



N41001 Peacemakers Exhaust for Honda VTX 1800 N,R,S

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, Front	80-884414-000	1
2	Muffler, Rear	80-884415-000	1
3	Linear Actuator Motor	80-874505-000	1
4	Front Header	37-373620-000	1
5	Rear Header	37-373621-000	1
6	Tip, Slash Cut, Chrome	37-373536-000	2
	Warranty Card (not shown)	10-118420-000	1

KIT-PM001

Bag 712

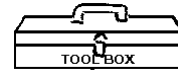
7	Clamp, Toenail, C-Bore	30-390204-000	1
8	Clamp, Toenail, Tapped	30-390205-000	1
9	CSHS, 1/4-20 x 1 1/2"	51-515413-000	1

Bag 748

10	Wire Harness, Switch	80-831431-000	
11	U-Connector, Scotchlok	80-850002-000	2
12	Cable Ties	44-448725-000	6
13	Hex Key 3/32"	59-515130-000	1
14	Hex Key 5/64"	59-515132-000	1
15	Spacer, L .21 Stainless	49-495552-000	1
16	Screw, Button Stainless	51-516332-000	1

Bag 747

17	Muffler Clamp, 2"	37-400671-000	2
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- 12mm Socket
- 3/8" Socket
- Supplied 3/32 and 5/64" Allen Wrench
- 6 and 5mm Allen Wrench
- 3/16" Allen Wrench
- 9/16" Open End Wrench
- 10mm Wrench
- Pliers
- Wire Cutters



Bag 749

18	Screw, Hex M8 x 20	50-571023-000	2
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Bag 743

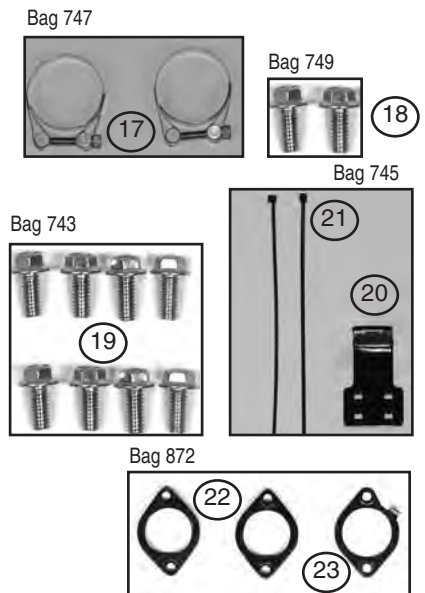
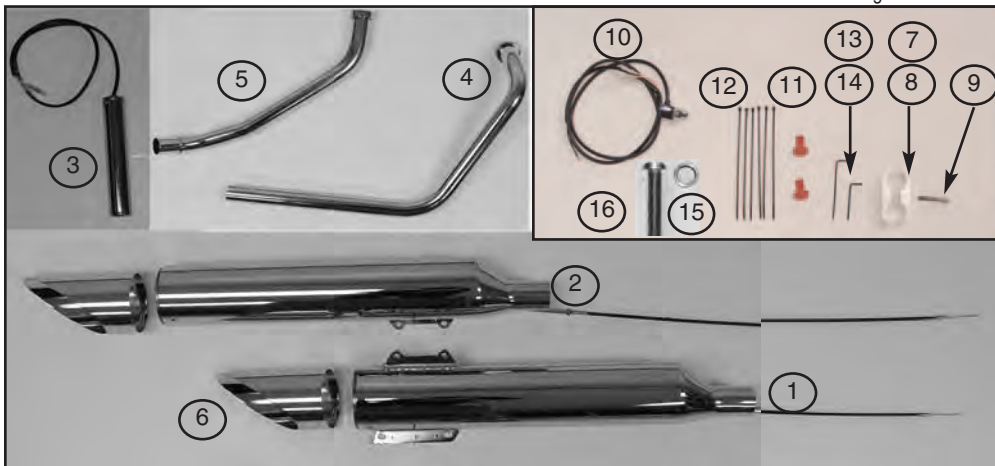
19	Screw, Whizlok, 1/4-20 x 5/8"	50-570000-000	8
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Bag 745

20	Support Cable	37-373791-000	1
21	Tie, Wire 8"	44-448725-000	2

Bag 872

22	Header Flange	37-373665-000	2
23	Support for Heat Shield	37-373666-000	1



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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.

REMOVE REAR STOCK MUFFLER AND HEAD PIPE

3. Remove fasteners of rear muffler at: (12mm Socket), **Figure 1.**

- a. Screws that hold mufflers together (these screws will **not** be reused, parts bag #749)
- b. Stock muffler clamp
- c. Cross over bolt

4. Remove rear muffler. **Figure 2.**

5. Remove 12mm cap nuts that hold rear head pipe to cylinder. Studs stay in place.

6. Remove rear head pipe. **Figure 3.**

REMOVE FRONT STOCK MUFFLER AND HEAD PIPE

7. Remove front muffler: (12mm Socket) **Figure 4.**

- d. Bolts at lower bracket
- e. Stock muffler clamp

8. Remove cap nuts that hold front head pipe to cylinder. Remove head pipe. Studs stay in place. (12mm Socket and Open End Wrench.) **Figure 5.**

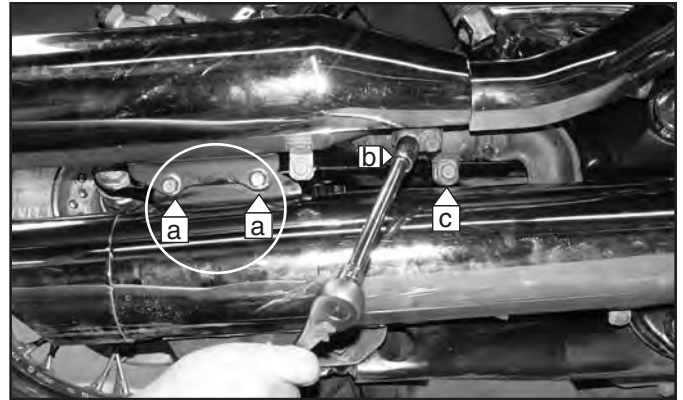


Figure 1



Figure 2



Figure 3

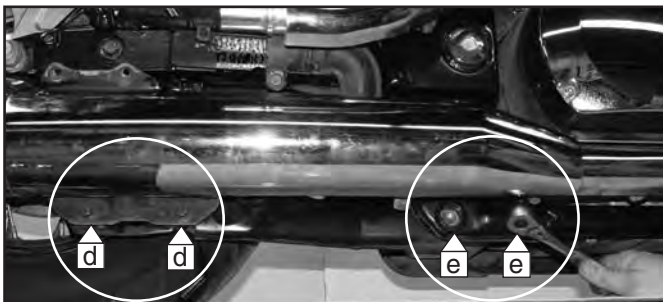



Figure 4



Figure 5

PREPARATION of SUPPLIED HEAD PIPES

1. Remove heat shields from rear and front head pipes. Heat shields will be re-used. **(5mm Allen) Figure 6**

 **The heat shield support of the rear head pipe will be reused. Header Flange and heat shield support of the front head pipe will both be replaced. Parts bag #872 Figure 7**

2. Remove flanges and heat shield supports from stock head pipes.

REAR HEAD PIPE


3. Install supplied header flange and stock heat shield support to supplied rear head pipe. Install heat shield to rear head pipe. **Figure 7**

FRONT HEAD PIPE


4. Install supplied header flange and supplied heat shield to supplied front head pipe. **Figure 8**

HEAT SHIELDS

5. Install upper section of heat shield to front head pipe. **(5mm Allen) Figure 9**

 **Leave remaining front heat shield off.**

6. Install rear header heat shield.

 **Do not snap rear heat shield clamp fully onto head pipe, leave rear section loose.**

7. Install muffler clamp to front and rear Peacemakers mufflers. **Figure 10**



Figure 6

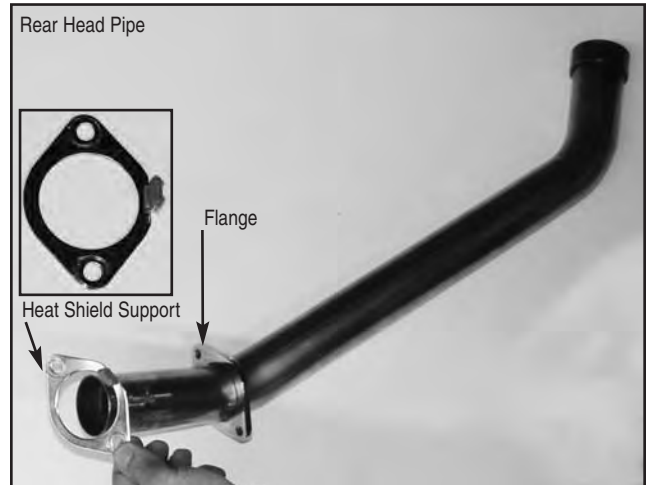


Figure 7

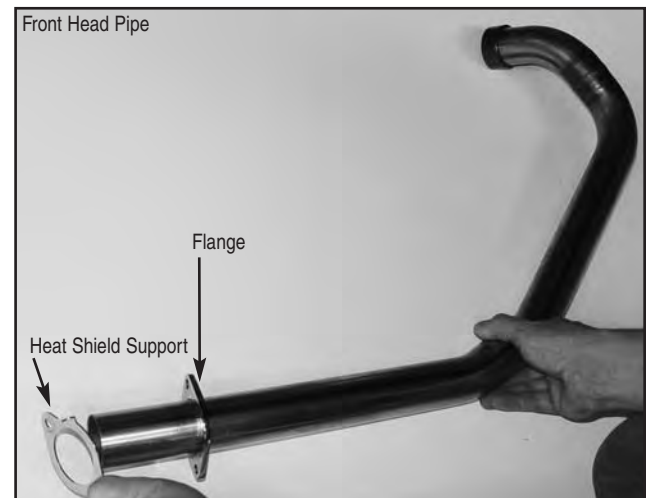


Figure 8



Figure 9



Figure 10

INSTALL CABLE GUIDE

1. Remove stock bolt from motorcycle.
2. Install the cable guide using stock bolt. **(12 mm Socket) Figure 11.**



Figure11

INSTALL FRONT HEAD PIPE

 **We recommend replacing worn grommet. Honda Part No 18293-MN0-000.**

1. Install new front head pipe to cylinder. Check that grommet is on top of flange. **(12 mm Socket and Open End Wrench) Figure 13**



Figure 12

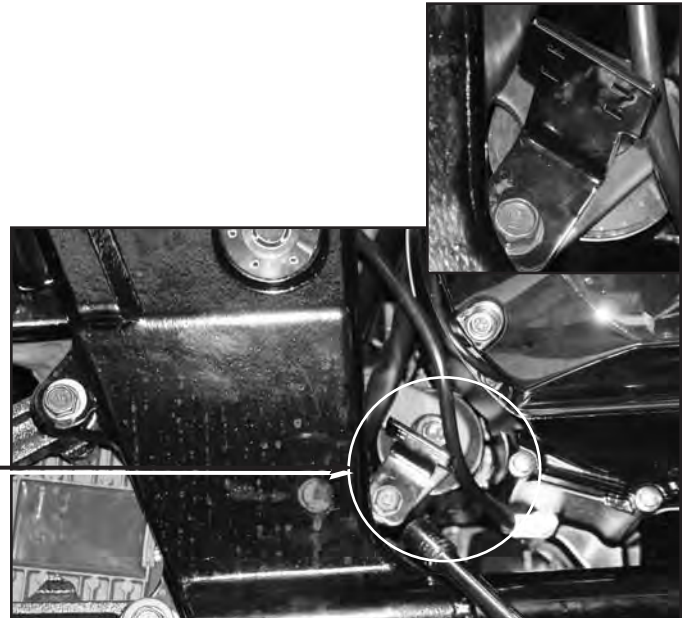


Figure 13

CABLE ROUTING



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.



Do not remove cable from muffler. Do not damage or kink cable.



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

INSTALLATION of PEACEMAKERS EXHAUST

1. Route cable of front muffler to exit left side of motorcycle by routing cable over frame member and the radiator hose. **Figure 14**

2. Slide front muffler on head pipe. Muffler clamp screw head will face down and out. **(3/16" Allen Wrench.)**

Figure 15



Clearance is tight at the head pipe / muffler joint. The actuator cable seats into clamp screw. **Figure 16**

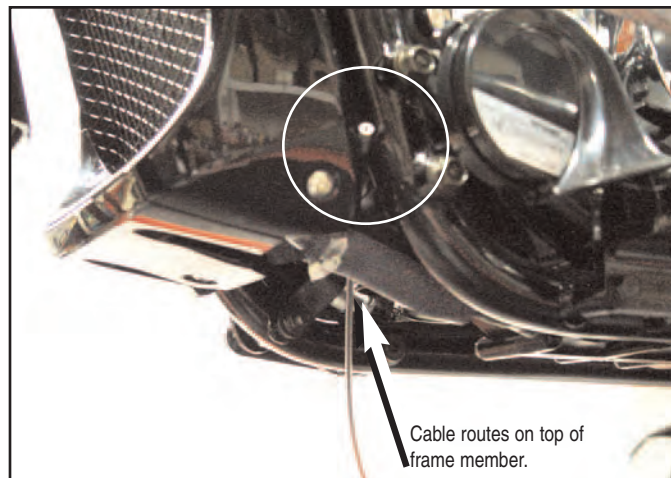


Figure 14



Figure 15

CABLE SEATS INTO SCREW

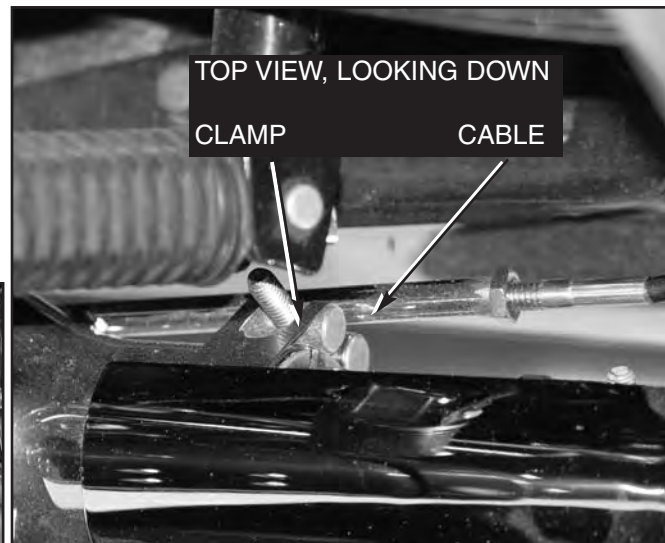


Figure 16

3. Install front muffler to exhaust bracket with stock hardware (12mm Socket.) **Figure 17**

4. Install rear muffler. Screw head of muffler clamp will face face down and out. Secure rear muffler to front muffler using supplied hardware from bag#749. (12mm Socket and 3/16" Allen Wrench.) **Figure 15-16**

5. Actuator cable routes over frame member and radiator hose to left side of motorcycle.

Figure 18 and 19

 Follow instruction below to prevent rear actuator cable to coming in contact with front muffler.

6. Secure rear muffler to front muffler using screw from bag 749. **Figure 20**

7. To prevent rear actuator cable from contacting front muffler, secure the actuator cable from the rear exhaust to the installed cable guide. (Tie Wrap, Wire Cutters)

Figure 18 and 18a

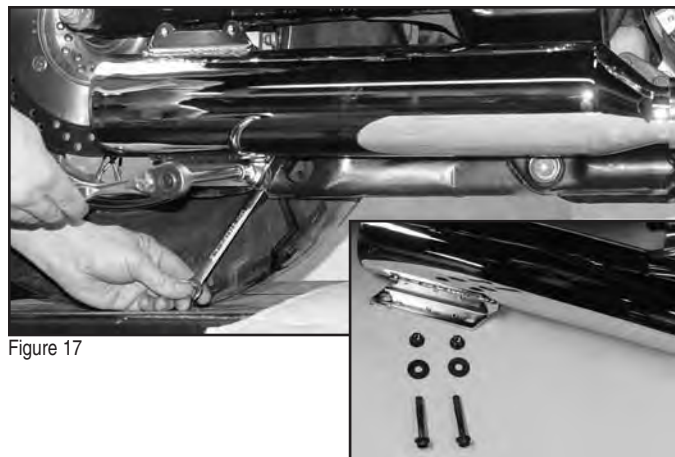


Figure 17

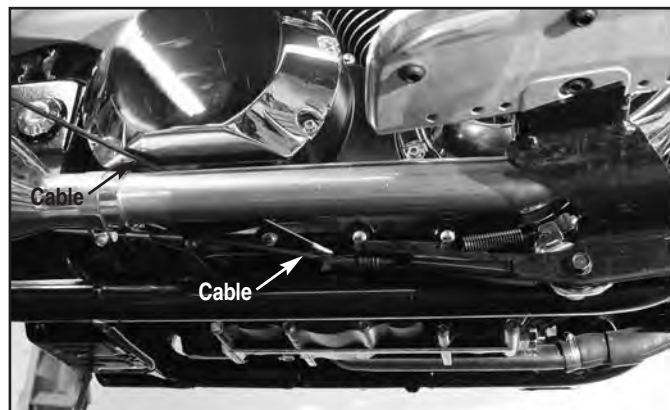


Figure 18

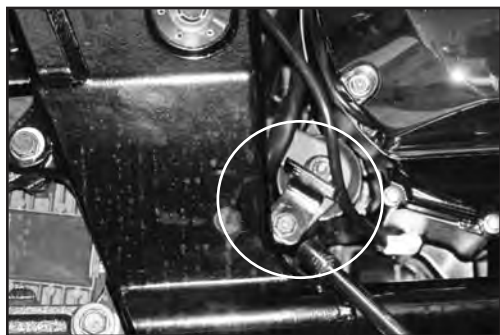


Figure 18a



Figure 19

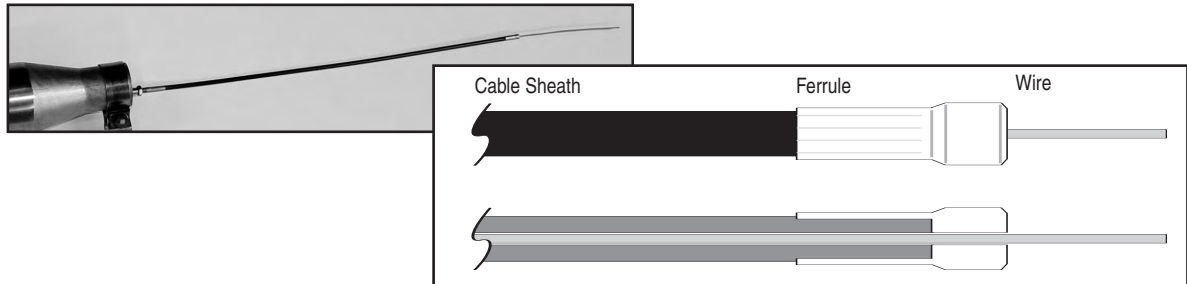


Figure 20

THE LINEAR ACTUATOR DRIVE



About the operation of this unique patent pending 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. Please follow the detailed instructions below.



Installation of Cable into Linear Actuator Guide

1. Remove Actuator Guide from Housing. ($3/32$ " Allen Wrench) Figure 20
2. Loosen the 2 Set Screws at each location (b) and (c). ($3/32$ " and $5/64$ " Allen Wrench) Figure 21



Figure 20

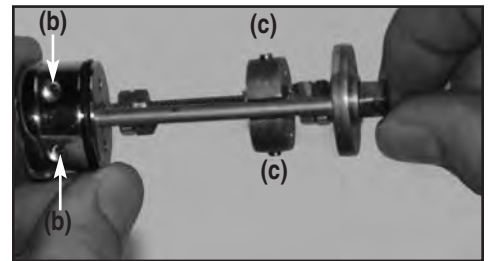


Figure 21

3. 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. Tighten Set Screw (b). ($3/32$ " Allen Wrench) Figure 22 and 23

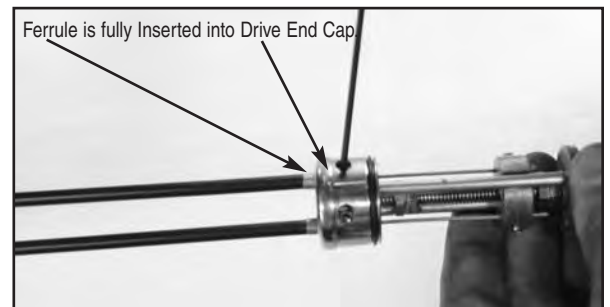



Figure 22



Figure 23

Preload Cable and Install Actuator Drive into Housing

 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 24.

 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 to ensure proper preload on the Diverter Valves.

4. Rotate Drive Screw with Nut (a) clockwise to stop. Mark top of nut (Grease Pencil) then rotate ONE revolution counter clockwise. **Figure 24**

5. Before tightening Set Screws (c) it may be necessary to pull gently on wire of cable so Wire is exposed slightly. **Figure 25**

6. Tighten Set Screws (c). (5/64" Allen Wrench) **Figure 25**

7. Install Actuator Cover. If necessary use a small amount of lubricant on "O" ring. **Figure 26**

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

8. Align holes at bottom and install Screws. (3/32" Allen) **Figure 25**

9. Install Actuator using two-piece clamp and bolt from bag. Leave loose. (3/16" Allen Wrench) **Figure 27**

First Rotate Clockwise to Stop

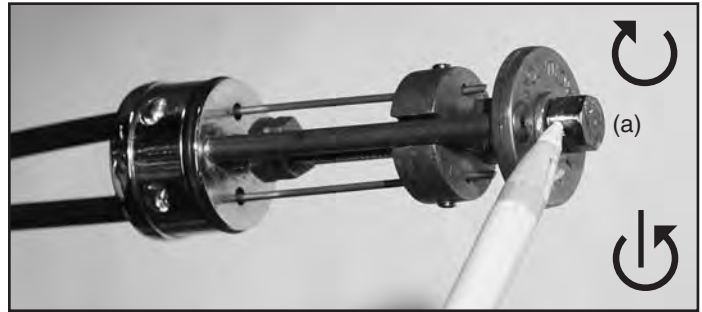


Figure 24

Then rotate ONE revolution counter clockwise. Preload is Complete

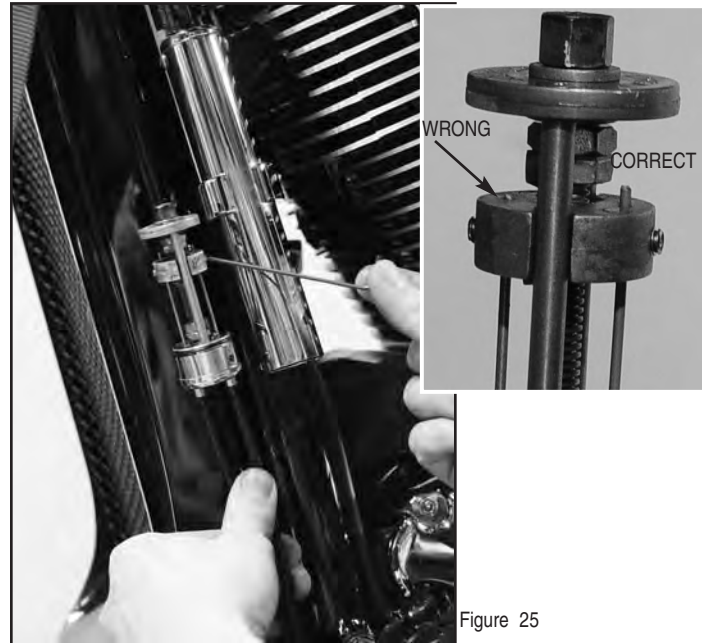


Figure 25

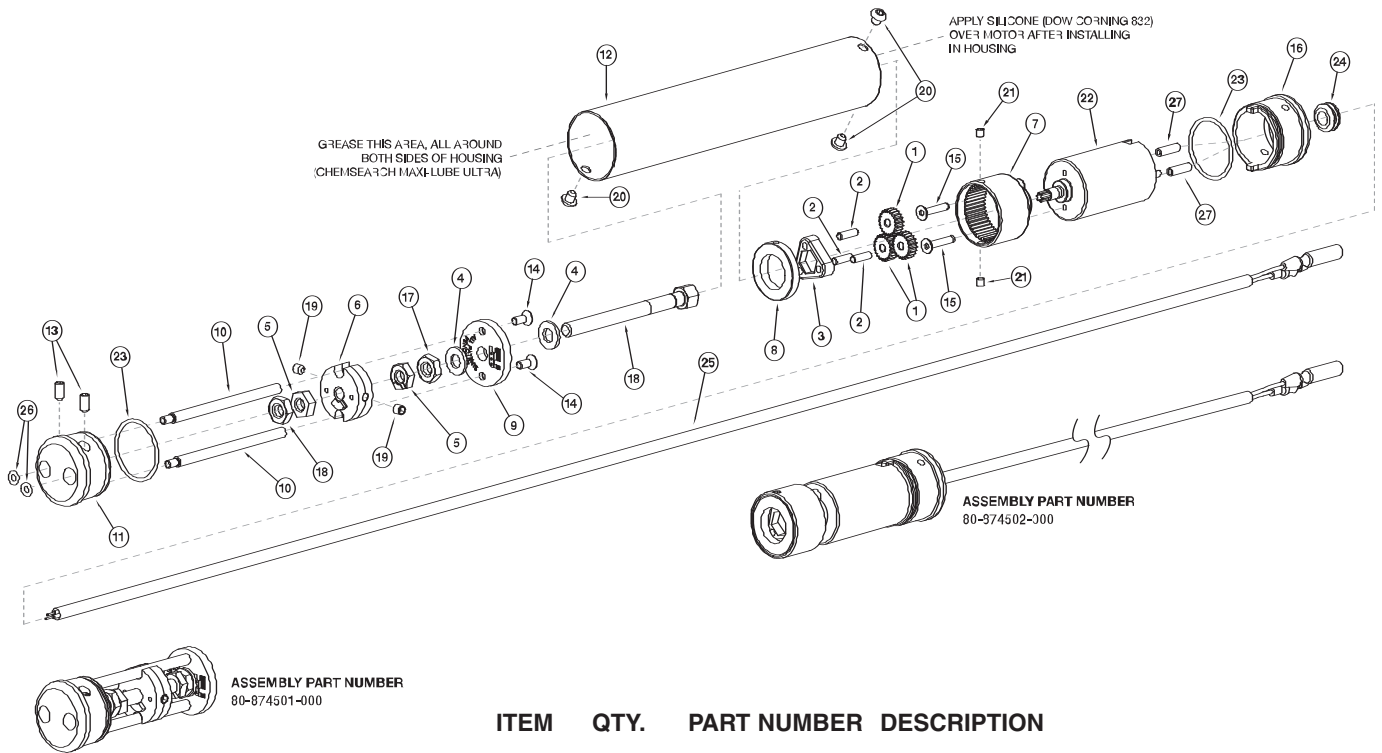


Figure 26



Figure 27

Detail of Actuator Drive



ITEM	QTY.	PART NUMBER	DESCRIPTION
1	3	34-349100-000	GEAR, PLANET, 21T, .479~OD
2	3	51-512017-000	DOWEL PIN, .125 x .437 18-8 SS
3	1	70-740505-000	DRIVE GEAR CARRIER
4	2	49-490501-000	WASHER, THRUST, OILITE
5	2	70-740535-000	TRAVEL STOP
6	1	70-740530-000	POSITION NUT
7	1	70-740500-000	RING GEAR CASE
8	1	70-740520-000	GEARBOX END PLATE
9	1	70-740525-000	RETAINER PLATE
10	2	34-349110-000	GUIDE, POSITION NUT
11	1	70-740510-000	DRIVE END CAP
12	1	34-342650-000	CHROME LINEAR ACTUATOR HOUSING
13	2	51-515031-000	SET SCREW, 8-32 x 5/16
14	2	51-514523-000	6-32 SET SCREW
15	2	51-514014-000	M3-0.5 x 14 FHCS
16	1	70-740515-000	MOTOR END CAP
17	2	42-450220-000	HEX NUT, 1/4-20, ACME, 5/32
18	2	34-349120-000	DRIVE SCREW, WITH NUT
19	2	51-515030-000	SET SCREW, 8-32 x 3/16
20	3	51-516005-000	CS, BUT. SOC., 8-32 x 3/16
21	2	51-515040-000	SET SCREW, 6-32 x 3/16
22	1	80-875100-000	MOTOR ASSY. WITH IGARASHI SUN GEAR
23	2	44-443217-000	O-RING, ID 7/8, OD 1, T 1/16
24	1	44-447101-000	RUBBER GROMMET
25	1	80-830390-000	MOTOR WIRE HARNESS
26	2	44-443220-000	O-RING, BUNA, ID 5/32, OD 9/32, T 1/16
27	2	80-816015-000	BLACK SHRINK TUBE

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WIRING PREPARATION

1. Remove the motorcycle's seat (6mm Allen at sides, 5mm Allen at back.) **Figure 28**

WIRING, Install Switch Harness

1. Remove screw from left clutch lever mount. Screw will not be re-used. Place spacer from Bag 738 in hole, position switch over spacer and install supplied button head screw. (5mm Allen) **Figure 29**

2. Route and secure Switch Harness. Follow wiring down handlebar to frame neck. **Secure wire with cable ties.** **Figure 30**

3. Refer to wiring diagram on page 11 and plug ends of Actuator Motor to Switch Harness (white to white, orange to orange.) **Figure 31**



Figure 28

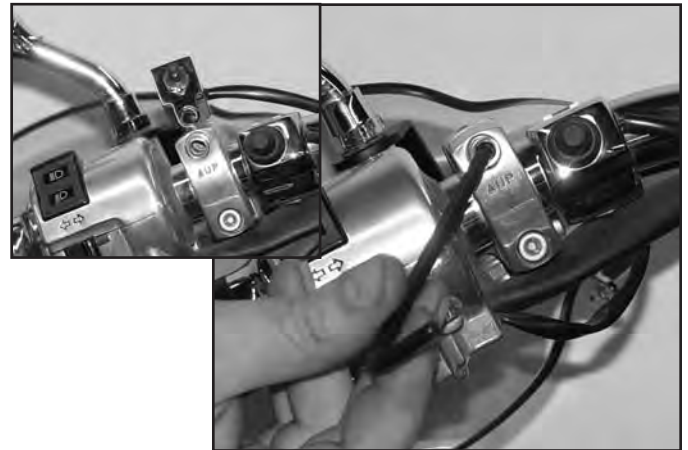


Figure 29



Figure 30



Figure 31

4. Route the switch wire under left edge of gas tank to motorcycles main wire harness. **Figure 32**

4. Connect the Red with Black Wire from the motorcycle to the Red wire from Switch Harness. (**Scotchlok Connector and Pliers**) **Figure 33**


5. Connect the Black wire from the Peacemakers Harness to the Green wire of the motorcycle. (**Scotchlok Connector and Pliers**)

 **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 12 if Diverter Valve will not open or close.

8. Adjust wires and secure together with existing wire loom. (**Cable Ties and Cutters**) **Figure 34**

9. Use the screws bolts from Bag 743 to install end caps. (**3/8" Socket**) **Figure 35**

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

9. Re-assemble all parts to motorcycle.

Enjoy your Peacemakers Exhaust!
All patents pending.



Figure 32



Figure 33

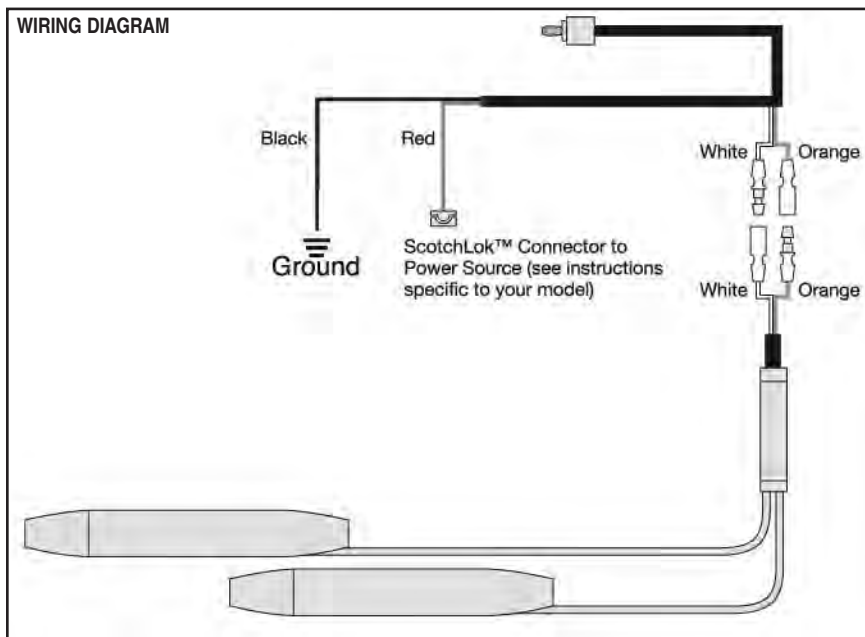


Figure 34

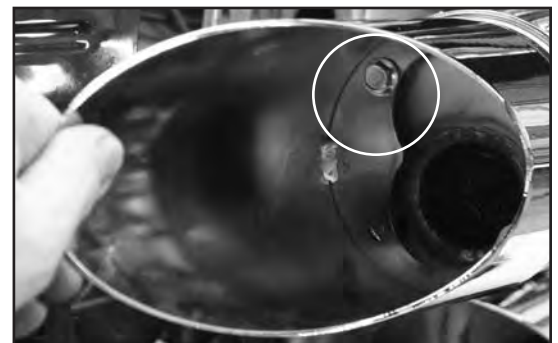


Figure 35

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 Actuator Motor (pages 4 and 5 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 N41001 Peacemakers Exhaust is designed to fit a stock VTX1800 N,R and S 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.



Part No. N41901, optional turndown tips

 **MAINTENANCE** In order to maintain “as-new” sound levels, it may be necessary to periodically replace the packing in the Peacemakers mufflers. The frequency of repacking will vary depending on your usage and riding style. Repack Kits are available for all Peacemakers models from National Cycle or your local dealer. The repack kit for N41001 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.