

Suggested Reference Materials:

Law Enforcement Preparation Guide may be downloaded from the EVT web site at www.evtcc.org , Exams and Preparation, or go directly to page by typing in: http://static.evtcc.org/pdf_files/LawEnforcementPrepGuide.pdf

Fundamental Electrical Troubleshooting, by Dan Sullivan 800-227-1603 www.esitest.com or online retailers
OR

Auto Electricity & Electronic Technology, by James Duffy. Goodheart-Wilcox 1-708-687-5000 or the book can be ordered from www.Amazon.com

Internet Resources:

www.autoshop101.com www.wattco.net <https://www.prioritystart.com/>
<https://www.adamsonindustries.com/blank-7>
https://www.fcausfleet.com/assets/docs/dodge-charger_pursuit-pdf/2016_DG_Charger_Pursuit_.pdf
<http://www.gmfleet.com/resources/fleet-guide.html>
<https://www.fedsig.com/resource-library>
<https://fordbbas.com/vehicle-info/Police%20Vehicles>
https://gmupfitter.wpengine.com/wp-content/uploads/2021/09/2018_FULL_BPrac_09_24_2021.pdf
https://www.stellantisfleet.com/content/dam/fca-fleet/na/fleet/en_us/shopping-tools/upfitting-guide/2022/2015-2022%20Charger%20Pursuit%20Upfitter%20Guide.pdf

LEARNING OBJECTIVES

1. Definition and Terms
 - a. Light Emitting Diode (LED)
 - b. Global Positioning System (GPS)
 - c. SIR/SRS-Restraint Systems
 - d. Wig-Wags
 - e. Radio Frequency Interference (RFI)
 - f. Traffic Pre-emptive Systems
 - g. Ohms Law
 - h. Lo-Jack Tracking System
 - i. Anti-lock Brake System (ABS)
 - j. Voltage Drop
 - k. Liquid Crystal Display (LCD)
 - l. Wire Gauge
 - m. Impedance
 - n. Digital Multi-meter (DMM)
 - o. Cold Cranking Amps(CCA)
 - p. Memory Saver Device
 - q. Ignition Off Draw (IOD)
 - r. Hertz (HZ)
 - s. Society of Automotive Engineers (SAE)
 - t. Convolute / Split Loop
 - u. 4 Wheel Anti Lock Brake (4WAL)
 - v. Tire Pressure Monitoring System (TPMS)
 - w. Anode
 - x. Fuse Element Cartridge
 - y. Watt
2. Installation
 - a. Trunk
 - b. Partition/Prisoner Compartment
 - c. Push bumper
 - d. Plastic seat/floor liner
 - e. Fire extinguisher
 - f. Gun cases
 - g. Light bar
 - h. Wig-wag headlights
 - i. Traffic pre-emption systems
 - j. Radio
 - k. Computer
 - l. Weapons release
 - m. Video camera and recorder
 - n. Chargers (flash light, radio)
 - o. Battery timer
 - p. Alarm systems
 - q. Radar
 - r. GPS
 - s. LED
 - t. Siren & Speakers
 - u. Control module/switch
 - v. Load management (electrical)
 - w. Antennas
 - (1) ground plane
 - x. Power inverter
 - y. Dash & Dash lights
 - z. Slide out tray
 - aa. Occupant restraint system
 - bb. Pillar mounted spotlight
 - cc. K-9
 - dd. Hybrid Systems
3. Basic Electrical
 - a. Parallel and series circuits
 - b. Wiring
 - c. Relays
 - d. Switches
 - e. Diagnostic equipment/tools and procedures
 - f. Circuit protector
 - g. Battery and charging systems
 - h. A/C power inverter
 - i. Diodes
 - j. Capacitor
 - k. Ohm's Law
 - l. Electrical symbols
 - m. Watts vs Amps

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4. Troubleshooting and Repair of Auxiliary

Equipment

- a. Light bar
- b. Wig-wags
- c. LED
- d. Pre-emptive systems
- e. Strobes
- f. Radio
- g. Computer
- h. Weapons release
- i. Video camera and recorder
- j. Chargers (flashlight, radio)
- k. Load Management
- l. Sirens and speakers
 - (1) Mounting requirements
- m. Programming lights
- n. R.F. Interference
- o. Battery/Accessory timer
- p. Spare tire
 - (1) Tire-pressure monitoring