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Also compatible with **Dodge Ram TRX**

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User's Guide

For Firmware 18.0.9-092721

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

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or

2018-2022 Ram 1500 DT

2021-2022 Ram 1500 TRX

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(MacOS) to search the document

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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 DT features can be broken into three categories:

- Vehicle Settings are changes made to the truck such as tire size, gear ratios or settings which accomodate other upgrades. These changes will continue to operate after the Tazer DT is unplugged.
- Live Functions are operations the Tazer DT performs live, only while it is physically connected.
- "Non-Menu" Live Functions are operations the Tazer DT 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 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)
- change tire size
- change gear ratio
- change Transfer Case LOW ratio
- enable/disable TPMS system
- set TPMS pressure warning limit, front and rear, between 25psi and 85psi
- enable/disable backup camera
- enable/disable Cargo Camera input (8.4" and 12" NAV UConnect only)

- enable/disable CD (wired audio) input*
- enable/disable TravelLink/XM traffic and weather
- change daytime running lights (DRL) region (CA/USA)
- change DRL location
- enable/disable DRL Dropout function
- enable/disable factory fog lights
- enable/disable Fog Light Dropout (when fogs shut off while high beams are on)
- enable/disable one-touch lane change
- enable/disable factory halo lights (including BCM output for adding halos)
- configure vehicle for LED 3rd brake light
- change headlight type (Std/LED)
- change fog light type (Std/LED)
- change taillight type (Std/LED)/delete



- sensor circuit for running aftermarket lights
- change front turn signal type (std/LED)/
 delete sensor circuit for running aftermarket
 lights
- enable/disable Trailer Tow setting
- enable/disable Aux Buttons
- enable/disable Blind Spot Detection (if the hardware is added or removed)
- enable MOPAR power side step
- enable/disable/change ParkSense configuration

- •
- disable front axle disconnect module for axle swaps
- disable rear locker for axle swaps
- disable electronic steering pump for hydraulic steering conversions
- change cluster splash screen
- enable/disable PANIC button on remote
- one-touch return-to-stock quick "Unmarry" function returns to stock.

List of Live Functions

- activate Light Show
- enable navigation entry in-motion
- TurnCAM activate backup camera when turn signals are used (5", 7" and 8.4"
 UConnect)
- ParkCam activate SurroundView and front camera when front parking sensors are triggered
- automatically fold mirrors in/out on startup/ shutdown
- override factory DRLs with amber DRL and turn on factory marker lights, including TRX hood lights – works with headlights on or off.

- · flash third brake light when braking
- customize third brake light flash pattern
- define Winch Mode RPM
- flash lights to indicate tire pressure while airing up
- Dark Mode turn off all exterior lighting and dash/radio/shifter lights while parked with the engine running
- activate backup camera
- Force RWD (TRX only)
- activate 0-30 timer
- activate 0-60 timer
- display firmware version

List of "Non-Menu" Live Functions

- AutoStopStart Disable Tazer DT will
 automatically remember the last state of
 the auto stop/start system and set it for you
 the next time you start the vehicle
- AutoTracKill Tazer DT will automatically remember the last state of the traction control system and set it for you the next time you start the vehicle



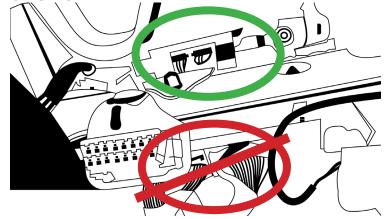
- Drive Mode Memory (TRX only) Tazer DT will automatically remember drive mode and set it the next time you start the vehicle
- disconnect sway bar in 2WD up to 30mph or at any speed if mapped to a button
- Axle Locker Control engage lockers in 2WD and 4Hi on demand.
- Cooldown Mode turn on engine fans ondemand
- Winch Mode raise idle RPM to userselected value between 1250 and 2000
- Hood Alarm monitors hood activity when the vehicle theft alarm is armed and will sound the alarm and flash a light show if opened
- Line Lock lock the front brakes for an easy

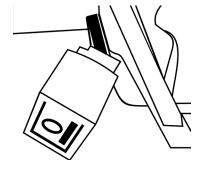
burnout

- Rock Crawl lock all four brakes with a steering wheel button combo to hold the vehicle still, especially helpful when off-road
- TC Kill turn off traction control, stability control and ABS
- show backup camera (shortcut)
- remap buttons to:
 - any of the 8 light shows
 - backup cameras
 - Line Lock
 - **Rock Crawl**
 - TC Kill
 - Cooldown
 - Force RWD
- Partial Reboot

Installation

- Unplug the SGW module above the OBD2 diagnostic connector
- Plug the Tazer DT in its place.
- Unplug the two connectors by pressing the tab with your index finger and gently pulling straight down on the wires.
- Plug those two connectors into the Tazer DT.
- The driver knee panel may be removed for easier access to see the connectors







- The Tazer DT may be left plugged in, as many of its features (Live Functions) only work when installed.
- The Tazer DT should be Unmarried and removed before dealer service. (An
 optional <u>SGW Extension Cable</u> is available from our website for easier removal.)
- The Tazer DT will go to sleep 30 seconds after the truck shuts down.
- It does not need to be plugged in for any of the features in "Vehicle Settings" to remain operational.

CRITICAL

IF YOU MAKE ANY CHANGES IN THE "VEHICLE SETTINGS" (ENGINE OFF) MENU, 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.



Menu Navigation

This section explains how to access the configuration menus of the Tazer DT to change settings.

- 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. Use the left
 and up/down arrows to set the EVIC
 display like this. One the display is in
 this state, press and hold the steering
 wheel LEFT ARROW, and tap the
 Cruise "CANCEL" button to enter the
 settings menu. Pressing LEFT ARROW
- and CANCEL will advance through the menu items. To change/select a setting, press and hold LEFT ARROW and tap the Cruise "ON/OFF" (center) button.
- Advance through the menu slowly.
- If the text is overwritten by another message, press the left arrow and the display will revert back to the Audio display.

Vehicle Settings

The Vehicle Settings menu is accessed with the ignition in "Run" (not "ACC") and 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.
- Display DTCs: Cycles through Diagnostic Trouble Codes
- Clear CELs: Clear the check engine light and diagnostic codes stored in the PCM, TCM, ABS, TPMS, ParkSense, Shifter, RF Hub and AWD modules.
- Marry/Unmarry: To advance to any of the vehicle settings, you will first need to "Marry" the Tazer DT to the vehicle. When you select this option, the Tazer DT 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 **Settings** choices.
- Submenus: Once married, you can advance though several sub-menus.
 Select a submenu using the method described above.

Select "UNMARRY,"
then perform a Full
Reboot and Two Sleep
Cycles as described on
page 5 to return the
vehicle to stock.



Submenu Perf:

performance-based options

- Set Tire Size: Use this setting to change the calibration for tire size. Use the left arrow and cruise +/- buttons to raise or lower the value, then select it (left arrow and cruise on/off) to save the new setting.
- Set Gear Ratio: Use this setting to change the calibration for axle gear ratio. Use the left arrow and cruise

- +/- buttons to raise or lower the value, then select it (left arrow and cruise on/ off) to save the new setting.
- Set Transfer Case LOW ratio: Use this setting to change the calibration for 4LOW gear ratio. Use the left arrow and cruise +/- buttons to raise or lower the value, then select it (left arrow and cruise on/off) to save the new setting.

Submenu Tire:

TPMS and tire size options

- Set TPMS: Turn the tire pressure monitoring system on or 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. (The truck's computer will only recognize a minimum of 25psi.)

Submenu Radio:

radio-based options

- Set Backup Camera: If factory backup camera is deleted, this setting will disable it.
- **Set Cargo Cam:** This will enable the "cargo cam" selector on the "controls" screen. Useful for front cameras.
- Set DVD_CD: This adds the CD input on UAQ radios for use as an aux input,

- particularly useful if adding a media player or DVD player using the Z_Automotive HDMI-AV Kit
- 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) – Turns, Fogs 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.
- One-touch: Enable one-touch lane change
- Set Halo Enable: This setting is to disable or enable factory Halos and signature lights.

- Set LED CMHSL: This setting is to configure the vehicle for LED 3rd brake light.
- Set LED Fogs: This setting is to configure the vehicle for LED Fog lights.
- Set LED Tails: Configure the vehicle for LED taillights. If using aftermarket LED tails on a factory LED Truck, switch this setting to NO then back to YES, this will clear the bulb out and hyperflash.
- Taillight Type: Reconfigure taillight type for overseas conversions
- Set LED Front Turn: This setting is to configure the vehicle for LED front turn signals. If using aftermarket LED turns on a factory LED Truck, switch this setting to NO then back to YES, this will clear the bulb out and hyperflash.
- After configuration, perform a few
 5 minute sleep cycles. Turn signals should be run for 20 seconds each before hyperflash and errors clear up.
- Set Trailer Tow: Configure the vehicle for MOPAR trailer towing wiring kit



Submenu Off-Road:

DRL and other lighting options

- Set EPSteer: This setting is used if you deleted the factory electronic steering pump for a hydraulic pump.
- Set LOCKER: This setting is used if you deleted the factory axle lockers. You

can delete front only, or both. If the front locker is deleted then the front axle disconnect is deleted as well and needs to be disabled as well.

Submenu Other:

DRL and other lighting options

- Set AUX: This setting is to configure the vehicle for AUX button package.
- Set Blind Spot: This setting is to configure the vehicle for blind spot detection package.
- Side Step: This setting will activate the MOPAR side step (Mopar Deployabe Step Kit 82215287AD) after installation.
- Set Belt ding (Experimental): This setting is to delete the seat belt reminder chime. The reminder icon will

- remain on the dash. Always wear your seatbelt!
- Set Splash: With this setting you can choose the cluster splash screen: There are many choices but not all will work, and some may set an error.
- **Set Panic:** With this setting you can choose whether the PANIC button on the keyfobs will be enabled or not. This needs to remain enabled for the Tazer DT hood alarm feature to function.

Live Menu Cont.

- Firmware Version Display: Shows the current Tazer DT firmware revision.
- Serial Number Display: Shows your Tazer DT's serial number (only needed in specific tech support situations)
- Unmarry Number: Displays the current one-time use Unmarry Number. See Page 14
- **Full Reboot:** 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 Uconnect will reboot twice, the dash will reset, and when it's finished, the red security dot on the dash may turn on. Once complete, shut off the vehicle, open and close the driver door and wait for a minute to be sure the dash turns off. Do that one more time to complete a second sleep cycle.



Live Menu

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

Live Settings:

Adjustable live options

- 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. It is recommended
 to leave this setting OFF, enabling it
 only when you need to use it, as it can
 cause an occasional radio reboot right
 after engine start-up.
- TurnCAM: Automatically turn on the backup camera if the turn signals are being used. Side-step buttons on the radio will flicker when TurnCam is

displayed. This is normal operation.

- ParkCAM: Automatically turn on SurroundView and the front camera when front ParkSense is triggered
- PIsBrk: Toggle pulsing third brake light when braking. Comprised of two settings:

PlsBrkNum: Set the number of pulses.

PIsBrkSpd: Set the speed/pattern of pulses slow/medium/fast/ramp up/ramp down/random

 Winch RPM: Use left arrow and cruise +/- buttons to adjust Winch Mode RPMs, 1300-2000RPM. Use left arrow and cruise on/off to save the new setting.



Live Menu Cont.

- TireFill: Set PSI and corresponding marker lights near each tire will
 - · flash slowly if underfilled
 - · flash quickly if overfilled
 - · remain solid at correct pressure
- 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.
- Video: If selected, will turn on backup camera input.
- Force RWD (TRX Only): Force Rear-Wheel Drive. Status is remembered on restart. AWD indicator will flash. (Might flash randomly sometimes. This is Normal.)
- **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 DT Firmware Revision:** Displays the Tazer DT's current firmware version (ie "TZDT:18.0.X")

Non-Menu Live Functions

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

• Light Shows: The Tazer DT comes preconfigured 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 two 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.

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.
- Cooldown Mode: Press the right arrow and cruise cancel button at the same time to turn the engine fans on High. If the engine is off, the fans will turn off automatically if the battery voltage drops below 11V. Transmission temperature will read as 229F while this mode is being used with the engine running. (only works with the engine off on manual Trucks)
- Winch Mode: With the engine running, press the left arrow and cruise RES buttons at the same time. The engine will rise to the RPM selected in the live menu (default 2000). There may be a few seconds delay before it changes. It will NOT raise if you touch the accelerator pedal, and will cancel if you do.
- Line Lock: While in 2WD, 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.

- Rock Crawl: Press and hold the left arrow and cruise set(-) button, and pump the brakes twice. The Truck will hold using all four brakes while you can work the pedals to apply torque, and release the buttons when you're ready to move. "RockCrawl" will be displayed in the cluster.
- Full traction control disable: Press and hold the traction button for 5 seconds to fully disable TC and ABS. Shut off and restart Truck to re-enable.
- Force Backup camera: Double tap the "mute" button to switch to backup camera
- Button Remap: This function allows the assignment of "hotkeys" for quick access to some of the Tazer DT's functions.
 The cruise +/-/RES may be used for this function. While the dash is in Audio mode, press and hold the RIGHT arrow and press the button you'd like to remap. The choices are:

Any of the 8 light shows

backup cameras

Line Lock

Rock Crawl

TC Kil

Cooldown

Force RWD (TRX only)



Keep in mind that not all functions pertain to all vehicles. These remap buttons will only program and operate while Cruise Control is OFF. When Cruise is on, they will operate as normal cruise control buttons. For TC Kill, a vehicle restart is required to bring the system

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.

UPDATING/LIGHT SHOW CONFIGURATION

Updating your Tazer firmware is done with the <u>Z Automotive Programming Utility</u>, 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 "<u>Light Show Configuration Guide</u>" to configure your Tazer DT's light show options in ZPU

UNMARRYING YOUR TAZER

To Unmarry your Tazer, select "Unmarry" from the Vehicle Settings Menu (not Live). Then perform a "Full Reboot" and two sleep cycles as described on page 6. All of your settings will revert to whatever they were when you originally Married your Tazer.

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



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 a state where it can display radio station name	Set EVIC so it's showing radio station name. This would be the the "Audio" menu on the instrument cluster
Changed a setting and it didn't take effect	Full Reboot and 2 sleep cycles were not performed	Follow the directions on page 5.
Changed gear ratio and "service AWD" is showing	Incorrect gear ratio chosen or Full Reboot and 2 sleep cycles were not performed	Follow the directions on page 5 and go for a short drive to fully initialize.

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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