

REPLACING AND ADJUSTING ENGINE HIGH-LOW SPEED ACTUATOR

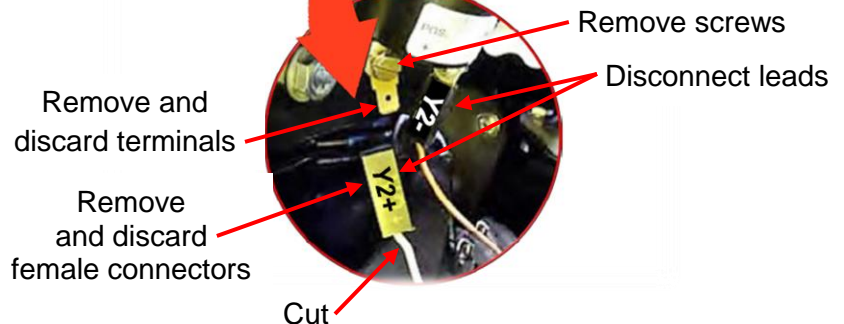
The purpose of this technical document is to provide the service technician with proper installation and adjustment instructions. Misadjusting of the engine speed actuator may result in the fuse blowing or even failure of the actuator.



**MQ P/N 1226545
Engine High-Low
Speed Actuator**

Removal Instructions

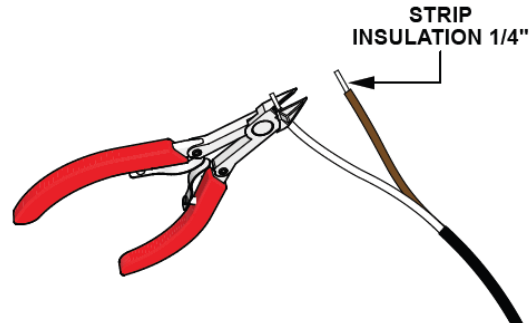
1. Using a small flat-blade screwdriver, remove the two screws securing the blade terminals to the speed solenoid. Set the screws aside to be used later. Remove and discard the terminals.
2. Cut off the existing female connectors from the wire leads and discard the connector. Take note of the polarity of the wires for correct reconnection later. Wire #151/+, Wire #174/-



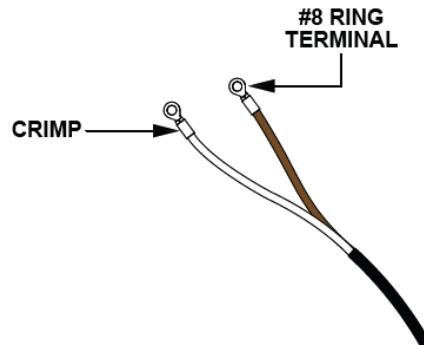
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3. Strip the insulation back 1/4" (6.4 mm) from the cut end of each of the wires to expose the conductors.



4. Place a new #8 ring terminal (16-14 gauge) onto the stripped end of each of the leads and crimp.



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5. Remove safety bolt from the clevis head



6. Remove the two Allen head bolts (AF size 5)
7. Remove the Engine High-Low Speed Actuator



Installation Instructions

1. Apply a blue Loctite to the two Allen head bolts



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2. Position the replacement engine high-low speed actuator and screw firmly in place



3. Grease the safety bolt of the clevis head



4. Put the safety bolt onto the clevis head



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5. Secure the leads with ring terminals onto the speed solenoid with the two existing screws. Make sure that the polarities are correct, Wire #151/+, Wire #174 (brown)/-

NOTICE

DO NOT reverse the positive (+) and negative (-) wires!



Adjusting Instructions

When replacing the pull magnet – please pay special attention to proper adjustment of the play (1.5 mm), as described below.

1. Loosen counter nut on clevis head (AF size 10)



2. Push the piston rod all the way down by hand
 - The stop (arrow) must not be allowed to touch the factory set high speed screw

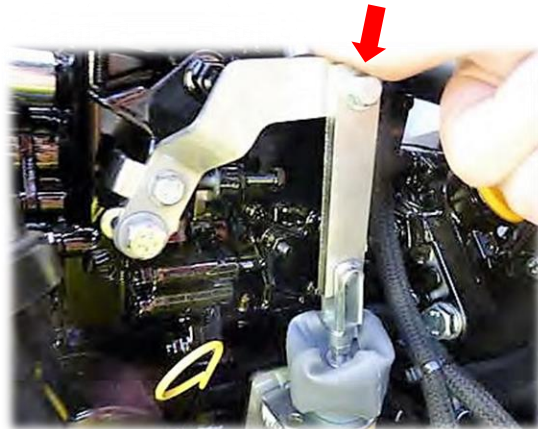


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3. Use a feeler gauge (1.5 mm) to set the spacing between the high speed screw and the stop



4. Push the engine high-low speed actuator all the way through to the stop!
There must be a gap of 1.5 mm between the stop and the adjustment screw



5. Start the engine
6. Push the engine High-Low Actuator all the way through to the stop!
7. Measure the engine speed using the tachometer.
 - If the specified speed (min. 2390-2440 RPM) is not reached, the clevis head (AF size 10) must be adjusted



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8. The governor lever must rest against the adjustment screw when the diesel engine is at the idle position



9. Once the speed solenoid is adjusted, secure the jam nut with Loctite 270 adhesive, then mark the jam nut with a white marker. Secure the speed solenoid with the clevis clip.



10. Motion test: Move the engine high-low speed actuator up and down by hand **IMPORTANT: When the linkage is pressed down, it must return to its starting position strain-free on its own**

