

## PAC LPHGM51

# PAC L.O.C. Pro Advanced Audio Integration T-Harness

## MODEL: LPHGM51 USER MANUAL

### 1. INTRODUCTION

---

The PAC L.O.C. Pro Advanced Audio Integration T-Harness (Model LPHGM51) is designed to simplify the integration of aftermarket audio equipment with your vehicle's factory radio system. This vehicle-specific T-harness provides all necessary high-level inputs and speaker outputs, allowing for the addition of aftermarket amplifiers or signal processors while retaining the original factory radio.

**Important Note:** This product is specifically designed for OEM non-amplified systems and **is not for use in vehicles with a factory amplifier.**

### 2. COMPATIBILITY

---

The LPHGM51 T-Harness is compatible with select 2018 to 2023 non-amplified GM vehicles. Please verify your vehicle's compatibility before installation.

#### Compatible Vehicles (All Trim Levels, Non-Amplified Systems):

- **Buick:** Envision 2017, LaCrosse 2016, Regal 2014-2015
- **Cadillac:** ATS 2015-2016, CTS 2014-2015, Escalade 2015, SRX 2015-2016, XT5 2017
- **Chevrolet:** Camaro 2016-2018 (with 8-in. screen IO5/IO6), Colorado 2015-2016, Cruze 2016-2017, Impala Non-Classic 2014-2016 (with 8-in. screen IO5/IO6), Impala 2017-2019 (with 8-in. screen IO5/IO6), Malibu Non-Classic 2016, Malibu 2017-2018, Silverado 2014-2017, Silverado 2018 (with 8-in. screen IO5/IO6), Silverado Classic 2019 (with 8-in. screen IO5/IO6), Silverado HD 2015-2019, Sonic 2017, Spark 2015 and 2018

### 3. SETUP AND INSTALLATION

---

#### 3.1 What's in the Box

- PAC L.O.C. Pro Advanced Audio Integration T-Harness (LPHGM51)
- User Manual

#### 3.2 Pre-Installation Considerations

- **Safety First:** Always disconnect the vehicle's negative battery terminal before beginning any electrical installation to prevent short circuits and damage.

- **Professional Installation Recommended:** If you are not familiar with car audio wiring and vehicle disassembly, professional installation is highly recommended.
- **Tools Required:** Basic tools such as wire strippers, crimpers, electrical tape, zip ties, and a panel removal tool may be necessary.
- **Factory Amplifier Check:** Confirm your vehicle does **not** have a factory-installed amplifier. This harness is incompatible with amplified systems.

### 3.3 Installation Steps

1. **Access the Factory Radio:** Carefully remove the necessary trim panels and components to gain access to the back of your vehicle's factory radio. Refer to your vehicle's service manual for specific instructions.
2. **Disconnect Factory Harness:** Locate and disconnect the main wiring harness from the back of the factory radio.
3. **Connect T-Harness:** Connect the male end of the LPHGM51 T-Harness to the factory radio. Then, connect the female end of the LPHGM51 T-Harness to the vehicle's factory wiring harness that was just disconnected.
4. **Wire Aftermarket Equipment:** The T-harness provides labeled wires for high-level audio outputs (e.g., front left speaker +, front left speaker -, etc.). Connect these wires to the corresponding inputs on your aftermarket amplifier or signal processor. Ensure all connections are secure and properly insulated.
5. **Secure Wiring:** Route and secure all wiring to prevent pinching, chafing, or interference. Use zip ties to keep cables tidy.
6. **Test System:** Before reassembling the dashboard, reconnect the vehicle's negative battery terminal and test the audio system to ensure proper functionality of both the factory radio and aftermarket components.
7. **Reassemble:** Once confirmed working, carefully reassemble all removed trim panels and components.



Figure 1: Overview of the PAC L.O.C. Pro Advanced Audio Integration T-Harness, showing the main connectors and individual speaker wire outputs.



Figure 2: A closer view of the PAC L.O.C. Pro T-Harness, illustrating the connection points for factory and aftermarket wiring.

## 4. OPERATING THE SYSTEM

---

Once the PAC L.O.C. Pro Advanced Audio Integration T-Harness is correctly installed, its operation is seamless and integrated with your vehicle's existing audio system. The harness functions as an intermediary, providing high-level audio signals from your factory radio to your aftermarket audio components without altering the factory radio's functionality.

- Your factory radio will operate as normal, controlling volume, source selection, and tone.
- The audio signals are passed through the T-harness to your aftermarket amplifier or signal processor, which then processes and amplifies the sound for your aftermarket speakers.
- Adjustments to sound quality (e.g., bass, treble, balance, fader) will primarily be managed through your factory radio, while specific amplifier settings (gain, crossover) will be managed on the aftermarket equipment.

## 5. MAINTENANCE

---

The PAC L.O.C. Pro Advanced Audio Integration T-Harness is designed for durable, long-term, and maintenance-free operation. No routine maintenance is required for the harness itself.

- **Connection Integrity:** Ensure all connections made during installation remain secure and free from moisture or physical damage. Loose connections can lead to intermittent audio or signal loss.
- **Wiring Inspection:** If you experience any audio issues, a visual inspection of the wiring for signs of wear, fraying, or damage is recommended.
- **Environmental Protection:** Keep the harness and connected components away from excessive heat, moisture, and corrosive substances.

## 6. TROUBLESHOOTING

---

If you encounter issues after installing the LPHGM51 T-Harness, refer to the following troubleshooting guide:

### 6.1 No Audio Output from Aftermarket System

- **Check Connections:** Verify that all connections between the T-harness, factory radio, vehicle harness, and aftermarket equipment are secure and correctly seated.
- **Aftermarket Equipment Power:** Ensure your aftermarket amplifier or signal processor is receiving power and is turned on. Check its power, ground, and remote turn-on connections.
- **Factory Amplifier:** Double-check that your vehicle does not have a factory amplifier. This harness is not compatible with amplified systems.
- **Source Selection:** Confirm the factory radio is set to an active audio source (e.g., radio, media player).

### 6.2 Distorted or Poor Audio Quality

- **Gain Settings:** Adjust the gain settings on your aftermarket amplifier. Incorrect gain settings can lead to distortion.
- **Wiring Integrity:** Inspect all audio signal wires for shorts, breaks, or poor insulation. Ensure they are not running too close to power wires, which can cause interference.

- **Grounding:** Verify that the ground connection for your aftermarket equipment is solid and free of corrosion.

### 6.3 Intermittent Audio

- **Loose Connections:** Re-check all harness and wiring connections for any looseness.
- **Damaged Wiring:** Inspect wiring for any signs of damage or intermittent contact.

## 7. SPECIFICATIONS

Attribute	Specification
Brand	PAC
Model	LPHGM51
Material	Locpro
Item Dimensions (L x W x H)	8 x 8 x 1 inches
Item Weight	4.9 ounces (0.14 Kilograms)
Connector Type	GM-specific Connector
Wire Diameter	1.02 Millimeters
UPC	609098900485
Compatibility	Select 2018-2023 Non-Amplified GM Vehicles

## 8. WARRANTY INFORMATION

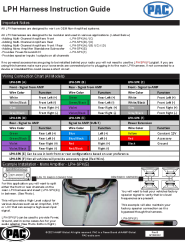
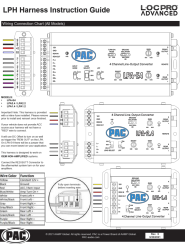
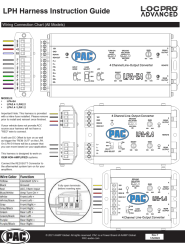
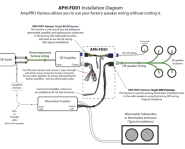
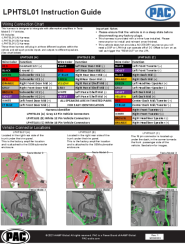
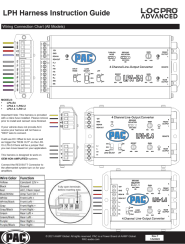
Specific warranty details for the PAC L.O.C. Pro Advanced Audio Integration T-Harness (LPHGM51) are not provided in this manual. For comprehensive warranty information, including terms, conditions, and duration, please refer to the official PAC Audio website or the product packaging.

## 9. CUSTOMER SUPPORT

For technical assistance, installation questions, or any other inquiries regarding your PAC L.O.C. Pro Advanced Audio Integration T-Harness, please contact PAC Audio customer support directly. You can typically find contact information and support resources on the official PAC Audio website.

**Website:** <https://pac-audio.com/> (Please check for the most current URL)

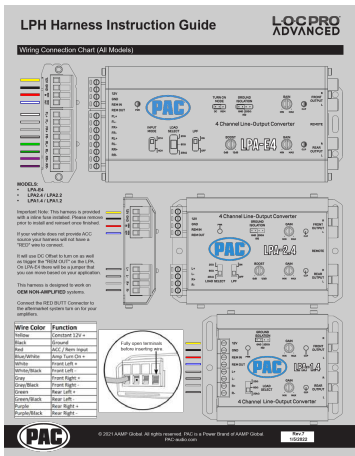
### Related Documents - LPHGM51

	<p><a href="#">PAC LPH Harness Instruction Guide</a></p> <p>Comprehensive guide to PAC LPH and APH harnesses for integrating aftermarket amplifiers and audio processors into factory car audio systems, detailing wiring connections, applications, and vehicle compatibility for various automotive brands.</p>
	<p><a href="#">PAC LPH Harness Instruction Guide for Line-Output Converters</a></p> <p>Instruction guide for the PAC LPH Harness, detailing wiring connections, installation examples, and compatibility for LPA-E4, LPA2.4, LPA2.2, LPA1.4, and LPA1.2 line-output converters with OEM non-amplified systems.</p>
	<p><a href="#">PAC LPH Harness Instruction Guide: Amplifier Installation &amp; Wiring</a></p> <p>This instruction guide provides detailed wiring information and installation examples for the PAC LPH Harness, a LOC PRO™ ADVANCED line-output converter. It covers models LPA-E4, LPA2.4, LPA2.2, LPA1.4, and LPA1.2, and is designed for installing aftermarket amplifiers in vehicles with OEM non-amplified audio systems, utilizing DC offset for remote turn-on.</p>
	<p><a href="#">APH-FD01 AmpPRO Harness Installation Guide - PAC</a></p> <p>Detailed installation diagram and guide for the PAC APH-FD01 AmpPRO Harness, enabling the use of factory speaker wiring for aftermarket audio system integration in select vehicles.</p>
	<p><a href="#">PAC LPHTSL01 T-Harness Installation Guide for Tesla Model 3/Y</a></p> <p>Detailed instruction guide for installing the PAC LPHTSL01 T-Harness in Tesla Model 3 and Model Y vehicles, covering wiring connections, harness identifiers, and connector locations.</p>
	<p><a href="#">PAC LPH Harness Instruction Guide for LOC PRO™ Advanced Line-Output Converters</a></p> <p>Detailed instruction guide for the PAC LPH Harness and LOC PRO™ Advanced line-output converters (LPA-E4, LPA2.4, LPA2.2, LPA1.4, LPA1.2). Covers wiring connections, model features, and installation examples for non-amplified OEM car audio systems.</p>

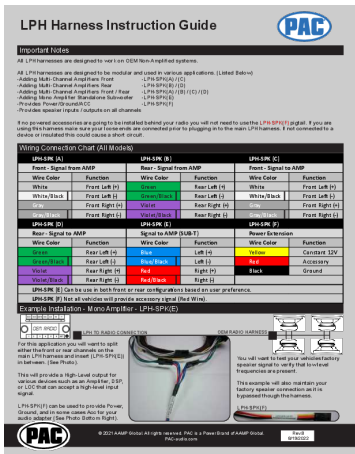
[illegible]



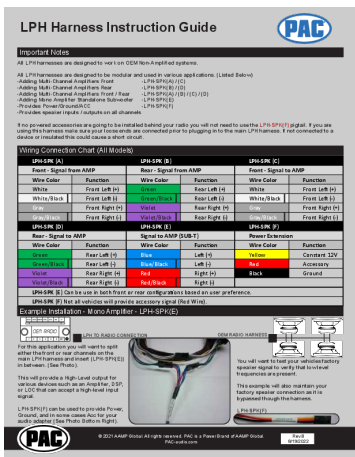




[pdf] User Manual Owner's Manual Installation Guide Guide Accessories Label  
541LPHGM51 PAC LPHGM51 LocPro T Harness 2014 19 GM IO3 IO4 IO5 IO6 CRUTCHFIELD COM  
HNEWBERRY Advanced owner s manual harness for adding an aftermarket amplifier to a select 20  
Chevy or Subaru vehicle without factory amp at Crutchfield crutchfieldonline ImageBank  
v20230331095800 Manuals 541 |||  
LPH Harness Instruction Guide Wiring Connection Chart All Models MODELS: LPA-  
E4 LPA2.4 / LPA2.2 LPA1.4 / LPA1.2 Important Note: This harness is provided with a  
inline fuse installed. Please remove prior to install and reinsert once finished. If your  
vehicle does not provide ACC source your har...  
lang:en score:24 filesize: 1.7 M page\_count: 8 document date: 2023-03-31

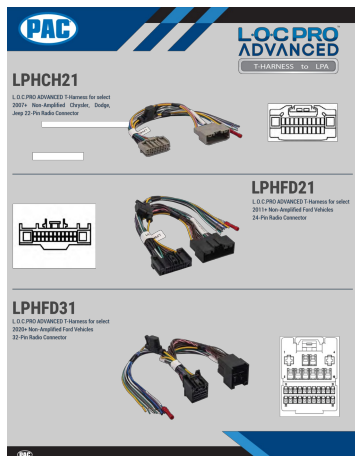


PAC LPH Harness Instruction Guide  
Instruction guide for PAC LPH harnesses, detailing their use in OEM non-amplified  
systems for adding multi-channel amplifiers, mono amplifiers, and providing  
power/ground/ACC connections. Includes wiring charts and installation examples.  
lang:en score:24 filesize: 1.42 M page\_count: 2 document date: 2023-09-19



[pdf] User Manual Owner's Manual Guide Accessories  
541LPHGM51 PAC LPHGM51 LocPro T Harness 2014 19 GM IO3 IO4 IO5 IO6 CRUTCHFIELD COM  
HNEWBERRY Advanced owner s manual harness for adding an aftermarket amplifier to a select 20  
Chevy or Subaru vehicle without factory amp at Crutchfield crutchfieldonline ImageBank  
v20231002101100 Manuals 541 |||  
LPH Harness Instruction Guide Important Notes All LPH harnesses are designed to  
work on OEM Non-Amplified systems. All LPH harnesses are designed to be modular  
and used in various applications. Listed Below -Adding Multi-Channel Amplifi...  
lang:en score:24 filesize: 1.42 M page\_count: 2 document date: 2023-10-02





Instruction guide for PAC LPH harnesses, detailing their use in adding multi-channel amplifiers, mono amplifiers, and providing power/ground/ACC connections for OEM non-amplified car audio systems.

[\[pdf\]](#) Datasheet Borchure

2022 LPH sales one sheet 030722 PAC LocPRO Advanced T Harness for Select Buick Cadillac  
Chevrolet and GMC Vehicles Product Datasheet Brochure LPHGM51 0609098900485 Multi One Sheet  
files bbystatic 63GnddjXp7MGq3fluHmnKQ |||  
LPHCH21 L.O.C.PRO ADVANCED T-Harness for select 2007 Non-Amplified  
Chrysler, Dodge, Jeep 22-Pin Rad ... VANCED T-Harness for select 2011 Non-  
Amplified Ford Vehicles 24-Pin Radio Connector Lorem ipsum **LPHGM51** L.O.C.PRO  
ADVANCED T-Harness for select 2014 Non-Amplified GM Vehicles  
IOB/IO5/IO6/Non-BOSE...

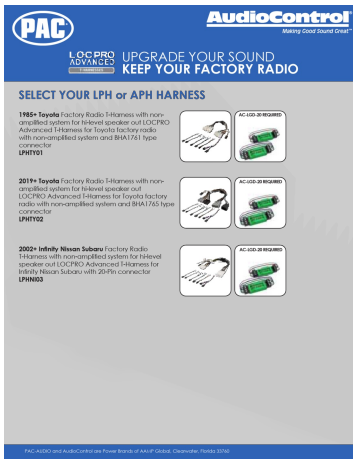
lang:en score:22 filesize: 315.89 K page count: 2 document date: 2022-07-05



index controller attachment id 2099 catalog pac audio |||

UPGRADE YOUR SOUND KEEP YOUR FACTORY RADIO SELECT YOUR LPH or  
APH HARNESS 1985 Toyota Factory Radi ... out LOCPRO Advanced T-Harness for  
GM IOB/IO5/IO6 nonBOSE Infotainment System with 32-Pin connector **LPHGM51**  
2016 GM Factory Radio T-Harness with nonamplified system for hi-level speaker out  
LOCPRO Ad...

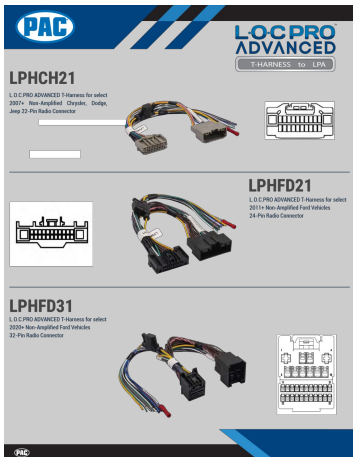
lang:en score:20 filesize: 5.11 M page count: 7 document date: 2023-01-17



## [PAC & AudioControl LOC PRO & APH Harnesses: Vehicle Compatibility Guide](#)

Find the correct PAC LOC PRO Advanced T-Harness or AudioControl APH Harness for your vehicle. This guide details compatibility for Toyota, Ford, GM, Chrysler, Honda, Nissan, Subaru, and more, helping you upgrade your car audio system while keeping your factory radio.

lang:en score:15 filesize: 5.32 M page\_count: 7 document date: 2023-05-04

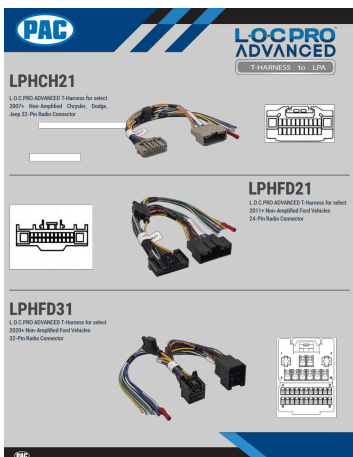


## [\[pdf\] Datasheet Borchure](#)

2022 LPH sales one sheet 030722 PAC LocPRO Advanced T Harness for Select Ford Vehicles Product Datasheet Brochure LPHFD21 0609098900461 Multi One Sheet files bbystatic OkSSnWZcaqQ2m2 B639epg |||

LPHCH21 L.O.C.PRO ADVANCED T-Harness for select 2007 Non-Amplified Chrysler, Dodge, Jeep 22-Pin Rad ... VANCED T-Harness for select 2011 Non-Amplified Ford Vehicles 24-Pin Radio Connector Lorem ipsum **LPHGM51** L.O.C.PRO ADVANCED T-Harness for select 2014 Non-Amplified GM Vehicles IOB/IO5/IO6/Non-BOSE...

lang:en score:15 filesize: 315.89 K page\_count: 2 document date: 2022-07-05

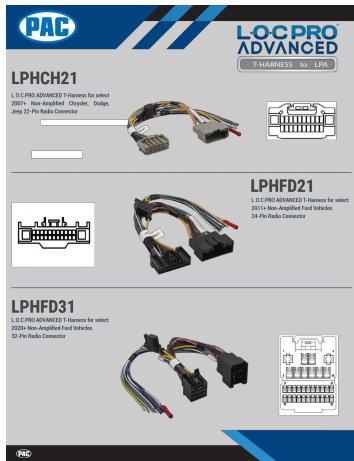


## [\[pdf\] Datasheet Borchure](#)

2022 LPH sales one sheet 030722 PAC LocPRO Advanced T Harness for Select Ford Vehicles Product Datasheet Brochure LPHFD31 0609098900478 Multi One Sheet files bbystatic eFE5Qy8nMuoPhux9h7O Yg |||

LPHCH21 L.O.C.PRO ADVANCED T-Harness for select 2007 Non-Amplified Chrysler, Dodge, Jeep 22-Pin Rad ... VANCED T-Harness for select 2011 Non-Amplified Ford Vehicles 24-Pin Radio Connector Lorem ipsum **LPHGM51** L.O.C.PRO ADVANCED T-Harness for select 2014 Non-Amplified GM Vehicles IOB/IO5/IO6/Non-BOSE...

lang:en score:15 filesize: 315.89 K page\_count: 2 document date: 2022-07-05

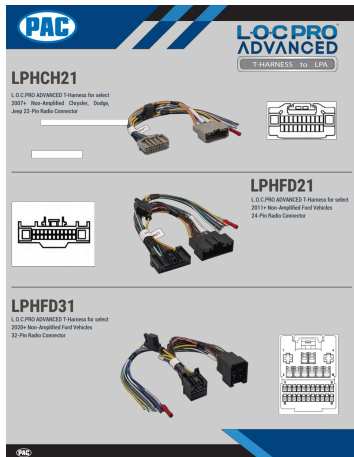


[\[pdf\]](#) Datasheet Borchure

2022 LPH sales one sheet 030722 PAC LocPRO Advanced T Harness for Select Chrysler Dodge Jeep and RAM Vehicles Product Datasheet Brochure LPHCH21 0609098900454 Multi One Sheet files bbystatic 5lDqJ4x6LrmGnYmzYhZ6gw |||

LPHCH21 L.O.C.PRO ADVANCED T-Harness for select 2007 Non-Amplified Chrysler, Dodge, Jeep 22-Pin Rad ... VANCED T-Harness for select 2011 Non-Amplified Ford Vehicles 24-Pin Radio Connector Lorem ipsum **LPHGM51** L.O.C.PRO ADVANCED T-Harness for select 2014 Non-Amplified GM Vehicles IOB/IO5/IO6/Non-BOSE...

lang:en score:15 filesize: 453.28 K page\_count: 2 document date: 2022-07-05



[\[pdf\]](#) Datasheet Borchure

2022 LPH sales one sheet 030722 PAC LocPRO Advanced T Harness for Select Chevrolet Infiniti Nissan and Subaru Vehicles Product Datasheet Brochure LPHNI03 0609098900508 Multi One Sheet files bbystatic zFqY WGsjoqrCsU eRRWA |||

LPHCH21 L.O.C.PRO ADVANCED T-Harness for select 2007 Non-Amplified Chrysler, Dodge, Jeep 22-Pin Rad ... VANCED T-Harness for select 2011 Non-Amplified Ford Vehicles 24-Pin Radio Connector Lorem ipsum **LPHGM51** L.O.C.PRO ADVANCED T-Harness for select 2014 Non-Amplified GM Vehicles IOB/IO5/IO6/Non-BOSE...

lang:en score:15 filesize: 315.89 K page\_count: 2 document date: 2022-07-05



[\[pdf\]](#) Installation Guide Catalog

Product CatalogsCatalog PACcdn shopify s files 1 0601 5965 6104 Catalog PAC v 1676015097 ||| VEHICLE TECHNOLOGY INTEGRATION 2022-2023 PAC-AUDIO.COM 1 VEHICLE TECHNOLOGY INTEGRATION PAC is a P ... s 4-channel speaker level connection Provides constant power, accessory power, and ground wires GM **LPHGM51** L.O.C.PRO ADVANCED T-Harness for select 2014 Non-amplified GM Vehicles IOB/IO5/IO6/Non-BOSE...

lang:en score:12 filesize: 8.79 M page\_count: 61 document date: 2022-10-06