

**INSTRUCTION MANUAL FOR ACOUSTIC  
MODEL 370 BASS AMPLIFIER**

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Thank you for giving us this opportunity to acquaint you with the various features of your new ACOUSTIC 370 Bass Amplifier.

Your ACOUSTIC 370 was designed to meet the highest standards of excellence and performance under the most demanding and exacting playing conditions.

The name ACOUSTIC on your 370 amplifier is synonymous with the ultimate in professional amplification. Your ACOUSTIC 370 is the standard by which all others are judged.

**LIFETIME GUARANTEE\***

ACOUSTIC Control Corporation guarantees its products to the original purchaser to be free from all defects in materials and workmanship:

1. Provided the Warrantee Registration Card is completed and mailed to ACOUSTIC within 10 (ten) days from the date of purchase.
2. Provided the purchaser delivers the product to an authorized ACOUSTIC Service Center for repair.
3. Provided the product has not been misused or mishandled.

Once the product has been delivered to the Service Center, all repairs of any defects will be made free of any charge to the original purchaser.

\*Warrantee may vary on export models depending on country of purchase. Check with dealer where purchased as to terms and extent of warrantee.

### 370 PHYSICAL SPECIFICATIONS

Inputs	2 (¼" phone jacks)
Speaker Outputs	2 (¼" phone jacks)
Line Outputs	2 (¼" phone jacks)

#### CONTROLS

Volume	Rotary Potentiometer
Treble	Cut and Boost Rotary Potentiometer
Mid-range	Cut and Boost Rotary Potentiometer
Bass	Cut and Boost Rotary Potentiometer
Bright Switch	Rocker Switch
Graphic Equalizer	5 Section (Each section is a slide potentiometer)
Physical Dimensions	25" W x 7½" H x 12½" D
Shipping Weight	45 lbs.

### 370 TECHNICAL SPECIFICATIONS

Preamp Gain	19.2X
Nominal Impedance	30K
Signal-to-noise Ratio	Minimum gain -60 dB Maximum gain -50 dB
Minimum Input Voltage for Rated Output	Input 1: 18 mv. Input 2: 56 mv.
Maximum Input Voltage	Input 1: 370 mv. Input 2: 820 mv.
Gain Difference Between Inputs	6 dB
Power Output Measured Across 3.2 Ohm Load @ 5% Distortion	205 watts RMS
Power Output Measured Across 3.2 Ohm Load @ 10% Distortion	230 watts RMS
Power Output Measured Across 1.6 Ohm Load @ 5% Distortion	325 watts RMS
Power Output Measured Across 1.6 Ohm Load @ 10% Distortion	365 watts RMS

\*Rated output on export models is measured at 240v at 60 cycles. Using any lower source will result in a slight power loss, but will not damage the unit in any way.

Frequency Response	-6 dB @ 50 Hz & 17.5 KHz
Line Output Impedance	5000 ohms
Line Output Voltage	250 mv
Power Consumption @ 365 watts	730 watts
Standby Consumption	50 watts

Domestic models are designed for operation at 120 volts 60Hz.

Export models are designed for operation at 240 volts 50/60Hz.

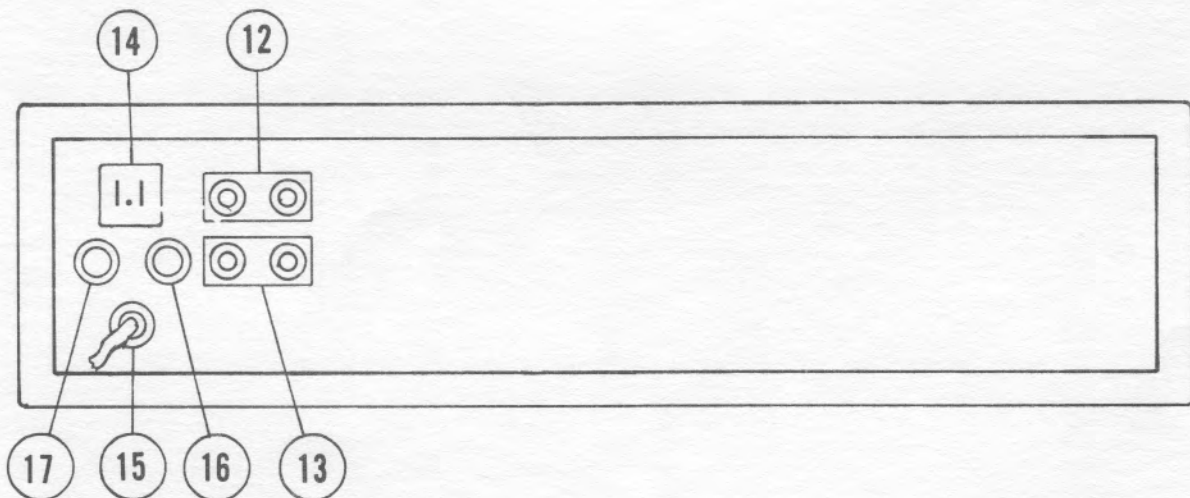
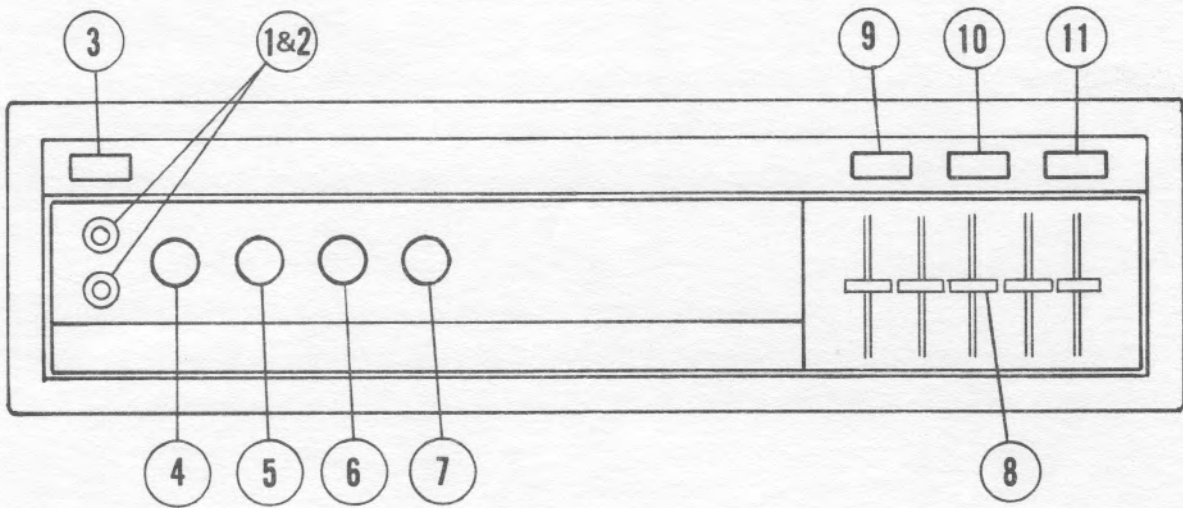
### RANGE OF TONE CONTROLS

Bass	+10 dB, -10 dB @ 50 Hz
Treble	+15 dB, -25 dB @ 10 KHz
Mid-range	+10 dB, -30 dB @ 300 Hz
Bright Switch Boost	4 dB per octave from 200 Hz to 5 KHz

### RANGE OF GRAPHIC EQUALIZER

Section 1	+10 dB, -15 dB @ 50 Hz
Section 2	+10 dB, -15 dB @ 100 Hz
Section 3	+10 dB, -15 dB @ 200 Hz
Section 4	+10 dB, -15 dB @ 300 Hz
Section 5	+10 dB, -15 dB @ 400 Hz

# MODEL 370



## ① & ② INPUTS

The top input is louder than the bottom input. The top input should be used in most cases to achieve maximum signal-to-noise ratio. If your instrument puts out such a large signal that you can turn the volume control only a little bit above the off position, then use the second input to cut down on the signal. The only difference between the two inputs is volume. (Input No. 1 is 6 dB higher than No. 2)

## ③ BRIGHT SWITCH

In the BRIGHT position, the treble is boosted in relation to the bass and mid-range.

## ④ VOLUME

The volume control increases the volume of all frequencies and special functions equally with the exception of the Bright Switch.

## ⑤ TREBLE

The tone circuitry is of the cut and boost type as opposed to the straight boost varieties. This enables you to more easily compensate for most pick-up devices. Always keep in mind that flat (or normal) is straight up.

## ⑥ MID-RANGE

The tone circuitry is of the cut and boost type as opposed to the straight boost varieties. Always keep in mind that flat (or normal) is straight up.

## ⑦ BASS

The bass tone circuitry is also of the cut and boost type. This allows you to obtain maximum "bottom" even if the instrument is weak in bass response. This control is very active and when used in conjunction with the Graphic Equalizer allows you an infinite variety of tone settings. Flat (or normal) is straight up.

## 8 GRAPHIC EQUALIZER

### *WHAT IS IT?*

The Acoustic Graphic Equalizer is a unique device for musical instrument amplification similar in function to a studio equalizer. The equalizer divides the bass signal into five sections. Section 1 covers the 25 to 75 Hz range; Section 2 covers the 75 to 150 Hz range; Section 3 covers the 150 to 250 Hz range; Section 4 covers the 250 to 350 Hz range; and Section 5 covers the 350 to 500 Hz range. These slide controls allow you to boost or cut any of the ranges. You can shape the response of the amplifier to meet your exact requirements for a particular song.

### *HOW DOES IT WORK?*

Let's take a moment and discuss the typical electric bass. The actual range of the fundamental notes is from 42 cps to about 200 cps (the open low E string is 42 cps, and the G at the 12th fret of the 4th string is about 200 cps). The important harmonic overtones occur from about 160 cps to about 700 cps. It is the balance between the fundamental note and its harmonic overtones that determines the type of sound you get. You probably haven't realized it, but you have been aware of this balance and controlling it to a limited degree for years. How? If your bass has two pickups, you use the front pickup when you want fundamentals and heavy bottom. You use the back pickup when you want more overtones and snap. You use the tone controls on your bass to cut down on the overtones and let the fundamental come through. Picking near the neck gives you more fundamental; picking near the bridge gives you more overtones. Using your fingers gives you more fundamental; using a pick gives you more overtones.

The Graphic Equalizer is a logical extension of this fundamental to harmonic balance control. With all this in mind, let's look at the Graphic Equalizer and see how it applies.

Section 1 covers all the notes on the E string and about half of the notes on the A string. Section 2 covers all the notes on the D string. Section 3 covers all the notes on the G string. Section 4 covers the first set of overtones of the low strings. Section 5 covers the first set of overtones of the high strings.

Each section boosts or cuts only the notes covered by that section. Everything else stays the same. Raising the section above the center line boosts. Lowering the section below the center line cuts. When the section control is centered, the section is out of the circuit.

### *HOW DO YOU USE IT?*

Let's assume for one song you want a really heavy, but not boomy bass sound with a little bit of snap to the highs. Try setting the treble control at about 3 o'clock. This gives you the boost in the highs for a little more snap. Now set the bass control to 3 o'clock to get a heavy bottom end. Lower the 400 Hz section to its lowest position (full cut). This removes the objectionable boomy overtones from the sound and lets the bottom and highs come through. Without changing any of the other settings, bring the 400 Hz section back to center and lower the 300 Hz section. The change in sound you hear is the upper harmonics coming in and the lower set of harmonics being eliminated. Let's try another one. Set the Bright Switch to the Bright position and set the treble control to



## GRAPHIC EQUALIZER (con't.)

about 3 o'clock. Set the bass control to straight up. Put the 100 Hz section to its full boost position. Let's see what we've done. There is lots of treble boost so we've got good, punchy highs, bass is flat, and we've boosted the volume of the upper two strings. This is very close to the sound of a tube type bass amp. Remember, when you're setting up the amplifier to get a certain sound, use the treble, midrange, and bass controls to get the basic sound and modify it with the Graphic Equalizer to get the exact sound you want.

### 9 GROUND REVERSE

Under some conditions, the ground reverse switch can reduce or eliminate a persistent hum or click in the strings. Set the switch in whichever position reduces or eliminates the problem.

### 10 INDICATOR LIGHT

Light to show power is on.

### 11 POWER ON/OFF

This turns the whole system on. If everything is working, there might be a loud thump when you turn the amp on. DON'T PANIC. This is normal.

### 12 SPEAKER OUTPUT JACKS

Into one 301 speaker bottom the Model 370 will produce 230 watts RMS. Into two 301 speaker bottoms the Model 370 will produce 365 watts RMS. When using only one speaker bottom, you can plug into either jack. All the speaker systems made by Acoustic have a nominal impedance of 4 ohms per cabinet. You may use any number of speaker systems as long as the total impedance is not less than 2 ohms.

### 13 LINE OUTPUTS

These jacks are tied to the volume control. As the volume control is lowered, the output of these jacks is lowered. These jacks should be used if you desire to control a bank of power amps and speakers from one main power amplifier.

### 14 AC CONVENIENCE OUTLET\*

This outlet will provide AC power for auxiliary equipment. Do not plug equipment into this outlet if the power demands are higher than the rating marked next to the outlet. The outlet stays on even when the amplifier is off.

\*Export models have a 240 volt AC outlet.

## 15 AC LINE CORD

All Acoustic amplifiers have a 3 wire grounding plug. This will eliminate any possibility of shock hazard AS LONG AS ALL OTHER EQUIPMENT IS SIMILARLY GROUNDED. Shock conditions are caused by different ground potentials between the amplifiers and the P.A. system, or between the amplifiers and the actual ground (cement floor, dirt, or wet stage, for example). This voltage difference can be dangerous, and if the ground reverse switch doesn't eliminate the shock, DON'T PLAY. Make the stage manager or electrician correct the problem.

## 16 FUSE

Keep in mind that a fuse is simply a circuit breaker that operates if a potentially dangerous situation exists. If the fuse does blow, always replace it with a 7 Amp (3AG) fuse at 125 volts.\* Do not use any other type or rating.

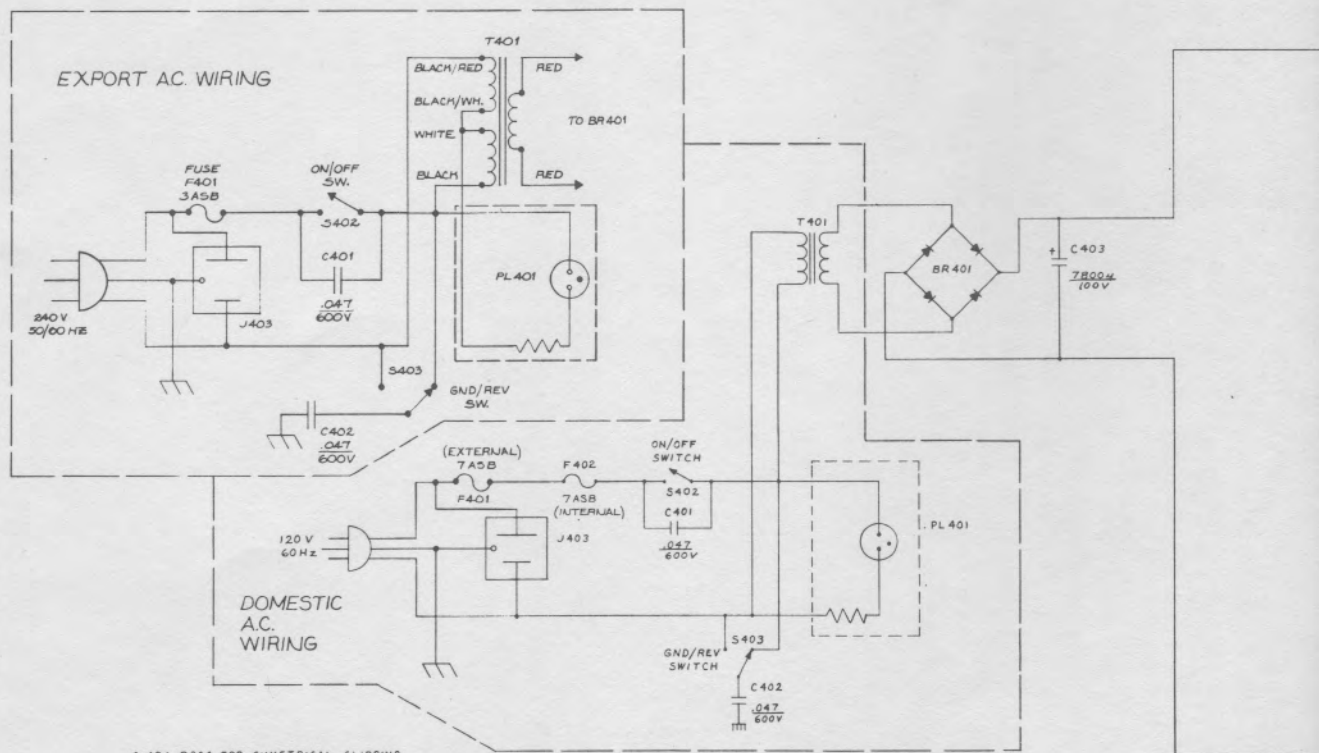
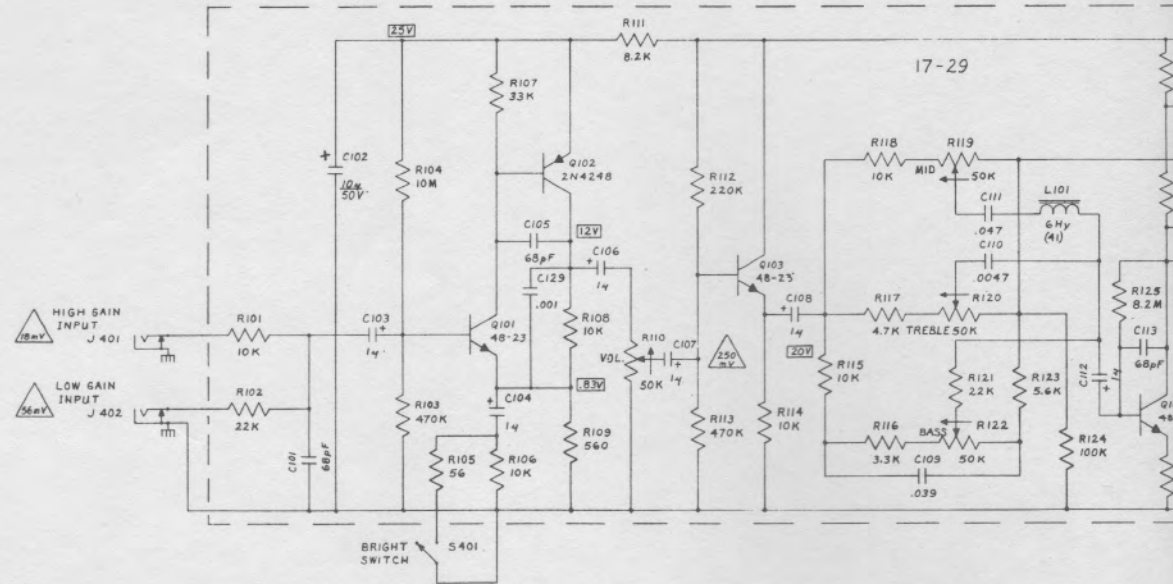
\*Export models have a 3 Amp (3AB) Slo-Blo fuse at 250 volts.

## 17 SPARE FUSE

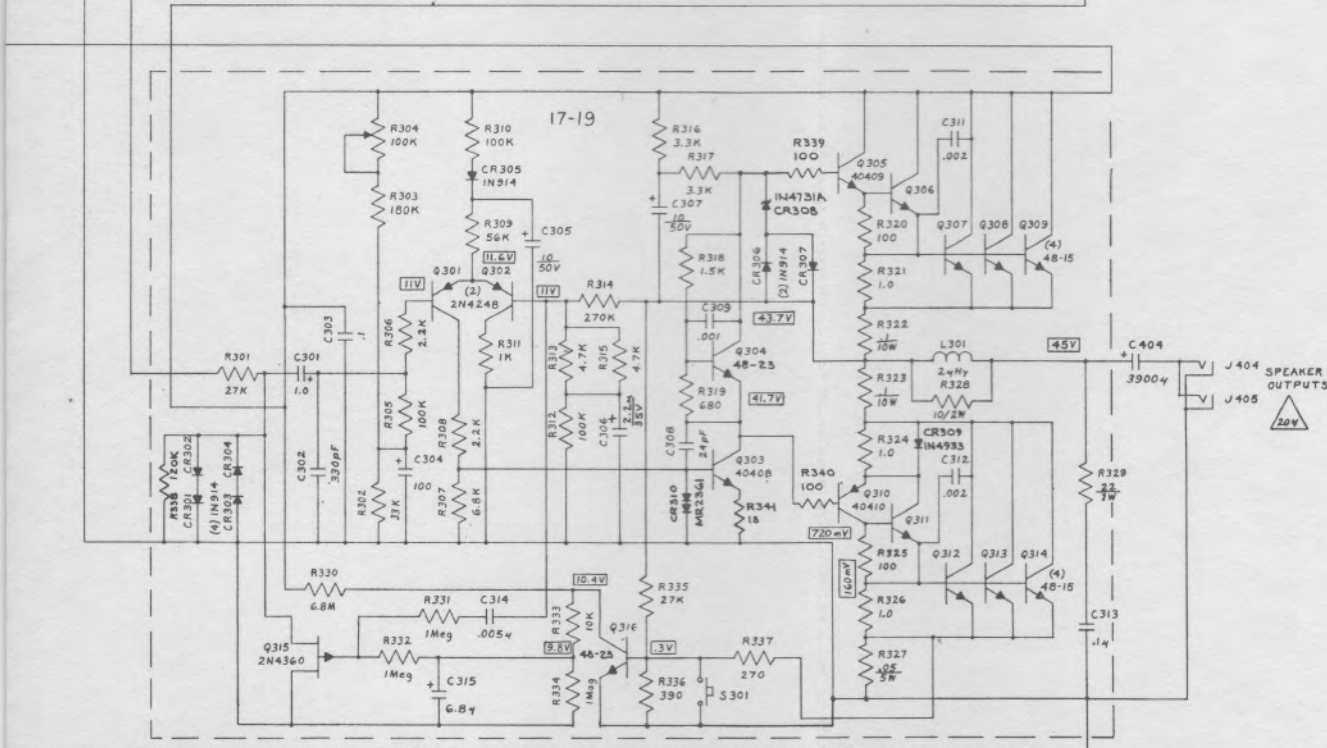
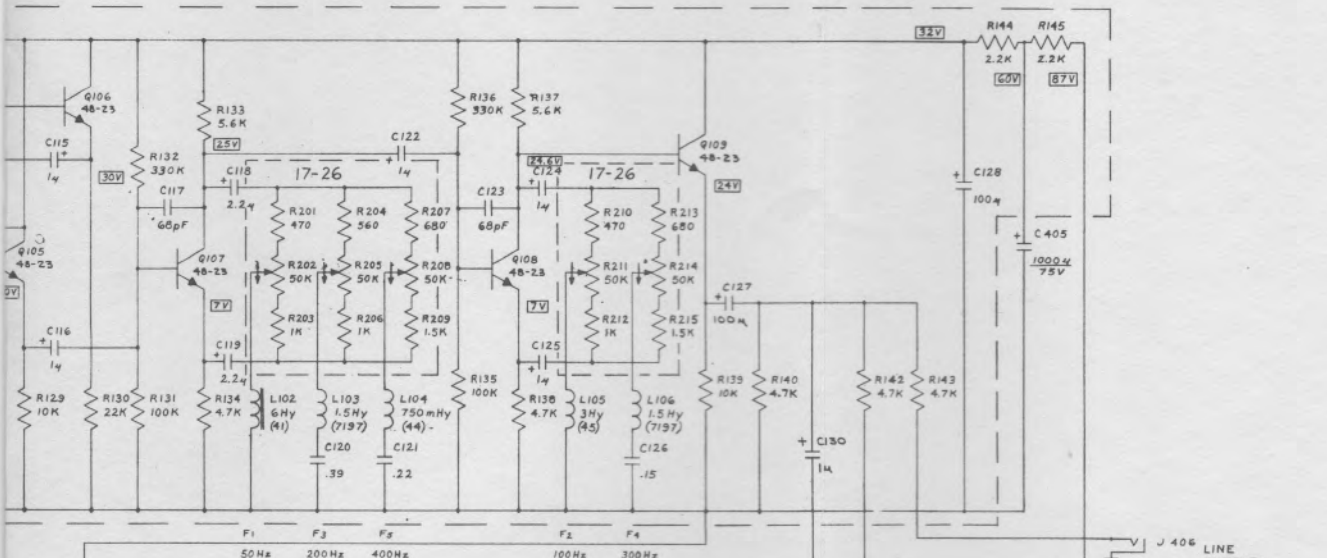
This fuse holder is not connected and is provided simply as a place to store a spare fuse.

### Note:

Export models are designed for operation at 240 volts at 50/60 cycles.



6. ADJ. R304 FOR SYMMETRICAL CLIPPING WITH 2A LOAD AND S301 CLOSED (AGC DEFEAT)
7. AC VOLTAGES AT 1KHz REF. FROM GND.
8. LAST REF. DESIGNATIONS: R145, R215, R341, C130, C315, C405, CR310, L106, L301, Q109, Q316, J407, S301, S403, PL401, F401, BR401, T401
9. DC VOLTAGES FROM GND. NO SIGNAL
10. ALL CAPACITORS IN  $\mu$ FD UNLESS NOTED OTHERWISE.
11. ALL RESISTORS 1/2W  $\pm$ 5% UNLESS NOTED OTHERWISE.
- NOTES:



PCN 1172 EXPORT AC.	5-7-75
CHG PER ECL 1061	8-1-72
CHG F401 TO 7A-58	5-11-72
SCALE NONE	DRAWN BY DMC
DATE 12-15-71	REVISED
APPROVED BY	
S-11-72	
16 Dec 71	
SCHEMATIC MODEL 370	
ACOUSTIC CONTROL CORP.	
1297 C	