



## **PRO PEDAL KIT**

AP3 brake pedal + hydraulic brake switch  
Honda CRF450L RL 2019-2021

# INSTALLATION GUIDE

**\*THIS PRODUCT IS FOR OFF-ROAD OR CLOSED COURSE USE ONLY\***

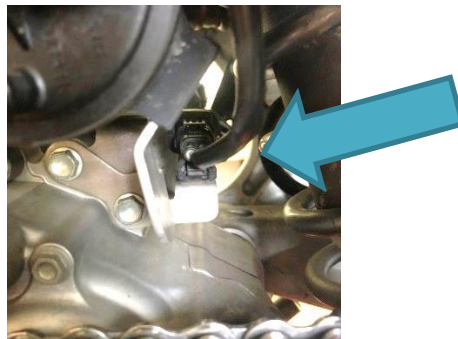
**\*MODIFYING THE OEM BRAKE LIGHT SWITCH WILL BE THE CUSTOMERS  
MECHANICAL AND LEGAL RESPONSIBILITY\***

## PRODUCT CONTENTS

- AP3 Racing brake pedal assembly
- Hydraulic brake switch
- 3 X 28mm hex head bolts
- 2 X Crush Washers
- 1 Cotter Pin
- 2 X Zip Tie

## INSTALLATION

1. Remove the OEM plastic front sprocket cover to allow access to the brake light switch connection.
2. Locate the brake light switch positioned below the OEM charcoal canister on a bracket just above the center of the engine case.



# AP3

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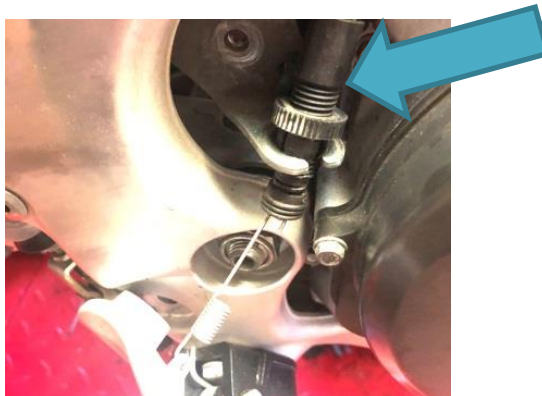
3. Push back rubber boot and release the connection from mounting bracket. This will give you better access to the connection. Release the connection by pressing the outside end of the connection. (end that was towards the clutch side) Once removed set disconnected components to rest.
4. Remove the OEM plastic clutch case cover to access the mechanical brake assembly.



- A. The Pro will eliminate the use of the plastic clutch case cover. So the plastic cover will not be reinstalled.
- B. Install the included 28mm bolts in place of the the bolts previously removed with the plastic case cover.



5. Loosen the mechanical brake switch adjustment nut





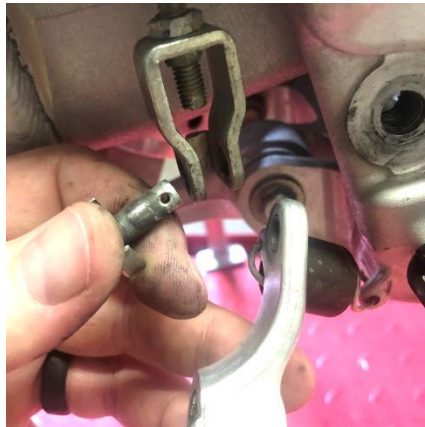
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6. Removed the pivot bolt safety pin and then remove the brake pedal pivot bolt (8mm Allen) With the brake pedal pivot bolt removed slide the mechanical brake switch out of the mounting bracket. Release the brake light wiring harness fastener.



7. Remove the brake pedal return spring, then continue by remove the brake pedal engagement pin, by using pliers to remove the cotter pin/safety pin on the frame side of the brake pedal engagement arm.



8. Remove brake pedal bushing seal from OEM brake pedal, install seal carefully into the new brake pedal (use light grease)





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9. Install new AP3 tight profile brake pedal, install the engagement pin and secure with supplied new cotter pin.



10. Install the new brake pedal assembly by installing the 8mm Allen pivot bolt, making sure the steel washer is installed between the frame and the brake pedal. Torque to OEM spec. Reinstall the OEM return spring.



11. Inspect for proper function. Brake snake is provided but is not required. Use if desired.





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12. Loosen and remove the brake banjo bolt (12mm). Set aside the banjo bolts and used crush washers as these components will not be reused.



Install the hydraulic banjo brake light switch with a crush washer on both sides of the brake line mounting head. **Hold the brake light switch wiring above the body and rotate with the banjo while tightening.** \*\*\*NOTE\*\*\* **Do not twist the brake light switch wires** while tightening the brake light banjo as this can cause damage the wiring or brake light switch.

Tighten to OEM torque spec. (14mm)

*After banjo bolt has been torqued, it may be necessary to rotate the rubber wire protection boot at the top of the banjo to the correct orientation. Be careful to not twist wires when making the adjustment.*



*It may be necessary to remove the brake fluid reservoir cap to correctly tighten/torque the brake light switch banjo, this is fine as the next step is to bleed the system.*

13. **Brake system MUST be bled – Follow the Honda Service Manual procedure for proper bleeding. Example procedure provided below:**

- A. Remove the brake fluid reservoir cap (if not already done) and remove the cap bolts, cap and bladder.
- B. Loosen the caliper guard bolts to access the bleed port on the rear caliper.
- C. Add the appropriate OEM spec brake fluid to the reservoir.
- D. Pump the brake pedal several times, then while holding pressure down on the brake pedal loosen the bleed port. Fluid should flow out and brake pedal pressure will reduce. Continue to hold pressure on the brake pedal then tighten the bleed port. (Do not release the bleed port with no pressure on the brake pedal, or pump the brake pedal while the bleed port is open; this will cause air to get into the brake system)



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- E. Repeat step D until all air has been flushed out of the brake line. (add fluid OEM Spec brake fluid as necessary) The pedal should end with strong pressure to match OE braking pressure.
  - F. Fill the brake reservoir.
  - G. Reinstall the bladder, reservoir cap, and cap bolts. Tighten to OEM spec
  - H. Reinstall / tighten the caliper guard bolts. Tighten to OEM spec
14. Plug the brake light switch wiring into the OEM harness connection. Remount the wiring mount bracket.



15. Use supplied zip ties to **secure the brake light switch wiring away from heat/exhaust**. Lightly use zip ties to tighten the wiring to the OEM brake line. \*\* Do not over tighten or damage the wiring boo or brake line\*\*
16. Turn key to on position (Do not start) **Check function of the brake light switch**. Brake light should come on when pressing the brake pedal. Turn key off when complete.
17. Remove OEM brake light switch mounting bracket by removing the 8 mm bolts on the inside of the frame.



18. Reinstall the OEM plastic front sprocket cover.