

# FAIRCHILD

## MARK II SERIES ATTENUATORS

(INTEGRATED)

MODEL 668 - 668Q

MODEL 668-1 - 668-1Q

MODEL 668ST - 668ST/Q

MODEL 668-1ST - 668-1ST/Q

IB 668/167

## INSTRUCTION MANUAL



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

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Because the voltage divider and its slider, with precious metal shoe, change intensity of the bulb that in turn varies the resistance of the light dependent (cadmium sulphide) cells, the attenuator action is noise-free.

To minimize LUMITEN current requirements, two transistors are used as current amplifiers. The current fed from the slider to the attenuator circuit is amplified and the transistor output drives the incandescent bulbs in each attenuator circuit.

An Amphenol blue ribbon connector is placed at the bottom of the LUMITEN housing. This 7-pin connector provides input and output terminal points for audio, terminals for application of DC and for cue, if cue is provided. The following terminal arrangement on the Amphenol 7-pin connector is used:

PIN A - OUTPUT  
PIN B - INPUT  
PIN H - COMMON GROUND FOR INPUT/OUTPUT  
PIN D - DC SUPPLY - NEGATIVE (-)  
PIN E - DC SUPPLY - POSITIVE (+)

PINS C & E for cue circuit if provided.  
Normally open except in cue position.

#### CUE POSITION in the 668 LUMITEN

A cue position may be provided in the 668 LUMITEN if desired. This cue position appears on the amphenol connector in that case. Cue on the 668 single channel unit and the 668ST dual channel unit is obtained through the use of a reed relay mounted on the printed circuit board (two relays provided on stereo units). A small bar magnet is mounted on the sliding mechanism of the LUMITEN. It passes over the reed relay and relay closes - thereby feeding audio to the cue circuit. It is necessary to push the slider slightly harder past a detent in order to move into the cue position. This detent action is deliberate so that the operator will know that he is going into or out of cue position. Cue function is supplied in the Models 668Q, 668-1Q, 668ST/Q and 668-1ST/Q.

For special applications the cue design is reversed ie when the slider is at the bottom of the LUMITEN or infinity position, the reed relay(s) is open. As the slider is moved upward, the magnet attached to the slider moves away from the B type relay and the relay closes. This function is available in the MODEL 668 QB and, although specialized, could be valuable in such cases as on large TV setups (such as multi-camera comment or pickup). In such cases, the LUMITEN relay circuit could then operate signal lights etc. as visual indication or cue for actors, or commentators or announcers. The 668 is supplied with one or two of these functions on special order.

#### INSTALLATION

The size and shape of the LUMITEN allows it to be simply dropped into any existing cutout for conventional slide-type attenuators. Otherwise, a cutout 1 1/2"W x 6 1/4"L is needed to accommodate the LUMITEN, and two screw holes 6-5/8" apart are needed to secure

the LUMITEN to the mounting plate. See MOUNTING DIMENSION diagrams. If desired, the top escutcheon plate may be removed and the LUMITEN may be mounted to the bottom of pre-drilled console plates.

#### DESCRIPTION - MODEL 668ST STEREO LUMITEN

The MODEL 668ST LUMITEN is a two channel slide-type vertical attenuator containing two attenuation circuits. These two attenuation circuits are controlled by a single actuator. Cue circuits are provided in each channel in the Models 668ST/Q and 668-1ST/Q.

Two Amphenol blue ribbon connectors are placed at the bottom of the LUMITEN housing, one for each attenuation circuit, and the terminal arrangements on these connectors are identical to those indicated for the single channel Model 668. Use pin connections indicated on each connector of the stereo model.

#### SPECIFICATIONS 668 LUMITENS

IMPEDANCES AVAILABLE	600 ohms and 150 ohms (specified)
CIRCUIT	Unbalanced T, nominally constant impedance (impedance variation no greater than $\pm 10\%$ )
INSERTION LOSS	Nominally 4 db - 600 ohms $\pm 1.5$ db unit to unit Nominally 7 db - 150 ohms $\pm 1.5$ db unit to unit
VOLTAGE SUPPLY REQUIRED	6.3V DC at 110 ma
TRACKING ACCURACY	$\pm 2$ db within first 35 db of mixing range (unit to unit)
CUE CIRCUIT	Available as option. Magnetic switch

#### WARRANTY

See standard warranty policy. To validate warranty, complete and return the warranty registration card included with 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.

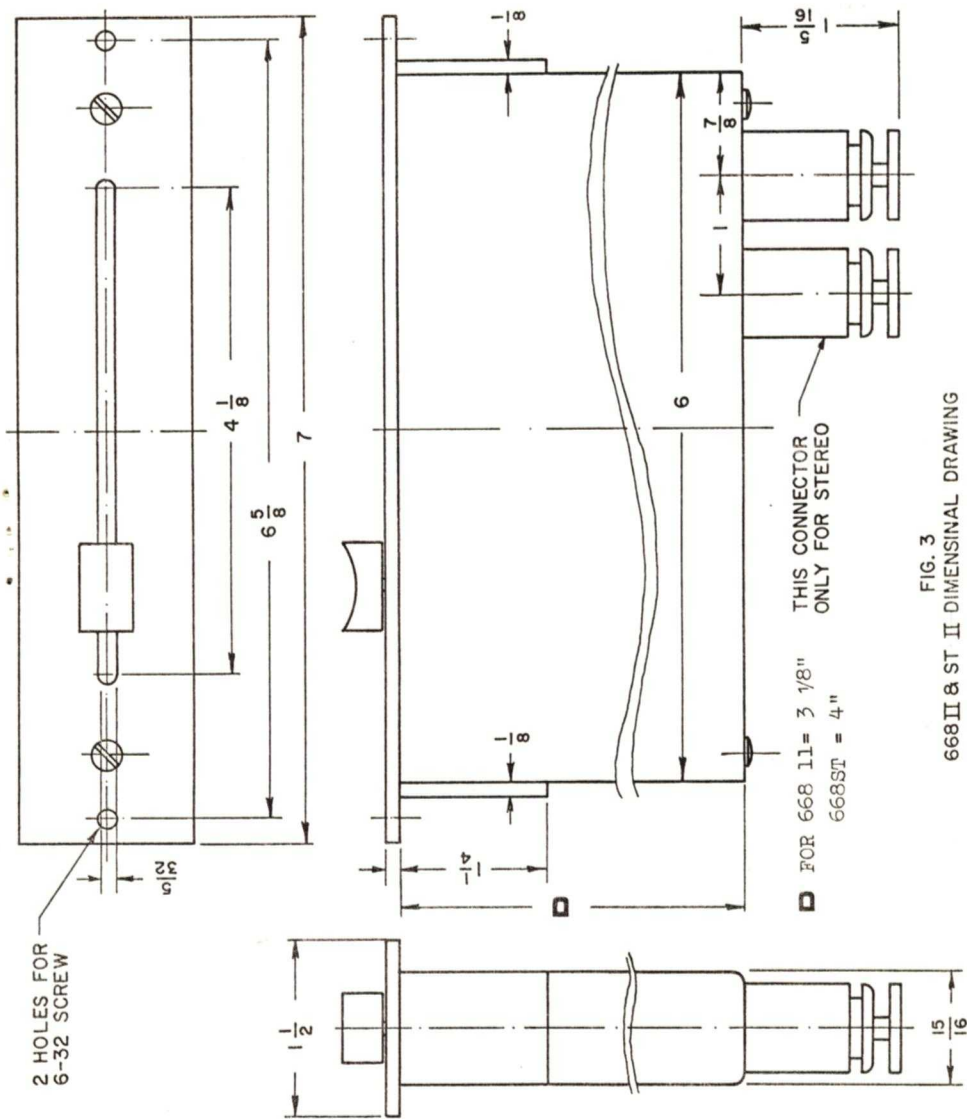
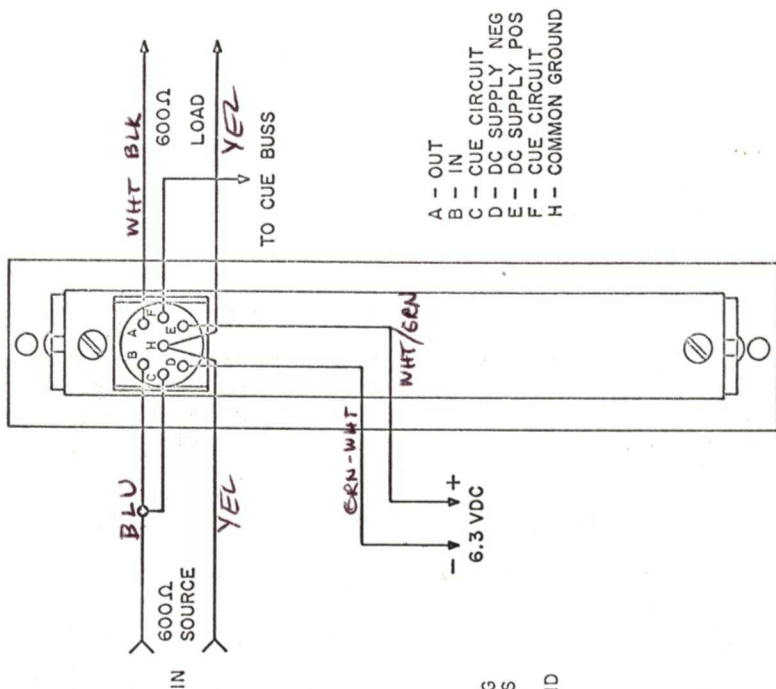


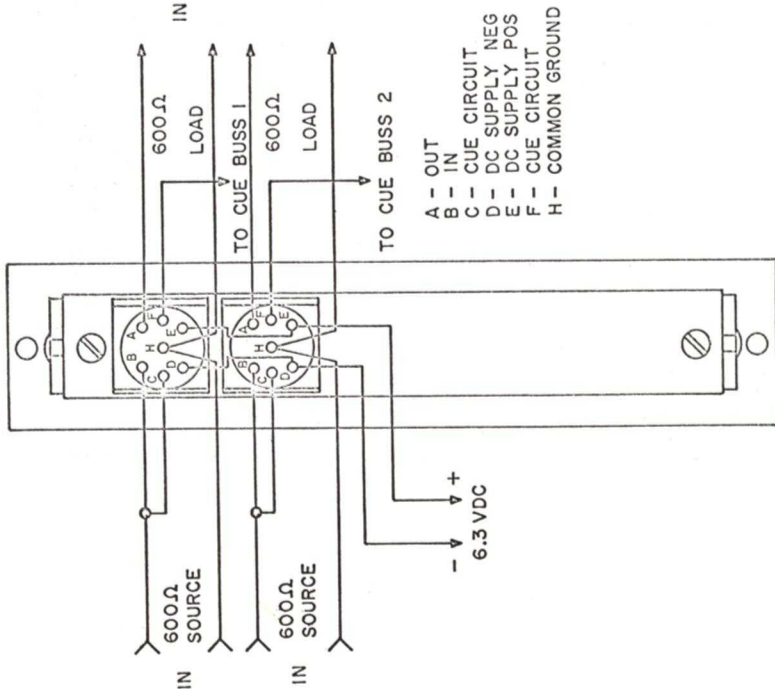
FIG. 3

668II & ST II DIMENSIONAL DRAWING

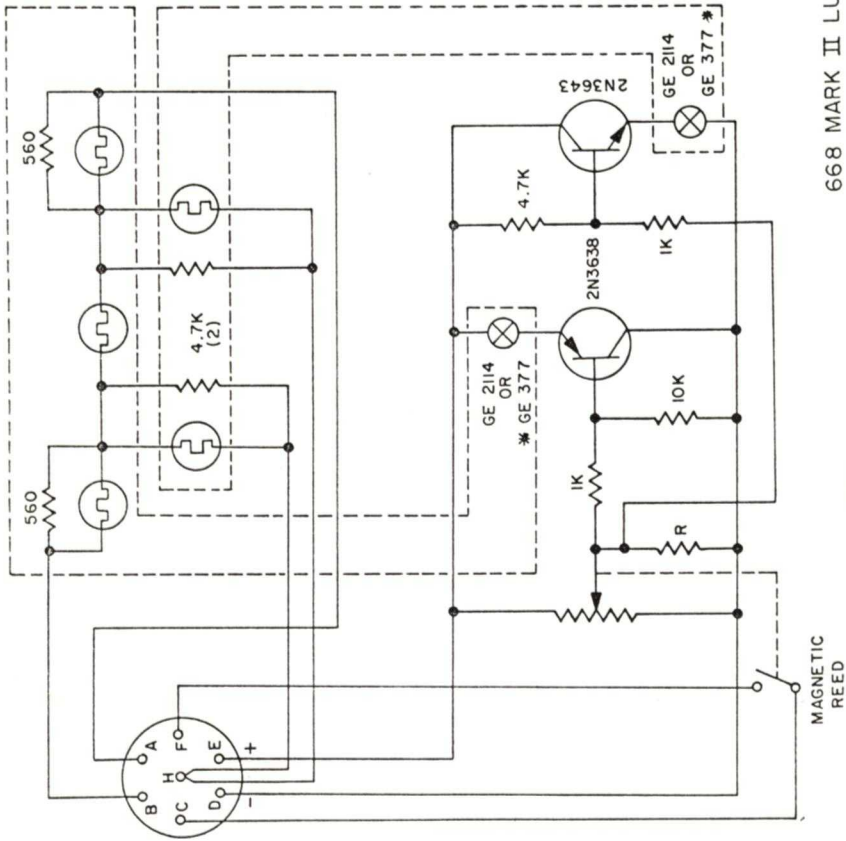
668 II



668 ST II



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668 MARK II LUMITEN SCHEMATIC

- NOTES:
1. R - TAPER ADJUST RESISTOR
  2. \* - PLUG IN BULBS

## WARRANTY POLICY

### PRIOR TO DELIVERY

FAIRCHILD RECORDING EQUIPMENT CORPORATION reserves the right to modify the specifications, or to incorporate modifications or revisions to the equipment, deemed to be in the best interest of overall performance of the equipment as determined by FAIRCHILD RECORDING EQUIPMENT CORPORATION.

### AFTER DELIVERY

FAIRCHILD's warranty obligation will be to replace all parts proven to be defective during the warranty period. The warranty period shall be for a period of 90 days from the date of delivery of the equipment to the buyer. All parts proven defective during this period will be replaced by FAIRCHILD.

All equipment that requires factory service under the warranty must be shipped to FAIRCHILD RECORDING EQUIPMENT CORPORATION at 10-40 45th Avenue, Long Island City, N.Y. 11101, prepaid, after requesting factory authorization to return.

Replaced parts shall carry the remaining period of unexpired and/or unused warranty period.

FAIRCHILD RECORDING EQUIPMENT CORPORATION shall not be liable for loss or injury, direct or indirect, arising out of the use or the inability to use the purchased FAIRCHILD equipment.

No statement other than those contained in the instruction manual, the regular sales bulletins or this warranty policy shall have any force or effect unless signed by an officer of FAIRCHILD RECORDING EQUIPMENT CORPORATION.

The warranty period of 90 days applies to all parts of the equipment, but it shall not be honored by FAIRCHILD RECORDING EQUIPMENT CORPORATION unless warranty is validated within 10 days after delivery. Complete and return the warranty registration provided.

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