

# STANDARD MICROPHONE PREAMP INPUT CIRCUITRY

**NOTES**

ALL RESISTORS ARE  $\pm 1\%$   $1/4W$  METAL FILM TYPES, ROEDERSTEIN MK2-1 OR EQUIVALENT  
 TIGHTLY TWIST LEADS AS SHOWN  $\times\times$  IN PATH FROM J1 TO INPUT TRANSFORMER TO MINIMIZE ELECTROMAGNETIC PICKUP  
 RESISTORS R2 AND R3 SHOULD BE MATCHED TO  $\pm 0.1\%$  FOR BEST COMMON MODE NOISE REJECTION  
 USE ONLY QUALITY SWITCHES WITH GOLD PLATED 'VIRGIN' CONTACTS AT S2, S3, AND S4  
 USE OF GOLD PLATED CONTACTS IN XLR CONNECTOR AT J1 IS HIGHLY RECOMMENDED  
 ALL RESISTORS IN OHMS ( 5k $\Omega$  = 5.0k $\Omega$ , 68r1 = 68.1 )  
 MAKE THE J1, PIN 1 CONNECTION TO CHASSIS AS SHORT AND DIRECT AS POSSIBLE.

jensen	AS016
	09/20/94

7135 HAYVENHURST AVE.  
 VAN NUYS, CALIFORNIA 91405  
 (213) 876-0059

© COPYRIGHT 1992, JENSEN TRANSFORMERS, INC.

ALL RESISTORS ARE  $\pm 1\%$  1/4W METAL FILM TYPES, ROEDERSTEIN MK2-1 OR EQUIVALENT  
TIGHTLY TWIST LEADS AS SHOWN  $\times \times$  IN PATH FROM J1 TO INPUT TRANSFORMER TO MINIMIZE ELECTROMAGNETIC PICKUP  
RESISTORS R2 AND R3 SHOULD BE MATCHED TO  $\pm 0.1\%$  FOR BEST COMMON MODE NOISE REJECTION  
USE ONLY QUALITY SWITCHES WITH GOLD PLATED "VIRGIN" CONTACTS AT S2, S3, AND S4  
USE OF GOLD PLATED CONTACTS IN XLR CONNECTOR AT J1 IS HIGHLY RECOMMENDED  
ALL RESISTORS IN OHMS ( 5k $\Omega$  = 5.0k $\Omega$ , 50r $\Omega$  = 50.1 $\Omega$  )  
MAKE THE J1, PIN 1 CONNECTION TO CHASSIS AS SHORT AND DIRECT AS POSSIBLE.

jensen	AS016
	09/20/94
7135 HAYVENHURST AVE. VAN NUYS, CALIFORNIA 91406 (213) 876-0059	

© COPYRIGHT 1992, JENSEN TRANSFORMERS, INC.

**JT-115K-E CASCODE TUBE MICROPHONE INPUT STAGE**

CAN BE DC COUPLED TO UPPER GRID IN OUTPUT STAGE OF JENSEN AS021

OVERALL GAIN (INCLUDING TRANSFORMER) = 5000x (74 dB) MAX  
ELECTRONIC GAIN = 550x (55 dB) MAX

**NOTES**

- RESISTORS ARE  $\pm 1\%$   $1/4W$  METAL FILM TYPES, ROEDERSTEIN MK2-1 OR EQUIVALENT  
R8 SHOULD BE WIREWOUND OR METAL FOIL TYPE TO REDUCE EXCESS NOISE CONTRIBUTION  
1 k RESISTORS SHOULD BE AS CLOSE AS POSSIBLE TO TUBES TO PREVENT POSSIBLE SPURIOUS UHF OSCILLATIONS
- U1 SOCKET SHOULD BE HIGH QUALITY NON-HYGROSCOPIC TYPE, SUCH AS PORCELAIN, FOR LOWEST NOISE
- IF T1 IS NEAR A POWER TRANSFORMER, CONSIDER THE TRIPLE MAGNETIC SHIELDED JT-115K-E90
- USE OF VERY CLEAN DC POWER FOR PLATE AND HEATER IS HIGHLY RECOMMENDED

jensen	AS054
	03/08/95
7135 HAYVENHURST AVE. VAN NUYS, CALIFORNIA 91406 (213) 876-0059	

© COPYRIGHT 1995, JENSEN TRANSFORMERS, INC.

1. RESISTORS ARE  $\pm 1\%$  1/4W METAL FILM TYPES, ROEDERSTEIN MK2-1 OR EQUIVALENT  
R8 SHOULD BE WIREWOUND OR METAL FOIL TYPE TO REDUCE EXCESS NOISE CONTRIBUTION  
1 K RESISTORS SHOULD BE AS CLOSE AS POSSIBLE TO TUBES TO PREVENT POSSIBLE SPURIOUS UHF OSCILLATIONS
2. V1 SOCKET SHOULD BE HIGH QUALITY NON-HYGROSCOPIC TYPE, SUCH AS PORCELAIN, FOR LOWEST NOISE
3. IF T1 IS NEAR A POWER TRANSFORMER, CONSIDER THE TRIPLE MAGNETIC SHIELDED JT-115K-E90
4. USE OF VERY CLEAN DC POWER FOR PLATE AND HEATER IS HIGHLY RECOMMENDED

jensen	AS054
	03/08/95
7135 HAYVENHURST AVE. VAN NUYS, CALIFORNIA 91406 (213) 878-0059	

© COPYRIGHT 1995, JENSEN TRANSFORMERS, INC.

SEE AS016

JT-115K-E

T1

RED

BRN

WHI

BLK

YEL

ORG

R1 150k

R2 1k

Rk

B+

OUTPUT

U1 6DJ8, 12AX7, etc.

FEEDBACK (IF USED)

NOTES

RESISTORS R1 AND R2 ARE  $\pm 1\%$   $1/4W$  METAL FILM TYPES, ROEDERSTEIN MK2-1 OR EQUIVALENT

RESISTORS  $R_p$  AND  $R_k$  SHOULD BE WIREWOUND OR METAL FOIL TYPES TO REDUCE EXCESS NOISE CONTRIBUTION

ALL RESISTORS IN OHMS ( 5k91 = 5.91k, 59.1 = 59.1 )

RESISTOR R2 SHOULD BE MOUNTED AS CLOSE AS POSSIBLE TO U1 TO PREVENT POSSIBLE SPURIOUS UHF OSCILLATIONS

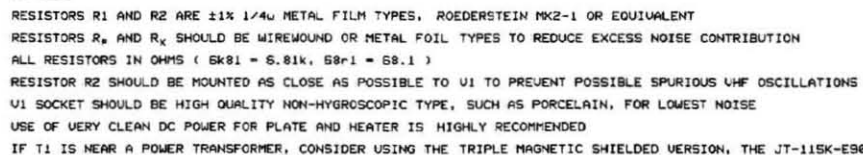
U1 SOCKET SHOULD BE HIGH QUALITY NON-HYGROSCOPIC TYPE, SUCH AS PORCELAIN, FOR LOWEST NOISE

USE OF VERY CLEAN DC POWER FOR PLATE AND HEATER IS HIGHLY RECOMMENDED

IF T1 IS NEAR A POWER TRANSFORMER, CONSIDER USING THE TRIPLE MAGNETIC SHIELDED VERSION, THE JT-115K-ES0

jensen	AS020
	09/14/95
7135 HAYVENHURST AVE. VAN NUYS, CALIFORNIA 91406 (213) 876-0059	

© COPYRIGHT 1992, 1995 JENSEN TRANSFORMERS, INC.



jensen	AS020
	09/14/95
7135 HAYVENHURST AVE. VAN NUYS, CALIFORNIA 91406 (213) 876-0059	

© COPYRIGHT 1992, 1995 JENSEN TRANSFORMERS, INC.

**NOTES**

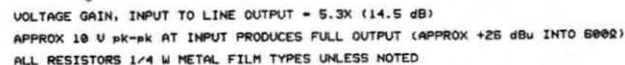
VOLTAGE GAIN, INPUT TO LINE OUTPUT = 5.3X (14.5 dB)

APPROX 10  $\mu$ k-pk AT INPUT PRODUCES FULL OUTPUT (APPROX +26 dBu INTO 600 $\Omega$ )

ALL RESISTORS 1/4 W METAL FILM TYPES UNLESS NOTED

jensen	AS021
	03/14/95
7135 HAYVENHURST AVE.	
VAN NUYS, CALIFORNIA 91406	
(213) 876-0053	

© COPYRIGHT 1993, JENSEN TRANSFORMERS, INC.



jensen	AS021
	09/14/95
7135 HAYVENHURST AVE. VAN NUYS, CALIFORNIA 91406 (213) 876-0059	

© COPYRIGHT 1993, JENSEN TRANSFORMERS, INC.