

35 RECEIVE-ONLY TYPING REPERFORATOR (ROTR) SETS
INSTALLATION

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1. GENERAL		1.05 All references to left or right and up or down are made from a position in front of the set.
1.01 This section provides installation instructions for 35 Receive-Only Typing Reperforator (ROTR) Sets. It is reissued to include private line sets and to rearrange the text. Since there are many changes, marginal arrows ordinarily used to indicate changes and additions are omitted.		2. UNPACKING
1.02 The installation procedure for ROTR Sets will vary from set to set depending on the particular component complement and		2.01 The components are usually packaged separately. Mounting hardware and other loose parts may be in a cloth bag attached to a

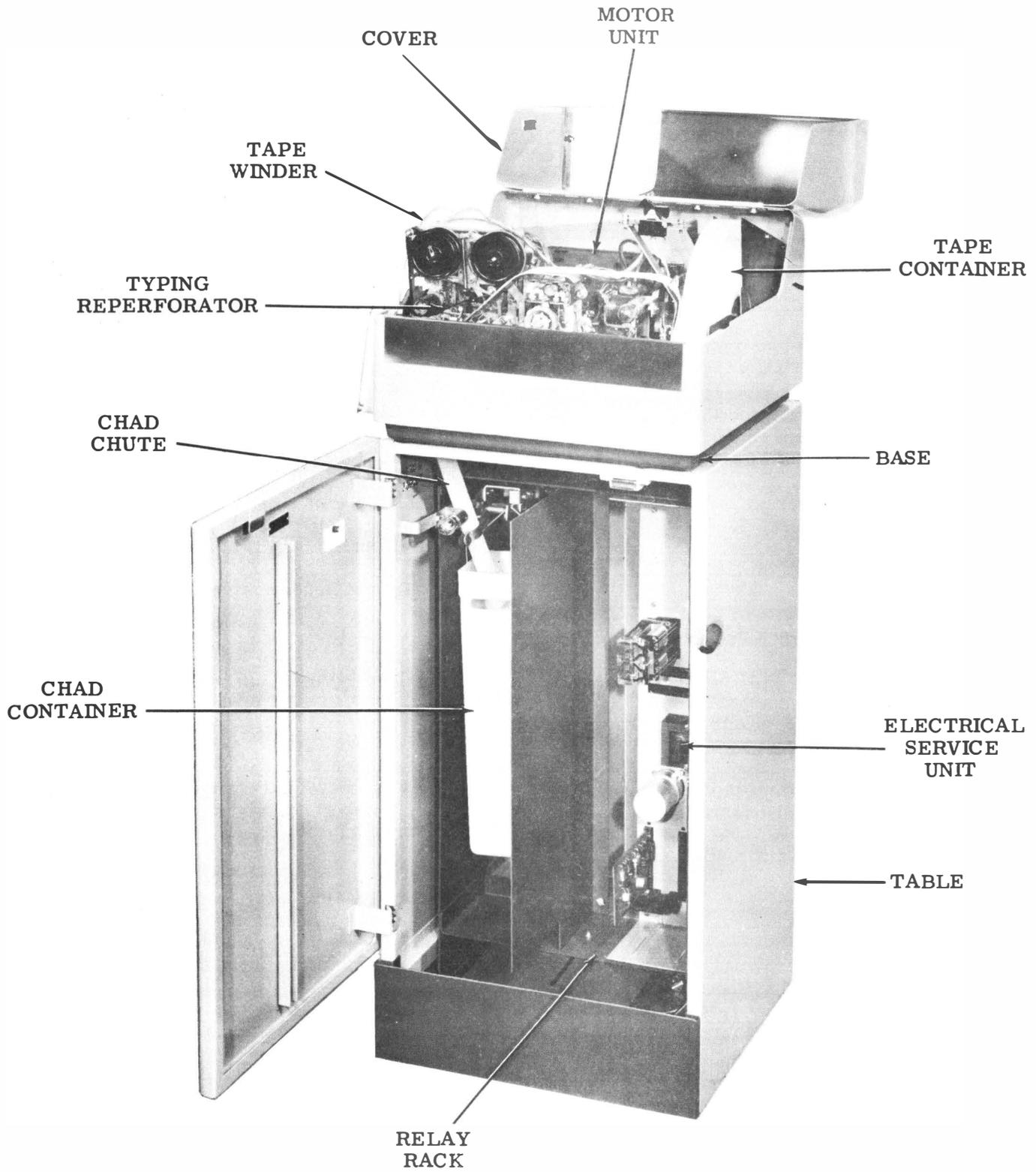


Figure 1 - Typical 35 ROTR Set

component or wrapped separately and packed in the same carton. Specific unpacking instructions and wiring diagrams are also included.

2.02 Unpack each of the cartons. Observe all unpacking instructions. Take care to avoid damaging the equipment or its finish. Keep loose bags and parts with the unpacked equipment.

3. TABLE MODEL SETS

ASSEMBLING THE COMPONENTS (Figures 1, 2, and 3)

A. Electrical Service Unit

3.01 Mount the electrical service unit to the far right side of the relay rack with the hardware furnished with the unit (Figures 1 and 2).

3.02 Pull the two cables on the electrical service unit through the rectangular hole in table top. Refer to the appropriate wiring diagrams for terminal connections.

B. Intermediate Gears

3.03 Remove the screws and lockwashers which hold the gear guard to the intermediate shaft casting on the base and set them aside with the gear guard (Figure 2).

3.04 Remove and retain the bag of driver gear hardware attached to the base.

3.05 Locate the proper driver gear and install it loosely on the hub (counterbored holes away from the hub) with the supplied hardware (Figure 3).

3.06 Slide the gear and hub (hub first) onto the intermediate shaft. Tighten the mounting screws. This is to align the gear and hub. Slide the two off the shaft, turn them around and slide them back on with the gear first. Replace the hub mounting screw and lockwasher.

3.07 Install the proper motor gear on the motor shaft with the screw and lockwasher furnished with the motor unit.

C. Motor Unit

3.08 Select the motor mounting stud and install it loosely into the motor mounting post nearest the intermediate shaft (Figure 3).

3.09 Install the adjusting bracket on the gear end of the motor unit with the hardware furnished. The center hole in the bracket should extend beyond the motor mounting plate. See Figure 3.

3.10 Place the motor (with bracket) over the motor mounting posts so that the holes in the bracket are above the posts. Install the motor unit mounting hardware (supplied with the motor unit) and tighten.

3.11 Install the sprocket on the hub of the typing reperforator unit with the hardware on the hub. The screw heads and lockwashers should be on the side of the deepest inset in the sprocket.

D. Typing Reperforator Unit

3.12 Place the typing reperforator unit over its mounting holes in the base (Figures 2 and 3).

3.13 Remove and retain the bag containing typing reperforator unit mounting hardware from the base.

3.14 Loosen the screw holding the L-shaped bracket to the left-front of the typing reperforator unit (Figure 3).

3.15 Place the screw lockwasher and flat washer in the L-shaped bracket and into the tapped hole in the base. Do not tighten yet.

3.16 Start the three screws, lockwashers, and flat washers through the holes in the typing reperforator unit casting. Do not tighten yet.

3.17 Press the L-shaped bracket against the base plate and tighten the screw holding the bracket to the typing reperforator unit.

3.18 Tighten the screw which holds the bracket to the base.

3.19 Tighten the three remaining mounting screws.

3.20 Loosen the three screws which hold the intermediate shaft assembly to the base. Place the timing belt (from the bag of parts) over the sprockets on the intermediate shaft assembly and typing reperforator unit (Figure 3). Take up slack in the belt by moving the intermediate shaft assembly away from the motor unit. The belt should have just enough slack so

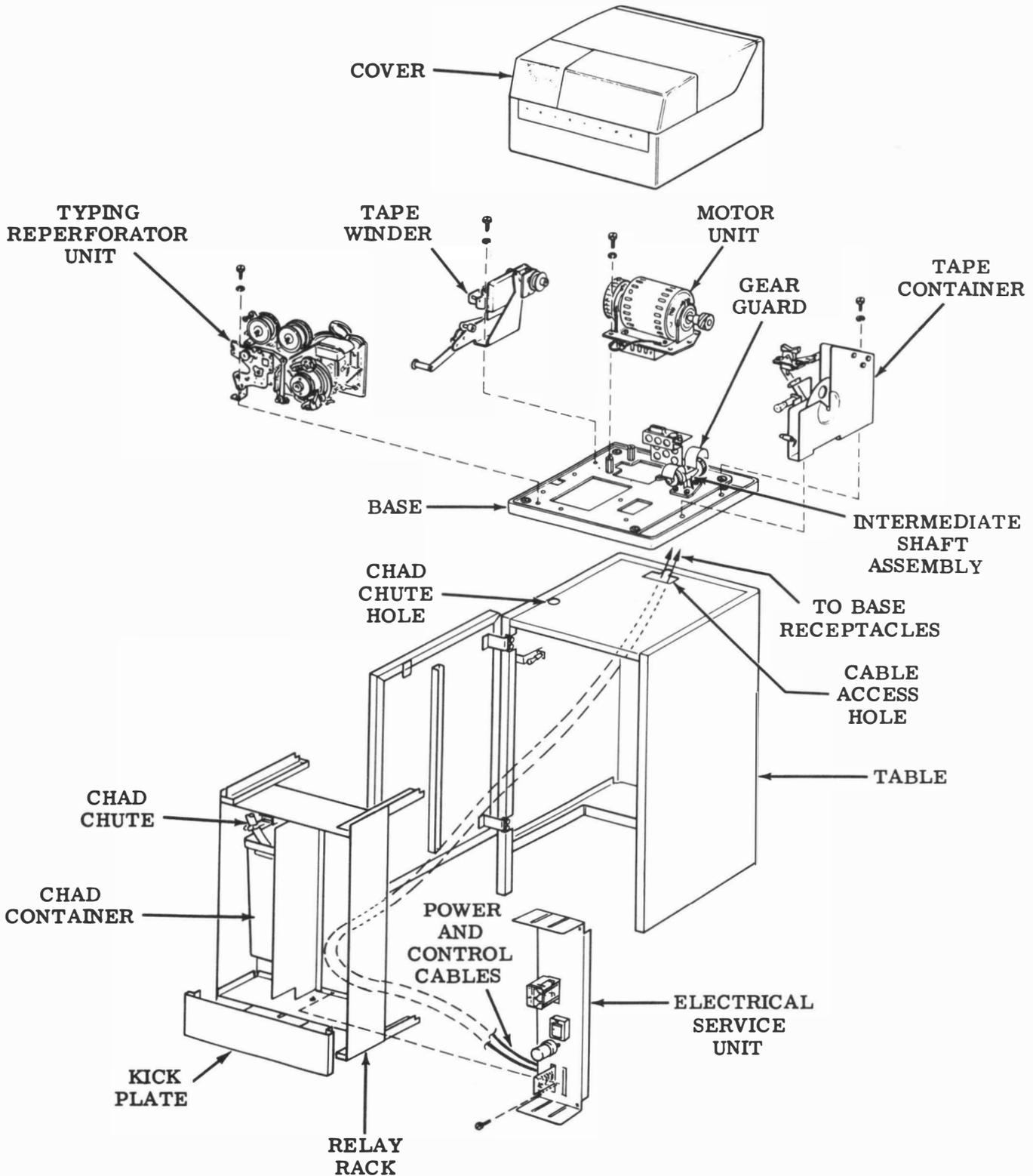


Figure 2 - 35 ROTR Set, Exploded View of Components

that a slight pressure near the middle will deflect the belt $1/16$ of an inch. It should not be tight. Tighten the intermediate gear assembly mounting screws.

E. Gear Alignment

3.21 The gears should have a barely perceptible amount of backlash at the closest point between the motor gear and its driven gear. Adjust by rotating the adjusting stud in

the motor mounting post under the gear end of the motor unit (Figure 3).

3.22 If the gears do not mesh at right angle, shift the intermediate gear bracket. Keep proper tension on the timing belt. Tighten mounting screws and recheck backlash.

3.23 Install the gear guard on the intermediate shaft assembly (Figure 2).

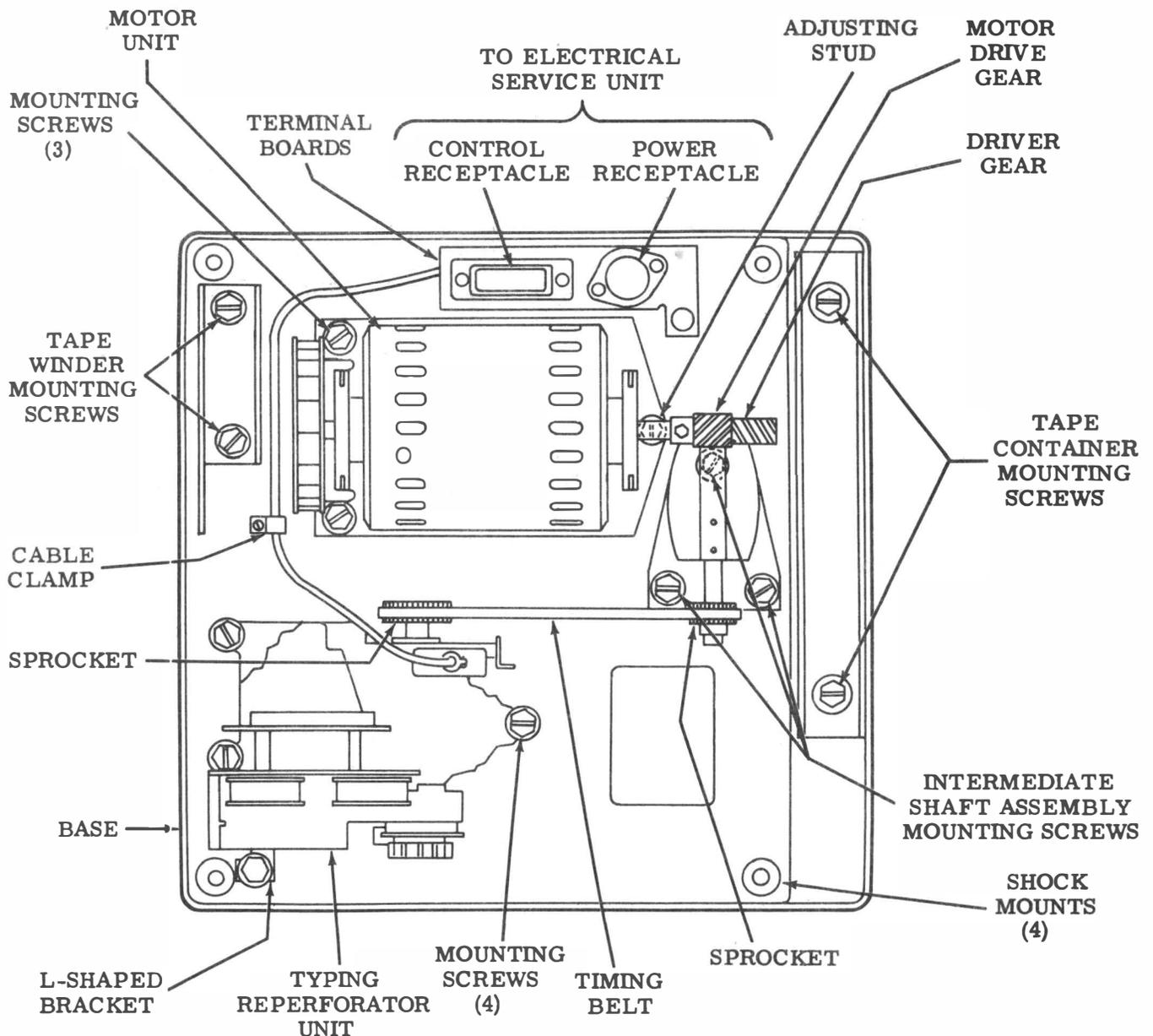


Figure 3 - 35 ROTR Set, Top View, Cover Removed

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F. Tape Container

3.24 Mount the tape container onto the right side of the base with two screws, lockwashers and flat washers (Figure 2).

G. Tape Winder

3.25 Mount the tape winder to the left rear corner of the base with two screws and lockwashers (Figure 2).

3.26 Install the tape winder pulley on the motor shaft with a screw and two lockwashers and flat washers.

3.27 Install the belt between the motor pulley and tape winder pulley.

H. Chad Chute

3.28 Install the chad chute on the typing reperforator unit with two screws, lockwashers, and flat washers.

I. Base and Table

3.29 Place the base on the table with the shock mounts over the locating screw heads on the table top. Make sure the power switch is off. Connect the cable and power cord and fasten them to the base by means of the cable clamp provided on the base. Refer to the appropriate wiring diagrams for terminal connections.

3.30 Clamp the control cable from the electrical service unit to the bottom of the table top with the clamp provided. Provide sufficient slack in the cable so that the relay rack may be pulled out for servicing.

3.31 Connect the cable with two leads on the chad disposal assembly to the wiring field of the electrical service unit as indicated in the appropriate wiring diagram.

3.32 Position the relay rack under the table. Push the plastic chad chute up through the hole in the table top and into engagement with the chad chute on the typing reperforator unit (Figure 2).

3.33 The plastic tube should overlap with the chad chute at least one inch. Position the chad chute so that the cut-out partition of the tube faces the rear. Position the kick plate so that it rests against the front edge of the table.

3.34 Place the cover on the base.

CONNECTING THE SIGNAL LINE

A. Private Line Sets

CAUTION: MAKE SURE THE SET'S POWER CORD IS NOT CONNECTED TO THE POWER SOURCE BEFORE PROCEEDING.

3.35 Remove the cover from the terminal block on the basic facilities assembly of the electrical service unit. Connect the signal line to the terminal block as indicated on the appropriate wiring diagram. Replace the cover after the connections are made.

3.36 For half duplex operation two signal line connections (positive and negative) are required.

3.37 When the ROTR Set is used in conjunction with Send-Receive Sets in a full-duplex application, two connections are made for the receive loop (positive and negative) and, in addition, both sides of the send loop at the ROTR set are taped together to complete the circuit.

B. Switched Network Sets

3.38 Refer to the appropriate wiring diagram for cabling information between the ROTR Set and the call control unit in the associated ASR or KSR Set.

4. MULTIPLE MOUNTED SETS

ASSEMBLING THE COMPONENTS (Figure 4)

A. Motor Unit

4.01 Remove the gear guard from the base.

4.02 Install the motor pinion on the motor shaft with the screw and lockwasher on the shaft.

4.03 Screw the motor mounting stud (included in a bag attached to the base) loosely into the motor mounting post.

4.04 Remove the motor adjusting bracket and its four mounting screws and lockwashers from the bag attached to the base. Mount the adjusting bracket to the gear end of the motor unit with two screws and lockwashers. The center hole in the adjusting bracket extends beyond the mounting plate.

4.05 Place the motor unit over the three motor mounting posts with the hole in the adjusting bracket passing over the stud nearest

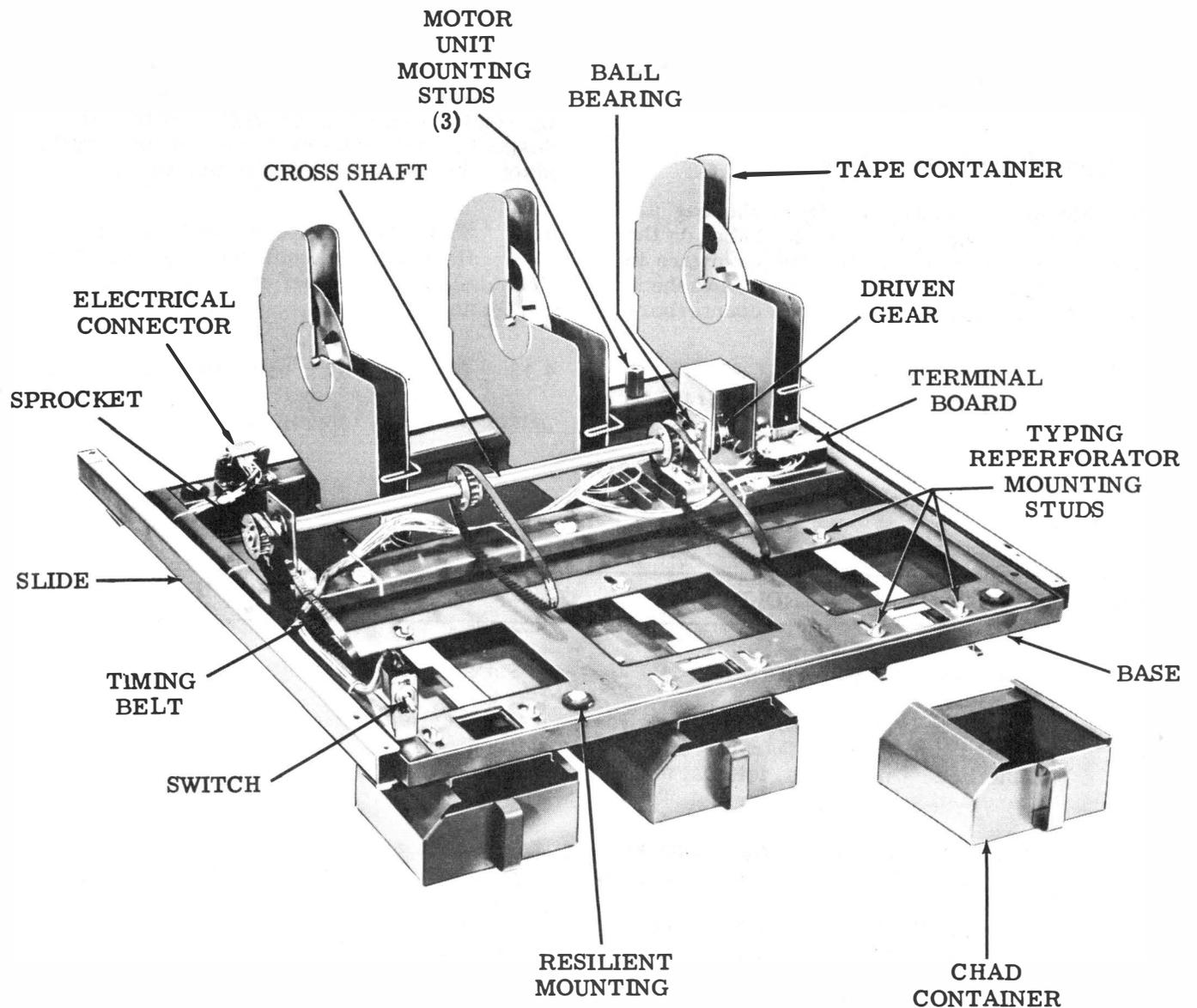


Figure 4 - Typical 35 Multiple Typing Reperforator Base (Gear Guard Removed)

the driven gear. Fasten the far end of the motor unit to the two posts with two screws and lockwashers.

4.06 Place a nut and lockwasher on the stud which holds the motor adjusting plate. Do not tighten yet.

4.07 Select the appropriate mating gear for the motor pinion and install it on the right end of the cross shaft using the hardware in the gear hub.

Note: To properly secure the inner races of the ball bearings to the cross shaft (both ends), check that the retaining rings are seated properly in their grooves. Tighten the screw in each end of the cross shaft before tightening the screws that fasten the gear hubs to the cross shaft.

4.08 Adjust the gear mesh of the motor pinion and driven gear by adjusting the stud in the motor mounting post up or down as required. The gears should have a barely perceptible amount of backlash at their point of minimum

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clearance. Tighten the nut on the stud while holding the stud in position.

B. Typing Reperforator Units

4.09 Mount the sprockets (from the bag attached to the base) to the hubs on the typing reperforator units. Use the hardware in the hub. The screw heads and lockwashers should be on the side of shallowest counterbore in the sprockets.

4.10 Place a unit over its mounting studs on the base.

4.11 Remove the hardware holding the L-shaped bracket to the mounting plate of the typing reperforator unit. Install the L-shaped bracket on the front side of the mounting plate. Tighten the screw friction tight.

4.12 Start three screws, lockwashers, and flat washers (from the bag attached to the base) into the proper studs on the base. Do not tighten yet.

4.13 Place a timing belt over the sprockets on the cross shaft and the left typing reperforator unit. Take up slack in timing belt by

TABLE I - OPERATIONAL CHECKS

STEP	PROCEDURE	FUNCTION
1.	Turn the set's power ON.	Set's motor should operate.
2.	Sequentially depress each of the keys assigned to graphic characters (non-functions) - numerals, letters, and punctuation marks.	The corresponding symbols should be punched and printed on the tape.
3.	With SHIFT key depressed, depress each of the keys for graphic characters.	The corresponding symbols should be punched and printed on the tape.
4.	With the REPT key depressed, depress any graphic character key.	Repeated punching and printing of the selected character should occur.
5.	Depress the RETURN key.	Punching of the RETURN code should occur but printing should be suppressed*.
6.	Depress the LINE FEED key.	Punching of the LINE FEED code should occur but printing should be suppressed*.
7.	Depress the RUBOUT key.	The RUBOUT code should be punched but printing should be suppressed*.
8.	With the CTRL key depressed, depress the BELL key.	The signal bell should ring (if set is so equipped), the BELL code should be punched, but printing should be suppressed*.
9.	With the CTRL key depressed, depress the EOT key.	Private line sets with electrical motor control should turn off. Switched network sets should disconnect. * Printing should occur in red on sets equipped with two color ribbons.

moving the unit away from the cross shaft. There should be just enough slack so that a slight pressure in the middle of the belt will cause it to deflect 1/8 inch.

- 4.14 Tighten the mounting screws holding the typing reperforator unit.
- 4.15 Press the L-shaped bracket against the base plate and tighten the screw which holds the bracket to the typing reperforator unit.
- 4.16 Secure the L-shaped bracket to the base with the screw, lockwasher, and flat washer supplied.
- 4.17 Repeat the above procedure for each typing reperforator unit.
- 4.18 Reinstall the gear guard. Install the chad containers.

C. Power and Signal Connections

- 4.19 Refer to the appropriate wiring diagrams for power and signal line connections.

5. OPERATIONAL CHECKOUT

- 5.01 Arrange the equipment in a test circuit and perform the procedures listed in Table 1. The test circuit must include a sending set (eg, ASR or KSR), for the ROTR has no sending facilities. References to depression of keys in Table 1 apply to this sending set.
- 5.02 Should the equipment fail to operate satisfactorily after installation, make a visual inspection to determine if the trouble is caused by loose signal or power connections, improperly set switches, erratic motor speed, etc. Otherwise, refer to the appropriate trouble shooting section.