



# GENERAL ELECTRIC

## Audio Equipment

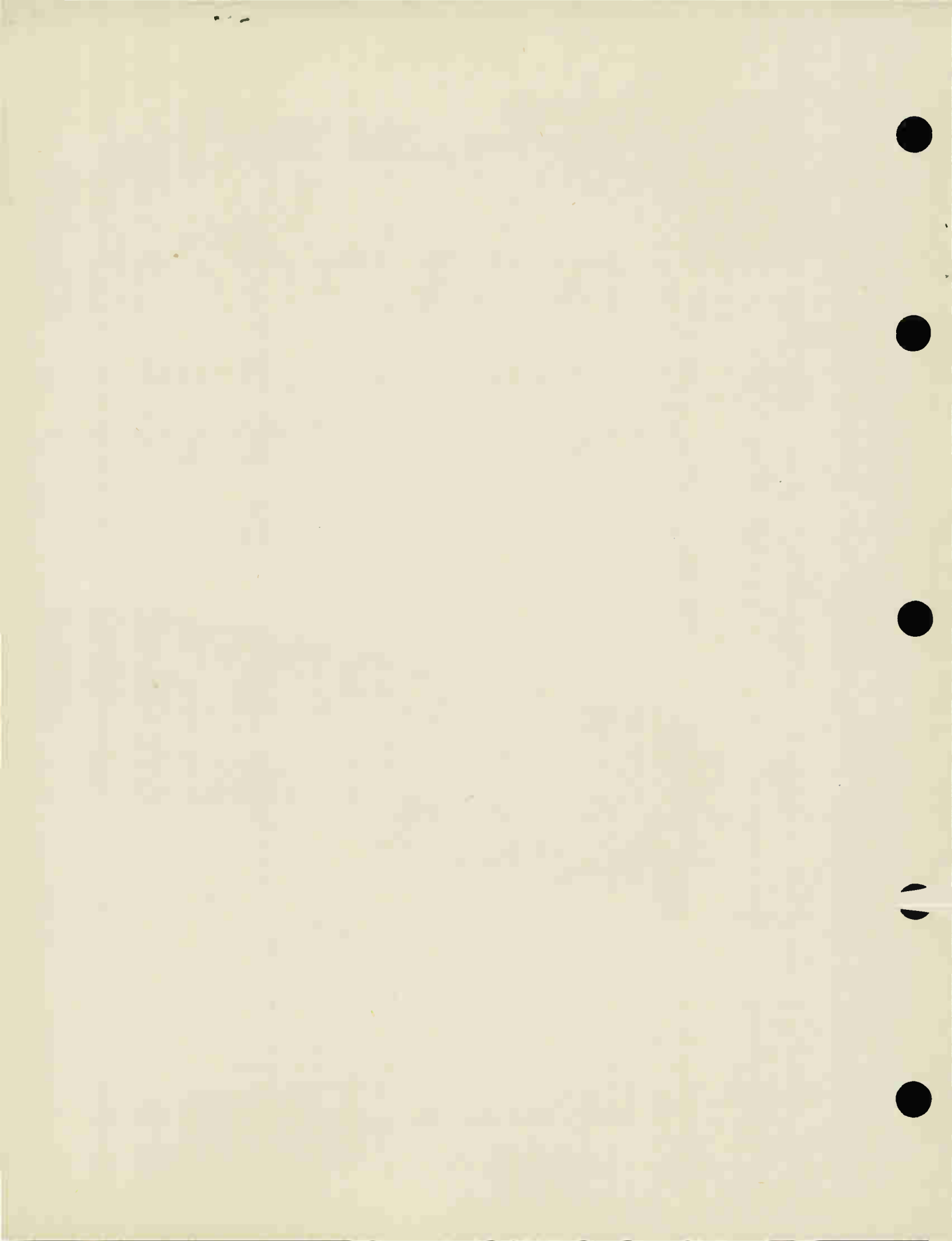
Transcription Arm  
Type FA-21-A

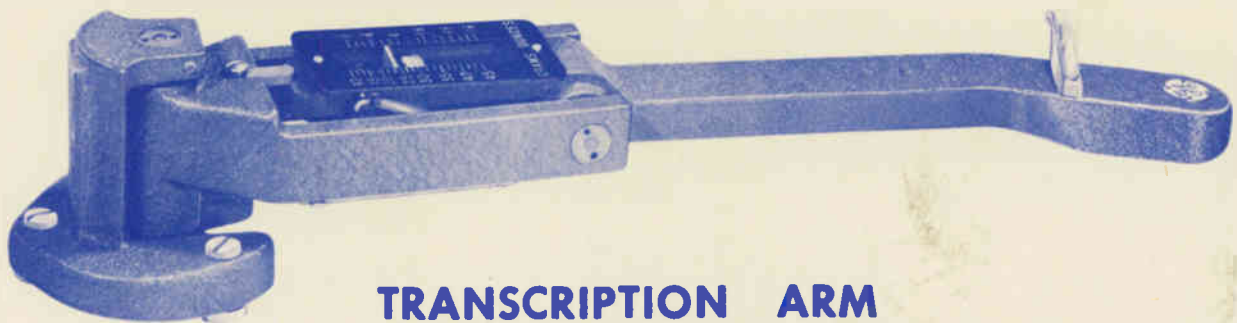
Transcription Equalizer  
Type FA-12-A

Equalized Transcription Pre-Amplifier  
Type BA-3-A

*New Ways to put live quality  
into transcriptions...*

GENERAL  ELECTRIC





## TRANSCRIPTION ARM TYPE FA-21-A

### GENERAL

The General Electric Transcription Arm, Type FA-21-A, designed to mount the G-E Variable Reluctance Pickup, is for use by broadcasting stations desiring the utmost in quality reproduction of lateral transcriptions and records.

The FA-21-A has been carefully designed for optimum performance of lateral transcriptions only. It contains no design compromises such as are necessary if vertical reproduction is also incorporated. To secure the best results from lateral recordings, the mass on the horizontal axis of the tone-arm is as low as possible, the bearing friction is a minimum, and the tone-arm is balanced about the horizontal axis.

### MECHANICAL

The Type FA-21-A Transcription Arm will mount on transcription machines whose dimensions from the center of turntable to edge of the mounting surface is approximately 15 inches or more.

Movement of the tone arm on the vertical and horizontal axis is particularly smooth because of the cone face ball-bearings. The combination of ball-bearings and leveling base results in a tracking which is substantially free of frictional or unbalance drag on the stylus.

The stylus is located by an arrow on the arm so that it may be accurately positioned for play-back of transcriptions.

The load on the pick-up stylus is adjustable by a precision spring loading system which is calibrated in ounces and grams.

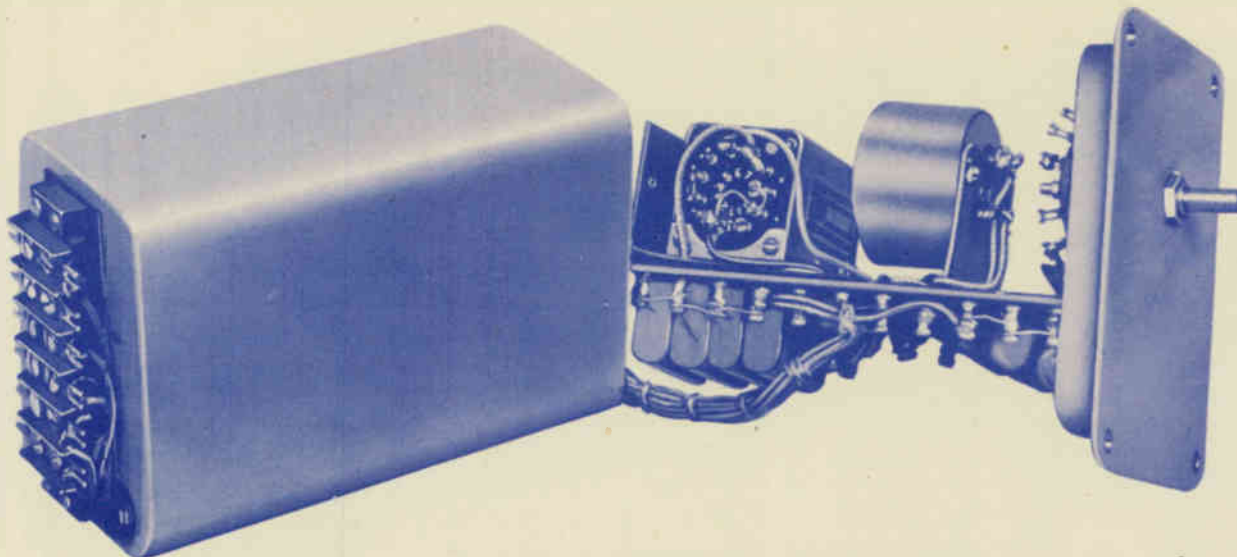
### FEATURES

Easy installation on popular turntables.

Clean quality -- no arm resonances in audio range.

Tracks well -- low-mass, low-friction arm plus highly damped, highly compliant pickup makes combination relatively immune to groove jumping.

Easy on the operators -- easy to spot in correct groove -- no instability worries.



## TRANSCRIPTION EQUALIZER TYPE FA-12-A

The General Electric Transcription Equalizer, Type FA-12-A, provides equalization for the G-E Variable Reluctance Pickup, when used with a microphone preamplifier. The Transcription Equalizer includes a four-position switch which allows control of high-frequency response.

The "FLAT" position provides essentially flat high-frequency response from material recorded at constant velocity. The "NAB" position provides essentially flat high-frequency response from material recorded in accordance with the "NAB" lateral curve. The "GOOD RECORDS" position provides a high-frequency response somewhat more attenuated than that given by the "NAB" position. The fourth position, marked "POOR RECORDS" position provides a high-frequency response considerably more attenuated than that given by the "NAB" position.

All switch positions provide low-frequency response essentially the complement of the "NAB" curve.

Experience has shown that the "NAB" position is ideal for high-quality transcriptions and records. For worn transcriptions and average good records, the "GOOD RECORDS" position provides the most pleasing response. Noisy and distorted records require the "POOR RECORDS" position. The "FLAT" position is useful for the reproduction of instantaneous recordings and other special records.

An output level of approximately -65 VU is obtained when this equalizer is used in conjunction with a G-E Variable Reluctance Pickup and an amplifier of 50-db gain such as the G-E Type BA-10-A.

## CONSTRUCTION AND MOUNTING

The Type FA-12-A Transcription Equalizer is a single unit housed in a rectangular steel case. Mounting flanges are provided at the top (switch end) of the case to enable mounting the Equalizer to the under side of the top panel of a transcription machine with its switch shaft passing vertically through a clearance hole drilled in the top panel. The switch shaft is made extra long so as to accommodate various thickness of transcription machine top panels. A knob and escutcheon plate are supplied for mounting above the equalizer on the control surface of the transcription machine panel. External connections to the pickup and to the amplifier are made on a terminal board located at the bottom of the equalizer case. Although the equalizer components are completely enclosed in a protective metal case containing inner mu-metal shields, the removal of two case screws enables rapid access to the components should servicing be necessary.

## FEATURES

Pleasing record reproduction -- full low-frequency response and adjustable high-frequency response.

Easy to install -- single unit construction.

Low hum pickup because of adequate magnetic shielding.

Connections simplified -- 250- and 150-ohm outputs may be run grounded or balanced.

Convenient to use -- connects to any microphone preamplifier.

## SPECIFICATIONS

### Output Circuits:

Load Impedance: designed to work into either a 150- or 250-ohm unloaded input.

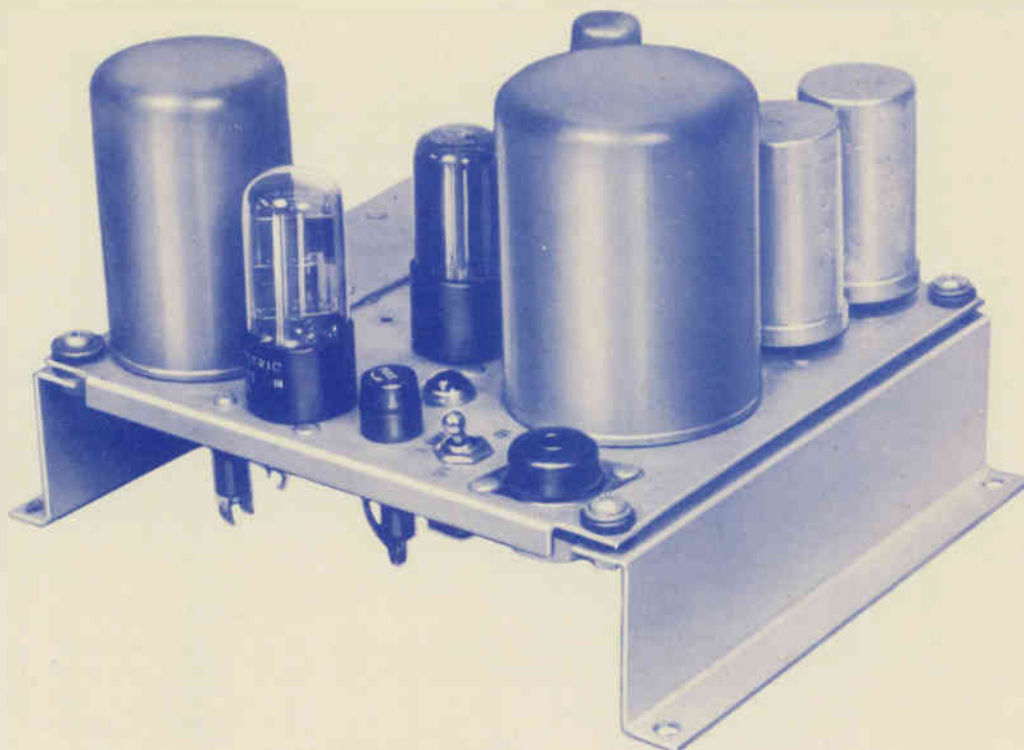
Output Connections: balanced or either side may be grounded.

### Output Level:

Approximately -65 VU when used with the Variable Reluctance Pickup.

### Dimensions:

6 7/8" by 3 3/4" by 3".



## **EQUALIZED TRANSCRIPTION PRE-AMPLIFIER TYPE BA-3-A**

The General Electric Equalized Transcription Pre-Amplifier, Type BA-3-A, is a high quality, a-c operated, equalized audio amplifier. It is designed to enable broadcasters to fully realize the superior play-back performance possible with the new G-E Variable Reluctance Pickup.

A four-position switch allows control of high-frequency response.

For the convenience of the operator, the Type BA-3-A provides a cueing circuit which will feed headphones.

### **CONSTRUCTION AND MOUNTING**

The amplifier is built on a flat plate chassis which mounts inside the turntable cabinet.

The switch is designed to mount on the turntable either at the top or the side, and includes an escutcheon plate and knob.

Shielded leads are provided for connection to the pickup and to the equalizer switch. Suitable leads can be connected from the amplifier to a headphone cueing jack (to be provided and mounted by the customer). The usual power and audio output leads interconnect with the station facilities. Terminals are provided for metering of tube cathode voltages. Connections may be made to a General Electric Type FA-11-A DC Metering Panel.



## FEATURES

Full "NAB" low-frequency response.  
Adjustable high-frequency response including "NAB" position.  
Sufficient level to feed directly into conventional mixer systems.  
Low noise type 1620 input tube.  
Tubes and chassis both shock mounted.  
Magnetically shielded output and power transformers.  
Plug-in electrolytic capacitors.  
Provision for tube current checks.  
Output circuits are 600/150 ohms and may be run either balanced or unbalanced.  
Low distortion.  
Cueing circuit for headphones.

## SPECIFICATIONS

### Power Supply

105/115/125 volts, 50/60 cycles

### Power Input

20 watts

### Tube Complement

1 G-E Type 1620\*  
1 G-E Type 6SN7-GT  
1 G-E Type 6X5

\* Type 6J7 may be used where a minimum of microphonics and hum are not required.

### Output Level

When used with the G-E Variable Reluctance Pickup, the output will be approximately -15 VU.

### Noise Level

65 db below output level of -5 dbm.

### Cueing

Approximately 2 volts, one side grounded, for use with standard headphones (medium and high impedance types). Output isolated from program circuit.

### Output Circuits

Load Impedance: 600/150 ohms  
Output Connections: 600 or 150 ohms - balanced, or either side may be grounded.  
Internal Output Impedance: 600 or 150 ohms approx.

### Distortion

0.5% or less, 50 to 15,000 cycles with up to -15 dbm output. 1% or less, 50 to 15,000 cycles with up to -5 dbm output. This includes equalizing circuits.

### Metering

Cathode resistors tapped at 1 volt for connection to an external 5000 ohms-per-volt 2 volt meter. (Such as G-E Type FA-11-A DC Metering Panel.)

### Dimensions

7 inches high (over-all) by 8-3/4 inches square chassis.

### Weight

Approximately 6 lbs. 3 oz. (unpacked).

## SCOPE OF THE SPECIFICATION

In the construction of the equipment described above, the full intent of the specifications will be met. It is assumed, however, that any departures from the specification desirable for reasons of improved design or operation, will be permissible.

**G-E** offices *everywhere* are at your service! For complete information on the best equipment for every type of broadcasting, special representatives are located at:



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(In Canada, Canadian General Electric Company, Ltd., Toronto, Ont.  
 Outside the U.S.A., and Canada, by: International General Electric  
 Company, Inc., Electronics Dept., Schenectady, New York, U.S.A.)



*Handwritten initials*

ELECTRONICS DEPARTMENT

**GENERAL  ELECTRIC  
COMPANY**

MAIN OFFICE SYRACUSE, N. Y.

General Electric Building  
570 Lexington Ave. at 51st Street  
New York 22, N. Y.

November 30, 1948

Dear Sir:

Here is information about THREE accessories for use with the famous General Electric Variable Reluctance Pickup.

We are glad to let you know that we are now able to supply these transcription accessories directly from our stock at Electronics Park, Syracuse.

Following are the prices:

Diamond Stylus Pickup, Model 1RM-80.....	\$29.63 net
Transcription Arm, Type FA-21-A.....	41.00 net
Transcription Equalizer, Type FA-12-A....	57.00 net
Equalizer Transcription Pre-amplifier, Type BA-3-A.....	125.00 net
(1 set of tubes.....)	8.61 net)

If you would like further information, or if you would like one of our representatives to call on you, please fill out the attached form.

Very truly yours,

*Handwritten signature*

DISTRICT REPRESENTATIVE  
BROADCAST EQUIPMENT

