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

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

Motor Unit

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

Mount the motor pinion to the motor shaft using the screw and lock washer found in the shaft. The steel motor pinion is shipped with its associated main shaft bakelite gear 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, put the three mounting screws in place. 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.

Typing Unit

Underneath the typing unit are two hexagonal studs for the purpose of protecting the typing unit mechanism from injury when setting the unit on a bench, table, etc. These two studs enter clearance holes in the base unit.

Assemble the bakelite gear to the main shaft as follows: First remove the oil retaining plug from the right end of the shaft. Then remove the clamping screw and lock washer that hold the gear hub to the shaft and slide the gear hub off the shaft. Remove the three screws and lock washers from the hub and assemble the bakelite gear and hub, inserting the three screws and lock washers through the counter-bored holes of the gear. 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 slot on the main shaft permits the gear hub clamping screw with lock washer to be fastened in place.

The typing unit is 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 is 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 cut in the casting.

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

In lifting the typing unit, face the front of the unit. With the right hand, take hold of the flat projection on the right hand typing unit casting. With the left hand, take hold of 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 strain which might throw it out of adjustment.

When setting the typing unit on the base unit, lower the left side down first all the way, holding the right side so that when the left side is resting on the base unit, the main shaft gear is just ready to mesh with the motor pinion. Now with the left hand, turn the motor fly wheel, while at the same time lower the right end of the typing unit, taking care that the motor pinion properly meshes with the main shaft gear.

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 and with the keyboard removed from the base, visually check the lateral alignment of the motor pinion and the main shaft gear to determine if a center line of 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 obtain the foregoing condition as nearly as it is possible to determine by eye. See 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. Loosen the rear motor plate mounting screw and the lock nut on the motor plate adjusting screw. Replace the typing unit and tighten the three typing unit mounting thumb screws. By means of the adjusting screw, adjust the vertical position of the motor pinion until there is 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.

Apply a film of grease to the motor pinion.

Start the motor. Carefully readjust the vertical position of the motor pinion, by means of the adjusting screw, until the gear noise is reduced to a minimum.

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 tne speed of the motor as the result of too close a mesh between the gear and the pinion.

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:

Make adjustments "A" and "B" as described in the foregoing, except that in making adjustment "A", the motor mounting holes may not permit accurate gear alignment. In this case the motor should be adjusted to provide the best possible gear alignment.

Keyboard Unit

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

The keyboard unit slides into the opening in front of the base unit upon two angle irons acting as rails. The two plates, fastened under the keyboard unit on the right and left hand sides, 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 according to the lubrication specification. It is suggested that an extra lubrication be given a new machine when it has been in service approximately half the time normally allowed between lubrications.