

INSTRUCTIONS FOR MOUNTING SHIPBOARD MODEL 15 PRINTER  
MOTOR AND TYPING UNIT ON THE COMBINED BASE-  
KEYBOARD UNIT

1. GENERAL

The motor unit and typing unit used in the Model 15 printer (with combined base-keyboard) set for shipboard use should be mounted on the base-keyboard in the order given below.

2. MOTOR UNIT

a. Remove the screw and lock washer from the motor shaft. Place the steel motor pinion on the motor shaft, with the screw hole toward motor, and fasten it to the shaft by means of the mounting screw and lock washer.

b. Three screws with lock washers for securing the motor unit are threaded in the right-hand corner of the base-keyboard unit.

c. Remove the three motor unit mounting screws from the base and set the motor unit in place. Insert the three screws through the mounting holes and screw the screw on each side down tightly, then back them out 1/4 of a turn. Do not tighten the rear screw until the typing unit is in place. Loosen the lock nut of the adjusting bushing at the rear of the motor plate and turn the bushing down to the plate. Back the rear mounting screw out if necessary.

d. Connect the two leads from the motor unit cable to terminals 11 and 12 on the base-keyboard terminal block.

NOTE

On governed motors it is necessary to remove the adjusting bushing at the rear of the motor plate in order to insert the rear mounting screw.

3. TYPING UNIT

CAUTION

When setting the typing unit on the base unit, avoid jamming 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. Exercise care to prevent the carriage-return lock bar from being accidentally pressed while the typing unit is being carried.

a. 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.

b. Rest the typing unit on the left-hand side and assemble the fiber gear to the main shaft as follows: Remove the oil retaining plug from the end of the shaft. 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.

c. Four hexagon head screws for securing the typing unit on the base-keyboard are threaded into their holes. 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.

d. 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.

e. 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.

#### 4. ALIGNMENT OF MOTOR PINION AND MAIN SHAFT GEAR

a. While 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.

b. 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.

c. Apply a film of grease to the motor pinion.

d. Replace the typing unit and insert the four typing unit mounting screws. By means of the rear adjusting bushing, 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. Check through one complete revolution of the main shaft gear.

#### 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 bushing, until the gear noise is reduced to a minimum.

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

#### 5. LUBRICATION

All printers are thoroughly lubricated in the factory. If, however, 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 in accordance with the lubrication specification immediately before installation. 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.

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