

35 MULTIPLE WIRE DISTRIBUTOR

ADJUSTMENTS

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1.03 The spring tensions are indications, not exact values. Therefore, measure them with proper scales in the positions shown in the drawings. Discard springs that do not meet the requirements and replace them with new ones.

1.04 In its disengaged position the clutch is latched between the clutch trip lever, which bears against the shoe lever and the clutch latch lever, which is seated in the notch in the clutch disk (see Figure 1). In this position, the clutch shoes are not in contact with the clutch drum and the shaft may be rotated freely. When the shaft is turned by hand, the clutch does not fully disengage upon reaching its stop position. If a requirement calls for disengagement, rotate the clutch to its stop position, apply pressure with a screwdriver to the disk lug (Figure 1) and turn the disk in the normal direction of shaft rotation until the latch lever falls into its notch. When the clutch is engaged, the shoe lever is unlatched and the shoes are wedged against the drum. This forces the clutch to turn with the shaft.

1. GENERAL

1.01 This section contains the information needed to adjust the 35 multiple wire distributor unit. Adjusting clearance, position of unit parts, point and angle of scale application and other pertinent information are indicated by the illustrations. Adjusting and spring tension requirements and procedures are included in the texts that accompany the illustrations.

1.02 The adjustments are arranged in the sequence that should be followed if complete readjustment of the unit is undertaken. Tools required to make these adjustments are not supplied as part of the equipment, but are listed in the applicable publication. If a part mounted on shims is removed, the number of shims in each pile up should be noted so that identical pile ups can be made when the part is remounted. After an adjustment has been made, all nuts and screws that were loosened should be tightened.

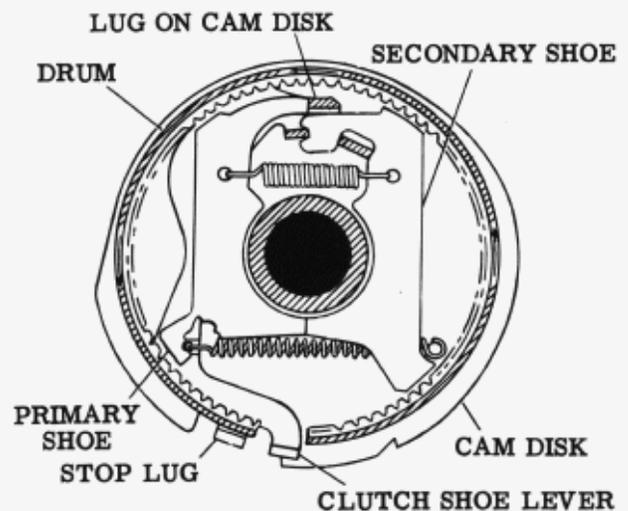


Figure 1 - Clutch Mechanism (Shown Disengaged)

2. MULTIPLE WIRE DISTRIBUTOR

BASIC UNIT

2.01 Clutch Trip Magnet Assembly

CLUTCH TRIP ARMATURE AIR GAP

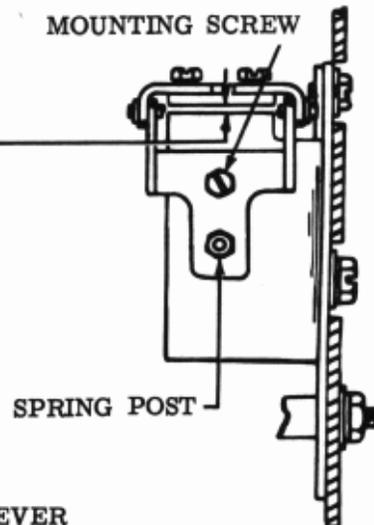
Requirement

Air gap between armature and magnet assembly bracket:
Min 0.004 inch---Max 0.008 inch
when armature is held flush against magnet core.

To Adjust

Remove armature extension spring. Loosen spring post and hinge mounting screw and position hinge.

Note: To eliminate chatter and ac hum in ac operation, reverse the armature (side stamped C facing away from magnet core) by removing the mounting screws and armature bail.



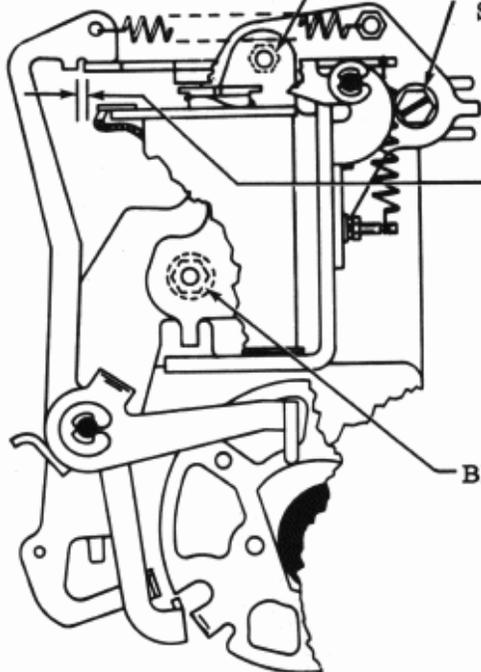
CLUTCH TRIP LEVER

Requirement

Clearance between armature extension lever and latching surfaces of clutch trip lever:
---Min 0.020 inch---Max 0.030 inch
when clutch trip lever is on high part of cam (play taken up with spring).

To Adjust

Loosen plate adjusting screw and plate mounting screw. Insert screwdriver in slot adjacent to adjusting screw and position plate for required clearance.



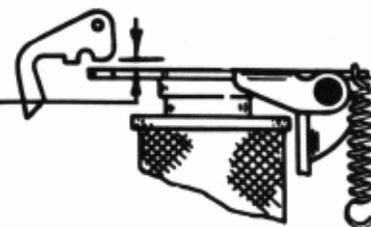
ARMATURE EXTENSION

Requirement

Clearance between armature extension lever and clutch trip lever
Min 0.030 inch---Max 0.040 inch
when clutch trip lever is on high part of cam and armature is flush against core (play taken up with spring).

To Adjust

Loosen bracket mounting screw and plate adjusting screw and insert screwdriver into slot below adjusting screw, and adjust bracket.



2.02 Cam Sleeve Assembly

CLUTCH STOP ARM

Requirement

With clutch trip lever in latched position, clutch lever should fully engage clutch shoe lever.

To Adjust

With clutch in stop position, loosen clutch trip clamping screw and adjust clutch stop lever to obtain full bite with clutch shoe lever.

Note: When armature is in attracted position, clutch stop arm should clear stop lever and stop lug by at least some clearance.

CLUTCH TRIP CLAMPING SCREW



CLUTCH SHOE LEVER

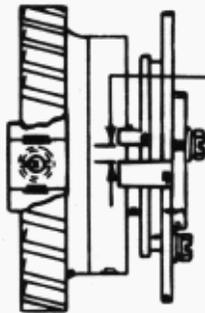
Requirement

Clearance between clutch shoe lever and extension should be
 Min 0.055 inch---Max 0.085 inch
 greater when clutch is engaged than when disengaged.

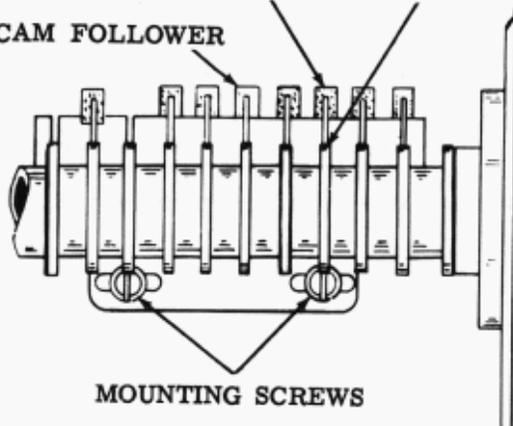
To Adjust

Loosen two clamp screws in clutch disk. Rotate adjusting disk to obtain proper clearance.

Note: After above adjustment is made, disengage clutch and rotate drum in normal rotation to make certain it does not drag on shoes. If drum drags, refine adjustment.



CAM FOLLOWER GUIDE
 CAM FOLLOWER
 CAMS



CAM FOLLOWER GUIDE

Requirement

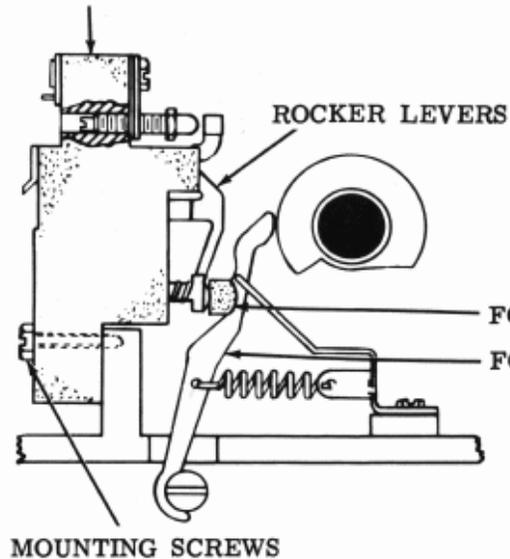
Cam follower guide oriented so center cam follower is fully on cam when follower is moved sideways in guide slot. Other must have at least 75% bite when moved in either direction, and be free in their guide slots.

To Adjust

Position cam follower guide with its mounting screws loosened. After tightening, check for freeness.

2.03 Distributor Block Assembly

DISTRIBUTOR BLOCK ASSEMBLY



DISTRIBUTOR BLOCK ASSEMBLY

Requirement

Distributor block assembly positioned on casting so that rocker levers are fully engaged with the bakelite on the follower levers.

To Adjust

Loosen distributor block assembly mounting screws and position block left or right to obtain requirement.

DISTRIBUTOR CONTACT GAP

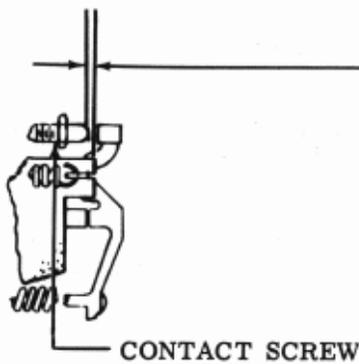
Requirement

Contact gap should be
Min 0.020 inch---Max 0.030 inch
with cam follower lever on high part of cam.

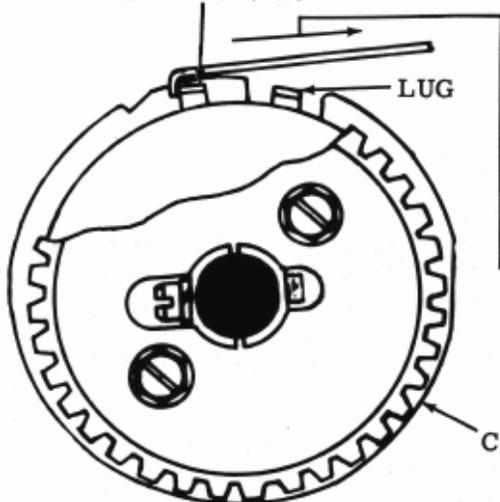
To Adjust

Turn contact screw at socket end until desired gap is obtained. Check all contact gaps.

Note: Position follower on high of cam by tripping clutch manually and rotating distributor shaft.



CLUTCH SHOE LEVER



CLUTCH SHOE LEVER SPRING

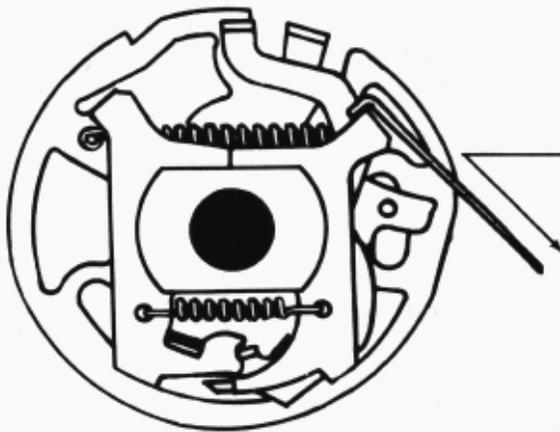
Requirement

Clutch engaged. Clutch disk held to prevent its turning:
Min 15 oz ---Max 20 oz
To pull shoe lever in contact with lug on clutch disk.

2.04 Cam Sleeve Assembly continued

NOTE

As it requires removal of clutch from shaft, this spring tension should not be checked unless there is good reason to suspect that it will not meet its requirement.



CLUTCH SHOE SPRING

Requirement

Clutch drum removed.

Min 3 oz ---Max 5 oz

To start primary shoe moving away from secondary shoe.

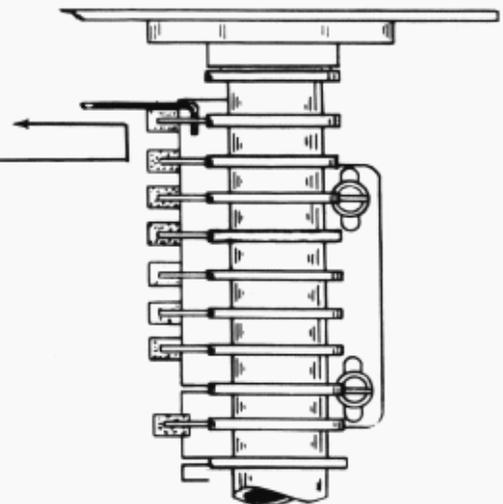
DISTRIBUTOR CAM FOLLOWER SPRING

Requirement

Distributor block removed

Min 1/2 oz ---Max 1-1/2 oz

to start cam follower lever moving when lever is on high of cam.



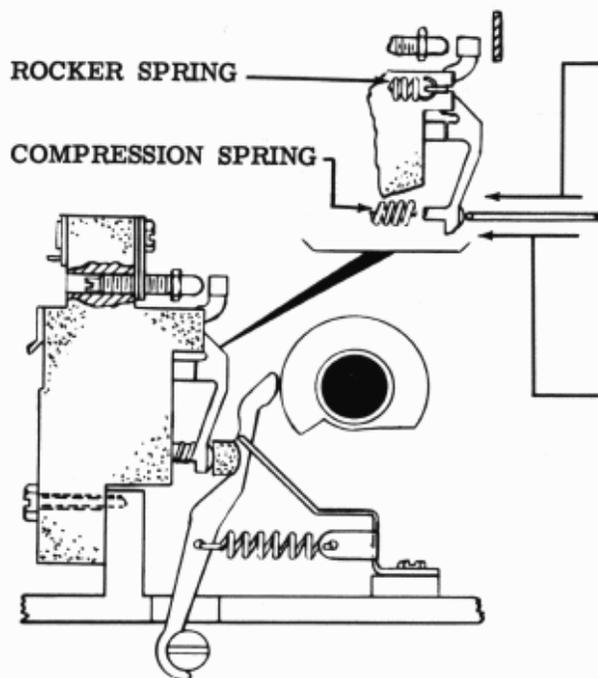
2.05 Distributor Block Assembly continued

DISTRIBUTOR ROCKER SPRING

Requirement

With compression springs removed and contacts initially adjusted so contact surface is approximately 1/32 inch below outer surface of contact block:

Min 3 oz ---Max 4 oz
to separate contacts.



DISTRIBUTOR ROCKER COMPRESSION SPRING

Requirement

With compression springs installed
Min 6-1/2 oz ---Max 9-1/2 oz
to just separate contacts.

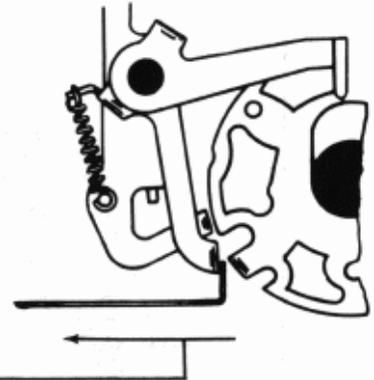
2.06 Clutch Trip Magnet Assembly continued

CLUTCH LATCH LEVER SPRING

Requirement

Clutch latch lever on low of clutch disk
(but not latched)

Min 2-1/2 oz ---Max 4-1/2 oz
to start latch lever moving.

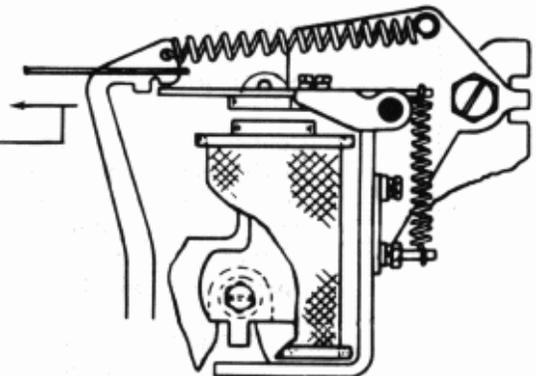


CLUTCH TRIP LEVER SPRING

Requirement

Clutch tripped and armature held against
magnet core.

Min 2 oz ---Max 3-1/2 oz
to start trip lever moving.

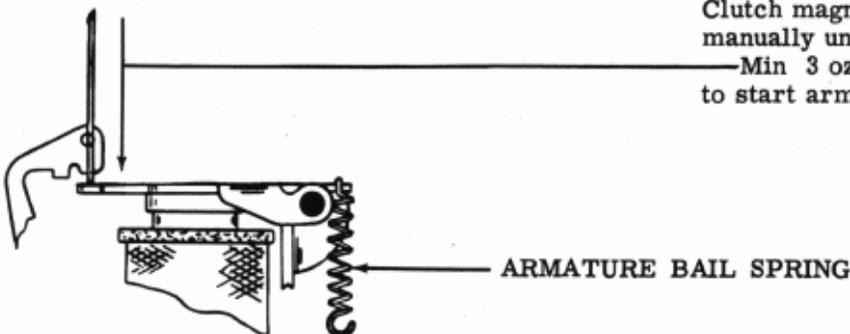


CLUTCH MAGNET ARMATURE BAIL SPRING

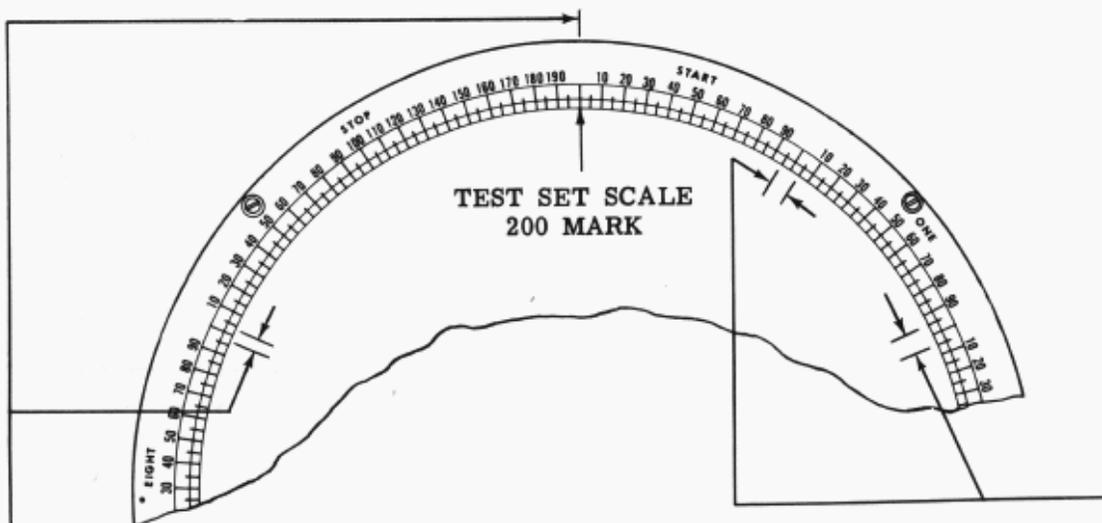
Requirement

Clutch magnet tripped and shaft rotated
manually until trip follower is on high of cam.

Min 3 oz ---Max 4-1/2 oz
to start armature extension lever moving.



2.07 Signal Pulse (Final Adjustment with DXD or Strobe)



NOTE: For operation of Signal Distortion Test Set (DXD) refer to the applicable publication.

PROCEDURE

Connect strobe of test set across each contact of distributor in turn to view pulse image generated by that contact of distributor. Trip clutch trip magnet and hold down by removing armature spring. Align end of stop pulse image generated by distributor with 200 mark on test scale by rotating scale. Test set and distributor must be operating at same speed (60, 75, or 100 wpm).

REQUIREMENT: (8 level, 11.00 unit code transmission and 11.00 unit code test scale)

1. There shall be no breaks in the transmitted signal pulses.
2. The stop pulse should start within ± 5 divisions of the 0 mark of its segment and end at the 200 mark.
3. Each marking pulse for contacts #1 through #8 should be 100 test scale divisions in length, ± 5 divisions at each end.
4. Auxiliary Contact - Contact should start at 55 (± 20 divisions) in start segment and stop on 8 (± 5 divisions) in stop segment.
5. Auxiliary Contact (self-contained units) - Contact should start at 47 (± 20 divisions) in start segment and stop on 32 (± 20 divisions) in stop segment.

TO ADJUST

Refine Distributor Contact Gap, Distributor Rocker Spring, and Distributor Rocker Compression Spring Adjustments.