

FAIRCHILD LUMITEN SERIES  
ROTARY STEREO ATTENUATOR  
MODEL 669ST

IB 669ST/969

**INSTRUCTION MANUAL**



FAIRCHILD RECORDING EQUIPMENT CORPORATION, 10-40 45th Avenue, Long Island City, N.Y. 11101, 212 784-6163



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## FAIRCHILD MODEL 669ST LUMITEN

### Rotary stereo model

#### GENERAL

The LUMITEN is a new type of attenuator employing light control of resistance rather than the conventional change of resistance through direct mechanical switching.

The size of this rotary attenuator makes the unit compatible with other available attenuators used in consoles today and in almost all instances direct replacement by the MODEL 669ST is possible.

The 669ST is available in 600 ohm and 150 ohm versions and requires 6.3V DC for operation.

#### INSTALLATION

To mount the MODEL 669ST, a hole  $\frac{3}{8}$ " in diameter is to be drilled where the shaft is to be located. The attenuator is then placed in position with the shaft protruding through this  $\frac{3}{8}$ " hole. The dressplate is placed over the shaft, and the assembly is fastened together.

The shaft should be turned fully counterclockwise and the knob lined up with the "infinity" sign. Setscrew should then be tightened. The knob should then be rotated to the right, making sure that in the extreme clockwise position the pointer is at "0".

If mounting space is a problem, the attenuator may be used with a smaller knob and a smaller dressplate, allowing placement of attenuators  $\frac{1}{2}$ " apart.

#### OPERATION

The MODEL 669ST is designed to operate in unbalanced circuits. Connect the attenuator into the circuitry as shown in FIG. 1. To activate the LUMITEN supply 6.3V DC at 100 ma. Without applied voltage, the LUMITEN will not operate. The voltage should be well regulated, and should not deviate more than .10V DC either way.

The FAIRCHILD MODEL 667DII Power Supply, or equivalent, is recommended for the power source. The MODEL 667DII delivers 3 amps of 6.3V DC regulated current and will drive up to thirty LUMITEN attenuators.

Maximum level handling capability of the 669ST is +20 dbm. DO NOT EXCEED THIS INPUT LEVEL. Recommended level range is from -30 to +10 dbm.

The MODEL 669ST should provide 50,000 hours or more of continuous use before replacement of the bulb becomes necessary. This model does not have a plug-in bulb and the bulb must be removed by unsoldering the bulb from its connections on the printed circuit strip. Bulb used is GE2114. The light sensitive attenuation cell should provide trouble-free operation indefinitely.

#### REMOTE OPERATION

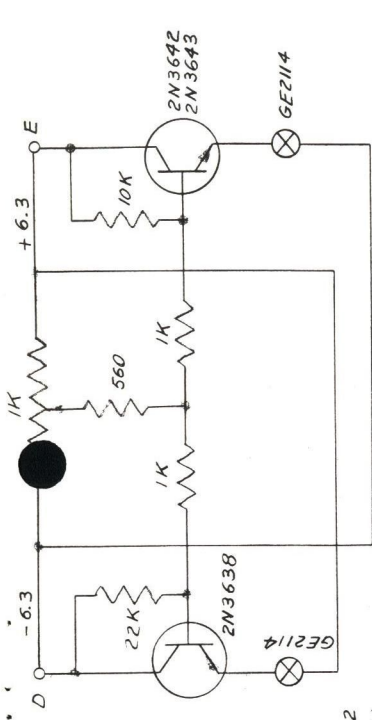
For flexible and efficient use of the LUMITEN in remote operation we recommend the installation of separate actuators and remote attenuation cells (668RAB, 668RAC or others). One actuator can operate a number of attenuation networks.

#### SPECIFICATIONS

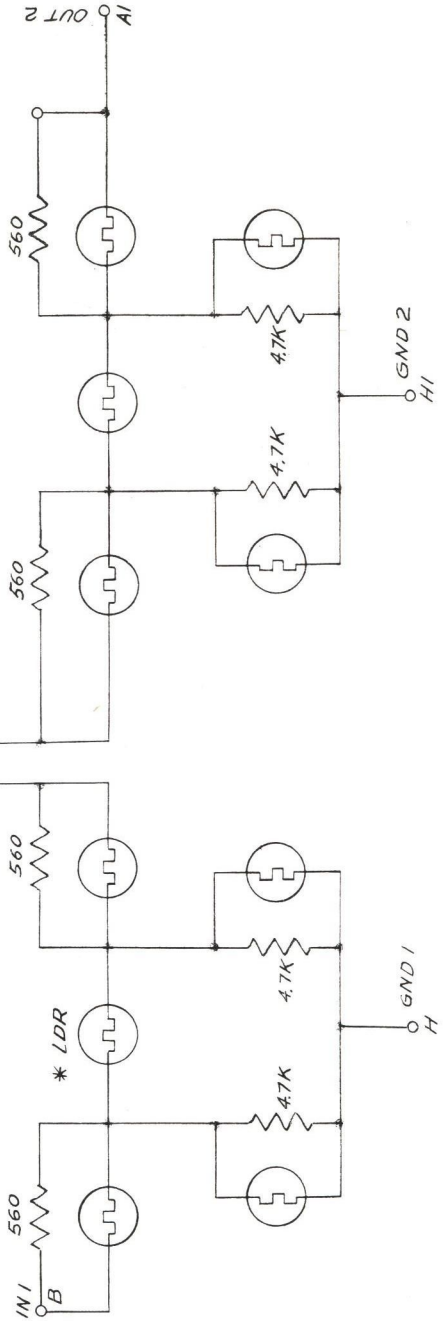
Impedances available .....	150 ohms or 600 ohms
Circuit .....	Constant impedance. Maximum impedance variation $\pm 10\%$ . Unbalanced.
Response .....	Flat - DC to 100KC
Insertion loss .....	3 db - 600 ohms 5 db - 150 ohms
Level handling .....	+20 dbm maximum
Noise and distortion .....	None. No cleaning necessary.
Attenuation range .....	0 to infinity - 600 ohms 0 to infinity - 150 ohms
Voltage supply .....	6.3V DC 100 ma
Finish .....	Brushed aluminum anodized.
Models .....	Model 669ST - 600 ohms Model 669ST-1 - 150 ohms

#### WARRANTY

See standard warranty attached to and forming part of this manual. To validate warranty, complete and return the warranty registration card included in this manual. If there is any question on this or any other FAIRCHILD professional product, please do not hesitate to contact our CUSTOMER SERVICE DEPARTMENT, FAIRCHILD RECORDING EQUIPMENT CORPORATION, 10-40 45th Avenue, Long Island City, New York 11101 212 784-6163.



NOTES:  
 \* 1. ALL LDRS, FAIRCHILD # 87035  
 # 87036  
 2. ALL RESISTORS IN OHMS  $\frac{1}{4}$  W, 5 %



669 ST II SCHEMATIC

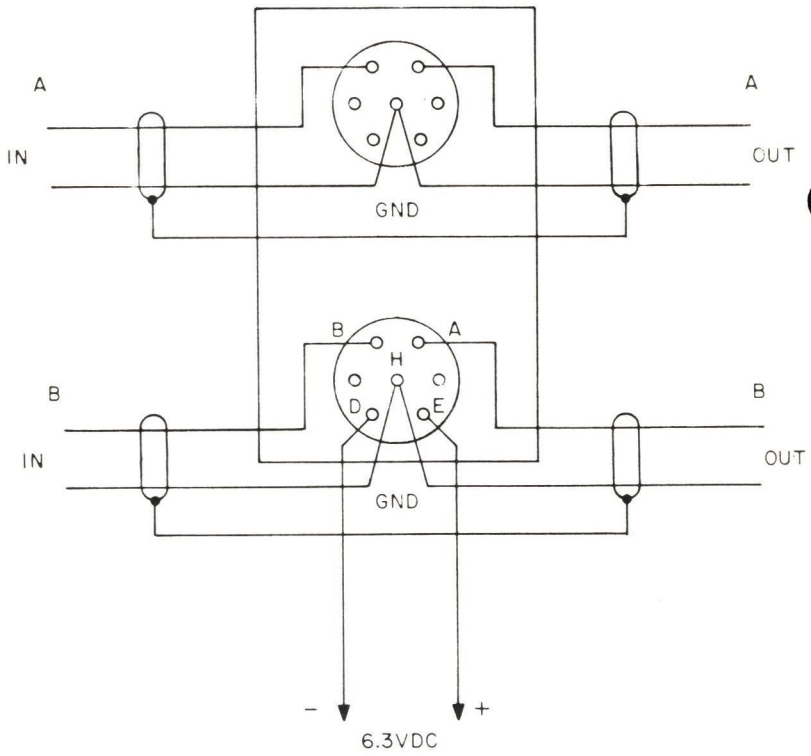
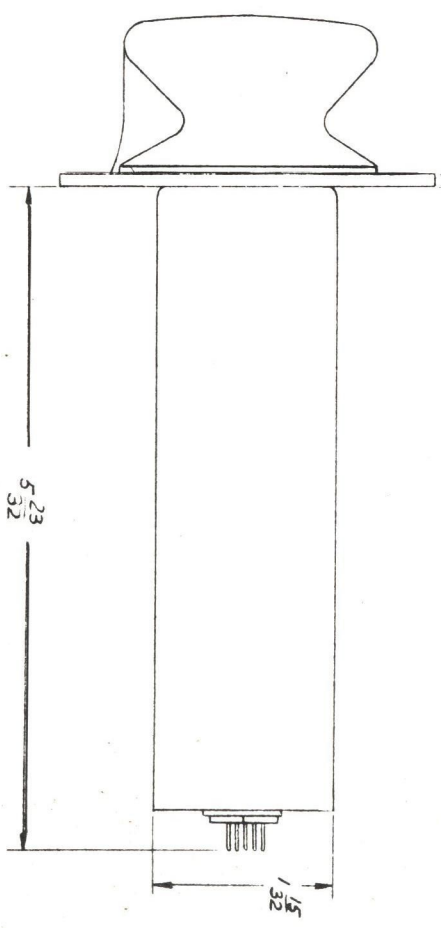
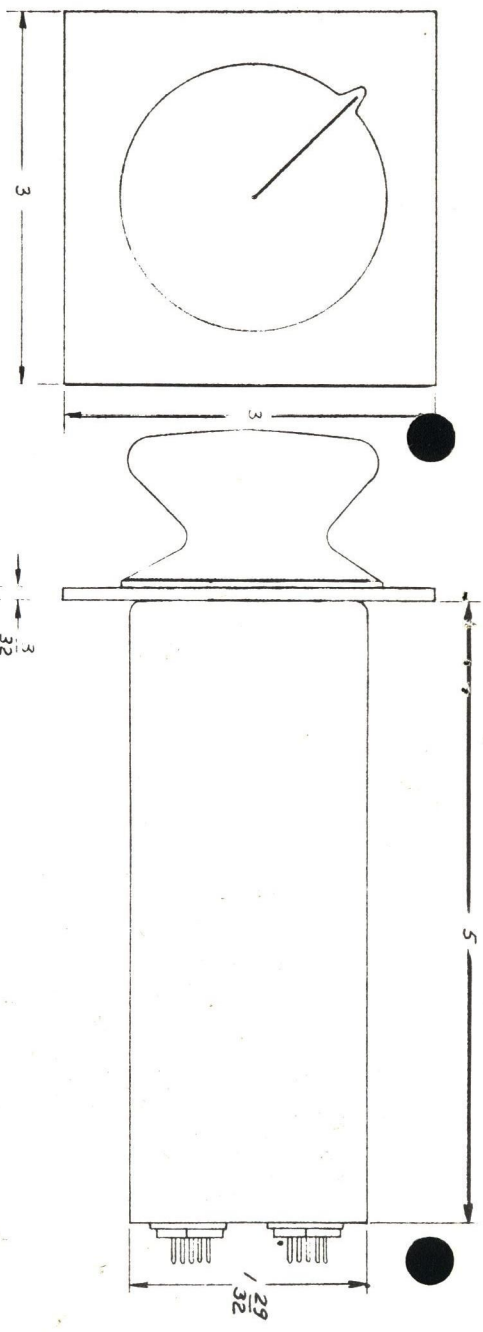


FIG. 1



669ST II LUMITEN  
 DIMENSIONAL DWG



A-96290