P/N RY11818 **A**
CDI Version **"A"**

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Riva Yamaha On Line: http://www.rivayamaha.com

1200 Riva Digital Quick Rev C.D.I.

Applications: WaveRunner GP1200.

> ***Note:*** This is a racing component. It is designed for competition only. Failures caused by this component are not covered by the Yamaha limited warranty or Riva Yamaha

WARNING! DISCONNECT BATTERY AND TURN FUEL OFF BEFORE PERFORMING WORK.

1. Disconnect negative and positive leads from battery. Turn fuel off.

2. Remove plug wires from engine. Locate electrical box and remove box from mounting in hull.
Note: If unsure of location and removal procedures, consult your Yamaha water vehicle's service manual.

3. Open electrical box by removing twelve 8mm bolts holding electrical box halves together. Locate two 10mm bolts holding ground wires (three ground wires attached to each bolt) next to C.D.I. unit and remove. Unplug two harness plugs(black and white) and remaining wires attached to C.D.I. unit. Carefully remove C.D.I. from electrical box and detach rubber holder from C.D.I.. Attach rubber holder to Riva Quick Rev C.D.I..
Note: Be careful not to damage wires or electrical box seal when working. Before removing original C.D.I., note position of C.D.I. and rubber holder inside electrical box to avoid confusion during assembly.

4. Prior to installing the Riva Quick Rev. C.D.I., set timing curve and RPM limiter switches to desired settings.
Note: See diagram for timing curve, RPM limiter setting examples and programming information.

5. Carefully install Riva Quick Rev C.D.I. in electrical box. Install all previously removed ground wires (3 coil, 1 heat sensor, 1 main harness and Riva Quick Rev C.D.I.) using the two 10mm bolts removed in step 3. Plug two harness plugs (black and white plugs) into C.D.I.. Attach pink and white wires. Plug coil wire # 1 into black / orange wire attached to C.D.I., plug coil wire #2 into black / white wire attached to C.D.I., and plug coil wire #3 into black / yellow wire attached to C.D.I.. If using the Riva Water Injection System proceed to step 5a. If the Riva Water Injection System is not used proceed to 5b.

5a. With Riva Water Injection System Installed, plug water injection adapter wire into purple wire attached to C.D.I. . Install wires neatly in place and snap plastic holder into position. Resemble electrical box in reverse order of disassembly. When assembling electrical box take care not to pinch wires or damage electrical box seal. Install twelve 8mm bolts and torque to 4 Nm (04 m - kg, 2.9 ft-lb).
Note: After installing C.D.I. into position, recheck desired timing curve and Rev limiter programming before assembling electrical box.

5b. Install wires neatly in place and snap plastic holder into position. Take purple wire attached to C.D.I. and tie strap wire in bundle to protected against possible grounding. Resemble electrical box in reverse order of disassembly. When assembling electrical box take care not to pinch wires or damage electrical box seal. Install twelve 8mm bolts and torque to 4 Nm (04 m - kg, 2.9 ft-lb).
Note: After installing C.D.I. into position, recheck desired timing curve and Rev limiter programming before assembling electrical box.

6. Reinstall electrical box to it's location in hull, tighten bolts and attach plug wires to engine.

7. Reinstall positive and negative cables to battery. Turn fuel on.

8. Check stop/start switch operation by starting engine. Shut engine off by pulling lanyard. Reattach lanyard, restart engine and shut off by pushing red stop button.

9. Run engine on flush to test C.D.I. operation.

10. Installation is now complete.

CAUTION !

There are three separate timing curve settings that can be achieved.

The “Limited” setting digitally advances each cylinder as follows; **#1**Cylinder starts startup from 18º to 24º @ 4000 RPM. Advance rate is 2º/500 RPM. **#2** Cylinder starts at startup from 18º to 25º @ 4000 RPM. Advance rate is 2º/428 RPM. **#3** Cylinder starts at startup from 18º to 26º @ 4000 RPM. Advance rate is 2º/376 RPM. Timing advance starts @ 2500 RPM for all three cylinders.

The “Mod” setting digitally advances the timing at startup from 18º to 25º @ 2400 RPM. Timing retard starts @ 5000 RPM. Retard rate is 3º/1000 RPM. The “Riva # 1” setting digitally advances the timing at startup from 18º to 30º @ 2400 RPM. Timing retard starts @ 5000 RPM. Retard rate is 5º/1000 RPM.

“Limited” and “Riva # 1” curves will require high octane race fuel and should only be used by a qualified technician. If this C.D.I. is used on modified and fully modified motors, extreme caution must be used. Using these curves without dual cooling system, high octane race fuel, and compression above 155 PSI will increase your chances of detonation.

RIVA Yamaha Digital Quick-Rev C.D.I. Unit for Yamaha GP 1200
Limited Warranty

RIVA Yamaha warrants this Digital Quick-Rev C.D.I. unit to the original purchaser to be free of defects in materials and workmanship under normal use and service for a period of one year from the date of original purchase by the end user.

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 or accident shall not be covered by this warranty. Customer modified RIVA Digital Quick-Rev C.D.I. Units will be void of 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.

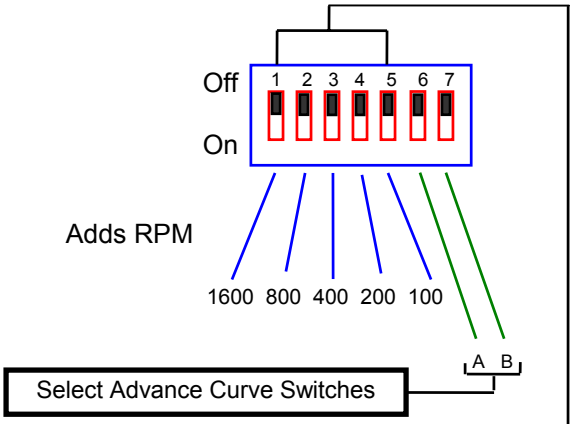
No other warranty, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, applies. Various states do not allow for the limitation of incidental, or consequential damages and, therefor, the above exclusion or limitation may not 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. All warranty claims must be accompanied by a copy of the original invoice. Warranted replacement parts will be returned freight collect.

IMPORTANT: Technical Support

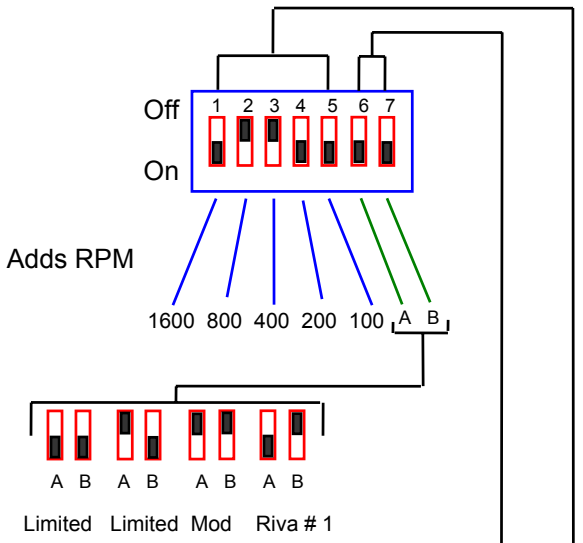
For answers to questions about installation, trouble shooting RIVA Yamaha 1200 C.D.I. Unit, contact:
RIVA Yamaha @ (954) 785-4820 (ask for Tech Support)
or your local Yamaha Accessory Dealer
http://www.rivayamaha.com

Setting Examples:



Turn switches ON to increase REV limit RPM.

All Switches OFF = 5900 RPM
(lowest possible limit setting)



Programming Example:
Limited Curve

Limited Curve
#1Cyl 18º Start to 24º @ 4000 RPM
Adv. 2º/500 RPM
#2Cyl 18º Start to 25º @ 4000 RPM
Adv. 2º/428 RPM
#3Cyl 18º Start to 26º @ 4000 RPM
Timing Adv. starts @2500 RPM for all three Cyl.

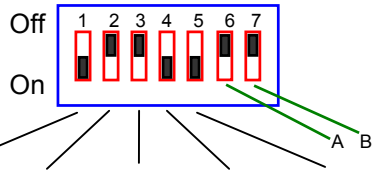
Switch Positions
6 (A) = On or Off
7 (B) = On

Mod Curve 6 (A) =
Off
25º 5000 RPM retard 3º/1000 RPM 7 (B) =
Off

Riva #1 Curve 6 (A) = On

Switch Selection For Desired RPM Limit:

Note: Switches 1-5 shown, are set at



RPM	S1	S2	S3	S4	S5
5900	0ff	0ff	0ff	0ff	0ff
6000	off	0ff	0ff	0ff	on
6100	0ff	0ff	0ff	on	0ff
6200	off	off	0ff	on	on
6300	0ff	0ff	on	0ff	0ff
6400	0ff	0ff	on	0ff	on
6500	0ff	0ff	on	on	0ff
6600	0ff	0ff	on	on	on
6700	0ff	on	0ff	0ff	0ff
6800	0ff	on	0ff	0ff	on
6900	0ff	on	0ff	on	0ff
7000	0ff	on	0ff	on	on
7100	0ff	on	on	0ff	0ff
7200	0ff	on	on	0ff	on
7300	0ff	on	on	on	0ff
7400	0ff	on	on	on	on
7500	on	0ff	0ff	0ff	0ff
7600	on	0ff	0ff	0ff	on
7700	on	0ff	0ff	on	0ff
7800	**on**	**0ff**	**0ff**	**on**	**on**
7900	on	0ff	on	0ff	0ff
8000	on	0ff	on	0ff	on
8100	on	0ff	on	on	0ff
8200	on	0ff	on	on	on
8300	on	on	0ff	0ff	off
8400	on	on	0ff	0ff	on
8500	on	on	0ff	on	0ff
8600	on	on	0ff	on	on
8700	on	on	on	0ff	0ff
8800	on	on	on	0ff	on
8900	on	on	on	on	0ff
9000	on	on	on	on	on

Suggested Settings ;

Stock or nearly stock; 7600 RPM
Limited applications ("Bolt On" parts only); 7800 RPM
Modified applications, (internal engine modifications); 7900 - 9000 RPM

Programming Example:
For Rev limit of 7800 RPM
7800RPM = (5900) + 1600 + 200 + 100

Important: **Mod curve is recommended for most stock, limited, and super stock applications.**