



P/N # RY10028

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Riva Yamaha on Line: <http://www.rivayamaha.com>

Installation Instructions for Riva Yamaha Pro Series II 3-Cylinder Heads

Riva Part #	Yamaha Part #	Application
RY10028-B	(MWV-?????-??-??)	Head body for All Yamaha GP1200 TM 1100 Waveraider TM , Waveventure TM
RY10028-A4	(MWV-?????-??-??)	Head cover for All Yamaha GP1200 TM 1100 Waveraider TM & Waveventure TM
RY10026-D-(cc)	(MWV-?????-??-??)	Head dome for various Yamaha 1100 applications
RY10027-D-(cc)	(MWV-?????-??-??)	Head dome for various Yamaha GP1200 TM applications

List of Parts

Qty.	Description	Qty.	Description
1	Head chamber body	1	(RY10028-H) hardware kit, which contains:
2	(RY10024-P), Alignment pin	14	8 X 35mm bolts
1	(RY10028-O), O-Ring kit, which contains:	2	Straight fittings
2	long red O-ring cord	1	block off fitting
3	red 3.5" dia.	14	8mm washers
3	black 3.6" dia.		
3	red 1.0" dia.		
3	red 1.8" dia.		

NOTE- This is a Yamaha racing component. It is designed for competition only. Failures caused by the use of this component are not covered by the Yamaha limited warranty.

WARNING. Gasoline is highly flammable and explosive. Handle with special care. *NO SMOKING*

1. Disconnect battery cables from battery and turn fuel cock off.
2. Disconnect all waterlines that are attached to the head and disconnect spark plug caps.
3. Remove electrical box bracket assembly from head, if so equipped.
4. Remove exhaust and brackets (if necessary) to remove head from engine. **NOTE:** Take care not to scratch the **mating surface when removing head from cylinder**. On some units it may be necessary to remove the flame arrestor bracket.
5. Cover pistons with clean rags as to prevent any foreign material from entering the cylinder. Clean any gasket material from the cylinder-mating surface. Take care not to damage the surface.
6. Install waterline fitting (s) and / or block off into head chamber body. Due to the numerous possible applications for this head we have provided (2) Straight fittings and (1) block off. Choose and install the appropriate combination to fit your application. Most basic applications use one fitting at the front and rear of the head. Use pipe sealant on all fittings to prevent leaks.
7. Apply a small amount of grease provided to O-rings "A" and install in corresponding O-ring grooves as shown in diagram # 2. **NOTE:** To help in the installation of the supplied O-rings diagram # 1 shows O-ring color, size and corresponding letter.
8. Using selected size dome for your application install each dome into head body. **NOTE:** Do not force domes into head body. Domes install into bottom side of head body.

9. With all domes installed and head body on flat surface, (combustion side down) lightly grease O-ring "B" (long O-ring) and install in corresponding O-ring groove as shown in diagram # 2. **NOTE: Lightly stretch O-ring while pushing it into the O-ring groove.** When you have reached your starting point cut the excess O-ring material with a razor blade so the ends meet flush (leave no gaps in O-ring material).

10. Install O-rings "C" and "D" in corresponding O-ring grooves on installed domes in head body.

11. Install two supplied dowel (alignment) pins in top of head body to 50% of pin depth. see diagram #2 for placement. **NOTE:** Pins are used in combustion side only with stroker plate applications.

12. Lightly grease head cover where O-rings "B", "C", and "D" seat. Check placement of all O-rings between head body and cover. Checking for dowel pin alignment install head cover on head body. The cover should slide on easily, no force should be required. **NOTE: Head cover will fit correctly only one way.**

13. Turn the head over and install O-ring "E" (long O-ring) in corresponding groove using the same sequence as O-ring "B" in step # 9.

14. Install O-rings "F" in corresponding grooves using enough grease to hold the O-rings secure when the head is turned over during installation. **NOTE: Do not use silicone sealant on O-rings.** **NOTE: Due to various craft and numerous possible applications for this cylinder head it may or may not be necessary to use the stock mounting bracket or various after-market brackets that are used to support some exhaust systems.** If you are unsure please check with your dealer or call the technical assistance line listed at the end of these directions.

15. Position the cylinder head on the cylinder taking care not to dislodge any of the O-rings. The proper head position is indicated when "RIVA" can be read properly while standing on the carburation side of the craft.

16. Loosely install (14) 8mm X 55mm bolts with flat washers (supplied) and tighten in order in a two step sequence as described on diagram #1. (Use Loctite 572 on bolts). **NOTE: On some models electrical box and flame arrestor brackets to cylinder head may need some slight modifications for proper fit.**

17. Install four supplied exhaust mounts and washers into head cover. Torque to 40 Nm (4.0 m . kg, 29 ft-lb). **NOTE: Use Loctite 271 (red).**

18. Install cooling lines. Reference step # 6 for placement.

19. Reinstall exhaust system and any other parts or components whose removal or disassembly was required for head installation. **NOTE: GP1200 installations require the ground strap attached to the flywheel cover and originally to the factory head be relocated. Relocate ground strap by removing from flywheel cover bolt and reattaching to the flywheel cover bolt closest to intake manifold. Attach opposite end of ground strap to intake manifold bolt.**

20. Check bilge area for tools and any loose lines or fittings. Reattach battery cables and turn fuel cock on.

21. After installation is complete run the engine on a flush kit and check for leaks.

NOTE ! Be sure and use 14mm x 1.25mm 3/4" reach spark plugs. Example: BR8ES

IMPORTANT: Technical Support

For answers to questions about installation, trouble shooting RIVA Yamaha Triple Pick -up System, contact:
RIVA Yamaha @ (954) 785-4820 (ask for Tech Support)
or your local Yamaha Accessory Dealer
<http://www.rivayamaha.com>

RIVA Yamaha PRO Series II Head Limited Lifetime Warranty

RIVA Yamaha Pro Series II billet cylinder heads carry a lifetime warranty to the original purchaser. They are warranted to be free of defects in materials and workmanship under normal use and service. Customer modified components will be void of warranty. This warranty is limited to defects in the primary billet aluminum components only. Anodized finish and wear marks in or on head body, head cover, and stroker plate are not covered by warranty. O-rings and hardware are not covered under this warranty.

Riva Yamaha's liability is expressly limited to the repair or replacement of the billet aluminum components contained within, or associated with this head system.

RIVA Yamaha agrees to repair or at Riva's option, replace any defective unit without charge, if product is returned to Riva freight prepaid within the warranty period. Any equipment returned which Riva's opinion has been subjected to misuse, abuse, overheating or accident shall not be covered by this warranty.

Riva Yamaha shall have no liability for special, incidental, or consequential damages or injury to persons or property from any cause arising from the sale, installation or use of this product.

No other warranty, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, applies. Various states do not allow for the limitation of incidental, or consequential damages and, therefore, the above exclusion or limitation may not apply to you.

Warranty does not include expenses related to freight or transportation of parts, or compensation for any inconvenience or loss of use while being repaired. A copy of the original invoice must accompany all warranty claims.
Warranted replacement parts will be returned freight collect.

Remember the water belongs to everyone, please ride responsibly.

DIAGRAM #1

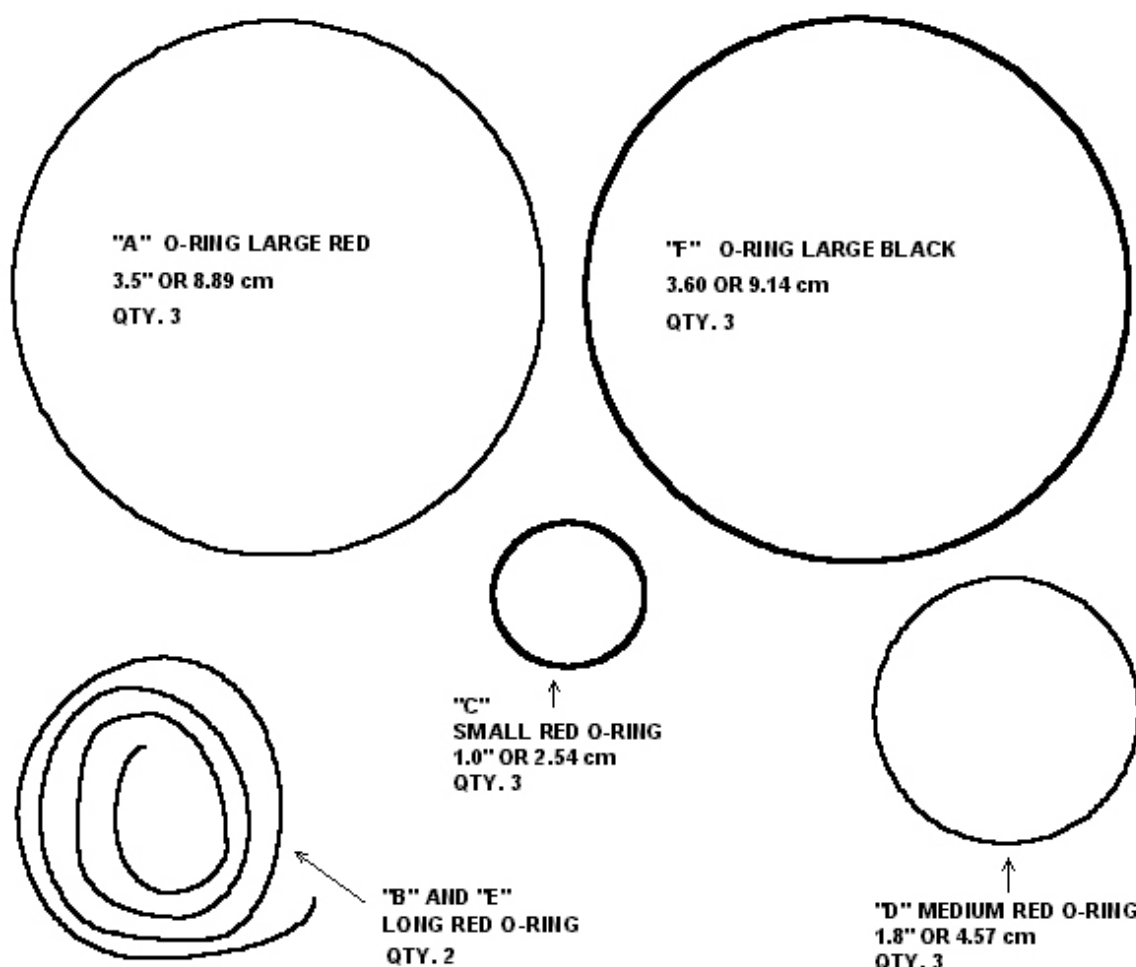


DIAGRAM #2

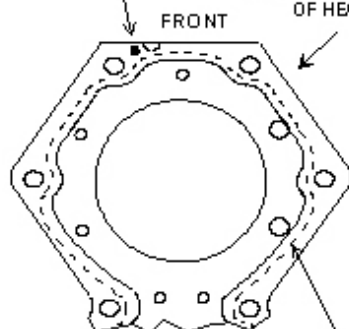
TORQUE SEQUENCE
 1 st 15 Nm (1.5 m . kg, 11 ft- lb)
 2 nd 30 Nm (3.0 m . Kg, 22 ft-lb)

O-RING LOCATION

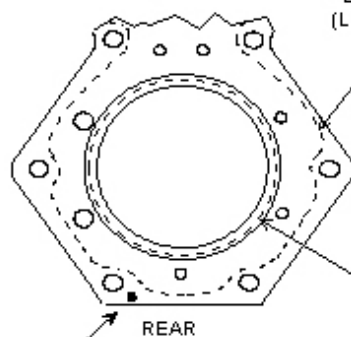


Dowl (alignment) pin location,
 one front, one rear, top side of head body only.

TOP VIEW FRONT PORTION
 OF HEAD BODY



BOTTOM VIEW REAR PORTION
 OF HEAD BODY

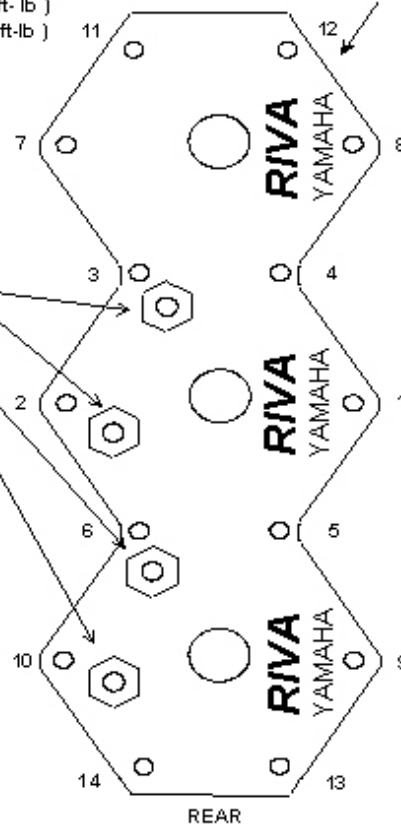


O-RINGS
 "B" AND "E"
 (LONG RED O-RINGS)

O-RING "A"
 QTY. (3)

Alignment pins are used on the combustion side only with
 stoker plate applications.

FRONT HEAD COVER



PRO SERIES DOME

O-RING "C"
 SMALL RED
 QTY. 3

O-RING "D"
 MEDIUM RED
 QTY. 3

O-RING "F"
 LARGE BLACK

QTY. 3