

Charles Retrofit Kit 97-002491-A

General Description and Installation

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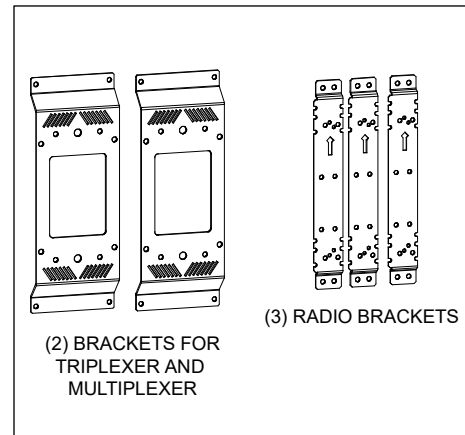


Figure 1 Kit Components

1. GENERAL INTRODUCTION

1.1. Document Purpose

This document provides general information for the 97-002491-A retrofit kit for the Charles Industries SH60-702018 radio shroud. Figure 1 shows the kit components. Mounting hardware is not shown.

-NOTE-

*Hereafter, the Charles 97-002491-A retrofit kit will be referred to as the "kit."
The SH60-702018 radio shroud will be referred to as the "SHRD60."*

1.2. Product Purpose

The kit consists of a set of brackets to be installed in the SHRD60. The brackets support (1) Nokia AWHHF radio, (2) Nokia Airscale Micro radios, (1) MI-300-2042 triplexer, and (1) Nokia POD-8 multiplexer. All equipment is customer supplied.

2. INSTALLATION

2.1. Inspecting the Product

The kit is shipped in a carton. Unpack the unit and dispose of the packaging material.

-INSPECTION NOTE-

Visually inspect the unit for damages prior to installation. If the equipment was damaged in transit, immediately report the extent of the damage to the transportation company.

2.2. Following and Using Safety Precautions

Read the following site and safety tips, cautions, and warnings, then proceed with the paragraphs that follow.

- Read all instructions, warnings and cautions on the equipment and in the documentation shipped with the product.
- Do not place this product on weak or unstable surfaces which may allow the product to fall, resulting in potentially serious damage(s) to persons or product.
- Only authorized trained personnel shall install the kit.
- In windy conditions, be sure to engage the wind latch to secure the door in a stationary position.

2.3. Obtaining Tools and Equipment

Obtain the following recommended or needed items for installing the kit.

- Protective and/or insulated work gloves
- Safety glasses
- Can wrench (216 type tool)
- Tape measure
- Marking utensil
- Drill with 5/16" bit
- Hex screwdriver
- Torque wrench
- Level

2.4. Mounting the Kit

In all images in this section, the SHRD60 door is hidden for clarity.

Prior to mounting the kit, remove all radio equipment and brackets from the SHRD60.

Figure 2 shows the SHRD60 prepared for the kit installation.

Hardware for mounting the kit brackets into the SHRD60 is supplied with the kit. Hardware for mounting the radio equipment is customer supplied.

2.4.1. Torque Requirements

Torque all hardware as shown below (unless otherwise noted). These values apply to SAE Grade 1 & 2 Low Carbon Steel, ASTM A307 Low Carbon Steel, and Stainless Steel Grade 18-8.

Thread Size	In-lbs	Ft-lbs
4-40	4±10%	
6-32	8±10%	
8-32	16±10%	
10-32	26±10%	
12-24	50±10%	
1/4-20/M6	60±5%	5±5%
5/16-18	125±5%	10.4±5%
3/8-16	180±5%	15.0±5%
1/2-13	500±2%	41.7±2%
5/8-11	1000±1%	83.3±1%

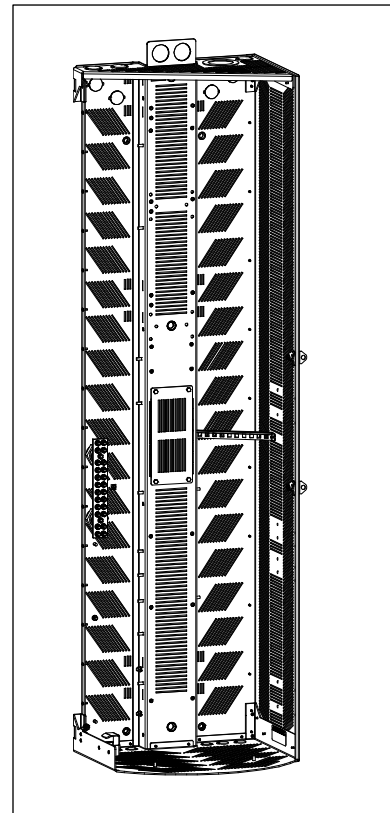


Figure 2 Empty SHRD60

2.4.2. Prepare SHRD60 for Brackets

Before installing the kit, drill mounting holes for the radio brackets. For each bracket included in the kit, use the following steps.

1. Hold the bracket in the designated location (Figure 3). Measure outward from the side of the central spine. Ensure the bracket is level.
2. Mark the locations of all mounting holes in the bracket.
3. Set the bracket aside and drill holes at the marked locations. Use a 5/16" drill bit.
4. Use touch-up paint on the inner surfaces of the holes to prevent corrosion.

2.4.3. Attach Equipment to Brackets

Use customer supplied hardware to attach the brackets to the radio equipment (Figure 4). For the radios, observe the UP arrow on the brackets. Direct the top of the radio in the direction of this arrow.

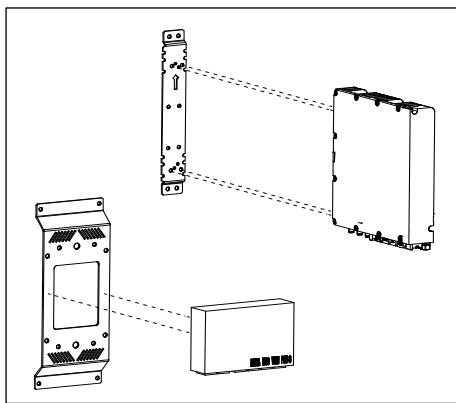


Figure 4 Attach Equipment to Brackets

2.4.4. Complete the Installation

1. Mount the two Airscale radios to the left of the SHRD60 central spine. For each bracket, use four 1/4-20 hex screws with flat washers through the front of the holes, securing from behind with 1/4-20 Keps nuts.
2. Mount the AWHHF radio to the right of the central spine. Use four 1/4-20 hex screws with flat washers through the front of the holes, securing from behind with 1/4-20 Keps nuts.
3. Mount the triplexer and multiplexer on the right-side panel using the existing mounting studs. Use 1/4-20 Keps nuts on the studs.

The complete kit installation is shown in Figure 5

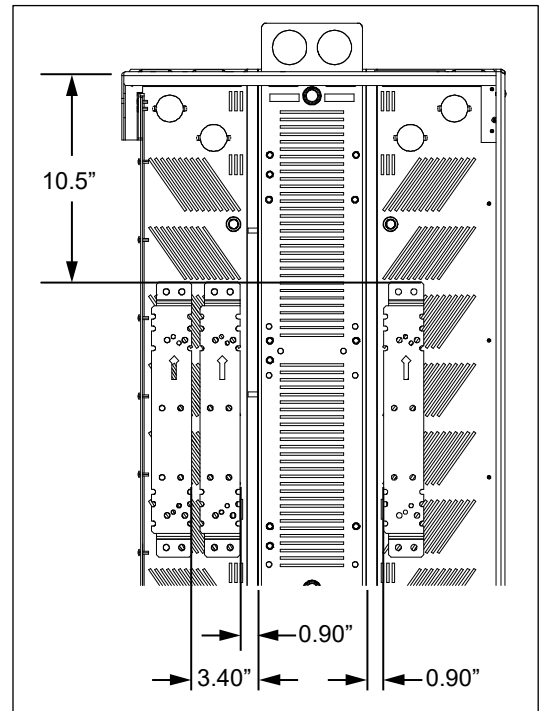


Figure 3 Radio Bracket Locations

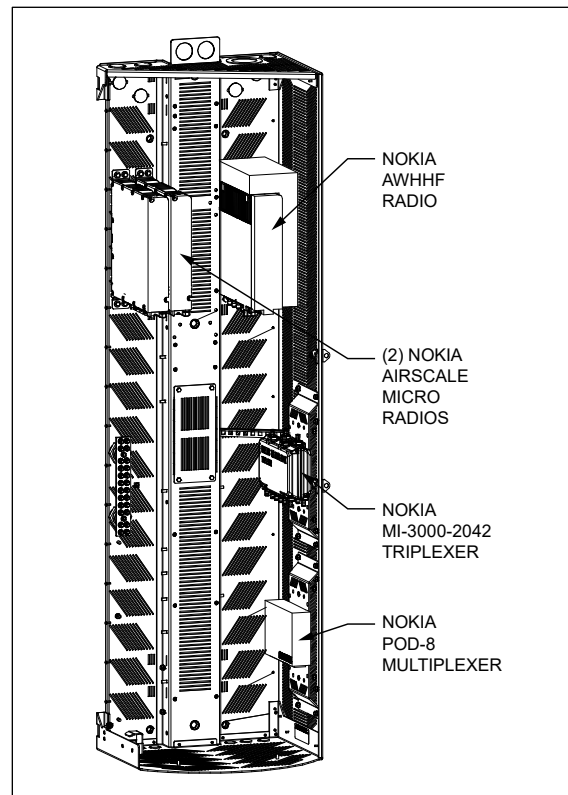


Figure 5 Complete Installation

3. TECHNICAL ASSISTANCE AND REPAIR SERVICE

For questions on product repair or if technical assistance is required, contact Charles Technical Support.

847-806-8500
techserv@charlesindustries.com (email)
<http://www.charlesindustries.com/techserv.htm>

4. WARRANTY & CUSTOMER SERVICE

Charles Industries LLC offers a one-year warranty on the kit product. The Charles warranty is limited to the operation of the kit hardware as described in this documentation and does not cover equipment that may be integrated by a third party. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract. For questions on warranty or other customer service assistance, contact your Charles Customer Service Representative.

847-806-6300
mktserv@charlesindustries.com (email)
http://www.charlesindustries.com/main/telecom_sales_support.htm

5. SPECIFICATIONS

Physical	
Weight	Approx. 15 lbs. as shipped
Materials	Radio brackets: Steel Diplexer brackets: 0.125" aluminum
Color	Off-white
Touch-up Paint	02-000290-0
216 Type Security Tool	07-002070-0

Table 1 Kit Specifications