

28 KEYBOARD, BASE, COVER, AND MOTOR
FOR COMPACT KSR AND RO TELETYPEWRITER SETS
DISASSEMBLY AND REASSEMBLY

CONTENTS	PAGE
1. GENERAL	1
2. REMOVAL OF COVER	1
3. REMOVAL OF TYPING UNIT	2
4. MOTOR UNIT	2
5. KEYBOARD	2
KEYBOARD TRANSMITTER	2
A. Keytop Guide Plate	2
B. Keylevers	2
C. Space Keylevers	2
D. Codebars	2
E. Contact Mechanism	2
F. T-Levers	3
G. Reset Mechanism	3
DISTRIBUTOR	3
A. Trip Magnet Assembly	3
B. Contact Block	3
C. Cam Follower Levers	3
GEAR SHIFT ASSEMBLY	3

1. GENERAL

1.01 This section is issued to describe disassembly and reassembly procedures for the keyboard, base, cover, and motor used on the 28 Compact Keyboard Send-Receive and Receive-Only Teletypewriter Sets.

1.02 Reference should be made to the exploded views found in the appropriate parts literature for an illustration of the mechanism to be disassembled, for location and visual identification of parts, and detailed disassembly and reassembly features.

1.03 If a part that is mounted on shims is removed, the number of shims used at each of its mounting screws should be noted so that the same shim pile-up can be restored when the part is remounted.

1.04 When reassembling and remounting a mechanism, be sure to check all associated adjustments, clearances, and spring tensions. Refer to "Adjustments; 28 Keyboard, Base, Cover, and Motor for Compact KSR and RO Teletypewriter Sets" when checking requirements and making adjustments.

1.05 Retaining rings are made of spring steel and have a tendency to release suddenly when attempting to remove them. Loss of these retainers can be minimized as follows: Hold the retainer with the left hand to prevent it from rotating. Place the blade of a suitable screwdriver in one of the slots of the retainer. Rotate the screwdriver in a direction to increase the diameter of the retainer for removal.

1.06 Avoid loss of springs during disassembly by holding one spring loop with the left hand while gently removing the opposite loop with a spring hook. Do not stretch or distort springs when removing them.

1.07 When removing a subassembly from the unit, the procedure followed and the locations from which parts are removed must be carefully noted so that reassembly can be done correctly. Where no specific instructions are given for reassembly, reverse the procedure used to remove it.

2. REMOVAL OF COVER

2.01 To Remove: Open the dome by depressing the plungers on both sides of the dome. Open the window door. Disconnect the plug from the cover receptacle. Disengage both cover latches, and carefully lift cover from the base.

3. REMOVAL OF TYPING UNIT

3.01 To Remove: Remove the cover as outlined in 2.01. Remove the four mounting screws which secure the typing unit to the base. Spread the spring clip holding the plug in the typing unit receptacle, and disconnect the connector. Lift the typing unit from the base.

3.02 Refer to "Disassembly and Reassembly, 28 Typing Unit" when disassembling and reassembling the typing unit mechanisms.

3.03 To Replace: Hold the typing unit tilted slightly to the right, and lower the right end into engagement with the right locating stud. While easing the left end downward, rotate the motor by hand to properly mesh the typing unit gear with the gear shift pinion. Secure with four mounting screws. Rotate the motor by hand to ensure proper meshing of gears. Insert the plug into the typing unit receptacle.

4. MOTOR UNIT

4.01 To Remove: Remove the cover and typing unit as outlined in 2.01 and 3.01. Disconnect the two power terminals from the terminal blocks on the gear shift assembly. Remove the four mounting screws holding the motor unit to the base. Lift the motor unit from the base.

5. KEYBOARD

5.01 To remove the mechanisms from the keyboard, first remove the cover as outlined in 2.01.

KEYBOARD TRANSMITTER

5.02 To Remove: Disconnect the electrical cable by unlocking the connector clamps, and disengage the connector. Lift the keyboard transmitter from the base.

A. Keytop Guide Plate

5.03 To Remove: Remove the plastic tie-down securing the cable assembly to the right side bracket of the keyboard frame. Remove the retaining rings from the left and right sides of the keytop guide plate. Spread the side brackets; lift each end of the guide plate upwards; and remove the guide plate.

5.04 To Replace: Position the guide plate over the keytops, easing the keytops through their respective openings. Properly seat the

guide plate by gently shuffling the keytops with the guide plate. Insert the guide plate pegs into their slots in each side bracket. Replace the retaining rings. Secure the cable assembly to the right side bracket with the plastic tie-down.

B. Keylevers

5.05 To Remove: To remove any keylever depress the front end of the universal lever to reset the keyboard transmitter. Depress the keylever; disengage it from the front or rear guide slot; and lift it out of the keyboard frame. To remove a second keylever; reset the universal lever; depress the keylever; disengage it from the guide slot; and lift the keylever from the frame. Repeat the previous operations to remove subsequent keylevers.

Note: Certain keylevers have compression springs. See that the springs are properly replaced when reassembling.

5.06 To Replace: Reset the universal lever; place the flat end of the keylever into its open slot; and insert the hooked end of the keylever into its guide slot as the keylever is depressed. Repeat the previous operations to replace subsequent keylevers.

C. Space Keylevers

5.07 To Remove: Remove space bar. Bow space lever, and disengage it from two space keylevers. Disengage the space keylevers from their guide slots, and remove them from the frame. Note position of compression springs on the lower stem of the keylevers so they can be properly replaced when reassembling.

D. Codebars

5.08 To Remove: Remove all keylevers from the keyboard frame. Disengage the codebars from the T-levers, and lift them out of the keyboard frame.

E. Contact Mechanism

5.09 To Remove: Remove the right side bracket by removing two screws which secure the bracket to the keyboard mounting plate. Unsnap the side bracket from the frame. Remove the contact mechanism. Note the positions of the compression springs so that they are replaced in their proper positions during reassembly.

F. T-Levers

5.10 To Remove: Unsnap the upper ends of the side brackets. Spread the frame, and lift out the T-lever shafts. Remove retaining rings, and slide T-levers off their shafts.

G. Reset Mechanism

5.11 To Remove Reset Solenoid: Remove the retaining ring from the pin holding the reset shaft to the solenoid plunger. Remove pin. Remove the two mounting screws from under the mounting bracket. Remove reset solenoid.

5.12 To Remove Reset Lever: Remove the retaining ring and pin from the solenoid plunger. Loosen the clamp screw. Slide the reset shaft towards the rear, and remove the reset lever.

DISTRIBUTOR

5.13 To Remove: Remove the typing unit as outlined in 3.01.

- (a) Disconnect terminals of distributor cable assembly from terminal blocks on gear shift assembly.
- (b) Disconnect keyboard transmitter plug from distributor receptacle.
- (c) Remove two screws holding distributor receptacle to mounting bracket.
- (d) Remove four mounting screws from distributor, and remove distributor.

5.14 To Replace: Reverse the procedure used to remove it.

Note: When attaching the distributor cable terminals to the terminal blocks on the gear shift assembly, refer to the appropriate actual wiring diagram.

A. Trip Magnet Assembly

5.15 The distributor need not be removed from the base in order to remove the trip magnet assembly. To remove the trip magnet assembly, remove the two screws securing the mounting plate to the distributor casting, and separate the assembly from the casting.

B. Contact Block

5.16 The distributor need not be removed from the base in order to remove the contact block. To remove the contact block, remove the three screws holding the contact block to the distributor casting, and separate the block from the casting.

Contacts

5.17 The contacts in the contact block consist of a rocker lever contact and a screw contact. To remove the contacts:

- (a) Remove the contact block (5.16).
 - (b) Carefully raise lever guide from block, and remove rocker lever contact.
- CAUTION: DO NOT OVEREXTEND
ROCKER LEVER GUIDE SPRING WHEN
REMOVING ROCKER LEVER CONTACT.**
- (c) Unscrew contact screw with hexagon head screw.

To replace contacts, reverse the procedure used to remove them. Adjust the contacts according to the requirements and procedures given in the appropriate adjustment section.

C. Cam Follower Levers

5.18 To Remove: Remove the contact block (5.16). Unhook the follower lever spring, and lift the cam follower lever away from its pivot shaft.

GEAR SHIFT ASSEMBLY

5.19 To Remove: Remove the motor unit (4.01).

- (a) Remove two screws and mounting plate from gear shift casting.
- (b) Remove two retaining rings holding gear shift link on speed selector shaft.
- (c) Remove retaining ring holding link on gear shift collar.
- (d) Remove gear shift link.
- (e) Remove three nuts from three mounting screws securing gear shift assembly to base.
- (f) Carefully lift gear shift assembly from base.