

SPECIFICATION SHEET

LIGHTNING ARRESTER ASSEMBLY, WITH SUPPORT ARMS MODEL dBs 900E Lightning Arrester Assembly

dBs PART NUMBER 901259-101



Lightning Arrester Assembly, with Support Arms is shown mounted to dBs 900E TACAN Antenna

dB Systems' unique approach to lightning protection, and more importantly, lightning diversion.

A cantilevered Lightning Arrester is stabilized by two support arms and affixed with an air terminal of a height sufficient to provide a 45° cone of protection which surrounds the 900E TACAN Antenna.

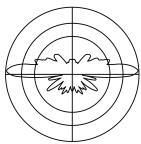
Reduces the likelihood of a direct lightning strike by leeching the charge out of the air in and around the vicinity of the antenna through a low impedance path to the ground.

Reducing the positively charged particles in the air surrounding the antenna dramatically reduces the probability that CG (cloud-to-ground) lightning will be drawn to the protected area surrounding the antenna when the building charge in the clouds has reached a point where discharge is imminent.

In the event of a lightning strike, the dBs cantilevered approach allows a path for the lightning that is not directed through the body of the antenna where the parasitic elements, which are largely responsible for the generation of the TACAN modulated waveshape, are housed.

Approximately 3.4 million operational hours over 140 installations, with only 3 known or suspected lightning incidents. All systems were self-diagnosed by the built in test equipment, appropriate LRUs were replaced, and systems were back online in 24 hours.

Lightning Arrester with Obstruction Light Option (PN: 901259-102): Dual red lamp or LED obstruction light fixture with two red globe covers. Mounts to the top of the Lightning Arrester and comes with a bracket to offset the Lower and Upper Air Terminal. Power connector is MS3112E8-3P.



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PRODUCT TYPE: Lightning Diverter/Protection Assembly

INTENDED USE ANTENNA TYPE: 900E Lightning Arrester Assembly With Support Arms, PN: 901259-101 is intended for use with dBs 900E TACAN Antenna

LIGHTNING ARRESTER SIZE: 109.65" L, 3.25" Dia. radome, including top cap and base flange

ASSEMBLY SIZE: 183.31" L including Lower Support Arm, Upper Support Arm, Lower Air Terminal, and Upper Air Terminal

TOTAL WEIGHT: 62 lbs.

- Lightning Arrester: 23 lbs.
- Support Arm, Upper: 9 lbs.
- Support Arm, Lower: 25 lbs.
- Air Terminal, Upper: 1 lb.
- Air Terminal, Lower: 1.5 lbs.

PHYSICAL DESIGN: Cylindrically stacked tuned dipole array, 1.5" O.D. x 1.43" I.D. (0.040" wall thickness) runs through the center of lightning arrester for the full length. Array is used as lightning down conductor, and tuned as to not disrupt the radiated signal from the adjacent 900E TACAN Antenna

WEATHER PROOFING: Entire assembly, including all cable connectors, is weather proofed such that installation, removal, or replacement of Lightning Arrester is possible without sealing compounds

ENVIRONMENTAL: FAA-E-2100 environment III

MOUNTING: The Lightning Arrester is supported by the Lower Support Arm cantilevered off the 900E TACAN Antenna pedestal with Upper Support Arm attached to the 900E TACAN Antenna Lid to provide increased vertical stability

WIND LOADING: Withstands without damage 100 mph gusts

TEMPERATURE: -50°C to +70°C

RELATIVE HUMIDITY: Up to 100%

ALTITUDE: 10,000 feet above sea level, maximum

ICING: 4.5 lbs./ft.² on exposed surface, maximum

CONNECTORS: Ground Lug on bottom of Lightning Arrester base