



Defender DC-147 Low Voltage Switch Interface



The Defender DC-147 is a modern safety upgrade to any console organ that is compatible with a 147-type Leslie® speaker. Intentionally designed for easy installation, the DC-147 converts the potentially lethal AC voltage on the speed switch to a safe 12VDC.

Installation is as simple as rewiring the speed switch and inserting the DC-147 between the switch and the Leslie® 147 connector.

BookerLAB offers a variety of configurations for the Defender, with an option to include a 1 1/4" TRS jack for either 2- or 3-speed usage. Defender can also be utilized in a console as a "connect kit."

Benefits:

- Removes lethal AC voltage from the speed switch, eliminating the potential for shock due to a faulty switch
- Compatible with 120/220 VAC for international AC rating

Features:

- Compatible with 147 (6W) type amplifiers with 2 or 3-speed operation
- Module can be added to the 147 connector box, LV26-1
- Enclosure can be mounted inside the console
- Includes wiring to support existing connections
- Small footprint: 2"x3" module

Options:

- DC-147 Defender Module
- DC-147 with 1/4" TRS adapter for 3-speed 147 amplifiers
- DC-147-OEM Circuit Board without Enclosure



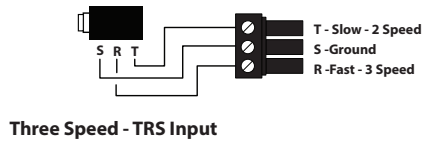
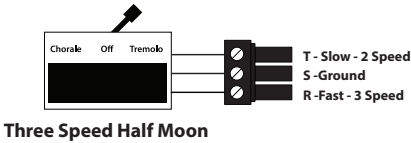
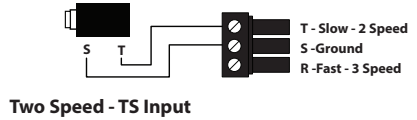
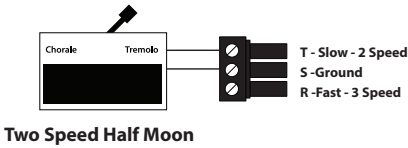
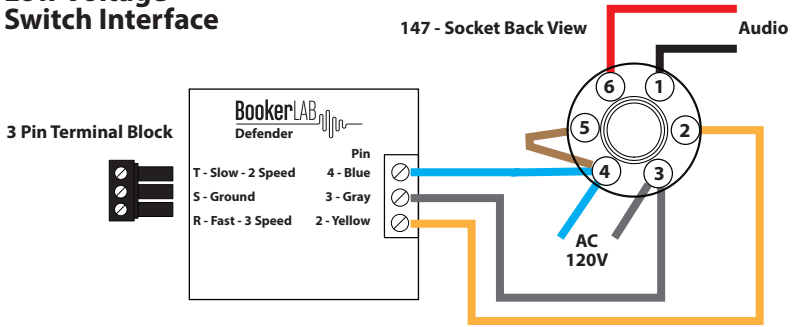
3 Pin Terminal Block Connector

BookerLAB was created to maintain the quality of vintage musical instruments and supporting equipment, specifically the Leslie® Speaker Cabinet. BookerLAB offers a range of products for interfacing gear, conversion, motor control, and amplification. With products built solely in America, we've developed these unique systems in collaboration with music industry partners. Explore our story at www.bookerlab.com.

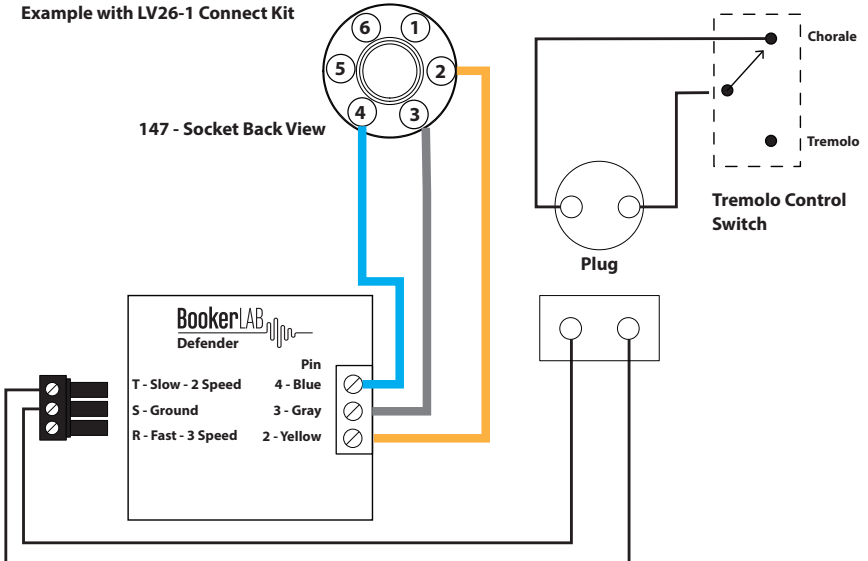
Please visit BookerLAB.com for more configurations and technical specifications.

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Example with LV26-1 Connect Kit



Defender DC-147 and the 6-Pin 147 System



Installation of the Defender DC-147 requires electrical knowledge and experience. Always ensure the power is off and the unit is unplugged before starting installation.

The Defender is only compatible with correctly wired 147 systems. Pins 4 and 5 are connected and 4 goes to one side of AC mains, normally the Blue wire. Gray is the other side of AC mains and goes to pin 3. Pin 2, Yellow, is used to activate the speed relay and is switched from pin 3.

Refer to the provided instructions and wiring diagram for successful installation and operation.

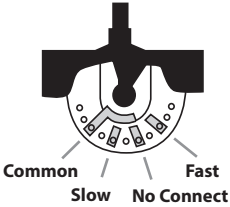
147 Unbalanced Interface (AKA Wurlitzer or 6W)

Pin #	Color	147 Signal
1	Black	Ground
2	Yellow	Relay Common
3	Gray	AC Common
4	Blue	AC Hot
5	Brown	Relay Switched
6	Red	Audio

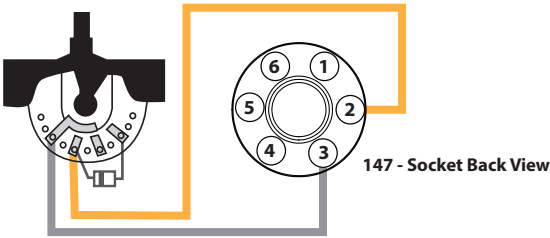
Note: If your setup currently uses a Solid State Relay to implement the 3 speeds—Fast, Slow, and Stop—then your half-moon switch will have a diode soldered from the Fast lug to the opposite Slow lug. You must remove the diode and connect a wire from the Fast lug to the Defender Fast Terminal Block input, or to the Ring terminal on a 1/4" plug.

Defender DC-147 and the 6-Pin 147 System

3 Speed Switch



3 Speed Switch with Diode Connected to 147 with Solid State Relay



3 Speed Switch without Diode Connected through Defender to a 147

