

## SAFETY PRECAUTIONS

- Always wear safety glasses, or other eye protection when testing vehicles. Be extra careful near batteries and moving parts.
- Battery gas is highly explosive.
  - a. If a battery explodes, flush the acid away from person's skin with generous amounts of water. Follow up with a neutralizing solution of baking soda and then more water. Medical treatment for acid burns may be necessary. Treat clothing, vehicle parts, and equipment similarly. Any acid traces inside equipment must be removed by generous rinsing. Dry off equipment afterwards and place in a warm 50° C (120° F) oven until thoroughly dry.
  - b. Never use a wrench on the ungrounded battery terminal until the grounded one has been disconnected. Contact between the vehicle body metal and the "hot" terminal can cause sparks to ignite gas or even weld tools into a battery short circuit.
  - c. Keep the space around a battery well ventilated.
  - d. Do not make sparks or allow flames near batteries.
- Before working on a vehicle, set the brakes and block the wheels. Beware of automatic parking brake releases.
- Keep your work area well ventilated and free of exhaust. Engine exhaust contains deadly poisons.
- Avoid electrical shocks caused by getting too close to live ignition wires or touching the coil TACH terminal. A person's reaction near a running engine can be more damaging than the shock.
- Keep spark producing devices at least 0.5m (18") above the floor to reduce the hazard of igniting gasoline vapor.
- Do not let test leads wind up in a fan or pulley. Route leads away.
- Remove finger rings and metal wristbands. They can short terminals and become very hot from electric current.

## Diesel Injection Detector

**765**

Follow the manufacturer's dynamic injection timing procedures and specifications when available.

Reference timing measurements must be made and recorded from a known accurately static timed diesel engine of the same setup. Whenever a different engine configuration is tested you should record the year, make, model, injection pump manufacturer, test RPM and dynamic readings, and static timing specifications. Use this information to check and adjust the injection timing of other identical vehicles.

Pulse injection timing readings will generally be before TDC and 7° to 10° before luminosity timing readings.

### Compatible Equipment

The Inductive Loop supports virtually any analyzer or tester that has an inductive pickup. Digital Multimeter, Timing Lights, and Engine Analyzers are an example of what can be used with the 765.

### Replacement Parts

M764-90	Piezo Clamp - 1/4" Piezo
M764-96	Piezo Clamp- 6mm Piezo
M764-95	Piezo Clamp - 6.5mm Piezo

## FEATURES

**Piezo Clamp connects around a 1/4" (6.35mm) fuel line.**

**Inductive connection can be used with most any piece of test equipment that has an inductive pickup, regardless of manufacturer.**

**Indicator light flashes when a signal is detected from the Piezo Clamp.**

**Works on most Diesel engines with 1/4" external fuel lines. Other sizes of clamps are available.**

**Powered by a 9 Volt battery.**

**2 Year Limited Warranty**

**[www.gxtauto.com](http://www.gxtauto.com)**



## Testing Procedures

1. Locate the #1 cylinder fuel line. If the #1 fuel line is inaccessible it's companion cylinder's line can be used for timing.
2. Clamp the pickup on a section of the fuel line near the injector that is straight and round. The fuel line should not be dented or flattened, and clean of grease, oil, fuel, and paint. Best results are obtained if the Piezo Clamp is tightened with the engine off. The fuel line and Piezo Clamp need to be clean and dry. Wet conditions can cause erratic readings. CAUTION: Do Not Overtighten!
3. Connect the Sensor Lead to the Piezo Clamp by inserting the spade terminal between the spring loaded washer and rivet head.
4. Connect the Ground Lead to the same fuel line as the Piezo Clamp. Be certain the ground clip has a good connection or the adapter will not work.
5. Start and warm up the engine to operating temperature. Be sure all personnel, equipment and test leads are clear of moving or hot engine parts.
6. Make certain that the adapter unit is turned on. The Indicator Light should flash consistently. If the Indicator Light does not flash consistently, relocate the Piezo Clamp to another section of the fuel line. If the Indicator Light does not flash check the following;
  - The Battery is low, or adapter is not turned on.
  - Air is trapped in the fuel line.
  - The Injector Pump has a very weak injection spring, or is defective.
  - The engine is out of fuel, or the fuel filter is clogged.
7. Connect the 765 to any analyzer/tester with an inductive pickup. A label on the inductive loop indicates which side of the loop represents the spark plug.

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## Technical Support

Questions or inquiries about service can be answered by contacting GxT, Inc., at: Toll Free (800) 627-5655. Fax: (231) 627-2727, Toll Free (231) 782-0616, or repair@gxtauto.com. When sending an item to the factory address it to: GxT, Inc., 520 MM Riggs Drive., Cheboygan, MI 49721-1061  
Include a note describing the problem.

## FERRET BRAND LIMITED PRODUCT WARRANTY

GxT, Inc. of Cheboygan Michigan, warrants to the original purchaser that FERRET brand products are free from defects in materials and workmanship for a period of two years from date of purchase. Our sole obligation for a product within the above warranties will be to repair or replace, at our option, any defective parts and return the product to the sender within the U.S.A., shipping prepaid, if it is sent to our Repair Department shipping prepaid and accompanied by proof of purchase.

This Warranty does not apply to products which have been altered outside the factory; or repaired by anyone other than the factory or its authorized service centers; or which have been damaged from accidents, negligence, or abuse; or have been used differently than described in the printed instructions. Please note that wear and tear on leads and replacement of consumable items such as: NOx Sensors, Oxygen Sensors, and paper, is not covered by warranty.

GxT Inc.'s sole liability and buyer's exclusive remedy is limited to repair or replacement of the product as stated in the Limited Product Warranty. THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND GxT, INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE SALE OR USE OF THE PRODUCT.

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