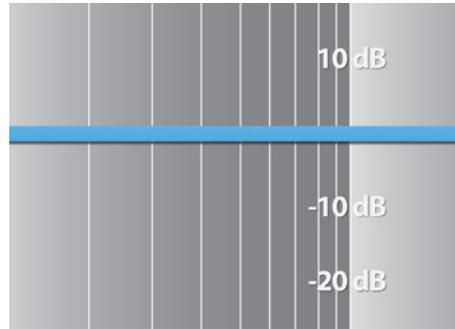




COUNTRYMAN ASSOCIATES INC  
**TYPE 85**  
 ACTIVE DIRECT BOX

An industry standard with road-proven ruggedness, the Type 85 connects any high-impedance instrument pickup, even piezo pickups, to a balanced microphone (XLR type) input. It provides a strong, clean signal to the mix board without adding noise or distortion. It won't change the tone or volume you hear from your own amp like passive direct boxes. It won't break just when you need it. It won't develop a dead battery on stage because it runs on Phantom power.



### Indestructible

Connectors and switches are recessed into a single-piece extruded case with extra-thick walls. You can literally drive a truck over a Type 85 without hurting it. Internal electronics are molded in a solid epoxy block and fully protected against electrical damage. The input can withstand 220 V AC all day long and static spikes up to 20,000 V.

### Battery or Phantom Power

Most mixing consoles provide 48 V Phantom power and the Type 85 will automatically use it. If you don't have Phantom power, the Type 85 will run for about 400 hours from a single internal 9 V battery.

### Simply Exceptional Sound

The Type 85 uses only hand-selected high-quality discrete components woven into a single-ended class A circuit, much like a classic tube microphone preamp. The Type 85 has an incredibly smooth, sweet sound. Unlike many active DI boxes, the Type 85 can always isolate ground, even when running on Phantom power, to help eliminate hum and buzz from ground problems.

The Type 85 doesn't have roll off switches or effects. Adjusting the frequency content of a sound source is an artistic decision best done at the mixing location where you can hear the results and easily make changes.

### Frequency Response:

20 Hz to 20 kHz +/- 1 dB

### Noise Floor (shorted input):

.63  $\mu$ V RMS (-122 dBu)

### Power Requirements:

9 V battery or .4 mA @ 48 V Phantom

### Input Protection:

220 V RMS and 20,000 V static discharges

### Voltage Gain:

-10 dB in Pickup mode  
 -46 dB in Speaker mode

### RF Filtering:

250 kHz Low Pass on input  
 30 kHz Low Pass on output

### Maximum Input Level:

5 V P-P in Pickup mode

300 V P-P in Speaker mode

Equal to 2,800 Watts into 4 Ohms

### Distortion:

.018% THD @ 1 kHz and 1 V P-P in  
 .08% IMD 10 kHz/60 Hz 1 V P-P in

### Input Resistance:

10 M $\Omega$  in Pickup mode (10 times the input resistance of a typical guitar amplifier.)

### Input Capacitance:

160 pF, equal to two meters of low-capacitance guitar cable.

### Dimensions:

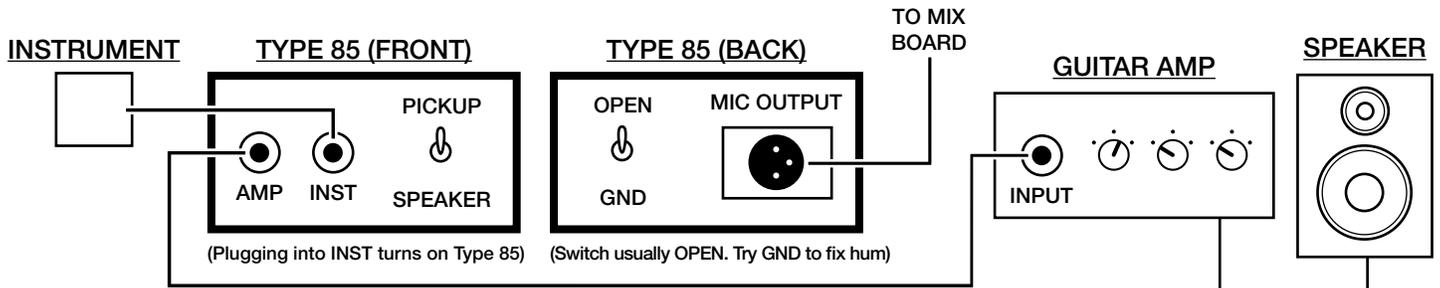
1.75 in x 3 in x 5 in (45 mm x 77 mm x 127 mm)

**Weight:** 18.5 oz (.52 kg)

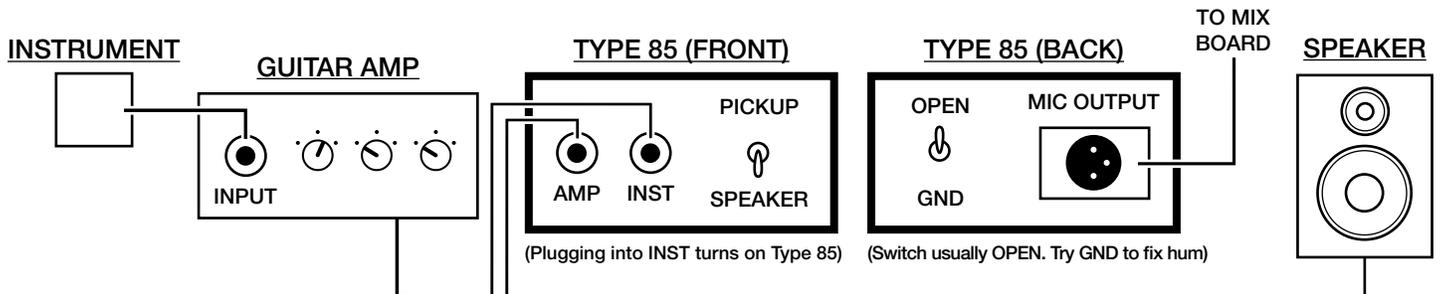
# Type 85: Frequently Asked Questions

How do you hook up a Type 85?

## Typical Bass Guitar Setup



## Typical Lead Guitar Setup



## I have just a guitar (or other signal source) and no amplifier. How do I hook it up to the Type 85?

All signal sources must go to the “INST.” jack because inserting a plug into the “INST” jack turns the TYPE 85 on. The “AMP.” jack is simply connected in parallel with the “INST” jack but it does not operate the power switch.

## How do you use the “PICKUP-SPEAKER” switch?

Use the “SPEAKER” position when the TYPE 85 is connected to the speaker output of an amplifier and the “PICKUP” for all other sources including preamp outputs.

## How many watts can the TYPE 85 handle?

The TYPE 85 is so well protected it can handle the full output of any amp without damage. In “SPEAKER” mode the TYPE 85 will distort at the equivalent of 1,700 watts into 8 ohms.

## How does the TYPE 85 use Phantom power?

If your microphone input has 48 volt Phantom Power, the TYPE 85 will automatically switch off its battery and use the phantom. The TYPE 85 will operate with phantom voltages as low as 24 volts but you will need to remove its internal battery.

## How many hours will the TYPE 85 battery last?

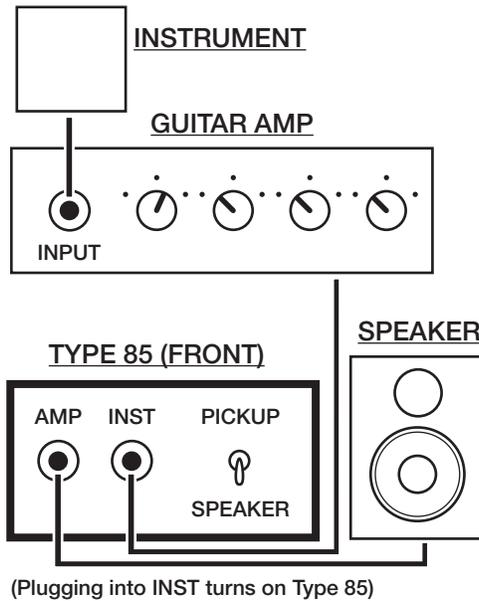
A fresh alkaline 9 V battery will run the Type 85 for 400 hours. That’s 2 months running 8 hours a day but only 2 weeks running all the time so it’s best to turn the TYPE 85 off when not in use. Unplugging the plug from the TYPE 85 “INST.” jack turns off the battery. Unplugging the “INST.” input does not turn off the TYPE 85 when it’s running on Phantom power but it shorts the input to ground to reduce noise.

# Using Your Type 85 Direct Box

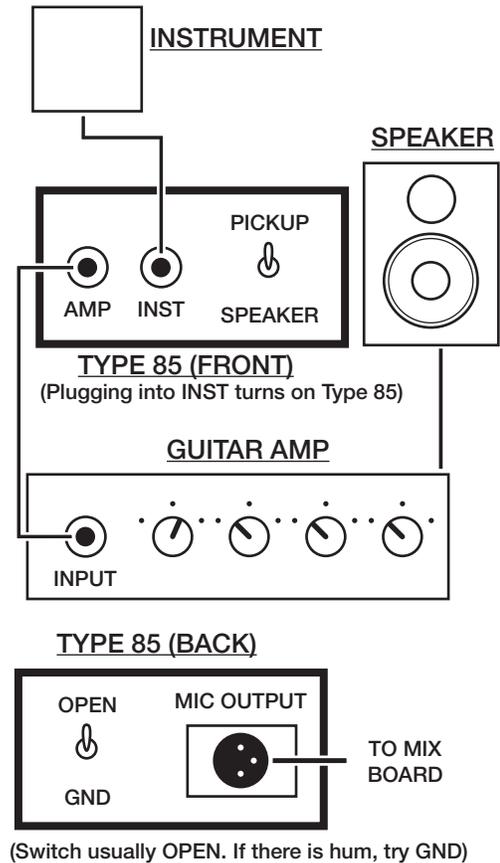


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**sales@countryman.com**

## Typical Lead Guitar Setup



## Typical Bass Guitar Setup



## Type 85 Frequently Asked Questions

### Q. How do you hook up a Type 85?

A: The diagrams on the next two pages show you the two most common ways to connect your Type 85.

### Q. I have just a guitar (or other signal source) and no amplifier. How do I hook it up to the Type 85?

A: All signal sources must go to the "INST." jack because inserting a plug into the "INST" jack turns the TYPE 85 on. The "AMP." jack is simply connected in parallel with the "INST" jack but it does not operate the power switch.

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### Q. How do I turn the TYPE 85 off?

A: Unplugging the plug from the TYPE 85 "INST." jack turns off the battery. Unplugging the "INST." input does not turn off the TYPE 85 when it's running on Phantom power but it shorts the input to ground to reduce noise.

### Q. I have hum or buzz. What should I do?

A: Try both positions of the "GND." switch. If you are using an amplifier, try different positions on its grounding switch. Walk around the stage or room with your instrument and see if the buzz is worse near other equipment or lights. If it is, you can ground them or unplug their power cords if they are not in use. If the TYPE 85 is sitting on or near another piece of electronics equipment, move the TYPE 85 to see if a very strong hum field is penetrating the TYPE 85 internal shields. Power amplifiers, light dimmers, TV sets and video monitors can generate especially strong fields.

## Type 85 Specifications

### Input Impedance

Pickup mode: 10 MOhms  
 Speaker mode: 10kOhms

### Output Source Impedance:

100 Ohms

### Output Load Impedance:

100 Ohms to infinity

### Gain:

Pickup mode: -12 dB  
 Speaker mode: -48 dB

### Maximum Input Level:

Undistorted: 5Vpp  
 Without damage: 220V AC/DC, 15kV Peak

### Frequency Response:

20Hz to 20kHz  $\pm$  0.5dB

### Noise:

Equivalent to 2.0uV maximum at input  
 BW=15kHz and the input shorted

### High Frequency Rolloff:

-3dB at 30kHz falling 12dB/Oct.

### Distortion:

0.05% at 1kHz and 1Vpp. input

### Power Requirements:

+48V at 0.4mA on microphone line or 1.5mA from a 9V battery (300 HourLife)

### Dimensions:

1 3/4" (45mm) x 3" (77mm) x 5" (127mm)

### Weight:

18 1/2 oz (520g)