

KS-14476 TELEPHONE SET FOR HAZARDOUS LOCATIONS

1. GENERAL

1.01 This section covers the description, use, installation, maintenance, and connections of the KS-14476 telephone set.

1.02 This section is reissued to include 4-conductor cords as shown in Fig. 6, and to include the latest maintenance information. Due to extensive changes, marginal arrows have been omitted.

1.03 Workmen should be familiar with Section C55.155, Telephone Sets for Explosive Atmospheres, General Requirements, before working on this equipment.

1.04 Information on auxiliary signals that may be used in connection with this set is found in Section C54.301, Auxiliary Signals.

1.05 Dial sets shall not be converted to manual or vice versa.

2. DESCRIPTION

2.01 The KS-14476, L1 (dial) telephone set shown in Fig. 1 and the KS-14476, L2 (manual) set with a Crouse Hinds apparatus blank have been approved by Underwriters' Laboratories for use in the following locations:

Class 1:

Group C: Atmospheres containing ethyl-ether vapors, ethylene, or cyclo-propane.

Group D: Atmospheres containing gasoline, hexane, naphtha, benzine, butane, propane, alcohol, acetone, benzol, lacquer solvent vapors, or natural gas.

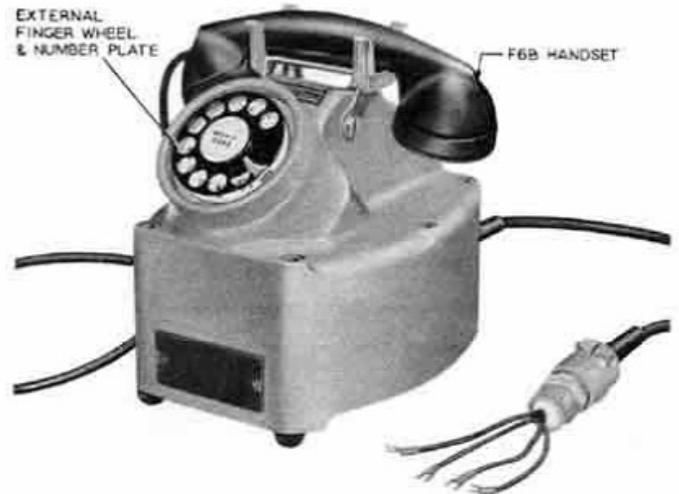


Fig. 1—KS-14476 Telephone Set

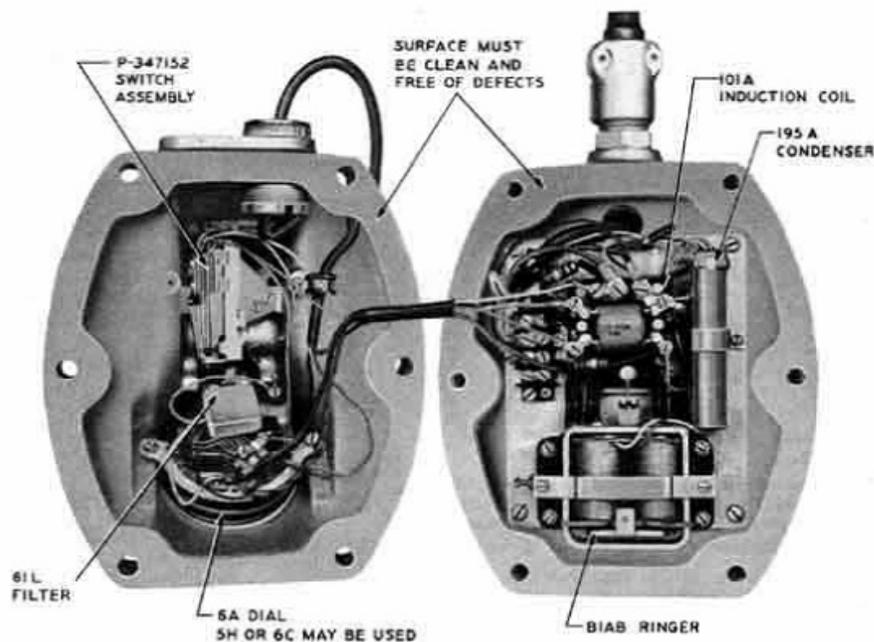


Fig. 2—KS-14476, L1 Telephone Set, Internal View

Class 2:

Group E: Atmospheres containing metal dust including aluminum, magnesium, and their commercial alloys.

Group F: Atmospheres containing carbon black, coal, or coke dust.

Group G: Atmospheres containing flour, starch, or grain dust.

Caution: This equipment should never be used where acetylene, hydrogen, manufactured gas, or gases of equivalent hazard may be present in the atmosphere.

2.02 The ringer, dial, and switchhook assembly inside the housing are connected to shafts which transmit the required motion through the housing (see Fig. 2). Ringer gongs are exposed on the bottom of the set.

2.03 The dial is operated by an external finger wheel and a threaded shaft extending through the housing (see Fig. 3).

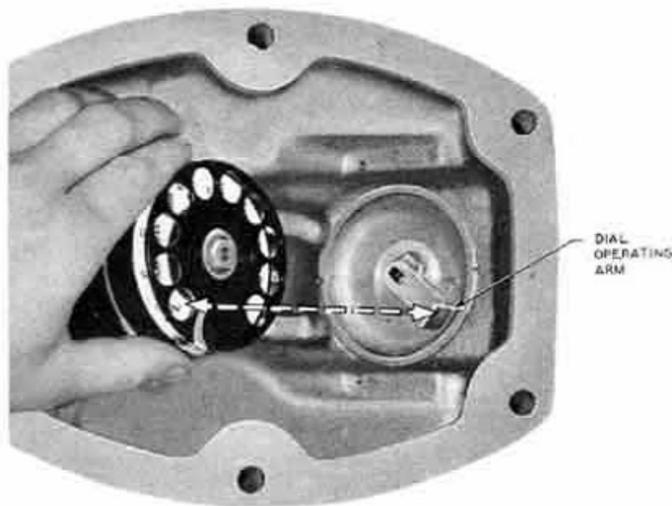


Fig. 3—Dial Assembly

2.04 An F6B handset with a 4-conductor cord is used on all new sets. Some sets that are already in the field may be equipped with an F6A handset with a 3-conductor cord. (See Figs. 4 and 5.)

3. INSTALLATION

3.01 Rigid conduit and Crouse Hinds explosionproof conduit fittings are required between the set and the 1094A protector, mounted outside the hazardous area, as covered in Section C55.155, Telephone Sets for Explosive Atmospheres, General Requirements.

3.02 A Crouse Hinds, type GU-1-22 conduit equipped with a CB-1124 connecting block, or approved equivalent, shall be installed at the end of the conduit, run near the telephone set for connecting the telephone set cord to the line wires. The cord bushing screws directly into a threaded opening in this conduit. (See Fig. 1.)

3.03 A 5/16-inch Allen-type wrench is required to remove or replace the six bolts holding the main housing together. **Be sure set is assembled and all six bolts are tight before connecting the line wires at the protector.**

3.04 The surfaces where the housing fits together must be clean and free of scratches or defects to assure good fit. **Gaskets shall not be used in this housing.**

4. MAINTENANCE

4.01 **Do not open this set for any maintenance until the line wires have been disconnected at the protector.**

4.02 The F6B handset, furnished with the KS-14476 telephone set, is a factory-assembled unit including a 4-conductor cord and a bushing that screws directly into the housing. **Only the transmitter and receiver caps may be replaced.** If any other part is defective, the entire handset must be replaced.

4.03 The line cord should be visually inspected for any defects such as cracks, holes, or soft spots. The collar on the bushing should be tight against rubber bushing to insure a seal.

4.04 At least five threads of the bushing (for either cord) shall be engaged with the threaded hole in the set housing when the bushing is in tight.

4.05 Some of the existing KS-14476 sets have an F6A handset. This is also a factory-assembled unit, but uses a 3-conductor cord and a bushing. Only the transmitter and receiver caps may be replaced in case of trouble.

Note: The F6A and F6B handsets are **not** interchangeable because the bushings on the cords are not the same (see Figs. 4 and 5).



Fig. 4—Bushing on 3-conductor Cord



Fig. 5—Bushing on 4-conductor Cord

4.06 The dial may be removed for maintenance from inside the set (see Fig. 3).

Caution: The dial operating shaft is a threaded shaft; thus it will move up and down as it is turned in normal operation. Therefore, to insure free travel of the finger wheel, proceed as follows when dial is removed: Turn external finger wheel clockwise until it stops. (The threaded shaft is down tight.) Turn counterclockwise at least one full turn before replacing the dial.

4.07 Sluggish dial action may be corrected by adjusting or, if necessary, by replacing the dial. However, if the sluggish action is due to the external finger wheel operating shaft, the set must be replaced.

4.08 The ringer may be replaced or adjusted, as covered in Section C31.208, B-type Ringers, Maintenance. The ringer gongs may have to be adjusted each time the ringer is removed.

4.09 The induction coil, capacitor, and switchhook may be replaced in the field if necessary.

4.10 Maintenance of the operating shafts for the switchhook, dial, or ringer should not be attempted in the field. If their operation is sluggish, the set should be replaced. **Do not oil these operating shafts.**

5. CONNECTIONS

5.01 Connections for sets with 3-conductor cords:

Ringing Service	Line			Cord			Ringer	
	Tip	Ring	Grd	BK	G	W	R	BK
Bridged	G	BK	W	L1	L2	G	L1	K
Tip Party	G	BK	W	L1	L2	G	G	K
Ring Party	BK	G	W	L1	L2	G	K	G

5.02 Connections for sets with 4-conductor cords:

Ringing Service	Line				Cord				Ringer	
	Tip	Ring	Grd	*	R	G	W	BK	R	BK
Bridged	G	R	W	BK	L1	L2	G	**	L1	K
Tip Party	G	R	W	BK	L1	L2	G	**	G	K
Ring Party	R	G	W	BK	L1	L2	G	**	K	G

- * Connect to connecting block, mounting screw in conduit.
- ** Connect to terminal strip, mounting screw in set.

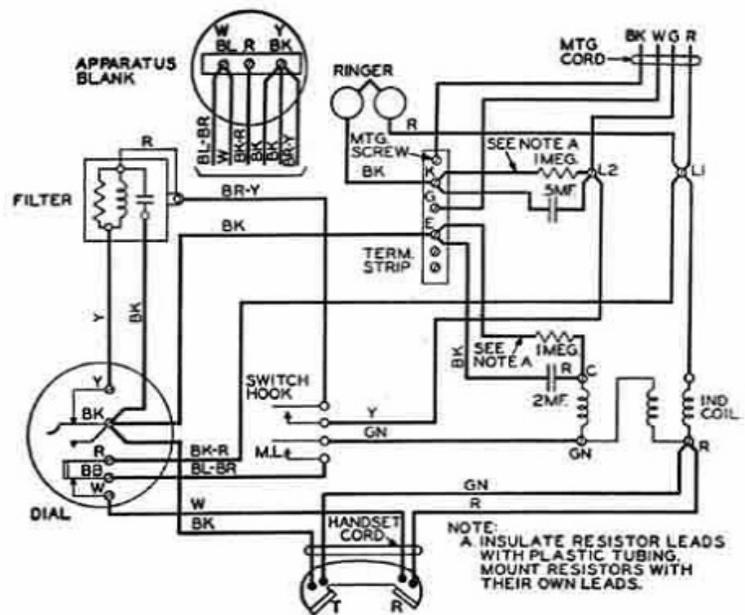


Fig. 6—KS-14476 Telephone Set with 4-conductor Cords

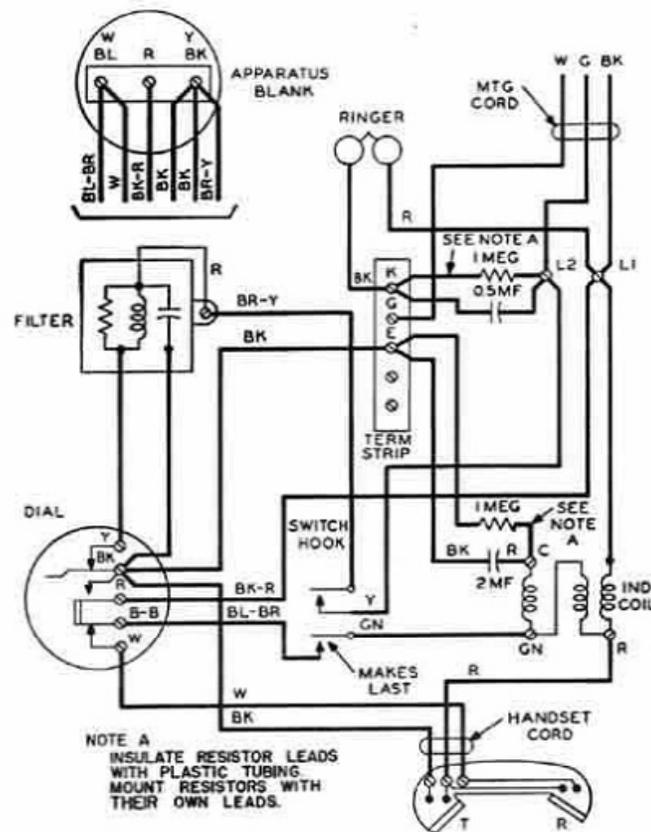


Fig. 7—KS-14476 Telephone Set with 3-conductor Cords