



# Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

## User's Manual



## HSA 800 & 802 Up Hideaway Surface Access Products



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# Precautions

## Safety Instructions • English



This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.



This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

### Caution

**Read Instructions** • Read and understand all safety and operating instructions before using the equipment.

**Retain Instructions** • The safety instructions should be kept for future reference.

**Follow Warnings** • Follow all warnings and instructions marked on the equipment or in the user information.

**Avoid Dangerous Tools** • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

## Consignes de Sécurité • Français

Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel confient des instructions importantes concernant l'exploitation et la maintenance (réparation).



Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

### Attention

**Lire les instructions** • Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

**Conserver les instructions** • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avance.

**Respecter les avertissements** • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

**Eviter les pièces de fixation** • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

## Sicherheitsanleitungen • Deutsch

Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.



Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

### Achtung

**Lesen der Anleitungen** • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits- und Bedienungsanleitungen genau durchlesen und verstehen.

**Aufbewahren der Anleitungen** • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufzubewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

**Befolgen der Warnhinweise** • Befolgen Sie alle Warnhinweise und Anweisungen auf dem Gerät oder in der Benutzerdokumentation.

**Keine Zusatzgeräte** • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

## Instrucciones de seguridad • Español

Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (el cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.



Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

### Precaucion

**Leer las instrucciones** • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

**Conservar las instrucciones** • Conservar las instrucciones de seguridad para futura consulta.

**Obedecer las advertencias** • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

**Evitar el uso de accesorios** • No usar herramientas o accesorios que no sean específicamente recomendados por el fabricante, ya que podrían implicar riesgos.

## Warning

**Power sources** • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

**Power disconnection** • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

**Power cord protection** • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

**Servicing** • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To reduce the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

**Slots and openings** • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

**Lithium battery** • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

## Avertissement

**Alimentations** • Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

**Déconnexion de l'alimentation** • Pour mettre le matériel hors tension sans danger, déconnectez tous les câbles d'alimentation de l'arrière de l'appareil ou du module de puissance détachable (s'il est amovible) ou encore de la prise secteur.

**Protection du cordon d'alimentation** • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pinçés par des objets.

**Réparation-maintenance** • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à des haute tensions et autres dangers.

**Fentes et orifices** • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

**Lithium Batterie** • Il existe un danger d'explosion s'il y a remplacement incorrect de la batterie par une autre batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

## Vorsicht

**Stromquelle** • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät würde für eine Verwendung mit einem gerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdanschluß, und stellt eine Sicherheitsfunktion dar. Dies sollte nicht umgangen oder außer Betrieb gesetzt werden.

**Stromunterbrechung** • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzklappen aus der Rückseite des Gerätes, aus der externen Stromversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

**Schutz des Netzkabels** • Netzkabel sollten so verlegt werden, daß sie nicht im Weg liegen und nicht durch treten kann oder Objekte darunter oder umherlaufen darf.

**Wartung** • Alle Wartungsmaßnahmen sollten nur von qualifizierten Serviceteams durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

**Schlüsse und Öffnungen** • Wenn das Gerät Schlüsse oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

**Lithium-Batterie** • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

## Advertencia

**Alimentación eléctrica** • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe proveer de un sistema de distribución general con conductor neutro puesto a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puede omitirse.

**Desconexión de la alimentación eléctrica** • Para desconectar con seguridad la alimentación de la alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

**Protección de los cables de alimentación** • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

**Reparaciones/mantenimiento** • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

**Ranuras y aberturas** • Si el equipo posee ranuras o orificios en su caja/alojamiento, es importante el sobreexisteamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

**Batería de litio** • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Descharar las baterías usadas siguiendo las instrucciones del fabricante.

## Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

### USA, Canada, South America, and Central America:

Extron Electronics  
1230 South Lewis Street  
Anaheim, CA 92805, USA

### Europe, Africa, and the Middle East:

Extron Electronics, Europe  
Beeldschermweg 6C  
3821 AH Amersfoort  
The Netherlands

### Asia:

Extron Electronics, Asia  
135 Joo Seng Road, #04-01  
PM Industrial Bldg.  
Singapore 368363

### Japan:

Extron Electronics, Japan  
Daisan DMJ Bldg. 6F,  
3-9-1 Kudan Minami  
Chiyoda-ku, Tokyo 102-0074  
Japan

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

*If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.6383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.*

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

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# 1

## **Chapter One**

### **Introduction**

About the HSA Hideaway Enclosures

Features

# Introduction

## About the HSA Hideaway Enclosures

The Extron Hideaway HSA 800 and HSA 802 are furniture-mounted, architectural solutions for inconspicuous computer video interface connector access and control.

The HSA 800 provides space for two double-space (double-height) or four single-space Extron Architectural Adapter Plates (AAPs), a standard grounded US, IEC, UK, Europe, or Australian (depending on the model) AC receptacle, and two RJ-45 (Category 6) (CAT 6) connectors (figure 1-1). The HSA 802 provides twice the AAP space with two AC receptacles and four RJ-45 connectors.

On the US/domestic HSA 802, the AAP spaces, RJ-45 connectors, and AC receptacle are arranged back-to-back on opposite sides of the enclosure. On the IEC and all international versions, the AAP spaces and RJ-45 connectors are also arranged back-to-back, while the AC receptacles are back-to-back on the sides perpendicular to the AAPs. Cabling inside the enclosure runs the AC power line and RJ-45 signal lines from the connectors on the front panels to connectors on the underside of the enclosure.

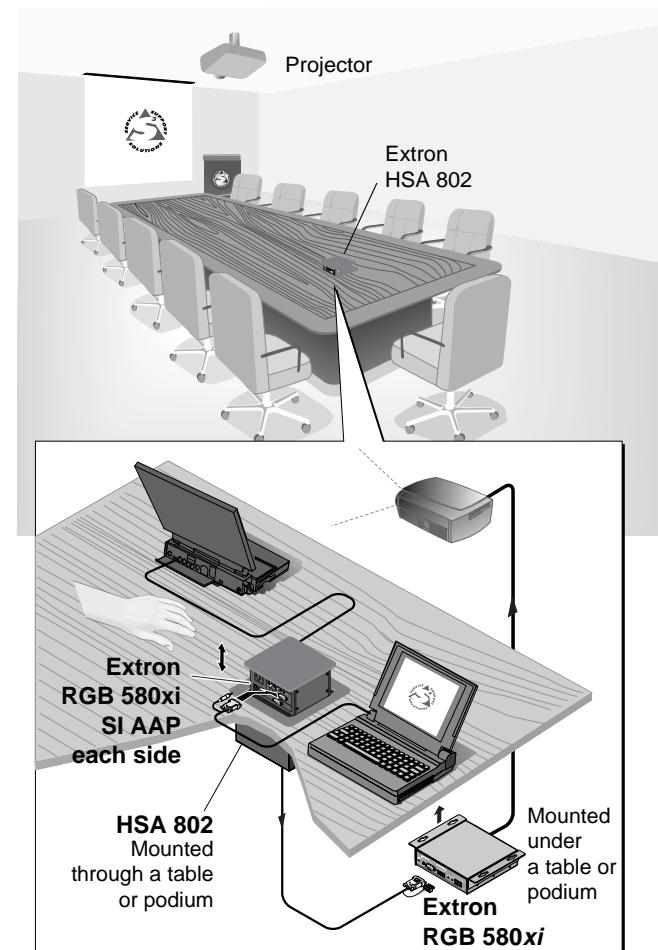


**Figure 1-1 — HSA 800 hideaway enclosure**

The installed enclosures fit nearly flush within a table or podium top, storing the AAPs and connectors out of the way and out of sight. To access the AAPs and connectors, the user

presses down on the top of the enclosure, releasing a mechanical latch. A gas lift slowly raises the AAPs and connectors into view.

The functionality of the HSA enclosures can be optimized with one through four RGB 580xi AAPs connected to one through four RGB 580xi Remote Interfaces (figure 1-2).



**Figure 1-2 — HSA 802 and RGB 580xi configuration**

## Introduction

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The HSA 800 and HSA 802 are available in a variety of surface finishes, including black anodized metal, brushed aluminum, brushed brass, polished aluminum, and polished brass.

### Features

- UL listed
- Easy access to connectors and controls
- Durable mechanical movement and latching mechanism
- Available in a variety of surface finishes
- Includes a variety of RJ-45 connector bezel colors: black, red, blue, orange, gray, white, ivory, yellow, and green
- Compact size
- Easy installation of two or four double-space Extron AAPs
- RJ-45 (CAT 5/6) network and data connections
- Grounded AC plug(s)

# 2

## Chapter Two

### Installation

[Installation Overview](#)

[Preparing the Routing Template](#)

[Preparing the Table and Mounting the Enclosure](#)

[Cabling and Installing the AAPs](#)

[Bezels](#)

# Installation

## Installation Overview

Install and set up the HSA surface access enclosures as follows:

- 1 If you have an unprepared mounting template, prepare the template. See *Preparing the Routing Template* in this chapter.
  - 2 Cut a hole in the surface where the enclosure will be installed and install the enclosure. The clamshell clamps the enclosure to the table. See *Preparing the Table and Mounting the Enclosure* in this chapter.
- NOTE** Save shipping materials to package the enclosure for return to Extron if necessary.
- 3 Run all cables necessary to support the AC and RJ-45 connectors and all planned AAP connectors. Leave enough slack in the cables to connect them to the underside of the enclosure or to the rear of the AAPs before the AAPs are installed in the enclosure.
  - 4 Turn all of the equipment to be connected off. Ensure that the equipment connected to the RJ-45 connectors and the connections for any AAPs are all turned off and disconnected from the power source.
  - 5 If applicable, connect cables to the rear connectors on the AAPs to be installed in the HSA 800 or HSA 802. Install the desired AAPs on the front panel of the enclosure. See *Cabling and Installing the AAPs* in this chapter.
  - 6 Connect the power and RJ-45 cables to the underside of the enclosure. See *Cabling the enclosure* in this chapter.
  - 7 Route and secure the AAP cables inside the clamshell. See *Routing the AAP cables* in this chapter.
  - 8 If present, peel the protective coating from the top surface.
  - 9 Connect power cords and turn on the devices that connect to the surface access enclosure.

## Preparing the Routing Template

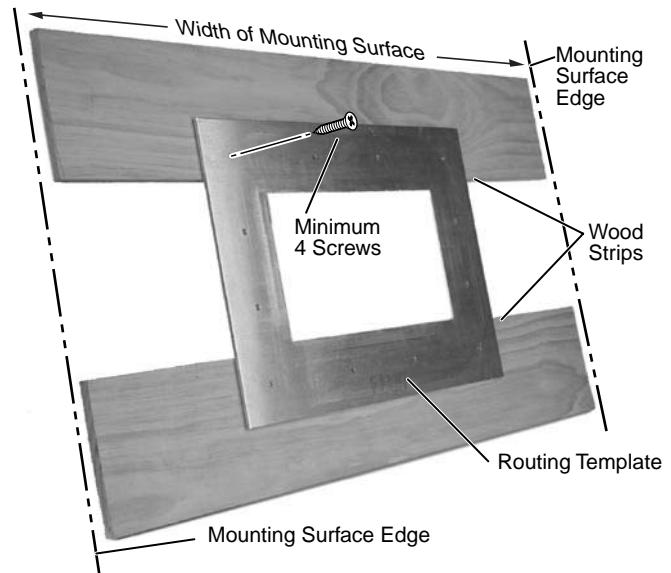
**NOTE** The routing template is reusable. Do not discard this template when the installation is complete. Save it for installing future HSA enclosures of the same size.

1. Cut 1/2" x 4" strips of soft, finished lumber long enough to span the distance between the desired installation location on the mounting surface and the edges of the mounting surface (figure 2-1).

These strips raise the routing template above the mounting surface to provide room for the router's collar, protect the mounting surface, and extend the reach of the routing template so that it can be clamped to the edge of the surface.

### CAUTION

Do not allow the wood screws to protrude through the bottom of the wooden strips. Protruding screws will mar the table when the template is used.



**Figure 2-1 — Prepared mounting template**

2. Using four or more short wood screws, secure the mounting template to the lumber strips.

## Preparing the Table and Mounting the Enclosure

The preferred and recommended method for preparing the table is to use the appropriate Extron routing template and a router. Alternatively, you can use a paper cut-out template (see Appendix A) and a sabre saw or keyhole saw, but this method is not recommended. Prepare the table as follows:

### CAUTION

The opening in the table for the HSA 800 or HSA 802 should be cut only by licensed and bonded craftspeople. Exercise care to prevent scarring or damaging the furniture.

The routing templates for the various HSA models are **not** interchangeable. If you use the wrong

## Installation, cont'd

template, you will cut an improperly-sized hole. If you use a larger template than required, the cut will result in gaps in the table surface on either side of the enclosure.

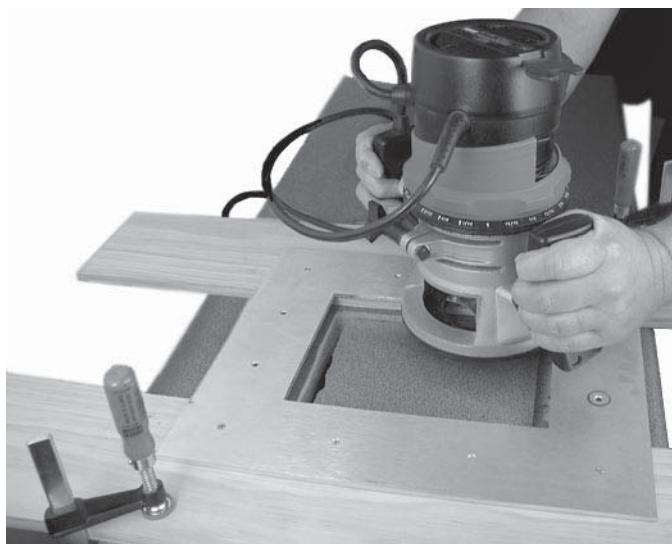
The surfaces of the HSA enclosure have screws and other protruding hardware that could damage fine furniture. Do not rest the enclosure on unprotected furniture.

**NOTE** The routing template is reusable. Do not discard the template when the installation is complete. Save it for installing other HSA products of the same size.

1. Locate the desired mounting location on the tabletop or other installation surface. Mark the location.

**CAUTION** Ensure that only the wooden strips contact the furniture. Failure to do so may mar the furniture.

2. Place the mounting template assembly on the table, centered on the mounting location. Angle the template for the optimum positioning. If necessary, use a square to ensure that the template is properly positioned. Extron is not responsible for improperly-positioned HSA products.
3. Once the template assembly is positioned properly, secure the assembly to the table with C-clamps (figure 2-2).



**Figure 2-2 — Cutting the opening with a router**

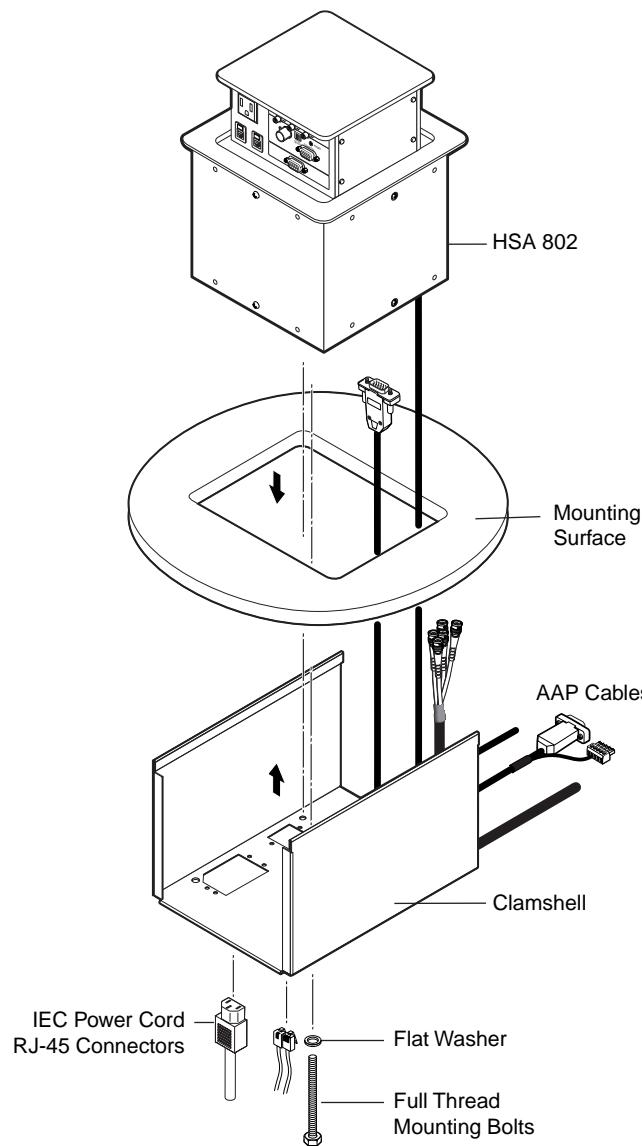
**WARNING** Wear safety glasses when operating the router. Failure to comply can result in eye injury.

4. Using a router with a 5/8" (or 16 mm) outside diameter guide bushing and a 1/2" (or 12 mm or 12.7 mm) diameter straight router bit, carefully cut the opening in the table surface.
5. Remove the C-clamps and the routing template.

**WARNING** The flanged edges of the top of the surface enclosure are sharp when the HSA is removed from the table. Exercise caution when handling to prevent personal injury.

**CAUTION** The flanged edges of the top of the surface enclosure are bevelled to an ultra-fine thickness of less than 0.04 (4/100)" (approximately 1 mm). These edges are soft and can be easily nicked or bent. Exercise caution when handling and mounting the enclosure. Mishandling can damage the appearance of the enclosure.

6. Remove the plastic strips that protect the flanged edges of the top of the surface enclosure. If a sticky residue remains, remove it with a soft cloth dampened with isopropyl alcohol.
7. Carefully lower the HSA enclosure into the hole to test the fit. If necessary, remove the enclosure and use a file or rasp to enlarge or smooth the edges of the opening.
8. From the underside of the table, bolt the clamshell to the enclosure with two bolts of optimum length (included) (figure 2-3).
9. Peel any remaining protective coating from the enclosure.



**Figure 2-3 — Mounting the HSA 800 enclosure**

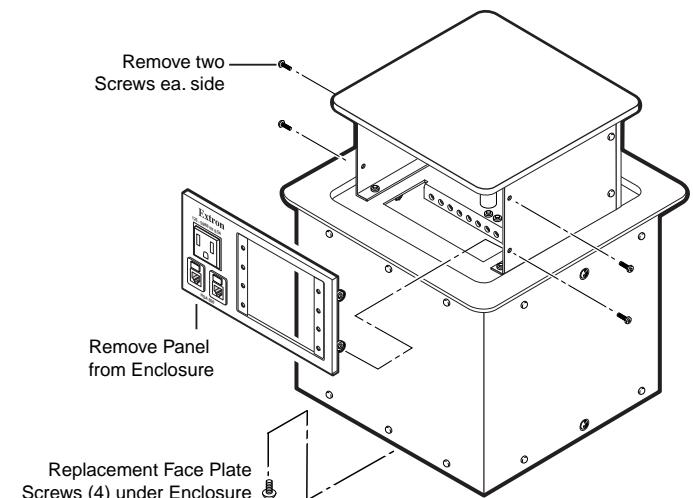
## Cabling and Installing the AAPs

Extron's various single- and double-space AAP devices, including the various RGB 580xi AAPs, can be mounted to the HSA 800 or HSA 802. See appendix A, *Specifications, Part Numbers, and Accessories*, for RGB 580xi AAP part numbers.

The screws needed for installing an AAP are built into its front panel, so no additional screws are needed.

**WARNING** *Ensure that AC power is disconnected before servicing the HSA unit.*

1. Remove the four screws on the right and left sides of the front panel (figure 2-4). Retain the screws. Lift the panel away from the enclosure.

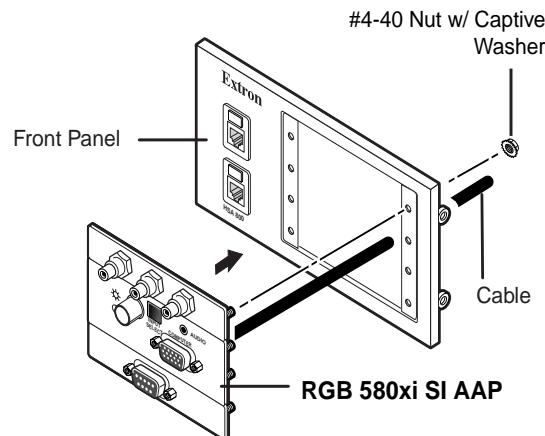


**Figure 2-4 — Removing the front panel from an HSA 800**

2. Cable the rear of the AAPs before attaching the AAPs to the enclosure. Route the cables through the hole in the underside of the surface mount enclosure and connect them to the rear of the AAPs. If applicable, refer to the cabling information in the documentation for the AAP.
3. Insert each of the AAP's screws through the holes in the AAP opening of the HSA front panel. Secure each AAP to the panel with the provided captive washers and #4-40 nuts (figure 2-5).
4. Replace the front panel in the surface mount enclosure and secure it in place with the screws removed in step 1. If

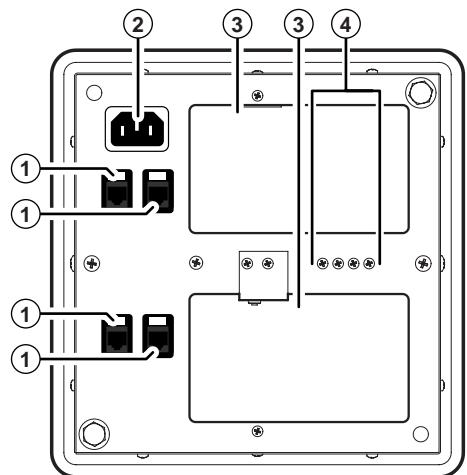
## Installation, cont'd

needed, four spare screws are stored in the underside of the enclosure.



**Figure 2-5 — Mounting an AAP device on the faceplate of an international model**

### Cabling the enclosure

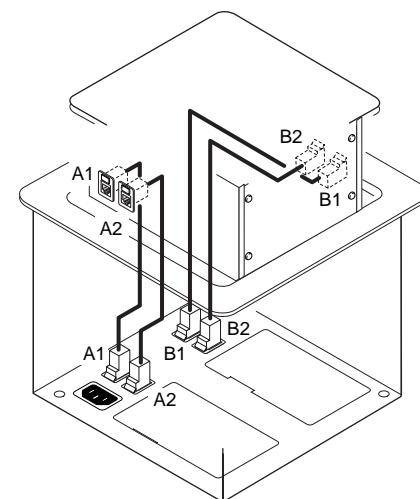


**Figure 2-6 — HSA 800 and HSA 802 enclosure underside connectors**

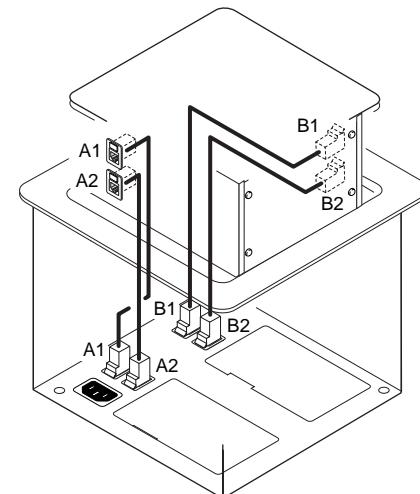
- ① **RJ-45 connectors** — Plug one end of a CAT 5 or CAT 6 twisted pair (TP) cable into each of these RJ-45 female connectors. Connect the other end to an appropriate telecommunications or data network or to an Extron TP product.

**NOTE** An RJ-11 plug can be connected to the RJ-45 jack.

When cabling the front and bottom panels, the bottom RJ-45 connectors match up with the front panel RJ-45 connectors shown in figure 2-7 (US/domestic) or figure 2-8 (IEC and all international versions). For example, match the front panel RJ-45 connector A1 with the underside RJ-45 connector A1, match A2 with A2, and so forth. Connectors B1 and B2 are available on the HSA 802 only.



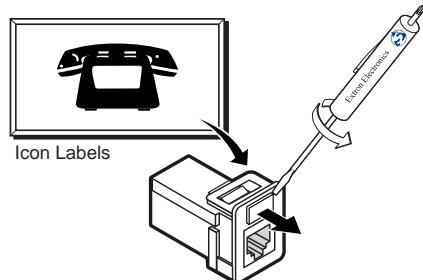
**Figure 2-7 — HSA 802, US/domestic RJ-45 connectors**



**Figure 2-8 — HSA 802, IEC/international RJ-45 connectors**

## Installation, cont'd

If necessary, on the front panel, have a qualified service person replace the connector icon by prying the old icon off of the connector plug-in with a tweaker (figure 2-9) and snapping a new icon in place.



**Figure 2-9 — Changing the connector icon**

- ② **AC power connector** — Plug a standard IEC power cord into this connector to connect the enclosure to the appropriate power source:

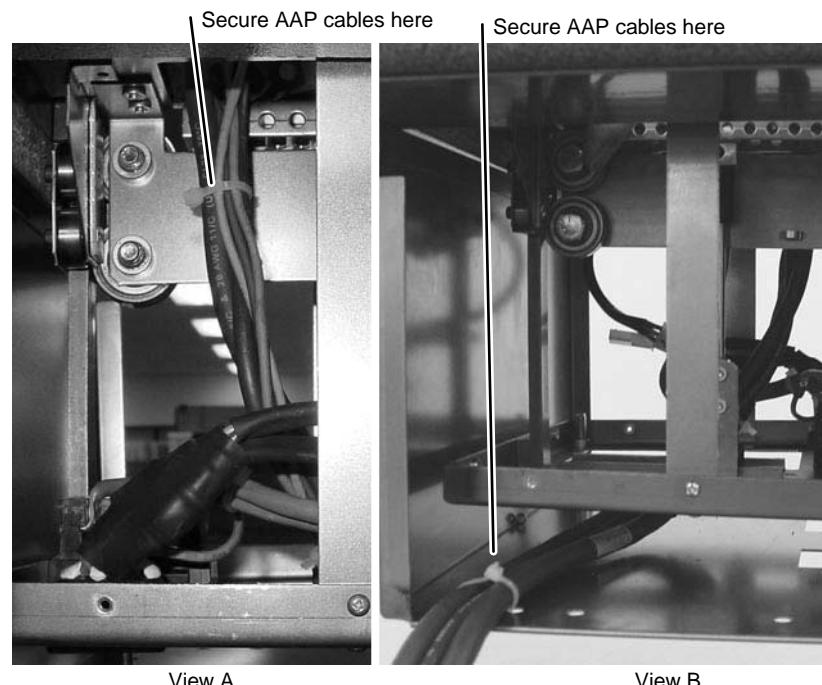
125VAC, 60 Hz (US-domestic version)  
100-240VAC, 50/60 Hz (IEC version)  
230VAC, 50/60 Hz (UK or Australian versions)  
240VAC, 50/60 Hz (European version)

- ③ **Cable access holes**  
④ **Spare front panel screws**

### Routing the AAP cables

The AAP cables must have freedom of movement to permit opening and closing the surface mount enclosure. At the same time, they need to be restrained to prevent their rubbing against the edges of the enclosure cable access hole in the underside of the surface mount enclosure. Rubbing against the cable access hole edges can damage the cables. Route and secure the AAP cables as follows:

1. Open the top panel to extend the AAP cables to their maximum pull.
2. Experiment with AAP cable positioning to ensure that the cables do not rub against the edges of the AAP cable hole (Figure 2-6, ③) and to ensure that the cable pull does not restrict the movement of the top panel. Figure 2-10 shows the cables routed to the side, which proved effective in tests at Extron.



**Figure 2-10 — HSA 802 AAP cable routing**

3. Use tie wraps to secure the AAP cables to the tie-down holes in the clamshell and enclosure in the locations shown.

### Bezels

The HSA 800/802 ships with RJ-45 connector bezel plug-ins in a variety of colors and a black, blank bezel.

To change to a different color RJ-45 connector bezel or if an RJ-45 connector is not needed or desired, replace the connector bezel plug-in on the front panel with a bezel of a different color or a blank plug-in. See *Replacing the Bezels* in chapter 3.

If no RJ-45 connector is desired, snap the interior RJ-45 cable onto the rear of the blank bezel plug-in to hold it conveniently out of the way. Retain the removed connector bezel plug-in for any possible later use.



# 3

## Chapter Three

### **Maintenance and Modifications**

Replacing an AAP

Replacing the Bezels

Removing and Replacing the Enclosure

Adding a Second Connector Panel

Replacing the Gas Lift

Adjusting the Top Surface

# Maintenance and Modifications

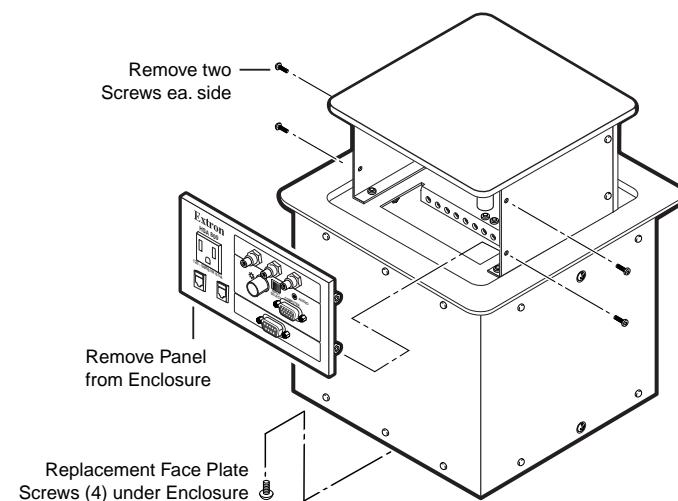
The HSA 800 and HSA 802 surface mount enclosures can be modified in the future to replace an AAP or to add a second connector panel (with all of the associated cables) to an HSA 800. The most probable corrective maintenance procedures required are leveling the top surface and replacement of the gas lift. Most of the maintenance procedures require removing the surface mount enclosure from the table.

## Replacing an AAP

Replace one or more AAPs as follows:

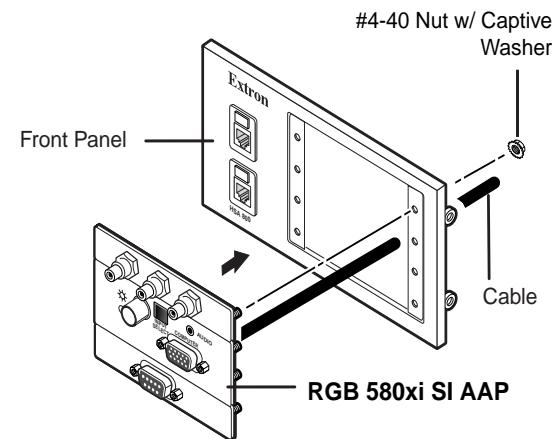
**WARNING** *Ensure that AC power is disconnected before servicing the HSA unit.*

1. On the underside of the clamshell and in the enclosure, cut the tie wraps that route the AAP cables out of the way.
2. Remove the four Allen screws on the right and left sides of the front panel (figure 3-1). Retain the screws. Lift the panel away from the enclosure.



**Figure 3-1 — Removing the front panel**

3. Disconnect any cables from the rear of the existing AAPs. If a cable is no longer required in your system, carefully pull the cable through and out the bottom of the surface mount enclosure and the clamshell.
4. Remove the existing AAP(s) from the front panel by unscrewing the nuts on the rear of the panel that fasten the plates to the faceplate (figure 3-2).



**Figure 3-2 — Mounting an AAP device on the faceplate of an international model**

5. Cable the rear of the AAPs to be installed before attaching the AAPs to the enclosure. Route the cables through the hole in the underside of the surface mount enclosure and connect them to the rear of the AAPs. If applicable, refer to the cabling information in the documentation for the AAP.
6. Insert each AAP's screws through the holes in the AAP opening of the front panel. Secure each AAP to the enclosure with the provided captive washers and #4-40 nuts.
7. Replace the front panel(s) in the surface mount enclosure and secure them in place with the Allen screws removed in step 2. If needed, four spare screws are stored in the underside of the enclosure.
8. To prevent wear and tear caused by cable movement, secure the AAP cables underneath the table. See *Routing the AAP Cables* in chapter 2, *Installation*.

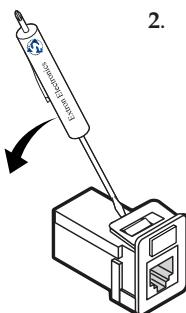
## Replacing the Bezels

The HSA 800/802 ships with RJ-45 connector bezel plug-ins in a variety of colors and a black, blank bezel. Replace a bezel as follows:

1. Remove the four Allen screws on the right and left sides of the front panel (figure 3-1). Retain the Allen screws. Lift the panel away from the enclosure.

## Maintenance and Modifications, cont'd

2. With a tweaker, push down on and gently twist on the front of each RJ-45 connector detent to disconnect the connector from the rear of the front panel plug-in.
3. Pinch the top and bottom bezel detents together and push the bezel through the front panel.
4. Snap a replacement bezel in place. If necessary, replace the connector icon by prying the old icon off of the connector plug-in with a tweaker (figure 2-9) and snapping a new icon in place.
5. Replace the front panel in the surface mount enclosure and secure it in place with the Allen screws removed in step 1.



### Removing and Replacing the Enclosure

The procedures for changing the top surface, adding a second connector panel, and replacing the gas lift require removing the HSA 800 or HSA 802 from the table. Remove and replace the surface mount enclosure for maintenance as follows:

**WARNING** *Ensure that AC power is disconnected before servicing the HSA unit.*

1. On the underside of the clamshell and in the enclosure, cut the tie wraps that route the AAP cables out of the way.
2. Disconnect the IEC power cord and RJ-45 connectors from the underside of the surface mount enclosure.
3. On all connector/AAP panels and/or blank panels, remove the four screws on the right and left sides of the front panel (figure 3-1). Retain the screws. Lift the panels away from the enclosure as far as the connected cables allow.
4. Disconnect any cables from the rear of the existing AAPs. Carefully pull the cables through and out the bottom of the surface mount enclosure.

**WARNING** *The flanged edges of the top of the surface enclosure are sharp when the HSA is removed from the table. Exercise caution when handling to prevent personal injury.*

**CAUTION** *The flanged edges of the top of the surface enclosure are bevelled to an ultra-fine thickness of less than 0.04 (4/100)" (approximately 1 mm). These edges are soft and can be easily nicked or bent. Exercise caution when handling and mounting the*

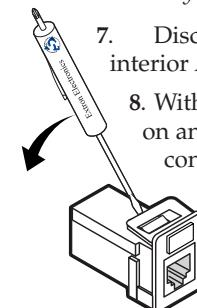
*enclosure. Mishandling can damage the appearance of the enclosure.*

*The surfaces of the HSA enclosure have screws and other protruding hardware that could damage fine furniture. Do not rest the enclosure on unprotected furniture.*

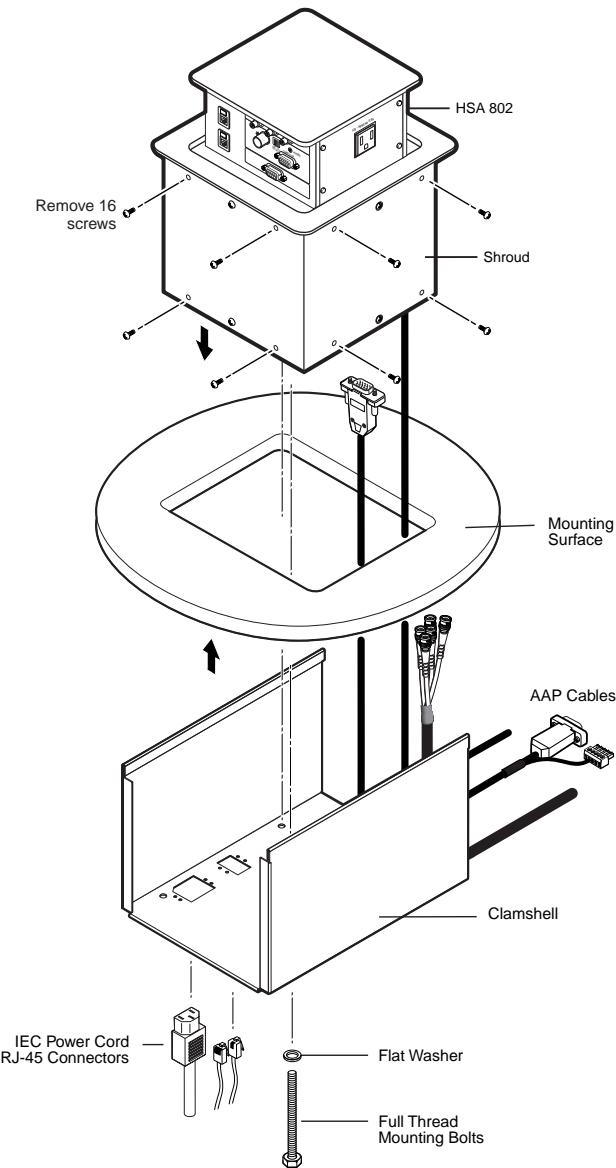
5. On the underside of the table, remove the two bolts that secure the clamshell to the surface mount enclosure (figure 3-3). Lift the enclosure out of the table.
6. Remove and retain the four screws in the corners of each side surface of the enclosure "cube". Remove the two halves of the shroud.

**NOTE** *You need not remove the screws in the center of each side. They do not secure the shroud in any way; rather, they provide structural support to the enclosure.*

7. Disconnect the 3-prong cable connector on the interior AC cable (figure 3-4, page 3-7).
8. With a tweaker, inside the front panels, push down on and gently twist on the front of each RJ-45 connector detent to disconnect the connector from the rear of the front panel plug-in.
9. Remove the front panel(s) from the enclosure.
10. Perform the desired maintenance or modification procedure.
11. If the surface is not level, adjust the top surface. See *Adjusting the Top Surface Level* in this chapter.
12. Cable the rear of the AAPs installed on the front panel(s). Route the cables through the hole in the underside of the surface mount enclosure and connect them to the rear of the AAPs. Refer to the cabling information in the documentation for the AAP.
13. Snap the interior RJ-45 cable connectors onto the rear of the RJ-45 front panel plug-ins.
14. Replace the front panel and/or blank panel in the surface mount enclosure and secure them in place with the screws removed in step 3. If needed, four spare screws are stored in the underside of the enclosure.
15. Reconnect the interior AC power cable.
16. Secure the two shroud halves to the enclosure frame with the eight screws (four per side) removed in step 6.



## Maintenance and Modifications, cont'd



**Figure 3-3 — Removing the HSA 802 from the table**

17. Carefully lower the HSA enclosure into the table opening. From the underside, bolt the clamshell to the enclosure with the two bolts removed in step 5.



**Figure 3-4 — Disconnecting the interior AC cable**

18. Connect the IEC power cord and RJ-45 cables to the connectors on the underside of the surface mount enclosure.
19. To prevent wear and tear caused by cable movement, secure the AAP cables underneath the table. See *Routing the AAP Cables* in chapter 2, *Installation*.

### Adding a Second Connector Panel

The standard HSA 800 includes one connector panel with the associated connectors and AAP opening. Non-US/domestic versions also have a separate AC connector panel. Future needs may demand adding a second connector panel and, for non-US/domestic versions, an AC panel (in effect converting the HSA 800 into an HSA 802). Add the additional panels as follows:

**WARNING** Ensure that AC power is disconnected before servicing the HSA unit.

## Maintenance and Modifications, cont'd

1. Remove the surface mount enclosure. See *Removing and Replacing the Enclosure*, steps 1 through 9. Place the enclosure on a horizontal surface.
2. Insert the new RJ-45 connector bezel plug-ins through the holes in the bottom of the surface mount enclosure.
3. Snap the interior RJ-45 cable connectors onto the rear of the bottom RJ-45 connector bezel plug-ins.
4. Connect the internal cables to the inside of the bottom RJ-45 connectors.
5. Replace the single-outlet internal AC power cord with a double-outlet AC power cord.
6. Install the second AC connector.
7. Reinstall the surface mount enclosure. See *Removing and Replacing the Enclosure*, steps 11 through 19. In steps 12 through 14, install the new front connector panel in place of the blank panel. In step 15, connect the AC cables to both AC connectors.

## Replacing the Gas Lift

The gas lift that raises the surface is rated for 100,000 opening and closing cycles. An enclosure with many cables connected or an enclosure with a brass top panel may require a stronger gas lift than the standard 10-lb lift (see *Routing Template and Replacement Parts* in appendix A, *Specifications, Part Numbers, and Accessories* for part numbers of the 12-lb and 15-lb gas lift). Replace the gas lift as follows:

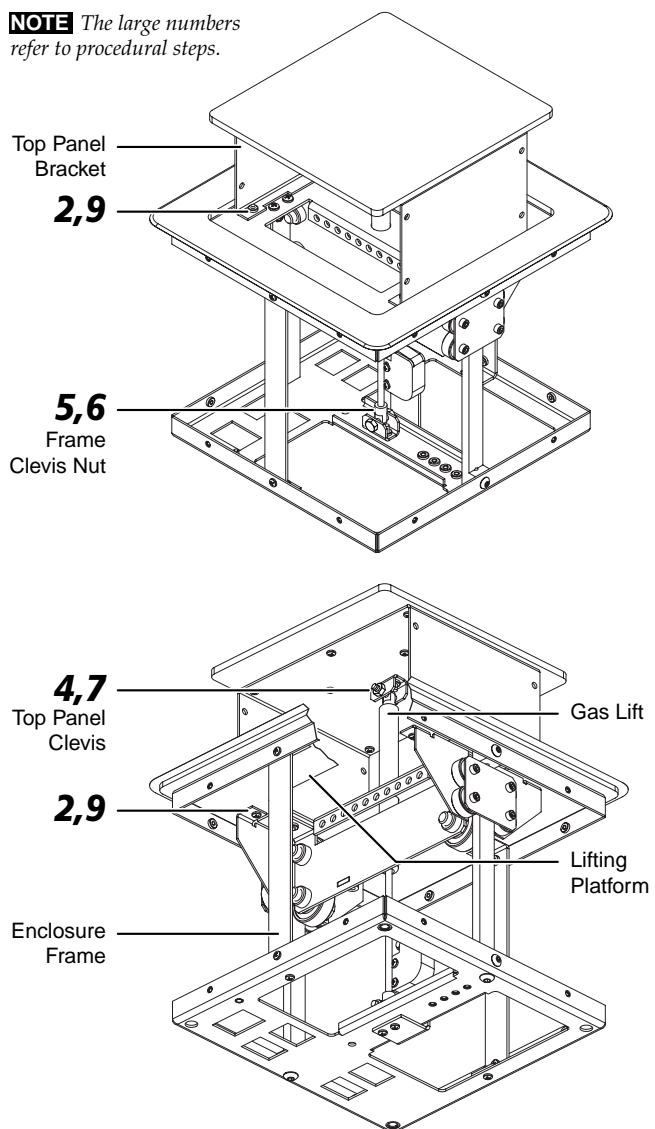
**WARNING** Ensure that AC power is disconnected before servicing the HSA unit.

1. Remove the surface mount enclosure. See *Removing and Replacing the Enclosure*, steps 1 through 9. Place the enclosure upside-down on a horizontal surface. To protect the finish, place the enclosure on a soft cloth.
2. Open and close the top panel as necessary to access the center lifting platform (figure 3-5). Remove the four screws that secure the top panel bracket to the lifting platform.

**CAUTION** With the top panel bracket detached from the lifting platform, the bracket will be floppy atop the gas lift. Ensure that the bracket does not bang into the top flange. Marring of the soft surface of the flange may result.

3. Turn the enclosure frame rightside-up.

**NOTE** The large numbers refer to procedural steps.



**Figure 3-5 — Changing the gas lift**

4. Remove and retain the 9/32" nut and bolt that secure the gas lift to the top panel clevis. Lift the panel and clevis off of the gas lift and set it aside on the bracket flanges.
5. Turn the gas lift counterclockwise until the lift comes free of the frame clevis nut at the bottom of the enclosure.

## Maintenance and Modifications, cont'd

- frame. Carefully draw the gas lift out through the top of the enclosure frame.
6. Insert the shaft end of the replacement gas lift through the hole in the lifting platform. Thread the shaft of the gas lift into the frame clevis nut and tighten it several turns.
- CAUTION** *Ensure that the top panel bracket does not contact the top flange. Marring of the soft surface of the flange may result*
7. Secure the gas lift to the top panel clevis with the nut and bolt that were removed in step 4.
- NOTE** *To ensure a proper fit, ensure that the recesses in the flanges on the bottom of the top panel bracket are aligned over the four screws (two on each side) of the lifting platform.*
8. If necessary, release (extend) the top panel. Turn the enclosure frame upside-down and place it on the soft cloth surface.
  9. Secure the top panel bracket to the lifting platform with the four screws removed in step 2.
  10. Reinstall the surface mount enclosure. See *Removing and Replacing the Enclosure*, steps 11 through 19.

## Adjusting the Top Surface

The top lifting panel of the HSA 800 and HSA 802 can be adjusted to raise or lower its level flush with the flange. It can also be adjusted to ensure that the lifting panel is horizontal and not tipped.

### Adjusting the height of the top surface

Raise or lower the lifting panel flush with the flange as follows:

1. Remove the surface mount enclosure from the table. See *Removing and Replacing the Enclosure*, steps 1 through 9. Place the enclosure on a horizontal surface. To protect the finish, place the enclosure on a soft cloth.
2. If necessary, close and latch the top panel.
3. Turn the height adjustment bolt clockwise to raise the lifting plate or counter clockwise to lower the plate (figure 3-5).
4. Reinstall the surface mount enclosure. See *Removing and Replacing the Enclosure*, steps 11 through 19.

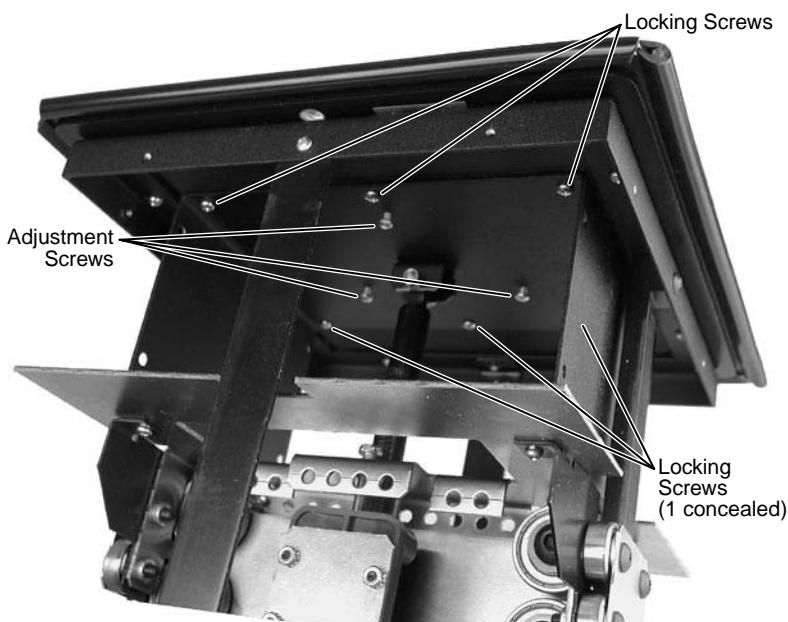


**Figure 3-5 — Location of the height adjustment screw**

### Adjusting the top surface level

Level the lifting panel of the HSA 800 or HSA 802 as follows:

1. Remove the surface mount enclosure from the table. See *Removing and Replacing the Enclosure*, steps 1 through 9. Place the enclosure on a horizontal surface. To protect the finish, place the enclosure on a soft cloth.
2. If necessary, close and latch the top panel.
3. Slightly loosen the six locking screws (figure 3-7) that secure the top panel to the panel bracket.



**Figure 3-6 — Location of level adjustment and locking screws**

4. Carefully turn the three adjustment screws on the underside of the top panel to level the top panel with the flange.
5. Tighten the six screws that you loosened in step 3.
6. Reinstall the surface mount enclosure. See *Removing and Replacing the Enclosure*, steps 11 through 19.



## Surface Access Products



# Appendix A

## Reference Information

Specifications

Part Numbers

Included Parts

Routing Template and Replacement Parts

Interface Accessories

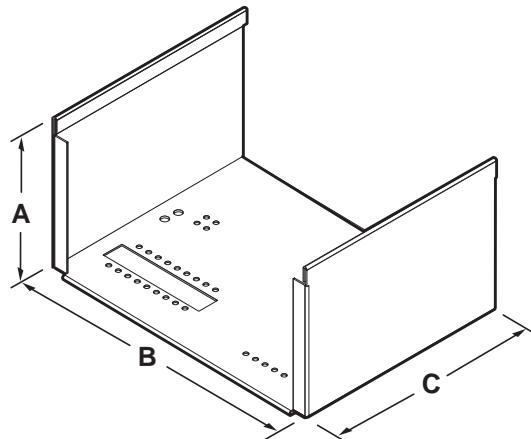
Top Plate Dimensions

# Reference Information

## Specifications

### General

Rack mount .....	No, but furniture mountable
Enclosure type .....	Metal
Enclosure approximate dimensions	
Top plate (outer rim) .....	8.5" W x 8.8" D (21.5 cm W x 22.2 cm D)
Top plate (lifting plate) .....	6.2" W x 6.5" D (15.8 cm W x 16.5 cm D)
Clamshell (figure A-1) .....	A = 7.0" (17.8 cm) B = 8.25" (21.0 cm) C = 11.0" (27.9 cm)



**Figure A-1 — Clamshell dimensions**

### Product weight

HSA 800 .....	8.6 lbs (3.9 kg)
HSA 802 .....	8.8 lbs (4.0 kg)

### Shipping weight

HSA 800 .....	14 lbs (6.4 kg)
HSA 802 .....	15 lbs (6.8 kg)

### Listings .....

UL, CUL

### Compliances .....

CE

MTBF ..... Gas lift ..... 100,000 cycles

Warranty ..... 3 years parts and labor

**NOTE** Specifications are subject to change without notice.

## Part Numbers

### HSA 800/802 US

Part number
HSA 800 Enclosure (black anodized) 60-417-01
HSA 800 Enclosure (brushed aluminum) 60-417-03
HSA 800 Enclosure (polished aluminum) 60-417-04
HSA 800 Enclosure (brushed brass) 60-417-05
HSA 800 Enclosure (polished brass) 60-417-06
HSA 802 Enclosure (black anodized) 60-418-01
HSA 802 Enclosure (brushed aluminum) 60-418-03
HSA 802 Enclosure (polished aluminum) 60-418-04
HSA 802 Enclosure (brushed brass) 60-418-05
HSA 802 Enclosure (polished brass) 60-418-06

### HSA 800/802 IEC

Part number
HSA 800 IEC Enclosure (black anodized) 60-417-81
HSA 800 IEC Enclosure (brushed aluminum) 60-417-83
HSA 800 IEC Enclosure (polished aluminum) 60-417-84
HSA 800 IEC Enclosure (brushed brass) 60-417-85
HSA 800 IEC Enclosure (polished brass) 60-417-86
HSA 802 IEC Enclosure (black anodized) 60-418-81
HSA 802 IEC Enclosure (brushed aluminum) 60-418-83
HSA 802 IEC Enclosure (polished aluminum) 60-418-84
HSA 802 IEC Enclosure (brushed brass) 60-418-85
HSA 802 IEC Enclosure (polished brass) 60-418-86

### HSA 800/802 EU

Part number
HSA 800 EU Enclosure (black anodized) 60-417-21
HSA 800 EU Enclosure (brushed aluminum) 60-417-23
HSA 800 EU Enclosure (polished aluminum) 60-417-24
HSA 800 EU Enclosure (brushed brass) 60-417-25
HSA 800 EU Enclosure (polished brass) 60-417-26
HSA 802 EU Enclosure (black anodized) 60-418-21
HSA 802 EU Enclosure (brushed aluminum) 60-418-23

## Reference Information, cont'd

<b>HSA 800/802 EU</b>	<b>Part number</b>
HSA 802 EU Enclosure (polished aluminum)	60-418-24
HSA 802 EU Enclosure (brushed brass)	60-418-25
HSA 802 EU Enclosure (polished brass)	60-418-26

<b>HSA 800/802 UK</b>	<b>Part number</b>
HSA 800 UK Enclosure (black anodized)	60-417-41
HSA 800 UK Enclosure (brushed aluminum)	60-417-43
HSA 800 UK Enclosure (polished aluminum)	60-417-44
HSA 800 UK Enclosure (brushed brass)	60-417-45
HSA 800 UK Enclosure (polished brass)	60-417-46
HSA 802 UK Enclosure (black anodized)	60-418-41
HSA 802 UK Enclosure (brushed aluminum)	60-418-43
HSA 802 UK Enclosure (polished aluminum)	60-418-44
HSA 802 UK Enclosure (brushed brass)	60-418-45
HSA 802 UK Enclosure (polished brass)	60-418-46

<b>HSA 800/802 Australian</b>	<b>Part number</b>
HSA 800 Aus Enclosure (black anodized)	60-417-61
HSA 800 Aus Enclosure (brushed aluminum)	60-417-63
HSA 800 Aus Enclosure (polished aluminum)	60-417-64
HSA 800 Aus Enclosure (brushed brass)	60-417-65
HSA 800 Aus Enclosure (polished brass)	60-417-66
HSA 802 Aus Enclosure (black anodized)	60-418-61
HSA 802 Aus Enclosure (brushed aluminum)	60-418-63
HSA 802 Aus Enclosure (polished aluminum)	60-418-64
HSA 802 Aus Enclosure (brushed brass)	60-418-65
HSA 802 Aus Enclosure (polished brass)	60-418-66

## Included Parts

<b>Part</b>	<b>Part number</b>
HSA 800/802 HSA Hideaway Products manual	68-617-01
Snap-in icon inserts	40-348-01
RJ-45 connector bezel plug-in inserts (assorted colors and blank)	70-201-01
1/4 - 20, 1", 1-1/2", 2", 2-1/2" full thread bolts	
-or- M6 x 65mm, 50mm, 40mm, 25mm full thread bolts	

## Routing Template and Replacement Parts

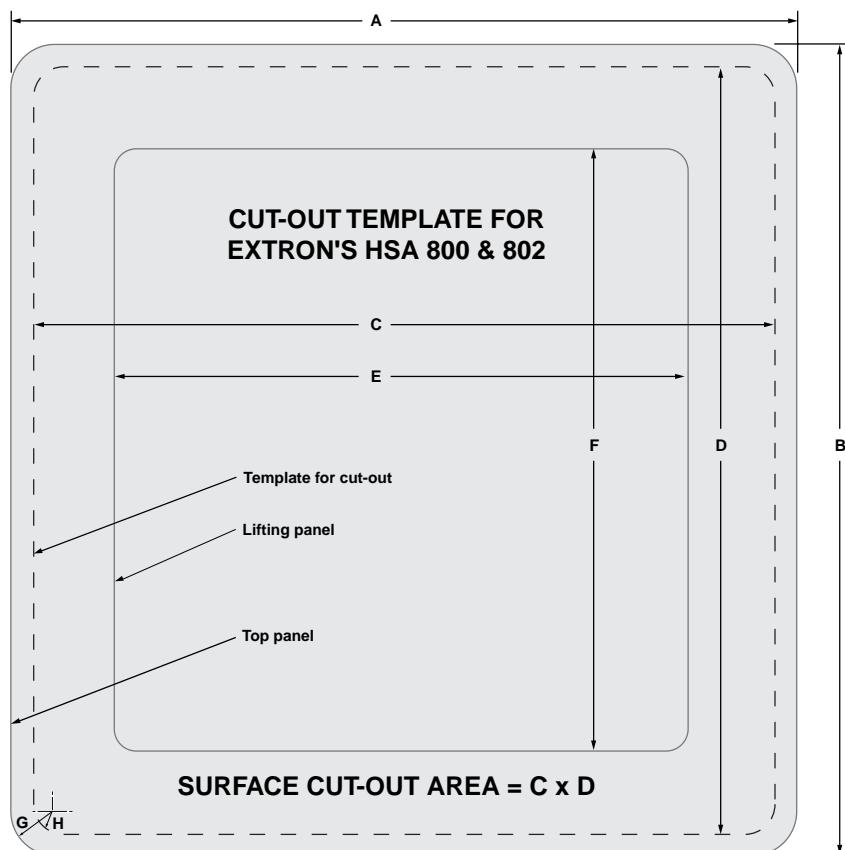
<b>Part</b>	<b>Part number</b>
HSA 800/802 routing template	70-191-01
HSA 800/802 standard (10-lb) gas lift	70-193-01
HSA 800/802 12-lb gas lift	70-193-02
HSA 800/802 15-lb gas lift	70-193-03
HSA latch replacement kit	70-194-01

## Interface Accessories

<b>Accessory</b>	<b>Part number</b>
RGB 580xi	60-362-01
RGB 580xi AAP 3' (black)	70-128-02
RGB 580xi AAP 6' (black)	70-129-02
RGB 580xi AAP 12' (black)	70-130-02
RGB 580xi I AAP 3' (black)	70-131-02
RGB 580xi I AAP 6' (black)	70-132-02
RGB 580xi I AAP 12' (black)	70-133-02
RGB 580xi S AAP 3' (black)	70-134-02
RGB 580xi S AAP 6' (black)	70-135-02
RGB 580xi S AAP 12' (black)	70-136-02
RGB 580xi SI AAP 3' (black)	70-137-02
RGB 580xi SI AAP 6' (black)	70-138-02
RGB 580xi SI AAP 12' (black)	70-139-02

### Top Plate Dimensions

The cut-out template (figure A-2) is not to scale and is for reference only. If you choose not to use Extron's routing template (chapter 2, *Installation*), the dimensions shown on the table on page A-7 will help you properly prepare the mounting surface. The surface cut-out area dimensions for the template are C and D.



**Figure A-2 — HSA 800/802 cut-out template**

For a full size paper template, visit the Extron Web site (<http://www.extron.com>) or call the Extron S<sup>3</sup> Sales & Technical Support Hotline.

### HSA 800/802

<b>A</b>	8.47" (21.5 cm)
<b>B</b>	8.75" (22.2 cm)
<b>C</b>	7.97" (20.2 cm)
<b>D</b>	8.25" (21.0 cm)
<b>E</b>	6.2" (15.7 cm)
<b>F</b>	6.4" (16.3 cm)
<b>G</b>	0.5" (1.3 cm)
<b>H</b>	0.25" (0.6 cm)



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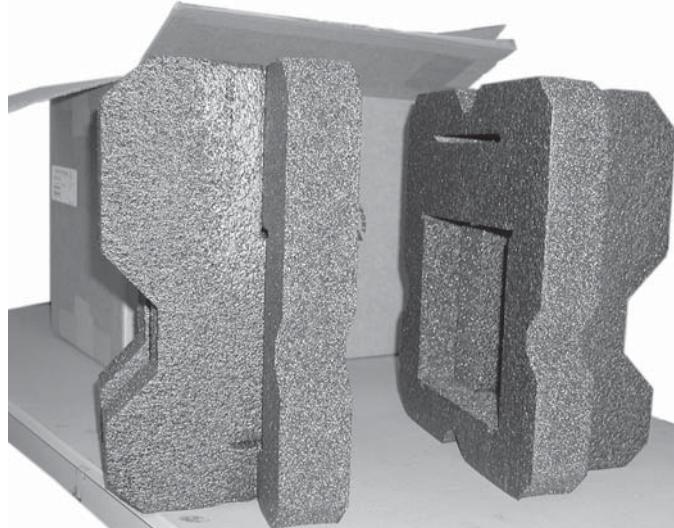
# B

## **Appendix B**

### **Packaging for Shipment**

## Packaging for Shipment

The HSA 800's and HSA 802's ultra-fine machined surfaces and moving parts make them vulnerable to damage caused by mishandling during shipment if they are improperly packaged. If, for any reason, you need to return an HSA to Extron, first contact Extron to obtain a return kit. The return kit, which reduces the chances of damage during shipment, includes a sturdy shipping carton and foam cut to fit the HSA (figure B-1).



**Figure B-1 — HSA 800/802 return kit**

Package an HSA for shipment as follows:

1. Contact the Extron S<sup>3</sup> Sales & Technical Support Hotline to obtain a return kit. Extron will send the repair kit to the location you specify.

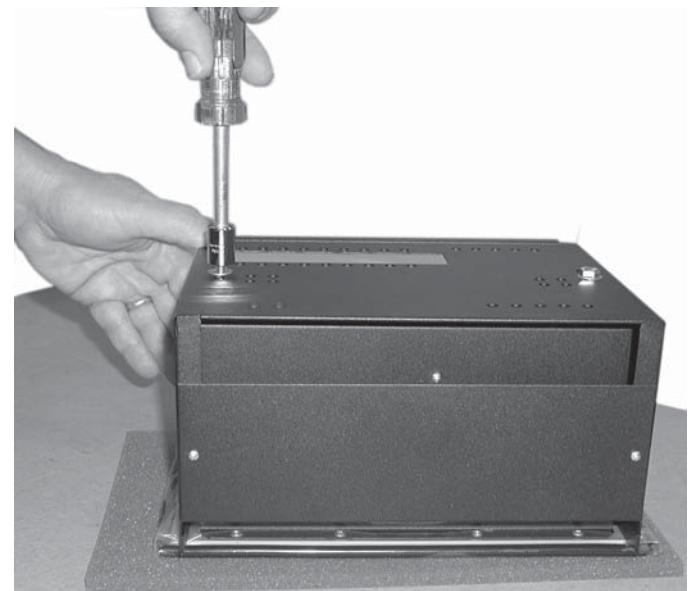
**WARNING** *The flanged edges of the top of the surface enclosure are sharp when the HSA is removed from the table. Exercise caution when handling to prevent personal injury.*

**CAUTION** *The flanged edges of the top of the surface enclosure are bevelled to an ultra-fine thickness of less than 0.04 (4/100)" (approximately 1 mm). These edges are soft and can be easily nicked or bent. Exercise caution when handling and mounting the enclosure. Mishandling can damage the appearance of the enclosure.*

2. Disconnect all cables, remove any AAPs, and remove the HSA 800/802 from the table or desk. See *Removing and Replacing the Enclosure*, steps 1 through 5, in chapter 3,

*Maintenance and Modifications.* Place the enclosure upside-down on a horizontal surface. To protect the finish, place the enclosure on a soft cloth or rubber mat.

3. Bolt the clamshell to the enclosure with two bolts and flat washers included in the return kit (figure B-2).



**Figure B-2 — Attaching the clamshell**

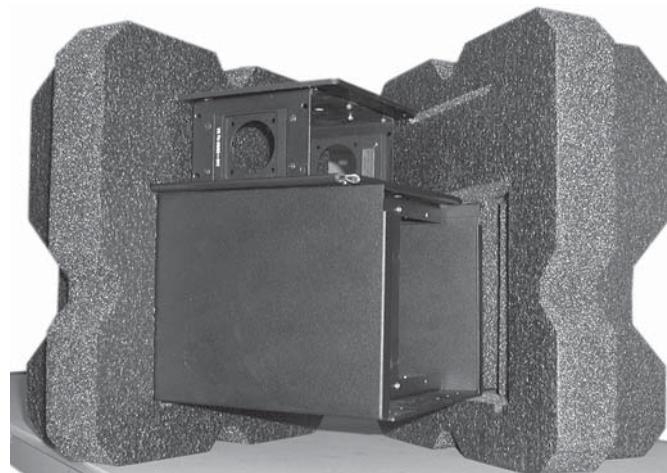
4. Place the enclosure and clamshell rightside-up on a horizontal surface. To protect the finish, place the enclosure on a soft cloth or rubber mat.
5. Install the plastic strips that protect the flanged edges of the top of the surface enclosure (figure B-3).



**Figure B-3 — Installing protective strips**

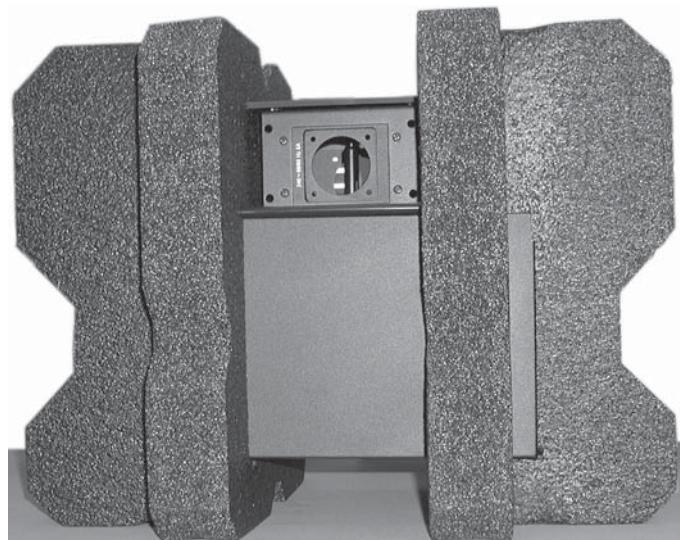
## Packaging for Shipment, Cont'd

6. Release (extend) the top panel.
7. Insert the HSA 800/802 and the clamshell into one of the foam shells (figure B-4). Either open end of the clamshell and the open top panel will fit into the recesses in the foam.



**Figure B-4 — Installing the foam shell**

8. Insert the opposite end of the HSA 800/802 and the clamshell into the remaining foam shell (figure B-5). Firmly push the foam shells together as far as they will go to completely suspend the HSA and clamshell. The sides of the clamshell protrude through slots in the foam.
9. Lower the foam-protected HSA into the shipping carton (figure B-6).
10. Close the shipping carton and seal it with high quality shipping tape.
11. Ship the HSA to Extron using a reputable shipping company.



**Figure B-5 — HSA suspended in the foam**



**Figure B-6 — Placing the HSA in the shipping carton**

## Packaging for Shipment, Cont'd

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