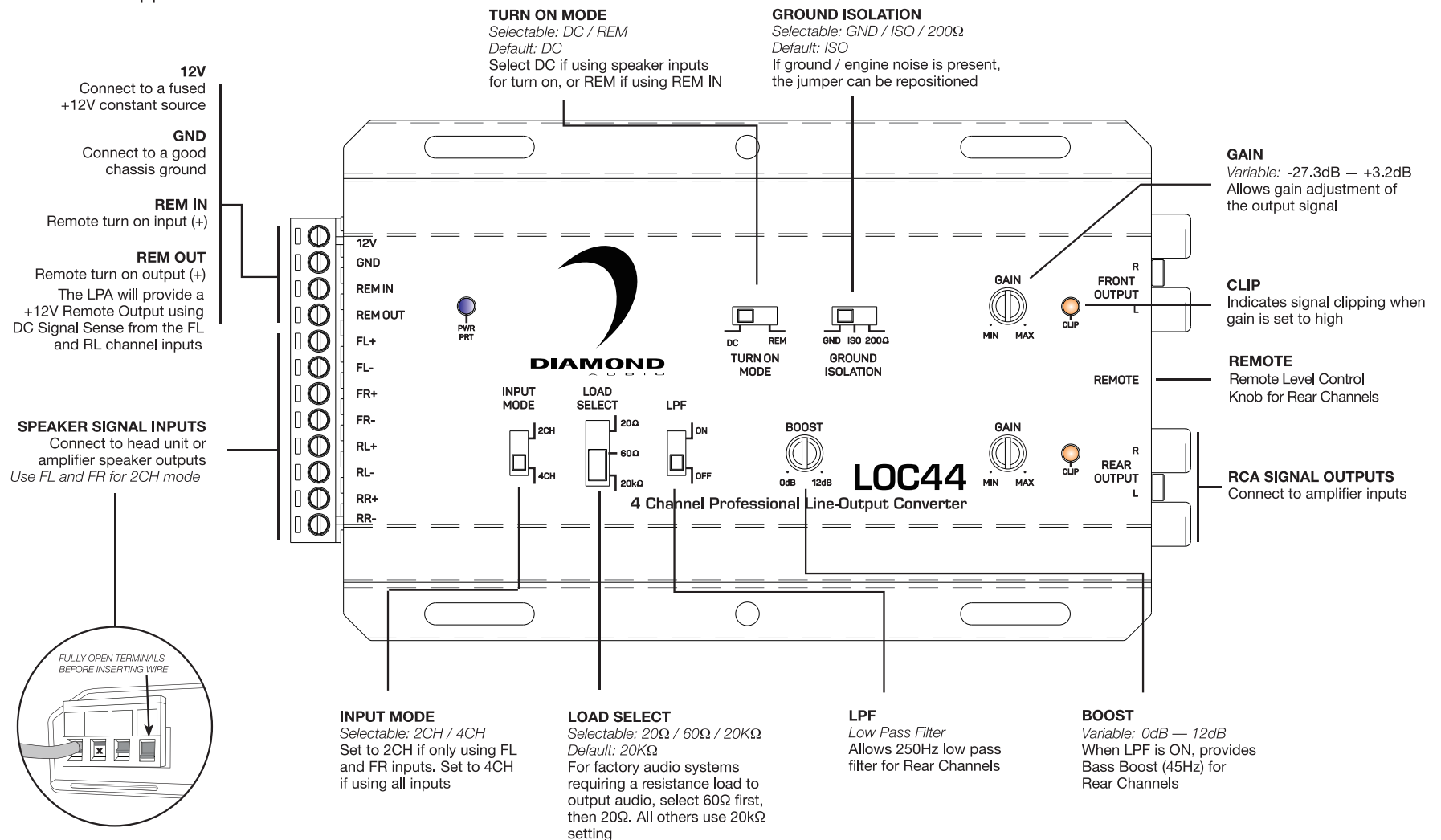## Quick Start Guide

The Diamond Audio LOC44 can be used to add amplifiers to an audio system that does not have RCA outputs or when replacing OEM Radio and retaining the factory amplified system. Variable Gain Controls with Clipping Indicators, Selectable Ground Isolation and Load Select features ensure a pure, noise-free signal for any type of audio system.

This Quick Start Guide will get you going, but if you need additional help or information, please visit our website or contact Technical Support.
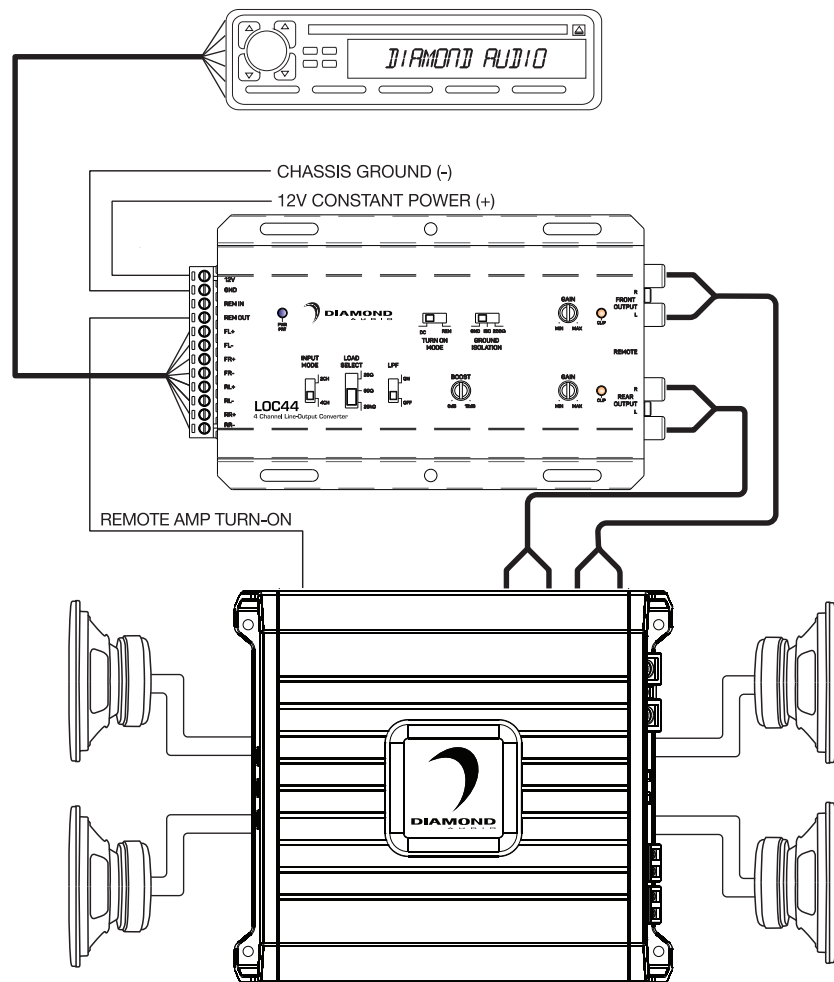
Features & Wiring Information

TURN ON MODE
Selectable: DC / REM
Default: DC
Select DC if using speaker inputs
for turn on, or REM if using REM IN

GROUND ISOLATION
Selectable: GND / ISO / 200Ω
Default: ISO
If ground / engine noise is present,
the jumper can be repositioned

12V
Connect to a fused
+12V constant source

GND
Connect to a good
chassis ground

REM IN
Remote turn on input (+)

REM OUT
Remote turn on output (+)
The LPA will provide a
+12V Remote Output using
DC Signal Sense from the FL
and RL channel inputs

SPEAKER SIGNAL INPUTS
Connect to head unit or
amplifier speaker outputs
Use FL and FR for 2CH mode

GAIN
Variable: -27.3dB — +3.2dB
Allows gain adjustment of
the output signal

CLIP
Indicates signal clipping when
gain is set to high

REMOTE
Remote Level Control
Knob for Rear Channels

RCA SIGNAL OUTPUTS
Connect to amplifier inputs

12V
GND
REM IN
REM OUT
FL+
FL–
FR+
FR–
RL+
RL–
RR+
RR–

PWR PRT

DC REM
TURN ON MODE

GND ISO 200Ω
GROUND ISOLATION

INPUT MODE
2CH
4CH

LOAD SELECT
20Ω
60Ω
20kΩ

LPF
ON
OFF

BOOST
0dB 12dB

GAIN
MIN MAX

R FRONT OUTPUT L

CLIP

REMOTE

GAIN
MIN MAX

CLIP

R REAR OUTPUT L

LOC44
4 Channel Professional Line-Output Converter

*FULLY OPEN TERMINALS
BEFORE INSERTING WIRE*

INPUT MODE
Selectable: 2CH / 4CH
Set to 2CH if only using FL
and FR inputs. Set to 4CH
if using all inputs

LOAD SELECT
Selectable: 20Ω / 60Ω / 20KΩ
Default: 20KΩ
For factory audio systems
requiring a resistance load to
output audio, select 60Ω first,
then 20Ω. All others use 20kΩ
setting

LPF
Low Pass Filter
Allows 250Hz low pass
filter for Rear Channels

BOOST
Variable: 0dB — 12dB
When LPF is ON, provides
Bass Boost (45Hz) for
Rear Channels

Installation

Speaker level input from a radio to RCA level output for an aftermarket amplifier is the most commonly used configuration for the LOC44. This will create RCA level outputs from a radio that only has speaker level outputs.

Below, the 4 speaker outputs from the factory radio are disconnected from the speakers and connected to the Speaker Signal Inputs of the LOC44. The REM OUT is connected to the amplifiers turn-on. When the radio is turned on the LOC44 will automatically turn on the amplifier. The RCA Signal Outputs from the LOC44 are connected to the amplifiers inputs. The speaker outputs from the aftermarket amplifier are then connected to the speakers.

CHASSIS GROUND (-)
12V CONSTANT POWER (+)
REMOTE AMP TURN-ON

For more installation examples, tech tips and updates, visit the DIAMOND AUDIO product pages on DiamondAudio.com

Specifications

Model Number	LOC44
Channels	4 IN / 4 OUT
Operating Voltage	9V—16V
Max Input Level (20kHΩ Load Setting)	40V / 400W @ 4 ohms
Auto Turn On	DC Offset / Remote
Output Voltage MAX @ 13.8V	9.5V RMS
Turn On Trigger (DC-Offset)	3V—7V
Load Input Impedance	20Ω, 60Ω, 20KΩ
Output Impedance	<120Ω
Variable Gain Adjustment	-28dB—+1dB
Signal To Noise	>110dBA @ 6.4V Output
THD+N	< 0.01%
Input Sensitivity	0.5V—40V
Frequency Response	10Hz—20kHz
Current Draw (Max)	110mA
Low Pass Filter	<250Hz (Rear Channels)
Bass Boost	0dB to +12dB (Rear Channels)
Clip Indicator	YES
Remote Level Control	0dB—30dB
Chassis Type	Stamped Steel
Terminal Gauge	18AWG / Quick Connect

Technical Support
Phone: 213-261-4161
Email: ra@dat-cvm.com

DIAMOND AUDIO