Coastal Electronic Technologies, Inc.
FREEDOM IN MOTION
Sync Lockpick™

Thank you for your purchase of the Coastal Electronic Technologies, Inc., Freedom in Motion Sync LOCKPICK. The FIM Sync Lockpick is designed to enable full functionality to your factory navigation system. It can also enable an input for single or multiple camera installations.

The FIM Sync Lockpick incorporates many important features including:
- NAVIGATION ADDRESS INPUT in motion, or any other blocked navigation function
- DVD play fully enabled automatically or can be set for manual enabling – no loss of navigation!
- Use of radio touch screen and steering wheel controls for Lockpick operation
- Multiple camera inputs for full viewing of all areas of your vehicle
- ON SCREEN messages for simple setup and operation
- Advanced module with USB update ability
- Special cables and connectors for plug-in installations that are completely reversible

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. Set Rotary Switch to #4
5. Set communication dip switches to: 3, 4, 5, 6 ON (down), the rest UP
6. Set Option dip switches to all OFF (up) or, set switch 5 ON (down) to block DVD play in motion
7. Plug in Lockpick harness connectors to radio.
8. Connect camera connector if installing an aftermarket system.
9. Reassemble and enjoy.

This written guide will detail the connections for the Lockpick harness and provide reference for general installation and operations. The FIM Sync is universal for many different Ford/Lincoln/Mercury models and individual dash disassembly is not addressed in this manual. Videos detailing complete installations in many different vehicles are available on our website at www.coastaletech.com/synclockpick.htm

1. Begin by removing the Sync radio and viewing the rear connectors. Some Sync systems may incorporate a separate screen with the radio system mounted directly below. For these 2-part systems, the standard connections for the Lockpick harness are on the radio below the screen and not to the screen itself.

The Lockpick harness is simple to install and consists of matching male and female connectors which are installed in line with the original factory connections. On the rear of the radio, unplug the factory connectors and plug them into the matching female Lockpick connectors. Finish by plugging the male Lockpick harness connectors back into the previous factory locations.
Example Installation - Standard Sync Radio System

Note: When installing aftermarket cameras or to use Lockpick video inputs, locate the Camera/Video input cables included in your kit. Some Sync systems consist of a radio with a separate touch screen monitor (F150 truck, etc.). Refer to the application guide and select the correct cable and installation location for your individual vehicle.

The Lockpick GPS antenna connection is optional. Most installations do not require GPS blocking for navigation override. The option is however available and already programmed in your Lockpick. Select YES for navigation GPS blocking during SETUP to enable the antenna switch.

Optional GPS CONNECTOR

Optional Camera/Video input.

Note: 2 cables included in kit. See Application guide for correct installation.

Optional Camera/Vide input.

Connectors are unique in size and keyed so you cannot make an error in plugging them in.
2. Route Lockpick harness so that wiring is not crimped or pinched under the radio.

3. The Sync 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. They include:

- RED – 12V ACC power output (Limit 1 amp)
- YELLOW – 12V constant power output
- BLACK – Vehicle GROUND connection
- ORANGE/BLACK STRIPE – 12V rear camera power output (use this power source for your aftermarket rear view camera)
- RED/BLACK STRIPE – 12V second camera power output

4. Lockpick SETUP - Before plugging in your Lockpick, insure that the switches and controls are properly set for your vehicle and options desired. For Sync radio systems, place the vehicle select rotary switch in position number 4. Place communications switches 3, 4, 5, and 6 in the DOWN (ON) position. The FIM Sync Lockpick can be configured to disable the ability to view DVD in motion by placing OPTION DIP switch 5 to the DOWN (ON) position. This will also remove the menu option for DVD IN MOTION when the Lockpick is operated by the user. All other functions including NAV IN MOTION plus camera control are still operational with Option switch 5 down.

About 10 seconds after the vehicle is powered on for the first time with the Lockpick installed, a message will briefly appear on the screen reading “LOCKPICK SETUP STARTS IN 1 min”. This will indicate that the Lockpick is installed and functioning. The one minute wait is to allow the vehicle to complete its own initialization.

After 60 seconds the Lockpick programming process will start. The Lockpick will check to see if your vehicle is equipped with a factory rear view camera by entering the diagnostic function shown below and will automatically activate the rear view camera feature before exiting.
The radio programming will look like the picture above for a few seconds and then the radio will turn itself off and then back on. When the radio turns back on, it will now be programmed to accept a rear view camera and the message Lockpick setup complete will display. Now your interface is ready for action!

**OPERATION**

Operation of the FIM SYNC Lockpick is very simple and intuitive. Press the PHONE button on your steering wheel and hold it for 3 seconds to activate the Lockpick functions. Tap the PHONE button again to advance through the Lockpick on-screen menus. The Lockpick menus will display with a YES or NO button for choosing. Select YES to perform the operation and NO to immediately end Lockpick activation.

The Lockpick will loop through the functions available with each PHONE button tap. To allow for quick and frequently used menus, it will remember the last function you were on and return to it automatically next time you activate the Lockpick. A sampling of messages and explanations are provided on the next few pages.
When ENABLE NAV INPUT is selected, the Lockpick will provide 60 seconds for the user to input address information. At the end of 60 seconds it will time out and display NAV INPUT ENDED. You can also end the NAV input override immediately by pressing the PHONE button and holding it for 3 seconds.

While the NAV INPUT override is active, some information about the vehicle speed etc., is blocked by the Lockpick to allow you the ability to input your information. After inputting your address, if the 60 seconds has not timed out yet, go ahead and end it by holding the PHONE button. This will allow the Navigation system to quickly update your exact location and begin your route.

The Lockpick provides for manual or automatic DVD override operations. If the automatic DVD override option is set to off (see Additional Options below), the Lockpick will add a manual button press option to the Lockpick menu. The DVD already plays while in Park so if you attempt to activate the DVD override while in PARK, the Lockpick will display a message reminding you to put the car in Drive before activating the Lockpick function. While in DRIVE, select YES to the ENABLE DVD VIEW menu. The Lockpick will enable DVD viewing until the car is turned off, or the steering wheel button is pressed and held for 3 seconds, or the gear is returned to the PARK position. It will also pop up messages to let you know when the function is activated or when it has ended.
If you have a factory rear camera or if you have added one aftermarket, the Lockpick will allow you to view it at any time. Select YES to turn on the rear camera and display it on your screen. To turn the camera off, simply press and hold the PHONE button for 3 seconds. Note: If you have added an aftermarket rear camera to a vehicle that did not have a factory rear camera, make sure that the power for the camera is connected to the Orange/Black stripe wire on the Lockpick harness labeled REAR CAM 12V OUT. If you do not connect the Lockpick wire as your aftermarket rear camera power source and instead connect your camera to a reverse taillight, the screen will only display the camera picture while in reverse and nothing when activated manually. Vehicles with factory cameras do not have to connect any additional wiring for full use of the enhanced rear camera function and viewing anytime.

If you do not have a rear camera and are experiencing a blank screen while in Reverse gear, set the Auto Rear Camera to Off in the Additional Options menu. (next page)

The Lockpick also allows the selection of Front or Aux video inputs from the menus. Just select Yes when prompted to display the camera/video of your choice and turn the video Off with the phone button as described above.
The Lockpick contains a menu screen to allow the user to select additional options and exit. Below are a few of the views and a brief description.

By default, the Lockpick will enable a rear view camera input for your screen while in REVERSE. If you do not want to install a rear view camera, turn OFF the AUTO REAR CAMERA OPTION to avoid a blank screen view while in Reverse gear.

If you would like the Lockpick to display an aftermarket front camera automatically while parking, select YES for AUTO FRONT CAMERA. To temporarily turn off a front camera, press and hold the PHONE button for 3 seconds while camera is displayed.

To display side mounted cameras when the turn signals are activated, select YES for AUTO TURN CAMERAS.
The Lockpick provides for an advanced NAV input function if your radio software requires it. Some Sync radio software systems are programmed to rely on GPS antenna information and may remain blocked or intermittently block even if the Lockpick NAV INPUT function is enabled. No problem 😊. Using your steering wheel PHONE button, advance the on-screen menus to the ADDITIONAL OPTIONS menu and select YES. Advance through the various Lockpick options until NAV INPUT GPS ENABLED BLOCK INPUT GPS? This lets you know that currently the Lockpick is set to allow (enable) GPS information when activating the NAV address input function. This is the default setting. To program the Lockpick to BLOCK GPS information while activating the NAV input Lockpick function, select YES. If block GPS is turned on, the only difference to the user is, the navigation system will require a couple of extra seconds to update the vehicle position on the map once it times out or you turn it off. Most vehicles and radio systems do not require the advanced GPS block function or the connection for the GPS antenna in the back of the radio. This option is added to the SYNC Lockpick to allow for possible future Ford Sync software changes and current vehicles which already require it. Enabling the Block GPS feature for Nav input does not change the DVD in motion operation or block GPS while viewing the DVD.

The Lockpick can automatically activate DVD IN MOTION while in Drive gear without any steering wheel or touch screen button presses. If you select NO, the option for viewing DVD IN MOTION will be added to the standard Lockpick menu structure and can be activated manually using the steering wheel and touch screen buttons. If you want to completely eliminate the option for DVD IN MOTION, place dip switch 5 located on the outside of the Lockpick module, to the DOWN position as described earlier. With dip switch 5 DOWN, no options for DVD IN MOTION are available to the user.
The Lockpick allows you to restore the radio back to its original programming and remove the Lockpick for use in another vehicle if desired. Select YES to restore all radio and Lockpick settings back to their original state before the installation. You may then remove the Lockpick if desired. The Lockpick “reads” the individual radio settings and stores them so the radio can be returned exactly to its original state. Because of this, the RESTORE DEFAULTS / REMOVE LOCKPICK option must be selected to use the Lockpick in a second vehicle. NOTE: If the Lockpick is removed from one vehicle and placed in another without completing the above instructions, it will not operate.

Optional Camera/Video Application Guide

Included in your kit are optional cables which are necessary if you want to add an aftermarket rear view camera or to view video plugged into the Lockpick module. If you are not adding a camera or connecting other video, it may be disregarded. Refer to the application guides below and connect the proper cable to the Lockpick harness and then to the either the vehicle screen or to the radio.

10 Pin Camera/Video Harness

Connects to the back of the radio as shown

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<thead>
<tr>
<th><strong>FORD</strong></th>
<th><strong>LINCOLN</strong></th>
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<tr>
<td>2009-2012 F250/350</td>
<td>2010-2011 MKX</td>
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<td>2009-2011 E-450</td>
<td>2009-2012 NAVIGATOR</td>
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<td>2009-2012 ESCAPE/HYBRID</td>
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<td>2009-2010 EDGE</td>
<td>2009-2011 MOUNTAINEER</td>
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<td>2009-2012 EXPEDITION</td>
<td>2009-2011 MARINER</td>
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<td>2010-2011 SPORTTRAC</td>
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12 Pin Camera/Video Harness

If your Sync system consists of a touch screen mounted above the radio, plug in the included 12 Pin connector assembly to the Lockpick harness and then to the back of the screen – not the back of the radio.

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<td>2009-2012 F-150</td>
<td>2009-2012 MKS</td>
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<td>2009-2012 FLEX</td>
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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. Included with your interface is a cable designed to plug into the mini USB jack on the Lockpick module and connect it to the standard USB jack on a laptop computer. A software program is available for download and installation on our website at [www.coastaletech.com/usbupdate.htm](http://www.coastaletech.com/usbupdate.htm). Download the application and save it to your computer. Open the folder and select the SETUP file to install the FIRMWARE UPDATER program on your computer. On our website we provide updates and changes that will use the FIRMWARE UPDATER program to allow simple updates to your Lockpick module when desired.

If an update becomes available, 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. 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, start the car and explore the installed firmware changes.

ENJOY YOUR LOCKPICK™ !!

Available accessories to make your camera installation easy

**MINICAM 221 Color Camera**
- Digital Distance Markings
- Standard or Mirror Image (front or rear)
- Waterproof
- 21’ Power and Video cable

**BARCAM 221 Color Camera**
- Digital Distance Markings
- Standard or Mirror Image (front or rear)
- Night Vision Illumination
- Waterproof
- 21’ Power and Video cable