

INSTRUCTIONS FOR MOUNTING MODEL 15 PRINTER
MOTOR, TYPING, AND KEYBOARD UNITS
ON THE BASE UNIT

NOTE: The motor unit, typing unit, and the keyboard unit should be mounted on the base unit in the order indicated.

MOTOR UNIT

The motor unit is to be mounted on the rear right-hand corner of the base, by means of three hexagonal head screws. These screws will be found in place on the base.

Attach the motor pinion to the motor shaft using the screw and lock washer in place on the shaft. The steel motor pinion and its associated main shaft fiber gear are shipped as a set of gears in a separate container.

Remove the three motor unit mounting screws from the base and slide the motor unit in against the spring contacts. Holding it in this position, thread the three mounting screws into the base. Tighten the two front screws and then back them off about 1/4 of a turn. Do not tighten the rear mounting screw until the typing unit is in place. Loosen the lock nut of the rear adjusting screw on the motor plate and run the screw down fully to the plate. Back off the rear mounting screw to permit this.

TYPING UNIT

CAUTION: When setting the typing unit on the base unit, be very careful not to jam the fiber main shaft gear against the motor pinion.

Before lifting the typing unit, press the carriage-return lock bar and move the carriage to a position approximately two inches from its left-hand stop. Lock the carriage in place by operating the dashpot lever. Care should be taken that the carriage-return lock bar is not accidentally pressed while the typing unit is being carried.

Underneath the typing unit are two hexagonal studs for the purpose of protecting the typing unit mechanism from damage when the unit is removed from the base. These studs enter clearance holes in the base unit.

Rest the typing unit on the left-hand side and assemble the fiber gear to the main shaft as follows: First remove the oil retaining plug from the end of the shaft. Then rotate the main shaft until the gear hub clamping screw becomes accessible; remove the clamping screw and lock washer and slide the gear hub off the shaft. Remove the three screws and lock washers from the hub and insert them in the fiber gear from the counterbored side. Assemble the gear and hub and tighten the three screws. Make sure that the gear is flush against the hub flange. The gear hub with gear should then be slipped on the main shaft with the gear hub toward the outside of the typing unit.

until the concavity in the main shaft permits the gear hub clamping screw with lock washer to be inserted and tightened. Replace the oil retaining plug.

The typing unit is to be held to the base unit by three thumb screws. Remove these screws from the base. The exact location of the typing unit on the base unit will be determined by two dowel pins located in the two forward machined surfaces of the base unit. The right-hand dowel pin fits into a hole in the typing unit casting, while the left-hand dowel pin fits into a slot in the casting.

When lifting the typing unit, face the front of the unit. With the right hand, take hold of the flat projection on the upper portion of the right-hand side-frame. Place the thumb over the left end of the front carriage track. The index finger should grip the left-hand casting of the vane frame. Place the three remaining fingers of the left hand under the extreme lower front corner of the left-hand casting. Lifting and moving should be done carefully so as not to put any part under undue stress which might disturb its adjustment.

When setting the typing unit on the base, hold the unit so that when the left-hand side is resting on the base the main shaft gear will be just ready to mesh with the motor pinion. Slowly rotate the motor shaft while carefully lowering the right-hand side, to secure proper engagement between the main shaft gear and the motor pinion. Make certain that the typing unit is placed properly on the locating studs of base.

ALIGNMENT OF MOTOR PINION AND MAIN SHAFT GEAR

For printers equipped with motors having elongated mounting holes, use the following method for aligning the motor pinion and main shaft gear:

- (a) Facing the front of the base unit visually check the lateral alignment of the motor pinion and the main shaft gear to determine whether a vertical center line through the gear coincides with a vertical line through the center of the hole in the motor pinion. If these lines do not coincide, remove the typing unit from the base unit and loosen the four motor mounting screws.

Replace the typing unit on the base unit, and shift the motor to meet the foregoing requirement as nearly as it is possible to determine by eye. Make certain that the edges of the motor base are parallel to the edges of the motor plate. Then remove the typing unit and tighten the four motor mounting screws.

- (b) Apply a film of grease to the motor pinion.
- (c) Replace the typing unit and tighten the three typing unit mounting thumb screws. By means of the rear adjusting screw, adjust the vertical position of the motor pinion so as to provide a barely perceptible amount of backlash between the motor pinion and the main shaft gear, at the point where there is the least amount of backlash in one complete revolution of the main shaft.

CAUTION: Care should be exercised in adjusting the vertical position of the motor pinion while the motor is running, in order to avoid damaging the main shaft gear or reducing the speed of the motor as the result of too close a mesh between the gear and the pinion.

After electrical connections have been completed, start the motor and carefully readjust the vertical position of the motor pinion, by means of the adjusting screw, until the gear noise is reduced to a minimum.

Tighten the three motor plate mounting screws and the adjusting screw lock nut. Recheck the backlash between the motor pinion and the main shaft gear.

For printers equipped with motors not having elongated mounting holes:

Adjust per (a) and (c) as described in the foregoing. However the motor mounting holes may not permit accurate gear alignment per Requirement (a). In this case the motor should be adjusted to provide the best possible gear alignment.

KEYBOARD UNIT

Apply a film of grease to the keyboard gear.

CAUTION: When mounting the keyboard unit to the base unit, be very careful not to jam the fiber gear on the keyboard unit against the steel gear with which it meshes on the main shaft of the typing unit.

The keyboard unit slides into the opening in front of the base unit upon two rails. The two plates, fastened to the under side of the keyboard unit at the right and left, go under the rails. The keyboard unit is held in place by means of the two thumb screws located on the keyboard unit.

Slide the keyboard unit into place slowly and, at the same time, rotate the motor flywheel back and forth so that the keyboard unit gear will mesh properly with the gear on the typing unit. When the keyboard unit is in place, tighten the two thumb screws.

NOTE: All printers are thoroughly lubricated in the factory. However, if the printers are not installed shortly after they are received, or if any lack of lubrication is apparent, it is advisable to lubricate the machine immediately before installation, in accordance with the lubrication specification. It is suggested that an extra lubrication be applied to a new machine when it has been in service approximately one-half the normal lubrication interval.

SEND-RECEIVE-BREAK MECHANISM

When the printer is used with a receiving only cover, it is necessary to reposition the send-receive lever, the break lever adjusting plate, the

adjusting screw and nut, and the send-receive lever and break lever bushing, on the base unit, as shown on Figure 1. Proceed as follows:

Unhook the break lever spring, loosen the break lever mounting screw nut and remove the screw. Loosen the adjusting screw nut and remove the adjusting screw and break lever adjusting plate. Remount the break lever adjusting plate as shown on Figure 1, making certain that the screw does not extend beyond the break lever. Insert the bushing with the short shoulder on the outside. Position the send-receive lever as shown on Figure 1 with the projecting lug to the rear. Insert the mounting screw in the assembly and mount the assembly on its bracket. Replace the break lever spring.

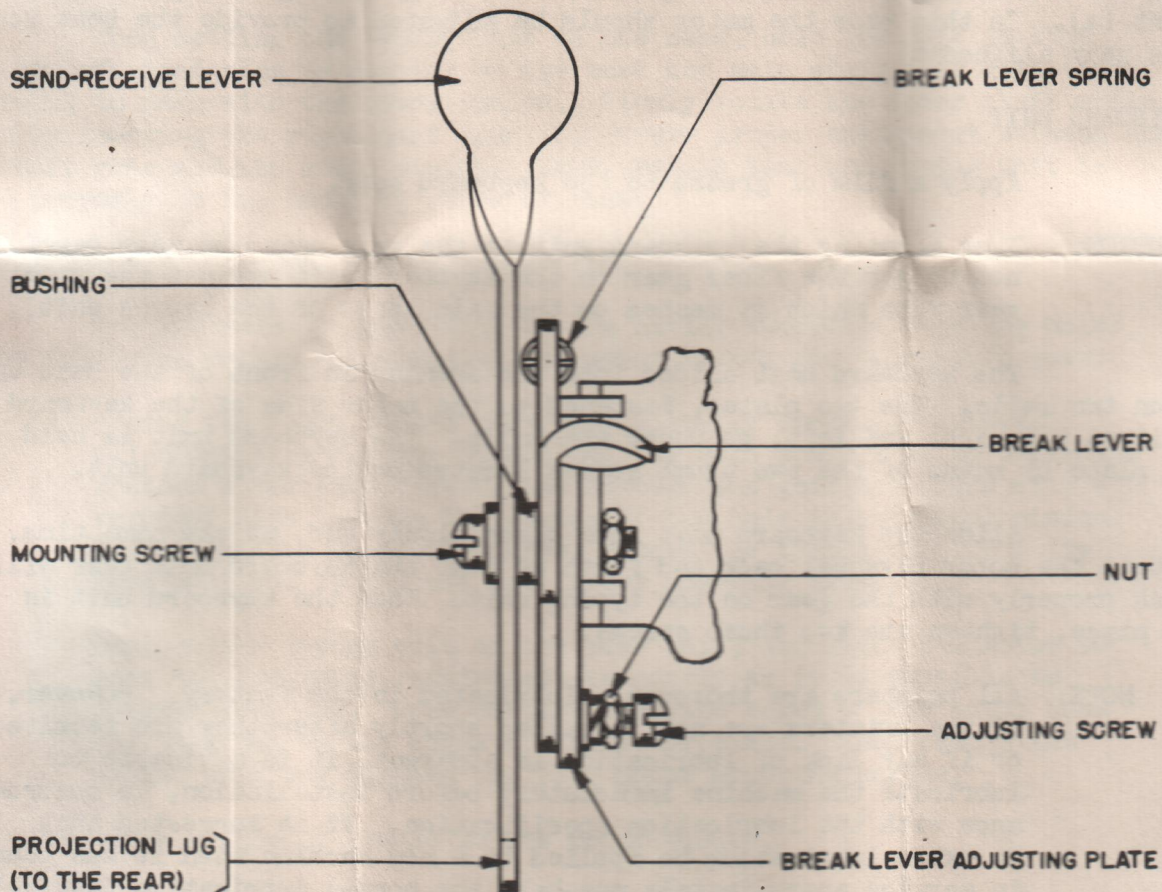


FIGURE 1