

## **TRANSMITTERS AND TRANSMITTER UNITS**

### **1.00 INTRODUCTION**

**1.01** This section covers identification and maintenance of transmitters and transmitter units commonly used in station equipment.

**1.02** Due to extensive changes marginal arrows have been omitted.

### **2.00 IDENTIFICATION**

**2.01** Table A contains a brief description of transmitters and transmitter units.

**2.02** Information on transmitters and transmitter units used in special equipment may be found in the C Section covering that type of equipment.

### **3.00 INSTALLATION**

**3.01** On transmitter units using spring-type terminals, make certain the terminals are clean before installing unit. Some transmitter units use screw-type terminals. These terminals must be tight.

**3.02** Care must be taken to prevent damage to transmitters or transmitter units before installation.

### **4.00 635A TRANSMITTER**

The 635A transmitter comes fully assembled and can be installed in existing transmitter bells. If transmitter bell is not arranged to take P-204520 rim screws furnished with the 635A transmitter, it will be necessary to use P-99649 transmitter rim screws instead.

### **5.00 KS-16664, LIST 1 TRANSMITTER**

The KS-16664, List 1 transmitter is a noise cancellation transmitter. The complete unit comes

equipped with transmitter unit, cap, and cord stay. For installation and maintenance information, see the C Section entitled Apparatus for Use at Noisy Locations.

### **6.00 MAINTENANCE OF TRANSMITTERS**

**6.01** Transmitters and transmitter caps may be cleaned by wiping with a damp cloth. Cloth should not be too wet as too much moisture may damage unit.

**6.02** Contacts of the 635A transmitter are silver-plated and should not be burnished. Tarnish on the contacts is not detrimental.

**6.03** If the F1 unit used in the 635A transmitter becomes defective, it may be replaced by unscrewing clamping plate assembly of mouthpiece. The two lugs on the assembly form a finger grip. If clamping plate assembly cannot be removed with the fingers, a screwdriver may be placed across clamping plate assembly to engage the lugs and assist in turning the assembly out of the mouthpiece.

**6.04** Test the carbon-type transmitter (eg, F1, T1, N1) for scraping noise by blowing gently into it or by tapping the side of the transmitter gently several times. If a scraping or frying noise is heard in the receiver and varies in magnitude when this test is made, it is an indication of a defective transmitter unit and should be replaced.

**6.05** When closing out trouble or a service order, speak directly into the transmitter in a natural conversational tone. The lips should be almost touching the mouthpiece. If there is any difficulty in being heard, replace the transmitter unit. Check that the trouble disappears after the transmitter unit has been replaced.

**TABLE A**  
**IDENTIFICATION OF TRANSMITTERS AND TRANSMITTER UNITS**

| Transmitter     | Xmtr Unit | Use   | Remarks  | See Fig. |
|-----------------|-----------|---|--|----------|
| 635A            | F1        | Desk stands, wall sets, coin collectors   |  | 1, 2, 10 |
| 645A            | F1        | Designed for mounting to a transmitter arm or bracket   |  | 1, 2     |
| 646A            | F1        | Intended for use by linemen, repairmen, testmen, and cable splicers; replaces 608 transmitter               | Consists of an F1 transmitter and a 129F capacitor. Case has clip for attaching to clothing        | 1, 2     |
| 654A            |           | 180, 190, and 200 series coin collectors  | To transmit coin signals   | 12       |
| 655A            |           | 592 telephone set<br>656A transmitter   | Consists of a U1 receiver unit and mounting assembly with screw terminals and a neoprene gasket    | 9, 11    |
| 656A            |           | 1A or 1A1 speakerphone system   |  | 15       |
| 658A            |           | Replaces 655A transmitter where magnetic shielding from outside power sources is necessary                  | Consists of an HC-3 receiver unit and mounting assembly with screw terminals and a neoprene gasket | 9, 11    |
| 661A            | AB1       | 600 series telephone sets with 1A or 1A1 speakerphone system  | Refer to C Section entitled Module Units Used with 600 Series Telephone Sets                       | 18       |
| 1016L<br>1016R  | K2        | Telephone company business offices for observation of conversations between customers and company employees | Replaces 1011A, 1012A, and 1013A transmitters  | 1, 3     |
|                 | 635A      | Part of 635A transmitter  | Consists of an F1 transmitter unit assembled in a combined faceplate and mouthpiece                | 1, 2, 10 |
|                 | AB1       | Part of 661A transmitter  | Consists of an HC4 receiver unit and metal cover with rubber mounting                              | 16, 17   |
|                 | F1        | F1, F2, and F3; 1011A, B, and G hand sets. 635A, 645A, and 646A transmitters                                | General station use  | 1, 2     |
|                 | K1        | F6AR, F6BR, and F6CR hand sets  | Used in explosive atmospheres  | 1, 3     |
|                 | K2        | 1016L and 1016R transmitters  | Replaces 399A transmitter unit   | 1, 3     |
|                 | N1        | 52 and 53 head telephone sets   | Operator sets  | 7, 8     |
|                 | T1        | F4, F5, G1, G2, G3, G4, and G5 hand sets  | General station use  | 4, 5     |
|                 | T2        | F- and G-type hand sets with coin collectors  | Same as T1 except for protective grid to prevent fraudulent operation                              | 5, 6     |
| KS-16664,<br>L1 |           | G-type hand sets in noisy locations   | Refer to C Section entitled Apparatus for Use at Noisy Locations                                   | 13, 14   |



Fig. 1 – F1, K1, K2 Transmitter Unit – Front View

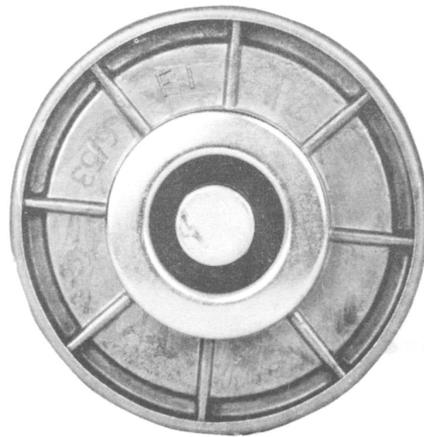


Fig. 2 – F1 Transmitter Unit – Rear View

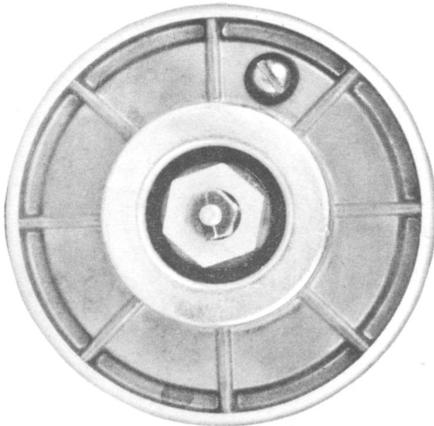


Fig. 3 – K1 and K2 Transmitter Unit – Rear View

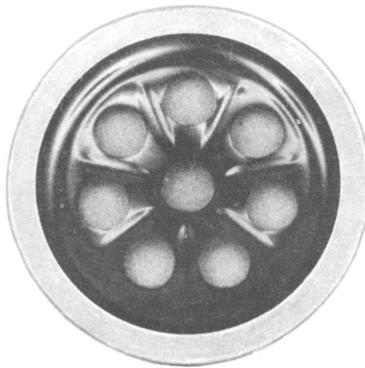


Fig. 4 – T1 Transmitter Unit – Front View

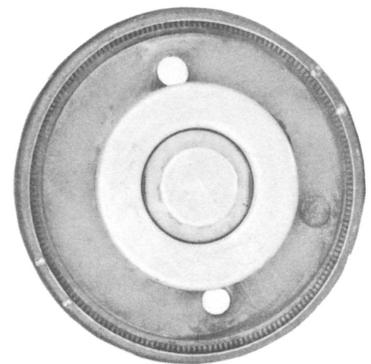


Fig. 5 – T1 and T2 Transmitter Unit – Rear View

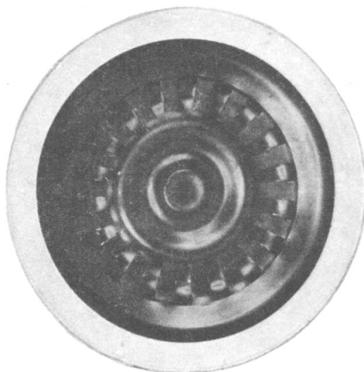


Fig. 6 – T2 Transmitter Unit – Front View

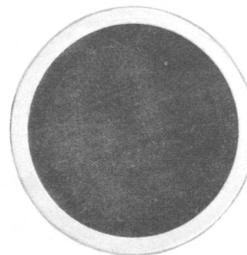
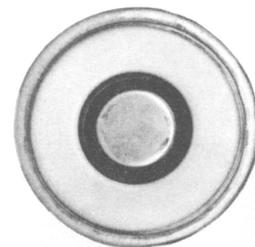


Fig. 7 – Front View



N1 Transmitter Unit

Fig. 8 – Rear View



Fig. 9 - 655A, 658A Transmitter - Front View

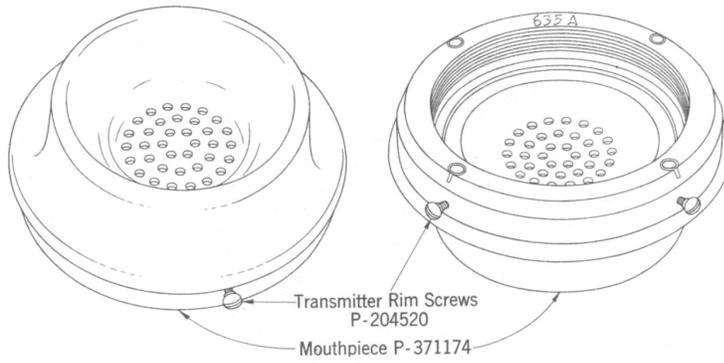
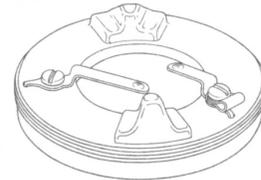


Fig. 10 - 635A Transmitter Unit less F1 Unit



Clamping Plate Assembly P-290333

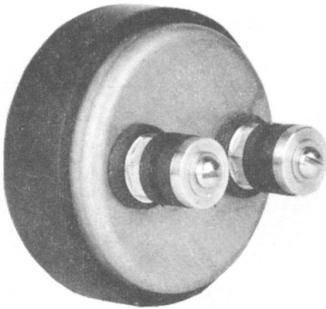


Fig. 11 - 655A, 658A Transmitter - Rear View



Fig. 13 - Front View



Fig. 14 - Rear View



Fig. 12 - 654A Transmitter

KS-16664, List 1 Transmitter

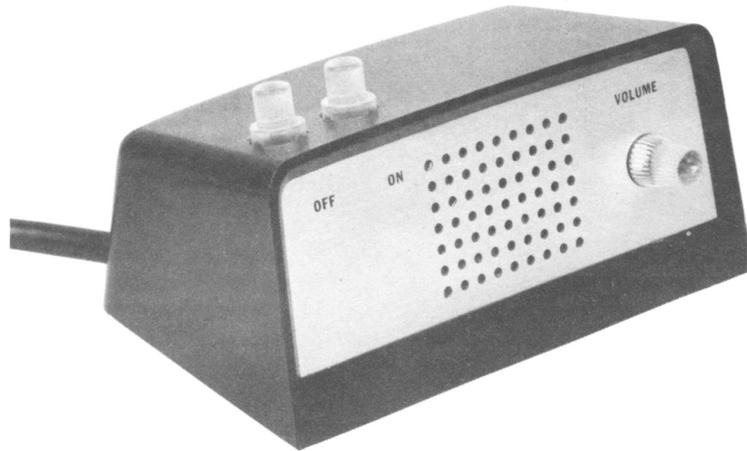


Fig. 15 - 656A Transmitter

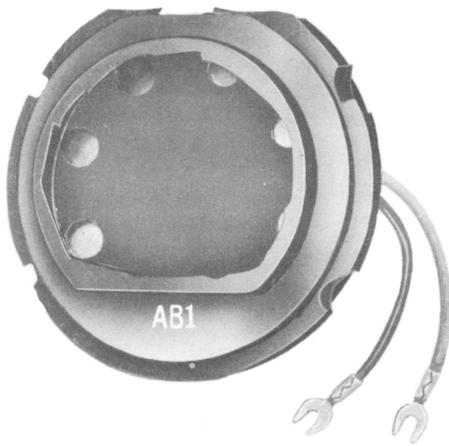


Fig. 16 - AB1 Transmitter Unit - Front View

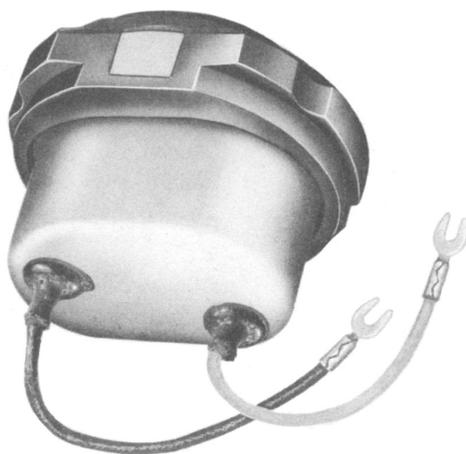


Fig. 17 - AB1 Transmitter Unit - Rear View

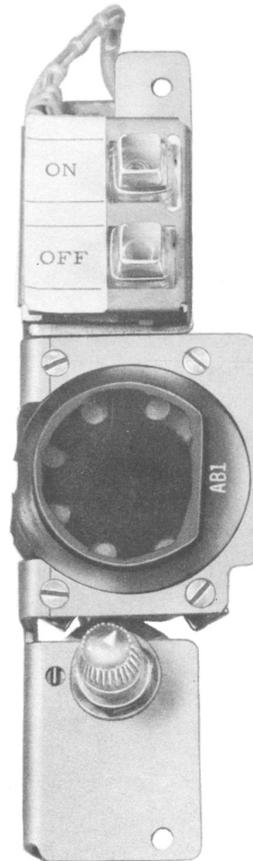


Fig. 18 - 661A Transmitter