



STATE OF CALIFORNIA

Bid Specification

FOUR-WHEEL-DRIVE UTILITY VEHICLE SPECIAL SERVICE POLICE PACKAGE

1.0 SCOPE

This specification describes the State of California minimum requirements for four-wheel drive, four-door, fully enclosed, sport utility vehicles having a Gross Vehicle Weight Rating (GVWR) less than 10,000-lbs. The vehicle will be used in highway traffic and law enforcement work and will at times be operated at high speeds for both short and long durations. It will be driven on all types of roads, and road surfaces, and at altitudes ranging from approximately 200 feet below sea level to 10,000 feet above sea level. Ambient temperatures, to which the vehicle will be exposed, will range from approximately 0°F to 120°F.

The manufacturer shall use components, materials, and design practices that are the best available in the industry for the type of operational conditions to which the vehicle will be subjected. Engine, transmission, driveline, differential(s), brake, suspension, wheel, tire and other component parts of the vehicle shall be selected to give maximum performance, service life, as well as safety, and not merely meet the minimum requirements of this specification. Where necessary, the component parts shall exceed the usual quantity, quality, or capacity generally supplied with standard production vehicles in order to withstand the unusual strain, exposure, temperature, wear, and use required for a police application.

2.0 RULES AND REGULATIONS:

Vehicles shall comply with all applicable California Vehicle Code (CVC), Code of Federal Regulations, Title 49, "Federal Motor Vehicle Safety Standard" (FMVSS) and California Code of Regulations, Title 13, "Motor Vehicles" rules and regulations for authorized emergency vehicles. Vehicles shall also comply with Society of Automotive Engineers (SAE) J 1100, "Motor Vehicle Dimensions" in addition to all other applicable SAE standards. In addition, all vehicles shall comply with all other Federal and State rules, regulations and safety standards applicable to the vehicle type in effect on the date of the opening of the invitation for bid. Vehicles shall meet 50 State emissions requirements that allow the resale of these vehicles to the general public as originally equipped upon emergency vehicle "service life" completion.

3.0 VEHICLE SPECIFICATIONS

All vehicles shall be certified by the vehicle manufacturer as "Police Package", "Special Service Package", or "Special Service Vehicle". Only vehicles identified as a sport-utility vehicle by the U.S. Environmental Protection Agency as published in their "Fuel Economy Guide" are acceptable. All vehicles shall meet the following minimum specifications:

4.0 REQUIREMENTS

4.1 General: Each vehicle shall be new (unused), current model year production. Each vehicle shall be supplied with all equipment and accessories indicated as standard equipment in the manufacturer's published literature unless specifically deleted as stated in this specification. Optional equipment necessary to meet the requirements of this specification shall also be installed.

- 4.2 **Engine:** The engine shall be equipped with altitude compensating electronic fuel injection. The engine shall be a V-8 configuration, with displacement of not less than 5.3 liter.

The engine shall be designed to operate knock free at all engine and vehicle speeds using unleaded fuel with a minimum octane rating of 87 (RM + MM ÷ 2).

- 4.3 **Engine Oil Cooler:** An auxiliary engine oil cooler shall be installed if necessary to meet the engine oil temperature requirements when the vehicle is exposed to temperatures described in Section 1.0-Scope.
- 4.4 **Fuel Supply System:** The fuel supply system shall be of such a design to eliminate vapor lock when the engine is operating in high ambient temperatures or during periods of extended idling.
- 4.5 **Cooling System:** The cooling system shall be a liquid pressurized, forced circulation type. A coolant recovery system shall be furnished. The cooling system design and capacity shall maintain the engine at optimum temperature, under all operating conditions specified, without any loss of coolant or overheating of engine and components. The cooling system shall be free of contaminants that may affect cooling system component longevity and performance. Optimum engine temperature shall be maintained with the vehicle loaded to the vehicle manufacturer's published maximum gross vehicle weight rating (GVWR), and continually operated in all operating environments described within the scope of this specification.

The coolant recovery system shall be of a closed design to prevent air from entering the radiator. The coolant recovery tank shall be of sufficient capacity to prevent loss of fluid from the coolant recovery tank and/or entry of air into the cooling system under all operating conditions. The coolant recovery tank shall be a vented unbreakable translucent reservoir with visible fill level indicator markings.

All radiator, bypass, and heater hoses shall be made of ethylene propylene rubber (EPDM) or reinforced silicone rubber. Hoses shall not collapse under any operating condition. The hose clamps on the engine cooling and vehicle heating system hoses shall be the steel metal band type.

- 4.6 **Electrical Equipment:** The electrical system shall be 12-volt negative ground. The electronic fuel management/ignition system shall be designed, as to not be affected by a 100 watt, 35-50 MHz, or a 450 milliwatt, 150-174 MHz radio system installed in the vehicle, or a 6 watt, 138-174 MHz portable radio in the immediate vicinity and in the transmit mode.

The vehicle battery shall be the optional heaviest duty type available, compatible with the vehicle charging system and intended for police service. The vehicle battery shall have a minimum of 650 cold cranking amps, with a manufacturing date not exceeding six (6) months prior to vehicle delivery. Vehicles will not be accepted with batteries exhibiting less than 90 percent of full charge at time of delivery.

The alternator shall be the highest capacity optional alternator listed in the manufacturer's current special service package brochure applicable to the vehicle bid. It shall have a minimum 150 amp output.

The accessory drive shall be of a heavy duty, serpentine type, with a self-adjusting tensioner that will drive all accessories with one belt.

- 4.7 **Transmission/Driveline:** The transmission shall be a fully automatic transmission equipped with auxiliary transmission fluid coolers, if necessary, to meet the manufacturer's transmission

temperature fluid requirements when the vehicle is exposed to temperatures described in Section 1.0-Scope.

Each vehicle shall be equipped with either manual or automatic locking front wheel hubs. Vehicle shall be equipped with the manufacturer's standard transfer case with manual or automatic engagement to provide power transfer to the front and rear wheels.

- 4.8 Steering:** The steering shall be power assisted. The power steering system shall be equipped with a fluid cooler, if necessary, to meet the manufacturer's power steering fluid temperature requirements when the vehicle is exposed to temperatures described in Section 1.0-Scope.
- 4.9 Brakes:** Each vehicle shall be equipped with the manufacturer's standard power assisted service brakes with a four wheel, electronic anti-lock brake system. All four wheels shall be equipped with disc brakes.
- 4.10 Wheels and Tires:** The vehicle shall incorporate a factory installed tire pressure monitoring system. Each vehicle shall be supplied with five (5) matching wheels and tires. One (1) of the five (5) shall be a matching full size wheel and spare tire. Space saver type spare tire is not acceptable. The wheels shall have a safety ridge rolled into the rim or otherwise designed to prevent the tire from separating from the wheel in the event of a flat. Wheels shall be heavy duty steel or aluminum alloy. Lug nuts shall be covered with small center cap covers.

The vehicle manufacturer shall test and certify tires, as acceptable, for original equipment and replacement installation on the special service package vehicle specified in this invitation for bid. The tires installed on the vehicle (including spare) shall meet the requirements listed in the Code of Federal Regulations (CFR), Title 49, Chapter V, Part 575.104.

- 4.11 Wheelbase:** The minimum wheelbase shall be 116 inches.
- 4.12 Suspension:** The front and rear suspension, including shock absorbers, shall be heavy duty design for police work. Front and rear stabilizer bars required. The State will mount a front bumper and winch weighing approximately 300 pounds on the front of the vehicle and approximately 200 lbs. of equipment will be carried in the rear cargo area at all times.
- 4.13 Fuel Tank:** The fuel tank furnished shall be the largest capacity available.
- 4.14 Body/Cab:** The body shall be a four door, sport utility with center post. Protective body side molding shall be installed, except on the front doors if the trim interferes with the installation of the Agency insignia (33" long by 20" high). The wheel wells shall be constructed so that SAE Class "S" style tire chains may be installed in a conventional manner, without clearance problems, and without causing body or structural damage to the vehicle (SAE specification J1232).

The front door body side molding(s) shall be supplied with mounting hardware for installation by the Agency when the vehicle is taken out of service.

- 4.15 Exterior Color:** Manufacturer's published listing of factory available paint colors and paint schemes shall be made available to the ordering agency at the time of the purchase order. The agency will identify the paint color and scheme on the purchase order.
- 4.16 Interior/Seat Upholstery:** Front seats shall be bucket type accommodating a center console. A 60/40 split bench / bucket type seat is not acceptable. The driver's seat shall be power adjustable and shall be designed for maximum comfort, support and durability. The front and rear seat upholstery shall be woven synthetic cloth fabric and vinyl trim.

- 4.17 **Steering Wheel:** A tilt steering wheel is required.
- 4.18 **Radio:** Factory AM / FM radio shall be installed.
- 4.19 **Floor Covering:** The floor covering of the entire front and rear floor shall be rubber or vinyl type material. The color of the flooring shall be black or grey.
- 4.20 **Hood Latch Release:** The hood latch release shall be mounted inside the front passenger compartment so that the hood can not be readily opened from outside the vehicle. The release shall be readily accessible to the driver.
- 4.23 **Radio Speakers:** Vehicle shall be factory equipped with at least two (2) front mounted radio speakers.
- 4.24 **Interior Area:** The Vehicle shall be equipped with 1st and 2nd row seats only, and shall have a seating capacity of minimum 5.
- 4.25 **Miscellaneous Equipment:** The following items, supplementing if necessary those items already cataloged as standard equipment, shall be furnished and in place.
- Fresh air type heater and defroster. Refrigeration air conditioning of a size and type recommended and installed by the manufacturer of the vehicle. Vehicle air conditioning system shall include any components required to protect the compressor from excessively high head pressure.
 - Intermittent windshield wiper system.
 - Fuel level and water temperature gauges.
 - 12-volt DC power outlet in front compartment.
 - Dual electric horns or dual note horn.
 - Standard map or courtesy light. Door post switches shall be inoperative.
 - If vehicle offered includes a locking door which cannot be unlocked by the door handle, one additional key fob shall be provided.
 - If the vehicle offered includes an automatic lock feature that automatically locks the doors when the transmission is shifted into drive mode, the bidder shall include any service calibration required to override this function.
 - Driver and front passenger front impact air bag.
 - Driver and front passenger side impact air bag.
 - All four (4) doors shall contain power locking and unlocking mechanisms controlled by switches located on both the left and right front door control panels.
 - All four windows shall be power actuated, and controlled, from the driver's side door control panel with a lockout feature to prevent other windows from being operated when locked out by the driver.
 - Rear window defogger/defroster on a separate switch.
 - The vehicle shall use the same single key for ignition, doors and rear door. A set of four (4) total keys and four (4) total key fobs shall be supplied for each vehicle. Each vehicle shall be keyed individually.
 - Arm rests on each of the four (4) doors (arm rests in rear passenger compartment may be mounted on other than the door if vehicle is so designed).
 - Left and right remote control outside mirrors. Similar in appearance and mounted on left and right front doors. Both mirrors shall be controllable from the driver's seat.
 - Windshield and all windows shall feature tinted glass.
 - Light in rear cargo area with rear cargo door actuated switch.

- Standard tool kit including wheel changing tools and jack adequate to safely lift the vehicle.
- Cruise Control