



# INSTALLATION INSTRUCTIONS

Product: J-CAL  
Part Number: 3575



Applications: Wrangler 2007-2015

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CONGRATULATIONS on purchasing a J-Cal from JKS Manufacturing. We are committed to providing you with the best products available and your satisfaction is our first priority.

PLEASE READ these Installation Instructions carefully, and save them for future reference, as they contain important installation and maintenance information.

## Parts

### Important

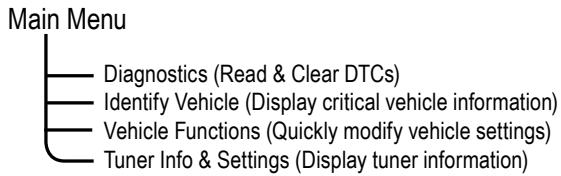
- Do not stack JKS J-CAL tuning with another tuning product. Doing so may result in damage to your vehicle or unpredictable powertrain results.
- Only adjust or remove the tire pressure monitoring system during off-road use.
- Misuse of this product could lead to injury or death. Obey all traffic laws. Read and comply with all instructions in the included User Guide.
- Obey all traffic and other laws.
- Do not exceed proper operating conditions.
- Install and use the JKS J-CAL product in compliance with its instruction manual.



	Description	QTY
<b>A</b>	J-Cal device	1
<b>B</b>	OBD-II cable	1
<b>C</b>	USB cable	1

## Navigating the Menus

Familiarize yourself with the menu structure below:



Use the key pad buttons to navigate the menus:



*The up/down buttons are used to scroll to each menu option, while the left/right buttons are used to move between menus. The OK button is used to select items within the menu options.*

## Update Your Device

**NOTE:** You will need to be connected to the internet and running Windows XP or later.

- 1. DOWNLOAD THE SPARK UPDATE SOFTWARE**
  - Go to [www.superchips.com](http://www.superchips.com) and click on the UPDATES tab towards the top of the page.
  - Navigate to the update software spark for the Flashcal product.
  - Click the download button.
  - Click the Run button on the pop-up menu.
  - Read and Accept the License Agreement terms. Click the Install Button, then the Finish button once the download is complete.
  - NOTE: The first time using Spark, you will be required to fill out a registration form.
- 2. UPDATING YOUR PROGRAMMER**
  - Double click the Spark Icon located on your computer's desktop. You will be asked to "Connect Device".

## Update Your Device (cont.)

- Connect your device to the computer using the supplied USB cable. Spark will automatically search for updates related to your device. If an update is found and available, click the Update button to proceed. **CAUTION: Do not unplug the device while it is being updated.**
- Once the update is complete, you will be informed that it is safe to disconnect your device.

**NOTE:** At the end of the update, you will be directed to the online store and given the option to upgrade your device from a J-CAL (Flashcal) to a Flashpaq. After purchasing and downloading this option, you will have the ability to use your device as a Flashpaq product. This allows you to program your vehicle with the latest tunes available from Superchips. For more information go to [www.superchips.com](http://www.superchips.com)

## Installation

- 1. PLUG YOUR DEVICE INTO THE VEHICLE'S OBD-II PORT**



**Note:** Do not remove the programming cable during any programming sequence. If you do, the vehicle may not start. A JKS J-CAL programmer is designed to automatically go into Vehicle Recovery Mode and if this occurs, it will return your vehicle to stock.

## Diagnostics

A Diagnostic Trouble Code (DTC) arises when a vehicle's computer detects a sensor failure or a parameter outside a specific range. In the case of a detected failure, most vehicles will illuminate the check engine light alerting you of a failure:



The JKS J-CAL allows you view these codes, and gives you the option to clear them. The two Diagnostic menu options are as follows:

- Read DTCs - will display the code along with a full text description.
- Clear DTCs - will allow you to clear the code, which will then turn off your check engine light.

***If a DTC Persists, this could indicate a vehicle malfunction. We recommend seeking a qualified professional in resolving the issue. Return the vehicle back to stock prior to service.***

## Identify Vehicle

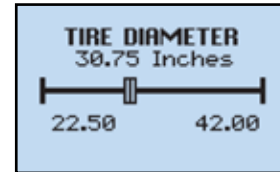
The following information is provided by this feature:

- Vehicle Engine Control Unit (ECU) - is a device used to ensure optimum running.
- Diagnostic Comm - is how your vehicle communicates with individual systems & sensors.
- Vehicle Identification Number (VIN) - is a unique serial number use to identify your vehicle.
- Engine Control Module (ECM PN) part number - identifies the specific ECM installed.

## Vehicle Functions

Based on the year and model of your Jeep, you may have the option to modify various features using the JKS J-CAL device. This section provides a brief explanation on what these functions are, and how they are used.

### ❑ TIRE SIZE



Improve the accuracy of the vehicle's speedometer by compensating for non-stock tire sizes.

To adjust the Tire Size:

- Click the Tire Size option from the Vehicle Functions Menu.
- Using the left/right arrows, adjust the slide until the correct tire diameter is displayed.
- Press OK.

### ❑ AXLE RATIO

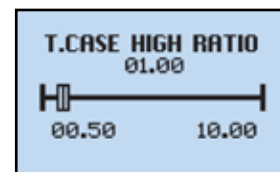


Improve your Jeep's 2WD shift points by modifying the axle gear ratio.

To adjust the Axle Ratio:

- Click the Axle Ratio option from the Vehicle Functions Menu.
- Using the left/right arrows to adjust the slide.
- Press OK.

### ❑ TRANSFER CASE HIGH (T.CASE HI)



Improve your Jeep's 4 Hi shift points by modifying the transfer case gear ratio.

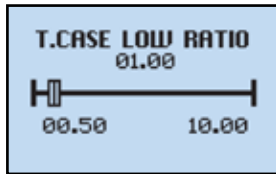
To adjust the Transfer Case High Gear Ratios:

- Choose an option from the Vehicle Functions Menu.
- Use the left/right buttons to adjust the value.
- Press OK.

## Vehicle Functions (cont.)



### TRANSFER CASE LOW (T.CASE LO)



Improve your Jeep's 4 Lo shift points by modifying the transfer case gear ratio.

To adjust the Transfer Case Low Gear Ratios:

- Choose an option from the Vehicle Functions Menu.
- Use the left/right buttons to adjust the value.
- Press OK.

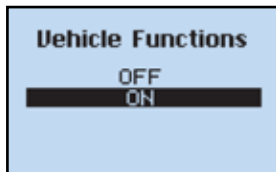
### HORN CHIRP ON LOCK (HORN CHIRP)

Toggle ON/OFF the keyless entry horn chirp.

### HEAD LAMP FLASH ON LOCK (LAMP FLASH)

Toggle ON/OFF the keyless entry head lamp flash.

### ONE TOUCH LANE CHANGE (ONE TOUCH)



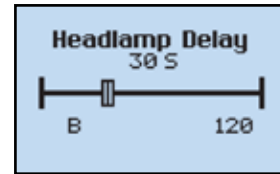
Toggle this vehicle feature ON or OFF. When this feature is turned OFF, your blinker will only blink once after pressing the switch.

To adjust the Once Touch Lane Change, Lamp Flash, or Horn Chirp settings:

- Choose an option from the Vehicle Functions Menu.
- Use the up/down buttons to highlight either OFF or ON.
- Press OK.

## Vehicle Functions (cont.)

### HEAD LAMP DELAY (LAMP DELAY)



Adjust the time it takes for the head lamps to turn off after the engine has been turned off (2011-15 models only).

To adjust the Head Lamp Delay settings:

- Choose an option from the Vehicle Functions Menu.
- Use the left/right buttons to adjust the value.
- Press OK.

### DAYTIME RUNNING LIGHTS (RUN LIGHTS)

Adjust the daytime running light settings for 2007-13 vehicles (if the vehicle is equipped with this feature). The running lights are activated while the engine is running, and the transmission is in "drive".

There are six available settings:

- High Beams      European
- Turn Signals      Fog Lights
- Low Beams      Turn Lights OFF

### ENGINE IDLE

Increase the engine idle up to 1600 RPM. This is especially useful during extreme situations. (e.g. Winching, etc.)

To adjust the Engine Idle settings:

Start the engine

Choose Engine Idle from the Vehicle Functions Menu.

Use the left/right buttons to adjust the value.

Press OK.

**NOTE: The device must remain connected in order for this feature to continue working.**

### RETURN TO STOCK

Quickly change your vehicle back to stock with the original settings. The vehicle cannot be running in order to use this feature.

## Vehicle Functions (cont.)

### AXLE LOCK ENABLE

#### *2007-15 Rubicon Only*

Lock the front OR rear axle. This feature can be used while the transfer case is in 4-Hi or 4-Lo.



*Do not exceed 30 MPH while using this function.*

*Do not press the Axle Lock button on the center console while using this function.*

### ELECTRONIC STABILITY PROGRAM (ESP) OPTIMIZATION

#### *2011-15 Auto Trans Only*

- Adjusts the ESP system for vehicles equipped with this feature. When a non-stock tire size is entered, the device re-configures and optimizes the ESP.

### SPEEDOMETER CORRECTIONS

Adjusts the speedometer value according to the inputs specified:

Tire Size Changes (For non-stock tire sizes (22.5"-42.00")) - Once the tire height is entered, the speedometer will be updated.

Gear/Axle Swaps (for ratios up to 5.38) - Re-configures the speedometer once a modified gear or axle ratio is entered.

### RADIO DELAY

(2011-15 models only) Allows you to adjust the time it takes for your radio to turn off once the engine has been turned off.

## Tuner Info & Settings

### TUNER INFO

Gives you the Part #, the Version (V) #, and the Serial Number (SN) of the device.

### VEHICLE INFORMATION

Gives you the current status of the Tuner, as well as the last 9 digits of the Vehicle Identification Number (VIN).

### VEHICLE OPTIONS

Gives you the current status of your Vehicle Settings (e.g, tire size, axle ratio...)

### DISPLAY SETTINGS

Allows you to:

- Set Contrast - Adjusts the darkness of text and graphics.
- Set Backlight - Adjusts the brightness of the display.
- Set Scroll Speed - Adjusts how quickly the items are selected.

## Tech Support

If you encounter any problems with your installation and setup, please contact JKS Manufacturing for technical assistance.

### JKS Technical Support

Phone	517-278-1226
E-Mail	tech@jksmfg.com

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