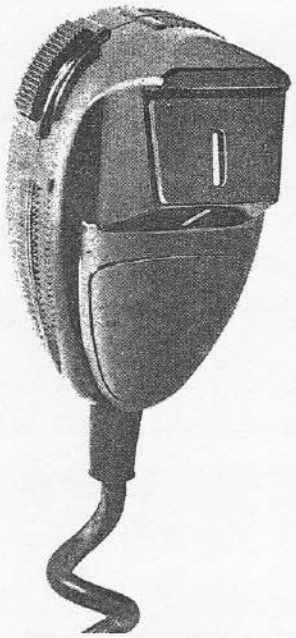

DESCRIPTION

The Electro-Voice Model 205STCKK is a close-talking, noise-cancelling microphone of the differential carbon type. It provides highly intelligible speech transmission, even under high ambient noise conditions. Ambient noise is fed into dual apertures in correct phase relationship to provide almost complete cancellation. Speech which originates close to one of the apertures is fully reproduced. Articulation is 97% under quiet conditions and 88% under 115 db of ambient noise. Blastproof, waterproof, and shock resistant, it is an ideal choice for use under adverse physical conditions. Its case, of tough, high-impact phenolic, is shaped to fit the hand comfortably. Essentially flat response is provided over the entire speech range of 100 to 4,000 Hz for best intelligibility. Carries FAA type approved Certificate No. 1040. Coiled cord permits easy use. Model 205STCKKP is identical to the Model 205STCKK, except that its cable is terminated by a PJ-068 plug.

WARRANTY

Each Electro-Voice microphone is guaranteed for its life to be free of factory defects in materials and workmanship and will be repaired or replaced, at our option, at no charge if exhibiting malfunction from this cause. Microphones for warranty repair must be shipped prepaid to Electro-Voice, Inc., Sevierville, Tennessee. They will be returned prepaid. This warranty does not cover finish or appearance.

SPECIFICATIONS

Type:	Differential single button carbon
Frequency Response:	100 to 4,000 Hz at ¼"
Impedance:	100 ohms
Polar Pattern:	Bidirectional, pressure gradient
Output Level:	−50 db (0 db = 1 volt/dyne/cm²) 0.031 volt into 100 ohms developed by normal speech. 10-50 MA button current
Temperature Range:	−40°C, −40°F to +85°C, +185°F
Switch:	On/Off, leaf contacts open microphone circuit in "off" position
Cable:	4-conductor, coiled cord 5' long extended. 205STCKKP identical but has a PJ-068 plug at cable end
Dimensions:	3-15/16" h, 2-3/8" w, by 2" deep
Case Material:	High impact phenolic
Finish:	Black
Net Weight:	12 oz., with cable

OVERHAUL INSTRUCTIONS

1. Special tools required: None
2. Disassembly: (See Figure 1)
   a. Disassemble in the same order as the key index number assigned to the exploded view illustration, except as noted below.
   b. Do not disassemble the head and capacitor subassembly (2) to (6) unless capacitor or head must be replaced. If this is necessary, proceed as indicated in Steps c and d.
   c. With an eyedropper, apply Esso Solvent No. 1 at sides and bottom of head assembly (3). Allow solvent time to dissolve the cement.

      Hold head to front case (6) and gently pry head assembly loose with a screwdriver.

d. When head assembly is removed, unsolder all leads and replace capacitor or head, as may be required.

e. Do not unsolder leads to switch unless it is necessary to replace switch assembly or cable (10).

3. Cleaning: Thoroughly clean dust and dirt from microphone by using dry compressed air to dislodge dirt from corners. Clean each part with a lint-free cloth or brush, slightly dampened with dry-cleaning solvent (Federal Specification P-S-661). Remove any pits from the switch contacts by burnishing.

4. Inspection:

   a. Inspect switch contacts for signs of any excessive wear.

   b. Check for proper switch travel. When the switch button is fully depressed, both sets of switch contacts should close with just enough overtravel to insure a slight wiping action of the contacts. (See Step 5).

   c. Check cable for signs of damage, such as cuts or cracks.

5. Repair and Replacement: Replace any damaged part. Check resistance across the head with an ohmmeter. It should read from 100 to 2,000 ohms. If it does not, replace it with a new head, following directions in reassembly procedure. If the reading falls within the required ohm span, replace old head, following the same reassembly procedures. Switch travel may be adjusted by loosening 2-56 nut (16) and rotating entire switch assembly (14) until both sets of contacts are closed (with button fully depressed) with enough overtravel to insure a slight wiping action on the contacts. Nut (12) should be securely tightened and switch action checked again to be sure no change occurred in the tightening operation.

6. Lubrication: None

7. Reassembly: This is the reverse of the disassembly, noting these special instructions:

   a. If the head and capacitor assembly was disassembled, proceed to reassemble as follows,

   b. Solder the capacitor (2) and leads in place across the head.

   c. Apply a film of Minnesota Mining & Manufacturing cement EC871 to the four edges of each of the two vinyl strips covering the holes of the microphone carbon element.

   d. When the cement is tacky, mount head in place inside the front case. Allow cement to dry about ten minutes.

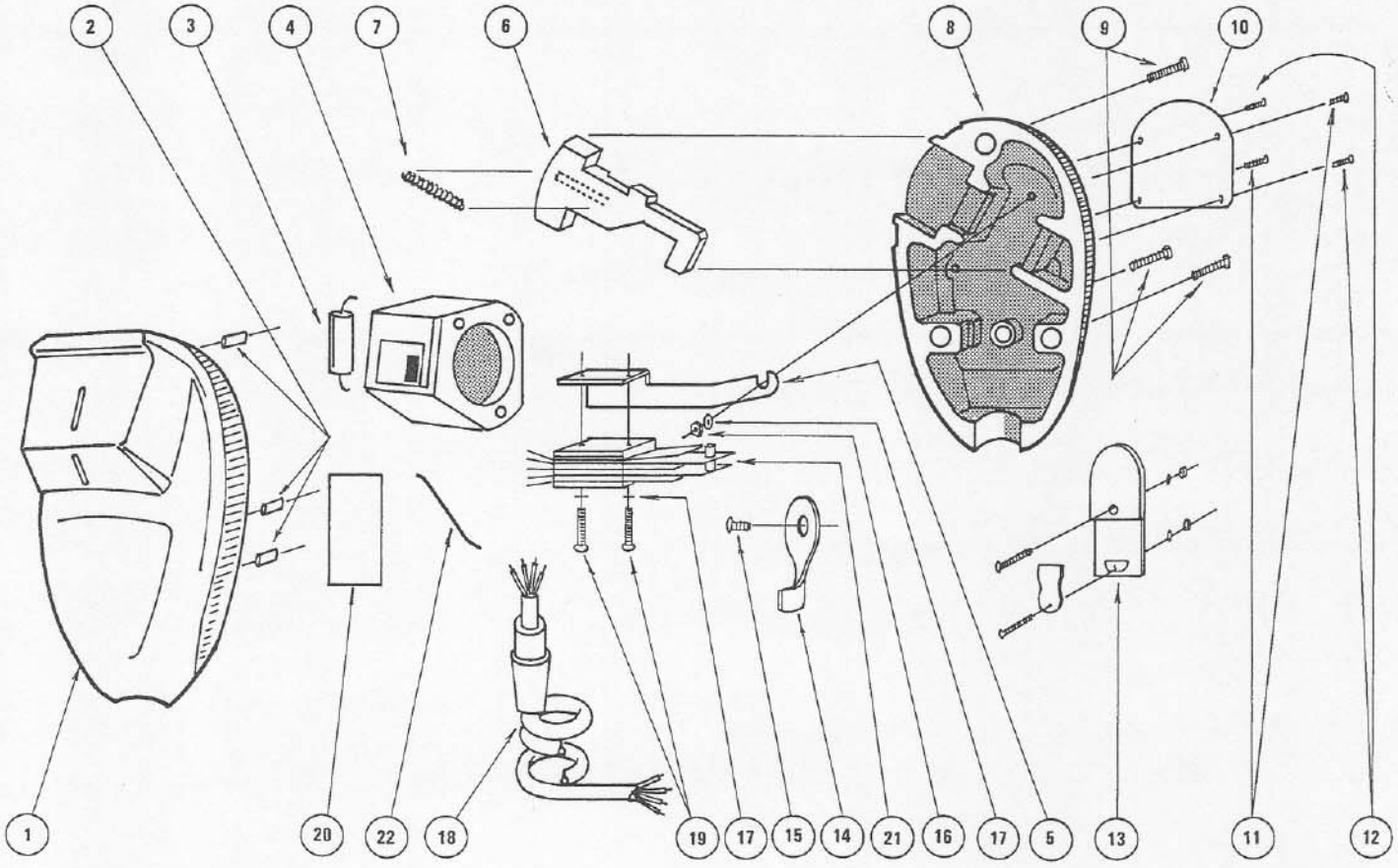

Figure 1 – Assembly Drawing

8. Test procedure: (See Figure 2)
9. Check operation of the switch as follows:
   a. With the switch released, check the resistance between the white and green leads. It should be infinite.
   b. Check the resistance between the red and black leads. It should be infinite.
   c. Depress switch and check resistance between white and green leads. It should be zero.
   d. Check resistance between red and black leads. It should be about 100 to 2,000 ohms. Speaking into the microphone will cause the resistance to drop to a value between 150 and 500 ohms.
10. Check of Microphone Output: The best procedure for testing the microphone is to compare its output with one known to be operating properly, using the test set-up shown in Figure 2. Check the output voltage as follows:
   a. Depress shorting switch and adjust rheostat to obtain about 50 milliamperes through 100-ohm resistor. Release the shorting switch.
   b. Hold the test microphone about ¼-inch from the mouth and talk at normal speech level with microphone switch depressed. An output of 0.031 volt should be obtained.
11. Check of Frequency Response: This test requires the use of an audio oscillator and driver as shown in Figure 2.
   a. Connect a test microphone as shown in Figure 2 and adjust current as in Step a of the output test.
   b. Place test microphone about ½-inch from driver.
   c. Adjust oscillator for a microphone output of 0.031 volt at a frequency of 1,000 Hz.
   d. Keeping audio oscillator output constant, record output voltage for frequencies of 200, 500, 2,000, 3,000, and 4,000 Hz.
   e. Repeat Steps a through d for microphone under test. Deviations from the test microphone should be within the limits shown:
      Below 500 Hz: 3 db
      500 to 2,000 Hz: 4 db
      Above 2,000 Hz: 5 db

Index to Figure 1	Part No.	Description	Number Required
1	2377	Case front	1
2	2059	Threaded insert	3
3	42346	Capacitor, .05mfd, 200 W.V.D.C.	1
4	8010	Head subassembly	1
5	73353-AD	Switch bracket	1
6	75318	Switch actuator	1
7	19016	Compression spring	1
8	D2401	Case back	1
9	A605210-AD	Screw, 2-56 x 1/4, flat head, Phillips	3
10	A4810	Nameplate	1
11	C60028-AD	Screw, 2-56 x 1/2, flat head, Phillips, stl.	2
12	C60024-AD	Screw, 2-56 x 1/4, flat head, Phillips	2
13	8474	Dash mounting bracket subassembly	1
14	27002	Strain relief	1
15	E60513-AD	Screw, 6-32 x 3/16 bind head, slotted	1
16	2020-AD	Nut, 2-56, hex, stl	1
17	3836-AD	Washer, #2, lock, int	3
18	8072	Cable subassembly	1
19	B60029-AD	Screw, 2-56 x 9/16, rd hd, Phillips	2
20	2668	Grille cloth	1
21	56011	Leaf switch	1
22	1608-9	Leadwire, plastic, black, 4 in lg	1

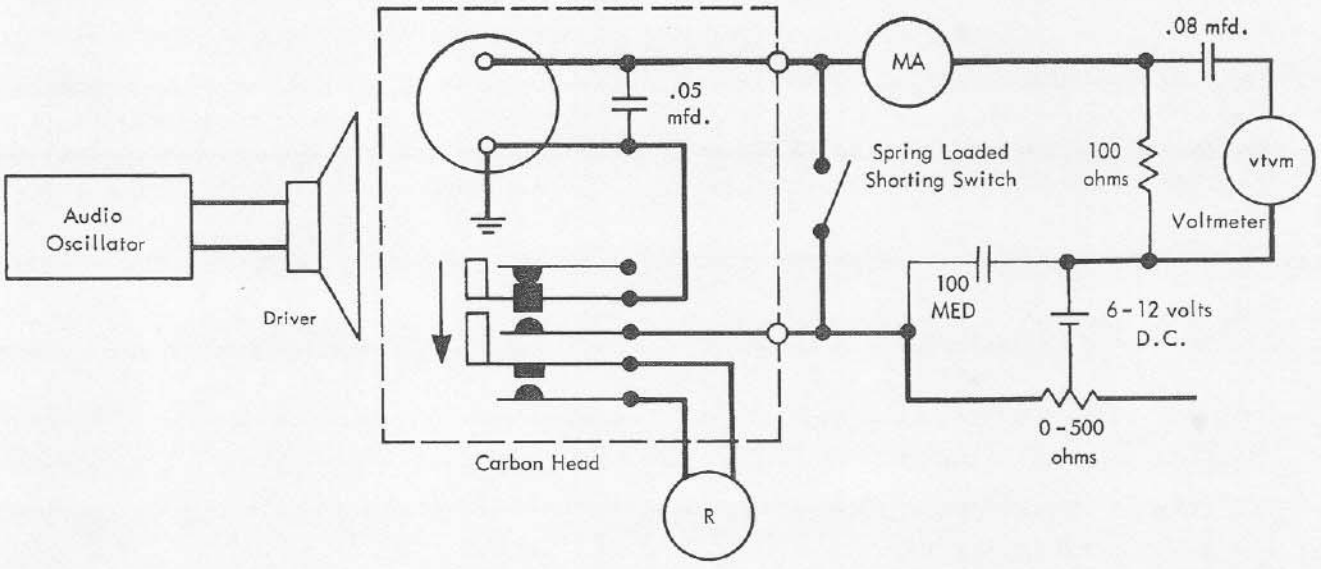

Figure 2 – Test set-up and wiring diagram

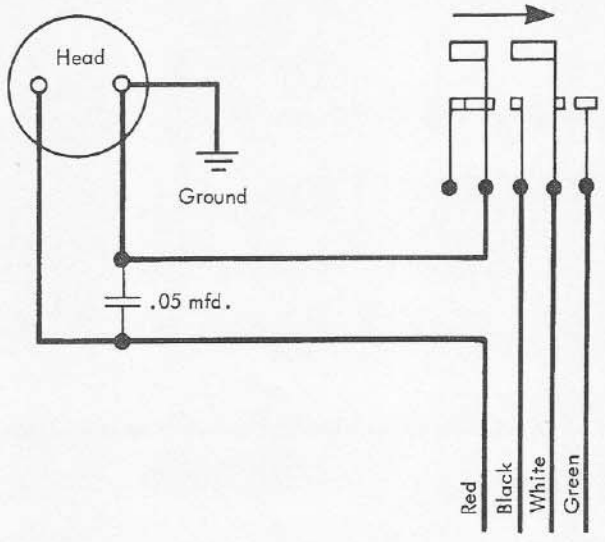

Figure 3 – Wiring Diagram 205STCKK
Microphone connection: red and black
Relay connection: white and green

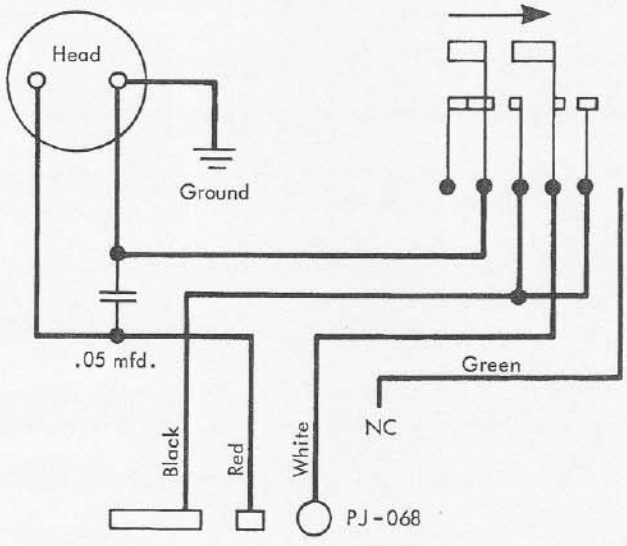

Figure 4 – Wiring Diagram 205STCKKP
Microphone connection: red and black
Relay connection: white and black