

# **MEGATRONIX**

## **KEY-BOX – 3RD GENERATION UNIVERSAL TRANSPONDER IMMOBILIZER BYPASS MODULE WITH RELAYED (+/-) KEYSENSE SHUTOFF**

This is the 3rd generation *MEGATRONIX* universal transponder bypass kit (Ignition key required) designed to temporarily bypass most OEM transponder type ignition immobilizer systems when remote starting.

This 3rd generation universal transponder bypass kit, operates by using one of the vehicles spare keys to transmit the original keys uniquely CODED RF ID to the exciter ring/receiver coil in the ignition cylinder. The CODED signal identifies to the vehicles computer that a valid key is present thereby enabling the fuel management system. The universal transponder bypass kit is a TEMPORARY override and will only operate as a bypass when the vehicle has been remote started, thereby keeping the integrity of the factory security system intact. As soon as either the brake is depressed or an ignition key is inserted into the key cylinder, the universal transponder bypass kit shuts off (Optional Key Sense Circuit must be connected). The key sense circuit is an optional shut off circuit and is not a required install component on all vehicles.

**IMPORTANT!** Before beginning the installation, inform the customer that one of the vehicles CODED keys must be used in the installation and installed permanently in the unit. If a new key is being purchased through the dealer, make sure to code the new key to the factory immobilizer or have the dealer do this. In many vehicles, the new key must be coded at the dealer.

**IMPORTANT!** It is also the installer's responsibility to notify customers of the following:  
If they wish to have additional keys programmed to the vehicle's immobilizer system in the future, certain vehicle manufacturers require that all programmed keys be reprogrammed at the time that the keys being added to the system are programmed. In this case, it would be necessary to remove the already programmed key from the module to reprogram it. If the customer plans to have additional keys programmed to the vehicle in the future, the shaft of the key should not be altered.

### **WIRING COLORS**

RED (+) 12Volts Input: Connect this wire to a fused source of constant 12 volts.

BLACK (-) Negative Input: Connect this wire to the remote start's ground output while running wire.

BLUE x2 RF Input: Place the copper ring antenna ring around the ignition cylinder.

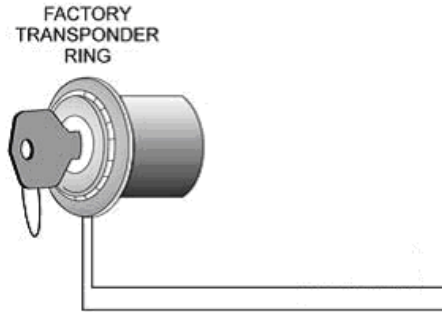
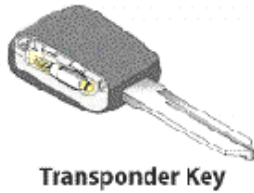
ORANGE (+) Keys Sense Input: Connect this wire to the vehicle's positive key sense output wire (\*Optional\*).

GREEN (-) Key Sense Input: Connect this wire to the vehicle's negative key sense output wire (\*Optional\*).

### **INSTALLATION INSTRUCTIONS**

1. Open universal transponder bypass and position a programmed transponder key inside ribbon cable (See FIGURES for key positioning).
2. Close the box ensuring that the key is firmly held in place between the upper and lower foam pads.
3. Connect the Red wire to a fused source of constant (+) 12Volts.
4. Connect the Black wire to the to the remote start's ground output while running wire.
5. Place the PVC covered copper coil antenna ring around the ignition cylinder.

**IMPORTANT!** When using the ring method of installing the module, the ring from the module MUST be in front of the factory receiver ring. It CANNOT be on top of or behind the factory receiver ring (Front being toward area where key is inserted. See below for illustration).



The transponders RF transmitting distance is minimal so a close fit is essential.

6. Once PVC copper loop is in place, perform remote start test first before securing the loops with tape or wire ties. Take precaution when replacing the steering wheel shroud not to move the loops away from the receiver ring in the ignition cylinder.

### FUNCTION TEST & TROUBLESHOOTING

Test bypass kit by activating the remote starter. If engine fails to remote start, you can perform this quick test to verify if problem is remote starter or transponder bypass related.

- A) Remove programmed ignition key from universal transponder bypass kit.
- B) Place key in ignition cylinder leaving in the off position. Activate remote starter again.
- C) If engine fails to start the problem originates with the remote starter and/or remote starter installation.
- D) If engine does remote start, the problem is with the bypass kit. Return ignition key to the bypass kit and try to adjust the loop antenna and/or key position. Test again until proper positioning is achieved.

### KEY SENSING SHUT OFF CIRCUIT: \*OPTIONAL\*

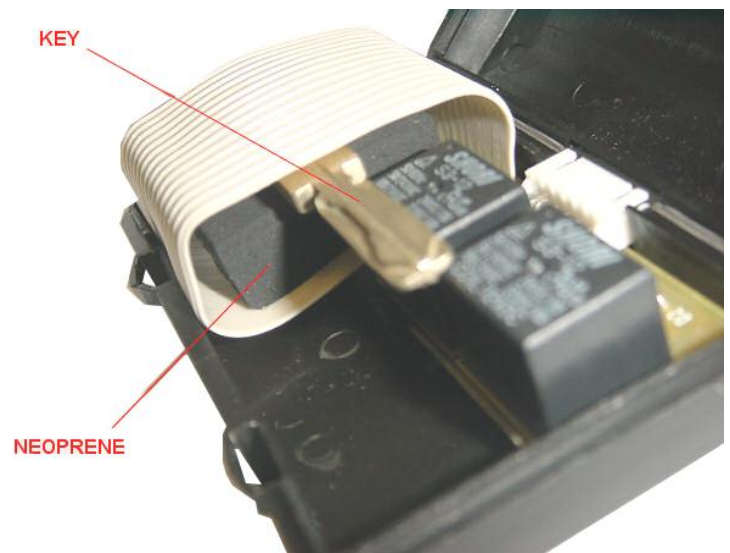
Some vehicles require the vehicle never “read” two keys at the same time. These vehicles require the key sense wire to be located in the vehicle. The wire will show negative (-) ground or positive (+) 12Volts when the key is slid in the ignition and the key chime sounds. Depending on the polarity of the vehicle, attach either the GREEN (-) or the ORANGE (+) wire to the key sense wire in the vehicle. When the module senses an input on these wires, it will drop out immediately allowing the vehicle to only see the key that was just placed in the ignition cylinder.

Use a digital multi-meter to determine the polarity of the key sense wire coming from the ignition switch. Test vehicles key sense wire with key out and then when key is inserted.

### FIGURES FOR KEY POSITIONING



KEY INSERTED INTO COIL



NEOPRENE