

# 621 Series T1 Apparatus Cases

621 Series Apparatus Cases provide weatherproof mounting facilities for 12, 25 or 50 T1 miniature line repeaters. The housing consists of a molded-plastic card cage, a molded-fiberglass baseplate, and a stainless steel cover that maintains pressure-tight integrity. The non-metallic baseplate improves corrosion resistance and isolates electrical surges due to lightning.

The housing may be mounted vertically on a pole, pedestal, or against a wall in a manhole. An internal card cage may be tilted up to approximately 45 degrees, increasing access to the rear of the card cage for test connection to cable pairs and the insertion and removal of gas tube protectors. The baseplate may be rotated on the mounting bracket in 90-degree increments, allowing three different orientations of the card cage.

621 Series T1 Apparatus Cases are available in two configurations, vented with D-encapsulated stubs for above-ground installation or pressurized with air-core stubs for manhole installations. Several optional wiring configurations and cable stub arrangements may be user-specified (see the ordering guide on the reverse side).



## Features

- Stainless steel cover is durable and corrosion-resistant.
- A stainless steel V-band assembly firmly clamps the case cover to the baseplate O-ring seal. No tool is required for removal.
- The latch assembly uses a T-handle on the tightening nut, and is not affected by ice. Tabs on the latch permit padlocking for security.
- Wire-wrap pins interface between plug-in units inserted at the front of the card cage and lightning protection kits installed at the rear.
- Plug-in positions for repeaters are numbered from left to right and bottom to top.
- Retainer brackets prevent repeaters from disconnecting due to vibration, such as near roadways or railroads.
- Two cable stubs are secured in the housing baseplate. Cable strain relief grips screw onto the end of the hollow conical chambers and extend through the housing baseplate, providing an airtight entrance seal.
- Underside of baseplate includes an external Schrader valve (to allow housing to be easily pressurized and depressurized) or external vent (for vented units), and ground lug.

## Ordering Information

Refer to Ordering Guide on reverse side for part numbers, descriptions and options.

## Specifications

**Repeater Type:** Only bidirectional repeaters with surge protection (industry type 239A, such as Charles' 621156-000-003/-004) should be used in these housings. Should it be desirable to mount HDSL repeaters, leave every other slot empty to avoid excessive heat buildup.

**Ambient Temperature:** -40°C to +80°C  
(-40°F to +175°F)

**Relative Humidity:** to 95% at 40°C (no condensation)

**Altitude:** to 14,000 feet (4,300 meters)

**Environmental Resistivity:** unaffected by industrial atmospheres, chemicals and weather

**Pressurization:** to 10 psi (.7 kg/cm<sup>2</sup>) maximum

**Surge Protection:** Meets RUS specification PE-80

### Dimensions

**(Height x Diameter x Diameter w/T-Handle):**

12 Slot: 15.5" x 13.3" x 14.9", 0.7 cu ft volume

25 Slot: 21.9" x 13.3" x 14.9", 1.2 cu ft volume

50 Slot: 31.8" x 13.3" x 14.9", 1.9 cu ft volume

### Weight:

12 Slot: 42 to 64 lbs.

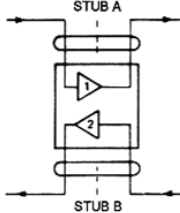
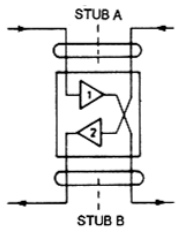
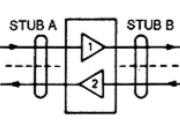
25 Slot: 52 to 75 lbs.

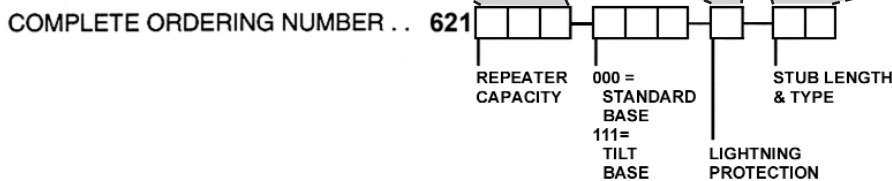
50 Slot: 86 to 134 lbs.

**Note:** Weight dependent on number, type and length of stub(s).



# Ordering Guide For 621 Series T1 Apparatus Cases

APPLICATION	REPEATER CAPACITY	LIGHTNING PROTECTION	STUB OPTIONS
<p>STANDARD BIDIRECTIONAL OPERATION</p> <p>2 STUBS – SIDE 1 &amp; SIDE 2</p> 	<p>204 = 12 Slot</p> <p>205 = 25 Slot</p> <p>206 = 50 Slot</p>	<p>1 = Unprotected</p> <p>2 = 3-Element Gas Tube Lightning Protection</p>	<p>01 = 30' Stub, Aircore</p> <p>02 = 30' Stub, D-encapsulated</p> <p>03 = 50' Stub, Aircore</p> <p>04 = 50' Stub, D-encapsulated</p>
<p>SPATIAL-FROGGING BIDIRECTIONAL OPERATION</p> <p>2 STUBS – INPUT &amp; OUTPUT</p> 	<p>204 = 12 Slot</p> <p>205 = 25 Slot</p> <p>206 = 50 Slot</p>	<p>1 = Unprotected</p> <p>2 = 3-Element Gas Tube Lightning Protection</p>	<p>05 = 30' Stub, Aircore</p> <p>06 = 30' Stub, D-encapsulated</p> <p>07 = 50' Stub, Aircore</p> <p>08 = 50' Stub, D-encapsulated</p>
<p>SPECIAL BIDIRECTIONAL OPERATION –</p> <p>2 STUBS – EAST &amp; WEST</p> 	<p>204 = 12 Slot</p> <p>205 = 25 Slot</p> <p>206 = 50 Slot</p>	<p>1 = Unprotected</p> <p>2 = 3-Element Gas Tube Lightning Protection</p>	<p>09 = 30' Stub, D-encapsulated</p> <p>12 = 30' Stub, Aircore</p> <p>13 = 50' Stub, D-encapsulated</p> <p>14 = 50' Stub, Aircore</p>



## LIGHTNING PROTECTION KIT

Kit includes PCB board with 4 gas tube protectors. It press-fit installs over T1 repeater wire wrap pins.  
1 kit protects 1 repeater card.

Order Part #600036-700-001


Please contact Charles for further product or application information. Specifications are subject to change. Charles Industries, Ltd., reserves the right, without notice, to make changes in equipment components and/or design as progress in engineering methods may warrant.

Visit our website at <http://www.charlesindustries.com>

Charles Industries, Ltd.  
Telecommunications Group  
5600 Apollo Drive  
Rolling Meadows, IL USA 60008

Telephone (US): (847) 806-6300  
Fax: (847) 806-6231  
E-Mail: [mktserv@charlesindustries.com](mailto:mktserv@charlesindustries.com)



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