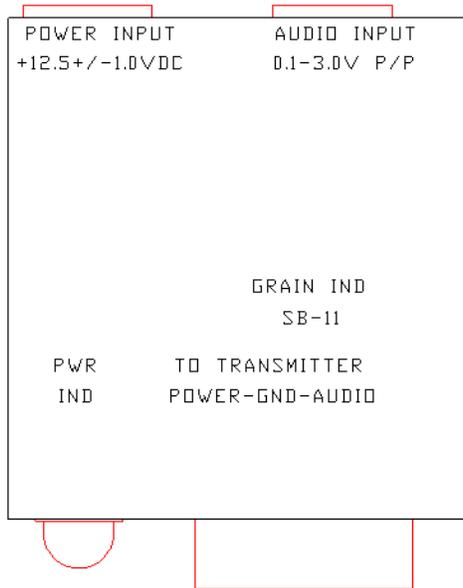


GRAIN INDUSTRIES
MODEL SB -11
INTERCONNECT BOARD
Made in USA
INSTALLATION INSTRUCTIONS



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**GRAIN INDUSTRIES MODEL SB-11
INTERCONNECT BOARD
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Introduction

The Grain Industries model GI-105 Interconnect Board provides a simple and convenient method for connecting the GI-100 transmitter to the power supply and audio source; and provides a power supply indicator.

Equipment Supplied

Interconnect Board Assembly

Power Supply for transmitter with line cord
(120 VAC input, 12 VDC output with barrel connector 5.5mm OD, 2.5mm ID, center contact is positive)

Screw lock connector for fastening wires from transmitter to Studio Controller (shipped installed in Board Assembly)

Installation

After the transmitter unit is properly installed following the instructions and precautions in the transmitter's Operator's Manual, connect the cable from the transmitter to the screw lock connector. The positions of the three wires are marked on the Interconnect Board and are: Audio Input, Common Ground, and +12 VDC Power. The ground is the shield wire from the transmitter cable and the darker colored of the two wire is power and the lighter colored is the audio, in accordance with the installation instructions for the transmitter. Plug the connector into the mating connector on the Interconnect Board.

Plug the barrel connector of the power supply into the Power jack on the Interconnect Board. Plug the power supply into an AC outlet. Check to see that the yellow PWR indicator is illuminated, indicating that the system has power.

Connect a mono audio source to the RCA jack on the Interconnect Board. If there are problems doing this, refer to the section on Audio Adapters and Cables.

Tune an AM radio to the frequency that the transmitter is set for. Set the volume of the audio source so that it can be heard through the radio. Turn the volume of the source down so that the radio volume decreases, then turn it up again to full volume. Do not increase the volume setting of the source beyond the point where the volume of the radio remains stable. This setting is not very sensitive because of the automatic modulation control in the transmitter, but it should not be set higher than necessary, in order to avoid distortion.

Operation

Once the Interconnect Board has been installed, it will operate unattended. If the audio source is changed, the volume of the new source should be adjusted as described above. Monitoring of the actual transmitted signal by using a radio is also suggested, but the speaker of the radio should never be placed where an open microphone might pick it up and cause unpleasant feedback.

Audio Adapters and Cables

The Interconnect Board is equipped with an RCA audio jack for its audio input. This has been an industry standard for many years, but there are other common audio connectors as well. The audio source that you have may not have an RCA output. While it is impossible to anticipate all of the possible combinations, adapters are readily available to make connections to almost any audio source.

One thing to keep in mind is that AM transmitters do not process stereo signals and if you have a stereo source, you must have an adapter that combines the two stereo channels into a single mono channel for the Interconnect Board. In some cases, you may find that it is easier to use two adapters than to try to find a single adapter that will fit your needs.

If your audio source does not have an output cable, you may need that as well. In some cases, the cable may have different connectors on each end, so that it will serve as an adapter as well as a cable. A good audio supply center (audiogear.com, for example) will most likely have suitable equipment to meet your needs. Be sure to find out the type of connector that your audio source has, and whether it is mono or stereo. If you need a cable, determine what length you need. From that, you need to cable and adapt as required to the RCA jack on the rear of the Studio Controller.

Following is a sample listing of possible scenarios and solutions using readily available equipment. If you have a situation for which you cannot find a solution, contact support@grainind.com.

All of the connections in the listing are made using a combination of four adapters and three cables (In common usage, a Plug is often referred to as male and a Jack as female):

- #1 Adapter Cable, 2 RCA Jacks to 1 RCA Plug (combiner)
- #2 Adapter Cable, 1/4" Stereo Jack to 2 RCA Plugs
- #3 Adapter, Stereo Mini Jack to 1/4" Stereo Plug
- #4 Adapter, Stereo Mini Jack to Stereo Mico Plug
- #5 Extension Cable, Mini Plug to Mini Plug
- #6 Extension Cable, 1/4" Stereo Jack to 1/4" Stereo Jack
- #7 Extension Cable, RCA Plug to RCA Plug

Audio Source	to	Adapter	to	Cable	to	Adapter(s)
1/4" Stereo Jack		none		#6		#2 to #1
1/4" Stereo Plug		none		none		#2 to #1
1/4" Mono Jack		none		#6		#2 (note 1)
1/4" Mono Plug		none		none		#2 (note 1)
Mini Stereo Jack		none		#5		#3 to #2 to #1
Mini Stereo Plug		none		none		#3 to #2 to #1
Mini Mono Jack		none		#5		#3 to #2 (note 1)
Mini Mono Plug		none		none		#3 to #2 (note 1)
Micro Stereo Jack		#4		#5		#3 to #2 to #1
RCA Mono Jack		none		#7		none
RCA Mono Plug		none		none		none
RCA Stereo Jacks (2)		none		#7 (2 req'd)		#1
RCA Stereo Plugs (2)		none		none		#1

Note 1: When using adapter #2 from a Mono source, only the RCA plug for the TIP should be used. The RING plug is left unused.