



N41310 Peacemakers Exhaust with 4" Canister for Yamaha Venture XVZ13 TF

Please read these instructions carefully and thoroughly before beginning work.

Before installing accessory, carefully consider whether one possesses the necessary technical skills and workshop tools to complete the installation properly. Otherwise, any Motorcycle Retailer will be glad to install this accessory.

Dealers, if installing the Exhaust for a customer please give him this manual. It contains the instructional and reference material needed to properly maintain and use this product.

At time of purchase report any missing parts directly to National Cycle, Inc. The following information is necessary: BAG NUMBER on outside of plastic fastener bag and DATE STAMP located on the end panel of the outer box.

Thank you.

The following symbols are used in these instructions:



Special notes and cautionary measures.



Tips for facilitation of operation, control and adjustment, as well as maintenance work.

PARTS LIST

Index	Description	Part No.	Qty.
1	Muffler, Left	80-884118-000	1
2	Muffler, Right	80-884117-000	1
3	Linear Actuator Motor	80-874505-000	1
4	Tips, Slash cut	37-373535-000	2

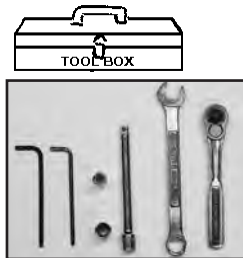
KIT PM310

Bag 713

5	Clamp, Toenail, C-Bore	30-390206-000	1
6	Clamp, Toenail, Tapped	30-390207-000	1
7	CSHS, 1/4-20 x 1 1/2	51-515413-000	1

Bag 740

8	Wire Harness, Switch	80-831430-000	1
9	U-Connector, Scotchlok	80-850002-000	2
10	Cable Ties	44-448725-000	6
11	Hex Key 3/32"	59-515130-000	1
12	Hex Key 5/64"	59-515132-000	1
13	Screw, M6-1.0 x 45	51-515345-000	1
14	Spacer, Mount Bracket	34-346400-000	1



- 15mm Box End Wrench
- 15mm Socket
- 3/8" Socket with long extension, for installation of tips.
- Supplied 3/32 and 5/64" Allen Wrench
- 4, 5mm and 3/16" Hex Wrench
- Wire Cutters
- Silicone Grease

Bag 744

15	Screws	50-570000-000	4
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Bag 747

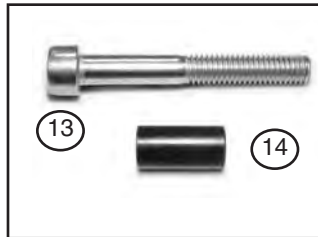
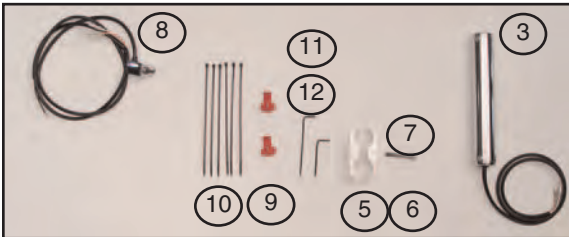
16	Clamp, Muffler	37-400671-000	2
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Bag 753

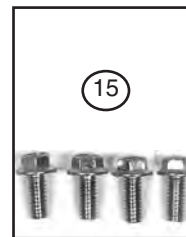
17	Screw, M10-1.25 x 45	50-571246-000	2
18	Nut, Hex, M10 - 1.25	42-453040-000	2
19	Washer, Split	49-491010-000	2
20	Washer, Flat	49-490-203-000	2

	Warranty Card	10-118420-000	1
	Installation Manual	10-110225-000	1

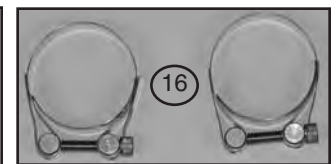
← BAGS 713 AND 740 →



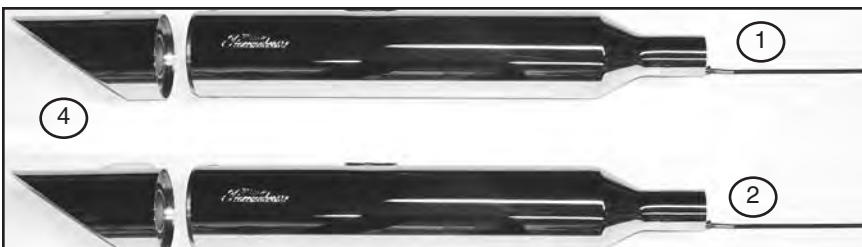
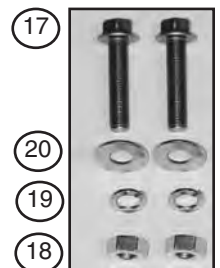
BAG 744



BAG 747



BAG 753



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PREPARATION



Right and Left side of Motorcycle is determined while sitting on the bike.

All parts removed from Motorcycle will be re-used unless otherwise noted.

1. Wait for stock exhaust to cool down before beginning installation.
2. Position the motorcycle securely on a work stand or on its side stand.

Removal of Exhaust

3. Remove fasteners holding saddlebag to expose exhaust bracket. (4mm Hex Key) **Figure 1**
4. Loosen the muffler clamps. (15mm Box End Wrench or Socket) **Figure 2**
5. Remove the bolts that hold muffler to bracket. Bolts will not be re-used. Remove mufflers, left and right side. Stock mufflers will not be re-used. (15mm Socket) **Figure 3**

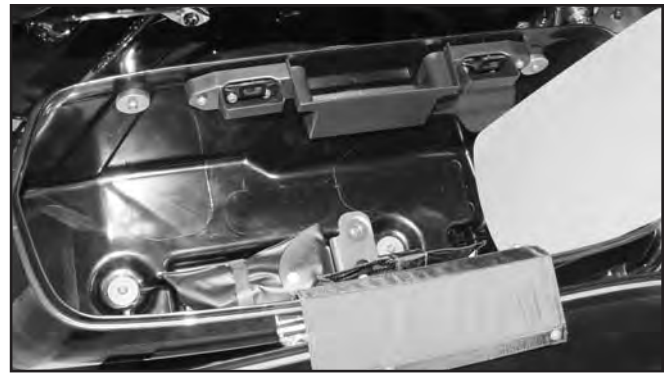


Figure 1

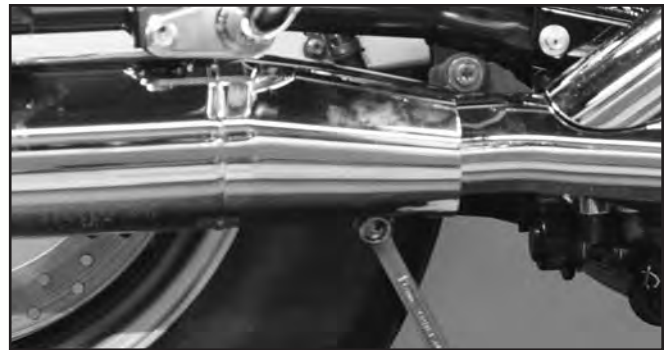


Figure 2

INSTALLATION

Overview of Cable



Cable routing is very specific to ensure bind free movement. That is why we provide detailed instructions and photos. Please resist the urge to find your own routing methods as this may cause cable and /or Liner Actuator failures.



When installation is complete check that the Diverter Cable does not come in contact with pipe or clamp. Contact with high temperatures will damage the cable.

When installation is complete, wipe all thumb prints from Chrome Exhaust before starting motorcycle or they will permanently mark surface.



Figure 3



Figure 4

Install Peacemaker Mufflers

1. Install supplied muffler clamps on Peacemakers Mufflers with clamp nut facing down and out. Leave loose. (3/16" Hex Wrench)
2. Slip mufflers on head pipes. **Figure 4**

3. Use the supplied bolt, washers and nut to attach muffler to saddlebag frame as shown in **figure 5 and 6. (15mm Wrench and Socket).**

4. Tighten muffler clamp. **(3/16" Hex Wrench) Figure 7**
Repeat steps 3 and 4 for opposite side.

PREPARATION FOR WIRING

1. Remove screws holding outside trim. **(4mm Hex Key) Figure 8 and 9**

2. Remove screws holding windscreen and front panel to expose wiring. **(4mm Hex Key) Figure 10**



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10

INSTALLATION OF SWITCH

1. Remove screw from left clutch lever mount. (4mm Hex Key)
2. Using parts from Bag #744 assemble switch onto supplied screw (item13) and then spacer (item14). Install assembly into clutch lever mount. (4mm Hex Key) **Figure 11.**

Route Switch harness

3. Route Switch Harness down handlebar across front neck of motorcycle to left side of headlight.

 **Do Not make any connections at this time.**
The next steps involve the cables and then the Actuator Drive.

Routing of Cables to Actuator Drive Underneath Bike

4. Right side Muffler Cable will follow frame to front of motorcycle where Actuator Drive will mount underneath motorcycle. **Figure 12**
5. Route Left side Muffler Cable to right side. Use cable tie to secure cable to bracket as shown in **figure 13 and 14.** (Wire Cutters).

Motorcycle's Right Side

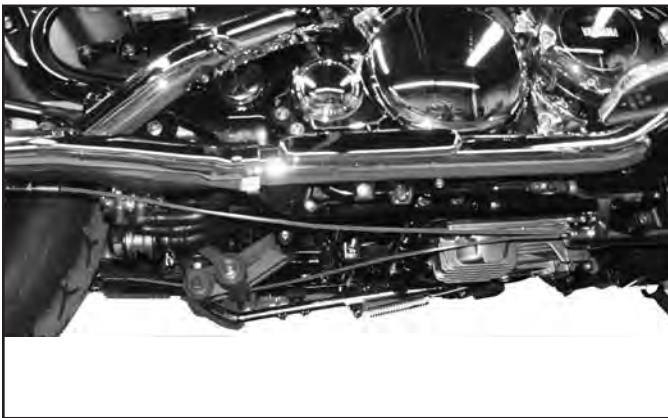


Figure 12

Motorcycle's Left Side



Figure 13



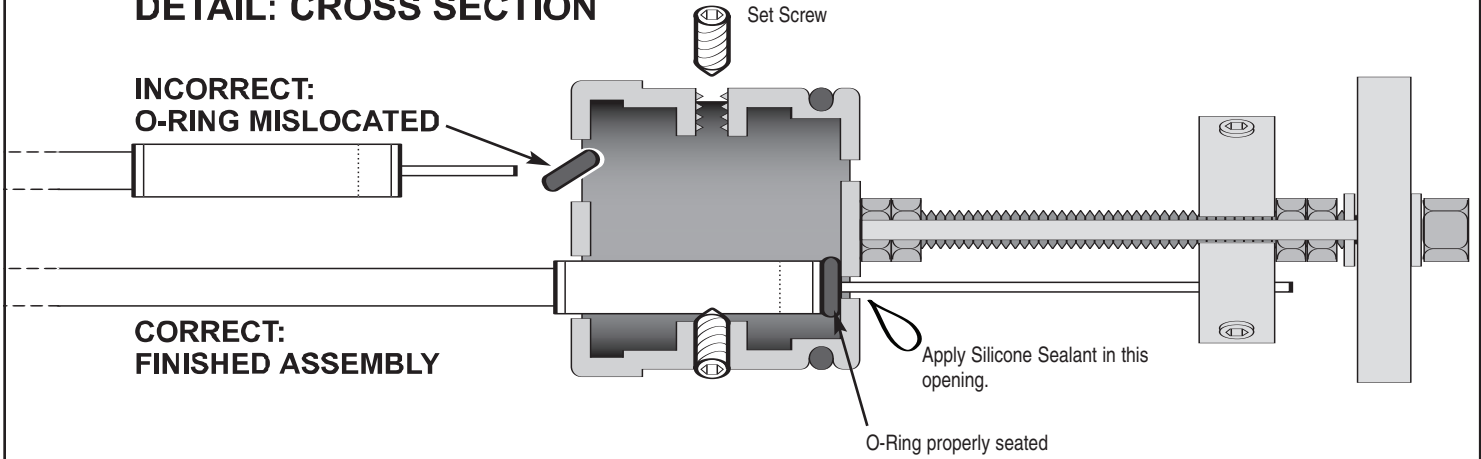
Figure 14


INSTALLATION OF THE LINEAR ACTUATOR DRIVE

The motor from the Linear Actuator Drive is completely sealed within the housing. Do not remove or tamper with the motor. The Drive Shaft contains small O-Rings. These O-Rings and an application of SILICONE grease (silicone is used for compatibility with O'Ring material) will keep moisture out of the Cable Sheath.

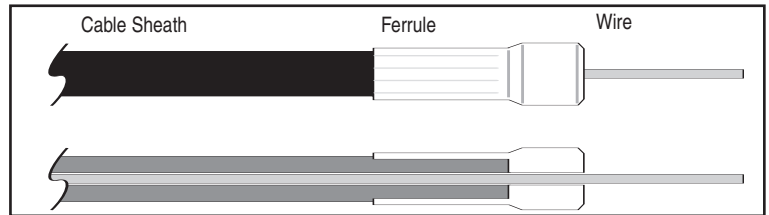
 While loosening the set screws a. and b. (during installation of Cable into Linear Actuator, Step #2) the O-Rings must not fall out. They must be fully inserted into Drive End Cap with the ferrules of the Cables pushing the O-Rings against rear inner wall of the Drive End Cap. Only THEN are the Set Screws fully tightened.

DRIVE END CAP DETAIL: CROSS SECTION



 About the operation of this unique patented design: The electrical drive is separate from the linear mechanical mechanism. The Cable coming from each Peacemakers Muffler is made up of a Wire inserted into a Cable Sheath. For proper operation, the wire end of the Cable needs to be inserted fully into the Wire Guide Assembly before, during Preloading and while Set Screws are being tightened.

CABLE AND SHEATH DETAIL



ACTUATOR INSTALLATION

1. Carefully remove Actuator Guide from Housing. (**3/32" Allen Wrench**) **Figure 15**

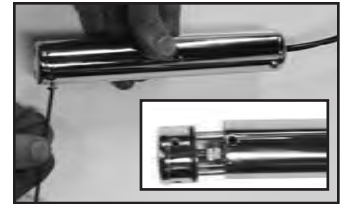


Figure 15

2. Using the two-piece clamp and bolt from Bag #713 install the Actuator Housing to the bottom of frame on right side of motorcycle. (**3/16" Allen Wrench**) **Figure 16 and 17.**

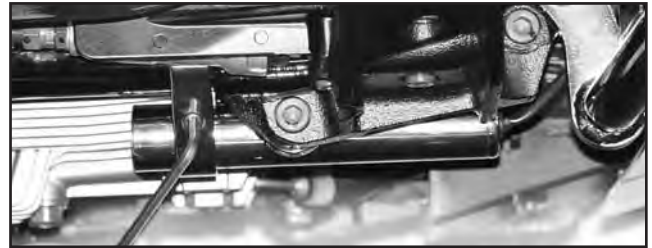


Figure 16


 Eventually Actuator Wire will route upward to connect with Switch Wire. This step will be completed later in the wiring instruction.



Figure 17

Install Cables into Linear Actuator Guide

3. Loosen the 2 Set Screws at each location (b) and (c). (**3/32" and 5/64" Allen Wrench**) **Figure 18**

 O'Ring located under set screw (position b). Do not displace O'Ring. See page 6 for detailed information.



4. From bottom of Actuator Guide, gently insert wire end of cable until Ferrule of Sheath is fully inserted into Drive End Cap and Wire is guided through Position Nut. **Figures 19 and 20**

5. Tighten Set Screw (b). (**3/32" Allen Wrench**) **Figure 21**

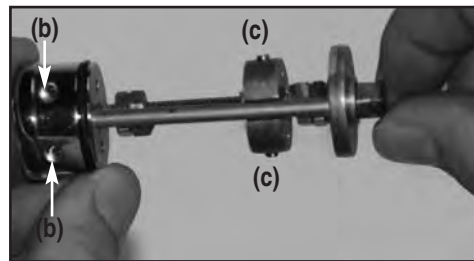


Figure 18

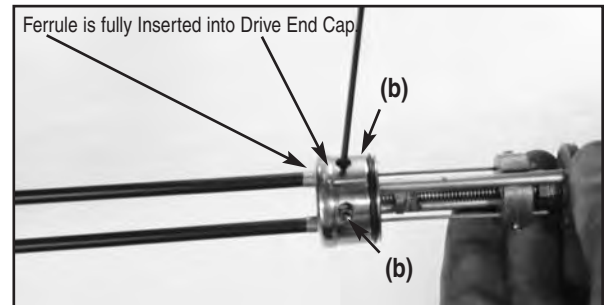


Figure 19

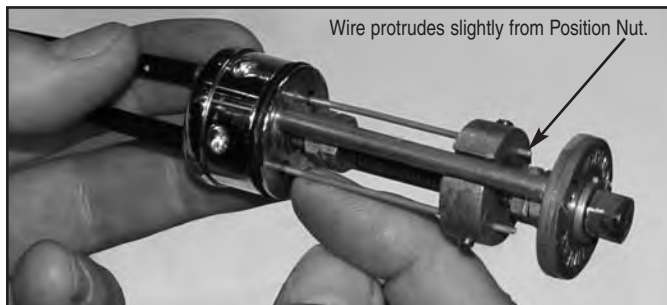


Figure 20



Figure 21

 Read these helpful tips before proceeding!

When correctly installed there will be proper inner Wire to Cable Sheath geometry and the Wire ends will be through the Position Nut as shown in Figure 23.

Be certain valves open and close freely before proceeding. To make sure valves are sequenced, pull both wires forward so valves are in the closed position. If in doubt, use a flash light at the rear of the muffler to check.

When preloading Cable be sure to hold the Linear Actuator Drive up next to the frame tube before tightening the 2 set screws (c) against the Wire. This will ensure proper preload on the Diverter Valves.

Preload Cable

6. Rotate Drive Screw with Nut (a) clockwise to **stop**. Mark top of nut (**Grease Pencil**) then rotate **ONE** revolution counter clockwise. **Figure 22**

7. Before tightening Set Screws (c) it may be necessary to pull gently on wire of cable so Wire is exposed slightly. **Figure 23**

8. Tighten Set Screws (c). (**5/64" Allen Wrench**) **Figure 24**

 Apply a small amount of Silicone Grease:

- ◆ Large O'Ring before inserting into housing
- ◆ Where Wire Exits Drive End Cap (as detailed on page 6)

9. Install Actuator Cover. **Figure 25**

- ◆ Use a straight twisting motion until engagement takes place. The acme hex on end of Drive Unit (male) engages into female inside Housing.

10. Align holes at bottom and install Screws. (**3/32" Allen**)

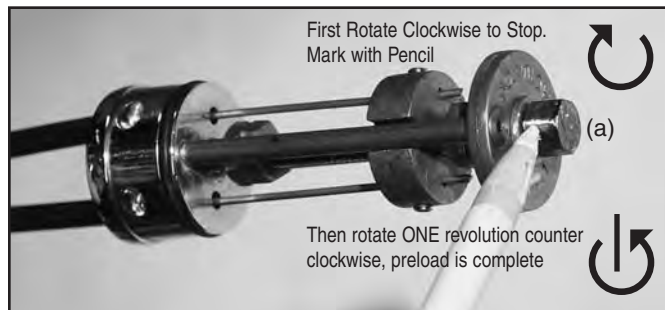



Figure 22

 When correctly installed there will be proper inner Wire to Cable Sheath geometry and the Wire ends will be through the Position Nut as shown in Figure 23.

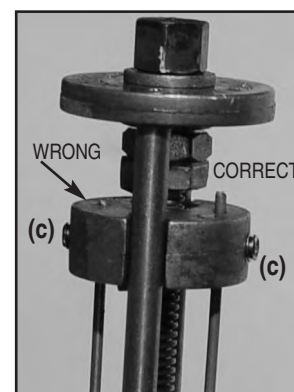


Figure 23



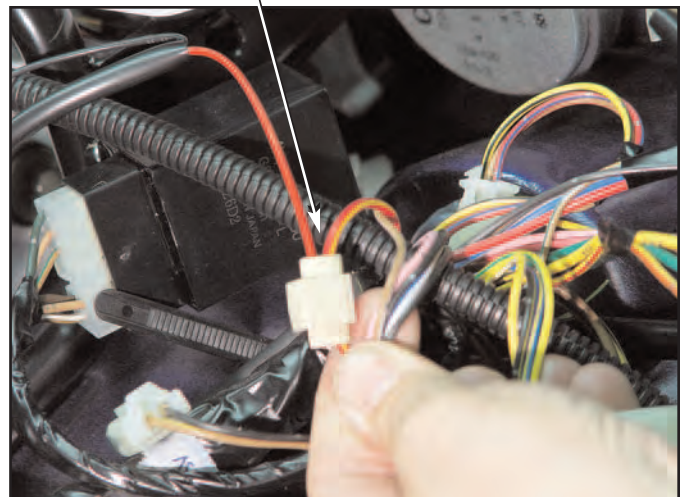
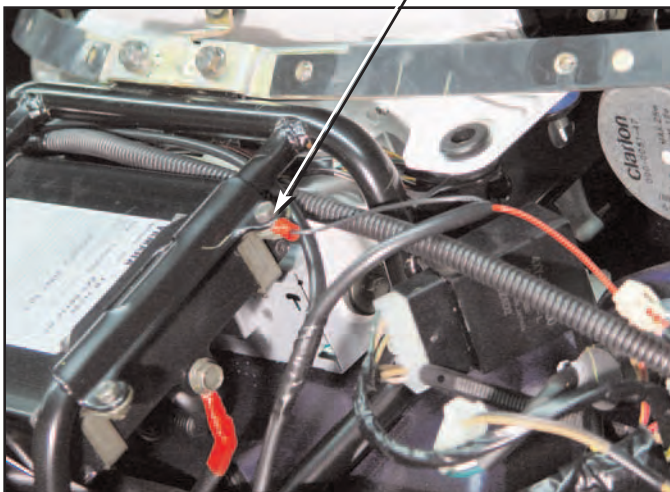
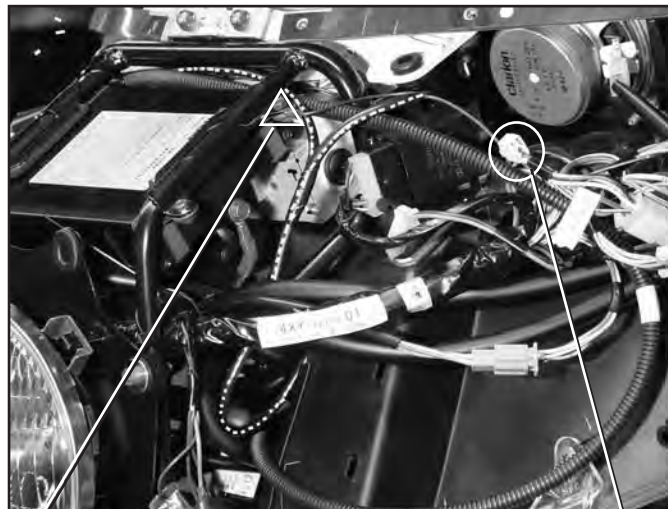
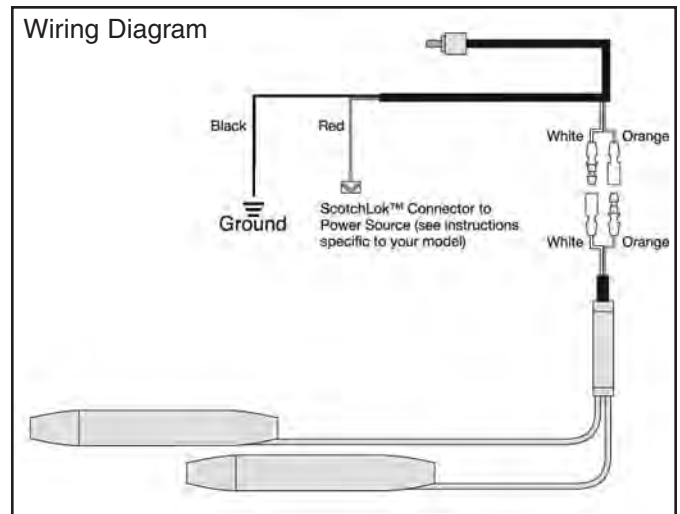
Figure 24



Figure 25

Final Wiring

1. Use the supplied Scotch Lock to connect power:
Red of Switch Harness to Red with Yellow Stripe
(Scotchlok Connector and Pliers) Figure 26
2. Connect Black Ground to:
Fasten under Screw at Battery



3. Route Switch Wire toward right down tube to connect with Actuator Wire. **Figure 27 and 28.**



Figure 27



Figure 28


4. Route Wire Harness from Actuator Case upward to where it connects to Switch Harness. Secure at top of down tube with Cable Tie. **(Wire Cutters) Figure 29.**

5. Connect Actuator Wires to Switch Harness. **Figure 30**

6. Remove Cap and Fastener holding plastic cover. Bury wiring behind cover. Reinstall fastener. **(Cable Ties and Cutters) Figure 31**

 **Wipe all thumb prints from Chrome Exhaust before starting motorcycle.**

7. Turn ignition switch to on or start bike. Activate Thumb Switch and listen for Diverter Valve opening and closing. Refer to page 11 if Diverter Valve will not open or close.

 **Check that there is no binding of cables. Check full turn left to fork lock for proper clearance of Actuator.**

8. Install End Tips. (1/2" Socket) **Figure 32**

9. Re-assemble all parts to motorcycle.



Figure 29



Figure 30



Figure 32

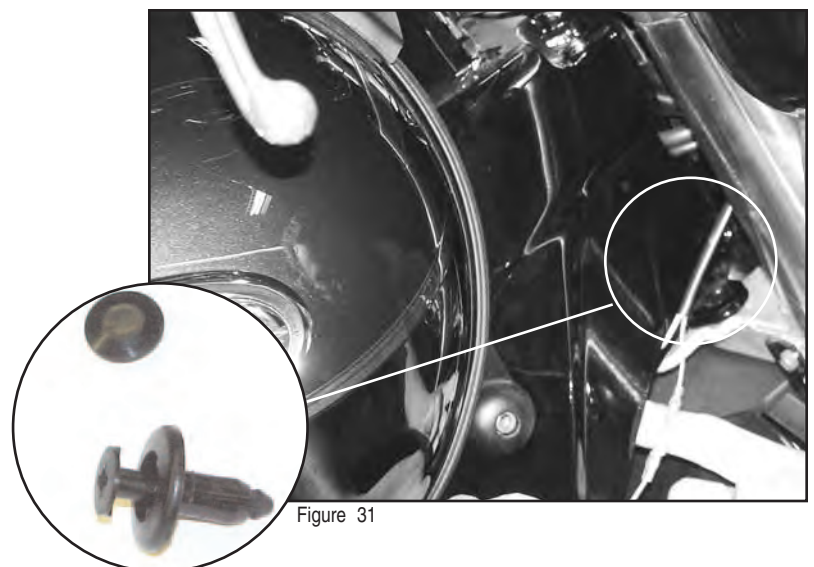


Figure 31

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TROUBLE SHOOTING GUIDE

1. The Diverter Valve will not open or close. Check for power at both sides of bullet plug.

- A. Check for power at ground
- B. Check for power at Actuator Cable side of bullet

If you have no power at A. check your battery. Replace or recharge if necessary.

If you have no power at B. check to be certain the Switch Harness connections are fully seated into the Actuator Cable Connections. If you think you have a faulty Switch Harness, call National Cycle Customer Service.

2. The Diverter Valve will not fully close or open.

- A. Check Installation of Muffler Cables into Linear Actuator Guide (pages 5 and 6 of installation manual.)
Preloading the motor is a simple but necessary step.
- B. Use a flash light and look into end of Mufflers while having someone operate switch.

The Linear Actuator Motor works very effectively in opening and closing the Valve.

FAQs

Is rejetting or remapping required when using Peacemakers?

The N41310 Peacemakers Exhaust is designed to fit a stock Yamaha XVZ 13 TF or this motorcycle fitted with other National Cycle accessories. When fitted to an otherwise stock motorcycle the Peacemakers Exhaust does not require any adjustments to the carburetor or intake system in order to achieve an optimal running condition. However, if the Peacemakers are being fitted to a motorcycle with modifications to the carburetor or other portions of the intake system, then National Cycle recommends that the fuel/air mixture be adjusted to the specifications of the manufacturer of the air cleaner kit or other such intake modifications.

This National Cycle product is covered by Patent No. 7380638.



MAINTENANCE It is recommended that you repack your mufflers at 10,000 mile (10,000 km) intervals. National Cycle supplies muffler repack material for the Peacemakers Exhaust. The repack Kit for Peacemakers N41310 is N41402P. Discoloration can be removed from the Exhaust System with a quality metal polish. Be sure to remove all polishing compound residue from the Exhaust System before running the engine. Refer to the warranty pamphlet 10-118420-000 for further information.



WARNING If the addition of an accessory(ies) adversely affects your motorcycle's stability immediately remove the accessory(ies). Do Not ride a motorcycle that exhibits unsafe handling traits. Have experienced service personnel correct any problem before riding with the accessory(ies) installed. For further questions concerning handling problems associated with an accessory(ies), contact your dealer, motorcycle manufacturer, or accessory manufacturer.