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## **Introduction**

Congratulations, and thank you for your purchase of the DOD direct box. The AC 260,265,275, and 285 all solve distortion problems normally associated with using high impedance sources with low impedance inputs. The product line begins with the AC 260 which is a basic easy to use direct box and progresses into the AC 285 with a cabinet emulator. The features, operation, and specifications literature have been individualized for each box. Determine which box you have and consult the following text until you reach the section that is specific to your box.

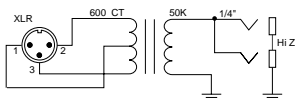
### **AC 260 Direct Box**

#### **Features of the AC 260**

- Allows a hi impedance unbalanced source to directly feed a low impedance balanced input.
- Low distortion
- Low noise
- Rugged metal chassis

#### **Operation of the AC 260**

- Connect the output of the high impedance source to the input of the AC260.
- Connect the low impedance output of the AC260 to a mixing console or other low impedance input.  
Connect the unbalanced 1/4" tip-sleeve output to a high impedance input.



**Block Diagram AC260**

## Specifications of the AC 260

Low Impedance In/Output: 600 ohms center tapped (balanced).

Low Impedance Connector: XLR type jack.

High Impedance In/Outputs: 50K $\Omega$ .

High Impedance Connectors: 2- 1/4" mono phone jacks

## AC 265 Direct Box

### Features of the AC 265

- Connects high impedance (50K ohms) to low impedance (600 ohms), or low impedance to high impedance.
- Ground lift switch to fix ground-loop hum problems.
- Allows a hi impedance unbalanced source to directly feed a low impedance balanced input.
- Low distortion
- Low noise
- Adjustable attenuation pad, makes this different from the AC 260.

### Operation of the AC 265

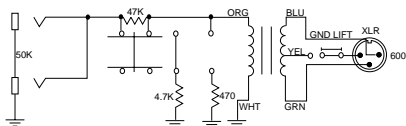
- Connect the output of the high impedance source to the input of the AC 265.
- Connect the low impedance output of the AC 265 to a

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mixing console or other low impedance input.

Connect the unbalanced 1/4" tip-sleeve output to a high impedance input (if desired) .

- Set the ground lift switch to the position with the least amount of hum or noise.



**Block Diagram AC265**

## Specifications of the AC 265

Low Impedance In/Output: 600 ohms center tapped (balanced).

Low Impedance Connector: XLR type jack

High Impedance In/Outputs: 50K ohms (unbalanced)

High Impedance Connectors: 2 -1/4 inch mono phone jacks.

Attenuation Range Switch: 0,12,40 dB attenuation

Frequency Response: 60 to 15 kHz,  $\pm 3$  dB

## AC 275 Active Direct Box

### Features of the AC 275

- Allows a hi impedance unbalanced source to directly feed a low impedance balanced input.
- Connects guitar pickups, microphones or electric instruments to a recording or P.A. console without audio quality loss.
- Input signal isolation using FET input operational amplifiers that reduce loading effects normally found

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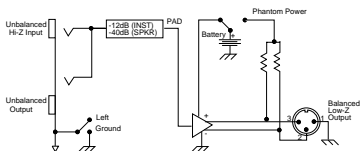
on passive direct boxes.

- Flat frequency response.
- Operates with battery or phantom power.
- Ground isolation switch.
- Internal pad for speaker level input.

## Operation of the AC 275

- Connect the output of the high impedance source to the input of the AC275.
- Connect the low impedance output of the AC275 to a mixing console or other low impedance input. Connect the unbalanced 1/4" tip-sleeve output to a high impedance input (if desired). This output is hard-wired to the input.
- Set the ground lift switch to the position with the least amount of hum or noise.
- Set pad switch to INSTRUMENT for line level input sources or to SPEAKER for speaker level input sources. Set power selector switch to ON for battery power or to OFF for phantom power.

**NOTE:** To preserve battery life, set power selector switch to OFF when AC275 is not in use.



**Block Diagram AC275**

## Specifications of the AC 275

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Frequency Response: 20Hz-20kHz,  $\pm 0.5\text{dB}$

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Gain:

Inst: -12dBu

Spkr: -40dBu

Input Impedance: Instrument 1.3M $\Omega$

Speaker 10k $\Omega$

Output Impedance: 200 $\Omega$

Power Requirements: 9V battery or 15-48V phantom power

Distortion(1kHz, Inst @-10dBV input): <0.02%

Signal-to-Noise Ratio (Inst @-10dBV input):  
Better than 86dB

Maximum Input:

Instrument Position: +7dBu (9V battery)  
+5dBu (15V phantom)  
+20dBu (48V phantom)

Supply Current: 4mA (9V battery)  
4mA (15V phantom)  
8mA (48V phantom)

Input Connector: 1/4" tip-sleeve

Output Connector: XLR, 1/4" tip-sleeve

Dimensions: 2.5"x4.5"x1.5"

Weight: 15oz (422g)

Note: 0dBV=1.0 Vrms; 0dBu=0.775 Vrms

## AC 285

### Features of the AC 285

- Allows a hi impedance unbalanced source to directly feed a low impedance balanced input.
- Connects guitar pickups, microphones, or electric instruments to a recording or P.A. console without audio quality loss.
- Input signal isolation using FET input operational

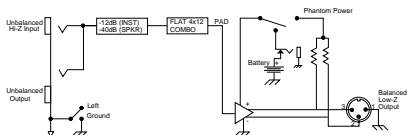
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amplifiers that reduce loading effects.

- Flat frequency response.
- Operates with battery or phantom power.
- Ground isolation switch.
- Internal pad for speaker level input.
- 4x12 emulator cabinet that gives a more enhanced low end.
- Twin open-back combo that provides a brighter sound with less low end.

### **Operation of the AC 285**

- Connect the output of the high impedance source to the input of the AC 285.
- Connect the low impedance output of the AC 285 to a mixing console or other low impedance input. Connect the unbalanced 1/4" tip-sleeve output to a high impedance input (if desired).
- Set the ground lift switch to the position with the least amount of hum or noise.
- Set pad switch to INSTRUMENT for line level input sources or to SPEAKER for speaker level input sources. Set power selector switch to ON for battery power or to OFF for phantom power.
- Set speaker settings to FLAT if you want the direct-to-microphone sound. If you are seeking the guitar-to-board sound, the 4x12 or COMBO settings are great.



## Block Diagram AC285

### Specifications of the AC 285

Frequency Response: 20-18 kHz  $\pm 1$ dB

10-30 kHz  $\pm 3$ dB

Gain:

Instr: -12dB

Spkr: -40dB

Input Impedance:

Inst:  $> 1$  meg $\Omega$

Spkr:  $> 200$  k $\Omega$

Output Impedance: 200 $\Omega$

Power Requirements:

9V Battery

15-48V Phantom

9V AC Adapter

(DOD PS3)

THD (1kHz, Inst @ 0dBu, 9V batt):

$< 0.08\%$

Signal to Noise Ratio (Inst @ -10dBu, 9V):

Flat:  $> 86$ dB

Spkr Emulation:  $> 80$ dB

Maximum Input Level (Inst):

7dBu (9V battery or adapter)

5dBu (15V Phantom)

20dBu (48V Phantom)

Supply Current:

8 mA (9V battery)

16 mA (48V Phantom)

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Printed in U.S.A. 12/94

Manufactured in the U.S.A.

AC260,270,275,&285 18-0054-B

# Instruction Manual

AC 260  
265  
275  
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