



TAZER RAM User's Guide

For Firmware [12.0.6-020321](#)

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

2013-2018 Ram 1500

2013-2021 Ram 2500

2013-2021 Ram 3500

2019-2021 Ram 1500 **Classic Body Style Only**

Firmware Updates



New firmware is available periodically, always free and posted to the Z Automotive website.

Use [ZPU \(Z Automotive Programming Utility\)](#), also on the website, to install the firmware over USB.

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Feature List

Tazer Ram features can be broken into three categories:

- **Vehicle Settings** are changes made to the truck such as tire size, gear ratios or settings which accommodate other upgrades. **These changes will continue to operate after the Tazer Ram is unplugged.**
- **Live Functions** are operations the Tazer Ram performs live, **only while it is physically connected.**
- **“Non-Menu” Live Functions** are operations the Tazer Ram performs live, only while it is physically connected, and **ARE NOT LOCATED IN A MENU.** They are activated automatically or with button presses.

List of **Vehicle Settings**

- Light Show – 6 preset and 3 make-your-own sizes
 - light shows that flash all the exterior lights
 - – perfect for car shows/first responders/off-road visibility – controlled from key fob or steering wheel buttons – can be enabled in-motion for use in parades, off-road and for legal police/EMS applications (**contact support for more info**)
 - enable the addition of factory fog lights
 - enable the addition of factory backup camera
 - enable aux video/audio for front camera and/or external video source **(8.4” UConnect only) (2018s and newer can only enable one CargoCam input)**
- Display DTCs – display Diagnostic Trouble Codes to see why the Check Engine light may be on.
- Clear CELs – reset check engine light and DTC codes
- one-touch return-to-stock – quick “Unmarry” function returns to stock
- disable Tire Pressure Monitoring System warnings
- calibrate speedometer for non-factory tire
 - enable/disable SiriusXM TravelLink
 - enable/disable daytime running lights and select which lights to use (application dependent)
 - change daytime running lights (DRL) region (CA/USA)
 - set DRL location
 - DRL
 - Turns
 - Fogs

High beams

Low beams

- enable/disable factory fogs
- disable Daytime Running Light Dropout (DRL shut-off while turn signal is on)
- disable Fog Light Dropout (fog light shut-off while high beams are on)
- enable/disable EasyExit (2015+)
- enable/disable Aux Buttons
- enable/disable power folding mirrors

List of **Live Functions**

- Dark Mode – turn off all exterior lighting and dash/radio/shifter lights while parked with the engine running
- enable navigation entry in-motion
- change engine power mode (experimental, 2015+)
- change transmission mode (experimental, 2015+)
- activate Light Show
- AutoFold – Can automatically extend and retract power folding mirrors when vehicle is turned on and off
- cycle cameras/video inputs (with Tazer plugged in)
- 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.
- 0 to 30 and 0 to 60 Timers – Displays 0-30 or 0-60 times on EVIC display

List of **“Non-Menu” Live Functions**

- activate Light Show (shortcut)
- Windows from keyfob – can open and close front door power windows from the keyfob (experimental, may not work with all bypass types)
- Line Lock – lock the front brakes for an easy burnout
- Fully disable ESP/Traction Control by pressing and holding ESP button
- Line Lock – lock the front brakes for an easy burnout
- cycle camera inputs (shortcut)
- Cooldown Mode – turn on engine fans on-demand
- Winch Mode – raise idle RPM to user-selected value between 1250 and 2000
- Partial Reboot

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.

- For 2018+ models, refer to the OBDII T-Harness Bypass installation guide available at zautomotive.com.
- 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 car shuts down.



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 **AUDIO screen**. Navigate to this screen using the steering wheel arrow buttons.
- Once the display is in this state, use the button commands below to operate your Tazer Ram.

Function	Button Input
OPEN MENU/SCROLL MENU	◀ (HOLD) + CRUISE CANC
SELECT/CHANGE OPTION or SAVE VALUE (TIRE SIZE, TPMS THRESHOLD, ETC.)	◀ (HOLD) + CRUISE ON/OFF
ADJUST VALUE (TIRE SIZE, TPMS THRESHOLD, ETC.)	◀ (HOLD) + CRUISE +/-

CRITICAL

IF YOU MAKE **ANY CHANGES IN THE “VEHICLE SETTINGS” (ENGINE OFF) MENU **OR UNMARRY, YOU MUST PERFORM A FULL REBOOT AND TWO SLEEP CYCLES. SEE BELOW.****

- After making changes, scroll to “**full reboot?**” and “select” it.
- After the countdown, perform **two sleep cycles**.
- The quickest way to do this is to turn the ignition off, close the driver’s door and wait about 60 seconds **AFTER** the dash goes dark, turn the ignition on (but not the engine). **Do this twice.**
- **This step is critical** after changing settings or **settings might not save** or you may find that the dash doesn’t shut down, which **can result in a dead battery.**

FULL REBOOTS SHOULD BE PERFORMED ON LEVEL GROUND, WITH THE WHEELS STRAIGHT AND WITH YOUR FOOT OFF THE BRAKES.

Returning to Stock (Unmarry)

SELECT “UNMARRY” FROM THE “VEHICLE SETTINGS” MENU AND PERFORM THE STEPS ABOVE TO RETURN YOUR VEHICLE TO STOCK CONFIGURATION*

*Your Tazer stores the configuration present when it’s Married. That will be what it returns to when you Unmarry, even if it wasn’t stock.

You should Unmarry and remove your Tazer before dealer service or if you wish to use your Tazer in another vehicle.

Vehicle Settings

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

The **Vehicle Settings Menu** is accessed with the **Ignition ON and in "RUN" but the engine NOT running.**

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

- **Light Shows:** Activate pre-programmed and custom Light Shows, even when the engine isn't running.
- **Clear CELs:** 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 Ram to the vehicle.** When you select this option, the Tazer Ram will download your car's **current** (presumably stock) settings. This should take around 15 seconds. **Do not disturb this process.** Once complete, you will be able to advance to the **Submenus.**
- **Submenus:** Once married, you can advance through several sub-menus. Select a submenu using the method described above, which depends on vehicle type.

Submenu Perf:

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.
- **DrvMode:** set to SRT to allow live feature TransMode to operate (8 speed only)
- **DrvTrans:** Set to YES to allow live feature TranMode to operate (8 speed only)

Submenu Tire:

TPMS and tire size options

- **Set TPMS:** Turn the tire pressure 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. (The car's computer will only recognize a minimum of 25psi.)

Submenu Radio:

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:** If factory backup camera is added, this

setting will enable the dynamic grid lines.

- **Set DVD_CD:** 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 Halo Enable:** This setting is to disable or enable factory Halos and signature lights.
- **Set LED Tails:** Enable this if switching to LED tail lamps.
- **Set LED CMHSL:** Enable if changing the 3rd brake lamp to LED.

Submenu Mirror:

mirror options

- **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 is for configuring if factory AUX switch bank has been added to the vehicle.
- **Set EasyExit:** This will add Easy Exit seating option. Once enabled there will be an option in Uconnect settings to 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:** This setting will allow changing the start animation on the LCD dash displays. There are many choices of RAM cluster splashes.

Vehicle Settings Menu Cont.

- **Firmware Version Display:** Shows the current Tazer Ram firmware revision.
- **Serial Number Display:** Shows the serial number of your Tazer Ram.
- **UMNo:** Shows the current “Unmarry Number” ([see page 13](#)).
- **Full Reboot:** Will reset vehicle modules and UConnect system twice. The dash will reset, and when finished, the red security dot on the dash will turn on and back off. Takes 2.5 minutes to complete, and **should be performed after any Vehicle Settings are changed** – **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

This section explains how to use the Tazer Ram live functions – activated with the same button presses as the Settings Menu, but **while the engine is RUNNING**. These features **will only work if the Tazer Ram remains plugged in**. Please note that AutoSport, Trac Kill, and StMode will be enabled after initial Tazer Ram setup.

- **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.
- **Dark Mode:** If enabled, turn off all exterior lights and dash, radio, and shifter lighting. Selecting again, advancing to next menu item, pressing “screen off,” or driving over 5 mph will automatically cancel this mode.
- **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.

- **Eng²:** Change the engine power mode.

Choices are:

Auto (No change)
Sport
Track
Eco

- **Trans²:** Change the transmission mode.

Choices are:

Auto (No change)
Sport
Track
Eco

- **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:** 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 Ram 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, display will change to “start 60”. When the vehicle starts moving, the display will change to “go to 60” and the timer starts. When the vehicle reaches 60MPH, time will be displayed.
- **Display Tazer Ram Firmware Revision:** Displays the Tazer Ram’s current firmware version: “TZR: x.x.x.” (ie “TZR:12.0.6”)

2: Experimental feature, may not work in all vehicles.

Non-Menu Live Functions

Some **live** functions of the Tazer Ram are **not accessed via a menu**, but rather work automatically or with **button presses**.

- **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 Ram:

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 CANCEL 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 CANCEL) 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.**
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. Tap once, then hold the unlock button for

the windows to roll down. Tap the lock button 6 times for the windows to roll up.

- **Line Lock:** Press and hold the left arrow and cruise set(+) buttons. Continue to hold and pump the brakes twice, firmly. The truck will stay held using only the front brakes while you press on the accelerator to do a burnout. “LineLock” will be displayed in the cluster. Will automatically force RWD.
- **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:** Double tap the “mute” button to cycle camera inputs. Note the factory backup camera turns itself off at a certain speed (8-20mph).
- **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 Ram will reset several systems including the PCM (engine adaptives), RF Hub, Instrument cluster, ABS, BCM.

UPDATING/LIGHT SHOW CONFIGURATION

Updating your Tazer firmware is done with the [Z Automotive Programming Utility](#), which **requires a computer or other device running Windows or MacOS Catalina or newer** and an available USB port. The ZPU User Guide at the link above explains how to install ZPU and how to perform firmware updates. **If you misplace or damage your USB cable, you can replace it with any common “USB Mini B” data/charging cable.**

Please see the accompanying “[Light Show Configuration Guide](#)” to configure your Tazer Ram’s light show options in ZPU

The Unmarry Key

NOTE: This feature is **only** for when your Tazer is Married to **another vehicle.**

If you receive a Tazer second-hand, or lose access to your vehicle without unmarrying your Tazer and receive the “**Not VIN XXXX**” error:

1. Navigate to the “UMNo” item in the Tazer’s EVIC menu, described on [page 9](#).
2. Write this key down, and visit this URL to purchase our Unmarry Service, where you’ll be prompted to enter that key: <https://www.zautomotive.com/product/unmarry-key/>
3. Return to the UM Key option in the EVIC menu and hit (Left Arrow + Cruise+/-) to begin entering the code provided with your purchase.
4. Press Left + Cruise On/Off to proceed to the next character.
5. Once you’ve entered the last (eighth) digit, your Tazer will report whether the unmarry has succeeded or failed.

Common Troubleshooting Questions

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.

Z Automotive cannot be held responsible misuse or consequential damages.

If you are in doubt, email support@zautotech.com.

Please be aware that modifying your vehicle in any way can affect your vehicle's warranty, longevity, handling, etc.

Please use with caution, and AT YOUR OWN RISK.

USING THE LIGHT SHOW FEATURE ON PUBLIC ROADS: IMPERSONATING A POLICE OFFICER IS A FELONY. LIGHT SHOW IS INTENDED FOR CAR SHOW/TRACK/OFF ROAD USE ONLY.

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