

Coastal Electronic Technologies, Inc.

GM LOCKPICK GMX-320

Installation and Operation Instructions

Thank you for your purchase of the Coastal Electronic Technologies, Inc. GM LOCKPICK GMX-320. The GMX-320 Lockpick has many features and capabilities to unlock and allow full use of your GM navigation screen. This can include:

- The ability to input addresses, points of interest, etc. while in motion.
- You can also enjoy full use of your factory DVD player and Aux input jacks (if equipped), even while in motion if you desire.
- Two video inputs are included along with stereo audio jacks for both.
- The option for full use of your factory REAR VIEW CAMERA, even while in Park or Drive
- An automatic audio input for use with an aftermarket Bluetooth kit for simple installations
- An automatic connection for a video Bluetooth kit with audio and video inputs for your screen
- Accessory Power output for connection of additional accessories
- Camera Power output for full automatic control of an AFTERMARKET REAR VIEW CAMERA
- AND MORE.....

This manual will document in detail, the many functions of the GMX-320 and how to properly set the programming switches to your desired operation. Installation diagrams are included to guide you in various connection strategies.

The GMX-320 is plug and play for unblocking of DVD/AUX/NAV/DUAL VIDEO AND DUAL AUDIO INPUT. Factory Camera control for use while in DRIVE requires the simple connection of a single wire supplied with your kit – THE LOCKPICK DOES THE REST!

NOTE: TO USE THE VIDEO CONNECTIONS AVAILABLE ON THE GMX-320 LOCKPICK, YOUR VEHICLE MUST HAVE A FACTORY REAR VIEW CAMERA INSTALLED OR MUST HAVE THE RADIO FLASHED FOR THE REAR VIEW CAMERA OPTION. THIS IS COMMONLY PERFORMED WHEN INSTALLING AFTERMARKET OR FACTORY CAMERAS AT THE DEALERSHIP. STANDARD CAMERA PROGRAMMING INSTRUCTIONS ARE AVAILABLE ON THE WEBSITE AND MAY BE USED BY YOUR DEALER AS AN EXAMPLE IF THEY ARE NOT FAMILIAR WITH THE PROCESS:

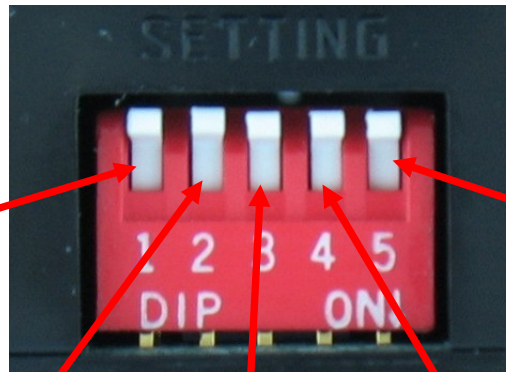
<http://www.coastaletech.com/CAMPROG.htm>

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.

Operation of the Lockpick is simple and uses a repetition of the same buttons in different sequences and times to accomplish all lockpick functions. Located on your driver door is a **WINDOW LOCKOUT BUTTON** to prevent back seat passengers from rolling the windows up and down. Also, on your steering wheel is a **MUTE** button for your radio. **These two factory buttons are all that is needed to turn on or off any unblocking technology utilized by the GMX-320.** Details are presented in the operation portion of this manual.

OK, let's get started. On your GMX-320 control box are switch settings which allow you to program your Lockpick for the features you would like to enable. The diagram below will detail the function of each. More than one switch may be turned on at a time to create the feature list you desire. Default setting when shipped is 1 and 2 down. This enables full unlock of DVD, AUX, NAV, CAMERA, and operation of the 2 VIDEO/AUDIO inputs. Additionally, switches 3 and 5 may be set down if no rear view camera will be present or if the Telephone 5000vi video Bluetooth kit will be attached.



Always place switch 1 DOWN if your vehicle was manufactured after 10/06 (date on door jam) for DVD/AUX unblock. If manufactured before 10/06 and switch 1 is DOWN, DVD and AUX is automatically unblocked without steering wheel MUTE button presses.

Place switch 2 DOWN if you will be using the video/audio inputs or camera control allowed by the GMX-320.

Place UP if no video will be used or if switch 4 (dealer mode) is down.

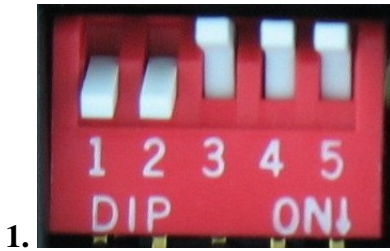
Place switch 3 DOWN if you DO NOT want the display to switch to a rear camera view while in reverse. This allows the radio to be reflashed for camera and video input use, but prevents the display from blanking in reverse if no camera is attached.

Place switch 5 DOWN if you would like to enable Video Bluetooth kit support. With this setting DOWN, activation of the Bluetooth Mute wire on the wiring harness, will turn on ONSTAR audio and automatically switch the display to Video input 2 of the Lockpick controller box.

POPULAR DEALER SETTING

Place ONLY switch 4 DOWN to **BLOCK** DVD, AUX, and unlocked NAV use while in motion. Bluetooth support functions and camera control still remain active. Switch 5 may be down also if Bluetooth kit is video capable.

COMMON SWITCH SETTINGS AND COMBINATIONS

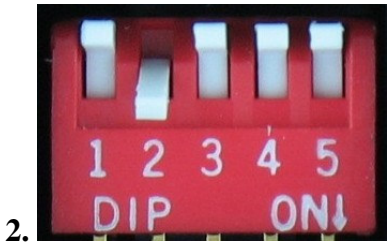


DEFAULT SHIPPED SETTING – with switch 1 DOWN, DVD and AUX input video in motion is automatically enabled without any mute button presses in vehicles manufactured before 10/06.

Mute button **must be pressed 4 times** to unblock video in motion in vehicles manufactured after 10/06. These vehicles require switch 1 DOWN as shown and need the advanced unblocking that this setting provides.

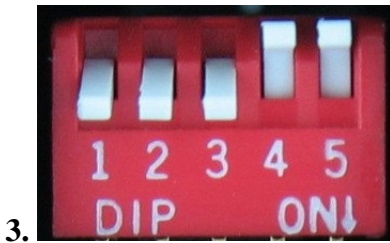
NAV unblocking is activated when pressing the window lockout 4 times.

Switch 2 is DOWN to enable all other CAMERA and VIDEO/AUDIO input connections available on the GMX-320.



Vehicles manufactured **before 10/06** may place switch 1 UP to require the Mute button to be pressed 4 times before the DVD and factory AUX video is unblocked. This may be desired instead of automatic unblocking in some installations.

Switch 2 is DOWN to enable all other CAMERA and VIDEO/AUDIO input connections available on the GMX-320.

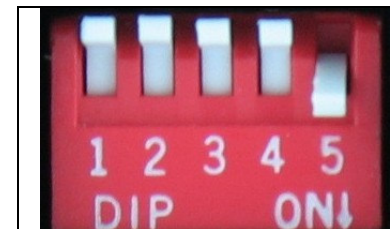


Default setting but this vehicle **does not** have a factory or aftermarket rear view camera installed. The radio has been reprogrammed at the dealership for the rear view camera option so that the video inputs on the GMX-320 can be used, but no rear view camera will be installed. This setting prevents the display from blanking while the vehicle is in reverse.



This setting is available when DVD use, AUX IN video, and NAV functions are desired to stay **BLOCKED** when the car is in motion.

Automatic Bluetooth handfree kit integration and expanded rear view camera control (factory or aftermarket) while in **DRIVE** are still enabled.



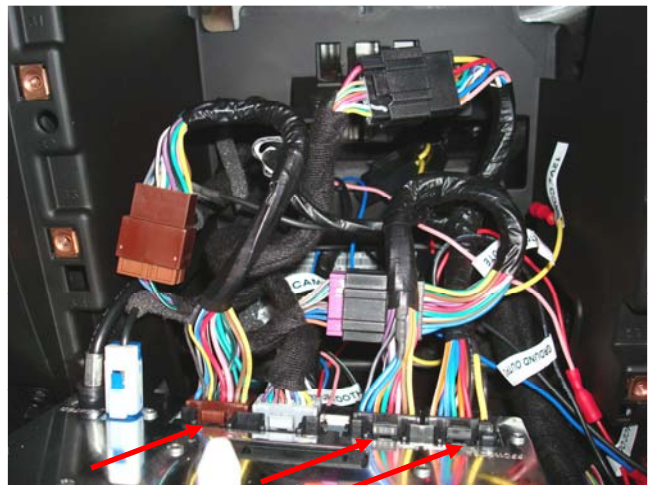
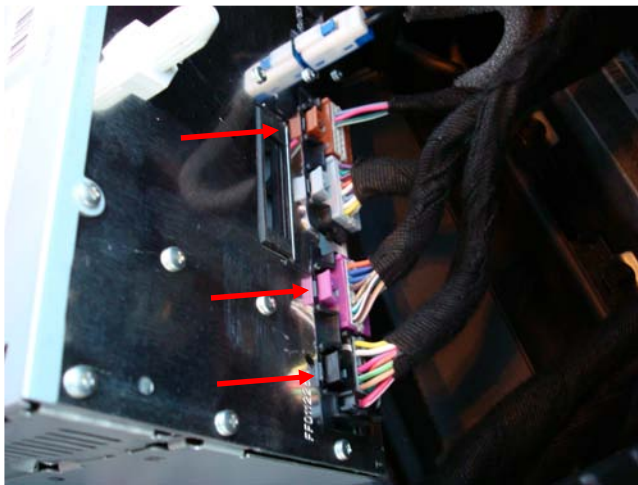
*** **Add** switch 5 down to above functions to enable video display together with the Automatic Bluetooth kit integration function. When 5 is down, the Video 2 input will be activated and displayed on the screen when a phone call is in progress from your video handsfree kit.

*****IMPORTANT** SET SWITCH SETTINGS BEFORE PLUGGING LOCKPICK INTO THE WIRING HARNESS TO INSURE PROPER PROGRAMMING WHEN INITIALIZED***

INSTALLATION

1. **Start with the car and radio turned off.** Make sure that the radio is indeed off by opening the driver door with the key out of the ignition. If the radio is left on while unplugging and installing the harness and Lockpick, it may fail to initialize when the key is turned back on. This is remedied by reinstalling the factory connectors, waiting a couple of minutes with the car off and all doors closed. Then enter and turn on the key and radio. Now, begin step 1 again :)
2. **The GMX-320 LOCKPICK is designed with 3 simple “T” harness connectors, equipped with factory male and female connectors for direct connections to your screen.** The procedure for gaining access to the rear of the standard GM NAV radio is available for viewing at: <http://www.coastaletech.com/gmlockpick1.htm>
Cadillac Escalade panel removal is available at: <http://www.coastaletech.com/gmlockpick2.htm>

With access to the rear of the screen, unplug the matching 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. Slide the blue locking tabs on the top of the connectors back before attempting to remove or insert the plugs fully into their locations.



The radio shown above is a common navigation radio found in most GM vehicles. Cadillac Escalades are slightly different in that they have the same connectors on the back of the radio but may be different colors (purple connector is black). Each connector is keyed with unique slots and cannot be inserted in the wrong location, so simply match up the correct connectors and plug them in.

3. **Route the wiring harness connection to the Lockpick,** into the slot behind the radio where the factory harness will be guided into and then down under the plastic bar into the open area below the radio.



Pull the harness as the radio is guided back into position. Press the connectors into the slot behind the radio as you manipulate the radio into position. Turn the GMX-320 sideways and make your connections for audio and video if desired.

4. **The switch settings for your Lockpick were detailed earlier and should be configured before plugging the controller into the harness.** If you plug in the controller and then change switch settings, the new settings will not be programmed and improper operation will result. To reset the box if you accidentally perform switch changes while plugged in, begin with the car and radio off as described in Step 1. Unplug the Lockpick and place all switches down. Then set them to the desired setting and plug back in to lock in the programming.
5. **Plug in any video or audio desired to the GMX-320.** On your box are standard RCA connections for Video 1 and Video 2 inputs. Two stereo audio inputs are available on the controller. One set is standard RCA and the other is provided as a standard format 1/8" stereo connection. The RCA audio jacks are associated with the Video 1 jack next to them. The 1/8" audio jack is associated with the Video 2 input on the opposite side of the box.
6. **Plug in your Bluetooth handsfree kit to the GMX-320 if installing at this time.** On your harness are already attached, crimp connections for 12V Constant (battery) power, 12V ACC (ignition) power, GROUND, MUTE, and line level AUDIO + and – inputs. This greatly simplifies your installation by making all necessary connections available in one simple location. Note: If using a video Bluetooth kit such as the TellPhone 5000vi, plug the Bluetooth kit video into the Video 2 input of the GMX-320 and insure that switch 5 is in the Down position.
7. **If your car does not have a rear view camera and you would like to install one,** connections are already provided for you. As with all LOCKPICK video operations, make sure your radio has already been reprogrammed for the REAR VIEW CAMERA OPTION. An example is available for viewing at: <http://www.coastaletech.com/CAMPROG.htm>
Then, connect your reverse signal or Camera power connection of your camera to the REVERSE wire labeled in the GMX-320 harness. Plug the camera video into the Yellow video cable already present on the BROWN connector of the Lockpick wiring "T" harness for the radio. The camera is now ready for automatic reverse view and can be turned on and viewed at any other time if desired with simple button presses (see operation portion of manual)
8. **If you would like to enable full control and viewing of your FACTORY REAR VIEW CAMERA** when in DRIVE, attach the included FACTORY CAMERA OPTION wire to the REVERSE wire labeled in your GMX-320 harness. A crimp connector is already attached for your convenience. Route the wire over to the passenger side of the dash and down along the edge of the door 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). Crimp the Blue wire from your kit to the blue wire on the connector. The other cut end of the wire in the factory harness should be insulated and left free. Do not connect it to the factory camera module while the Lockpick Blue wire is attached or improper operation will occur.

8. OPTIONAL FACTORY CAMERA LOCKPICK CONNECTION DETAIL

- Unplug connector from module under passenger seat.
- Cut blue wire
- Attach "Factory Camera Option" Blue wire to blue wire of factory connector
- Crimp completed connection and plug connector back into module
- Cover remaining loose end of blue wire left in factory harness and leave disconnected
- Anytime factory camera use is now enabled by the GMX-320



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.

NOTE: The connections for 12V Constant Battery power (YELLOW), ACC Ignition power (RED) and GROUND (BLACK) are provided as a BONUS in your wiring harness for you to use when connecting additional accessories such as a Bluetooth car kit, DVD player, radar detector, etc., without worry that they might drain your battery when the car is turned off. The ACC wire can power up to 2.5 Amps constant. Higher loads should be connected with a relay. The REVERSE (rear view camera power) of your Lockpick can power up to 2.5 Amps also.

**** Do not attach the Constant or ACC wires directly to the vehicle wiring or ignition switch. The Lockpick is plug and play for standard DVD/AUX/NAV/VIDEO/AUDIO unblocking and does not require connections for power or ground. Connecting these Lockpick outputs to the vehicle wiring can damage the unit and cause improper operations.**

Be sure to consult the installation drawing included with your instructions.

GM LOCKPICK OPERATION INSTRUCTIONS

1. You may desire, or your application may require, a button press to activate the video unblocking functions of your GMX-320 LOCKPICK (see switch setting example 1). ***To enable video viewing of your Factory DVD player or console mounted AUX input jacks while in DRIVE, press the MUTE button on your steering wheel four (4) times within 6 seconds.*** Once unblocked, video will be viewable on the front screen for the entire duration of your trip or until you turn the function OFF. ***To turn the DVD or AUX video OFF and return to standard blocked operation, press the WINDOW LOCKOUT button on your door one (1) time.*** It's as simple as that to have full control of the factory video on your front screen.

2. ***If you wish to input addresses, points of interest, view additional XM category information, dial ONSTAR telephone from the touch screen (in equipped vehicles) or enable any other blocked radio function or text— all while in motion – Press the WINDOW LOCKOUT button four (4) times within 6 seconds.*** When activating the Lockpick using the window lockout button, the unit is designed to automatically “time out” after approximately 60 seconds. If you need additional time after this period, simply press the window lockout button four (4) times for an additional 60 seconds.

*****During the time that you are actively viewing a factory DVD or factory AUX video while in motion, OR while you are inputting an address or taking advantage of any of the other radio unblocking technology mentioned above, active map tracking is not occurring (if you switch to the map view immediately from an unblocked function, the map will not be moving or pinpointing your exact location). Touch the WINDOW LOCKOUT button one (1) time as mentioned above to immediately restore factory operation and begin map tracking again. It may take several seconds for the map to recalculate your current position.***

*****Use of the factory camera, aftermarket camera or either of the 2 Video/Audio inputs available on the GMX-320 while in motion does not affect active map tracking.***

3. ***To turn ON the factory or aftermarket rear view camera while in DRIVE, place the radio in any function other than XM mode (AM, FM, CD, DVD, AUX, etc.). Now, press the WINDOW LOCKOUT button one (1) time and then within 6 seconds, press the steering wheel MUTE button four (4) times.*** The display will then change to the view from your camera. The audio from whatever source or band your radio is on will continue playing through your sound system. ***To turn OFF the camera view, press the WINDOW LOCKOUT BUTTON one (1) time.*** Note: Factory Camera turn-on requires the installation of the factory camera option wire described in step 8 of the installation guide. The key must be fully ON to enable the camera or extra video inputs on the GMX-320.

4. To turn on the video inputs of the GMX-320 and view your attached accessory, place the radio in XM mode. Now, press the WINDOW LOCKOUT button one (1) time and then within 6 seconds, press the steering wheel MUTE button four (4) times.

- The display will immediately change to the accessory video you have connected to the **VIDEO 1** source of the GMX-320 and the sound will change to the audio connected to the source 1 stereo RCA audio inputs.
- To turn off the Video 1 picture and listen to only the source 1 audio sound, press the SEEK ► button on your radio (SEEK ▲ on Cadillac Escalade)
- To toggle back to the Video 1 picture, press the SEEK ► again. (This may be repeated as desired)
- Press SEEK ◀ (SEEK ▼ on Cadillac Escalade) to switch to the **Video 2** source and the audio from the source 2 connector
- To turn off the Video 2 picture and listen to only the source 2 audio sound, press the SEEK ◀ button on your radio
- To toggle back to the Video 2 picture, press the SEEK ◀ again. (This may be repeated as desired)

***** To turn off the Video and Audio inputs and return to standard radio operation, Press the WINDOW LOCKOUT button one (1) time. *****

Operation demonstration video available at: <http://www.coastaletech.com/GMX320.htm>

FACTORY BUTTON ACTIVATION VIEWS



PRESS MUTE BUTTON 4 TIMES TO UNLOCK AUX IN OR DVD VIDEO (BUTTON PRESS MAY BE OMITTED IN SOME EARLY PRODUCTION VEHICLES IF DESIRED)

** PRESS WINDOW LOCKOUT FIRST TO TURN ON CAMERA OR OTHER VIDEO 1 or 2 SOURCES



PRESS WINDOW LOCKOUT BUTTON 4 TIMES TO UNLOCK NAV ADDRESS INPUT OR OTHER RADIO BLOCKS

** EXIT ANY OPERATING LOCKPICK FUNCTION BY PRESSING 1 TIME

Optional Bluetooth Kit Installation and Operation

Your GMX-320 Lockpick is already configured to allow the simple integration of an aftermarket Bluetooth Handsfree kit. Included in your wiring harness, are all the power, ground and audio connections needed to connect a handfree kit to your vehicle and listen to the sound through your cars' factory sound system. There is no need to install extra speakers or cut any factory wires. Your Bluetooth handfree kit will need a constant power source, another which turns off with the radio, ground, a mute connection, and a place for its line level audio to connect. All these are provided directly on the GMX-320 wiring harness. The advanced software in your LOCKPICK will automatically detect a phone operation in progress and will activate the ONSTAR function of your radio. The sound from your

conversations will be heard through your sound system automatically and even if your radio is powered off with its power button, the sound will still be activated (just like ONSTAR). No ONSTAR functions are disabled with the GMX-320 so your factory system will operate just as before, except with the added bonus of easy integration with your cell phone.

Additionally, the GMX-320 is preprogrammed to operate with the newest Video Bluetooth integration kits. These kits can display full menus, address books, caller ID, etc., and with the GMX-320, it automatically integrates this information directly onto your factory screen. To enable this programming, place switch 5 in the down position before plugging the Lockpick module into its harness. Connect the standard power, ground, and audio wires which are part of any Bluetooth kit installation. Now, plug in the video output from your video Bluetooth kit, into the Video Source 2 input of the GMX-320 module. Note: Your Bluetooth kit may contain other outputs and control lines, but all of them are unnecessary for the GMX-320 and no other interfaces are needed.



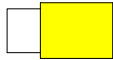
Video Bluetooth Activated using GMX-320

The following instructions are specific to the **TellPhone 5000vi Video Bluetooth Kit**. When the TellPhone kit and video output module are powered up for the first time, they take about 90 seconds to initialize. Turn the car on and wait before performing any additional tests of the Bluetooth kit. The menus, address book, contact lists etc. are easily accessed by turning on the Video 2 source on your Lockpick (select XM, press window lockout 1x, then mute 4x, followed by Seek ◀ on your radio). **All on-screen Caller ID and other incoming call info are automatically displayed when receiving a call without any button presses. Additionally, pressing the talk button for voice commands will automatically display on-screen text and prompts.** After the Tellphone has initialized, turn the car off and back on to begin the process of marrying the remote, setting the language, pairing the first phone, etc. To see the text for these menus, simply turn on the Source 2 video as described above, and follow the Bluetooth kit instructions. Your GMX-320 requires a only couple of seconds when the car is first turned on before it can access the video functions so allow a brief moment before you turn on the video source.

Thank you for your trust in Coastal Electronic Technologies, Inc.
www.coastalEtech.com

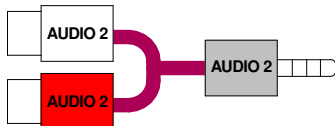
GMX-320 LOCKPICK INSTALLATION OPTIONS 3 VIDEOS SOURCES 3 AUDIO SOURCES

INCLUDED CONNECTION FOR
AFTERMARKET REAR VIEW CAMERA
VIDEO 3 INPUT



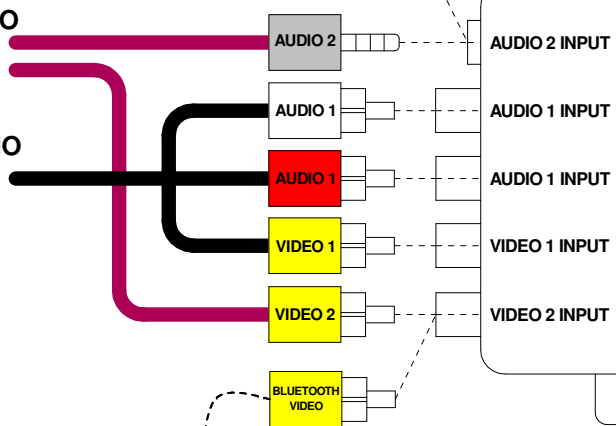
GMX-320 CONNECTORS
PLUG INTO RADIO

OR USE RCA TO 1/8"
ADAPTER FOR AUDIO 2

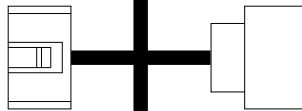


TO STEREO AUDIO
AND VIDEO
SOURCE #2

TO STEREO AUDIO
AND VIDEO
SOURCE #1



CONNECT TO AFTERMARKET REVERSE CAMERA POWER
OR SEE FACTORY CAMERA CONTROL OPTION IN MANUAL
(WIRING SUPPLIED WITH LOCKPICK KIT)



UNPLUG ORIGINAL CONNECTORS
THEN PLUG IN HERE

USE HANDSFREE KIT
MICROPHONE



ADD YOUR BLUETOOTH
HANDSFREE KIT
(CONNECTIONS BUILT
INTO GMX-320 HARNESS)

PROGRAMMING
DIP SWITCHES

GROUND

12V CONSTANT OUTPUT

12V ACC OUTPUT

BLUETOOTH MUTE

BLUETOOTH PHONE KIT
LINE LEVEL AUDIO + AND - INPUTS
SOURCE 3

* IF USING
TELLPHONE 5000vi (OR EQUIV)
BLUETOOTH VIDEO ADAPTER *