TROUBLE SHOOTING

This sub-section is intended as a guide to assist in trouble shooting installed instruments. Listed below are some of the many faulty conditions, which may be experienced in a telephone instrument, and their possible causes and remedies.

Whether faulty instruments are repaired on site or replaced and returned to the shop for repair, will depend upon the individual company practice. In the latter case it is recommended that each removed instrument be tagged to indicate the symptoms of the trouble.

Instruments repaired in the shop should be given a thorough check for other possible faults before they are returned to stock or re-installed. It is not an uncommon situation for an instrument to develop more than one fault at a time, especially if the trouble is due to a lightning surge or severe mechanical shock.

1 DIALING TROUBLES

POSSIBLE TROUBLE	CORRECTIVE ACTION
1.1 NO DIAL TONE	
a: Open in mounting or handset cord.	Replace cord.
b: Open or shorted receiver unit.	Replace receiver unit.
c: Dial pulse contacts open or off-normal contacts closed.	Adjust or replace dial.
d: Open winding in network coils.	Replace network.
e: Cradle switch contacts not functioning correctly.	Check for misplaced plastic cover. Adjust contacts or replace switch assembly.
1.2 CANNOT BREAK DIAL TONE	
a: Dial pulse contacts not opening.	Adjust or replace dial.
b: Filter or ringer capacitor shorted.	Replace network or ringer capacitor.
C: Reversed polarity on T-T dial (new installation)	Check connections against telephone circuit label
1.3 RECEIVING WRONG NUMBERS	
a: Dial pulse contacts wrongly functioning.	Adjust contacts or replace dial.
b: Incorrect dial speed (For most conditions, dial speed must be considerably in error to cause trouble).	Adjust dial speed or replace dial.
c: Leaky filter or ringer capacitor.	Replace network or ringer capacitor.
1.4 DIAL CLICKS IN RECEIVER	
a: Dial off-normal contacts not closing.	Adjust contacts or replace dial.

2 TRANSMISSION TROUBLES

POSSIBLE TROUBLE	CORRECTIVE ACTION
2.1 CANNOT HEAR	
a: Open receiver unit or handset cord.	Replace receiver unit or handset cord.
b: Dial off-normal contacts not opening.	Adjust contacts or replace dial.
c: Open winding in network coils.	Replace network.
d: Cradle switch contacts not opening correctly.	Check for misplaced plastic cover. Adjust contacts or replace switch assembly.
e: Shorted receiver or receiver varistor.	Replace receiver unit.
2.2 OTHER PARTY CANNOT HEAR	
a: Shorted transmitter unit or handset cord.	Replace transmitter unit or handset cord.
b: Shorted varistor in network.	Replace network.
2.3 HIGH SIDETONE LEVEL	
a: Defective balancing in network.	Replace network.
2.4 DISTORTION AND/OR CLICKS	
a: Faulty receiver unit or receiver varistor.	Replace receiver unit.
b: Faulty transmitter unit.	Replace transmitter unit.
c: Loose connections.	Retighten connections as necessary.
2.5 RADIO INTERFERENCE	
a: Pick up of local radio station in receiver.	Install 0.02 mfd., suppression capacitor (type 75559) between network terminals L2 and F.

ITT Telecommunications
APPARATUS DEPARTMENT
CORINTH, MISSISSIPPI
A DIVISION OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

October 1970

3 RINGING TROUBLES

POSSIBLE TROUBLE	CORRECTIVE ACTION
3.1 NO RING	
a: Wrong ringer type. (Most likely to be observed on new installation).	Check ringer type and replace if incorrect.
b: Ringer disconnected or wrongly wired.	Check ringer wiring. Correct as necessary.
c: Ringer wired for silencing.	Rewire for ringer operation.
d: No ground (party line) connection.	Connect ground per local practices.
e: Control wheel (biased ringer) in cut-off position.	Reset wheel to ring position and disable cut-off position if desired.
f: Obstruction between magnet and armature or gongs and clapper.	Remove obstruction and readjust ringer if necessary.
g: Open ringer coil.	Replace ringer.
h: Open ringer capacitor.	Replace network or ringer capacitor or bridge from A to K on network with .047 mfd capacitor.
3.2 VOLUME TOO HIGH OR TOO LOW	
a: Control wheel in wrong position.	Reset wheel. Instruct customer if required.
b: One or both gongs loose.	Tighten mounting screws and readjust.
c: Obstruction between gongs and clapper or against armature or clapper stem.	Remove obstruction and readjust ringer if necessary
d: Telephone or extension ringer on sound absorbing material.	Relocate telephone or extension ringer in accordance with wishes of customer.
3.3 BELL TAPS WHILE DIALING	
a: Wrongly connected ringer.	Check and reconnect as necessary.
b: Bias spring in low notch (biased ringer).	Check ringer and set bias spring in high notch if necessary. Refer to Section M2C.
3.4 RINGS WHEN OTHER PARTY CALLED	
a: Wrong ringer.	Replace with correct type.
b: Wrong ringer or line connections.	Check connections and remake as necessary.
c: Incorrect ringing frequency.	Check ringing generator frequency.
d: Frequency selective ringer incorrectly tuned.	Retune or replace ringer.
e: Wrong capacitor for frequency selective ringer.	Replace capacitor or complete ringer assembly.
3.5 UNABLE TO TRIP RINGING	
a: Open dial pulse contacts.	Adjust contacts or replace dial.
b: Open coil winding or varistor in network.	Replace network.
c: Loose or open connection.	Check connections and remake as necessary.
d: Cradle switch contacts not making.	Check for misplaced plastic cover. Adjust contacts or replace switch assembly.
3.6 TRIPS RING, CANNOT CONVERSE	
a: Open handset cord, transmitter or receiver unit.	Replace faulty item.
b: Dial off-normal contacts not open.	Readjust dial contacts or replace dial.
c: Receiver 'shorting' contacts of cradle switch not open.	Check for misplaced plastic cover. Adjust contacts or replace switch assembly.
d: Faulty coil winding or open capacitors in network.	Replace network.