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GM IOH-PRG/IOM-PRG

Reverse camera programmer for select GM vehicles equipped with MyLink IOH or IOM Radio
IOH = IO5/IO6 (8" screen): *KIT628*
IOM = IOH (4" screen): *KIT722*

NTV-KIT628/KIT722

Overview

The GM IOH-PRG & IOM-PRG programs reverse camera on select GM vehicles equipped with the MyLink (model IOH) 8" color media screens and 4" (model IO4) media screens. *Forcing camera(s) to display at any time is only available in conjunction with NTV-KIT629 (NTV-KIT630 includes both)*. The radio code may be confirmed by locating the *RPO sticker* (see below) typically found inside the glove box. **UPDATE: for 2016 vehicles only: VERIFY the HMI module part number for compatibility (page 6).**

Kit Content

Video Input RCA
NTV-CAB109

GM OBD2 Programmer Harness
NTV-HAR247

GM IO-PRG Module
NTV-ASY166

USB Cable (updates)
NTV-CAB009

GM IO-PRG Pinout

Pin #	Description	Color
1	12v Constant Power (+)	Yellow
2	*-Not Used-*	White/Blue
9	CAN HIGH	Brown/Black
10	Ground (-)	Black
18	CAN LOW	Brown
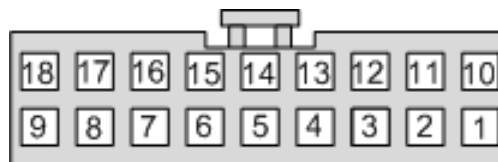
Wire Side View

GM OBD2 Programmer Harness Pinout	RPO Sticker example

Ground

CAN HIGH

CAN LOW

12v Constant
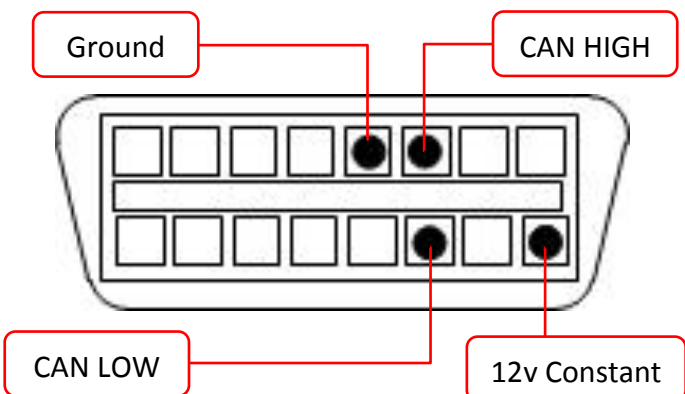
NTV-HAR247 Wire Side View
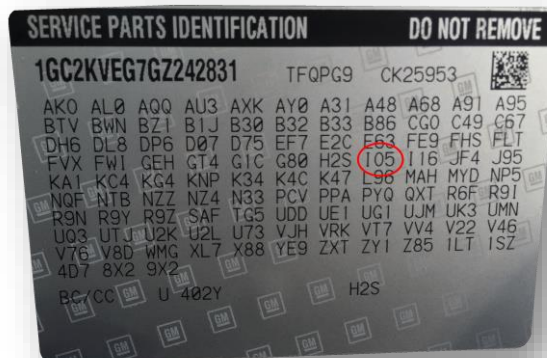
Found in glove box or spare tire well

GM MyLink Programming (with module)

DISCLAIMER: Do NOT disconnect the programmer during programming – this may result in complete radio brick (factory limitation). NAV-TV is not responsible for failure to comply with this rule.

1. Begin by connecting the provided **GM IO-PRG Module** to the **OBD2 Harness** via the 18-pin connector.
2. With the key **OFF**, connect the red OBD2 Programmer connector (with module) to the factory OBD2 port.
   a. Watch LED on module before engaging ignition

3. Turn the key to the **IGNITION ON** position. Watch the LED on the IO-PRG Module and verify flash codes below.

LED Response	Description
1 flash	**Waiting for Ignition...** (Turn ignition to ON)
2 flashes	**Waiting for Vehicle VIN...**
3 flashes	**Query Vehicle** (Reading/decoding the VIN and vehicle components)
4 flashes	**Programming...**
5 flashes	**Programming Complete**
6 flashes	**No Programming Needed** (Already programmed)
7 flashes	**Radio Not Supported** (Verify this vehicle is equipped with **IOH Radio Code**)
8 flashes	**Out of Licenses** (Contact NAV-TV to purchase more licenses)

4. Wait for radio to **reboot fully**.
5. Cycle the vehicle key once (turn off, wait 5 seconds, turn back to **IGNITION ON**)
6. Verify **5 FLASHES** from LED on module.
7. ***Disconnect the OBD Harness and module from the OEM OBD2 port. The module must remain in the vehicle, but do not leave it attached to the OBD port.***
8. Verify that the radio accepted the program properly by placing the vehicle in reverse *(vehicle may need to be running)*. The reverse screen should appear (or black screen/attention text if no camera is connected yet) when in reverse only.
9. **UPDATE: if nothing happens in reverse after programming, disconnect the 20-pin power plug (black) at the OEM HMI module, then reconnect to reset the system manually. Once the radio has reset and booted fully, test for rear camera activation again.**

Factory GM HMI (Human Machine Interface)

NOTE: There is NO De-Programming option with either GM IO-PRG kit. Once programmed, this system modification will remain forever.

GM IO-PRG Camera Installation

The camera in the GM MyLink systems connects at the OEM **HMI Module**. The location of this module varies by vehicle.

Known HMI Locations:

Vehicle	HMI Location
Cadillac ATS/CTS	Directly below glove box
Cadillac SRX	Below/behind glove box
Corvette	Driver's kick panel
Camaro	Beneath glove box
Silverado/Sierra	Behind glove box (high)
Colorado/Canyon	Behind screen (low)

Factory GM HMI (Human Machine Interface)

1. Disconnect the gray, 12-pin plug from the OEM HMI circled above.
2. Cut the wires at pins **5 & 6** in half (typically gray/yellow, white/blue), *a few inches from the connector*.

NOTE: the wires at this location are normally populated (existing). If not, you must pop the pin-lock tab open and populate the pin location as shown with the supplied Video Input RCA.
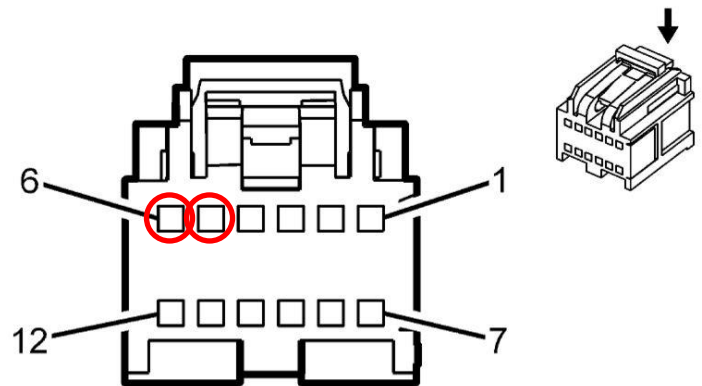
Pin Side View

3. Solder the provided **Video Input RCA** to the plug-side of the cut wires as follows:

Provided RCA	Factory wires
RCA Center	PIN 5, Gray/Yellow
RCA Shield	PIN 6, White/Blue

4. Reconnect the 12-pin plug back to the HMI module at the proper port.
5. Power your camera, and connect your camera signal to the provided RCA end from step 3. Place the vehicle in reverse to verify the camera image appears clear with no distortion.
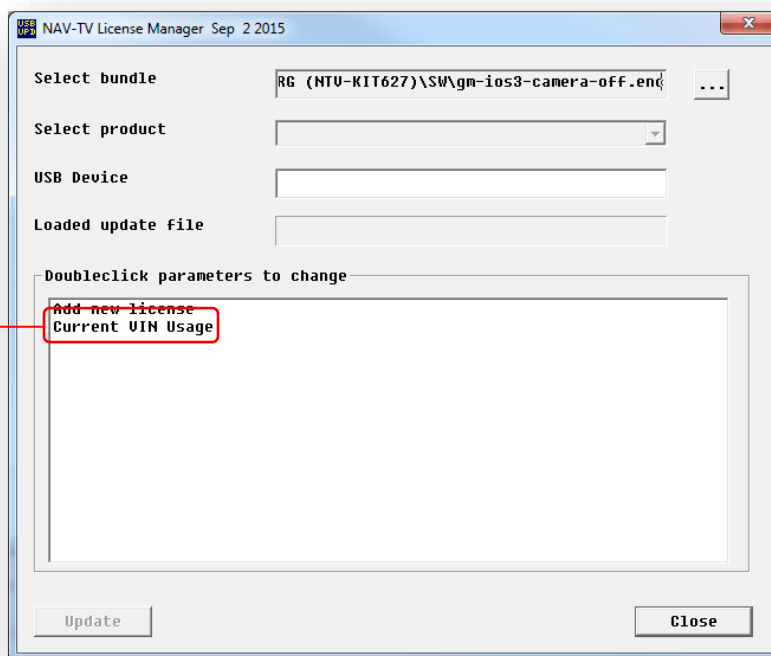
GM IO-PRG USB Updater/Additional Licenses

- To verify that this module has been installed previously, you may download the GM IO-PRG proprietary USB Updater to check stored VIN's used previously, if any. The downloadable ZIP file is located on the NAV-TV website on the GM IOH-PRG (8")page:
https://navtv.com/media/products_file/2016/02/11/GM-IOH_SW.zip

or the GM IOM-PRG (4") page: https://navtv.com/media/products_file/2016/02/11/GM-IOM_SW.zip

Click on the [⬡ Files] button at the bottom to download.

- The GM IO-PRG line features an option for NAV-TV dealers to purchase licenses instead of multiple pieces of hardware, reducing overhead costs. **Contact NAV-TV** (561-955-9770) for more information regarding purchasing one single programmer, allocated for use in 10, 20 or more vehicles. Additional licenses may also be sent via email.

Double-click to check VIN usage

NAV-TV License Manager Sep 2 2015

Select bundle: RG (NTV-KIT627)\SW\gm-ios3-camera-off.enc [...]

Select product:

USB Device:

Loaded update file:

Doubleclick parameters to change
Add new license
Current VIN Usage

[Update] [Close]

2016 (only) HMI compatibility chart

- For 2016 vehicles, verify the 8-digit part number on the OEM HMI module before attempting to program the vehicle. NAV-TV cannot guarantee vehicle compatibility until this step has been taken.

Known compatible HMIs:

23228502	23364940	84028485	84099716
23228503	23364941	84028486	84099717
23228504	23364942	84028487	84099718
23228505	23364943	84029557	
23228506	23364944	84029558	
23228507	23415880	84089000	
23228508	23415881	84089002	
23228632	23415882	84089004	
23228633	23415883	84089006	
23229333	23415884	84089008	
23229334	23415885	84089010	
23341837	23415886	84089012	
23341838	23415887	84089014	
23341839	23416254	84089150	
23341841	23416255	84089151	
23341842	84028480	84099711	
23341843	84028481	84099712	
23341844	84028482	84099713	
23364938	84028483	84099714	
23364939	84028484	84099715	

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