



## Tazer RAM Unlocker/Line Lock/Light Show

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For Firmware Version 12.0.4-051519

**The Tazer is an electronic OBD2 plug-in device for the following vehicles:**

- 2013-2018 Ram 1500
- 2013-2018 Ram 2500
- 2013-2018 Ram 3500



### Feature List:

Tazer RAM features can be broken into two categories;

- *Vehicle Settings* – which are changes made to the vehicle which to accommodate for changes made to the vehicle or to enable or “unlock” features that technically exist but are disabled by the factory, normally reserved for a higher trim level or package for that vehicle type. These changes will continue to operate after the Tazer RAM is unplugged.
- *Live Functions* – which are functions the Tazer RAM performs live, only while plugged into the OBD2 port.

#### *Vehicle Settings:*

- Calibrate speedometer for non-factory tire sizes
- Configure vehicle for gear ratio changes
- Can disable Tire Pressure Monitoring System warnings, or modify PSI settings\*
- Can enable/disable Daytime Running Lights and user can select lights to use (application dependent)
- Can enable the addition of factory fog lights
- Can disable Fog Light Dropout (allowing hi and low beams and fog lights on simultaneously)
- Can enable the addition of factory backup camera and aftermarket front camera\*
- Can disable SiriusXM TravelLink traffic and weather warnings
- Can enable aux video/audio for front camera and/or external video source (2018's can only enable one cargo cam input)
- Can enable support for LED lights, addition of power folding mirrors, factory AUX buttons and more.
- One-touch return-to-stock – Quick “unmarry” function returns all vehicle settings back to stock. No need to remember or write down original settings when returning to stock before dealer service.

#### *Live Functions:*

- AutoFold – Can automatically extend and retract power folding mirrors when vehicle is turned on and off
- Windows from keyfob – can open and close front door power windows from the keyfob
- Line Lock – Uses ABS solenoids to lock the front wheels for burnouts at the track or just for fun
- Can enable in-motion navigation address entry
- Light Show mode – 6 preset and 3 make-your-own Light shows that flashes all the exterior lights, perfect for car shows. Control from Key Fob or steering wheel buttons. Can be enabled for in-motion use for parades, off-road and legal police/EMS.
- Cooldown mode: Turn engine fans on demand when the ignition is on, engine not running – good for the staging lanes at the track or after a run in the trails.
- Winch Mode: temporarily raise engine idle to 2000 RPM when winching or jump starting another vehicle.
- Start-up options for AutoPark kill, traction control and TPMS warning delete.
- Can emulate 4LOW when in 2WD and 4HI, for increased shift schedule and locker control
- Clear CELs – reset that pesky check engine light. Good when you have mods that set the light and you know exactly why.
- Fully disable ESP/Traction Control by pressing and holding ESP button
- 0 to 30 and 0 to 60 Timers – Displays 0-30 or 0-60 times on EVIC display
- Firmware updates – new firmware is available periodically, always free and posted to the Z Automotive website. Use ZPU programming utility, also on the website, to load the firmware.

\* Use of extra video inputs requires wiring video source(s) to radio. Special adapter harness required, sold separately. Not all features work on every model.

## Installation

Installation is a matter of simply plugging the Tazer RAM into the OBD2 diagnostic port under the dashboard, to the right of the parking brake. The Tazer RAM does not need to be plugged in for any of the features in the *Vehicle Settings* to remain operational. A Y-cable may be used if you have other devices that need to be plugged into the OBD port at the same time, such as a data logger. The Tazer RAM can be left plugged in, as many of its features (*Live Functions*) only work when plugged in. The Tazer RAM will go to sleep by itself, 30 seconds after the vehicle shuts down.



*2018 Rams require the Security Gateway Bypass module (included) to be installed before the Tazer is used. Please see separate instructions on installing the bypass module.*

## Vehicle Settings:

This section explains how to use the Tazer RAM to change the vehicle settings for feature activation.

**Menu Navigation:** For all functions involving the dash (EVIC) display, the EVIC screen first needs to be in a state where it's showing the radio station name on the top line, or if the radio is off, a blank line on top. Use the "BACK" (left arrow) button and up/down arrows to set the EVIC display like this. One the display is in this state, press and hold the steering wheel "BACK" button, and tap the Cruise "CANCEL" button to enter the settings menu. Pressing BACK and CANCEL will advance through the menu items. To change/select a setting, press and hold BACK and tap the Cruise "ON/OFF" button. Advance through the menu slowly.

### IMPORTANT NOTE:

*If you made any changes in the setup menu, be sure to scroll to "full reboot?" and "select" it.*

Some settings require two sleep/wake cycles. The quickest way to do this is to turn the ignition off, open and close the driver's door. Wait about 60 seconds AFTER the dash goes dark, then re-enter. Do this twice.

### ***The setup menu is accessed with the ignition ON but engine NOT running.***

*The menu items are listed in the order in which they will display.*

**Light Show:** Though this is not a setting, it's in the settings menu so that the light shows can be activated also when the engine is off – this will work in ACC mode as well.

**Clear CELs:** Though this is not a setting, if selected, this will clear a check engine light and diagnostic codes stored in the PCM, TCM, ABS, and AWD modules.

**Marry/Unmarry:** To advance to any of the vehicle settings, you will first need to "Marry" the Tazer to the vehicle. Simply select this option, and the Tazer will download your vehicle's current (stock) settings. This takes approx. 15 seconds, do not disturb this process. Once complete, you will be able to advance to the settings choices. Select "unmarry" to return the vehicle to stock. After unmarrying, advance to the "full reboot?" option and select it, **allowing a full 2.5 minutes for the Tazer to reboot all systems** – the Uconnect will reboot twice in this time, the dash will reset, and when it's finished, the **red security dot on the dash will turn on and back off**. A couple cycles of the vehicle sleeping may be needed for all setting changes to take place.

**Submenus:** Once married, you can advance though several sub-menus. Select a submenu using the method described above, which depends on vehicle type.

### **Submenu Perf – sets the performance-based options:**

**Set Tire Size:** Change the tire diameter to recalibrate the speedometer. Use the left arrow and cruise +/- buttons to raise or lower the size, then select it to save the new setting. Tire size is set as rolling tire height, either by manufacturer's specifications or measuring actual tire height.

**Set Gear Ratio:** This is used if the axle gear ratios have been changed in the vehicle. Use the left arrow and cruise +/- buttons to adjust the set ratio to match the actual gears. Select it to save.

### **Submenu Tire– sets TPMS and tire size options:**

**Set TPMS :** Turn the tire pressure monitoring system type – good when using drag radials or winter tires when the sensors aren't present anyway. Can be NONE, BASE, or PREMIUM. NONE is TPMS disabled. BASE is for the system that only has a low tire pressure warning light. PREMIUM is the system that shows individual tire pressures. Note that when set to NONE, the amber tire lamp will illuminate if the sensors still sense low pressures or missing sensors. Use the live feature "TPMS Kill" to keep the amber warning light off.

**Set Tire Pressures Front/Rear:** Change the TPMS warning pressures – use the left arrow and cruise +/- buttons to raise or lower the pressure, then select it to save the new setting. Once set, the vehicle will need to be taken to a dealer to so a "RF HUB PIN code enter" so the module will accept the new setting. (25psi min)

### **Submenu Radio – sets the radio-based options:**

**Set Backup Camera :** If factory backup camera is added, this setting will enable it.

**Set Cargo Cam:** This will enable the "cargo cam" selector on the "controls" screen. Useful for front cameras, especially for a 2018 UAQ radio. The 2013-17 RA4 can use the extra video inputs via the live feature functions as well, even if Cargo Cam is off.

**Set Backup camera grid lines<sup>1</sup>:** If factory backup camera is added (2015-2017), this setting will enable the dynamic grid lines.

**Set DVD\_CD<sup>1</sup>:** This setting adds the CD input on the RA3/RA4 radio, for use as an aux input, particularly useful if adding a media player or DVD player.

**Set Travel Link:** This setting adds the ability to disable SiriusXM Travel Link, which turns off the weather pop-ups. Also disables SiriusXM Traffic information.

### **Submenu Lighting– DRL and other lighting options:**

**Set DRL Type :** Choose USA (on but selectable), Canada (on all the time), or off.

**Set DRL Location :** Choose which lights to use as DRL's (results vary with vehicle model) – Dedicated DRL, SRT DRL's, Turns, Fogs, Hi beams or Low beams.

**Set DRL Dropout:** This setting is enabled by default, making the DRL turn off when using a turn signal. Turning this OFF will keep the DRL *on* even when a turn signal is in use.

**Set Fog Lights Enable:** If factory fog lights are added, this setting will enable them.

**Set Fog Dropout:** This setting is enabled by default, making the Fogs turn off when using high beams. Turning this OFF will keep the fogs *on* even when high beams are in use.

**Set LED Tails:** Enable this if switching to LED tail lamps.

**Set LED CMHSL:** Enable if changing the 3<sup>rd</sup> brake lamp to LED.

### **Submenu Mirror:**

**Set PwrFld:** This if for configuring if factory power folding mirrors have been added.

**Set Mirror Turn:** This if for configuring if factory turn signals on mirrors have been added.

**Set Mirror Puddle:** This if for configuring if factory puddle lamps on mirrors have been added.

**Set Tow Mirror:** This if for configuring if factory tow mirrors have been added.

### **Submenu Interior:**

**Set Aux:** This if for configuring if factory AUX switch bank has been added to the vehicle.

**Set EasyExit<sup>1</sup>:** This will add Easy Exit seating option. Once enabled there will be an option in Uconnect settings do turn this feature on and off, which moves the driver seat and steering wheel to the retracted position for easy entry/exit.

**Set EVIC Splash<sup>1</sup>:** This setting will allow changing the start animation on the LCD dash displays. There are many choices of RAM cluster splashes.

**Firmware Version Display:** Shows the current Tazer RAM firmware revision.

**Full Reboot:** If selected, will reset vehicle modules and the Uconnect system twice. This takes 2.5 minutes to complete, **and should be performed after any Vehicle Settings are changed** – the Uconnect will reboot twice in this time, the dash will reset, and when it's finished, the **red security dot on the dash will turn on and back off**. Once complete, shut off the vehicle, open and close the driver door and wait for a minute to be sure the dash turns off.

## Live Menu Settings

This section explains how to use the Tazer's live functions - these are activated with the same button presses as the Settings Menu, but while the engine is RUNNING. These features will only work if the Tazer remains plugged in.

**Light Show:** This is one method of activating the light shows. Selecting this will activate the first show, unless ZPU was used to change the startup show. There are 9 light shows - you can toggle through all 9, then back to OFF.

**Set In-Motion Nav:** If set ON, this adds the ability for address info to be entered into the navigation system while vehicle is moving. This is for the PASSENGER to use. It may be illegal for the driver to use the navigation system to enter information while the vehicle is in motion. On RA3/RA4 radios, it will also allow the text feature and switching drive mode settings while in motion. It is recommended to leave this setting OFF, enabling it only when you need to use it.

**Trac Kill:** If enabled, will effectively "press" the traction control button for you, every time the vehicle is turned on.

**AP Kill:** If enabled, will automatically disable the autoPark system every time the vehicle is turned on and foot is on the brake. For safety, if the vehicle was driven over 30MPH, this feature will not work until the vehicle is placed back in Park first.

**TPMS Kill:** If enabled, will keep the TPMS lamp from illuminating.

**Spoof4LO:** If enabled, will make the truck think it's in 4 low, even when in 4Hi or 2WD. This increases shift points, raises idle, and allows use of lockers and sway bar disconnect (powerwagon).

**AutoFold:** If enabled, the power folding mirrors will extend/retract when the ignition is turned on or off.

**Set Camera<sup>1</sup>:** This item will switch between backup camera, VES input, and Aux input. Note the factory backup camera turns itself off at a certain speed (8-20mph). This feature requires that the Tazer remain plugged in to function.

**0-30 Timer:** When the vehicle is stopped, this display will change to "start 30". As soon as the vehicle starts moving, the display will change to "go to 30" and the timer starts. When the vehicle reaches 30MPH, the time will be displayed.

**0-60 Timer** When the vehicle is stopped, this display will change to "start 60". As soon as the vehicle starts moving, the display will change to "go to 60" and the timer starts. When the vehicle reaches 60MPH, the time will be displayed.

**Display Tazer RAM Firmware Revision:** Displays the Tazer's current firmware version: "TZR: x.x.x." (ie "TZR:12.0.0")

## **Non-Menu Live Functions**

The Tazer RAM has other live functions that are not accessed via a menu.

**Windows from keyfob:** The Tazer RAM can open and close the windows for the front doors remotely. The doors need to be closed for it to operate. Double-click and hold the unlock button for the windows to roll down. Press the lock button 6 times for the windows to roll up.

**Line Lock:** The Tazer RAM will use the ABS solenoids to lock the front wheels for burnout purposes. To use this feature, you must stop the car then press the steering wheel "back" and hold it while pressing the cruise + button. Continue to hold either of the two buttons, or both. Once the ABS light on the dash comes on (and EVIC message "Line Lock ON"), pump the brake pedal twice firmly and release. Press the gas pedal, and the rear wheels will break traction. Brakes release when the back/ok button is released.

**Full ESP Disable/Enable:** Stop the car. Press and hold the ESP button for 5-7 seconds and the ESP lights, BRAKE light, ABS lights will illuminate indicating that ESP and ABS are shut off. The vehicle needs to be turned off and back on to re-enable the systems.

**Set Camera<sup>1</sup>:** While the video input can be selected using the EVIC screen as mentioned above, it can also be selected quickly by double-clicking the volume MUTE button to switch between backup camera, VES input, and Aux input. Note the factory backup camera turns itself off at a certain speed (**8-20mph**).

### **Light Shows:**

The Tazer RAM comes pre-configured with 6 light shows out of the box, plus 3 "make your own" light shows that you can configure with the ZPU utility. There are four ways to control the light shows on the Tazer:

*Keyfob:* The light show can be turned on by pressing unlock-unlock-lock-unlock from the keyfob. This will start the first light show in the sequence (depending on which show it's configured to start with). Pressing unlock again will advance to the next enabled show. Pressing lock will turn off the light shows. You may lock the vehicle while the shows are on by pressing the button on the door handle or using the key.

*Quick-on:* The light show can be activated by moving the High Beam stalk to the forward (hi beam) position, and tap the CRUISE + button. This will start the first light show in the sequence (depending on which show it's configured to start with). Pressing CRUISE + again will advance to the next enabled show. Moving the High Beam stalk back to its normal position will end the show.

*Dash Menu:* You can start the show by setting the dash to "Audio" mode, then press the left arrow and tap cruise CANC button. "Lightshow?" will display on the dash. Hold left arrow and tap cruise on/off (center) button to turn on the first light show in the sequence. Again to advance to the next show. Exit the menu (left arrow and CANC) to turn off the show.

The light shows will shut off if it's used for such a long time that the vehicle battery voltage drops below 11V.

**Cooldown mode:** With the ignition on but engine not running, press the right arrow and cruise cancel button at the same time to turn the engine fan on High. Press again to turn them off. They will also turn off automatically if the battery drops to 10.8V.

**Winch Mode:** With the engine running at idle in Park, press the steering wheel right arrow and cruise on/off to invoke Winch Mode. Press again to disable, or press on the brake pedal. When turned off, there is a 5 second delay before the idle drops back to normal.

**Partial Reboot:** Press left arrow and cruise RES with the ignition set to RUN and engine is not running, and the Tazer will reset several systems including the PCM (engine adaptives), RF Hub, Instrument cluster, ABS, BCM.

## **Configuration**

Configuration of the Tazer is accomplished by using the supplied USB cable connected to a PC, using the ZPU Programming Utility. The ZPU User Guide explains how to install ZPU and how to perform firmware updates.

Please see the accompanying "Light Show Configuration Guide" to configure your Tazer's light show options.

Symptom	Cause	Solution
No menu in EVIC	EVIC display has to be in state where it can display radio station name	Set EVIC so it's showing radio station name. It's the top line of the RAM dash screen
Line Lock won't hold the car	Didn't provide adequate brake pressure	Invoke Line Lock by pressing back/OK and tapping cruise +, and while continuing to hold back/ok, press the brake pedal FIRMLY twice and release.



Changed a setting and it didn't take effect	Needs a sleep/wake cycle and/or radio reboot	See the instructions above in the "settings menu" section, about sleep cycling and radio rebooting.
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