

## RoadRunner Mobile Digital Video Systems

### Tech Tip: Wiring Configuration of the DVR Heater

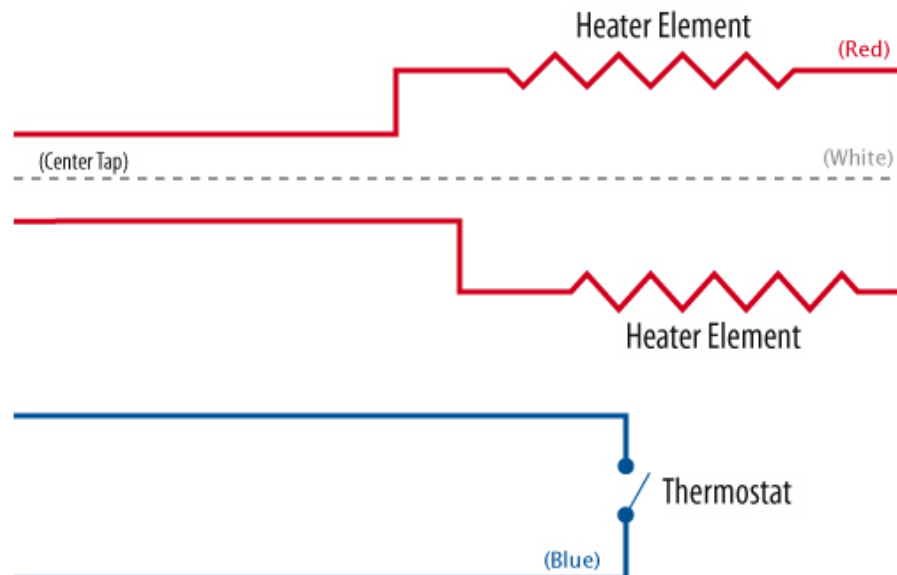
---

The RoadRunner Digital Video Recorder (DVR) is rated to record at temperatures above 32°F (0°C). The unit will detect freezing conditions and automatically shutdown in cold environments. This protects the recording media from damage.

Apollo Video Technology provides a heater option to allow the RoadRunner system to work in below freezing conditions. This document provides information on how the heater operates and directions on the wiring installation.

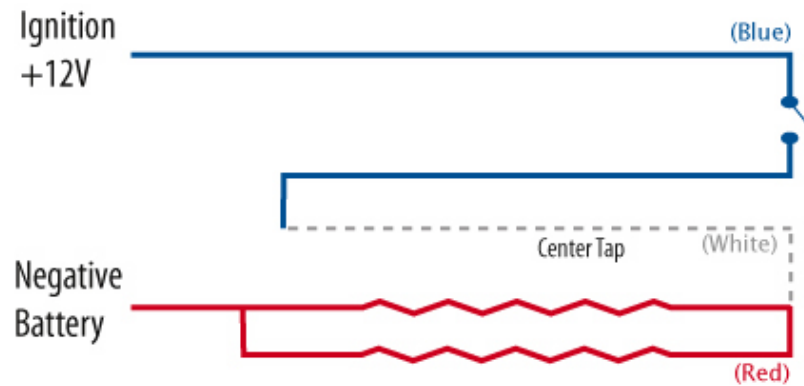
The heater has a built-in thermostat is essentially a switch that closes when the temperature is below 40°F and opens when the temperature is above 60°F. By connecting the thermostat in series with the heater element, the heater will automatically turn on and off whenever power is applied.

#### Functional Diagram:



**12V Installation:**

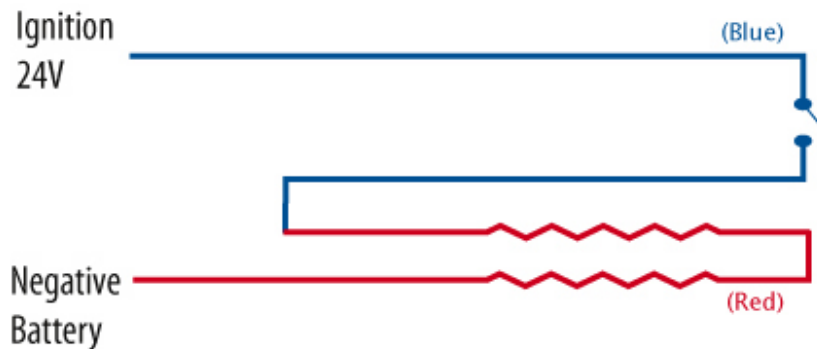
The 12V installation utilizes the white, center tap connection to support the lower input voltage and still provide the same output power.



In this configuration, the heater will operate at 12V and provide 120W of heat. Remember that  $P=VI$ . If  $P=120W$  and  $V=12V$ , then the current must be 10A. Be sure your system can supply 10 Amps of current on the 12V supply.

**24V Installation:**

The 24V installation does not use the center tap wire at all. The Power is still 120W and so the current required for a 24V system is 5 Amps.



Please contact technical support at: **888-AVT-USA1 (425-483-7100)**  
or by email: [tech@avt-usa.com](mailto:tech@avt-usa.com) for further information or assistance.