

NOTE: This installation is to be completed by an Authorized Dealer or Professional Service Technician. For questions regarding installation or warranty, call CDI Tech Support at 866-423-4832. **Do not return to the Dealer or Distributor where the part was purchased. Contact CDI Electronics Directly for Return Material Authorization.**

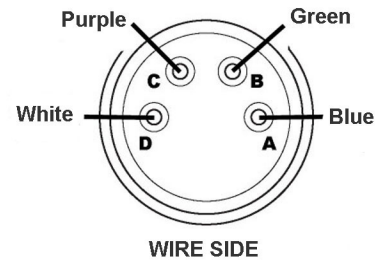
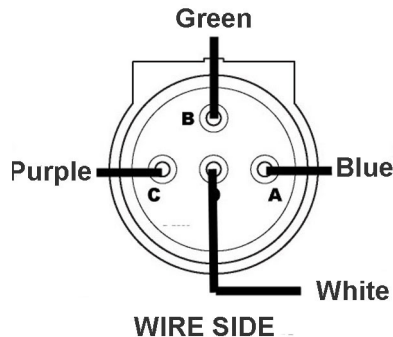
CDI P/N: 133-3378 Timer Base 3 Cyl.

Note: This unit replaces P/N's: 581949, 582724, 583060, 583131, 583378, 584269 and 584562.

WARNING! This product is designed to be installed by a professional marine mechanic. CDI Electronics cannot be held liable for injury or damage resulting from improper installation, abuse, neglect or misuse of this product.

INSTALLATION

1. Disconnect the Negative battery cable.
2. Disconnect the old Timer Base.
3. Remove the flywheel, stator and old Timer Base.
4. Inspect the center hug trigger magnet for damage. If found, replace the flywheel.
5. Lubricate the inside area of the new Timer Base where the White slip ring goes and the area where the inside of the new Timer Base contacts the upper bearing carrier.
6. Install the White slip ring on the new Timer Base.
7. Compress the White slip ring and seat the new Timer Base into the bearing carrier.
8. Make sure the Timer Base is fully seated and secure the slip ring using the retainers removed during disassembly.
9. If the 4 pin connectors pin out pattern matches the pattern of the old Timer Base, connect the timer Base to the CD Modules. If the old Timer Base has the semi-circle pattern, remove the 4 pin rubber connectors from the new Timer Base and insert the pins into the 4 pin connectors supplied with the new Timer Base as shown below, matching wires colors when possible:



10. Remove the bushing link kit from the old Timer Base link arm and install it in the new Timer Base arm.
11. Connect the linkage to the new Timer Base.
12. Re-install the Stator and Flywheel according to the Service Manual.
13. Start and run the engine, adjusting the ignition timing according to the Service Manual.

TROUBLESHOOTING

NO SPARK ON ANY CYLINDER:

1. Disconnect the Black/Yellow stop wire AT THE POWER PACK and retest. If the engine's ignition has spark, the stop circuit has a fault. Check the key switch, harness and shift switch.
2. Disconnect the Yellow wires from the rectifier and retest. If the ignition now has spark, replace the rectifier.
3. Check the cranking RPM. A cranking speed of less than 250-RPM may not allow the system to spark properly. This can be caused by a weak battery, dragging starter, bad battery cables or a mechanical problem inside the engine.
4. Inspect and clean all engine and ignition ground connections.
5. Remove the flywheel and inspect the center hug trigger magnet for damage.
6. Check the resistance and DVA output of the stator and Timer Base:

Read from	Read to	OEM Ohms	CDI Ohms	DVA (connected to pack)
White	Blue	10-15 Ω (disconnected)	10-15 Ω (disconnected)	0.5 V Minimum
White	Purple	10-15 Ω (disconnected)	10-15 Ω (disconnected)	0.5 V Minimum
White	Green	10-15 Ω (disconnected)	10-15 Ω (disconnected)	0.5 V Minimum
Brown	Brown/Yellow	360-440 Ω (530-630 Ω	150-400 V (*)

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NO FIRE ON 1 CYLINDER:

1. Check the resistance and DVA output of the stator and Timer Base:

Read from	Read to	OEM Ohms	CDI Ohms	DVA (connected to pack)
White	Blue	10-15 Ω (disconnected)	10-15 Ω (disconnected)	0.5 V Minimum
White	Purple	10-15 Ω (disconnected)	10-15 Ω (disconnected)	0.5 V Minimum
White	Green	10-15 Ω (disconnected)	10-15 Ω (disconnected)	0.5 V Minimum
Brown	Brown/Yellow	360-440 Ω (530-630 Ω	150-400 V (*)

2. Disconnect the Timer Base connector and check to see if the pins have gotten pushed back either in the pack connector or the new Timer Base.
3. Remove the pins from the connectors and see if a pin is broken on the pack or the new Timer Base.
4. Swap the power packs side to side and verify the problem stays on the same side.
5. Visually inspect the ignition coils for burned or discolored areas, leakage and cracks in the casing (indicating arcing inside the coil).
6. Swap the ignition coil with one that is sparking correctly.
7. Rare causes include a weak trigger magnet. If possible, try another flywheel.

POWER PACK OR TIMER BASE REPEATEDLY BLOWS ON SAME CYLINDER:

1. Check the timer base wires for shorts to engine ground as a shorted timer base wire can destroy a SCR inside the power pack.
2. In contrast, a shorted SCR inside the power pack can destroy a timer base coil. Check the timer base resistance and DVA output (see NO SPARK ON ANY CYLINDER above).
3. Replace the ignition coil on the cylinder dropping spark.
4. Paint the inside of the Timerbase and the outside of the flywheel trigger magnet. Run the engine on a Dyno or on the water to WOT (Wide Open throttle). Remove the flywheel and inspect the inside of the Timerbase and the trigger magnet in the flywheel for signs of the flywheel rubbing the inside of the Timerbase. If found, contact CDI Technical Service for possible Warranty replacement. If the Timerbase checks Ok, Replace the upper main bearing on the crankshaft. Repeat the test. If there is still an issue, replace the crankshaft.

MISS AT ANY RPM:

1. Disconnect the Yellow wires from the stator to the rectifier and retest. If the miss clears, replace the rectifier.
2. In the water or on a Dynameters, check the DVA output on the Orange wires from the power pack while connected to the ignition coils. You should have a reading of at least 150V DVA or more, increasing with engine RPM until it reaches 300-400V DVA maximum. A sharp drop in DVA right before the miss becomes apparent on all cylinders will normally be caused by a bad stator. A sharp drop in DVA on less than all cylinders will normally be the power pack or timer base.
3. Connect an inductive tachometer to each cylinder in turn and try to isolate the problem. A high variance in RPM on one cylinder usually indicates a problem in the power pack or ignition coil. Occasionally a timer base will cause this same problem. Check the timer base DVA voltage (see NO SPARK ON ANY CYLINDER above).
4. Perform a high-speed shutdown and read the spark plugs. Check for water. A crack in the block can cause a miss at high speed when the water pressure gets high, but a normal shutdown will mask the problem.