

# QUAD 405-2

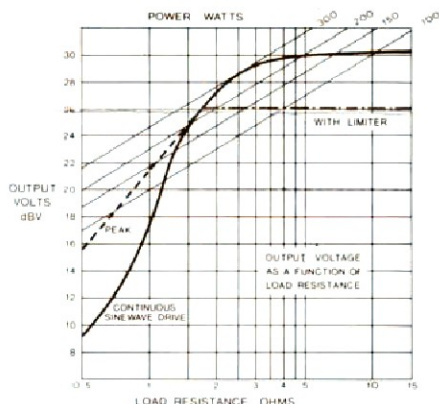
## APPLICATION SHEET NO. 1

### Quad 405-2 power amplifier in single channel operation

The outputs of the Quad 405-2 can be connected in series or parallel to produce a single channel power amplifier capable of delivering in excess of 200 watts into high (12-16Ω) or low (4Ω) impedance loads.

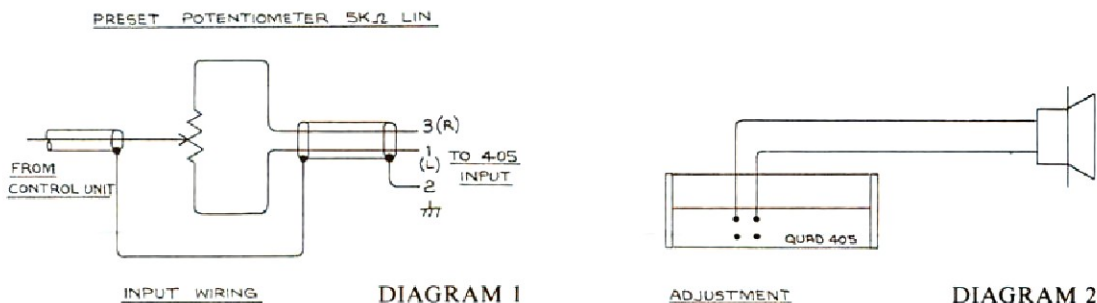
The accompanying graph shows the output characteristics of the Quad 405-2 in either configuration.

#### A. Outputs wired in parallel



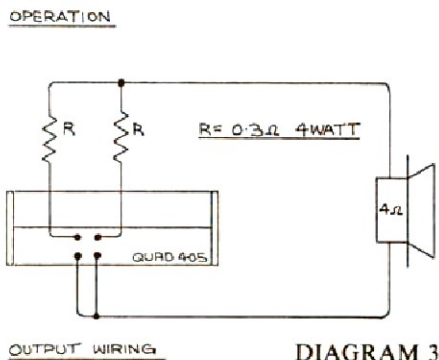
Power output 200 watts into 4Ω.

The input level to each channel must be adjusted by a pre-set potentiometer so that the output from each channel is identical to ensure accurate load sharing. Diagram 1 shows the input wiring arrangement.

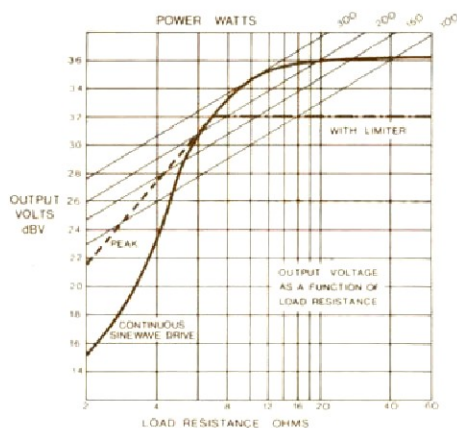


For initial adjustment the loudspeaker is connected as shown in Diagram 2. A signal is fed to the input of the amplifier. The potentiometer is adjusted until there is zero output from the loudspeaker and then sealed.

The loudspeaker is then connected as shown in Diagram 3 and the amplifier is ready for use.



## B. Outputs wired in series

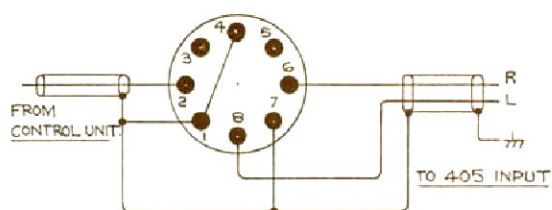


Power output 200 watts into 10-16  $\Omega$ .

A suitable 1:1 transformer with a centre tapped secondary such as the Quad L5EINAA is required.

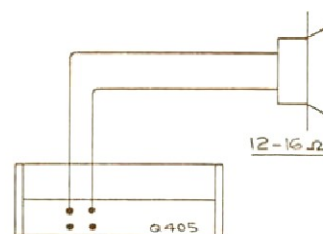
Diagram 4 illustrates the input wiring and Diagram 5 the output connections.

BASE OF 270Q/SP TRANSFORMER



INPUT WIRING

DIAGRAM 4



OUTPUT WIRING

DIAGRAM 5

NOTE: A kit is available to modify a Quad 405 into a single channel amplifier with outputs wired in parallel. Part No. Q410MOD.

# QUAD

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Accoustical Manufacturing Co. Ltd.  
Huntingdon, Cambs. PE18 7DB  
Telephone (0480) 52561

### **CONVERSION OF 405 TO A MONO 180 WATT AMPLIFIER**

To carry out the conversion, the modification kit Q410MOD should first be obtained.

1. Remove 405 cover and baseplate.
2. Unplug the Amp connectors from the righthand channel printed circuit board (righthand side when viewed from the front).
3. Release the clip securing the rear 10,000 $\mu$ F capacitor (C14) and lay the capacitor over the righthand channel board.
4. Unsolder the four leads from the output terminals.  
For 405's fitted with amplifier boards M12368 (i.e. serial numbers 59000 and below) remove the clamp board.  
To disconnect the clamp circuit on 405's fitted with amplifier boards M12565 (i.e. serial numbers above 59000) remove both of the side panels. The solder should then be removed from the link pads shown as A in fig 18. The side panels should then be refitted.
5. Remove the output terminals and replace those for the righthand channel with the sockets provided, Red at the top. Fit the blanking grommets provided in the vacant holes.
6. Fit the new printed circuit clamp board to the output sockets and reconnect the output leads. Brown/Red to the pin marked R, Brown/White to the pin marked L and both Green leads to the pin next to L.
7. Remove the 4 pin Din input socket and unsolder the leads from it.
8. Connect these leads to the new input board, White to L and Red to R and screens to the two E tags.
9. Fit the new input socket and board.
10. Refit the 10,000 $\mu$ F capacitor and Amp connectors to the righthand board.
11. Remove the output leads, Brown/White from lefthand and Brown/Red from righthand printed boards.
12. Connect a 4-8 $\Omega$  speaker between the output tags of these two boards.
13. Switch on the amplifier, inject a signal of approximately 100mV at 1kHz at the input socket (left and right pins are now common). Remove the blanking grommet adjacent to the input socket and adjust the pre-set potentiometer through this hole for a null in the signal from the speaker, increasing the input signal level as required for final accurate setting.
14. Switch off, remove signal input, disconnect the loudspeaker, reconnect output leads, refit blanking grommet, base and cover.