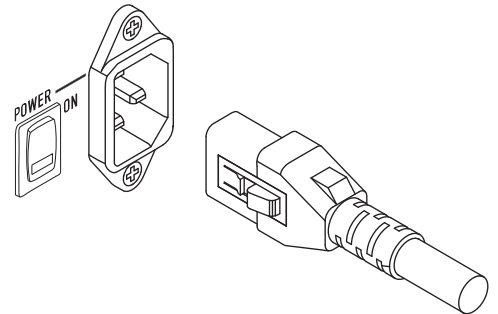
— Figure 2 —

— Figure 3 —

ROUTABLE INPUTS

USB

XLR
PIN 1
+ PIN 2
– PIN 3

1 PARALLEL **2** PARALLEL **3** PARALLEL **4** PARALLEL

THIS PRODUCT SHOULD BE SUPPORTED ON ALL
FOUR CORNERS WHEN INSTALLED IN A RACK

— Figure 4 —

3. Connect the IEC power cord to the AC receptacle on the rear of the amplifier. (Figure 5)

⚡ **WARNING!:** Do not turn the amplifier on at this time.

POWER ON

— Figure 5 —

Outputs

When the output configuration of the amplifier changes, the Outputs to the loudspeakers change accordingly. Connect the loudspeakers to the NL4 twist-lock connectors as shown in Figure 6 thru Figure 8. After connecting the Outputs to the Loudspeakers, you may turn the amplifier on.

Separate Channels (A   B   C   D)

For Four Separate Cables

Use four 2-wire cables, connect to:
• 1+/1- on connectors #1 thru #4

CH A	CH B
1+ 1-	1+ 1-

CH C	CH D
1+ 1-	1+ 1-

For Bi-amp Operation

Use two 4-wire cables, connect to:
• 1+/1- for CH A and 2+/2- for CH B on connector #1
• 1+/1- for CH C and 2+/2- for CH D on connector #3

CH A	CH B
1+ 1-	2+ 2-

CH C	CH D
1+ 1-	2+ 2-

A	B	C	D
8.0	8.0	8.0	8.0
625	625	625	625
625	625	625	625

OUTPUTS TO SPEAKERS

BRIDGED OUTPUTS

— Figure 6 —

2
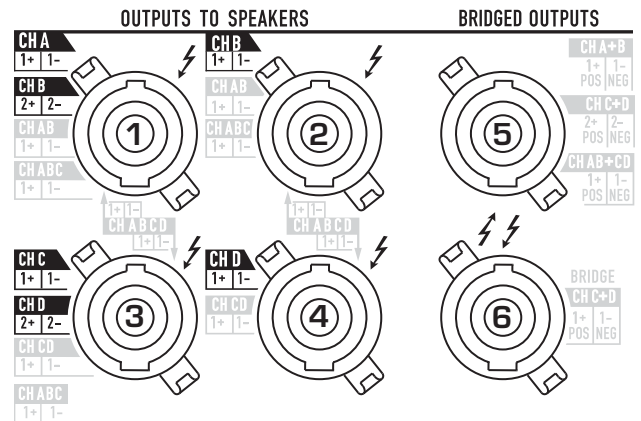
Bridged (A+B) and Separate (C D) Channels

For A+B (Bridged)

Use one 2-wire cable connect to:
• 1+/1- on connector #5

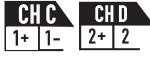**CH A+B**
1+	1-
POS	NEG

For C & D (Separate)

Use two 2-wire cables connect to:
• 1+/1- for CH C on connector #3
• 1+/1- for CH D on connector #4

CH C | 1+ | 1- | **CH D** | 1+ | 1- |
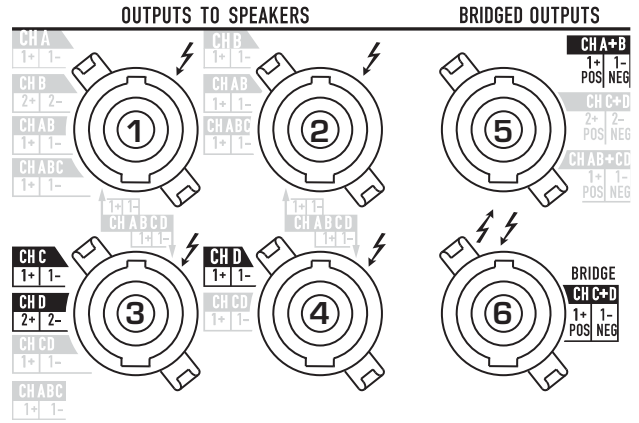
Bi-amp operation, use one 4-wire cable connect to:
• 1+/1- for CH C on connector #3
• 2+/2- for CH D on connector #3

CH C | 1+ | 1- | **CH D** | 2+ | 2 |

A+B	C	D
8.0	8.0	8.0
1250	625	625
1250	625	625

A+B	C+D	BRIDGE CH A+B		BRIDGE CH C+D	
8.0	8.0	1+	1-	1+	1-
1250	1250	POS	NEG	POS	NEG
1250	1250				

— Figure 7 —

Parallel Channels (ABCD)
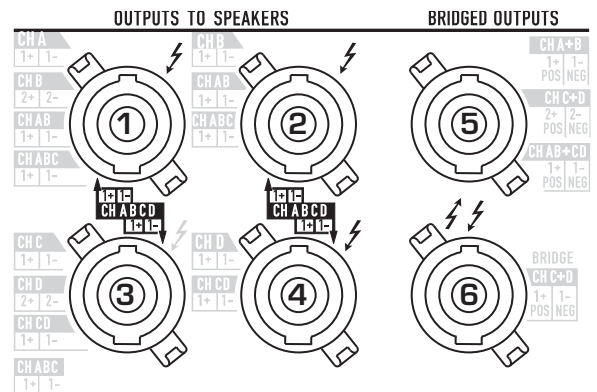
For Multiple Loudspeakers

Full power for multiple loudspeakers in parallel
Use up to four 2-wire cables, connect to:
• 1+/1- on connectors #1 thru #4
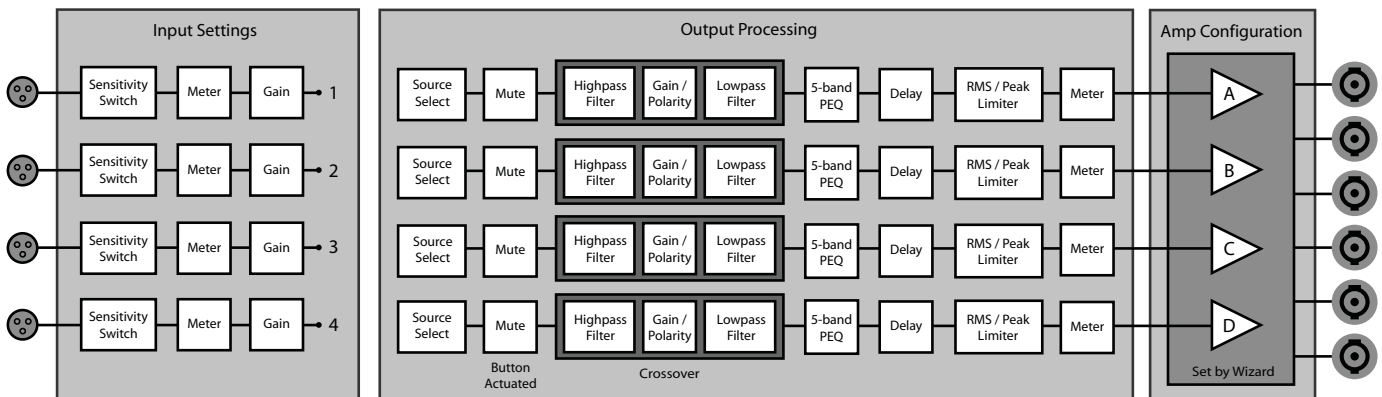
For One Loudspeaker

Full power to one loudspeaker
Use one 2-wire cable, connect to:
• 1+/1- on connector #1, #2, 3#, or #4

A B C D
8.0
2500
2500

— Figure 8 —

PLD Amplifier Signal Flow

— Figure 9 —

Amplifier Control

Off Mode

- Rear power switch is off, the amplifier is not operable. The power switch is the AC Mains disconnect.
- The power button is not illuminated.
- Turn the power switch to on. The amplifier enters the Run Mode.
- The power button is illuminated blue.

Run Mode

- From Standby or Mute All modes, press and release the power button on the front panel.
- The power button is illuminated blue.
- The amplifier is fully operable; audio can pass.

Standby Mode

- From Mute All or Run modes, press and hold the power button on the front panel.
- The power button illuminates solid red.
- The amplifier is not operable; audio will not pass.
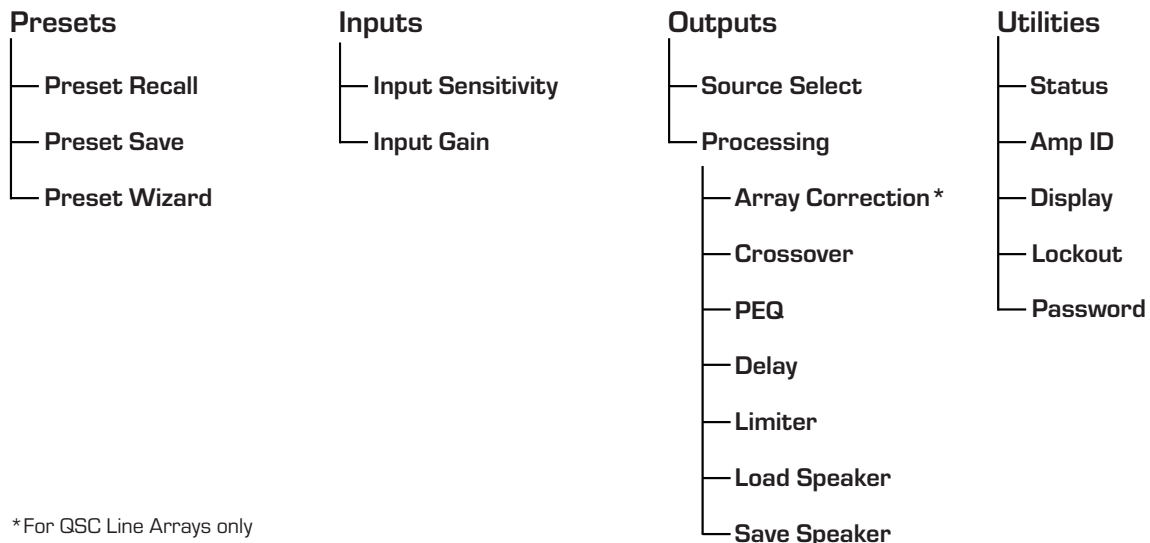
Mute All Mode

- From the Run Mode, press and release the power button.
- The power button flashes red.
- The front panel and DSP functionality are fully operable. Any changes you make are saved and take effect in the Run Mode.

Master Control Knob

- Scrolls up/down and right/left to select menu items and parameters
- Adjusts parameters

ENTER Button

- Navigates into the menu structure
- Enters the edit mode for adjusting parameters
- Confirms the changes you make

EXIT Button

- Navigates out of the menu structure and parameter selection.
- In the edit mode, pressing EXIT reverts the value back to its prior state, and exits the edit mode.

HOME Button

- If you are on the Home screen, pressing HOME displays the alternate Home screen. Pressing HOME again returns you to the primary Home screen.
- If you are on a navigation screen, pressing HOME takes you to the home screen.
- If you are on an edit screen, pressing HOME will confirm any value being edited and take you to the Home screen.

GAIN Button

- Pressing the GAIN button from any screen takes you to the output gain screen for the most recently accessed output channel.
- Pressing GAIN again confirms the gain change and returns to the screen you were on when you pressed GAIN.

SEL Buttons

- Use these buttons to navigate between input channels or output channels. For example, if you are adjusting output gain on channel A, pressing the channel B SEL button takes you to the gain adjustment for channel B.
- The SEL buttons are active only when the LCD screen is on an input or output parameter adjustment screen.

Menu Tree

Presets
— Preset Recall
— Preset Save
— Preset Wizard

Inputs
— Input Sensitivity
— Input Gain

Outputs
— Source Select
— Processing
— Array Correction*
— Crossover
— PEQ
— Delay
— Limiter
— Load Speaker
— Save Speaker

Utilities
— Status
— Amp ID
— Display
— Lockout
— Password

*For QSC Line Arrays only

— Figure 10 —

Screen Types

Informational

Informational screens, like the HOME screen, are designed to provide you with a good amount of useful information at a glance.

F1: Config - A B C D
Home (Press HOME for more information)

Full	Full	Full	Full
A - FR	B - FR	C - FR	D - FR
+1.5 dB	+3.5 dB	+1.5 dB	+1.5 dB

AC Voltage: **121 V**   AC Current: **7.2 A**
Amp Status: OK

Preset # and Configuration ←
Location and breadcrumbs ←

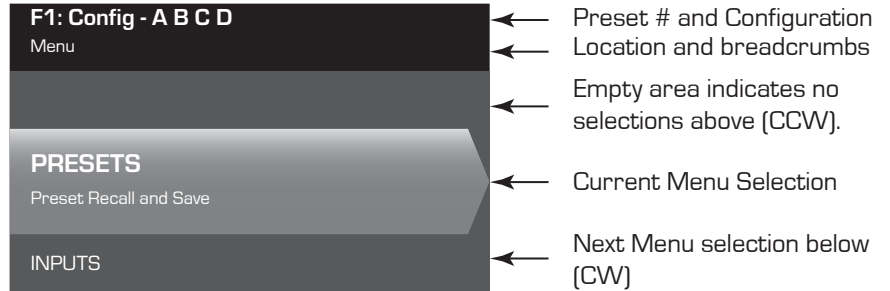Channel Configuration ←
and Gain

AC Voltage and Current ←

Amplifier Status ←
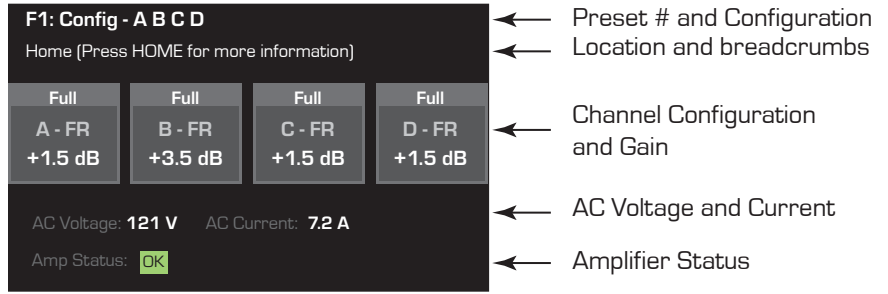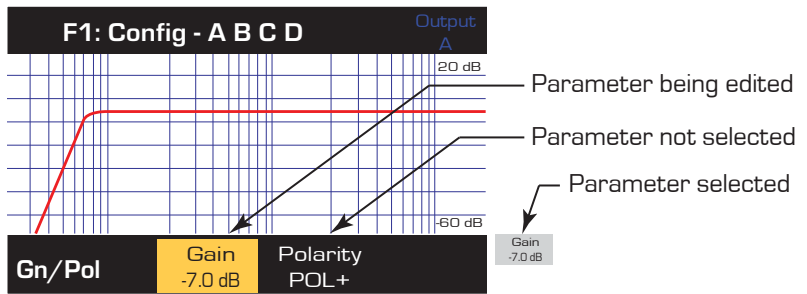
— Figure 11 —

Navigational

Navigational screens provide the means to move around and select menu items. Use the Master Control knob, ENTER and EXIT buttons for navigation. This is an example of one type of navigational screen, there are others.

F1: Config - A B C D
Menu

PRESETS
Preset Recall and Save

INPUTS

Preset # and Configuration ←
Location and breadcrumbs ←

Empty area indicates no ←
selections above (CCW).

Current Menu Selection ←

Next Menu selection below ←
(CW)

— Figure 12 —

Parameter Editing

Parameter Editing screens allow you to select, edit, and confirm changes for various system parameters. Use the ENTER button to edit and confirm changes to parameters. Use the Master Control knob to select parameter, and make adjustments. Use the EXIT button to exit the edit mode without saving changes.

F1: Config - A B C D   Output A

20 dB

-60 dB

Gn/Pol	Gain	Polarity
	-7.0 dB	POL+

Parameter being edited ←

Parameter not selected ←

Parameter selected ←

Gain -7.0 dB

— Figure 13 —

Presets

The PLD amplifiers are preset driven, so to get the most out of the amplifiers an understanding of how presets work is essential. A Preset, in the context of the PLD amplifiers, is a combination of amplifier configuration and DSP processing; as a preset is recalled it can change the output routing and wiring and/or any DSP processing.
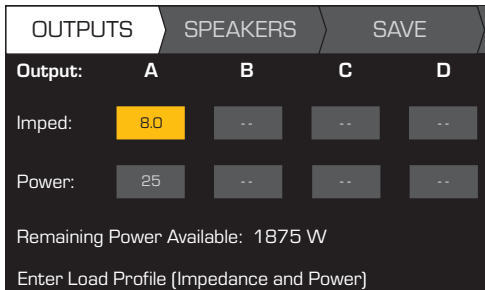
Preset Creation

A preset can be created in two ways, the first is to modify an existing preset, then save this as a new Preset; the second is to use the Preset Wizard to create a Preset from scratch.

Preset Wizard

The Preset Wizard simplifies the preset creation process, and allows the user to create a preset from the ground up. The Wizard provides a mechanism for the user to select his desired power and load. Based on these selections, the best amplifier configuration is selected and the user is then allowed to select and assign loudspeakers to each output.

To start the Wizard: **HOME > PRESETS > PRESET WIZARD > ENTER**

STEP 1 — Adjust Impedance and Power

OUTPUTS	SPEAKERS	SAVE	
Output:	A	B	C	D
Imped:	8.0	--	--	--	← Default = 8 Ω
Power:	25	--	--	--	← Default = min. for amp
Remaining Power Available: 1875 W				
Enter Load Profile (Impedance and Power)				

Adjust Impedance
Adjust Power

To confirm, press [ENTER]

Adjust Impedance based on the total loudspeaker load connected to the channel.

Possible Output Mode Combinations using the Preset Wizard

A	B	C	D
8.0	8.0	8.0	8.0
625	625	625	625

A+B	C	D
8.0	8.0	8.0
1250	625	625

A+B	C+D
8.0	8.0
1250	1250

A B + C D
8.0
2475

A B C D
8.0
2500

Modes:
A B = Separate Channels
A+B = Bridge Mode
AB = Parallel Mode

— Figure 14 —

STEP 2 — Select Output Channel for Speaker Assignment

OUTPUTS	SPEAKERS	SAVE	
Output:	A	B	C	D
Imped:	8.0	8.0	8.0	8.0
Power:	625	625	625	625
Spkr:	- - - -	- - - -	- - - -	- - - -
	Assign	Assign	Assign	Assign
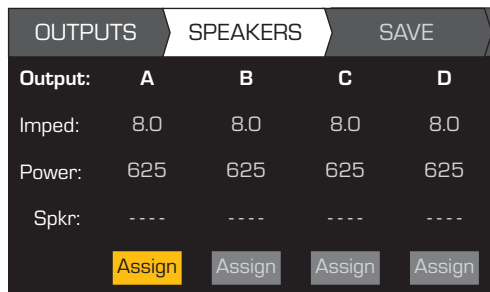
Optional: Scroll to desired Output channel

To Assign a loudspeaker, press [ENTER]

Loudspeaker assignment is optional.

STEP 3 — Select Speaker Type for Channel

OUTPUTS	SPEAKERS	SAVE
Output:	**A**	
Speaker:	WL2102 BiLFNS	
Band:	2-Way LF	
Filter:	80 Hz	
	CONFIRM	

Band and Filter selections are based on the Speaker.
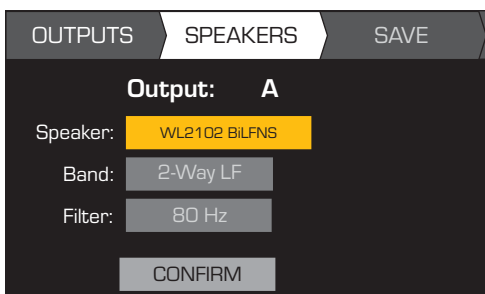
To edit Speaker, press [ENTER]

Scroll to select Speaker type

To exit edit mode and confirm, press [ENTER]

Scroll to edit Band then Filter

STEP 4 — Save Wizard Preset

OUTPUTS	SPEAKERS	SAVE
User Preset Number:		21
New Preset Name		
◀ C o n f i g - A ▶		
SAVE		
Edit preset number or press EXIT		
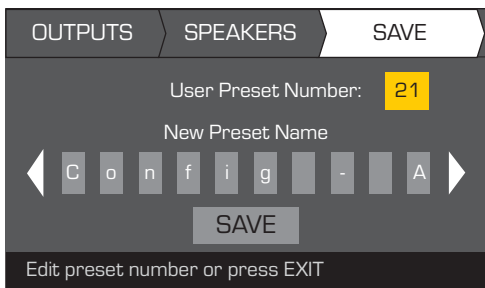
Scroll to the Save screen

To edit User Preset number, press [ENTER]

To name and save the preset,
Complete steps 1 thru 3 under
"To Save a New User Preset"

Saving Presets

Presets can be modified and saved using the Save Preset menu. You can start with a Factory Preset (F<*n*>: <*name*>), make modifications, then save it as a User Preset (U<*n*>: <*name*>). You cannot overwrite Factory Presets. There are two ways to save Presets, Overwrite an existing User Preset, or Save a new User Preset.

To Overwrite a User Preset, **HOME > PRESETS > PRESET SAVE > ENTER**

Overwrite Preset

U1: Config - A B C D

SAVE

Press ENTER to save preset

To save, press ENTER

To exit without saving, press EXIT

To confirm the save, press ENTER

To Save a New User Preset, **HOME > PRESETS > PRESET SAVE AS > ENTER**

STEP 1 — Select and Edit Preset Number
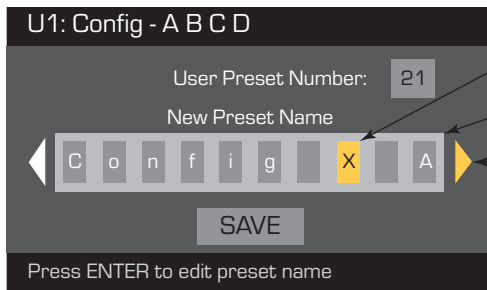
U1: Config - A B C D

User Preset Number: 21

New Preset Name

◀ C o n f i g - A ▶

SAVE

Edit preset number or press EXIT

To edit User Preset number, press ENTER

Scroll to desired number (1 thru 50)

To confirm User Preset number, press ENTER

STEP 2 — Name the Preset

U1: Config - A B C D

User Preset Number: 21

New Preset Name

◀ C o n f i g X A ▶

SAVE

Press ENTER to edit preset name

Indicates editing

Indicates New Preset Name selection

Indicates more positions

Scroll to New Preset Name

Press ENTER

Scroll to desired position

Press ENTER

Up to 21 characters, A - Z / a - z / 0 - 9 / _ / - / space

STEP 3 — Save Preset

U1: Config - A B C D

User Preset Number: 21

New Preset Name

◀ C o n f i g X A ▶

SAVE

Press ENTER to save preset

When you are finished naming, press EXIT

Scroll to SAVE
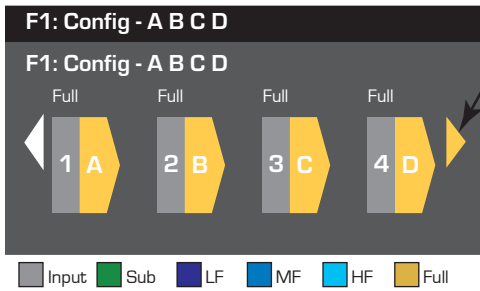
Press ENTER

To confirm Save, press ENTER

Recalling Presets

Recalling a Preset changes the configuration of the amplifier. You can recall factory or user-defined presets. To Overwrite a User Preset,
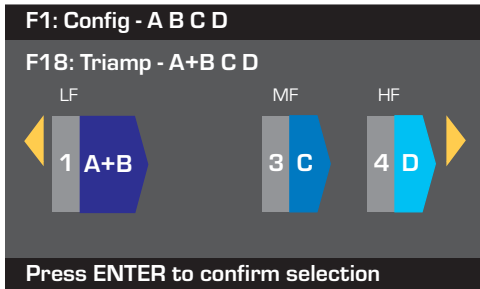
HOME > PRESETS > PRESET RECALL > ENTER

STEP 4 —

F1: Config - A B C D

F1: Config - A B C D

Full   Full   Full   Full

1 A   2 B   3 C   4 D

Indicates more Presets

Scroll to desired Preset
20 Factory, up to 50 User-defined

Input   Sub   LF   MF   HF   Full

STEP 5 — Confirm Selection

F1: Config - A B C D

F18: Triamp - A+B C D

LF   MF   HF

1 A+B   3 C   4 D

Press ENTER to confirm selection

To select the Preset configuration, press   ENTER

To Confirm the selection, press   ENTER

Bottom message changes to: "Recalling Preset now..."
You may hear relays clicking

Utilities

The Utilities section provides the following amplifier information and functionality:

- STATUS
- ID
- Serial Number
- LOCKOUT
- PASSWORD.

Please refer to the PLD User Manual for complete details.

QSC™

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If you would like a full copy of the PLD User manual, visit the QSC Audio Products website at www.qsc.com, or contact Customer Service +1 714 957-7150 or toll free (USA only) (800) 772-2834 to receive a copy by mail.

Si desea obtener una copia completa del manual del usuario de la PLD, visite el sitio web de QSC Audio Products en www. qsc.com, o póngase en contacto con el Servicio al Cliente al +1 714 957-7150 o sin costo (sólo en EE.UU.) al (800) 772-2834 para recibir una copia por correo.

Pour obtenir un exemplaire complet du manuel d'utilisation de la PLD, allez sur le site Web QSC Audio Products à www. qsc.com ou contactez le service clientèle au +1 714 957-7150 ou au (800) 772-2834 (numéro vert - USA seulement) pour recevoir un exemplaire par courrier.

Ein vollständiges Exemplar des Benutzerhandbuchs für die PLD finden Sie auf der QSC Audio Products-Website unter www. qsc.com. Sie können sich unter +1 714 957-7150 oder unter der (nur in den USA) gebührenfreien Nummer +1 (800) 772-2834 auch an den Kundendienst wenden, um sich ein Exemplar zuschicken zu lassen.

如果您需要 PLD 产品用户手册的完整副本，请访问 QSC 音频产品网站 www.qsc.com，或致电客户服务部门 +1 714 957-7150，或拨打免费电话（仅限美国）(800) 772-2834 通过邮件获取副本。