



Primare High Level Subwoofer Hook Up

November 2021

Notes

A number of industry leading subwoofer manufacturers recommend using high-level, or speaker-level, connection in order to derive the best performance from their product and the speaker system being supported. There are many valid reasons for this, most simply expressed by the thought that the subwoofer is being sent precisely the same signal as the speakers, which allows for better integration of speaker and sub due to timing and timbre characteristics being identical.

Standard recommended practice is to connect the red subwoofer cable to the positive speaker terminal of one channel, the yellow lead to the positive speaker terminal of the other channel, and the black lead being connected to whichever of the negative or outputs is most convenient.

Note: our recommendation is to always connect the black wire to the ground collar of an RCA plug or the ground post of an XLR and connect to any unused input on the amp or preamp, rather than using the negative speaker output.

However, certain amplifiers' speaker output topologies, including some from Primare, prevent the use of this connection scheme, particularly with a single subwoofer, resulting in the standard high-level connection scheme not providing the correct signal to the subwoofers.

In those instances where the standard high-level connection scheme is not an option, the most obvious alternative is to use low-level connection from the pre-amplifier output of the integrated amp or preamplifier, allowing for excellent performance.

However, some subwoofers have only a single low-level input. So, if a pair of subs is not an option, it is possible to use a Y-adapter to create a single input, but this runs the small risk of creating a mono signal for the main output as well. The easiest thing to do would be to connect an inexpensive y-adapter and cable to try the experiment and see if this is the case in your system.

If this does not work, we have had many customers reporting excellent results connecting to one channel, either one of the low-level variable outputs or, for high-level connection, the left speaker output.

Below are listed the recommended connection schemes for Primare amplifiers:

Stereo Amplifiers

A60/A32

One sub-bass system in stereo configuration:

- Red to one positive speaker terminal
- Yellow to the other positive speaker terminal
- Black to ground on RCA collar or XLR pin into any unused amp or preamp input

I15/I25/I35/A35.2/I32/A34.2

One sub-bass system: use stereo low-level pre-amp output connection.

Two sub-bass systems:

- Right channel connection:
 - Red and yellow cables connected to Red (+) speaker output
Note: combined yellow and red wire bundle may provide too much single input. If this is the case, simply disconnect one of the cables, red or yellow, and cut off the bare wire (or cover with electrical tape) on the unused cable.
 - Black to RCA collar or XLR ground pin to unused input on amp or preamp, or float if no hum is heard from the sub and it is getting signal
- Left channel connection:
 - Red and yellow cables connected to Black (-) speaker output
Note: combined yellow and red wire bundle may provide too much single input. If this is the case, simply disconnect one of the cables, red or yellow, and cut off the bare wire (or cover with electrical tape) on the unused cable.
 - Black to RCA collar or XLR ground pin to unused input on amp or preamp, or float if no hum is heard from the sub and it is getting signal.
 - Note: phase setting will need to be the opposite of right channel setting

A35.2/A34.2 Bridged - when using a pair of A34.2 amplifiers bridged to mono, one sub-bass system can be connected in a stereo configuration using the following scheme:

- Red to the positive speaker terminal of one amplifier
- Yellow to the positive speaker terminal of the other amplifier
- Black to ground on RCA collar or XLR pin into any unused amp or preamp input

Multi-Channel Amplifiers

In the case of Primare multi-channel amps a variation of the standard connection scheme can be used as long as careful selection of specific output channels is observed.

SPA23 five-channel integrated amplifier

Main front left and right channels - the red speaker output is active, and the black speaker output is ground, so the follow this connection scheme:

- Red to one positive speaker terminal
- Yellow to the other positive speaker terminal
- Black to ground on RCA collar or XLR pin into any unused amp or preamp input

Surround left and right channels - the black speaker output is active and red speaker output is ground, so follow this connection scheme:

- Red cable to right Black [active] speaker output
- Yellow cable to left/Black [active] speaker output
- Black cable to right or left Red [ground] speaker output [or RCA collar/XLR ground pin to unused input on amp or preamp]
- Note: phase setting may need to be the opposite of the main channel setting

Center channel - the black speaker output is active and red speaker output is ground, so follow this connection scheme:

- Red and yellow cables connected to Black (-) speaker output

Note: combined yellow and red wire bundle may provide too much single input. If this is the case, simply disconnect one of the cables, red or yellow, and cut off the bare wire (or cover with electrical tape) on the unused cable.

- Black to RCA collar or XLR ground pin to unused input on amp or preamp
- Note: phase setting may need to be set to the opposite of the main channel setting

A30.7 multi-channel amplifier

Note: channels 1,2,3,4 are in phase, and opposite to 5,6,7.

- 1,2,3,4 – the black speaker output is active, and the red speaker output is ground:
 - Red cable to right Black [active] speaker output
 - Yellow cable to left/Black [active] speaker output
 - Black cable to right or left Red [ground] speaker output [or RCA collar/XLR ground pin to unused input on amp or preamp]
- 5, 6, 7 red speaker output is active and black speaker output is ground:
 - Red cable to right/Red [active] speaker output
 - Yellow cable to left/Red [active] speaker output
 - Black cable to right or left to Black [ground] speaker output [or RCA collar/XLR ground pin to unused input on amp or preamp]

This results in the following system connection recommendations:

- 5, 6, or 7-channel system
 - Channels 5 and 7 main left and right – standard hook-up scheme.
 - Channel 6 centre - standard hook-up scheme for single sub per channel.
 - Channels 1,2, 3, 4 rear channels in either a 5, 6, or 7.1 system configuration with connection as described below:
 - Red cable to right Black [active] speaker output
 - Yellow cable to left/Black [active] speaker output
 - Black cable to right or left Red [ground] speaker output [or RCA collar/XLR ground pin to unused input on amp or preamp]
- Bi-amp main left and right 5-channel system.
 - Channels 1,2, 3, 4 front left and right channels with pairs of outputs connected to bass and treble to respective inputs of the partnering speakers according to the following scheme:
 - Red cable to right Black [active] speaker output
 - Yellow cable to left/Black [active] speaker output
 - Black cable to right or left Red [ground] speaker output [or RCA collar/XLR ground pin to unused input on amp or preamp]
 - Channels 5 and 7 rear channels - standard hook-up scheme.
 - Channel 6 centre channel – standard hook-up scheme for single sub per channel.
- Note: phase setting for channels 1-4 may need to be set to the opposite of channels 5-7.