



DYNAMOMETER SHEET

For Harley-Davidson
Sportster Motorcycles

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Revision: 100821

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⚠ WARNING

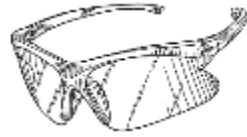
To dyno test your engine without damaging the clutch you must first disable the automatic function. Failure to disable the automatic clutch function of the product will result in a clutch failure. Rekluse does not provide a warranty for clutch damage caused by performing dyno runs while the clutch is set to automatic mode.

Work only with certified dyno technicians and certified equipment. Failure to use a certified dyno technician and certified equipment can result in injury or death.

Use only your certified dyno testing center. Failure to do so can result in damage to your motorcycle. Rekluse does not accept any liability for parts damaged during dyno testing.

TESTING TIPS

- Only work with a certified dyno testing center.
- Thoroughly read and understand the **Safety Information** and **User's Guide** documents for this product.
- Work in a well-ventilated area.
- Protect eyes and skin – wear safety glasses and work gloves.



TUNING CHART

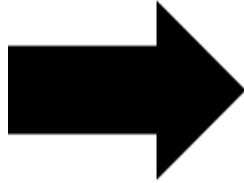
Bikes with high Torque Output may require heavier clutch springs to ensure proper function. Refer to the chart below and use only recommended springs for the output of your bike.

| Product: RMS-6206 | | | | |
|--------------------------|-------------|----------------|----------------------------------|---------------------|
| | | | Max Engine Output Torque (ft-lb) | |
| Rekluse Part Number | Spring Type | Spring Marking | '04+ Sportster 883 | '04+ Sportster 1200 |
| 442-104 | Coil | Gold | 63 | 95 |

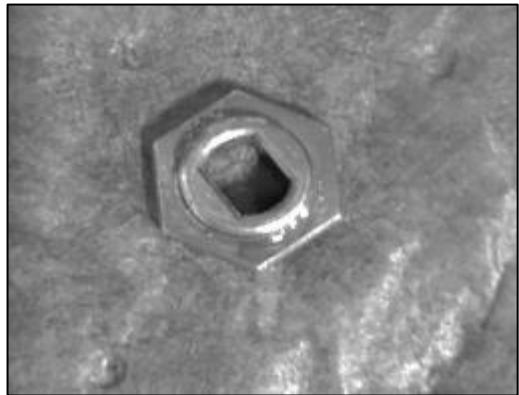
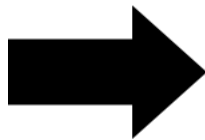
COLLAPSE THE INSTALLED GAP

1. Remove derby cover and respective gasket.

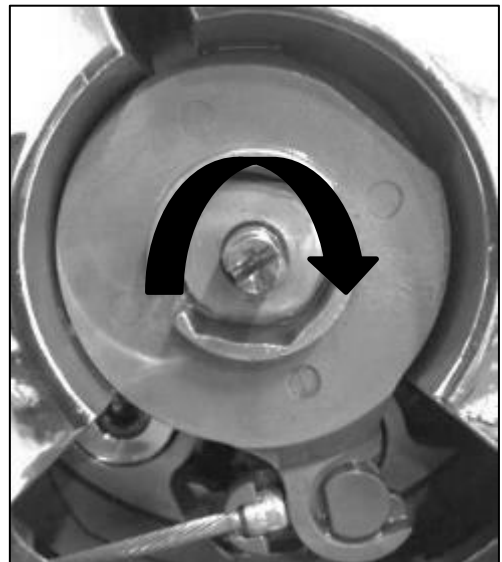
2. Remove the OE clutch actuating mechanism spring.



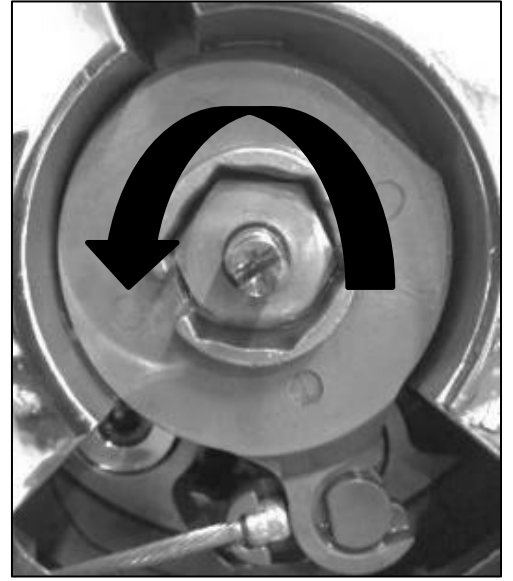
3. Remove and set aside the jam nut that is seated over the threaded stud in the clutch actuating mechanism



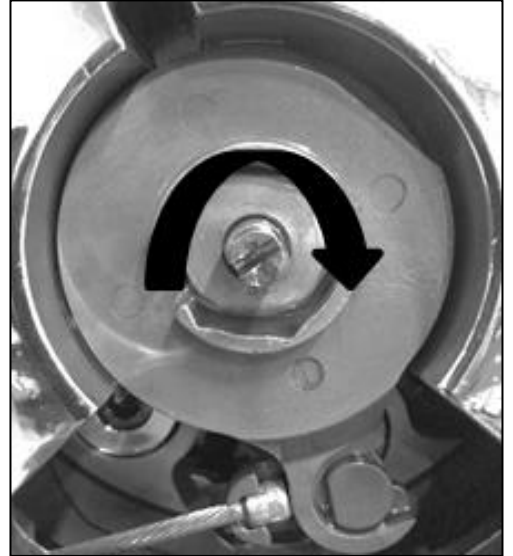
4. Turn the threaded throw-out rod clockwise until it spins freely.



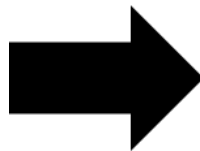
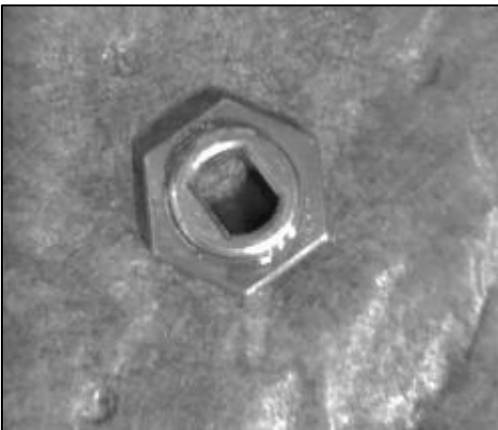
5. Slowly turn the throw-out rod **counterclockwise** until you feel firm resistance. This position is known as the **Starting Point**.



6. Slowly turn the throw-out rod ¼ turn clockwise from the starting point.

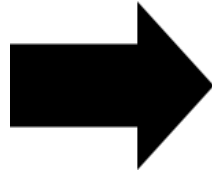


7. Replace the jam nut that is seated over the threaded stud in the clutch actuating mechanism.



Note: *If the lock nut will not fully index, turn the throw-out rod clockwise slightly until it fully indexes between the throw-out rod and the slot in the clutch actuating mechanism.*

8. Reinstall the OE clutch actuating mechanism spring by pressing it onto the lock nut in the clutch actuating mechanism.



9. Reinstall the clutch derby cover gasket and cover.

10. **For cable actuated bikes:** Adjust the cable tension so that you have clutch lever override at 2,500 RPM.

DYNO TEST

Once the installed gap is collapsed, the bike is ready for dyno testing.

▲ WARNING

Manual clutch override will be limited at high RPM. Be sure to pull the clutch lever all the way to the bar to disengage the clutch during motorcycle operation.

- Proceed with your certified technician's dyno testing procedure.
- Allow the motorcycle to fully cool down before proceeding to set the installed gap.

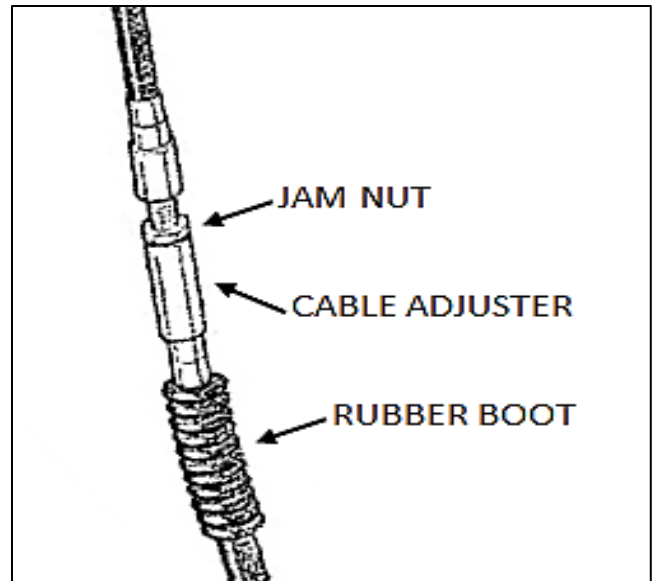
▲ CAUTION

Failure to let the motorcycle fully cool before proceeding to set the installed gap can result in injury from handling hot parts.

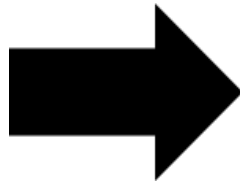
SET THE INSTALLED GAP

1. Remove the clutch derby cover and respective gasket.

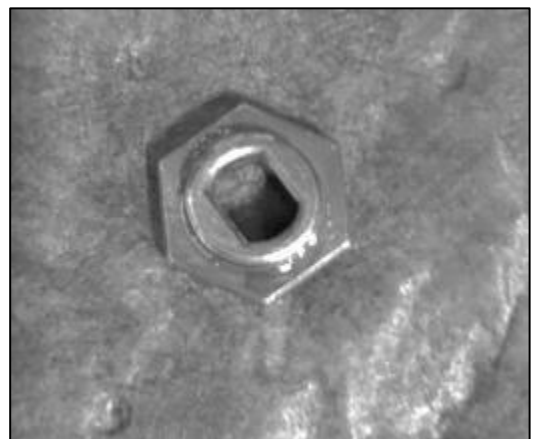
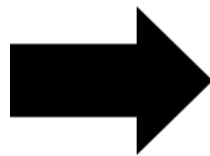
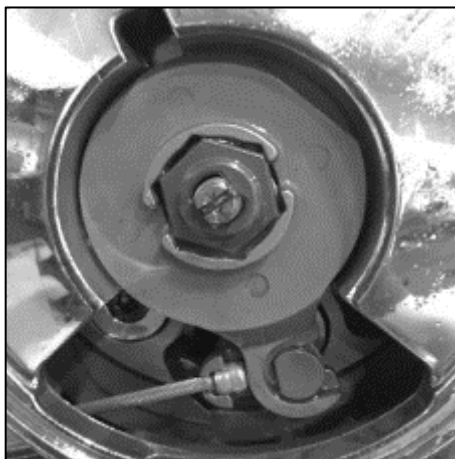
2. **For cable actuated bikes:** Fully collapse the in-line adjuster, so that the cable slack allows the clutch lever to become very loose at the perch.



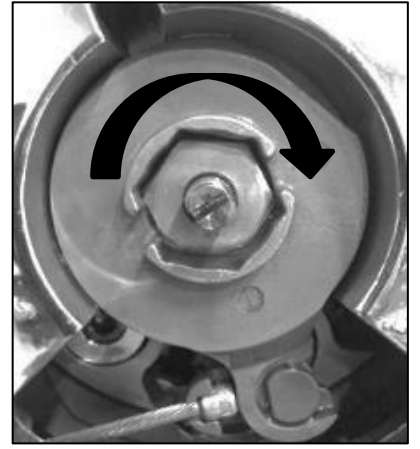
3. Remove the OE clutch actuating mechanism spring.



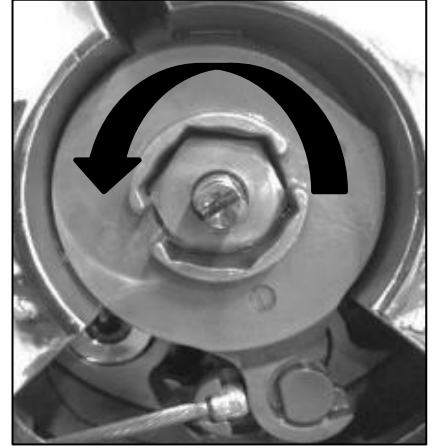
4. Remove and set aside the lock nut that is seated over the threaded stud in the clutch actuating mechanism



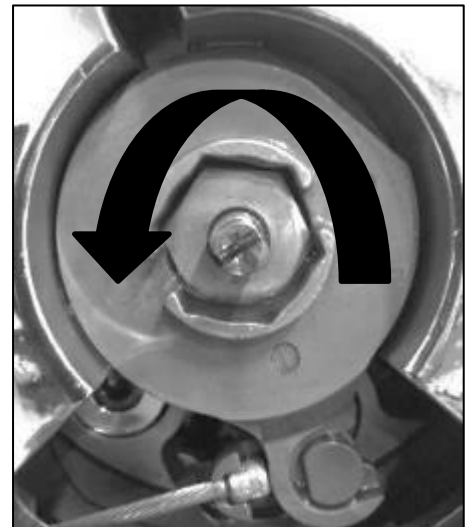
5. Turn the threaded throw-out rod **clockwise** until it spins freely.



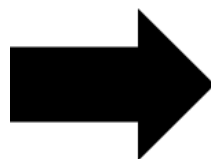
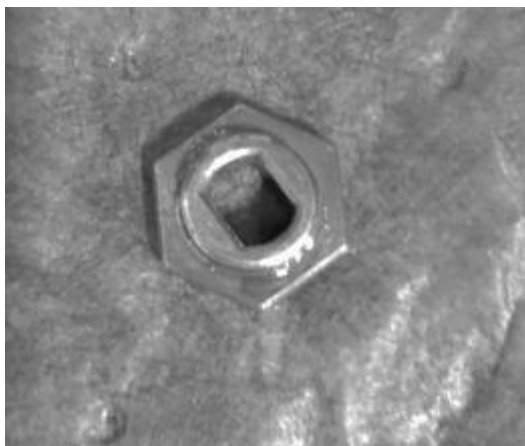
6. Slowly turn the throw-out rod **counterclockwise** until you feel firm resistance. This position is known as the **Starting Point**.



7. Firmly turn the OE throw-out rod **1¼ turns counterclockwise** past the starting point.

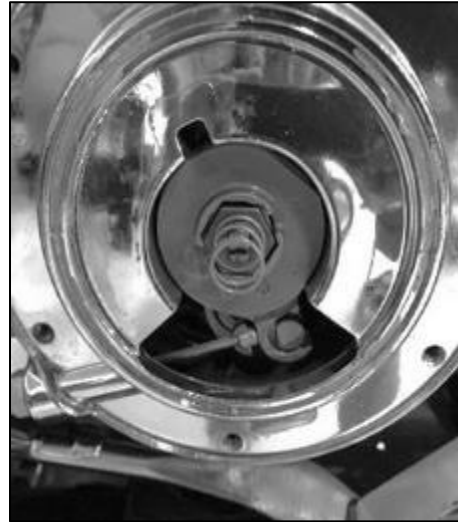
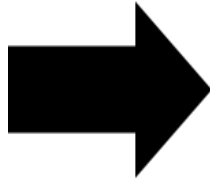


8. Replace the lock nut that is seated over the threaded stud in the clutch actuating mechanism.



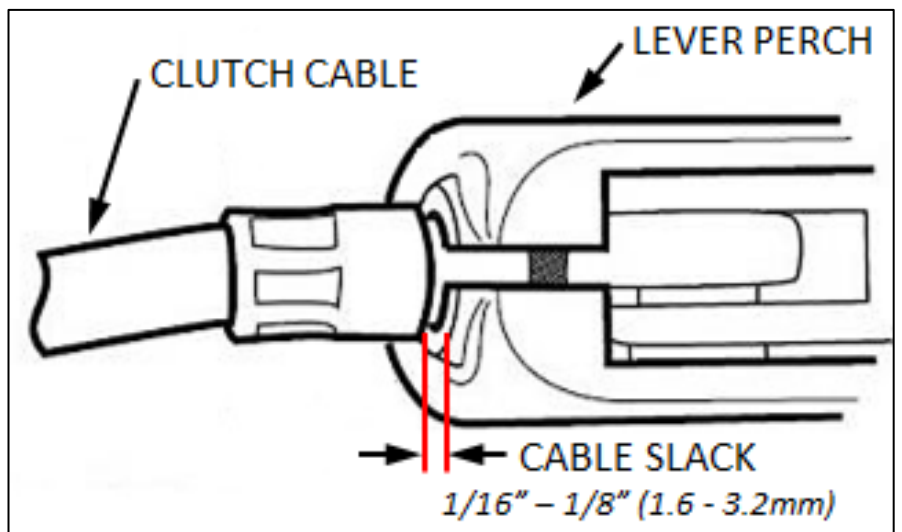
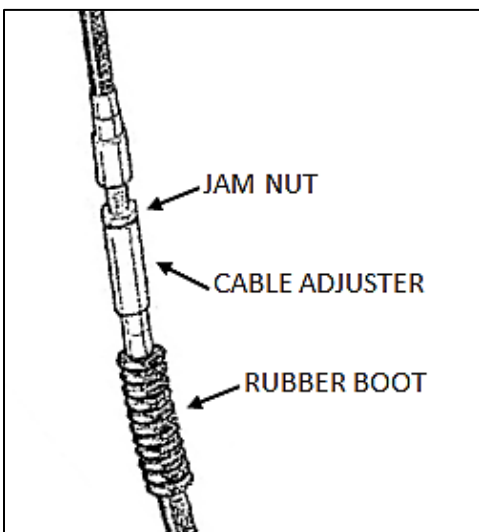
Note: If the lock nut will not fully index, turn the throw-out rod counterclockwise slightly until it fully indexes between the throw-out rod and the slot in the clutch actuating mechanism.

9. Reinstall the OE clutch actuating mechanism spring by pressing it onto the lock nut in the clutch actuating mechanism.



10. Reinstall the clutch derby cover gasket and cover.

1. **For cable-actuated bikes:** Reset lever free play. Expand the in-line adjuster until the cable slack is between 1/16" and 1/8" at the lever perch.



2. Check Free Play Gain. See the section on Checking Free Play Gain for directions.

CHECK FREE PLAY GAIN

It is important to verify the correct installed gap by checking Free Play Gain. Additional information about Free Play Gain can be found in the User's Guide that came with the clutch.

Follow the instructions below or view the support video entitled "How to Check Free Play Gain" at www.rekluse.com/support/videos.

Optimal Free Play Gain yields 1/8-1/4" (3 mm-6 mm) of clutch lever movement, measured at the end of the lever. This measurement at the lever correlates to achieving the ideal installed gap.



Lever with "slack" removed

Lever position around 4,000 RPM

Free Play Gain
1/8"-1/4" (3 mm-6 mm) lever movement

⚠ WARNING

Failure to check and verify Free Play Gain can cause failure or damage to this product. Setting the correct installed gap is critical for clutch performance.

Two Ways to Check for Free Play Gain

The following steps explain **2 ways** to check Free Play Gain. One way uses the rubber band Rekluse includes in the clutch kit, and one uses your hand. **You can use either method to check for Free Play Gain.**

⚠ WARNING

BEFORE YOU BEGIN, verify that the bike is in **NEUTRAL** before checking Free Play Gain. Failure to do so may result in the bike lurching forward, and loss of control and/or injury may result.

A Rekluse auto-clutch can make your motorcycle appear to be in neutral when in gear, even when the engine is running and clutch lever released.

Motorcycles equipped with a Rekluse auto-clutch can move suddenly and unexpectedly and cause riders to lose control. To avoid death, serious injury, and/or property damage, always sit on the motorcycle to start it.

The Rubber Band Method

- a) Before you begin, place the bike in **NEUTRAL**, start the engine and let it warm up for 2-3 minutes to idle down and warm the engine oil.

- b) Stretch the included rubber band between your thumbs, then place the top end of the rubber band on the outer end of the left handlebar grip.



- c) While holding the top end of the rubber band against the handlebar, stretch the band downward, then loop it through itself.

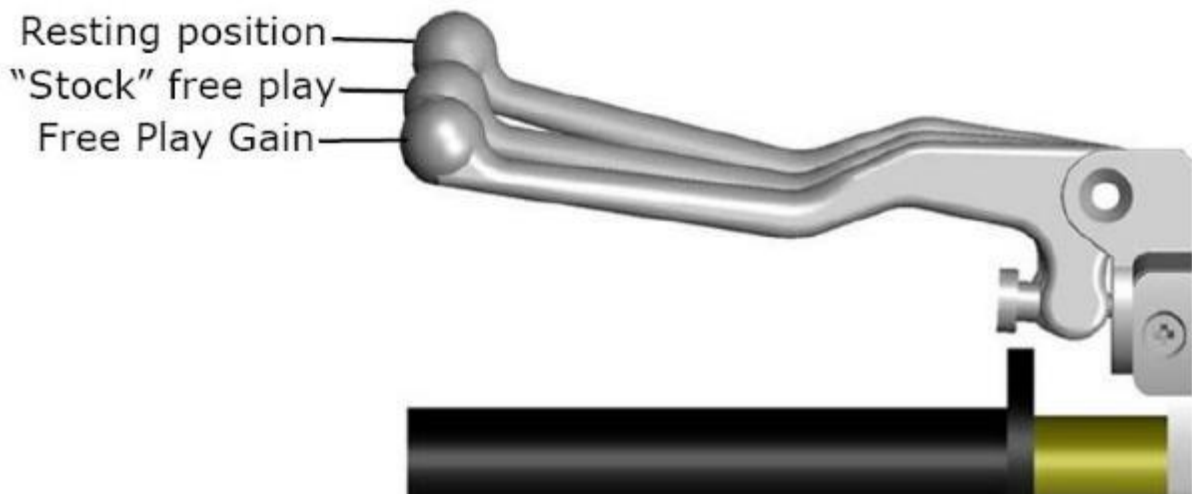


- d) Pull the band through the loop, then attach it to the outside end of the clutch lever. This will take up the initial free play (slack) and put the lever in a position to detect the Free Play Gain.



- e) While still in **NEUTRAL**, quickly rev the engine between 3,000-5,000 RPM (1/4 to 1/2 throttle), then let it return to idle. Notice the movement in the clutch lever when the engine is revved. This is your Free Play Gain.

Note: *It is very important the motor returns to idle before revving the engine again or Free Play Gain will not be correct.*

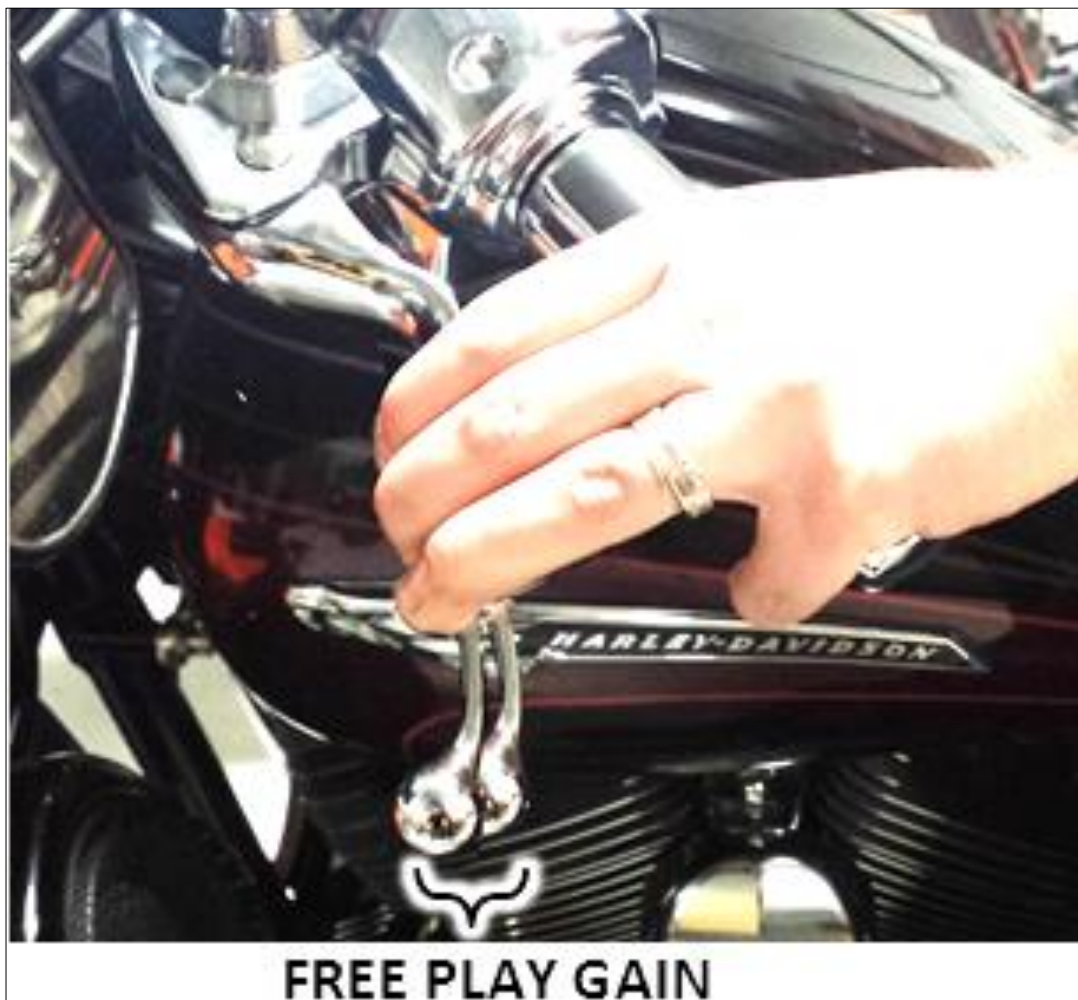


- f) If you do not have the correct lever movement, see the “Adjust Free Play Gain” section.

The Hand Method

- a) Before you begin, place the bike in **NEUTRAL**, start the engine and let it warm up for 2-3 minutes to idle down and warm up the engine oil.
- b) With the bike at idle, apply enough pressure to the clutch lever to take up the initial free play (slack) in the clutch lever.
- c) While still in **NEUTRAL**, continue to apply light pressure and quickly rev the engine between 3,000-5,000 RPM (1/4 to 1/2 throttle), then let it return to idle. Notice the movement in the clutch lever when the engine is revved. This is your Free Play Gain.
- d) When the bike returns to idle, rev the engine between 3,000-5,000 RPM a second time to verify the Free Play Gain again.

e) If you do not have the correct lever movement, see the “Adjust Free Play Gain” section.



NEED ADDITIONAL HELP?

Website

www.rekluse.com/support

Frequently Asked Questions

www.rekluse.com/faq

Support Videos

www.rekluse.com/support/videos

Phone

(208) 426-0659

Technical Support

Contact Technical Support for questions related to product installation, tuning, and performance.

Technical Support hours:

Monday thru Friday: 8:00 a.m. - 5:00 p.m.

Mountain Time zone

Email: tech@rekluse.com

Customer Service

Contact Customer Service for additional product information, orders, and returns.

Customer Service hours:

Monday thru Friday: 8:00 a.m. - 5:00 p.m.

Mountain Time zone

Email: customerservice@rekluse.com

