

## PM CONTOUR SWITCH HOUSINGS

3 BUTTON SWITCHES ON HD

### ATTENTION

Statements in these instructions that are preceded by the following words are of special significance:

**w a r n i n g**

This means there is the possibility of injury to yourself or others.

**C a u t i o n**

This means there is the possibility of damage to the motorcycle.

**Note**

*Information of particular importance has been placed in italics.*

### WARRANTY

Performance Machine Inc. warrants to the original purchaser that the parts of this Switch Kit to be free of manufacturing defects in materials and workmanship for a period of one (1) year from the date of purchase. In the event warranty service is required, you must call Performance Machine immediately with a description of the problem.

If it is deemed necessary for Performance Machine to make an evaluation to determine whether the part is defective, [a return authorization number will be given by Performance Machine]. The parts must be packaged properly so as to not cause further damage and returned prepaid to Performance Machine with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem. If after the evaluation by Performance Machine the part was found to be defective it will be repaired or replaced at no cost to you. If we replace it, we may replace it with a reconditioned one of the same design.

Performance Machine shall not be held liable for any consequential or incidental damages resulting from the failure of a Performance Machine part.

Performance Machine shall have no obligation if a part becomes defective as a result of improper installation, modification or abuse.

This instruction sheet covers PM Switch Housings part #s 0062-2032, 0062-2033, 0062-2034, 0062-2035 and 0062-2036

### Important Notice

- Before installing switches, read through these instructions completely; this will familiarize you with the way in which the parts fit together and the tools needed to complete the job.
- Always disconnect battery before beginning any installation involving electrical components.
- PM Contour Switch housings are designed to work with PM Contour Master Cylinders and Clutch lever Assemblies, we can not guarantee their fitment when used with non-PM controls.
- PM STRONGLY recommends this installation be done by qualified personnel familiar with motorcycle electronics.



### Disclaimer

These Performance Machine parts are designed for high performance motorcycle applications and are intended for the very experienced rider only. The installation of these Performance Machine parts may adversely affect or void your factory warranty.

## PM Contour Switch Housings

Performance Machine, Contour Switches are available in single or three button housings. This instruction sheet will focus on the three button housings, but selections of the information will also apply to the single button units (starter and high beam are generally all the full-custom single button bike will use).

### Warning

Always disconnect the battery before installing any electrical components!

### Note

This instruction sheet assumes you will also be using PM hand controls. PM Switch housings can be wired internally (wires are routed inside the handlebar) or externally, similar to stock wiring.

PM strongly recommends you start with a fresh set of handlebars that DO NOT have dimples or pre-drilled wiring holes. Dimpled handlebars are generally out of round and will be difficult to work with. Pre-drilled wiring holes will not necessarily correspond with the holes required for PM controls.

### Removing the stock switches and hand controls.

The basic steps are the same to remove switches and hand controls on most late model Harleys. Special attention is needed when removing the stock components to ensure the wires are carefully marked as to their function. Misplaced wires will cause an electrical short and can damage your motorcycle or cause a fire.

- 1) Remove gas tank from bike for better access to electrical system.
- 2) Loosen clutch cable and throttle cables Photo 2 & 3.
- 3) Remove switch housings, throttle housing, clutch and brake controls Photo 4.
- 4) Snip wires apx. 1" from switches. This will leave a section of color coded insulation still attached to each stock switch that can be used as a reference when installing PM Switches Photo 5.
- 5) Mark each bundle of wires as right or left for future reference.



SINGLE BUTTON SWITCH HOUSINGS



THREE BUTTON SWITCH HOUSINGS



PHOTO 2



PHOTO 3



PHOTO 4



PHOTO 5



PHOTO 6

## Installing PM Switch Housings (most models)

### *Positioning Hand Controls*

For the ideal handlebar/control setup, PM recommends you trial mount the bars and controls before final installation.

1) Loosely bolt bars to the bike, slide all hand controls (clutch assembly, switches (top half only), master cylinder and throttle housing) as well as grips on. Do not tighten bolts at this point.

2) Sit on the bike and find the position that is most comfortable for you Photo 6.

3) Adjust the attitude of the hand controls to best fit your hand position. Once the controls are installed, there is little room for movement, so this step is critical. Now tighten handlebar clamps, as well as hand controls, so that nothing moves when you are marking the bars for drilling.

If you are routing your wiring internally, proceed to next step, for external wiring information, skip to Final Wiring of Switches on page 5.



PHOTO 7

### *Marking & Drilling Bars (internal wiring only)*

For a full custom look, routing all switch wiring inside of handlebars is the only way to go! This will require three holes to be drilled in the handlebars to route all electrical.

1) Locate the wiring hole in the switch (view from bottom) and center punch the handlebar Photo 7. Do this to both sides.

2) The third hole will be located in the bottom center of the handlebars and allow the wiring to exit the bars and tie into the main harness .

3) Once all holes are marked, remove handlebars from bike. Drill apx. 5/16" holes in marked areas for switches and apx. 1/2" hole for the center Photos 8 & 9.



PHOTO 8

### ■ Caution ■

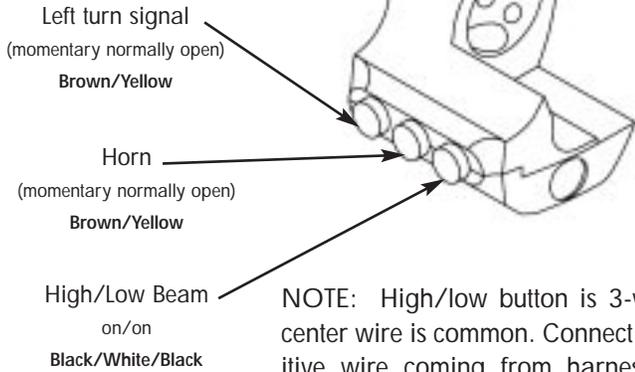
*All holes must be thoroughly cleaned up after drilling. Sharp edges can cut through wiring insulation and cause an electrical short.*



PHOTO 9

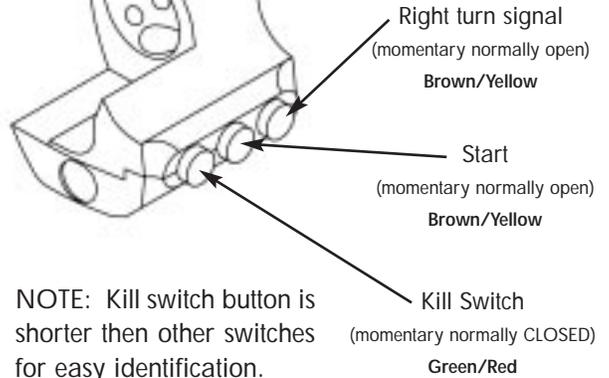
## Identifying Switches

### Left Side:



NOTE: High/low button is 3-wire, center wire is common. Connect positive wire coming from harness to center wire on 3-wire switch, other two wires are high/low.

### Right Side:



NOTE: Kill switch button is shorter than other switches for easy identification.

## Wire Color Cross Reference Guide

PM Contour Switch Housings are designed for a wide array of full custom big twins. The wire colors are not matched to any specific manufacturer, but can easily be cross referenced to most late model Harleys with the chart below.

### LEFT SIDE:

<b>Turn Signal</b>	
PM Wires:	HD Wires:
Yellow	Orange/White Stripe
Brown	White/Purple Stripe
<b>Horn</b>	
PM Wires:	HD Wires:
Yellow	Orange/White Stripe
Brown	Yellow/Black Stripe
<b>High Beam</b>	
PM Wires:	HD Wires:
Black	Yellow
White	Blue
Black	White

### RIGHT SIDE:

<b>Turn Signal</b>	
PM Wires:	HD Wires:
Yellow	Orange/White Stripe
Brown	White/Brown Stripe
<b>Start</b>	
PM Wires:	HD Wires:
Yellow	White/Black Stripe
Brown	Black/Red Stripe
<b>Kill Switch</b>	
PM Wires:	HD Wires:
Green	Gray
Red	White/Black Stripe

Common

### ***Pulling Wires Through Handlebars***

Pulling the wiring through your handlebars may take some patience. Be careful not to force wiring or pull with too strong of force. Wiring insulation can be damaged in the process, causing an electrical short. Pulling wires can be done with the bars on the bench or on the bike.

- 1) Begin by locating the appropriate switches for the left and right side.
- 2) Add wires from brake light switch and bundle with the wire group on the right side.
- 2) Mark the ends of the Brown/Yellow wires connected to the blinker switches with a piece of colored tape.
- 3) Create a guide wire (safety wire or similar bare metal wire) to help pull the wire bundle through the bars. Insert the guide wires into the center hole and out the switch holes.
- 4) Bundle all wires from each side of the bars and wrap the ends, along with the guide wire in several wraps of electrical tape Photo 10.
- 5) Carefully pull each bundle through the bars using the guide wire extending from the center hole Photo 11.
- 6) If you completed these steps on the bench, it is now time to do the final mounting of the bars to the bike.



**PHOTO 10**



**PHOTO 11** (BARS SHOWN FROM BOTTOM)

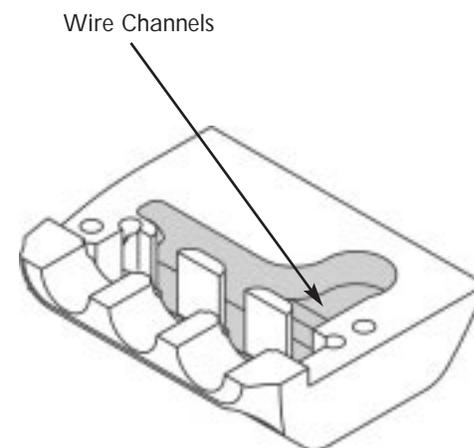
### ***Final Installation of Switch Housings***

Once all electrical has been pulled, the switch housings halves can be assembled.

**Caution**

*Switch wiring must be placed in wiring channels within switch housings. Wiring left outside of channels can be crushed between housing halves and cause an electrical short.*

- 1) Place switches in appropriate location within switch housings.
- 2) Place wiring in wire channels and carefully install lower half of switch housing. Add a drop of Thread Lock to each bolt and tighten down.



**PHOTO 12**

## ***Final Wiring of Switches***

Once the wires are pulled through the bars and the bars are mounted to the bike, you can begin matching the PM wiring to the stock harness. The least obtrusive and easiest to access location to create all of the wiring junctions is under the tank.

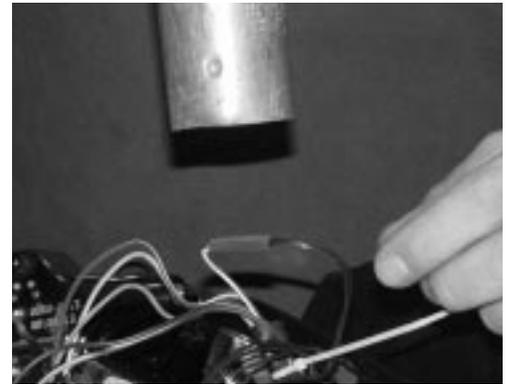
### **———— Note ————**

*PM recommends 3M Heat Shrink Insulation to protect each junction, as well as right and left bundles.*

- 1) Pull right and left switch bundles through triple clamps (follow stock routing)
- 2) Length of PM wiring can be trimmed to fit, but must have enough slack for fork movement. Keep wires away from any contact areas that could cause cuts or friction on the new harness.
- 3) At about mid point under the the tank, begin splicing the PM switch wires to the appropriate stock wires (be sure to cover each wire with a length of heat shrink insulation *before* soldering).
- 4) Carefully solder each connection and cover in insulation Photo 13.



**PHOTO 13**



**PHOTO 14**

## ***Testing and Final Installation***

It is critical to test your work before re-installing gas tank or other components that have been removed.

- 1) Hook battery back to electrical system.
- 2) Test horn button (should be middle button on left side)
- 3) Test right and left blinkers (should be outside buttons on each side)
- 4) Test high beam button (should be inside button on left side)
- 5) Test start button (should be middle button on right side)
- 6) Test kill button (depress button and hold, depress starter button, bike should NOT start)
- 7) Install throttle cables, clutch cable and brake line to factory specs.

If any element of your installation does not function, go back and check the connections from the switches to the stock harness. A Multi-Meter can be used to check continuity and power if necessary.

Congratulations! You have successfully installed the premier hand controls and are ready for cruising or the show circuit!

