

ASTATIC Golden Eagle

Transistorized Desk Stand & D-104 Micro.

GRIP, PUSH, TOUCH OR LOCK ON-TO-TALK TYPE

The Status Symbol for C. B., Ham and Professional Users

ASTATIC

MODEL
GOLDEN EAGLE
T-UG9-D104 (GOLD)

GENERAL DESCRIPTION

The "Golden Eagle", Astatic's limited production Bicentennial microphone commemorating our nation's 200th birthday, will be the most treasured microphone in the history of our country.

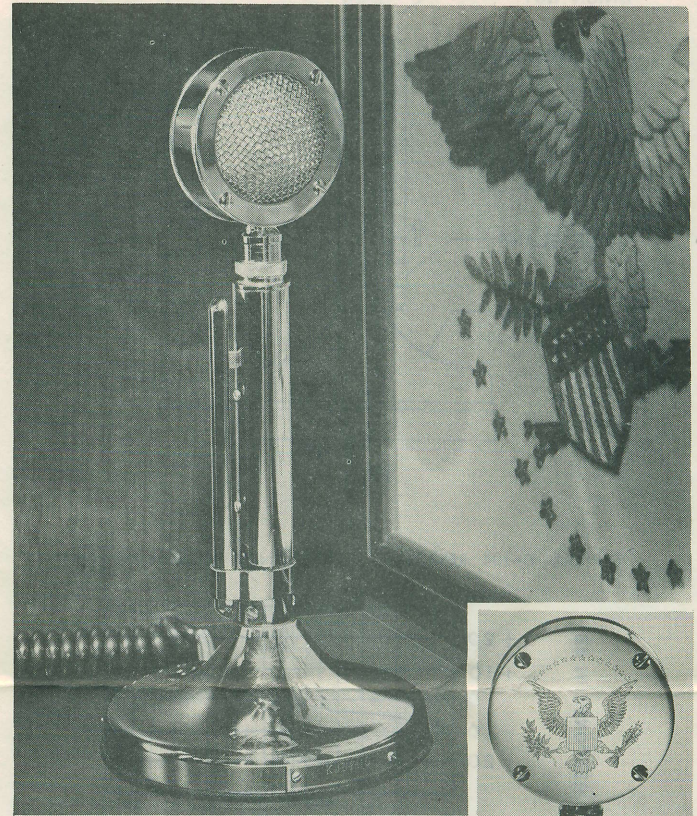
The world famous Astatic D-104 microphone, emblazoned with the "Golden Eagle", is mounted on a new Astatic 6 wire transistorized desk stand for universal hook-up applications. Both microphone and desk stand are beautifully plated in 20K gold to add the final touch of elegance.

The Golden Eagle (T-UG9-D104, Gold) Stand has a built-in two-stage silicon transistor amplifier having high impedance input. The output impedance is suitable for the inputs of most all commercial transmitters or transceivers. The high gain available ensures desired modulation capability. The gain can be readily adjusted for the desired modulation. The control is recessed to avoid accidental changes. The result is an ideal base station microphone for CB, Amateur or other communication transceiver or transmitter. The tailored response and high gain ensures excellent talk-power and intelligibility -- and full modulation.

FEATURES and SPECIFICATIONS

- D-104 MICROPHONE: High quality metal sealed type crystal.
- MICROPHONE RECEPTACLE: On top of stem, offers instant microphone change versatility.
- SWITCH BAR FOR EASY CONTROL: Can be locked "ON" by moving "slide clamp" to top of stand.
- HEAVY, TIP-FREE BASE: Sturdy, die-cast zinc construction protects the microphone from "tip over" damage.
- ATTRACTIVE FINISH: 20K Gold
- NOISE-FREE AND CLICK-FREE SWITCHING: Uses heavy duty 3 PDT leaf type switch with palladium contacts. Low contact resistance of 20 milliohms; will not oxidize and requires no cleaning.
- HIGH CURRENT CAPABILITY: High current capability for relay operation allows up to 3 amperes DC and non-inductive AC loads with complete safety. **
- HIGH GAIN, TWO TRANSISTOR AMPLIFIER.
- RECESSED VOLUME CONTROL TO AVOID ACCIDENTAL CHANGES.
- SIZE: See Fig. 1.
- WEIGHT: GOLDEN EAGLE - 2lb., 10 1/2oz.

** Caution Note: Care should be exercised in exciting relays with AC because of induced hum fields.



ELECTRONIC SPECIFICATIONS

- FREQUENCY RESPONSE: See Fig. 4, on other side.
- OUTPUT LEVEL: @.1000Hz:
1 meg. Load = -20dB re 1V/microbar.
5000 Load = -26dB re 1V/microbar.
- POLAR PATTERN: Semidirectional.
- OUTPUT IMPEDANCE: 5000 ohms or less.
- AMPLIFIER VOLTAGE GAIN: 26dB.
- BATTERY TYPE: 9 volt; Eveready 216, Burgess 2V6, Ray-O-Vac 1604, etc.
- BATTERY DRAIN: 1.2 ma.
- BATTERY LIFE: Approx. 6 mo. (based on normal usage).
- TEMPERATURE RANGE: Approx. -30 C. to +45 C. (Limited by crystal.)
- 'RELAY', 'ELECTRONIC' or 'SPECIAL CIRCUITS': By plug wiring
- CABLE: Coiled cord; single conductor shielded plus four unshielded conductors.



THE **ASTATIC** CORP.

CONNEAUT, OHIO • U.S.A. 44030

MANUFACTURERS OF PHONOGRAPH CARTRIDGES
NEEDLES • PICKUPS • MICROPHONES

PHONE: 593-1111 Area Code 216

ASTATIC specifications: ASTATIC Golden Eagle

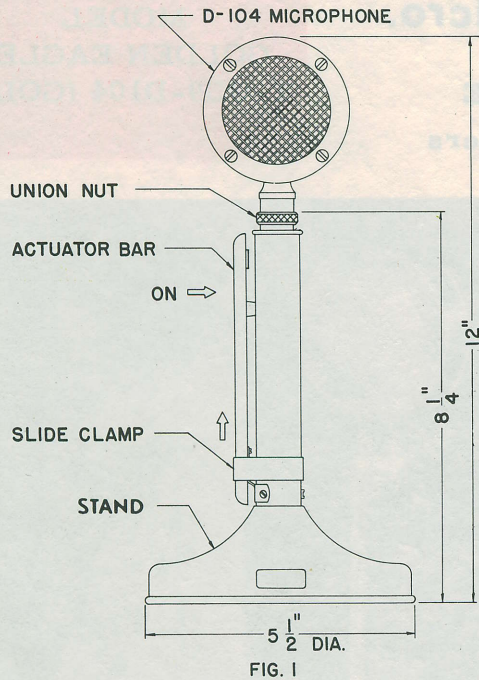


FIG. 1

TYPICAL D-104 RESPONSE - FREQUENCY CHARACTERISTICS

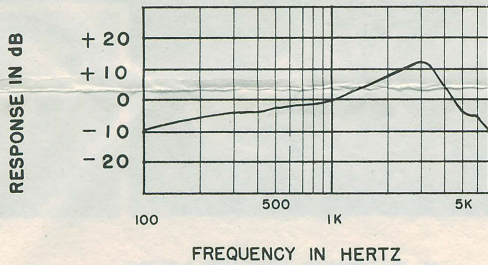


Fig. 4

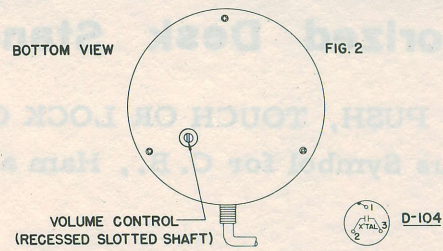


FIG. 2

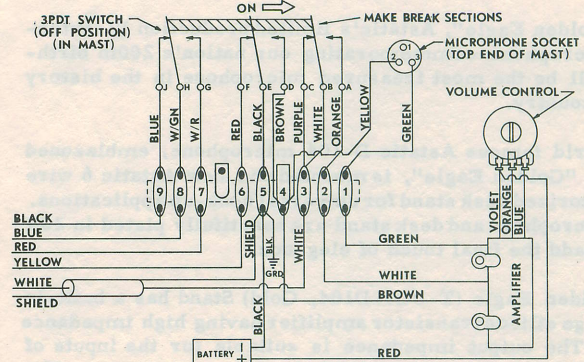


FIG. 3

STAND SCHEMATIC

NOTES:

1. Do not subject the crystals to temperatures over 45°C.; permanent damage may result.
2. The D-104 is one of a group of "Plug-In" microphones compatible with the "G" series of stands. It plugs into the top of the mast and is locked on by means of the union nut (See Fig. 1).

"RELAY", "ELECTRONIC", or "SPECIAL" SWITCHING CONTROL: Most types of switching are possible by proper hookup wiring with no changes in the stand required. The stand is factory wired so that in the unoperated position the black wire is connected to the blue wire and the yellow wire is grounded to the shield. Depressing the actuator bar connects the red wire to the blue wire and ungrounds the yellow wire.

CABLE CONNECTOR WIRING: WHITE to audio input, SHIELD to ground, RED, BLACK, BLUE and YELLOW to control circuits.

VOLUME CONTROL: Located in the base to eliminate accidental changes should be set at minimum gain - complete COUNTER CLOCKWISE position when viewed from bottom of stand. TURN "ON" the transmitter and squeeze the actuator bar in direction as noted in Fig. 1. Operating the actuator bar operates the transmit-receive circuits. While talking into the microphone at normal operating distance, slowly turn the volume control (Fig. 2) up until modulation is at desired level. Once properly set, the volume control should not require resetting under equivalent conditions.

For desired sensitive touch control - move slide clamp up in short steps to desired tension. For continuous or VOX operation - push slide clamp up to tap.

BATTERY REPLACEMENT: 9 volt battery, located inside the base of stand may be replaced with locally available Eveready 216, Burgess 2V6, Ray-O-Vac 1604, or equivalent.

To replace the battery, remove the bottom cover by removing the three cover screws.

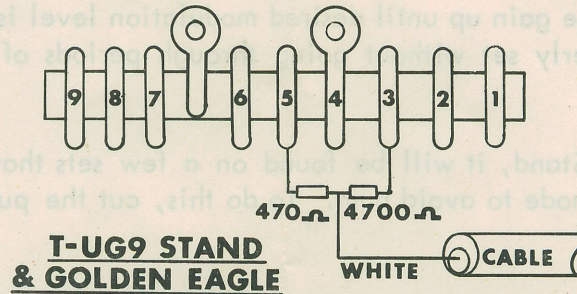
CARE OF GOLD FINISH: The 20K Gold finish on the Golden Eagle is protected by a Lacquer Coating. To preserve the original finish do not use abrasive cleaners or solvents. Use only damp soft cloth and wipe dry with soft cloth.

T-UG9 STAND

Special Instruction Notes

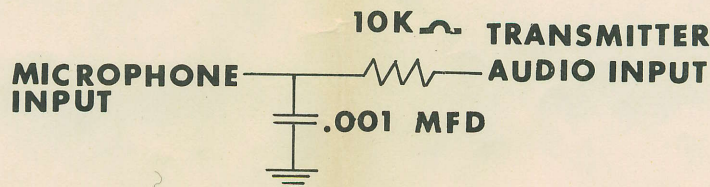
1. A combination of the amplified stand and a high level microphone may result in over modulation (tinny or hollow sound), overly sensitive gain adjustment or a squeal when transmitting. Several possible solutions exist for this problem. The first is to add a $\frac{1}{4}$ or $\frac{1}{2}$ watt resistor equal to ten times the input impedance of the set, in series with the white cable lead.

A second solution is installation of an "L" pad comprising two resistors.



Decreasing the value of the 470 ohm resistor will lower the output level.

2. When wiring microphone cables and plugs to equipment, the color codes for the cable and for the equipment are not necessarily the same. Be careful to connect wires to the correct terminals.
3. Occasionally R.F. feedback presents problems. The solution is basically good installation.
 - a. Antenna Feedline standing wave ratio must be low.
 - b. Good grounding eliminates a "hot" transmitter chassis condition which can couple R.F. into unwanted places. On base stations multiple grounds with different length line to each ground is good practice.
 - c. In stubborn cases it may be necessary to alter microphone cable length to a non-resonant length. A coil cord in lieu of a straight cable can be a solution.
 - d. In extreme cases it has been found that installation of an R.F. filter in the transmitter at the audio input eliminates R.F. to audio input stage. This filter comprises a 10K ohm resistor in series and a .001 mfd. capacitor from the microphone input to ground.



T-UG9 STAND

Special Instruction Notes Continued

4. Some transceivers (such as Messenger 124) have the microphone ground at a D.C. potential differing from the outer case. With a metal housed microphone there is a possibility of shorts to the outer case blowing fuses or damaging equipment. When using equipment of this type, replace the black jumper from terminal 5 to the solder lug, with a 10 mf. capacitor of adequate voltage rating.
5. On initial setup it is a good practice to turn gain completely down. After turning on the transmitter, slowly turn the gain up until desired modulation level is reached. This procedure aids in getting gain properly set without going through periods of excessive distortion and over modulation.
6. When using the T-UG9 Stand, it will be found on a few sets that the audio line must be grounded in the receive mode to avoid hum. To do this, cut the purple wire from terminal 3 and add it to terminal 5.

