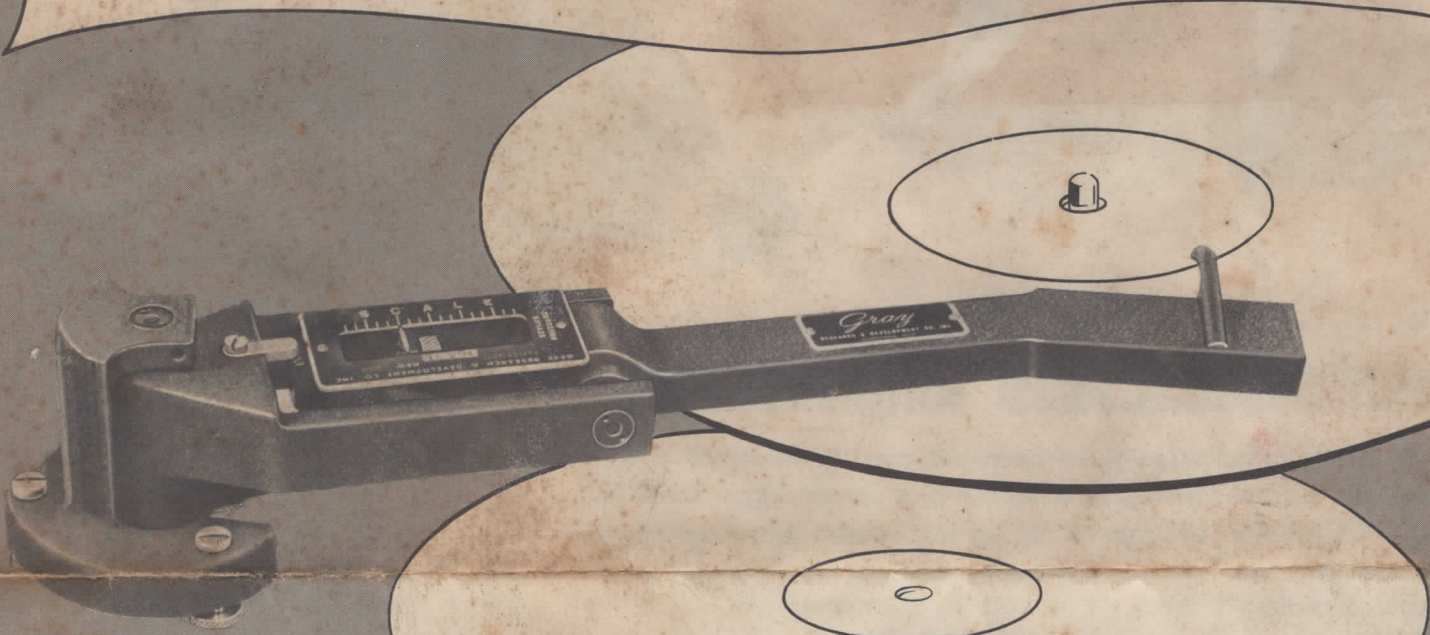


This is **THE ARM**<sup>\*</sup> for micro groove  
**LP RECORDS**



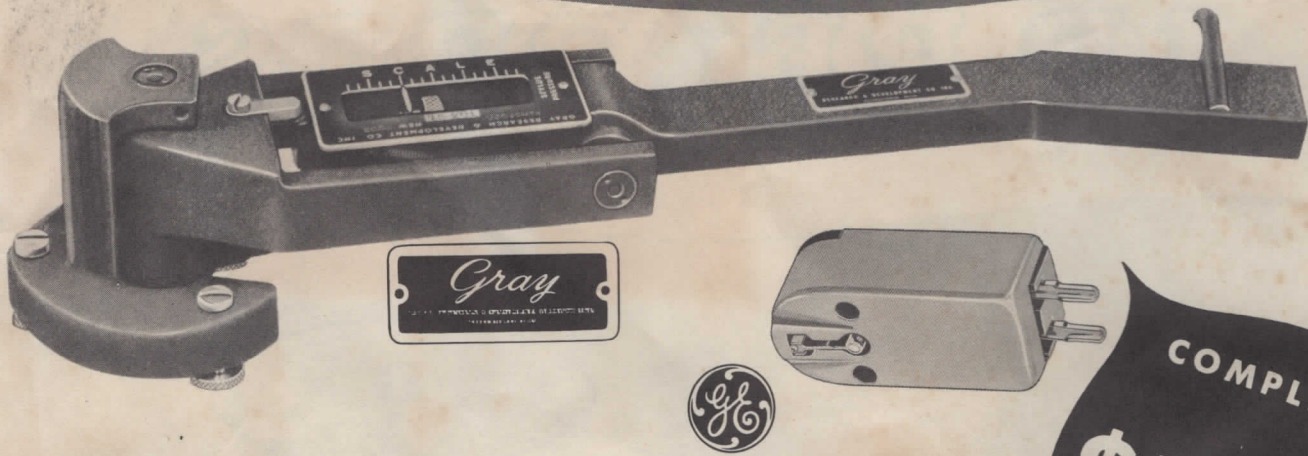
**\***  
APPROVED by  
Columbia Records For  
Professional reproduction  
of LP records.

APPROVED by  
Columbia Broadcasting Co.

**GRAY RESEARCH AND DEVELOPMENT COMPANY, Inc.**

16 ARBOR STREET • HARTFORD 1, CONN.

# GRAY 103-LP Transcription Arm . . .



## MEETS STRICTEST REQUIREMENTS

GRAY Transcription Arms have been designed to meet the strictest requirements of modern highly compliant pick-up cartridges. The GRAY Model 103-LP Arm has special spring adjustments which permit the accurate setting of the precise stylus pressure required for Micro-Groove records.

Built of feather-light Magnesium, with the finest angular contact ball-pivot, the GRAY LP Arms's low vertical inertia and extremely low pivot friction assure the Broadcaster of an almost entirely eliminated distortion content of lows, insure accurate tracking and minimum of scratch. For best performance the GRAY 602 Equalizer is recommended for use in conjunction with the GRAY 103-LP Arm. The GRAY Equalizer should be fed into a pre-amplifier which is intended to be operated from a 250 ohm source.



The important part the Arm plays in making it possible for a good reproducer to deliver the maximum performance of which it is fully capable is widely recognized by leading audio engineers. The GRAY 103-LP ARM is approved by leading authorities as the best of its kind regardless of cost.

## STAR STUDDED FEATURES

- ★ Natural Resonance Far Below Standard Recording Limits
- ★ Precisely Adjustable Stylus Pressure
- ★ Easy Adjustment for Conventional Records
- ★ Adjustable Pivot Height
- ★ Low Vertical Inertia

## Don't Neglect Your Reproducer

The GRAY 103-LP ARM comes equipped with the GE Variable Reluctance Cartridge with the finest 1 mil diamond stylus installed. In addition, armature compliance and damping in these cartridges is specifically adjusted for LP! This specially selected and laboratory tested equipment absolutely assures proper tracking and low needle talk. Moreover these special cartridges are mechanically interchangeable with standard cartridges — slip in and out in a jiffy!

NOTE: The GRAY 103-LP ARM may be purchased without GE Modified Cartridge — deduct \$34.50.

# 602 Equalizer



## ENGINEERED HIGH FIDELITY

The GRAY 602 Equalizer is an advanced design of the famous GRAY 601 and has been specially engineered to provide the same constant velocity frequency response for LP records. A convenient control permits instantaneous switching from conventional records to Micro-Groove. Here in one assembly are *all* of the various combinations of equalization required for *all* types of records.

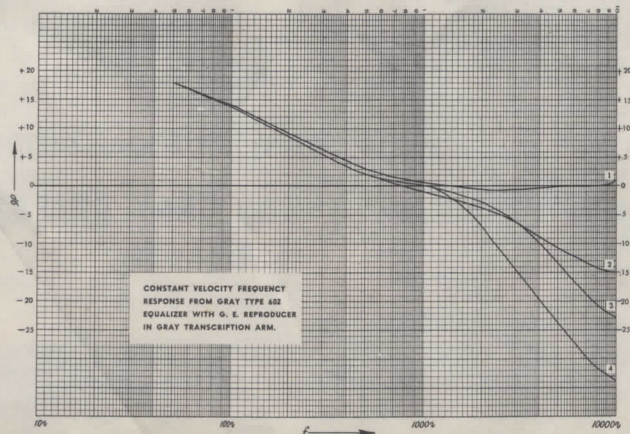
The frequency response curves from the GRAY 602 Equalizer are considerably more accurate than obtained from well known makes of similar type for other reproducers. Hum sensitivity is low — so low as to be immeasurable with the usual available equipment. The GRAY 602 Equalizer is truly the finest equipment of its kind yet developed.

When "LP" setting is used with the Gray 103-LP Arm and GED-LP Cartridge on Micro-Groove records, position #2 gives Columbia's recommended equalization. "Others" setting is used for 78 RPM records and transcriptions with control settings for "FLAT", NAB transcriptions and high frequency roll-off for "Noisy" records. Response curves are shown in the chart below.

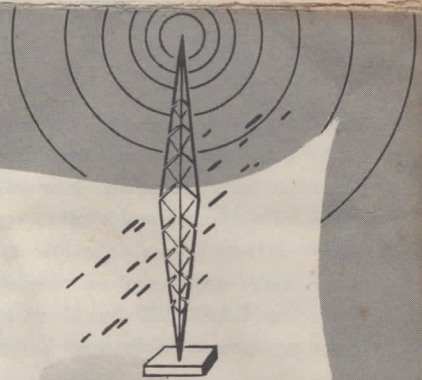
## GRAY RESEARCH AND DEVELOPMENT COMPANY, Inc.

### Look at These Specifications:

- Frequency response:** Most accurate — see chart at right.
- Output impedance:** 250 Ohms (150 or 50 Ohms available at no extra charge on special order).
- Insertion loss:** 20 DB
- Output level:** -67 Vu. at 4.7 cm sec
- Cable length:** 18 inches



Now "LP" for your  
**LP**  
broadcasting station



Now you can install the finest equipment of its kind, approved by outstanding authorities such as Columbia Records, Columbia Broadcasting Company and other recognized audio and broadcast engineers. GRAY LP Equipment will enable you to obtain the most accurate frequency response curves, eliminates hum, insures accurate tracking and a minimum of scratch — GRAY LP ARMS guarantee the best possible reproduction with LP records. There is no better equipment available at any price.

SEE YOUR LOCAL DISTRIBUTOR OR WRITE—

**THE GRAY RESEARCH AND DEVELOPMENT COMPANY Inc.**  
16 Arbor St. Hartford, Connecticut

