



Insane Audio

TJ4001

Installation Manual

Safety Precautions

Before you use this product, be sure to carefully read this Installation Manual and the separate User's Guide to ensure product is installed and used properly. Insane Audio is not responsible for any problems that arise as a result of failure to follow the instructions provided.

This manual includes a number of symbols that are intended to help you use the product safely, to prevent harm to you, others and protect against any property damage. These symbols and their meanings are listed below. Make sure you fully understand these symbols before you begin the installation.

Disconnect the negative battery terminal before beginning installation.

Explanations of Injury and Damage That May Result from Incorrect Use



WARNING

Ignoring the content marked by this indication and using the product incorrectly is expected to lead to death or serious injury.



CAUTION

Ignoring the content marked by this indication and using the product incorrectly is expected to lead to death or serious injury.

Warnings

Do not unassemble or modify the product. Doing so could lead to an accident, fire or electrical shock.

Store screws and other small objects where children cannot reach them. If a small object is swallowed, consult with a doctor immediately.

When replacing fuses be sure to use the fuses with the specified current rating. Failing to do so could lead to an accident or fire. Only connect the product to a 12V DC negative ground car. Failing to do so could lead to an accident or fire.

Since this vehicle has two batteries, disconnecting the battery is not a good option. Take caution when testing circuits. Failing to do so could lead to electric shock or injury.

Do not cut the insulation on a cord and take power from another device. Doing so could lead to fire or electric shock.

Do not install the product in a location where it will obstruct the driver's forward view; interfere with the operation of the steering wheel, gear shift, or the like; or pose a threat to passengers. Doing so could lead to an accident or injury.

When making a hole in the vehicle body, be careful to avoid damaging pipes, the fuel tank, electrical wiring, and the like. This kind of damage could lead to an accident or fire.

When installing and grounding the product, do not use any of the bolts or nuts of the steering wheel, brakes, fuel tank, or the like. Doing so could make the brakes stop working or could lead to fire.

Warnings

Do not install the product near the passenger-side airbag. Doing so could interfere with the operation of the airbag and lead to an accident or injury.

Bundle cords so that they don't interfere with driving. Wrapping cords around the steering wheel, gearshift, brake pedal, or the like could lead to an accident or damage equipment.

Caution

Connect the product properly according to the instructions. Failing to do so could lead to fire or an accident.

Do not sandwich cords between the seat railing or allow them to touch protrusions. Resulting breaks or shorts could lead to electric shock or fire.

Do not block vents or heat sinks. Doing so could lead to fire or damage equipment.

Use the accessories according to the instructions, and attach them securely. Failing to do so could lead to an accident or damage equipment.

Do not install the product where it may be exposed to water or in a place with high levels of humidity or dust. Doing so could lead to fire or damage equipment.

Introduction

Congratulations on purchasing the TJ4001. This manual is intended to give instructions for installation.

PLEASE USE YOUR NEW TJ4001 RESPONSIBLY. Never attempt to operate the unit or view videos while driving. While driving, always keep both hands on the wheel and your eyes on the road.

Should you run into problems or need any additional assistance, feel free to e-mail us at support@insaneaudio.com or scan the QR code below.

Once you get your TJ4001 installed, a helpful document is our Quick Start Guide which will walk you through the user interface.

Enjoy your new TJ4001 and we'll see ya' on the trail!



SCAN ME

Parts List



A Main Wiring Harness (Two for multiple vehicle type)

B Audio RCA Wire Harness

C External Microphone

D RockCam Camera Harness

E GPS Antenna

F USB Wire Harness

G USB Wire Harness

H USB Wire Harness

I OBDII Adapter

J IA CarPlay/Android Auto Wire Harness

K WiFi and Bluetooth Antenna

Opening the Dashboard

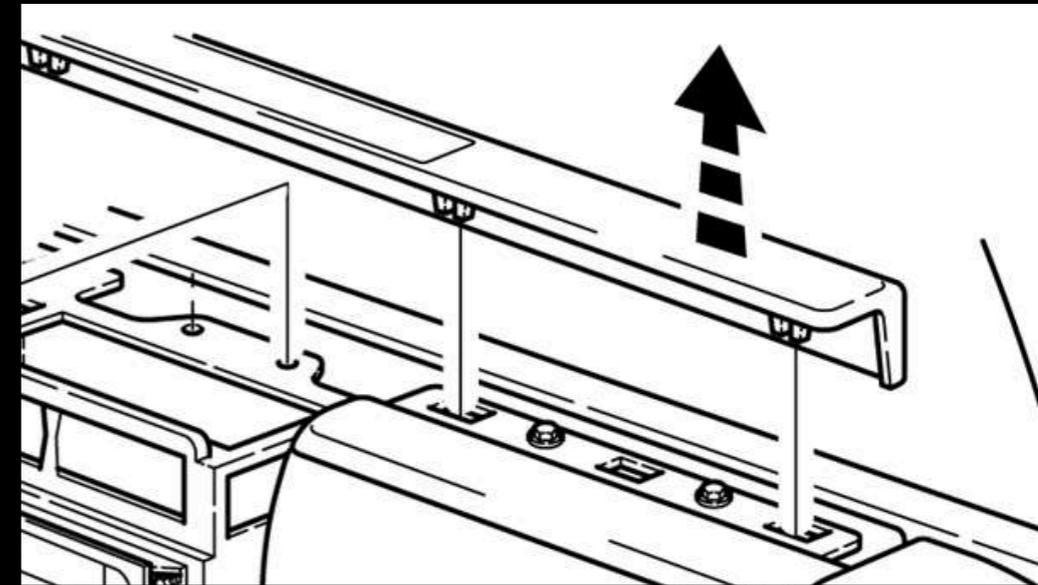
1



WARNING

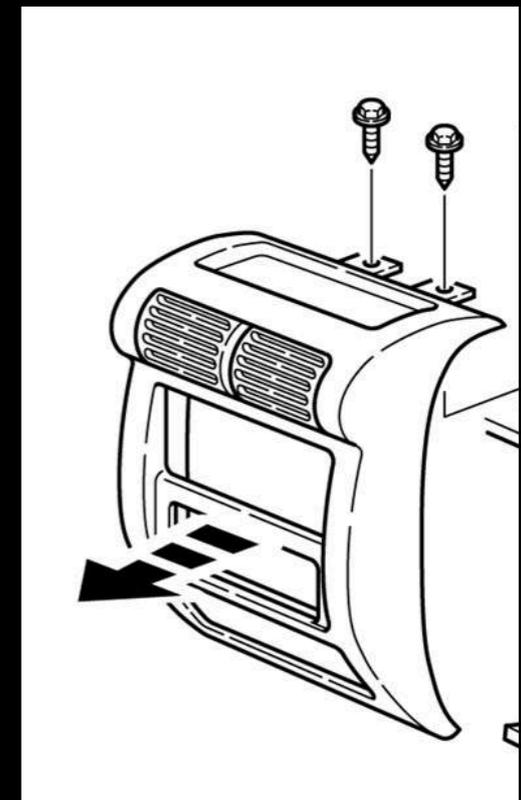
Note: Disconnect the negative battery terminal before beginning this installation.

First, pop off the top Dash Panel.



2

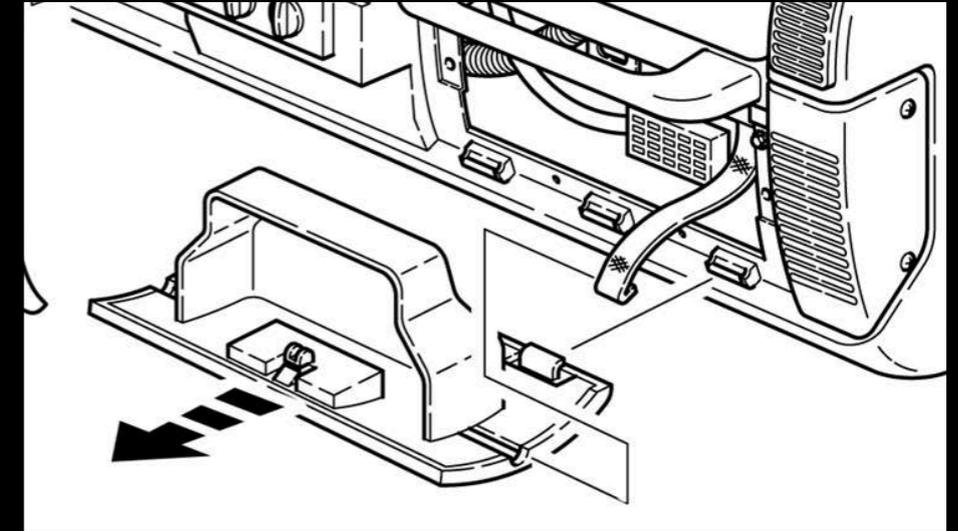
After removing the two screws securing the Center Panel, you can pop it off as well.



Opening the Dashboard

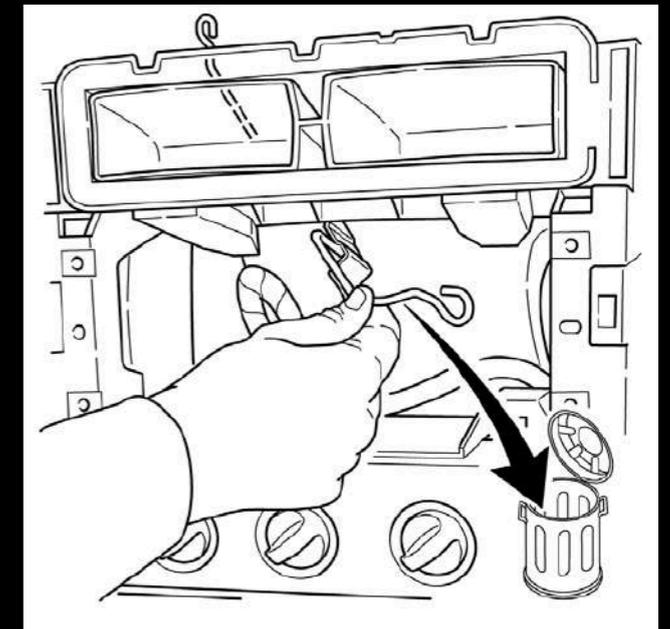
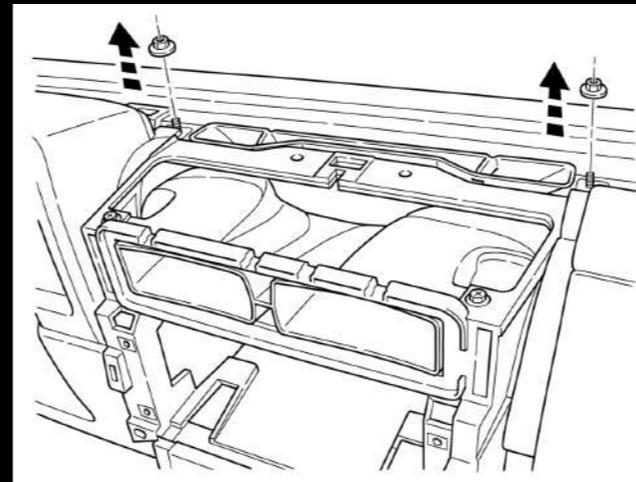
3

The Glove Box can be easily removed by just taking off the strap on the right.



4

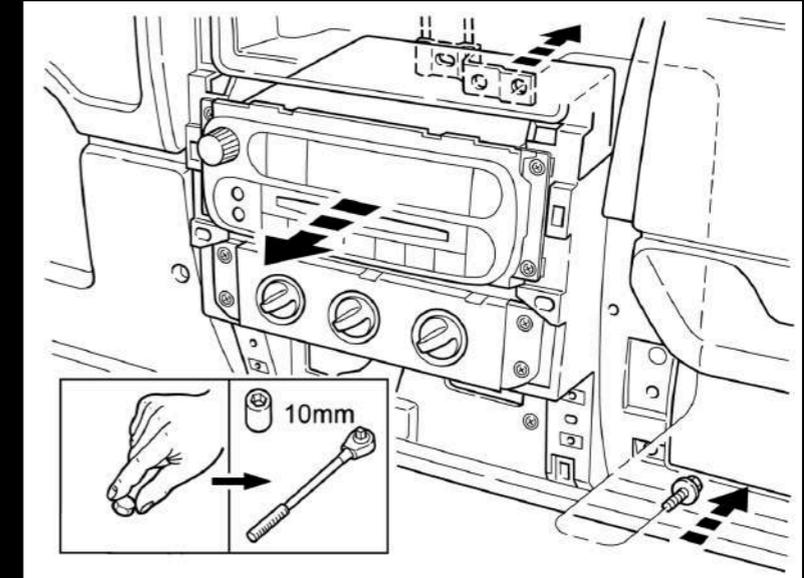
If you still have a stock radio in your TJ, you are going to need to disconnect the security bracket at the rear of the unit. The security bracket is no longer needed.



Opening the Dashboard

5

Once the security bracket is disconnected, you can remove the four screws on the faceplate of the old stereo and the whole thing will slide out. Disconnect the Radio Antenna and the old Wiring harness from the OEM Factory Harness.



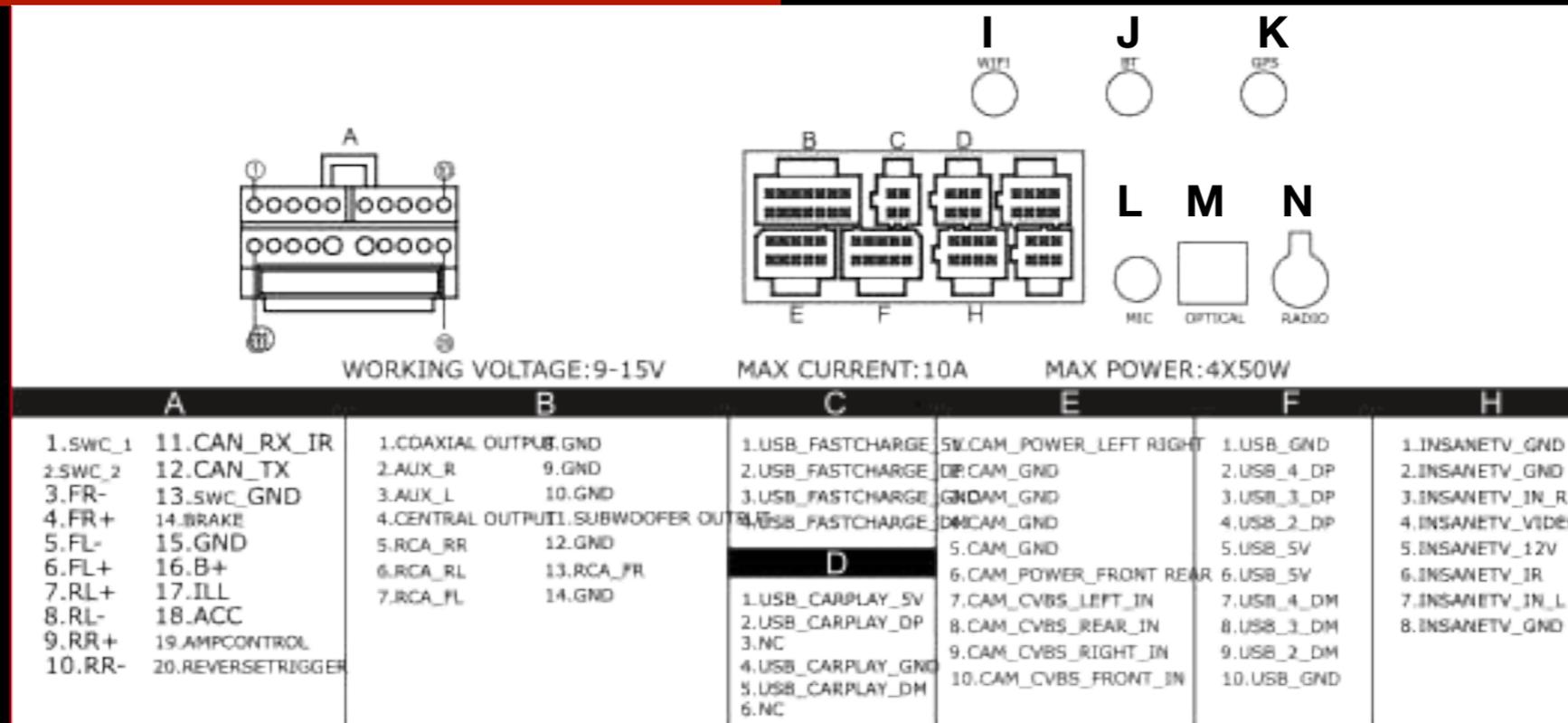
6

The Factory AM/FM Antenna adapter is a connector that can easily be removed by pressing the little lever down. This plugs right into the back of the TJ4001.



AM/FM Connector

TJ4001 Wire Diagram



- (A) Connect the main power wire harness
- (B) Connect Audio RCA wire harness for aftermarket amps and speakers only, not needed for OEM sound system
- (C) Connect USB Fast Charge harness
- (D) Connect IA CarPlay/Android Auto wire harness
- (E) Connect RockCam wire harness for camera connections
- (F) Connect USB wire harness
- (H) Connect Insane TV wire harness (Insane TV module needed)
- (I) Connect WiFi antenna
- (J) Connect Bluetooth antenna
- (K) Connect GPS antenna
- (L) Connect External Microphone
- (M) Connect Digital Optical Output (Optional)
- (N) Connect AM/FM Radio antenna

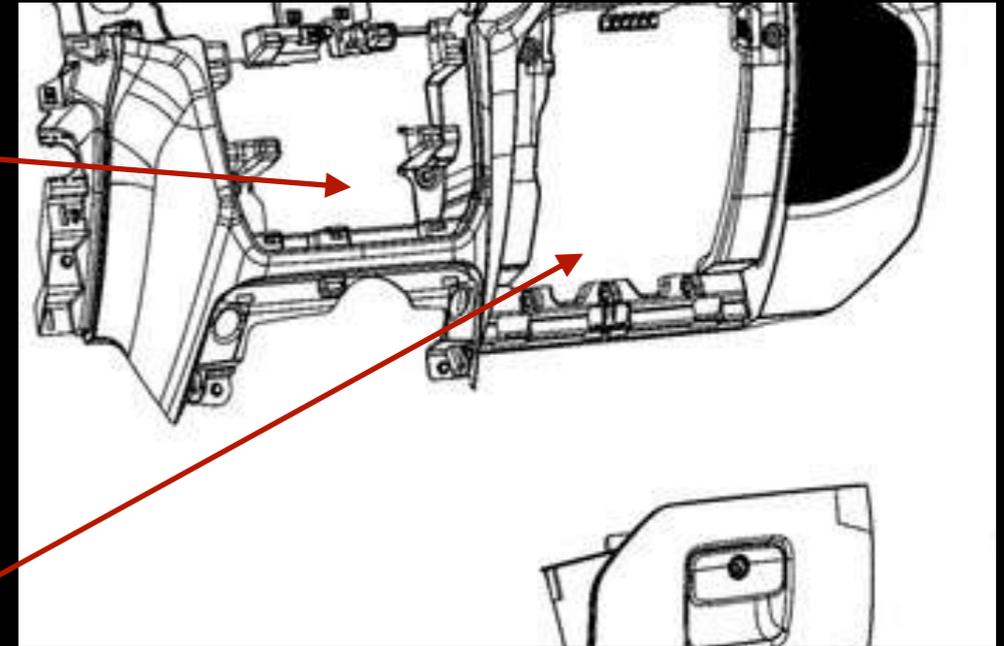


Installing the TJ4001

USB Wiring Harnesses

Open the Glove Box and route all USB wires from the back of the unit to the hole on the side of the Glove Box. The Glove Box does not need to be uninstalled.

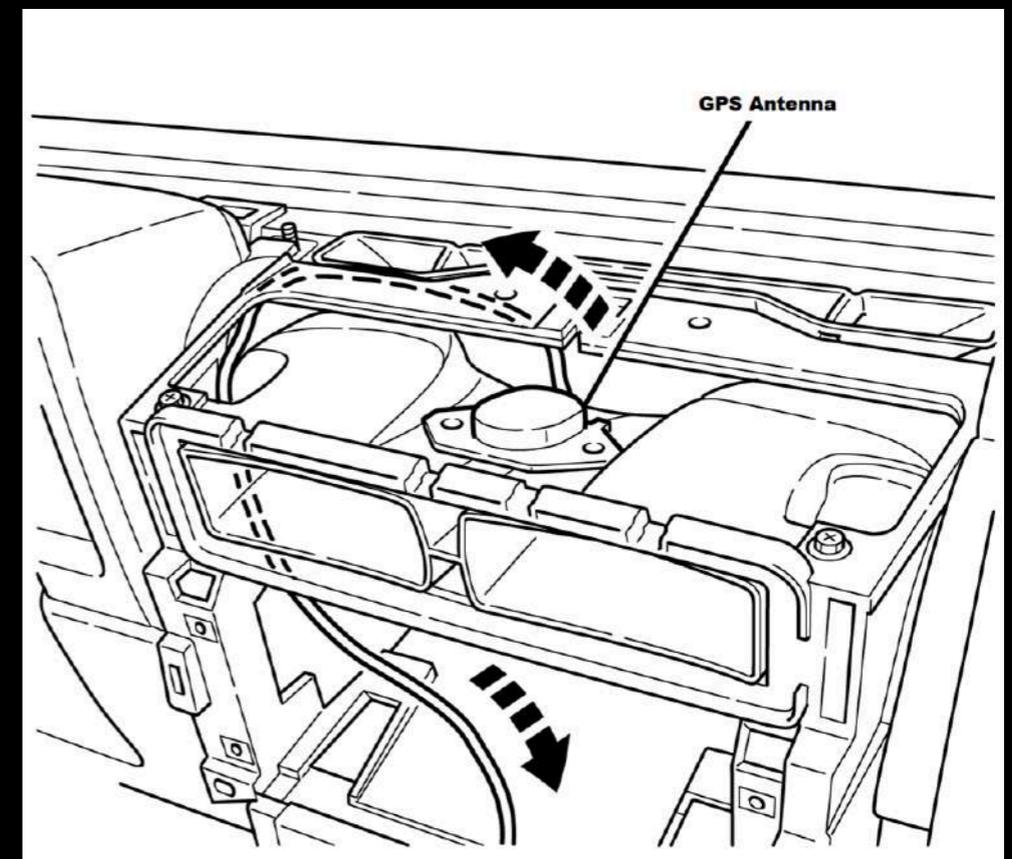
Route USB wires from back of unit to the hole on the side of the Glove Box.



Route USB wires out of the Glove Box.

GPS Antenna

The GPS Antenna has an adhesive mount and is best placed above the vents in the Center Console.



Installing the TJ4001

External Microphone

The TJ4001 comes with a built-in Bluetooth microphone, but we also include a high quality external microphone. This external microphone will work at just about any location, but we do have some recommendations for placement. Try to keep this microphone away from any windows, air vents, or speakers to avoid background sounds or feedback. The external mic will plug into the back of the head unit via a 3.5mm headphone jack plug.



Cameras

The TJ4001 is can support up to 4 cameras. The camera inputs are located on the RockCam Video RCA Pigtail.



Installing the TJ4001

Cameras

Connect your camera(s) to the RockCam video RCA pigtail. We support up to 4 cameras. The pigtail offers two wires labeled “RockCam Power” and “RockCam GND” that automatically provide +12V whenever you reverse the vehicle or open the RockCam app. We recommend you use these wires to power your cameras.

Note: Before making any connections, unplug the pigtail from the Head Unit and make sure that everything is powered off.

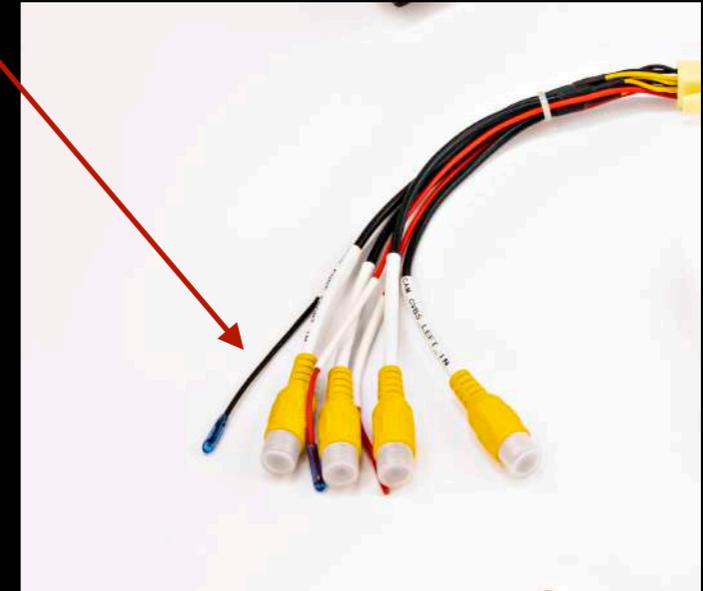


WARNING

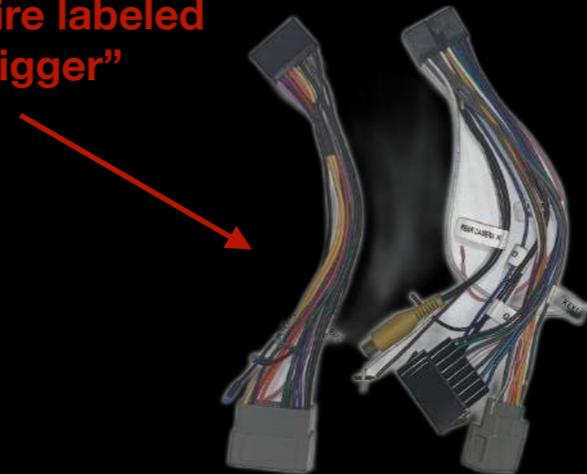
Note: If you have a manual transmission in your Jeep and your camera is not activating when in reverse, you may have to perform an additional step.

To connect a rearview camera, connect the camera to the rear input located on the RockCam RCA Video Pigtail and connect the trigger wire to the +12 power located on the RockCam Video Pigtail. The trigger wire is an orange wire located on the Main Power Wiring Harness. You will need to locate a wire behind the dash that is “Hot” only when in reverse. Use that wire to power the camera and the triggers wire.

RockCam Power and GND wires



ORANGE wire labeled “Reverse Trigger”



Installing the TJ4001

Cameras

Check the camera installation by opening the RockCam app.



Tips

If you see a “No signal” warning, ensure that the front video feed is connected to “RockCam Video In” RCA port and the power wires are properly connected.

With the RockCam app, you can even view any camera installed. Tap on the lower camera pallet at the bottom of the screen to switch between front, rear and side views whenever you’re parked or in motion.



Operational Tips

Insane Navigation System

Insane NavEngine can be accessed both via the icon or by pressing the navigation button on the face of your TJ4001. The GPS card is located behind the cover labeled “GPS/SD Card”. The GPS card needs to be inserted while using the Insane Navigation System. This will get you where you’re going both on and off the road.

MicroSd Card

The TJ4001 comes with an additional microSD card slot located behind the cover labeled “GPS/SD Card”. Load up a microSD card with movies or music and access the content via the VIDEO or MUSIC applications. All MicroSd Cards above 32GB should be formatted to NTFS; below 32 GB should be formatted to FAT32.

OBDII Adapter

The TJ4001 comes with an OBDII Bluetooth adapter and the Torque application already installed. Please refer to the Quick Start Guide for instructions on how to set this up for the first time.



Troubleshooting

GENERAL

Head unit not powering ON, no lights, no screen.

Check and reseal your Main Wiring Harness. Remove the black Wiring Harness plug from the rear of the Head Unit and confirm that none of the pins are bent, pushed in, or otherwise damaged. Check that there are no loose or disconnected wires. Reconnect it, ensuring the plug is inserted evenly and firmly into the back of the Head Unit. Perform the same check on the grey OEM Harness plug. Unplug it, and check for bent or damaged pins or loose wires, and reconnect evenly and firmly.

It's important to note that when working with wiring harnesses, you should never pull on the wires themselves. Every harness has a clip that needs to be depressed and you should only push/pull on the plastic harness itself.

Rebooting the head unit.

To do a System Reset, open the GPS/SD card cover, the Reset button is located in the top left corner above the GPS card slot. There is a small hole with a button inside it. Use a pen or paperclip to press the button until it clicks, and then release it. This will power down the Head Unit and complete a full reboot without having to disconnect the battery. Be sure not to confuse the Reset button with the internal microphone, which is labeled "MIC" located on the front of the Head Unit.

BLUETOOTH

Device is not pairing.

Make sure Bluetooth is turned ON: Apps > Settings > Bluetooth > ON. Make sure that you are connecting from your phone to the Head Unit (not the other way around). Open the Bluetooth application (BT) and delete all Bluetooth pairings you have currently and re-pair your device to the Head Unit.

AM/FM Radio

Poor AM/FM Reception

Make sure OEM AM/FM Antenna (white) is firmly connected to the AM/FM connector located on the back of the Head Unit. Please be sure not to confuse OEM AM/FM Antenna (white) with satellite radio antenna or any other wires. Some vehicles manufactures may use extension cables or couplers to extend the factory antenna inside of the dashboard, please be sure to check all connections from the Head Unit to the factory antenna.

Apple CarPlay

Apple CarPlay will not Start/Launch

Ensure a certified Apple cable is being used. Make sure Apple CarPlay is enabled on the phone. Ensure the phone is plugged into IA CarPlay USB wire. Check IA CarPlay USB wire connection located in the back of the Head Unit.

Troubleshooting

Android Auto

Android Auto will not launch/start.

Ensure a certified Android cable is being used. Make sure Android Auto application has been downloaded and installed on the phone. Ensure the phone is plugged into IA CarPlay USB wire. Check IA CarPlay USB wire connection located in the back of the Head Unit.

Cameras

No signal.

Make sure the camera RCA is plugged into the correct input labeled "Backup Cam" on the RockCam video RCA pigtail. Ensure the camera is connected to the "RockCam Power and GND" wires. Confirm that the reverse trigger wire is connected to a source that is receiving 12V when the vehicle is in reverse (Backup cameras only).

Resources

Insane Audio offers free lifetime support. If you have any questions and/or concerns regarding your head unit, feel free to reach out to us at support@insaneaudio.com.

We recommend you review the 4000 Series Quick Start Guide and tutorial videos, which can be found on the Support section of our website.

Note: Please register your head unit on the Support section of our website to receive warranty benefits.



SCAN ME