GMOS-LAN-012
GM LAN-29 data interface 2006-up

FEATURES

- Provides accessory power (12-volt 10-amp)
- Retains R.A.P. (retained accessory power)
- Can be used in non-amplified, or analog/digital amplified models
- Retains chimes
- Provides NAV outputs (parking brake, reverse, mute, and speed sense)
- Pre-wired ASWC-1 harness included (ASWC-1 sold separately)
- Retains OnStar/OE Bluetooth
- Adjustable volume for chimes and OnStar
- High level speaker input
- USB updatable
- Retains factory backup camera, satellite radio, and AUX-IN
- Satellite information will be displayed through the D.I.C.

APPLICATIONS
See inside front cover

INTERFACE COMPONENTS

• GMOS-LAN-012 interface • GMOS-LAN-012 harness • 16-pin harness with stripped leads • 4-pin to 4-pin resistor pad harness • Back-up camera harness • Antenna adapter

TOOLS REQUIRED

• Cutting tool • Crimping tool • Tape • Connectors (example: butt-connectors, bell caps, etc.)

CAUTION: Metra recommends disconnecting the negative battery terminal before beginning any installation. All accessories, switches, and especially air bag indicator lights must be plugged in before reconnecting the battery or cycling the ignition.

NOTE: Refer to the instructions included with the aftermarket radio.

Applications

BUICK

Enclave	2008-up
Lucerne	2006-2011

CADILLAC

DTS‡	2006-2011
Escalade‡	2007-2011
Escalade ESV‡	2007-2011
Escalade EXT‡	2007-2011
SRX‡	2007-2009

CHEVROLET

Avalanche* †	2007-2013
Captiva Sport	2012-2014
Equinox	2007-2009
Express*	2008-up
Impala Limited	2014
Impala	2006-2013
Monte Carlo	2006-2007
Silverado 2500/3500* †	2014
Silverado *(new body)** †	2007-2013

Suburban* †	2007-2014
Tahoe* †	2007-2014
Traverse	2009-up

GMC

Acadia	2007-up
Savanna*	2008-up
Sierra 2500/3500* †	2014
Sierra *(new body)** †	2007-2013
Yukon* †	2007-2014

HUMMER

H2‡	2008-2009

PONTIAC

Torrent	2007-2009

SATURN

Outlook	2007-2010
Vue	2008-2010

SUZUKI

XL-7	2007-2009

* *If the vehicle comes equipped with factory navigation in the 2012 and up models, you must use either the GMOS-LAN-08 for non-amplified models, or GMOS-LAN-07 for amplified models.*

† *These vehicles have a digital amp option. Please refer to the Service Parts Identification sticker located in the glove box. If the codes STZ, UQS, or Y91 are present, then you have a digital amplifier.*

‡ *These vehicle come standard with a digital amplifier.*

Connections to be made

From the 16-pin harness with stripped leads to the aftermarket radio:

- Connect the (2) **Red** wires to the accessory wire.

  Note: If installing the ASWC-1, there will be an accessory wire on the 12-pin harness to connect as well.

- Connect the **Orange/White** wire to the illumination wire. (If the aftermarket radio has no illumination wire, tape off the **Orange/White** wire).

- Connect the **Blue/White** wire to the amp turn on wire (this wire must be connected to hear sound from the factory amplifier).

- Connect the **Brown** wire to the mute wire of the aftermarket radio. If the radio has no mute wire, tape it off and disregard it.

- Connect the **White** wire to the left front positive speaker output.

- Connect the **White/Black** wire to the left front negative speaker output.

- Connect the **Gray** wire to the right front positive speaker output.

- Connect the **Gray/Black** wire to the right front negative speaker output.

Connect the following 4 wires ONLY if your vehicle comes equipped with a digital amplifier:

- Connect the **Green** wire to the left rear positive speaker output.

- Connect the **Green/Black** wire to the left rear negative speaker output.

- Connect the **Purple** wire to the right rear positive speaker output.

- Connect the **Purple/Black** wire to the right rear negative output.

The following 3 wires are for an aftermarket multimedia/navigation radio that provide these wires (if not required, tape them off and disregard them):

- Connect the **Light Green** wire to the parking brake wire, if applicable.

- Connect the **Blue/Pink** wire to the speed sense wire (V.S.S.), if applicable.

- Connect the **Green/Purple** wire to the reverse wire, if applicable.

From the GMOS-LAN-012 harness:

(a) 16-pin and 14-pin harness to the aftermarket radio:

- Connect the **Black** wire to the ground wire.

- Connect the **Yellow** wire to the battery wire.

- Connect the RCA jacks to the audio AUX-IN (if so equipped).

  Note: This will only be required if you care to retain the factory AUX-IN, or satellite radio.

Connections to be made

The following wiring is ONLY required if your vehicle DOES NOT come equipped with a digital amplifier:

For analog amplified models ONLY:

• Connect the **Green** wire to the left rear positive speaker output.

• Connect the **Green/Black** wire to the left rear negative speaker output.

• Connect the **Purple** wire to the right rear positive speaker output.

• Connect the **Purple/Black** wire to the right rear negative output.

• Disconnect the 4-pin harness located between the 14-pin and 22-pin harness, and then connect the supplied 4-pin to 4-pin resistor pad harness.

For non-amplified models ONLY:

• Cut the resistors off from the **Green**, **Green/Black**, **Purple**, and **Purple/Black** wires below the heat shrink.

• Connect the **Green** wire to the left rear positive speaker output.

• Connect the **Green/Black** wire to the left rear negative speaker output.

• Connect the **Purple** wire to the right rear positive speaker output.

• Connect the **Purple/Black** wire to the right rear negative output.

Note: The 4-pin to 4-pin resistor pad harness will not be used in this application.

(b) 22-pin harness to the aftermarket radio:

• The **Black/Yellow** wire is used for OnStar level adjustment for models that do not come equipped with steering wheel controls. *See OnStar Level Adjustment for further instructions.*

• The DIN plug is for use with the optional AX-LCD (sold separately). Refer to EXTRA FEATURES for more information.

(c) 12-pin harness to the aftermarket radio:

• This harness is to be used in conjunction with the optional ASWC-1 (not included) to retain steering wheel controls. If the ASWC-1 is not being used, disregard this harness. If it will be used, please refer to the ASWC-1 instructions for radio connections and programming.

Note: Disregard the harness that comes with the ASWC-1.

• Connect the **Red** wire to the accessory wire.

Note: The relay attached to the GMOS-LAN-012 harness is only for audible turn signal clicks. No extra steps are required to retain this feature, so leave the relay as-is.

From the back-up camera harness to the aftermarket radio:

• If the vehicle comes equipped with a factory back-up camera, connect the **Yellow** RCA jack to the aftermarket radios back-up camera video input.

• Activate the back-up camera video input on your radio if required.

Installing the GMOS-LAN-012

- Connect the 16-pin harness into the interface.

- Connect the 22-pin harness into the interface.

- With the key in the off position, connect the 16-pin and 14-pin harnesses into the vehicle.

- With all connections completed, reconnect the negative battery terminal.

  Note: If using the ASWC-1, connect it after you initialize and test the GMOS-LAN-012, with the key in the off position.

Initializing the GMOS-LAN-012

- Initialize the interface by turning the ignition on for 30 seconds, then turn the ignition back off, then back on again.

- Push the OnStar button; the radio should mute, and you should hear the OnStar voice. Push the OnStar cancel button; the radio should un-mute and play again.

  Note: The radio will turn off instead if the mute wire is not connected.

Adjusting the GMOS-LAN-012

Chime level adjustment:

- With the vehicle on, turn it off and leave the keys in ignition. Open the driver's door; chimes will be heard.

- Wait 10 seconds, and then with a small screwdriver, turn the potentiometer clockwise to raise the chime level; counterclockwise to lower the chime level.

- When the chime is at a desired level, remove the keys from the ignition. This will lock the chime volume at its current level.

Audio level adjustment:

- With the vehicle and radio turned on, turn the volume up 3/4 of the way.

- With a small screwdriver, adjust the potentiometer clockwise to raise the audio level; counterclockwise to lower the audio level.

- Once at a desired level, your audio level adjustment is complete.

OnStar level adjustment:

- Press the OnStar button to activate it.

- While OnStar is speaking, press the VOLUME UP or VOLUME DOWN buttons on the steering wheel to raise or lower the OnStar level.

- If the vehicle does not come equipped with steering wheel controls, find the **Black/Yellow** wire on the 22-pin harness.

- While OnStar is speaking, tap the **Black/Yellow** wire to ground. Once the OnStar level is set, it will stay at that level until the **Black/Yellow** wire is tapped to ground again.

Extra features

Factory satellite radio control, and AUX-IN:

- If your vehicle comes equipped with factory satellite radio, or an AUX-IN, the GMOS-LAN-012 can retain these features.

    Notes when retaining the AUX-IN:

    - The AUX-IN can only be used if it is a stand-alone AUX-IN.

    - If the vehicle comes equipped with an AUX-IN and a USB port, neither can be retained.

- Change the source of the radio to AUX-IN; the satellite radio will start playing.

- The driver's information center--located in the center of your instrument cluster--will now display your satellite radio information.

- To access advanced features of the satellite radio, press and hold the SOURCE button on the steering wheel for 3 seconds.

    Note: If you do not have steering wheel controls, you will have to use the AX-LCD screen for this feature.

- To exit, press and hold the SOURCE button on the steering wheel for 3 seconds.

- Listed below are the functions of the steering wheel control buttons while accessing the advanced features:
    - SEEK UP – Scrolls menu up.
    - SEEK DOWN – Scrolls menu down.
    - VOLUME UP- Enter

- Listed below are the advanced menu options:
    - Show Text - Exits menu.
    - Set Tuning Mode - Allows the user to select tuning by either a preset, or a channel.
    - Set Preset – Allows the user to program presets.
    - Set Display - Allows user to choose what satellite radio information is displayed.

        Note: If using the AX-LCD, SEEK UP controls the top line on the display; SEEK DOWN controls the bottom line.

    - Set Satellite Radio Text Mode - Allows user to set the display length of the satellite radio information. Options are On, Off, or 5 seconds (default is 5 seconds).

- To access AUX-IN, press and hold the SOURCE button on the steering wheel for 2 seconds. Do this again to get back to the satellite radio.