

UNPLUG ORIGINAL RADIO CONNECTORS THEN PLUG IN HERE

PLUG AND PLAY NO OTHER CONNECTIONS ARE NECESSARY

USE HANDSFREE KIT MICROPHONE

ADD YOUR BLUETOOTH HANDSFREE KIT  
(CONNECTIONS BUILT INTO GMX550 HARNESS)

IPOD/IPHONE/ITOUCH/IPAD CONNECTION

USB INPUT

AUX A/V INPUT

A/V OUTPUT

LEFT CAM POWER  
TO LOCKPICK ORANGE WIRE  
TO LOCKPICK BLACK GROUND WIRE

RIGHT CAM POWER  
TO LOCKPICK ORANGE WIRE  
TO LOCKPICK BLACK GROUND WIRE

PROGRAMMING DIP SWITCHES (OPTIONAL)

ADDITIONAL CAM POWER

REVERSE CAM POWER

BLUETOOTH MUTE

AUDIO - IN

AUDIO + IN

12V ACC OUTPUT

12V CONSTANT

GROUND

REAR CAM POWER  
TO LOCKPICK RED W/BLACK WIRE  
TO LOCKPICK BLACK GROUND WIRE

FRONT CAM POWER  
TO LOCKPICK ORANGE W/BLACK WIRE  
TO LOCKPICK BLACK GROUND WIRE

# GMX550 LOCKPICK INSTALLATION OPTIONS

# Coastal Electronic Technologies, Inc.

## GMX550 Lockpick™

Thank you for your purchase of the Coastal Electronic Technologies, Inc. GMX550 LOCKPICK. The GMX550 Lockpick is the replacement for the GMX322 and is the latest in a long history of Lockpicks designed to enable full and additional functionality to your factory GM navigation system. The GMX550 Lockpick incorporates many important standard features including:

- NAVIGATION ADDRESS INPUT in motion
- DVD play and AUX input fully enabled (in equipped vehicles)
- Audio/Video input
- Special cables and connectors for plug-in installations that are completely reversible

### **PLUS - NEW FOR GMX550**

- \* Advanced use of steering wheel controls for Lockpick operation
- \* Full text menus on your factory instrument panel of all Lockpick functions
- \* USB update ability to keep current with new software revisions
- \* Front/rear/left/right camera input and control for automatic operations or manual viewing anytime
- \* **iPod/iPad/iPhone/iTouch connection with activation of all available video functions**
- \* Use of steering wheel controls to search and play songs on Apple devices

*At this time, Coastal Electronic Technologies, Inc. would like to recommend that you have this installation completed by a certified mechanic or someone familiar with automotive electronics. This installation, while not time consuming, does require careful attention to detail and precise following of installation instructions.*

*Coastal Electronic Technologies, Inc. accepts no responsibility due to the improper installation or use of this product. Installation and / or use of this product implies and signifies user acceptance of this term of use. Please adhere to all driving laws in your state.*

## **INSTALLATION**

### OVERVIEW

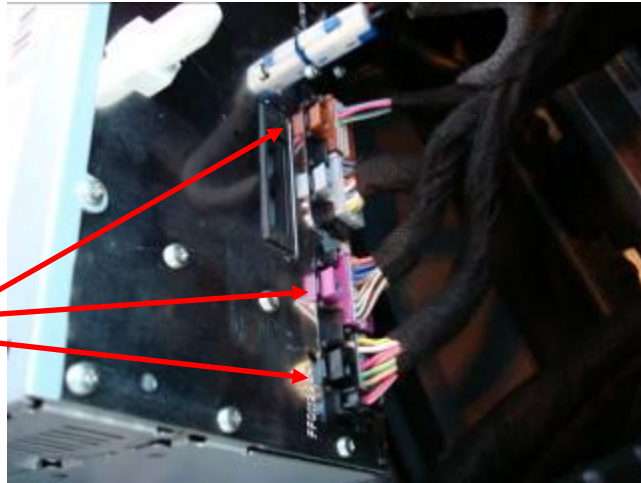
1. Remove radio trim panels to gain access to radio mounting screws.
2. Remove the radio partially to expose rear connectors.
3. Unplug factory connectors from radio and then plug them into Lockpick harness connectors.
4. Plug in Lockpick harness connectors to radio.
5. Connect camera(s) power and ground if installing aftermarket system(s).
6. Reassemble and enjoy.

This written guide will detail the connections for the Lockpick harness and provide reference for general installation and operations. The GMX550 is universal for many different GM models and individual dash disassembly is not addressed in this manual.

1. Start with the car and radio turned off. The GMX550 is designed with a dual "T" harness, equipped with factory male and female connectors for direct connections to your screen. With access to the rear of the screen, unplug the matching **Black and Brown connectors** and plug them into the female connectors of your LOCKPICK. Then plug the male connectors of the LOCKPICK harness into the earlier factory locations. The connectors are keyed and cannot be plugged in to the wrong location. For most installations, the disassembly needed to get to the rear of the screen will consist of "popping" loose the trim around the face of the radio to expose the 7mm or 10mm bolts holding the radio in position. Remove the bolts and the radio can be tilted rearward to view the connectors needed. The trim around the face of the radio is held in place with spring loaded friction locks which sometimes can require extra pressure to release. Videos and have been provided on the CoastalEtech.com website to provide you assistance as well as details and photos for Cadillac Escalade installations.

## INSTALLATION DETAIL

Unplug the matching connectors on the rear of the radio. Plug them into the matching connectors of the Lockpick harness. Then plug the remaining Lockpick harness connectors back into the original radio locations. The connectors are unique and keyed so you cannot plug them into the wrong location. Insert the connectors fully until they click or are locked into place.



- The GMX550 Lockpick is a simple Plug-N-Play interface however additional wiring is labeled and available on your Lockpick harness. These connections may be used for your aftermarket accessory power needs.

**RED** – 12V ACC power output (Limit 1 amp) This is an output, do not connect to vehicle wiring. If your accessory requires more than 1 amp, use this power output to control a relay connected directly to battery power.

**YELLOW** – 12V constant battery power output

**BLACK** – GROUND connection

**ORANGE W/BLACK stripe** – 12V rear camera power output (use this power source for your aftermarket rear camera or for full control of your factory camera see step 3 below)

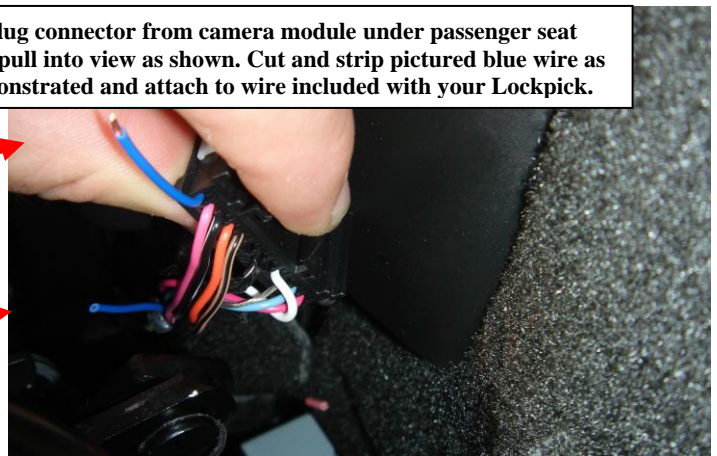
**RED W/BLACK stripe** – 12V ADDITIONAL camera power output (use this as the power source for front/left/right view camera(s))

- If you have a **FACTORY REAR VIEW CAMERA** and would like to be able to view and control it when in DRIVE, extend the **ORANGE W/BLACK stripe 12V REVERSE** wire labeled in your GMX550 harness. A crimp connector is already attached for your convenience. Route the wire along the edge of the console and down to the small silver module under the passenger seat. Slide the seat all the way back to view the connector on the front or side edge. Unplug the connector and cut the Blue wire pictured in the photo below (end wire, left side, from the back of the plug). Attach the **ORANGE W/BLACK stripe GMX550 wire** to the blue wire on the vehicle connector. The other cut end of the wire in the factory harness should be insulated and left disconnected. **Do not connect the Lockpick Orange w/black stripe wire without cutting the BLUE factory wire or improper operation will occur.** Also, early year Enclave and Acadias may place the camera module in the rear instead of under the passenger seat. Refer to website at: <http://coastaletech/Acadia.htm> for installation help. For 2008 and later H2 and all 2009-11 vehicle installations, extend and run the **GMX550 BLUE wire** to the back of the vehicle and connect **directly to the rear view camera connector blue wire**. Refer to website at: <http://coastaletech.com/Hummer.htm> for example install pictures.

### 3. OPTIONAL FACTORY CAMERA LOCKPICK CONNECTION DETAIL

- Unplug connector from module under passenger seat.
- Cut blue wire
- Attach Lockpick Orange w/Black stripe wire to blue wire of factory connector and plug connector back into module
- Crimp completed connection Cover remaining loose end of blue wire left in factory harness and leave disconnected
- Anytime factory camera use is now enabled by the GMX550

Unplug connector from camera module under passenger seat and pull into view as shown. Cut and strip pictured blue wire as demonstrated and attach to wire included with your Lockpick.



4. For all aftermarket cameras, plug in the video connector from your camera to the labeled input (front, rear, left, right) and connect all power(s) connections to the RED W/BLACK stripe camera power wire on your GMX550 harness. Connect the ground(s) for your camera power to the Black ground connection on the GMX550 harness.

### OPERATION

To activate the GMX550 LOCKPICK, press the MUTE (VOICE) button on your steering wheel (4) four times within 4 seconds as demonstrated below. Text with menus and options will appear on your instrument panel.



The menus of the GMX550 are controlled using your steering wheel NEXT UP ▲ and NEXT DOWN ▼ buttons to scroll up and down through the Lockpick menus.



Select any item or option using the SEEK ► button. **You may also turn off any function without navigating through the text menus by simply pressing the MUTE button 2x.**



The text will remain on your instrument panel for approximately 10 seconds after your last Lockpick operation. You may turn it off immediately by pressing the MUTE button 4x. When activated, the Lockpick text will always return to last function allowing quick operation for frequently used options.

A complete list of text and options for the GMX550 are listed below:

**GMX550 LOCKPICK  
SCROLL FOR MENUS**

*Initial display on instrument panel. Press steering wheel ▲ and ▼ to view primary menus.*

**NAV IN MOTION  
PRESS > TO TURN ON**

*NAV input override will automatically time out after 60 seconds when activated.*

**DVD IN MOTION  
PRESS > TO TURN ON**

*DVD override activation has no time limit. You can turn it off manually or it will reset to off when the car is taken out of Drive or turned off.*

**ACTIVATE IPOD  
PRESS > TO TURN ON**

*Automatically places the radio in the XM mode and activates audio + IPOD text on screen. If IPOD video is selected, picture is viewed on radio screen*

**ACTIVATE AUX A/V  
PRESS > TO TURN ON**

*Automatically places the radio in the XM mode and activates audio + AUX A/V text on screen. If AUX video is selected, picture is viewed on radio screen*

**VIEW REAR CAM  
PRESS > TO TURN ON**

*Activates Rear camera (factory or aftermarket). Camera must be powered by the GMX550 for this function. See installation options. (step 3)*

**VIEW FRONT CAM  
PRESS > TO TURN ON**

*Activates Front camera if installed. Camera must be powered by the GMX550 for this function.*

**VIEW LEFT CAM  
PRESS > TO TURN ON**

*Activates Left camera if installed. Camera must be powered by the GMX550 for this function.*

**VIEW RIGHT CAM  
PRESS > TO TURN ON**

*Activates Right camera if installed. Camera must be powered by the GMX550 for this function.*

**HEADREST OUT  
OPTIONS PRESS >**

*> Set different options for video and audio outputs to external screens or headrest inputs.*

**HROUT SCR  
SELECTED**

*(Default) Indicates that headrest output is selected to copy the Audio/Video sent to the front screen.*

**HROUT iPod  
> TO SELECT**

*Select to send iPod Audio/Video to an external screen or headrests*

**HROUT AUX  
> TO SELECT**

*Select to send AUX Audio/Video to an external screen or headrests*

**HROUT REAR CAM  
> TO SELECT**

*Select to send Rear Camera Video to an external screen or headrests*

**HROUT FRONT CAM  
> TO SELECT**

*Select to send Front Camera Video to an external screen or headrests*

**HROUT LEFT CAM  
> TO SELECT**

*Select to send Left Camera Video to an external screen or headrests*

**HROUT RIGHT CAM  
> TO SELECT**

*Select to send Right Camera Video to an external screen or headrests*

**EXIT**

*Select to Exit Headrest Output Options and return to beginning of menus*

**SOFTWARE REVISION  
1.XXXXXX**

*This displays the current software revision. The GMX550 can be updated by the user via USB when desired.*

**ADDITIONAL OPTIONS**

**>**

*Select this option to modify GMX550 operations to match your vehicle or desires*

**HR AUTO CAMS  
PRESS > FOR ON**

*Select to allow reverse cam or other automatic cam when activated, to interrupt and show on headrest or external screens.*

**AUTO REAR CAM  
PRESS > FOR OFF**

*Select OFF if you do not want the screen to switch to a rear camera while in reverse. Default is ON.*

**AUTO FRONT CAM  
PRESS > TO TURN ON**

*If you install a front camera, select ON to have it automatically display at slow speeds to aid in parking.*

**AUTO TURN CAMS  
PRESS > TO TURN ON**

*If you install side cameras, select ON to have them display automatically when turns signals are applied.*

EXIT

Exits **ADDITIONAL OPTIONS** and returns user to the top menu.

OVERRIDE CONFIG

>

Select this option to modify the method for DVD and NAV override. These modes allow the GMX550 to operate in a variety of vehicles

OVERRIDE MODE 1  
SELECTED

**MODE 1** is the default DVD and NAV override, compatible with most vehicles.

OVERRIDE MODE 2  
PRESS > TO TURN ON

Override **MODE 2** is used for many GMC and Acadia models

OVERRIDE MODE 3  
PRESS > TO TURN ON

Override **MODE 3** is used for Cadillac applications where the user wants to press a button before DVD override

OVERRIDE MODE 4  
PRESS > TO TURN ON

Override **MODE 4** provides an automatic DVD override without button presses for Cadillac and early 2007 GM radios

EXIT

Exits **OVERRIDE CONFIG** and returns user to the top menu.

The GMX550 Lockpick text is viewed on the instrument panel and is compatible with ONSTAR and warning messages. **If a door is opened or a vehicle fault occurs while the Lockpick text is on the screen, the Lockpick allows the OEM messages to have priority.** Also, during the viewing of the Lockpick text, or while scrolling through the Lockpick menus, the vehicle may have moments when the viewing of the Lockpick text is not allowed and the Lockpick text will not immediately appear or may flash once before staying on. This is normal and is part of the design.

Immediately after the vehicle is turned on, the radio may download large amounts of information from XM radio services. During these first moments, various communication systems in the vehicle are at capacity and the Lockpick does not interfere with this process. Therefore, for best results allow approximately 30 seconds after starting the car before activating and accessing the Lockpick instrument panel text.

**\*\*During the time that you are using the 60 second NAV IN MOTION feature to input an address, active map tracking is not occurring (if you switch back to the map, the map will not be moving or pinpointing your exact location). Standard navigation functions will automatically return after 1 minute or you can turn off the NAV IN MOTION function using your steering wheel buttons to immediately resume normal nav operation. Also, if you are using OVERRIDE MODE 1 or 2, the GMX550 needs to block navigation tracking when you activate the DVD IN MOTION function. Simply turn off DVD IN MOTION if you switch back to the map during DVD play for normal operation.**

## USB UPDATING



(make sure module is also connected to Lockpick harness and vehicle)

Your Lockpick interface includes the ability to be updated via a USB connection to a PC. Located on your Lockpick module is a common mini USB jack which can be connected to the USB jack on a laptop computer using a standard USB mini to USB connection cable. These cables are the same ones used to connect most cameras/camcorder/phones, etc. to a computer and are available in virtually all electronic departments.

A software program is available for download and installation on our website at [www.coastatech.com/usbupdate.htm](http://www.coastatech.com/usbupdate.htm). Download the application software and save it to your computer. Open the folder and select the SETUP file to install the FIRMWARE UPDATER program on your computer. When prompted, install the USB drivers included in the UPDATER software. On our website we provide updates and changes that will use the FIRMWARE UPDATER program to allow simple updates to your Lockpick module.

**To perform an update to your module**, download and save the desired Lockpick update from our website. Make sure the module is plugged into the Lockpick harness and connected to your vehicle with the key off. Plug in the USB cable to the Lockpick module and your computer. Wait while your computer recognizes the new device, then open the FIRMWARE UPDATER program on your computer and when prompted, browse to the location you saved the desired update. Start the update as directed in the software and do not stop the process once begun. After completion, disconnect the USB cable and start the car to use and explore the installed firmware changes.

### Module DIP Switches:

- The Lockpick module is equipped with programming DIP switches which allow the user to select additional options which may be necessary for proper operation in specific vehicles.
- For standard installations, all DIP switches should be left in the UP position.
- **If the switch settings are changed while the module is still plugged in, the Lockpick will ignore the changes until it has been unplugged and then plugged back in.**
- **For early build 2007 Cadillac Escalade vehicles (manufacture date 2005-early 2006), DIP switch 4 should be placed in the DOWN position with all the rest left in the UP position.** You can determine your build date by looking at the driver door tag and noting when the vehicle was manufactured. This special Lockpick programming setting will allow Lockpick text to display on the instrument panel on the early build 2007 Cadillac Escalades.
- **Place switch 5 Down to block factory DVD video in motion. With switch 5 Down, the GMX550 will not allow the DVD to play on the front screen while the vehicle is moving.**

**ENJOY YOUR LOCKPICK!**

## GMX550 iPod/iPad/iPhone/iTouch Operation

The GMX550 includes functions to allow Audio and Video from Apple devices to play through your factory sound system as well as for it to be viewed on your factory radio screen.

- The GMX550 will automatically enable the video output function if it is available on your connected device. This includes all iPod/iTouch/iPad/iPhone devices which support video output.
- It will also detect if your connected device supports iPod OUT graphical functions. Currently this function is available on iPhone/iTouch products which are using operating system 4.0 or greater as well as 6<sup>th</sup> generation Nanos. If your iPhone or iTouch is not up to date with the current Apple software, simply connect it to your computer and activate iTunes. You will be prompted to update free of charge to the newest software available.

When the "ACTIVATE iPod" option is selected from the GMX550 text, the GMX550 will advance the radio automatically to the XM mode on your radio (current XM subscription is not necessary).

- **If the connected device is an iPhone, iTouch or iPad with software 4.0 or greater, or a 6<sup>th</sup> generation iPod nano the radio video will automatically activate and display the iPod OUT audio control graphical interface as shown below.**



Selections displayed for Playlists, Artists, Albums, Songs, Genres, Composers, can be controlled by your steering wheel buttons.

Use SEEK UP button to scroll UP on-screen radio selections. For long lists, hold to search up alphabetically.

Use > button to select highlighted option. After song has been selected, > button can also be used to toggle between play and pause.

Use SEEK DOWN button to scroll DOWN on-screen radio selections. For long lists, hold to search down alphabetically.



After a song is playing, turn tuning knob to advance forward or backward in playlist.

Use SRCE button to Go Back one level in search.

Press Mute 2x to exit GMX550 iPod mode or press 4x to display instrument panel text and options.

The GMX550 Lockpick can use the iPod OUT function to allow search, play and control of your entire audio library.

Other functions may require or you may desire to control your selections directly from the touch screen or click wheel on your Apple device. This includes videos, special audio functions or if you want to run internet radio "APPs" like Pandora, iHeart radio etc. and hear the sound through your vehicle sound system.

- **If you wish to exit the iPod OUT graphical interface and perform manual audio searches directly from your iPod device, or if you wish to access for viewing the video titles contained on your device,** press the SEEK > button on your radio face. This will return the radio view to the standard XM screen with audio playing from your attached device. You can always return to iPod OUT graphics by pressing the same button.



Turn OFF the iPod OUT function in your iPhone/iTouch by pressing SEEK > button on your radio. The on screen text will remind you that Audio Search (iPod OUT) can be returned to by pressing the SEEK > on the radio again.

The Video input on your front screen can be manually activated or turned off anytime while in the GMX550 iPod mode by selecting the SEEK < button on the radio.

- **After exiting the iPod OUT graphics, the touch screen on your Apple connected device is restored** and searches for music videos, personal videos as well as full length movies stored on your device can be searched and selected manually. Also, your library of music, podcasts etc. are available for manual selection at this time
- **"APPs" or aftermarket programs you may have saved on your device can be accessed and the audio can be heard through your factory sound system.** This includes Pandora radio, iHeart radio or other applications you may have purchased through iTunes.
- **If you have selected a movie, music video or other multimedia source, the picture can be displayed on your front screen by selecting SEEK < button (Video ON) on your radio face as shown above.** To exit the Video ON mode and return to audio only playing, simply press the SEEK < button on the radio again.
- **\*\* Your steering wheel buttons can still perform functions for PLAY, PAUSE, TRACK UP, TRACK DOWN, FAST FORWARD and REWIND even after exiting the iPod OUT mode.** Refer to the Manual Mode Operations on the next page for information on how the steering wheel buttons can change function depending on whether you are in iPod OUT mode or manual mode.

## Standard (manual) Operations Using the the GMX550 Lockpick

**If your device does not support iPod OUT graphics, the GMX550 will automatically activate all other features it may have available including audio and video output. Be sure to check that your device is current with the latest Apple software as the iPod OUT function is available for many. While in the Standard (manual) mode, the full touch screen or click wheel is active for use. The GMX550 will still allow you to perform functions for TRACK UP, TRACK DOWN, FAST FORWARD, REWIND, PLAY and PAUSE using your steering wheel buttons while you play songs, watch movies or listen to "APPs". Refer to the picture below for modified operation of the controls during this time.**



Rotate knob to advance forward or backwards in current playlist.

SEEK > Returns to iPod OUT graphics (if available) in your device

SEEK < activates front screen Video ON and OFF

## Manual mode steering wheel control operation

Use SEEK UP button to Skip FORWARD to the next song in your playlist.  
Hold to perform Fast Forward.

Use > button to PLAY or PAUSE current selection

Use SEEK DOWN button to Skip BACK to the beginning of a song or to a previous song in the Playlist.  
Hold to perform Rewind function.



Press Mute 2x to exit GMX550 iPod mode or press 4x to display instrument panel text and options.

- **Many iTunes applications, "APPs", are available for download and may include functions for internet radio or other audio. While in the iPod mode, the GMX550 will provide the audio input to allow the sound to play through your factory sound system. Functions such as Play, Pause or skipping forward or backward may be controlled while in the Standard (manual) using the steering wheel buttons.**