



### GLOSS BLACK ALLEY CAT L.E.D. FUEL & BATTERY GAUGE

7383

Thank You For Choosing Kuryakyn!

Protect yourself and others from potential injury and property damage or loss. Pay close attention to all instructions, warnings, cautions, and notices regarding the installation, use, and care of this product.

#### **WARNING**

THIS INDICATION ALERTS YOU TO THE FACT THAT IGNORING THE CONTENTS DESCRIBED HEREIN CAN RESULT IN POTENTIAL DEATH OR SERIOUS INJURY.

#### **NOTICE**

This indication alerts you to the fact that ignoring the contents described herein may negatively affect product performance and functionality or damage the product itself or the product to which it is being attached.

**ENSURE THAT THE FOLLOWING PARTS HAVE BEEN INCLUDED IN THE KIT:**

- 1 Alley Cat Gauge
- 1 Hardware Kit containing:
  - 1 Red Adapter Disc— '08-Later
  - 1 Green Adapter Disc '07-Earlier
  - 3 #6-32 Hex Nuts
  - 3 #6 External Tooth Lock Washers
  - 1 4-Pin Connector (Black)
  - 1 2-Pin Connector (Black)
- 1 Installation Instructions

**YOU WILL ALSO NEED:**

Needle nose pliers; socket set and ratchet; set of combination wrenches, year- and model-specific service manual, electrical tape, bright flashlight

#### **NOTICE**

These installation instructions contain important information. Ensure that the end user receives this copy and is aware of its importance for future use.

**STEP 1** Read and understand all steps in the instructions before starting the installation. Park the motorcycle on a hard, level surface and turn **IGN OFF**. Allow the engine and exhaust system to cool.

#### **WARNING**

INSTALLATION MAY REQUIRE CONTACT WITH THE ENGINE AND EXHAUST SYSTEM; ENSURE THAT IT HAS FULLY COOLED BEFORE BEGINNING TO PREVENT INJURY.

**NOTE:** The Alley Cat Gauge, has been factory calibrated to blink red with one gallon of fuel remaining in the tank.

If you wish to create a "reserve", follow the CALIBRATION PROCEDURE on PAGE 5.

The Gauge DOES NOT require calibration to function correctly!

**ALL MODELS:**

**STEP 2** Disconnect the negative battery cable.

**STEP 3** The existing fuel gauge wires run through a tube inside the fuel tank. The wires exit the underside of the fuel tank on the clutch-side (left). The wires are held in place with a retaining clip near a connector. Gently open the clip and disconnect the connector - this will provide more free play in the wires easing removal of the gauge.

Carefully pull upward on the existing fuel gauge while rocking it side to side to remove it from the tank. DO NOT TWIST the gauge!

### NOTICE

Avoid damage to the motorcycle. Protect painted surfaces with a soft cloth or blanket.

'88-'00 Models skip to **STEP 24** on **PAGE 4**

'01-'07 and '08-LATER Models move on to **STEP 4**

**STEP 4** The fuel-gauge-side of the connector must be removed in one of two ways to allow the wires to be pulled through the wire passage in the tank:

1. Cut off the gauge-side connector. DO NOT cut off the main harness-side connector!

OR

2. Remove the terminal pins from the connector. (Consult the year- and model-specific service manual in the Electrical section - "Amp Multilock Electrical Connectors".)

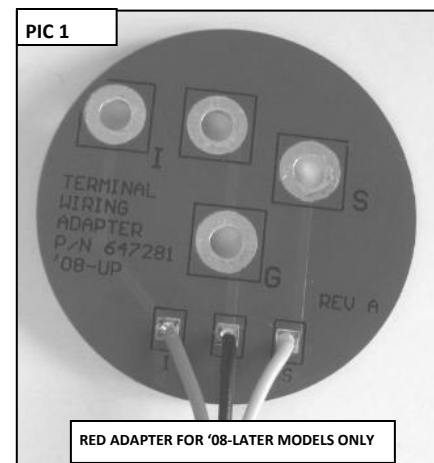
**STEP 5** Remove the existing gauge; set it aside, it will not be reused.

'01-'07 Models skip to **STEP 11**

'08-Later Models move on to **STEP 6**

### '08 and LATER MODELS:

**STEP 6** Refer to **PIC 1** and **2**. Locate the included Red Adapter Disc labeled, "Terminal Wiring Adapter '08-up". Locate the included Alley Cat Gauge; remove the warning label, outer nut, and washer from the "S" terminal stud. Save the nut and washer.

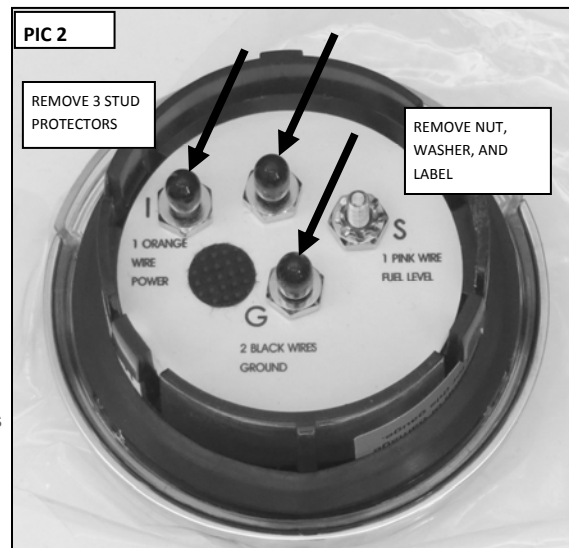


**STEP 7** Refer to **PIC 2**. Remove the stud protectors from the remaining terminal studs.

**STEP 8** Position the Red Adapter over the four studs with the existing nuts. Secure the Adapter with the four (4) included #6-32 Nuts and Lock Washers.

**STEP 9** Route all three of the wires from the Red Adapter through the tank passage in the same manner as the previous wires.

**STEP 10** Carefully tuck the remaining length of the three wires into the fuel gauge cavity so they will not interfere with the installation of the Gauge. Align the Gauge with the key slots in the tank and carefully press it all the way into the cavity until it is flush with the top surface. **SKIP TO STEP 20**



### '01-'07 MODELS:

**STEP 11** Determine which configuration is found on the existing gauge:

"3 wire" = three equal length wires; yellow, orange, and black.

OR

"4-wire" = two long wires, orange and black; and two short wires, yellow and black.

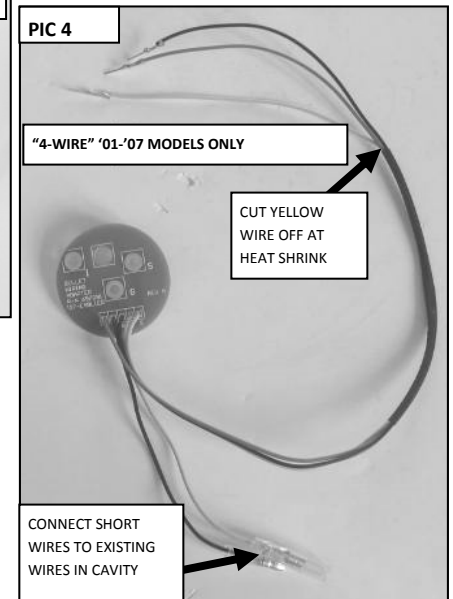
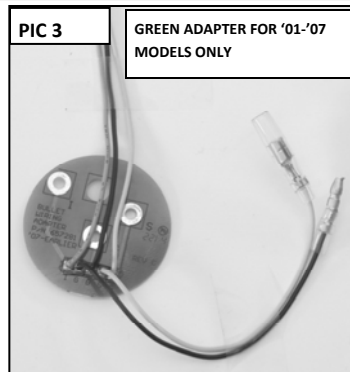
**STEP 12** Refer to **PIC 3**. Locate the Green Adapter labeled, "Bullet Wiring Adapter '07-earlier".

**STEP 13** Refer to **PIC 2 on PAGE 2**. Remove the warning label, outer nut, and washer from the "S" terminal stud. Save the nut and washer.

**STEP 14** Refer to **PIC 2**. Remove the stud protectors from the remaining terminal studs.

**STEP 15** Position the Green Adapter over the four studs with the existing nuts. Secure the Adapter with the four (4) included #6-32 Nuts and Lock Washers.

"4-Wire" skip to **STEP 18**; "3-Wire" move on to **STEP 16**



### "3-WIRE" PROCEDURE:

**STEP 16** Route all three of the long wires from the Alley Cat Gauge through the tank passage in the same manner as the previous wires.

**STEP 17** Use electrical tape to secure the short yellow and black wires together; tuck them into the gauge cavity in the tank. The wires will not be used.

Carefully tuck the remaining length of wires into the gauge cavity so they will not interfere with the installation of the Gauge. Align the Gauge with the key slots in the tank and carefully press it all the way into the cavity until it is flush with the top surface. **SKIP TO STEP 20.**

### "4-WIRE" PROCEDURE:

**STEP 18** Refer to **PIC 4**. Cut the long yellow wire off at the heat shrink. Use electrical tape to seal the end.

Connect the short black and yellow wires to the existing wires in the cavity.

Route the long orange and black wires through the tank passage.

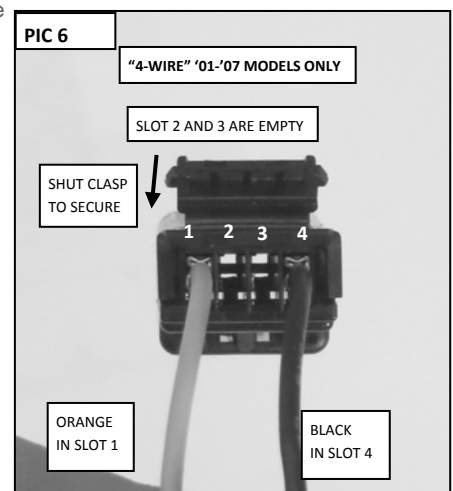
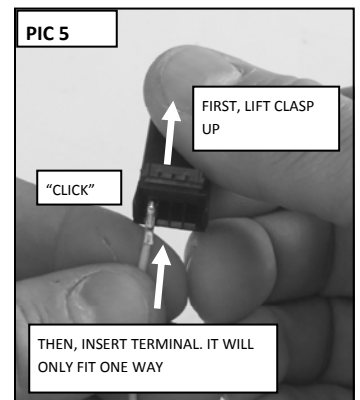
**STEP 19** Refer to **Pics 5 and 6**. Insert the orange and black wire terminals as shown.

The terminals should lightly "click" into place in the connector. If the terminal does not "click" into place, remove the terminal, rotate it 180 degrees and try again.

Do not force the terminals into the connector—they should "click" into position easily.

If force is needed, you are inserting the terminals the wrong way.

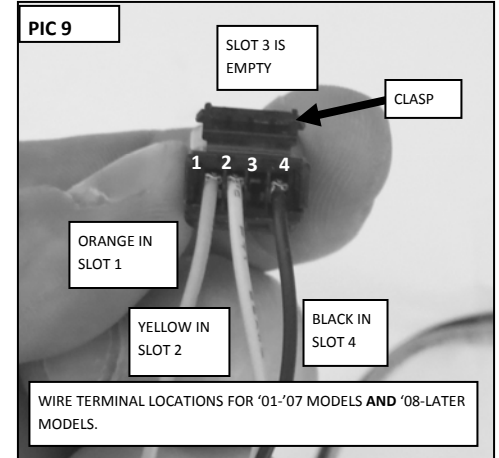
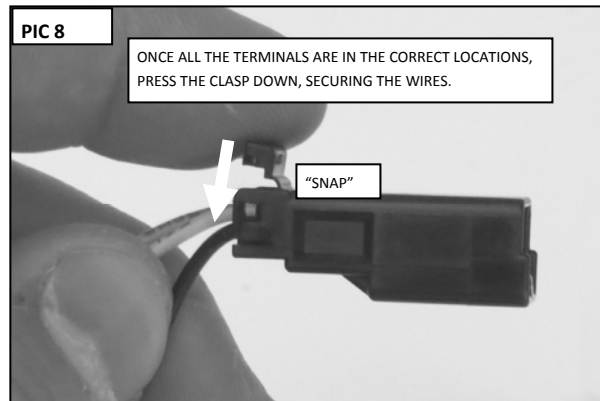
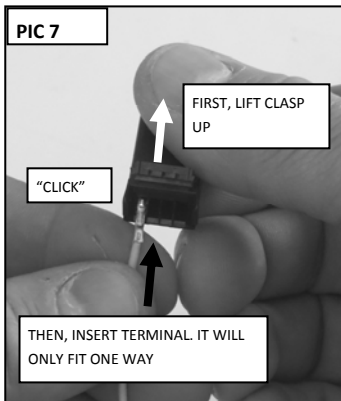
**SKIP TO STEP 21**



**FOLLOW THE GUIDELINES ON THE NEXT PAGE TO PREPARE THE INCLUDED CONNECTOR.**



### DETERMINE THE CORRECT PROCEDURE BEFORE ASSEMBLING THE CONNECTOR.



- STEP 20** Refer to **PICs 7 through 9**. Insert the yellow, orange, and black wire terminals as shown. The terminals should lightly “click” into place in the connector. If the terminal does not “click” into place, remove the terminal, rotate it 180 degrees and try again. Do not force the terminals into the body—they should “click” into position easily. If force is needed, you are inserting the terminals the wrong way.
- STEP 21** Fold the clasp over to secure the terminals. (For additional information on assembling this connector, consult the year– and model– specific service manual Electrical section — “Amp Multilock Electrical Connectors”.)
- STEP 22** Connect the Gauge connector to the main harness connector; secure the wiring in the retaining clip on the underside of the tank.
- STEP 23** Reconnect the negative battery cable; turn **IGN ON** and test the Gauge for function.

### INSTALLATION IS COMPLETE

### PROCEDURE FOR '88 -'00 MODELS:

- STEP 24** On the existing gauge, remove the nut securing the pink OR yellow/white (FUEL LEVEL) wire to the terminal marked “S”.
- STEP 25** Locate the Alley Cat Gauge. READ and remove the warning tag. Secure only the existing pink or yellow/white (FUEL LEVEL) wire to the Gauge “S” terminal with one of the included #6-32 Nuts and a Lock Washer.

### **⚠ WARNING**

CONNECTING ANY OTHER WIRE TO THE “S” TERMINAL MAY CAUSE A FUEL TANK EXPLOSION RESULTING IN SERIOUS INJURY OR DEATH.

- STEP 26** Remove the stud protectors from the “G” and “I” terminals on the Alley Cat Gauge. Remove the nuts from the “G” and “I” terminals on the existing gauge; remove the existing wires.

**NOTE:** Removing the bulb holder can simplify removal of the “G” terminal wires.

- STEP 27** Position the two black (GROUND) wires over the “G” terminal of the Gauge; secure with one of the included #6–32 Nuts and a Lock Washer.
- STEP 28** Position the orange (POWER) wire over the “I” terminal; secure it with one of the included #6–32 Nuts and a Lock Washer.
- STEP 29** Make sure all nuts are tightened securely.
- STEP 30** Carefully tuck the wires into the gauge cavity so they will not interfere with the installation of the Gauge. Reconnect the connector from **STEP 3**.
- STEP 31** Align the Gauge with the key slots in the tank and carefully press it all the way into the cavity until it is flush with the top surface.
- STEP 32** Re-connect the negative battery cable; turn **IGN ON** and test Gauge function. **INSTALLATION IS COMPLETE**



### CALIBRATION PROCEDURE (OPTIONAL):

Gasoline is very flammable; ensure that your work area is well ventilated.

Once you turn **IGN ON**, there is a 2 minute time limit to perform the following procedure.

Reset the procedure by turning **IGN OFF**, then turn **IGN ON** again.

Ensure the battery is at full charge before starting the procedure.

The Gauge cannot be calibrated if the fuel tank is MORE THAN 1/3 full.

The Gauge can not be calibrated unless it is in "Daylight" mode.

**STEP 33** Refer to **PIC 10**. Shine a bright flashlight directly at the light sensor to activate "daylight" mode. Keep the flashlight aimed at the sensor until the procedure is finished. If the L.E.D.'s on the gauge dim during calibration, stop, turn **IGN OFF**, then turn **IGN ON** again and start over.

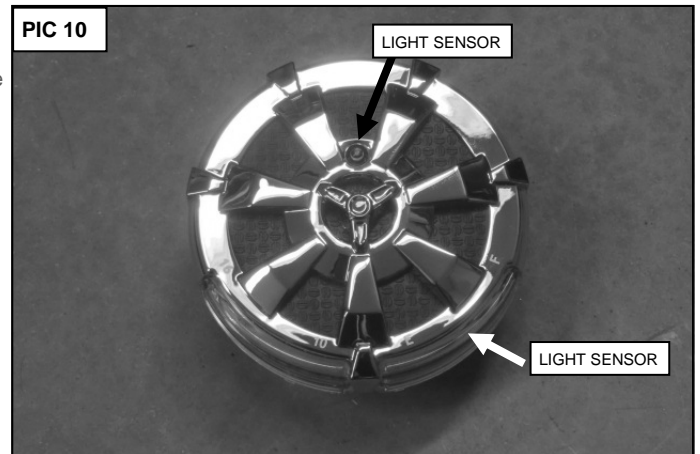
**STEP 34** After the L.E.D.'s get brighter use your finger to totally cover the light sensor for EXACTLY three seconds; uncover the sensor. A green L.E.D. will light up in the middle of the fuel gauge section indicating the calibration mode has been entered.

**STEP 35** Cover the sensor again with your finger until the green L.E.D. shuts off; uncover the sensor a second time.

**STEP 36** Wait until the green L.E.D. lights up and again, cover the sensor with your finger again until it shuts off; uncover the sensor a third time.

**STEP 37** Both fuel and battery section L.E.D.'s will cycle through and the left-most, red L.E.D. in the fuel section will begin flashing indicating "empty".

**STEP 38** Turn **IGN OFF**, calibration is complete. You only need to calibrate the gauge one time.





### VOLT METER OPERATION:

The volt meter will show a range of 10 to 16 volts with the use of 7 lighted L.E.D.'s.

The L.E.D. lights will cycle from the RED low voltage through the RED high voltage when you first turn **IGN ON** and will stay lit from the Red low voltage through at least 1 or 2 YELLOW lights.

With the motorcycle running, the L.E.D.'s should be lit from the RED low voltage through 2 to 3 GREEN L.E.D.'s.

If the GREEN L.E.D.'s do not light after start up, or all the L.E.D.'s from the RED low voltage to either the YELLOW or RED high voltage stay lit, you should verify that the charging system is functioning correctly with a volt meter or have a qualified technician check the charging system of the motorcycle.

### **NOTICE**

It is the end user's responsibility to ensure that all fasteners (including pre-assembled) are tightened before operation of the motorcycle. Kuryakyn will not provide warranty coverage on products or components lost or damaged due to improper installation or lack of maintenance. Periodic inspection and maintenance are required on all fasteners.