AC 6321-09 Apparatus Case

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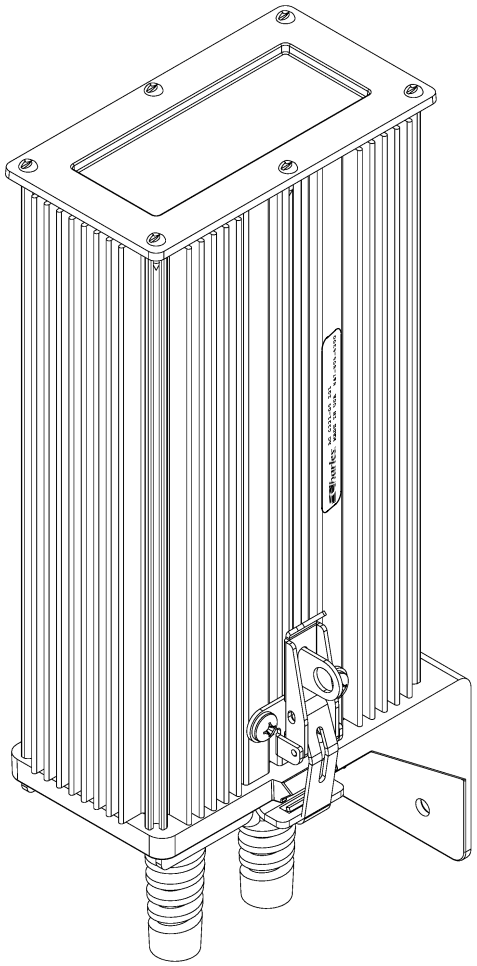

Figure 1. The AC 6321-09 Apparatus Case

1. GENERAL

1.1 Document Purpose

This document provides a general description, application, and installation information for the Charles Industries AC 6321 series apparatus case, model number 632109XAA (see Figure 1).

1.2 Document Status

This document is reprinted to add information for pair gain products.

1.3 Equipment Function

The AC 6321 apparatus case provides weather-resistant mounting for two 239-type circuit plug-ins or one double-width circuit plug-in (239 width X 2). The cover assembly of the AC 6321 acts as a heat sink to effectively dissipate the heat generated by plug-in circuits requiring large amounts of energy for powering. The apparatus case comes pre-wired with two 10-foot filled cable stubs.

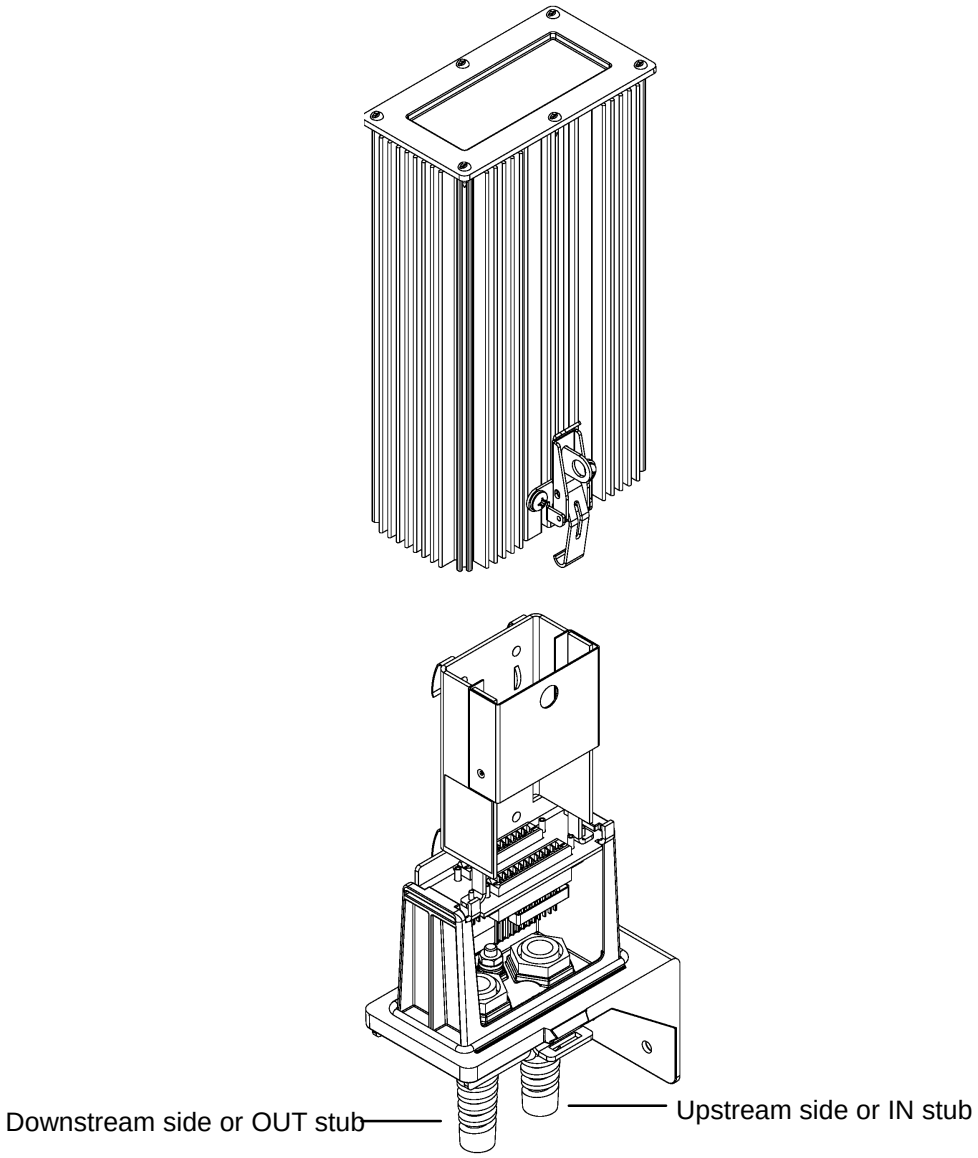

Figure 2. The AC 6321-09 with the cover removed

1.4 Equipment Location/Mounting

The AC 6321 apparatus case is designed for outdoor mounting on a pole or wall and is constructed from non-corrosive materials. The AC 6321 apparatus case cover is easily removed for servicing and may be locked in the closed position.

1.5 Equipment Features

The apparatus case provides the following features:

- Massive heat sink cover
- Cover latches are positive and lockable
- Translucent amber plastic window to view plug-in power status
- Accommodates one double-width or two single-width standard plug-ins
- Open chassis to allow easy access for testing and addition of protection
- Non-metallic base assembly
- Stainless steel reinforcement plate

2. APPLICATION GUIDELINES

The apparatus case is intended for use in above-grade installations.

For outside installations, the apparatus case should be equipped with protected plug-ins.

3. INSPECTION

3.1 Inspect for Damages

Inspect the equipment thoroughly upon delivery. If the equipment has been damaged in transit, immediately report the extent of damage to the transportation company.

3.2 Equipment Identification

Charles Industries' equipment is identified by a model and issue number imprinted on the front panel or located elsewhere on the equipment. Each time a major engineering design change is made on the equipment, the issue number is advanced by 1 and imprinted on subsequent units manufactured. Therefore, be sure to include both the model number and its issue number when making inquiries about the equipment.

4. MOUNTING

The AC 6321 apparatus case is typically mounted on a pole or wall (see Figure 4). It is recommended that the AC 6321 be mounted in a vertical position with the cover in an 'up' orientation.

Provide a suitable location with adequate clearance on all sides to easily service the apparatus case. Where an overhead obstruction exists, the minimum clearance between the top of the installed cover and the overhead obstruction of ten (10) inches is required.

Step	Action
1.	**Remove the cover from the apparatus case:** Remove any locking device(s) located on the two locking latches. Rotate the two locking latch handles down towards the base of the apparatus case. Lift the cover up and over the apparatus case inner plug-in module.
2.	Place the cover in a location where it will not be damaged.
3.	Using the base mounting assembly as a template, mark the four holes for mounting.

Step	Action
4.	Install the mounting bracket with proper sized fasteners (screws or other suitable hardware) at the marked locations. Ensure that the heads of the fasteners are larger than the holes in the mounting bracket.
5.	If the apparatus case is not to be activated at this time, replace and secure the cover onto the base.

5. INSTALLER CONNECTIONS

All signal lead connections to the AC 6321 apparatus case are made through the provided cable stubs which are factory pre-wired to the apparatus case base assembly. The inner stub, or stub closest to the vertical surface of the mounting bracket is the 'In' stub. The outer stub, or the stub furthest from the vertical mounting bracket, is the 'Out' stub. The AC 6321 apparatus case stubs consist of six pairs, 24 gauge color-coded (PIC) solid copper conductors.

Note: Only pairs 1 through 4 are used in each stub. The remaining two pairs are bonded to ground in the base of the apparatus case. These pairs may be used as spares if the need arises.

Note: Only pairs 1 and 2 in each stub are used for Charles pair gain products.

The shields from the two stubs are bonded together and terminated to the ground stud within the base of the apparatus case.

Refer to Figure 3 for J1 and J2 pin assignment key.

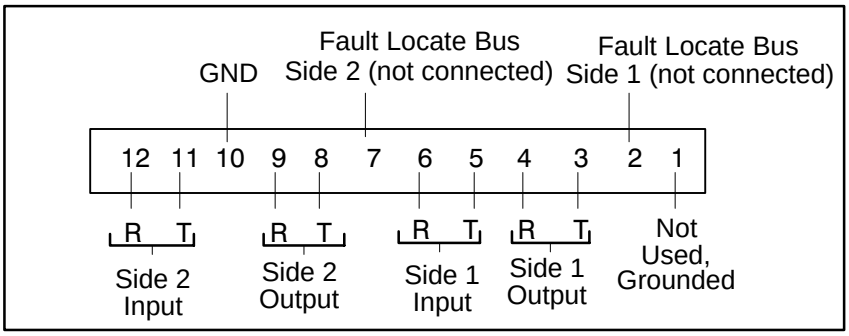

Figure 3. J-Connector Pin Assignment Key, J1-J2

5.1 Grounding

In the standard configuration, all internal grounding is connected to the internal ground stud located in the base of the apparatus case. Pins 1 and 10 of J1 and J2 are bonded by a ground bus that is then connected to the internal ground stud through a 14 gauge ground wire. Spare pairs and cable stub sheaths are also attached at the common ground stud in the base of the apparatus case. To enhance user safety and minimize possible EMI/RFI interference, the cable shields should be grounded (25 ohms or less) and bonded at the splice to the main cable.

The installation of this apparatus case is not completed until a ground wire (14 AWG. minimum) is attached to the external ground stud provided on the base of apparatus case.

5.2 Splicing

Step	Action
1.	Prepare the cable stubs in accordance with local telephone company practices.
2.	Using locally approved splicing practices, splice the 'In' and 'Out' cable stubs from the AC 6321 apparatus case to the main cable(s) using Table 1 as a guideline.

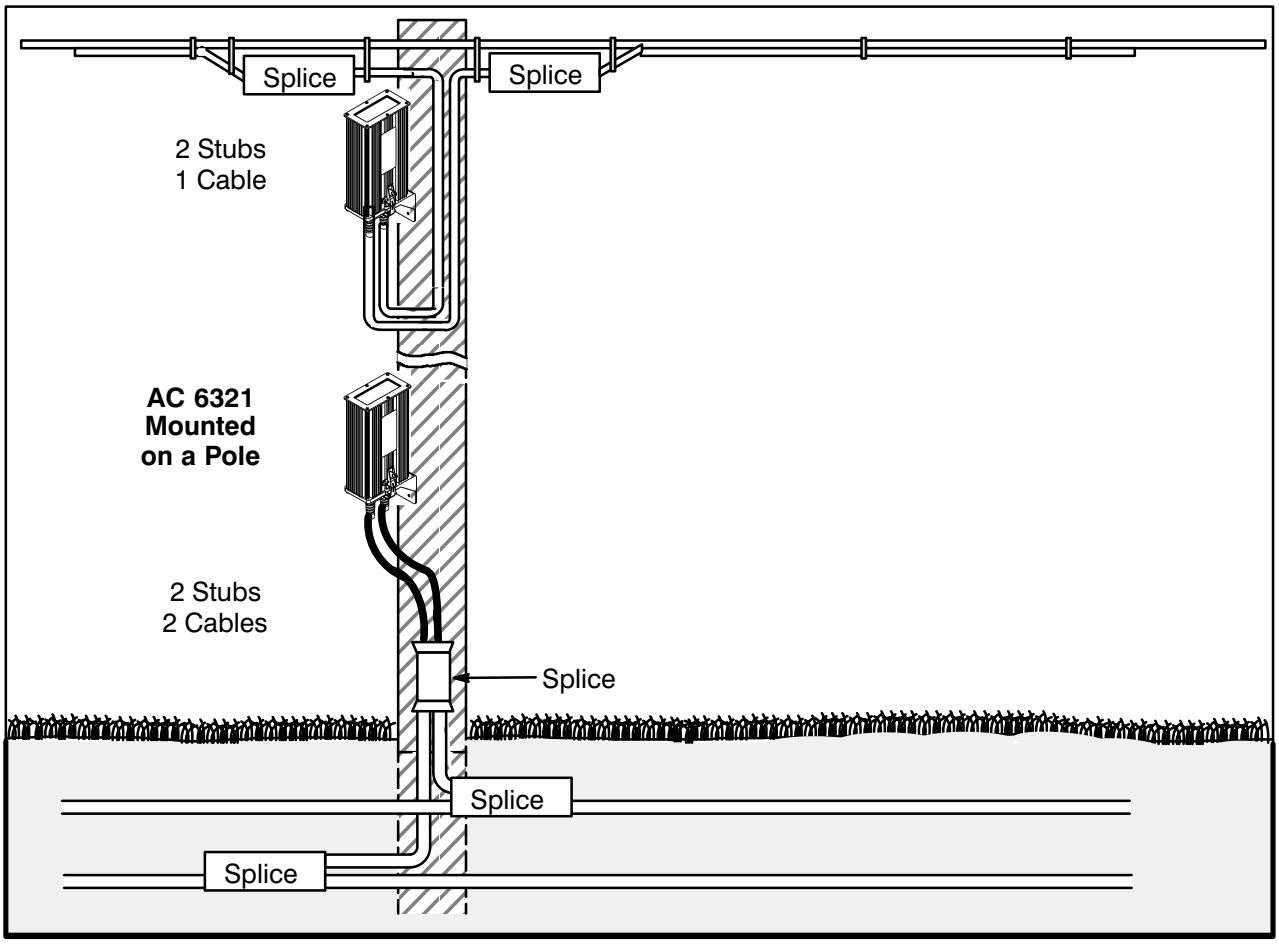

Figure 4. Mounting the AC 6321

Table 1. Cable Splicing Guidelines

Slot #	IN stub				OUT stub			
	Side 1		Side 2		Side 1		Side 2	
	Pin 6 R	Pin 5 T	Pin 12 R	Pin 11 T	Pin 4 R	Pin 3 T	Pin 9 R	Pin 8 T
1	BL	WH	GR	WH	BL	WH	GR	WH
2	OR	WH	BR	WH	OR	WH	BR	WH
spare	SL	WH			SL	WH		
spare	BL	RD			SL	RD		

Table 2. Cable Splicing for Charles Pair Gain Products

Slot #	IN stub				OUT stub			
	Side 1		Side 2		Side 1		Side 2	
	Pin 6 R	Pin 5 T	Pin 12 R	Pin 11 T	Pin 4 R	Pin 3 T	Pin 9 R	Pin 8 T
1	BL	WH	Not used		BL	WH	Not used	
2	OR	WH	Not used		OR	WH	Not used	

5.3 Plug-In Insertion

Insert the required 239-type plug-ins into either, or both, slots 1 and 2. If a single double width plug-in is to be used, remove the slot divider and discard or save for future replacement. Prior to inserting a double-width circuit plug-in, confirm that the pin assignments of the plug-in correspond to the pin assignments of either J1 or J2. On most double-width plug-ins, one of the two card edge connectors will be rendered inaccessible by the double-width plug-in. Once established as the correct orientation for proper operation, insert the double-width plug-in.

5.4 Installing the Cover

After all connections have been made and circuit testing has been completed, replace the cover and secure both cover locking latches. If required by local conditions, locks or seals may be applied to one or both of the locking latches.

6. TESTING

Perform continuity and circuit acceptance testing in accordance with local practice and standards.

7. TECHNICAL ASSISTANCE

If technical assistance is required, contact Charles Industries' Technical Services Center at:

847-806-8500
847-806-8556 (FAX)
800-607-8500
techserv@charlesindustries.com (e-mail)

8. WARRANTY & CUSTOMER SERVICE

8.1 Warranty

Charles Industries, Ltd. offers an industry-leading, 5-year warranty on products manufactured by Charles Industries. Contact your local Sales Representative at the address or telephone numbers below for warranty details. The warranty provisions are subject to change without notice. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract.

Charles Industries, Ltd.
5600 Apollo Drive
Rolling Meadows, Illinois 60008-4049
847-806-6300 (Main Office)
847-806-6231 (FAX)

8.2 Field Repairs (In-Warranty Units)

Field repairs involving the replacement of components within a unit are not recommended and may void the warranty and compatibility with any applicable regulatory or agency requirements. If a unit needs repair, contact Charles Industries, Ltd. for replacement or repair instructions, or follow the *Repair Service Procedure* below.

8.3 Advanced Replacement Service (In-Warranty Units)

Charles Industries, Ltd. offers an "advanced replacement" service if a replacement unit is required as soon as possible. With this service, the unit will be shipped in the fastest manner consistent with the urgency of the situation. In most cases, there are no charges for in-warranty repairs, except for the transportation charges of the unit and for a testing and handling charge for units returned with no trouble found. Upon receipt of the advanced replacement unit, return the out-of-service unit in the carton in which the replacement was shipped, using the pre-addressed shipping label provided. Call your customer service representative at the telephone number above for more details.

8.4 Standard Repair and Replacement Service (Both In-Warranty and Out-Of-Warranty Units)

Charles Industries, Ltd. offers a standard repair or exchange service for units either in- or out-of-warranty. With this service, units may be shipped to Charles Industries for either repair and quality testing or exchanged for a

replacement unit, as determined by Charles Industries. Follow the *Repair Service Procedure* below to return units and to secure a repair or replacement. A handling charge applies for equipment returned with no trouble found. To obtain more details of this service and a schedule of prices, contact the CI Service Center at 217-932-5288 (FAX 217-932-2943).

Repair Service Procedure

1. Prepare, complete, and enclose a purchase order in the box with the equipment to be returned.

2. Include the following information:

   – Company name and address
   – Contact name and phone number
   – Inventory of equipment being shipped
   – Particulars as to the nature of the failure
   – Return shipping address

3. Ship the equipment, purchase order, and above-listed information, transportation prepaid, to the service center address shown below.

   CI Service Center
   503 N.E. 15th St., P.O. Box 339
   Casey, IL 62420-2054

4. Most repaired or replaced units will be returned within 30 or 45 days, depending on the product type and availability of repair parts. Repaired units are warranted for either 90 days from the date of repair or for the remaining unexpired portion of the original warranty, whichever is longer.

9. SPECIFICATIONS

See Table 3 for the physical characteristics of the apparatus case:

Table 3. Physical Specifications

Feature	U.S.	Metric
Height	13.30 inches	33.8 centimeters
Width	4.75 inches	12.1 centimeters
Depth	6.125 inches	15.6 centimeters
Weight	7 pounds (incl. 10 foot stubs)	3.2 kg
Temperature	–40°F to +160° F	–40°C to +71° C
Humidity	to 95% at 100°F (no condensation)	