### ISM500/501/502-CA Series Interceptor Switch Module

An ISO 9001:2015 Registered Company

2013 - 2018 Ford Police Interceptor Sedan 2013 - 2018 Ford Police Interceptor Utility

### Introduction

The Ford Police Interceptor (Sedan and SUV) both offer the option of four upfitter switches marked Aux1-Aux4 on the right-side of the steering wheel. From the factory, the switches are controlled by the Ford Generic Function Module (GFM) which controls Instrument Panel indicators (reflecting the state of the switches) and also provides four output wires to control upfitter equipment. The stock GFM however only allows the steering wheel switches to operate in a latching mode (toggle on - toggle off), and there is no "programmability" of the switches. The Intermotive ISM50x-CA is a Plug and Play replacement for the Ford GFM and gives the Police market the abil-



ity to program each switch/output. The ISM still controls the Instrument cluster indicators and the four output wires, but in addition, the ISM allows each switch and associated output to be programmed in the following operating modes:

- Latching (toggle on—toggle off)
- Momentary
- Timed (1 1,800 seconds)
- Radio Button (only one Radio Button active at a time)

**Example:** Aux1-Aux3 programmed as Code 1-3 "Radio Buttons". Their outputs are wired to appropriate lights/sirens, etc. Pushing any of these three rocker switches activates the desired Code and shuts the others off such that only one is active at a time. Aux 4 could be programmed as Latching, Momentary, or Timed, independent of Aux1-3.

#### **Installation Instructions**

Disconnect vehicle battery before proceeding with installation.



#### **IMPORTANT—READ BEFORE INSTALLATION**

It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers. Avoid placing the module where it could encounter strong magnetic fields from high current cabling connected to motors, solenoids, etc. Avoid radio frequency energy from antennas or inverters next to the module. Avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

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## Installation Instructions (continued)

- The OEM GFM module will be replaced by the ISM module. The GFM is located above the right hand side passenger kick panel and behind the glove box. It is usually easiest to remove the glove box to access this area. This can be done on the Interceptor sedan by opening the glove box and squeezing the sides towards each other and pulling down. The glove box can then be lifted off of its hinges and removed. On the SUV interceptor, open the glove box and release the cable on the right hand side. Remove the four bolts holding the horizontal trim panel under the glove box and slide the two white hinge rods towards each other. The glove box can now be lifted off its hinges.
- Locate the GFM module. There is a black panel with a white sticker where the GFM is mounted. The GFM will be on the opposite side of this panel (see picture).

The arrow is pointing at the connector for the GFM. The connector is facing upwards, and has a locking tab.

Press the tab and pull down to disconnect the GFM harness.

• Plug the ISM50x-CA harness into the GFM harness. Plug the 4-pin and the 8-pin connectors into the ISM module. The GFM will no longer be used.

The ISM50x now controls the four outputs which drive the four blunt cut wires which are usually run under the center console and connected to upfitter equipment. These outputs reflect the state of the four Aux1-4 switches. These outputs are active low, providing 1/2A ground circuits when the respective switch is active.



GFM and connector



ISM50x-CA with harness installed.

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# Installation Instructions (continued)

# S-J08Bx Harness

If an aftermarket product experiences any abnormal operations on Aux 1 and/or Aux 2 after installing the Intermotive ISM system, an additional harness (S-J08Bx) may be necessary. For further information, please view the drawing on the last page of the instructions. The harnesses may be preconfigured for a direct plug and play solution.

## **Rocker switch Mode Configuration**

The Interceptor's 4 steering wheel rocker switches come pre-configured as shown in table 1 below. Each rocker switch can be programmed to be either Latching, Momentary, Timed, or Radio Button. This can be done one of two ways: 1) ordered from the factory or 2) using a laptop/computer and interface cable. Download our Interceptor Switch Module Programming Utility at our website.

Table 1		
ISM500	Aux 1 - Aux 3 · Radio Mode	Aux 1 - Aux 3 : Radio Mode
Aux 1 - Aux 4 : Momentary	Aux 4 : Latching ISM502	Aux 4. Momentaly
ISM501		

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If the ISM fails any step in the Post Installation Test, review the installation instructions and check all connections. If necessary, call InterMotive Technical Support at (530) 823-1048.



S-J08Bx Harness

Submit product registration at www.intermotive.net