



Fig. 19—Trouble Shooting Procedures

Adjustments

Armature End Play—Loosen end play adjusting screw lock-nut, Figure 19, and tighten the adjusting screw until finger tight. Then back off $\frac{1}{4}$ turn and tighten locknut.

Gear Shaft End Play—Remove crank arm, seal cap and retaining ring, Figure 14. Add or remove end play washers as required to obtain .005" maximum end play.

TROUBLE SHOOTING—

Wiper Installed in Car:

Types of Troubles

- A—Wiper Inoperative
- B—Wiper Will Not Shut Off
- C—Wiper Has one Speed Fast
- D—Wiper Has one Speed Slow
- E—Wiper Will Not Park Blades Correctly
- F—Wiper Speed Normal in "Lo" Too Fast in "Hi"
- G—Intermittent Operation

A—Wiper Inoperative:

1. With ignition switch "On" check power source (12 V.) to center or No. 2 terminal of wiper terminal board (Figure 19).
2. To determine if dash switch or car wiring is the source of trouble try to operate the wiper as shown in Figure 19.

If wiper still fails to operate remove body parts as required to gain access to wiper transmissions. Disconnect transmissions from wiper crank arm and recheck to see if wiper will operate.

If wiper still fails to operate, remove it from car and check it according to the procedure outlined in "Trouble Shooting—Wiper Detached."

B—Wiper Will Not Shut Off:

1. Check if wiper has both "Lo" and "Hi" speeds.
 - If wiper has only "Lo" speed, see Item D.
 - If wiper has only "Hi" speed, see Item C.
 - If wiper has both speeds, proceed to Step 2.
2. By-pass car wiring and dash switch and operate wiper as shown in Figure 19.
3. Disconnect jumper wire No. 2. Wiper should shut off when blades reach park position.
 - Wiper still fails to shut off—Park switch contacts probably not opening. Remove wiper from car and repair or replace parking switch contacts.
 - Wiper shuts off correctly—Check for a grounded condition in car wiring lead that connects to wiper terminal No. 1.

C—Wiper Has One Speed "Fast":

1. By-pass car wiring and dash switch and connect up wiper as shown in Figure 19. This should operate wiper in "Lo" speed (approximately 35-45 wipes per minute).
 - Wiper Operates correctly—Check that lead from terminal No. 3 to dash switch is not open. If lead is not open, switch is at fault.
 - Wiper still has one speed "Fast"—Remove wiper from car and follow procedures outlined under "Trouble Shooting—Wiper Detached."

D—Wiper Has One Speed "Slow":

1. By-pass car wiring and dash switch and connect up wiper as shown in Figure 19. This should