

Charles Retrofit Kit

97-002497-A

General Description and Installation

1.	GENERAL INTRODUCTION	1
1.1.	Document Purpose	1
1.2.	Product Purpose	1
2.	INSTALLATION	2
2.1.	Inspecting the Product	2
2.2.	Obtaining Tools and Equipment	2
2.3.	Mounting the Kit	2
3.	TECHNICAL ASSISTANCE AND REPAIR SERVICE	7
4.	WARRANTY & CUSTOMER SERVICE	7
5.	SPECIFICATIONS	7

1. GENERAL INTRODUCTION

1.1. Document Purpose

This document provides general information for the 97-002497-A retrofit kit for the SH60-552019 series radio shroud. Figure 1 shows the kit components. Hardware is not shown.

-NOTE-

Hereafter, the Charles 97-002497-A retrofit kit will be referred to as the "kit." The SH60-552019 series radio shroud will be referred to as the "SHRD60."

1.2. Product Purpose

The kit includes a set of brackets to install in the SHRD60. The new brackets support one Ericsson 4890 or 4490 radio, one Ericsson 6308 power supply, and two CommScope CBC1923-DS-43 diplexers. All equipment is customer supplied.

Note: The radios have an optional OEM fan kit (provided with the radio). The fan kit is not required for proper performance.

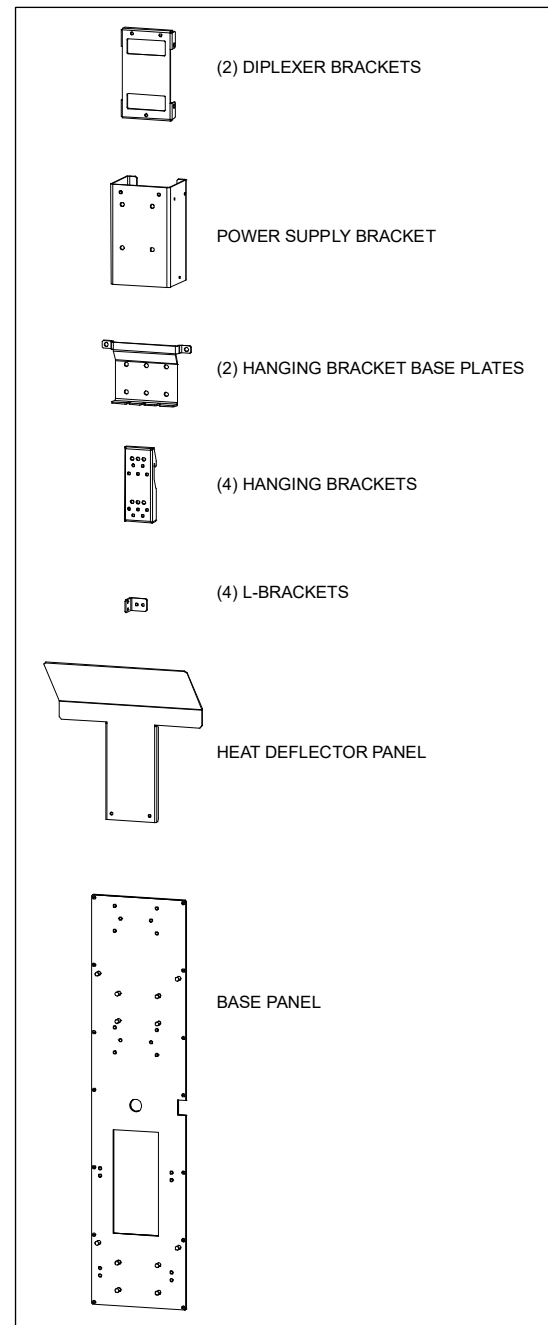


Figure 1 Kit Components

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. Obtaining Tools and Equipment

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

- Protective and/or insulated work gloves
- Safety glasses
- Tape measure
- Marking utensil
- Any exterior cable strain relief, per company practice
- Slotted, hex, and Phillips screwdrivers
- Torque wrench
- Drill with bit for 1/4" hardware
- Can wrench (216 tool)

2.3. Mounting the Kit

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

Unless otherwise specified, all hardware mentioned in this section is supplied with the kit.

2.3.1. 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%

2.3.2. Preparing the SHRD60

Remove all equipment and brackets from the SHRD60 (Figure 2). Store or discard the equipment and brackets per company practice.

If the SHRD60 is mounted with a flush pole mount bracket (bracket fits along the central spine, it may be necessary to remove the SHRD60 from this bracket to install the kit.

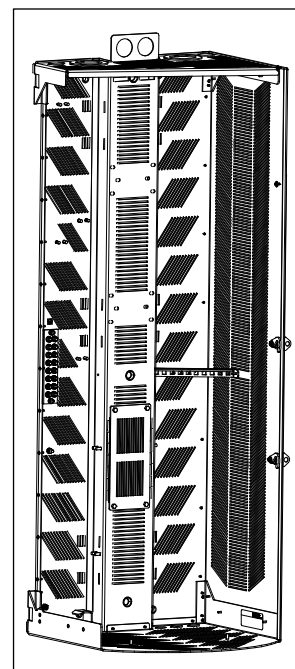


Figure 2
Empty SHRD60

2.3.3. Install Base Panel

Install the base panel onto the SHRD60 central spine. All other equipment fits onto the base panel.

1. Install the L-brackets onto the threaded studs on the sides of the central spine (Figure 3). Use two 1/4-20 Keps nuts per L-bracket.
2. The base panel has multiple threaded studs that align with holes on the SHRD60 central spine and on the four L-brackets. Mount the base panel so that the studs fit into these holes and secure in place using 1/4-20 Keps nuts (fourteen nuts in total, Figure 4).

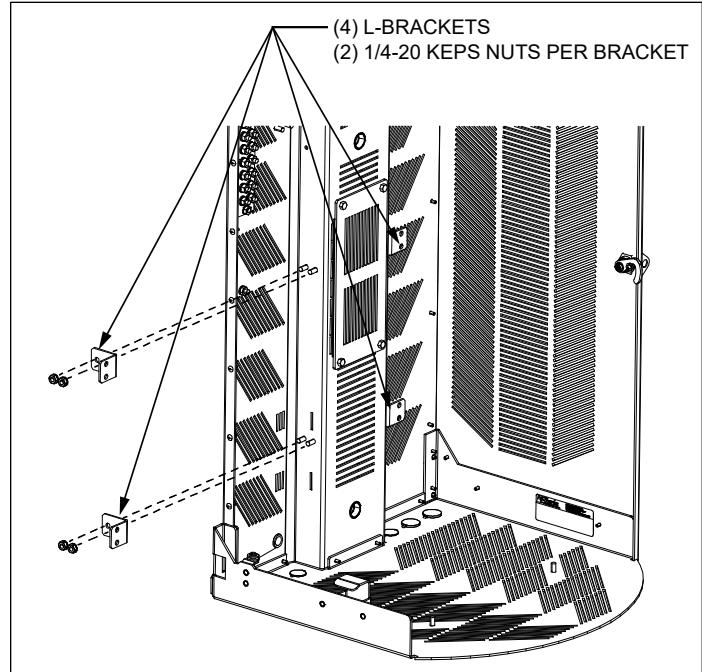


Figure 3 Install L-brackets

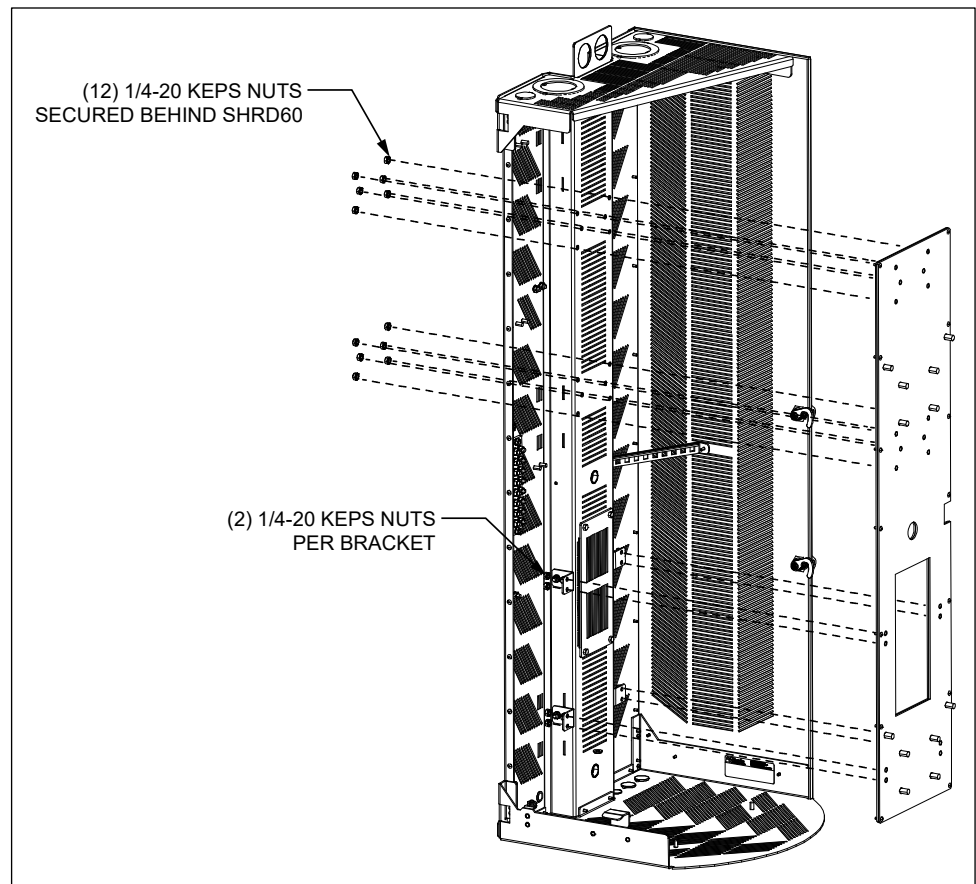


Figure 4 Mount Base Panel

3. Install the two hanging bracket base plates (Figure 5). Secure using six 3/8-16 nuts per plate.

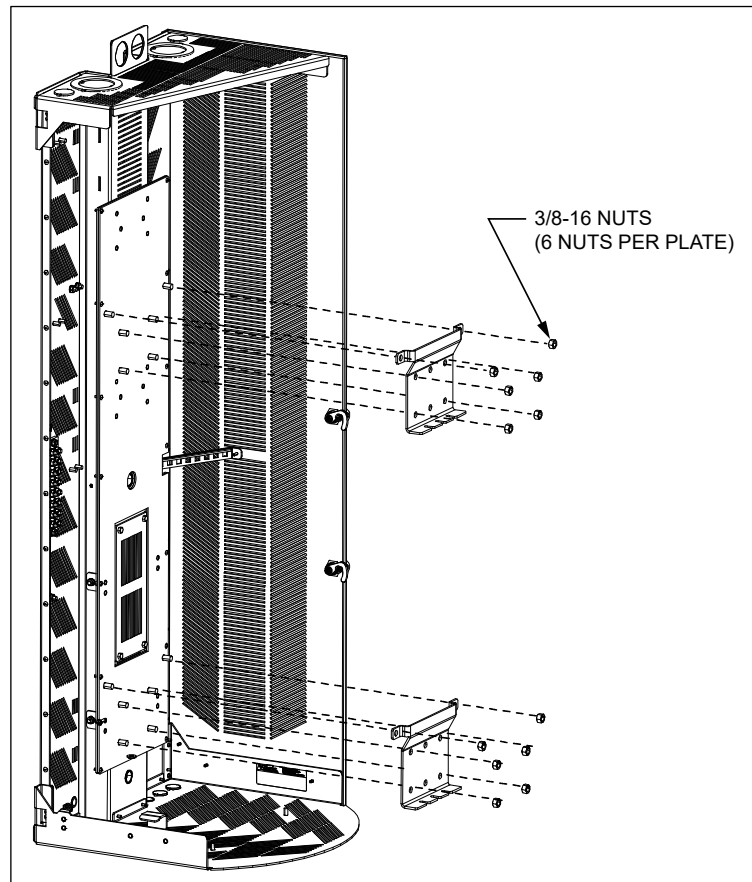


Figure 5 **Mount Hanging Bracket Base Plates**

2.3.4. Power Supply, Heat Deflector Panel, and Diplexers

The power supply and diplexers are first mounted onto an assembly that includes the heat deflector panel.

1. Attach the heat deflector panel to the inside surface of the power supply bracket using two Keps nuts and two flat washers (Figure 6).
2. Attach the Ericsson 6308 power supply to the front of the power supply bracket using customer supplied hardware.
3. Attach the diplexer brackets to the sides of the power supply bracket using three 10-32 Philips screws per bracket (Figure 7).
4. Attach the two diplexers to the diplexer brackets using customer supplied hardware (Figure 7).

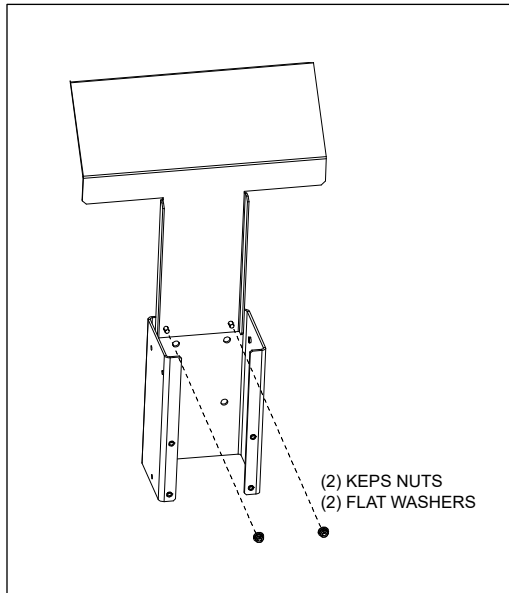


Figure 6
Heat Deflector Panel

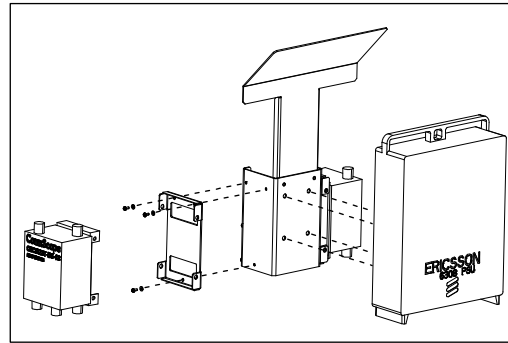


Figure 7
Power Supply and Diplexers

2.3.5. Hanging Brackets

The kit uses two sets of hanging brackets. The hooks on the hanging brackets rest on the top of the base plate. When the brackets are in their hanging position, tighten the 1/4-20 securing screws underneath the brackets to keep them in place. The construction of the hanging bracket is shown in Figure 8.

1. Attach two hanging brackets to the back of the Ericsson 4890 or 4490 radio using customer supplied hardware.
2. Attach two hanging brackets to the back of the power supply bracket (Figure 9) Secure using four 1/4-20 hex screws (5/8" long) with lock washers and flat washers.
3. Hang the power supply/diplexer assembly onto the lower hanging bracket base plate (Figure 10). Secure the hanging brackets using the 1/4-20 securing screws underneath.
4. Hang the radio/bracket assembly onto the upper hanging bracket base plate (Figure 11). Secure the hanging brackets using the 1/4-20 securing screws underneath.

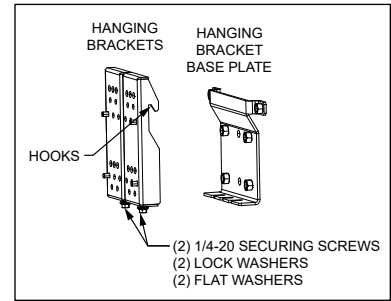


Figure 8
Hanging Bracket

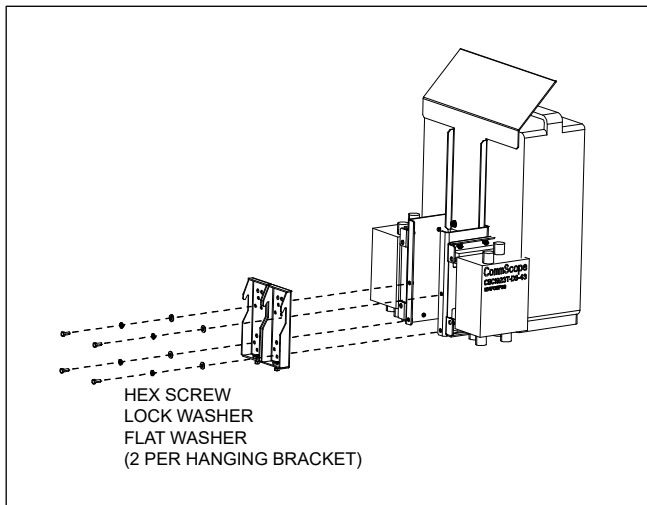


Figure 9 **Power Supply Hanging Brackets**

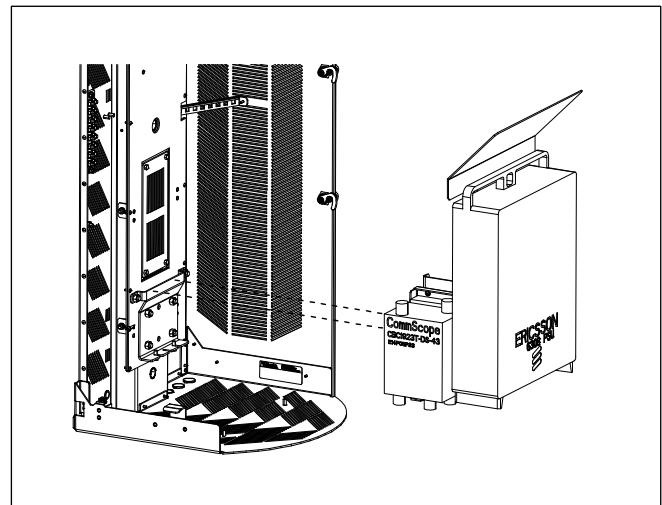


Figure 10 **Mount Lower Assembly**

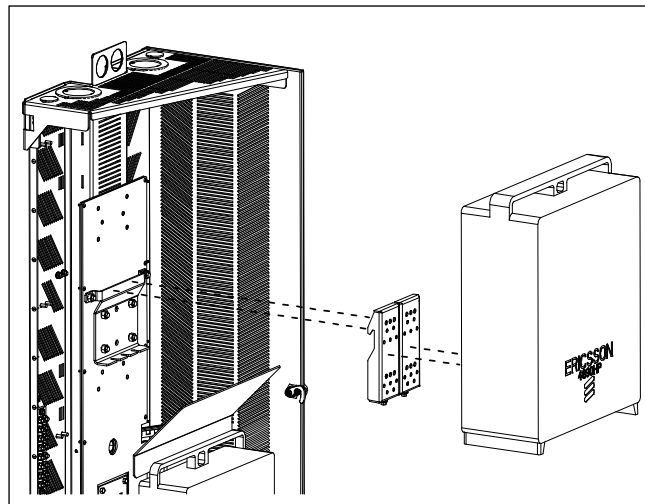


Figure 11 **Mount Radio**

The complete assembly is shown in Figure 12.

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. 55 lbs. as shipped
Materials	Support plates: 0.125" aluminum Brackets: steel
Color	Off-white
Touch-up Paint	02-000290-0

Table 1 Kit Specifications

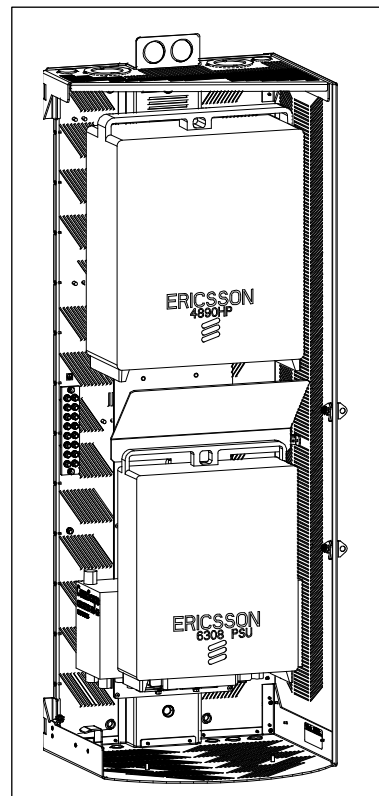


Figure 12
Complete Assembly