



## SWAT/Bomb Response

Model BU2000



### Charlotte-Mecklenburg Police

Charlotte, North Carolina

The Charlotte-Mecklenburg Police Department now has a new weapon to protect one of the largest metropolitan areas in the southeast. Charlotte is recognized as the banking capital of America. It is a major transportation hub with I-40 and I-77 intersecting the city, along with rail heads and one of the busiest airports in the United States. Much high tech industry is based within the city and county and a nuclear power plant is situated along Catawba River the just down the road.

The department required a multi-functional vehicle to respond to special ops incidents and worked with Hackney to design a platform that would provide resources for the tactical and bomb teams. The 20-ft body is mounted on a Spartan Gladiator with a 425 hp Cummins ISL engine. The cab has a walk-thru passage to the body, allowing the team to move from the seated position to the work stations.

A 15-kw diesel generator provides stand-alone power to the body for the two air conditioners, heaters, work station power and lights and exterior flood lights.

The interior features all-aluminum cabinets with powder-coated finish. Work station desk tops are 1-1/2" solid-surface polymer. The Bomb tech work station counter top is stainless steel.

The environmental system is plumbed into a ceiling plenum that equally distributes air throughout the interior from both the AC units, allowing one or both to be utilized and providing redundancy should one fail.



*NightVision camera on a 34-ft pneumatic tower and multi-directional 20-ft light tower.*



A roll-up door on the right rear accessing the robot garage. Moving the robot in and out of the compartment is facilitated by a ramp that stores beneath the compartment. Access to the bomb tech kits is provided from both the interior, beneath the tech work station and exterior through double hinged doors. A full body length electrically deployed awning provides additional work space on the exterior for logistics.

The chassis and body is fully multiplexed and provides visual text messaging on a color monitor on the dash. The monitor will visually, audibly and textually alert the

driver that the awning or tower(s) are deployed. The system also provides on-screen diagnostics and vehicle information, such as serial numbers of major components, fluid levels, etc.

All marker lights, tail lights, compartment light and warning lights are LED, dramatically reducing amperage draw. In addition to the 240VAC flood lights, additional scene lighting is provided by Whelen 12VDC halogen lights on the upper sides of the cab and body and on the rear body. The lights are automatically activated by reverse mode, when the turn signals are activated or manually.

The R-Vision camera, mounted on the 42-ft pneumatic tower is routed to a large LCD screen on the interior and a digital video recorder. Z-channel antenna mounts are provided along the roof perimeter for multiple antennas and frequencies.



*Front bumper compartments provide storage for rapid deployment of forcible entry tools.*



*Robot is rapidly deployed from the garage by a ramp that stores beneath the floor.*

The body is all-aluminum and designed specifically for emergency services severe-duty applications. The roof features fully welded aluminum tread plate that is designed as a walk surface and strong enough to mount a 1.2M SAT dish with full wind load with the requirement for additional mounting support brackets.

Mounting a 20-ft body on a custom cab minimizes the wheelbase and provides for a large apparatus that will maneuver in heavy traffic patterns and tight response areas.

Download drawings for further details on the overall design.

