



**ENSTROM**  
**HELICOPTER CORPORATION**

2209 22<sup>nd</sup> Street  
Menominee, Michigan  
49858 USA

EnstromHelicopter.com  
P 906-863-1200  
F 906-863-6821

Customer Support Work aid Document

**Aircraft Series: PISTON**  
**Effectivity: CORRELATOR MODELS**

**BACKGROUND:** To provide additional information for adjusting the Correlator.

**PROCEDURE:**

The correlator will require minor adjustment following service such as adjusting magneto timing or idle mixture.

The correlator will require major adjustment following any of the following maintenance:

1. Installation of new throttle cable.
2. Installation of replacement servo.
3. Installation of engine.

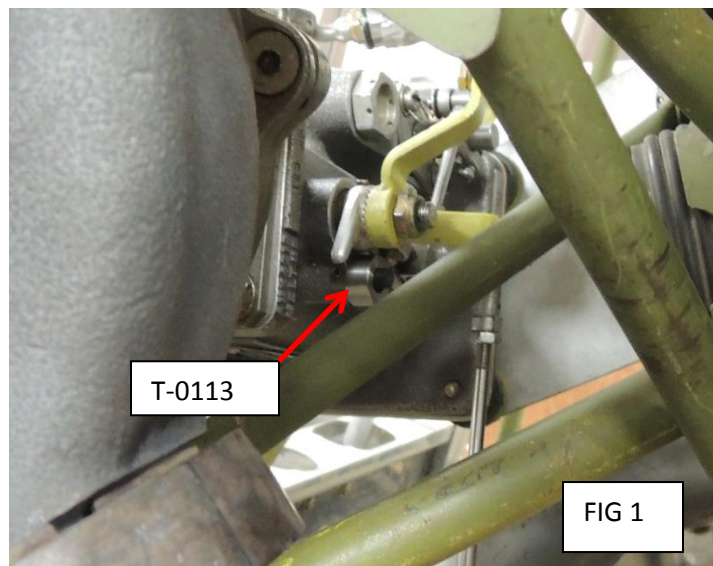
**MINOR ADJUSTMENT:**

Minor adjustment consists of setting the summing lever override stop and then a test flight to check correlator effectivity and adjustment if necessary.

**Adjusting Procedure:**

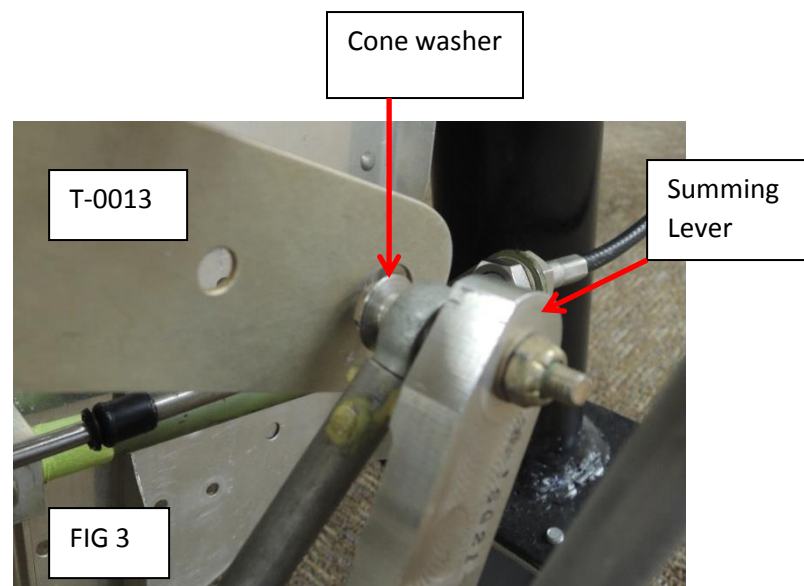
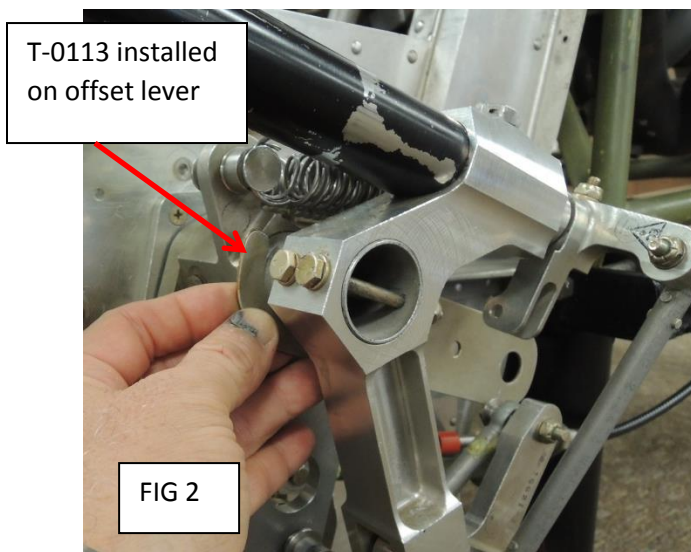
Before releasing the helicopter for flight:

1. Install the idle stop bushing (T-0113) over throttle stop pin. (Fig 1)





2. Install the summing lever adjusting tool (T-0111) over the offset lever and hold it against the summing lever cone washer. (Fig 2 and 3)



3. Gently hold the throttle shut and attempt to insert the hole in the end of the lever adjusting tool over the summing lever cone washer.

4. Adjust the summing lever adjustment screw until the tool will slip over the cone washer. Each time the adjustment is made, it will be necessary to release the throttle pressure against the stop on the servo, and then gently close the throttle again.

5. Fly the helicopter at 55 MPH, 2900 RPM, and 25 in manifold pressure.

6. Maintain airspeed and increase manifold pressure to 39 in, while preventing the throttle from turning. Note the RPM change. (**DO NOT EXCEED 3050 RPM**)



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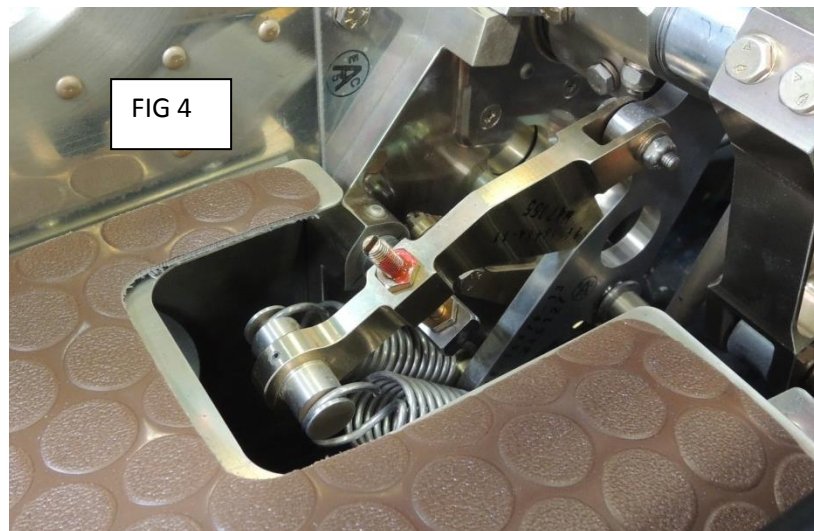
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7. Maintain 55 MPH and reduce MP back to 25 in, Note RPM change.
8. RPM must remain between 2900 and 3050 during the power changes without changing throttle settings.
9. If the correlator does not maintain the RPM limits, adjust the Summing Lever adjustment screw  $\frac{1}{4}$  turn. Turn the screw in (clockwise) to decrease correlator effectiveness and out, (counterclockwise) to decrease effectiveness. (Fig 4)





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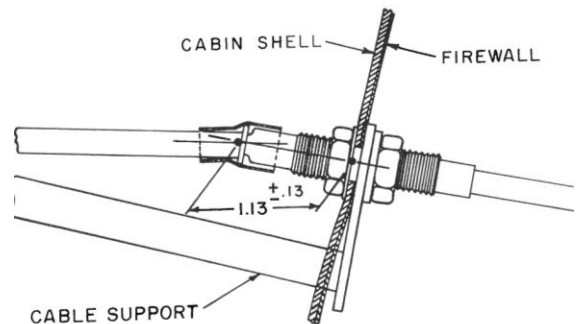
**Aircraft Series: PISTON**  
**Effectivity: CORRELATOR MODELS**

**MAJOR ADJUSTMENT:**

When a replacement throttle cable, servo, or engine is installed the correlator will require major adjustment.

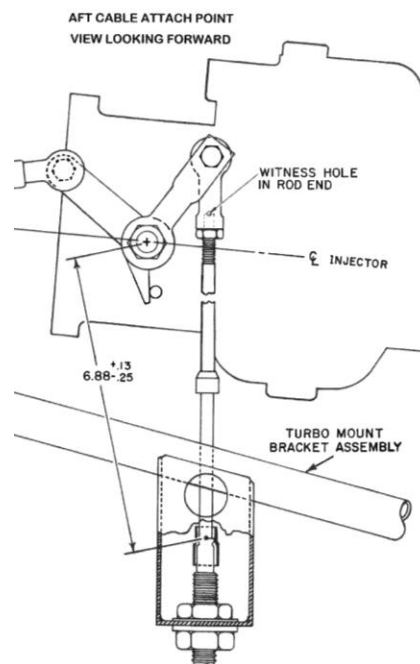
1. Connect the waste gate rod and verify that the waste gate and the throttle rod move full travel.
2. With the collective down, and the throttle closed, the waste gate arm should be within .015 of the open stop; with the collective up 2 inches, and the throttle open, the arm should be within .015 of the closed stop. If the waste gate doesn't have the correct travel it will be necessary to reposition the throttle arm on the servo.
3. Set the forward throttle cable to  $1.13 \pm .13$ . (Fig 5)

Fig 5



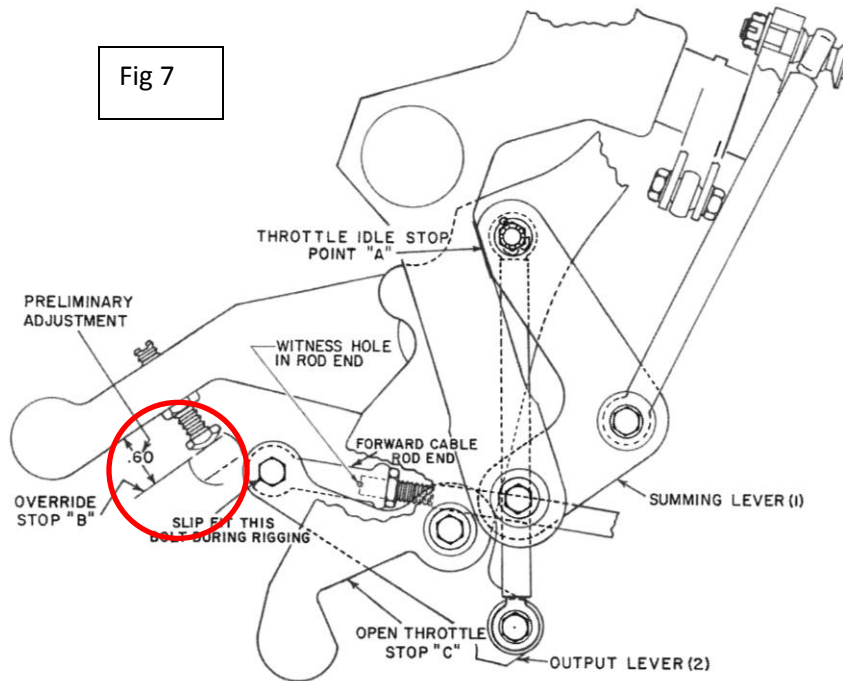
4. Set the aft throttle cable to 6.88 in. ( $+.13, -.25$ ) (Fig 6)

Fig 6





5. Adjust Summing Lever to obtain .6 at the override stop. (Fig 7)



6. with the collective down and throttle shut, connect the throttle cable to the servo and then to the correlator. Be sure the throttle speed adjustment screw is against the stop.

**PROCEED TO THE MINOR ADJUSTMENT SECTION ABOVE.**