

INFORMATION BULLETIN



May 8, 2025

EV20 PATROL VEHICLE TECHNOLOGY ISSUES: WHELEN CONTROL HEAD, REPEATER, AND WMVARS

In collaboration with the Fleet Operations Section (FOS), the Telecommunication Section (TS) has compiled information regarding three (3) identified issues, inherent to the EV20 patrol vehicle platform.

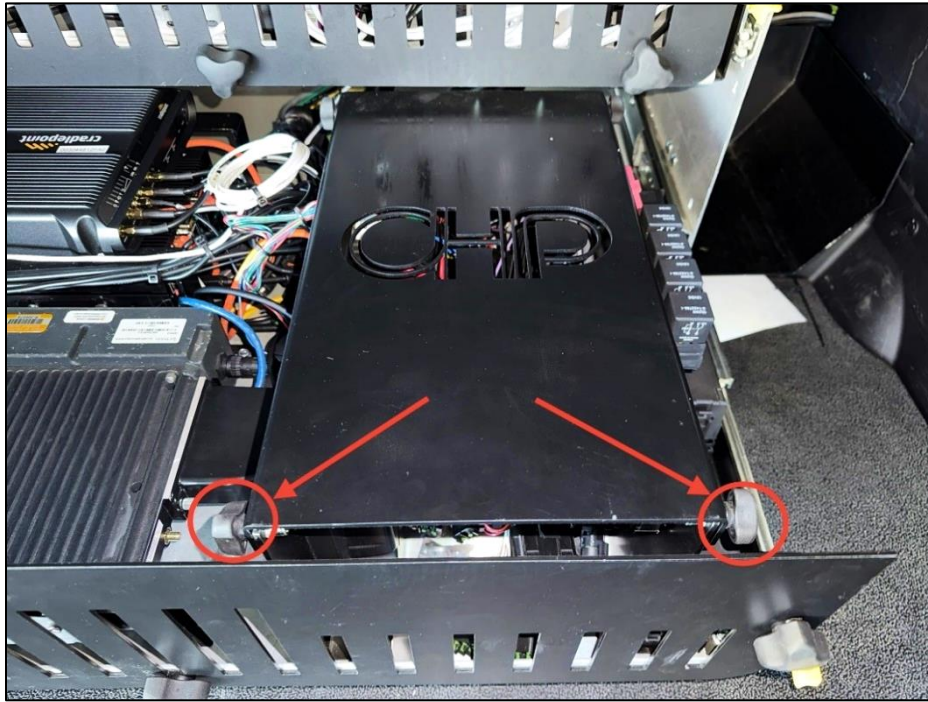
Issue 1 Background

FOS has received reports that some EV20 equipped 2023 Dodge Charger Police Pursuit Sedans have experienced an unexpected shutdown (and restart, in most cases) of the Whelen Control Head and other CHP equipment such as the light bar, mobile digital computer (MDC), WMVARS, etc. CHP FOS has reported these unexpected shutdowns/restarts to Whelen Engineering.

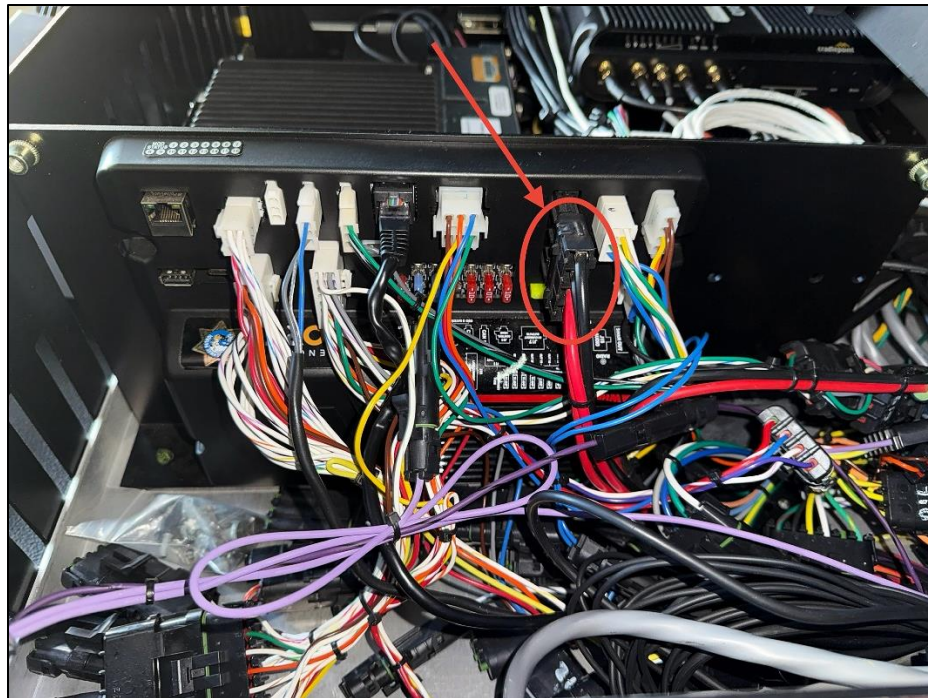
Upon investigation, Whelen Engineering identified a firmware problem which is causing this issue in CHP EV20 2023 Charger vehicles and other Allied Agency vehicles using the Whelen Core control system. Whelen has created new Core firmware to correct the issue and is currently beta testing the firmware to ensure that it functions properly prior to releasing it to their customers.

Issue 1 Solution

If the Whelen CenCom Core does not automatically restart, the user will be required to access the rear tray of the patrol vehicle and remove power from the core to restart it. To do this, the user will need to access the lower tray by pressing the yellow tabs along the sides of the tray. Once opened, the user can locate the Whelen CenCom Core by finding the black metal box along the right side of the tray, covered by a black metal plate bearing a CHP logo. The user will then need to open the black metal cover by removing the two (2) thumb screws closest to the user (see photo).



Upon opening the cover, the user will need to locate the main power cable and disconnect it from the core (see photo).



After removing power from the Whelen CenCom Core for approximately 10 seconds, reinsert the power cable. Once all systems have powered up, the issue should be resolved. In the event the above solution is unsuccessful, please contact FOS Engineering at (916) 309-6800.

Issue 2 Background

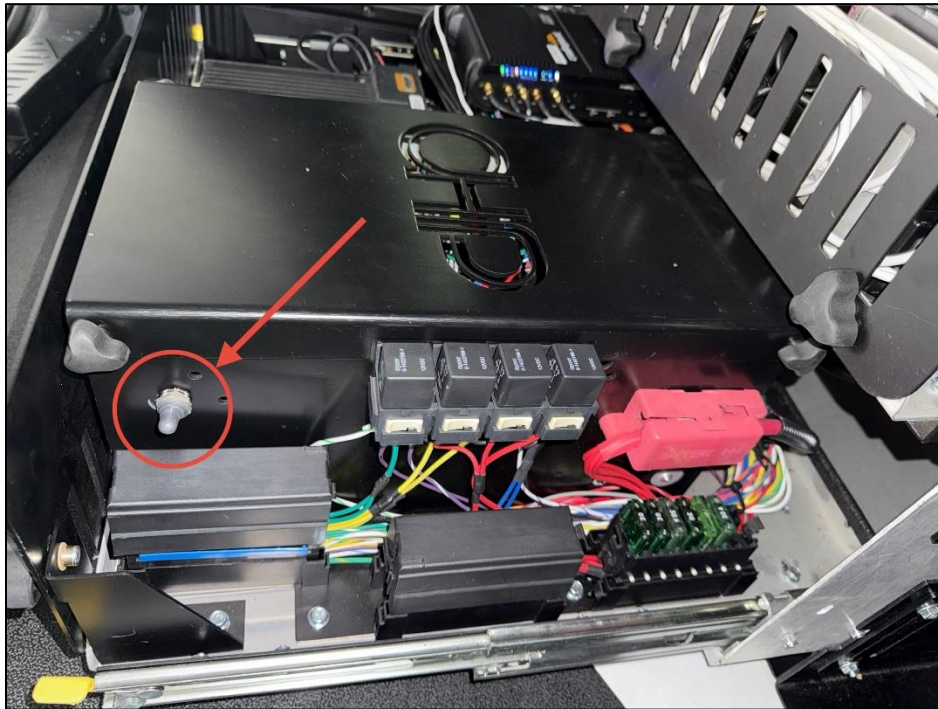
The TS is aware of an issue causing the repeater to malfunction and become unusable. In short, there is a component (the multi-deck interface [MDI]) which provides instructions to the multiple radios regarding how to interface with the radio head and what repeater channel to associate with the low-band frequencies (colors). During this repeater error, the user is unable to transmit or receive radio traffic using their portable radio. The mobile radio will still function. If the top left corner of the mobile radio LCD screen is blank, there is an error with the communication between the mobile radio and the MDI. When working properly, the Vehicle Repeater System (VRS) link channel will be displayed in the top left corner of the LCD screen.



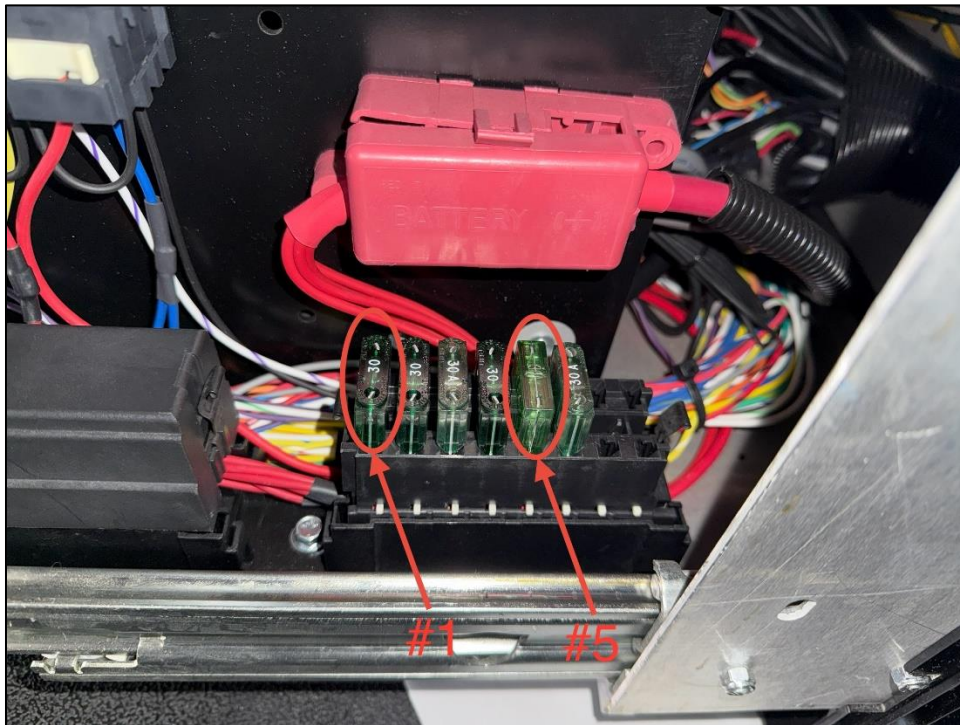
Issue 2 Solution

To resolve this issue, the user should shut down and reboot their patrol vehicle. To do this, exit all MDC applications and perform a Windows shutdown. Then power off the patrol vehicle and press the “Load Management” button on the Whelen Light Bar Controller. Once all the equipment has powered down, restart the patrol vehicle, activate the repeater, and perform a radio test with dispatch.

If the solution above was unsuccessful, the user will be required to access the rear tray of the patrol vehicle and remove two (2) 30 amp fuses. To do this, the user will need to access the lower tray by pressing the yellow tabs along the sides of the tray. Once opened, the user will need to toggle the grey switch, along the right side of the Whelen CenCom Core box (see photo), to the down position.



Once in the down position, the user will need to remove the #1 and #5 30 amp fuses from the main fuse block within the tray (see photo). Removing the aforementioned fuses will remove power to all vehicle radios and the repeater.



After the fuses have been removed for 10 seconds, reinsert them and toggle the switch back to the up position. Once all the equipment has powered up, activate the repeater and perform a radio test with dispatch. In the event neither of the above solutions are successful, please contact TS at (916) 843-4200.

Issue 3 Background

The TS and FOS are aware of an issue causing the WMVARS main unit to shut down unexpectedly. It was determined this issue was caused by excessive heat buildup in the trunk area of the EV20 patrol vehicle. This issue primarily effects Dodge Charger Police Pursuit Sedans.

Issue 3 Solution

Presently, the only resolution to this issue is to mitigate the heat within the trunk area of the patrol vehicle. It is recommended the user return to their respective Area office, park in a shaded area, open the trunk lid of the patrol vehicle, and allow the heat to dissipate. When the temperature of the trunk and WMVARS main unit drops below 158 degrees, the user will need to manually power on the WMVARS system by pressing the power button on the small WMVARS screen (see photo).



If the above solution is unsuccessful, allow the trunk area to cool longer and repeat the final step. Additionally, upon restart of the WMVARS system, body worn cameras (BWC) and microphones should be resynced as a precaution.

Questions regarding this bulletin should be directed to the Telecommunications Section, Patrol Vehicle Technologies Unit, at (916) 843-4200.

OFFICE OF THE COMMISSIONER

OPI: 047/074