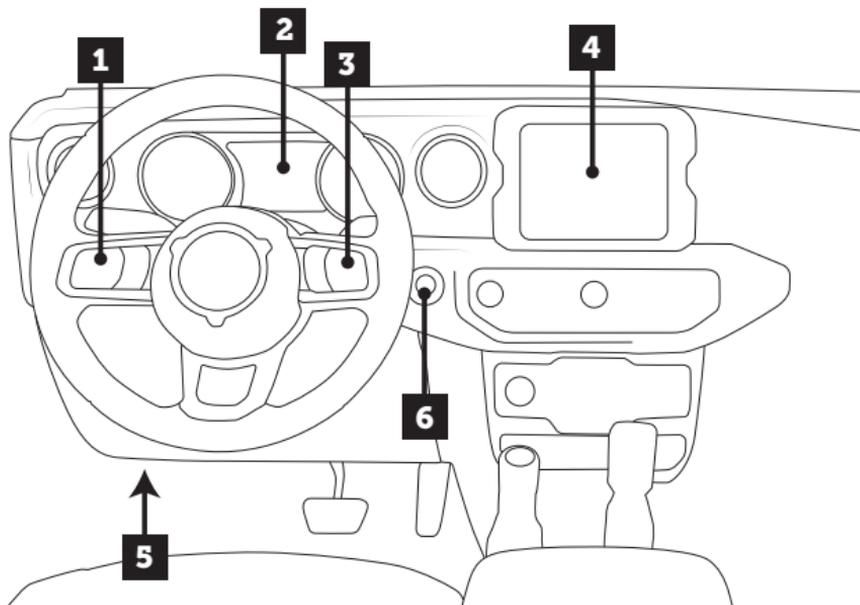




USER GUIDE

AEV30348AD

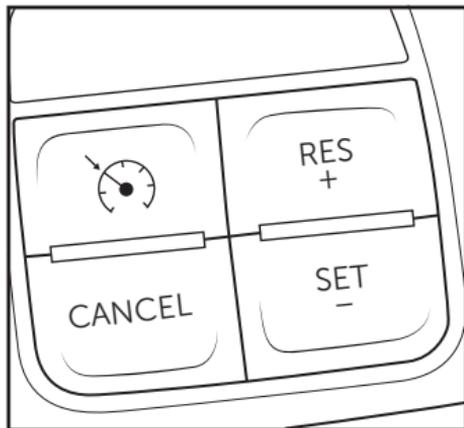


1. INSTRUMENT CLUSTER DISPLAY CONTROL BUTTONS
2. INSTRUMENT CLUSTER DISPLAY
3. CRUISE CONTROL BUTTONS
4. STEREO DISPLAY
5. OBDII PORT
6. ENGINE START/STOP BUTTON

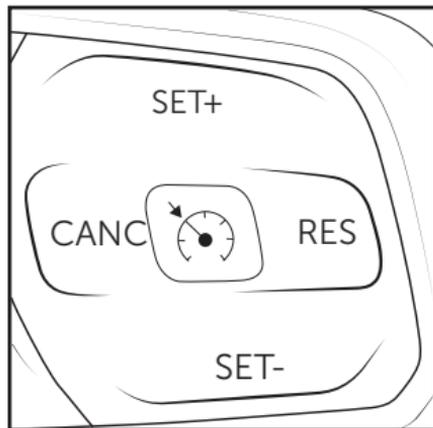
NOTE: If working with a vehicle that still has the STOCK instrument cluster, stereo display and cruise control but look different from above, these steps will still apply but pictures in these instructions may differ from your physical parts.

Cruise Control Layout

4-BUTTON CRUISE



5-BUTTON CRUISE



NOTE: It is important to reference your respective cruise control button layout throughout this booklet when programming your ProCal.

OVERVIEW

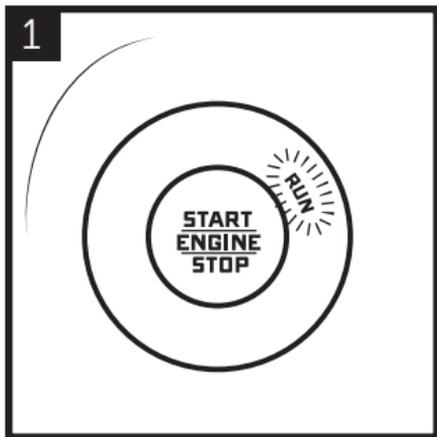
The AEV ProCal SNAP is a simple, easy to use electronic recalibration module for Jeep JL Wrangler, Gladiator and RAM Trucks. ProCal SNAP has the ability to recalibrate your vehicle's speedometer to compensate for non-factory tire sizes, replacement axle gear ratios and aftermarket or different transfer case gear ratios by simply plugging into the OBDII diagnostic port and inputting the numerical values using the stereo's audio equalizer.

PLEASE read these instructions completely before attempting to use this module. Follow these order of operations:

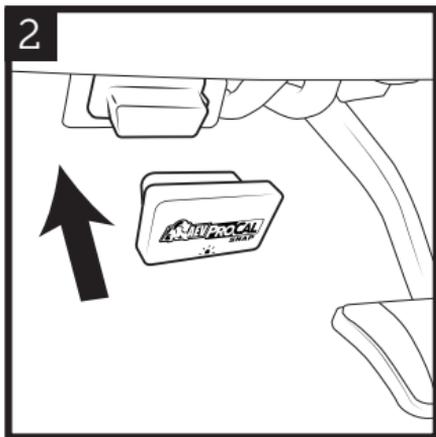
1. Install the included **AEV ProCal Harness** using instructions from aev-conversions.com.
2. Pair ProCal SNAP to the vehicle.
3. Recalibrate vehicle with ProCal SNAP

NOTE: The ProCal SNAP does not record the changes into your vehicle's history with FCA/Jeep. Any Warranty or Recall that requires a re-programming of the modules may erase the ProCal SNAP settings and require you to use the ProCal SNAP to adjust your settings again.

PAIR PROCAL SNAP TO VEHICLE

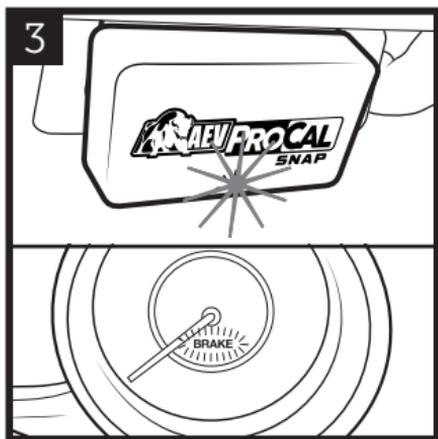


Press 2 times to put into the "RUN" position.

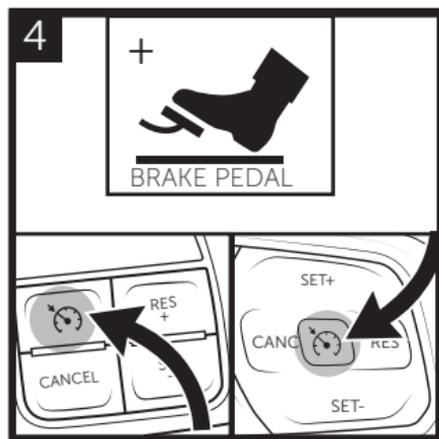


Insert ProCal SNAP into the OBDII port.

NOTE: The ProCal SNAP must be paired to a vehicle before it will recalibrate any settings. Once completed, the ProCal SNAP will be **permanently locked to this vehicle.**



Wait for a blinking GREEN light on the SNAP and a blinking BRAKE light on the speedometer.

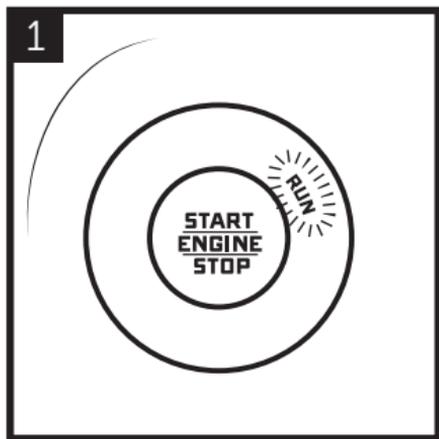
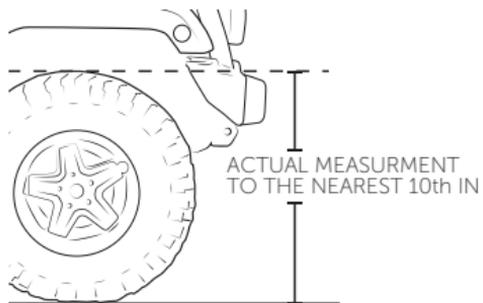


With your foot on the brake, PRESS and HOLD the CRUISE ON/OFF button until the vehicle honks.

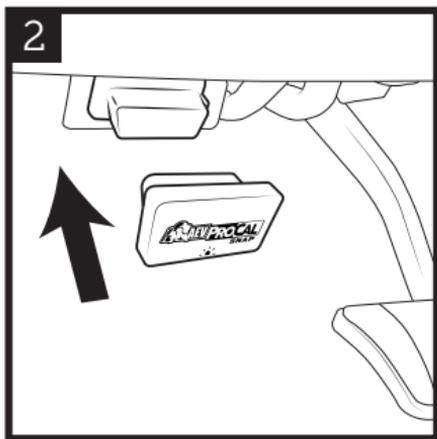
5 HONK! HONK! HONK! When the pairing process is complete, the horn will sound quickly 3 times. Your ProCal SNAP is now paired and ready to recalibrate your vehicle.

EXAMPLE: TIRE SIZE

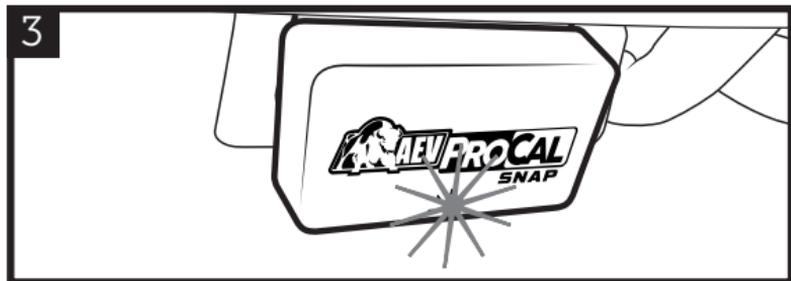
To recalibrate Tire Size: Begin by physically measuring your tire diameter IN INCHES from the ground to the top of front tire with the vehicle level and on the ground.



Press 2 times to put into the "RUN" position.

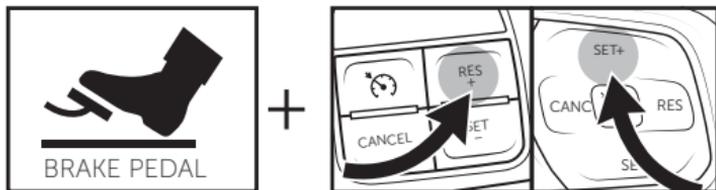


Insert ProCal SNAP into the OBDII port.



Wait for a solid GREEN light on the SNAP.

- 4 Set the EQ values for the tire size (Example: 34.2" Tires, Bass = 3, Mid = 4, Treb = 2.). Press the combination below. PRESS and HOLD for 3 SECONDS. Programming is complete when the horn sounds twice. Unplug ProCal SNAP and store in vehicle.



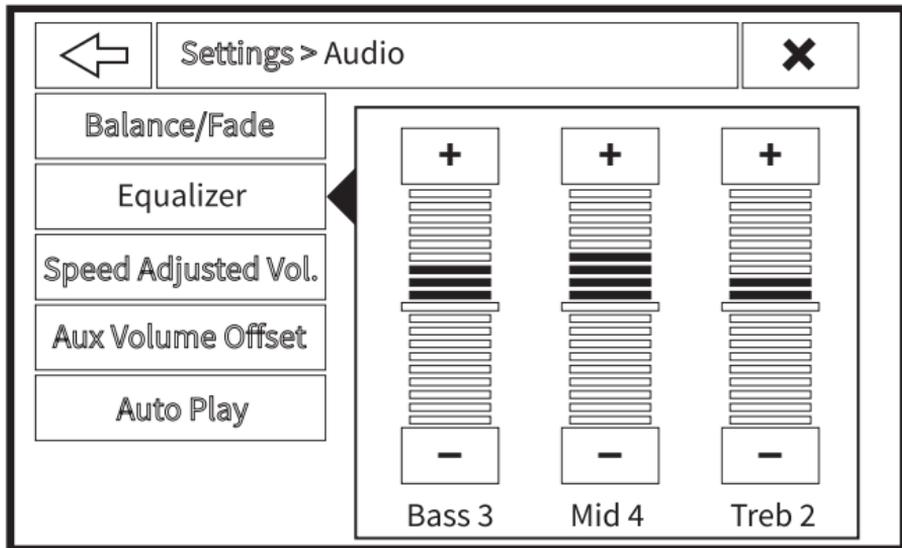
*During Programming: If the BRAKE INDICATOR flashes during programming, immediately release the BRAKE PEDAL. Failure to release in time may cause errors and warning lights. To resolve, try programming again paying attention to the pedal and indicator.

SETTING EQUALIZER

Adjust the stereo's EQUALIZER SETTINGS to the values you wish to set (be sure the stereo source is set to AM/FM).

Always enter the values in order: Bass, Mid, Treb.

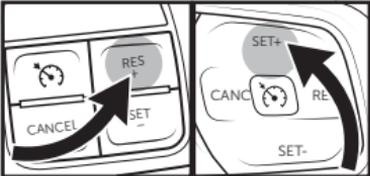
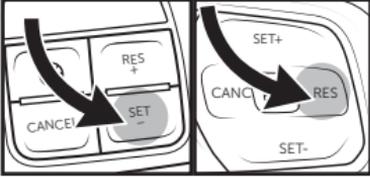
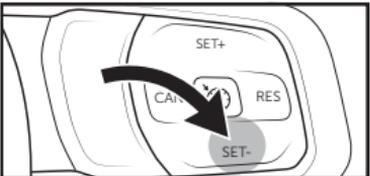
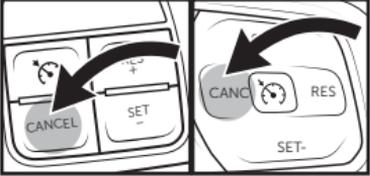
- Example: 34.2" Tires, Bass = 3, Mid = 4, Treb = 2.



UCONNECT 4 and 4C

FUNCTION	DESCRIPTION
TIRE SIZE	When setting Tire Size, use the measured size, not the rated size written on the tire.
AXLE RATIO	The physical ratio of gears in your differential. Do not modify unless you have changed gears. Note for 4xe owners: The ProCal SNAP supports only 4.50 ratio. Many other physical ratios should work without issue. Do not program gear ratios over 4.50:1 even if your physical ratio is larger.
TRANSFER CASE	The physical ratio of gears in your Transfer Case. Do not modify unless you have replaced the transfer case.
PSI	Indication light shuts off at this value, and will turn on when one tire is 75% of this value. For JL Wranglers and Gladiators, RANGE: 28-50psi. NOTE for RAM Trucks: The Procal Snap for RAM can only set values of 35, 45, 50, 60, 65, 80, 95 psi trying to set a number in between will round up to the next approved value. It is imperative that you inflate to and set your PSI value to the pressure rated on the sidewall of the tire itself.

NOTE: Programming some features will require the user to release the programming buttons. If the "BRAKE" light flashes quickly, release any buttons and switches, the module will finish and honk the horn quickly.

EQ EXAMPLE	COMBINATION		
34.2" Tires Bass: 3 Mid: 4 Treb: 2	 BRAKE PEDAL	+	
4.10:1 Axle Ratio Bass: 4 Mid: 1 Treb: 0	 BRAKE PEDAL	+	
Jeeps Only 3.80 T-Case Bass: 3 Mid: 8 Treb: 0	 BRAKE PEDAL	+	
32 PSI Bass: 0 Mid: 3 Treb: 2	 BRAKE PEDAL	+	

NOTE: To prevent the ProCal from timing out in between setting changes, use the following ignition cycle: RUN on, Change Equalizer Settings, ProCal in, Press and hold respective cruise control combination, RUN off, ProCal out. 10

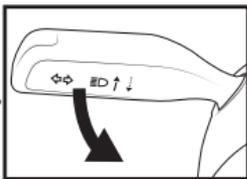
ADDITIONAL FUNCTIONS

To use ProCal SNAP to clear DTC codes or restore your vehicle's factory settings, follow programming steps 1 and 2 then PRESS/PULL and the combinations below and HOLD for 3 SECONDS.

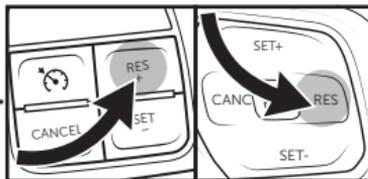
CLEAR DTC CODES



BRAKE PEDAL



PULL HIGH BEAM

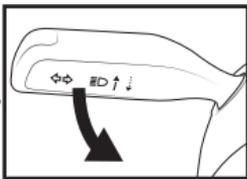


RES

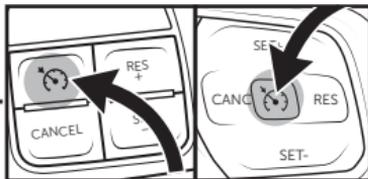
RESTORE FACTORY SETTINGS



BRAKE PEDAL



PULL HIGH BEAM



Cruise ON/OFF

VIEW SETTINGS

If you wish to view the current settings, you can do so on the Instrument Cluster Display. Insert the ProCal SNAP to the OBDII port. Turn the radio off and use the Instrument Cluster Display Control Buttons to navigate to AUDIO. The Instrument Cluster Display will cycle through showing the current setting for Tire Diameter, Axle Ratio, Tire Pressure Threshold (Front and Rear), 4Low Ratio and the ProCal SNAP part Number.



NOTICE FOR 4XE OWNERS

Note: The 4xe model of Wranglers has some unique characteristics. Please be aware of the following issues:

- Do not program an axle ratio value higher than 4.50:1 regardless of actual gears. This is a workaround to inherent conditions in the transmission control systems
- The 'check engine light'/Malfunction Indicator Lamp (MIL) may be on after programming. These errors should clear themselves after time. Or use SNAP's "Clear Codes" function to remove these error indications immediately.

DIAGNOSTIC CODES



BLINKING GREEN: ProCal SNAP ready to pair



SOLID GREEN: ProCal SNAP paired and ready



SLOW PULSING ORANGE: Waiting for vehicle ignition to be turned to RUN.



SLOW PULSING BLUE: Inserted into incorrect vehicle.



FAST PULSING ORANGE: No connection. Check that the harness is properly installed.



FAST PULSING BLUE: There has been an error in programming. Turn the radio off. Use the Instrument Cluster Display Control Buttons to navigate to AUDIO. Record the error message and contact AEV support with the information shown.

TROUBLESHOOTING

Q: My ProCal on my RAM 2023+ is timing out.

A: Sometimes the ProCal will time out in between setting changes. On RAM 2023+ it is good practice to cycle the RUN position on your vehicle for the ProCal to properly work. Use the following cycle to ensure proper programming: RUN on, Change Equalizer Settings, RUN off, RUN on, ProCal in, Press and hold respective cruise control combination, RUN off, ProCal out. Repeat this process for every setting you change.

Q: No light on the ProCal SNAP.

A: Contact Support

Q: The light was solid green, I attempted to program something, Three was no honk and now the ProCal SNAP has a fast pulsing blue light

A: Turn the radio off. Use the instrument Cluster Display Control Buttons to navigate to AUDIO. Record the error message and contact AEV Support with the information shown.

Q: What if I don't have a factory stereo?

A: We have not yet encountered an aftermarket stereo head unit that is compatible with the ProCal Snap

AEV Customer Support: **(248) 926-0256**

Email: **tech@aev-conversions.com**



AEV-CONVERSIONS.COM