

User's Manual



HSA 822M

Motorized Hideaway® Surface Access Enclosure

Extron USA - West	Extron USA - East	Extron Europe	Extron Asia	Extron Japan	Extron China	Extron Middle East
Headquarters						
+800.633.9876	+800.633.9876	+800.3987.6673	+800.7339.8766	+81.3.3511.7655	+400.883.1568	+971.4.2991800
Inside USA / Canada Only	Inside USA / Canada Only	Inside Europe Only	Inside Asia Only	+81.3.3511.7656 FAX	Inside China Only	+971.4.2991880 FAX
+1.714.491.1500	+1.919.863.1794	+31.33.453.4040	+65.6383.4400		+86.21.3760.1568	
+1.714.491.1517 FAX	+1.919.863.1797 FAX	+31.33.453.4050 FAX	+65.6383.4664 FAX		+86.21.3760.1566 FAX	

68-617-03 **Rev. B**
06 09

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 Attachments** • 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 contient 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.
- Conservier les instructions** • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.
- Respecter les avertissements** • Observer tous les avertissements et consignes marqués sur le matériel ou présents 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 aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.
- Befolgen der Warnhinweise** • Befolgen Sie alle Warnhinweise und Anleitungen 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 (o 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 prevent 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 cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (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 éraclés ou pincés 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 de hautes 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 a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une 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

- Stromquellen** • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.
- Stromunterbrechung** • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stromversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.
- Schutz des Netzkabels** • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegen gestellt werden können.
- Wartung** • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal 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.
- Schlitze und Öffnungen** • Wenn das Gerät Schlitze 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.
- Litium-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 provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearla ni eliminarla.
- Desconexión de alimentación eléctrica** • Para desconectar con seguridad la acometida de 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 del 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 debe 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 para evitar el sobrecalentamiento 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. Desachar 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 USA
1001 East Ball Road
Anaheim, CA 92805
U.S.A.

Europe, Africa, and the Middle East:

Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

Asia:

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

Japan:

Extron Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

China:

Extron China
686 Ronghua Road, Songjiang
District
Shanghai 201611
China

Middle East:

Extron Middle East
Dubai Airport Free Zone
F12, PO Box 293666
United Arab Emirates, Dubai

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.

安全须知 • 中文



这个符号提示用户该设备用户手册中有重要的操作和维护说明。



这个符号警告用户该设备机壳内有暴露的危险电压，有触电危险。

注意

阅读说明书 • 用户使用该设备前必须阅读并理解所有安全和使用说明。

保存说明书 • 用户应保存安全说明书以备将来使用。

遵守警告 • 用户应遵守产品和用户指南上的所有安全和操作说明。

避免追加 • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

警告

电源 • 该设备只能使用产品上标明的电源。设备必须使用有地线的供电系统供电。第三条线（地线）是安全设施，不能不用或跳过。

拔掉电源 • 为安全地从设备拔掉电源，请拔掉所有设备后或桌面电源的电源线，或任何接到市电系统的电源线。

电源线保护 • 妥善布线，避免被踩踏，或重物挤压。

维护 • 所有维修必须由认证的维修人员进行。设备内部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

通风孔 • 有些设备机壳上有通风槽或孔，它们是用来防止机内敏感元件过热。 不要用任何东西挡住通风孔。

锂电池 • 不正确的更换电池会有爆炸的危险。 必须使用与厂家推荐的相同或相近型号的电池。 按照生产厂的建议处理废弃电池。

Table of Contents

Chapter 1 • Introduction	1-1
About the HSA 822M Hideaway® Enclosures	1-2
Features	1-4
Chapter 2 • Installation	2-1
Installation Overview	2-2
Preparing the Routing Template	2-4
Preparing the Table	2-5
Cabling and Installing the AAPs	2-7
Routing the AAP Cables and Installing the Clamshell	2-9
Cabling the Enclosure	2-10
Cabling the RJ-45 connectors	2-12
Cabling the control and status captive screw connector	2-13
Bezels	2-16
Chapter 3 • Maintenance and Modifications	3-1
Replacing an AAP	3-3
Replacing the Bezels	3-5
Removing and Replacing the Enclosure	3-7
Setting the Upper Limit Switch (Elevated Platform Height)	3-11
Setting the Lower Limit Switch (Lowered Platform Height)	3-12
Setting the Manual Release Switch	3-14
Safety Switch — Location Only	3-16
Replacing the Control Board Assembly and Power Supply Assembly	3-17

Table of Contents, cont'd

Appendix A • Reference Information A-1

Specifications A-2

Part Numbers A-4

 HSA 822M A-4

 Included parts A-4

 Template, replacement parts, and accessories A-4

 Interface accessories A-5

Top Plate Dimensions A-6

 HSA 822M cut-out template A-7

Appendix B • Packaging for Shipment B-1



HSA 822M

1

Chapter One

Introduction

About the HSA 822M Hideaway® Enclosures

Features

All trademarks mentioned in this manual are the properties of their respective owners.

68-617-03 **Rev. B**
06 09

About the HSA 822M Hideaway® Enclosures

The Extron HSA 822M is a furniture-mounted, motorized, architectural solution for inconspicuous computer video interface connector access and control.

The HSA 822M (figure 1-1) provides space for four double space (double-height) or eight single space Extron Architectural Adapter Plates (AAPs), two standard grounded AC power receptacles, and four RJ-45 (Category [CAT] 6) connectors. The HSA is available in a version with US power outlets and an international version with several different types of power outlets, including Universal, UK, French, Israeli, Australian, Indian, European, and Swiss receptacles.

NOTE

The Universal AC outlet is fully compatible with Europlug, British, Indian, Danish, and Italian plug types. See the Universal AC outlet guide on the Extron Web site, www.extron.com, for compatibility details on all plug types.



Figure 1-1 — HSA 822M hideaway enclosure

The motorized action is controlled by contact closure. The control mechanism uses discrete high or low signals to report the HSA's up or down position. Safety devices prevent injury and equipment damage.

The installed enclosure fits 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 touches a button, sends a control system command, or presses down on the top of the enclosure. A stepper motor slowly raises the AAPs and connectors into view.

The AAP spaces and RJ-45 connectors are arranged back-to-back, while the AC receptacles are back-to-back on the sides perpendicular to the AAPs.

A cable inside the enclosure connects the user AC receptacles to a power connector on the underside of the enclosure. The same power cable supplies the stepper motor that drives the panel up and down.

Cables inside the enclosure route the front panel RJ-45 signal lines to RJ-45 connectors on the underside of the enclosure. With an optional conversion kit, one or more of the RJ-45 (data) lines can be converted to an RJ-11 (telephone) line.

The functionality of the HSA 822M can be optimized with one through four RGB 580xi AAPs connected to one through four RGB 580xi Remote Interfaces (figure 1-2).

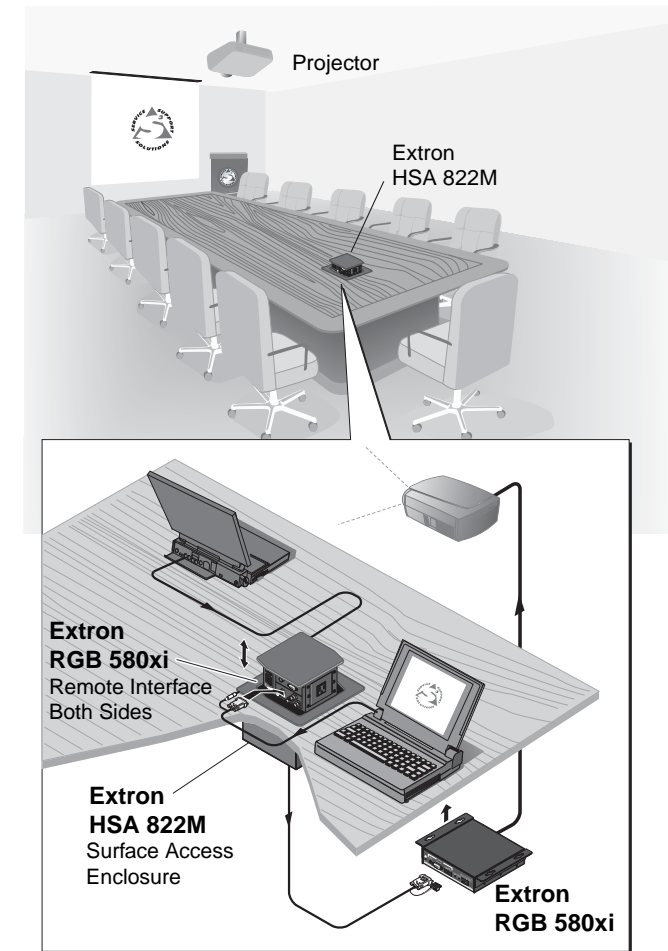


Figure 1-2 — HSA 822M and RGB 580xi configuration

The HSA 822M is available in a variety of surface finishes, including black anodized aluminum, brushed aluminum, brushed brass, and polished aluminum.



Features

- CSA listed
- Easy access to connectors and controls
- Durable motorized movement
- Motion-limiting safety features to prevent injury and equipment damage
- A variety of available surface finishes
- A variety of colors of included RJ-45 connector bezels: black, red, blue, orange, gray, white, ivory, yellow, and green
- Compact size
- Easy installation of up to four powered or passive double space Extron AAPs

NOTE *The space behind the AAP panel is limited. The online Connectivity Configurator, available at www.extron.com, offers guidance as to the fit of AAPs into this space.*

- RJ-45 (CAT 5/6) network and data connections (terminated in accordance with the **TIA/EIA T 568 A** standard)
- Grounded AC plugs

Chapter Two

Installation

Installation Overview

Preparing the Routing Template

Preparing the Table

Cabling and Installing the AAPs

Routing the AAP Cables and Installing the Clamshell

Cabling the Enclosure

Bezels

CAUTION Installation and service must be performed by authorized personnel only.

Installation Overview

See figure 2-1 and the following steps to install the HSA 822M:

- 1 If desired, install the optional RJ-45 to RJ-11 conversion kit(s) to replace one or more RJ-45 connectors with RJ-11 connectors. Refer to the *RJ-45 to RJ-11 Conversion Kit* manual.
- 2 If desired, install the optional flexible conduit kit to replace the removable AC power cord. Refer to the *Flexible Conduit Kit* manual.
- 3 If you have an unprepared mounting template, prepare the template. See “Preparing the Routing Template” on page 2-4.
- 4 Cut a hole in the surface where the enclosure will be installed. See “Preparing the Table” on page 2-5.
- 5 Run all cables necessary to support the AC, control and status, 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.
- 6 Turn off all of the equipment to be connected. 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.
- 7 If applicable, connect cables to the rear connectors on the AAPs to be installed in the HSA 822M. Install the desired AAPs on the AAP/RJ-45 panel. See “Cabling and Installing the AAPs” on page 2-7.
- 8 Route and secure the AAP cables inside the enclosure, install the clamshell, and then secure the AAP cables to the clamshell. See “Routing the AAP Cables and Installing the Clamshell” on page 2-9.
- 9 Connect the power, RJ-45, and control and status cables to the underside of the enclosure. Remove the yellow shipping restraints. See “Cabling the Enclosure” on page 2-11.
- 10 If not already accomplished, peel the protective coating from the top surface and remove rubber strip that protects the top surface’s flanged edges.

- 11 Connect power cords and turn on the devices that connect to the surface access enclosure.

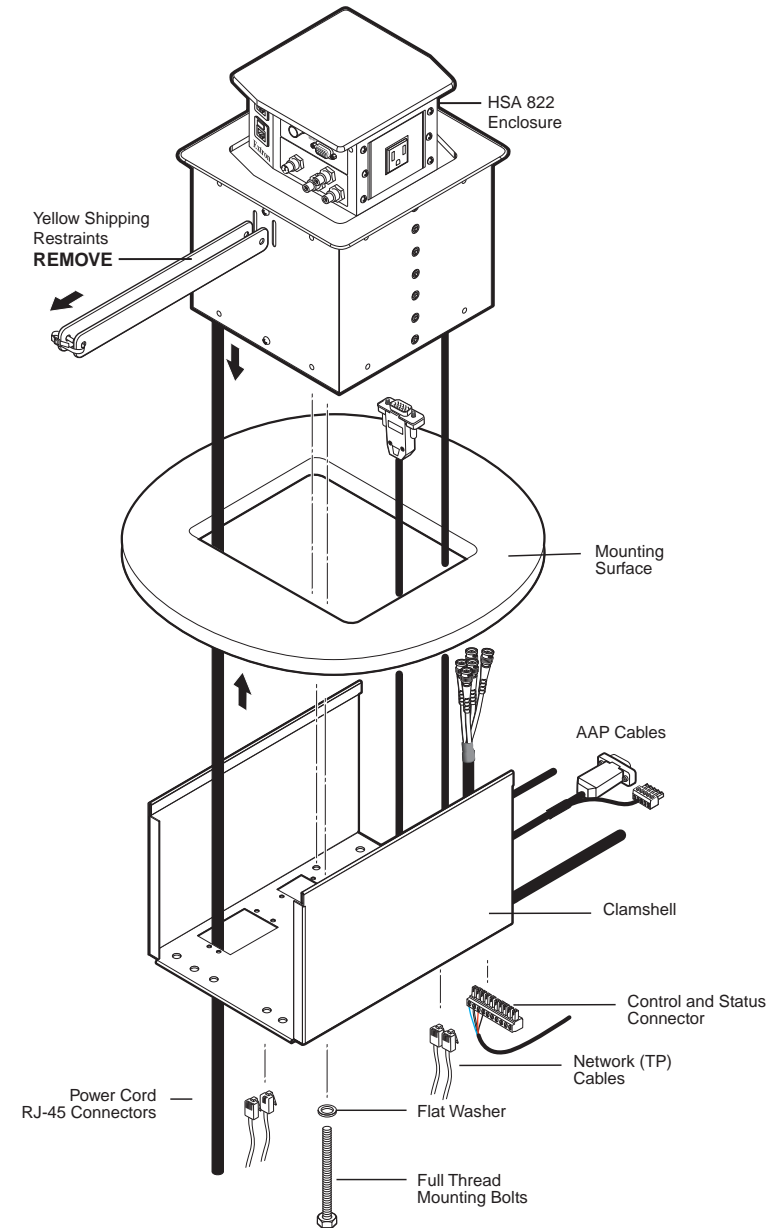


Figure 2-1 — Mounting the HSA 822M enclosure

Preparing the Routing Template

Extron offers a metal template, part #70-191-01, for the HSA 822M and HSA 822. Extron recommends using this template as a guide to cut the hole in the table where the HSA will be installed.

NOTE *The metal routing template is reusable. Do not discard this template when the installation is complete. Save it for future HSA 822M installations.*

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

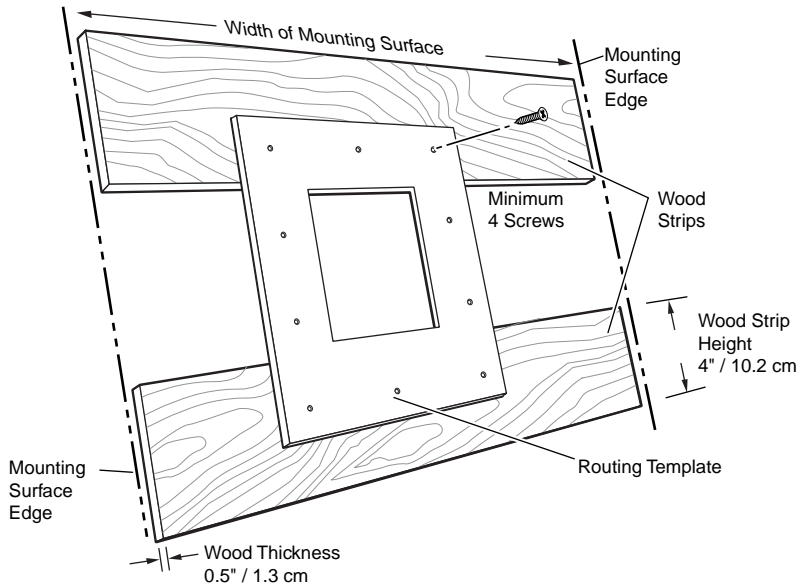


Figure 2-2 — Prepared mounting template

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.

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

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.*

Preparing the Table

The preferred and **recommended** method for preparing the table is to use the appropriate Extron metal routing template and a router.

Alternatively, you can use a paper cut-out template (see appendix A, "Reference Information") 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 822M 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 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 metal routing template is reusable. Do not discard this template when the installation is complete. Save it for future HSA 822M or HSA 822 installations.*

NOTE *The HSA 822M mounts in exactly the same size hole as the HSA 822 and uses the same metal mounting template.*

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, use C-clamps to secure the assembly to the table for routing as shown in figure 2-3 on the next page.

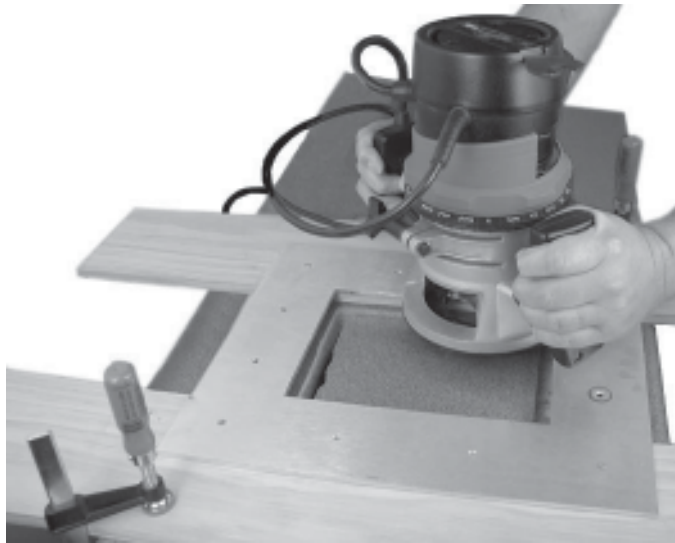


Figure 2-3 — Cutting the opening with a router

WARNING Wear safety glasses when operating the router. Failure to heed this warning can result in eye injury.

- 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 (figure 2-3).

- 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 not installed in a 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.

- Remove the rubber strip that protects the top surface's flanged edges. If a sticky residue remains, remove it with an appropriate metal cleaning product.

CAUTION Do **not** use isopropyl alcohol or other solvents to clean the HSA. Strong solvents **will** ruin some finishes.

- 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.

Cabling and Installing the AAPs

NOTE The space behind the AAP panel is limited. The online Connectivity Configurator, available at www.extron.com, offers guidance as to the fit of AAPs into this space.

Extron's various single space and double space AAP devices, including the various RGB 580xi AAPs, can be mounted to the HSA 822M. See appendix A, "Reference Information", for RGB 580xi AAP part numbers.

The screws for installing an AAP are built into its AAP/RJ-45 panel, so no additional screws are needed.

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

- Remove the top and bottom screws on the right and left sides of the AAP/RJ-45 panel (figure 2-4). Retain the screws. Lift the panel away from the enclosure as far as the connected cables allow and then allow the panel to dangle, supported by its connected cables.

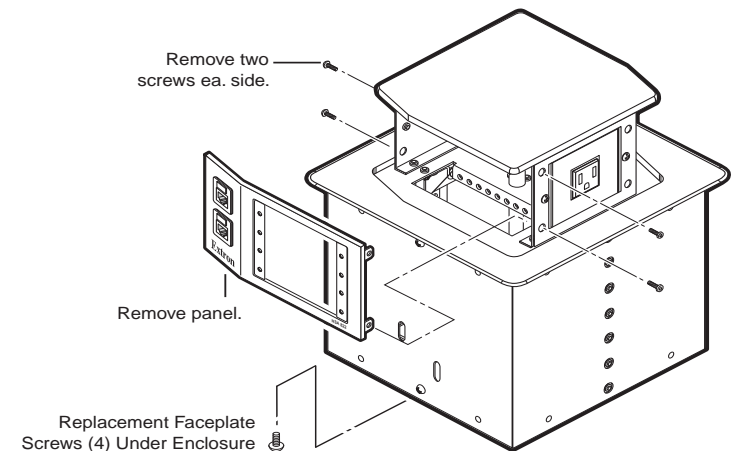


Figure 2-4 — Removing the AAP/RJ-45 panels

NOTE The center screws on each side of the AAP/RJ-45 panel do not fasten the AAP/RJ-45 panel in place. They secure the AC power outlet.

NOTE Ensure that the edges of the AAP/RJ-45 panels do not scratch the finished surface of the top panel flange when removing the panels.

2. Cable the rear of the AAPs before fastening the AAPs to the AAP/RJ-45 panel. 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 AAP/RJ-45 panel. Secure each AAP to the panel with the provided captive washers and #4-40 nuts (figure 2-5).

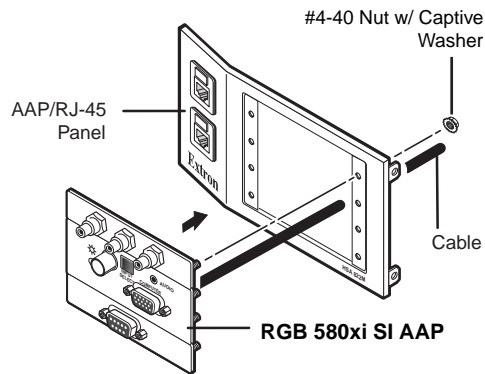


Figure 2-5 — Mounting an AAP on the AAP/RJ-45 panel

4. Replace the AAP/RJ-45 panel in the surface mount enclosure and secure it in place with the screws removed in step 1. If you lose an AAP/RJ-45 panel screw, four spare screws are stored in the underside of the enclosure (figure 2-8 on page 2-10, item ⑤).

Routing the AAP Cables and Installing the Clamshell

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 them from 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. Manually open the top panel to extend the AAP cables to their maximum pull.
2. To prevent wear and tear or binding of the mechanism caused by cable movement, secure the AAP cables inside the enclosure. Use tie wraps to secure the cables to the tie-downs accessible through the cable access holes (figure 2-6).

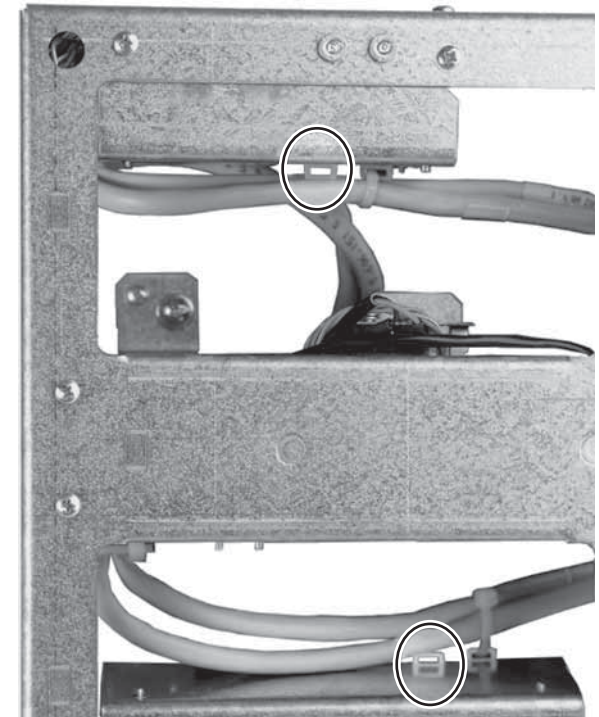
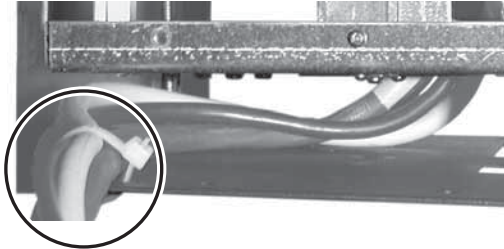


Figure 2-6 — Cable tie-downs inside the HSA (seen from underneath)

3. From the underside of the table, bolt the clamshell to the enclosure with two bolts of optimum length (included) (see figure 2-1 on page 2-3).
4. Experiment with AAP cable positioning between the enclosure and the clamshell to ensure that the cables do not rub against the edges of the AAP cable access hole and to ensure that the cable pull does not restrict the movement of the top panel. Figure 2-7 shows the cables routed to the side, which proved effective in tests at Extron.



Secure the AAP cables at the circled location.

Figure 2-7 — HSA 822M AAP cable routing in the clamshell

5. Use tie wraps to secure the AAP cables to the tie-down holes in the clamshell shown on figure 2-7.

Cabling the Enclosure

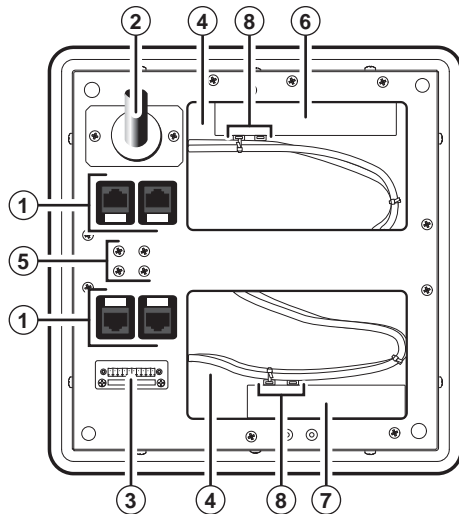


Figure 2-8 — HSA 822M underside features

NOTE Items marked with an asterisk (*) have limited accessibility once the clamshell is installed.

- ① **RJ-45 connectors** — See “Cabling the RJ-45 connectors” on page 2-12.

NOTE All RJ-45 connectors are terminated in accordance with the TIA/EIA T 568 A standard.

- ② **AC power connector** — Connect the enclosure to the appropriate AC power source:

NOTE For US domestic versions, this power cord is permanently connected to the HSA. Connect the power cord to a 125 VAC, 60 Hz, 10 A power source.
For international versions, this power cord is a removable IEC power cord. Connect the cord to a 220-250 V, 50-60 Hz, 10 A power source.



- ③ **Control and status captive screw connector** — See “Cabling the control and status captive screw connector” on page 2-13.
- ④ **Cable access holes***
- ⑤ **Spare AAP/RJ-45 panel screws***
- ⑥ **Power supply assembly***
- ⑦ **Control board assembly***
- ⑧ **Cable tie-downs***

Cabling the RJ-45 connectors

Plug one end of a terminated 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 device or to an Extron TP product.

NOTE An RJ-11 (telephone) jack can be plugged directly into the RJ-45 jack.

The bottom RJ-45 connectors match up with the AAP/RJ-45 panel RJ-45 connectors as shown in figure 2-9. For example, match the AAP/RJ-45 panel RJ-45 connector A1 with the underside RJ-45 connector A1, match A2 with A2, and so forth.

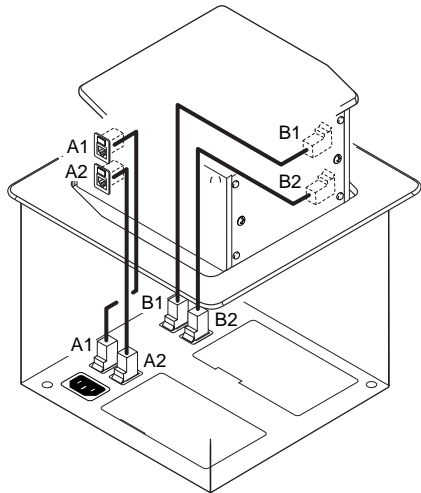


Figure 2-9 — HSA 822M RJ-45 connectors

If necessary, have a qualified service person replace the connector icon on the AAP/RJ-45 panel by prying the old icon off of the connector plug-in with a Tweezer or small screwdriver (see figure 2-10) and snapping a new icon in place.

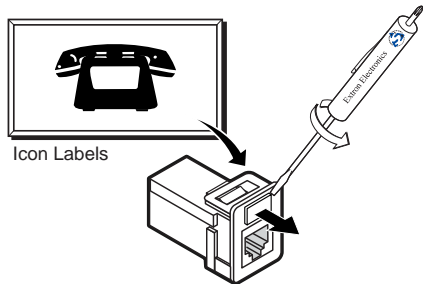


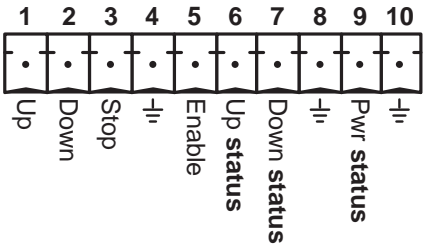
Figure 2-10 — Changing the connector icon

Cabling the control and status captive screw connector

CAUTION Cut the tie wraps and remove the yellow shipping restraint **before** testing the motorized mechanism.

Plug one end of the control cable(s) into this 10-pole captive screw connector. Connect the other end of the cable(s) to a control and/or monitoring system. The following table identifies the signals on each pin of the connector.

Control and status connector pinout



Pin	Definition	Definition	Explanation
1	Up (control)	Momentary contact closure	Short to ground to raise (open) the top panel.
2	Down (control)	Momentary contact closure	Short to ground to lower (shut) the top panel.
3	Stop (control)	Momentary contact closure	Short to ground to stop the top panel's motion.
4	Gnd	Gnd	Ground
5	Enable	Contact closure	Short to ground to enable activating the motor by pressing on the top panel.
6	Up (status)	Grounded/open	Grounded = up Open = down or in motion
7	Down (status)	Grounded/open	Grounded = down Open = up or in motion
8	Gnd	Gnd	Ground
9	Power (status)	Grounded/open	Grounded = AC power is applied. Open = No power is applied.
10	Gnd	Gnd	Ground

Figure 2-11 shows the function of the HSA's status pins (6 [up], 7 [down], and 9 [power]). When a status condition is met, the switch closes, shorting the status pin to ground, pulling it low. When a status condition is not met, the switch opens, floating the status pin. Status pins 6, 7, and 9 can sink +5 VDC to +12 VDC, 500 mA, **maximum**.

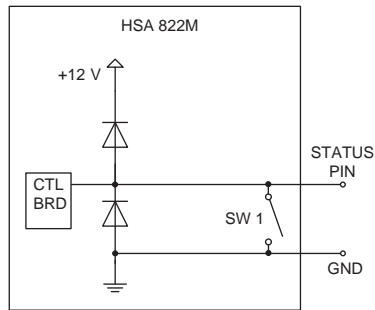
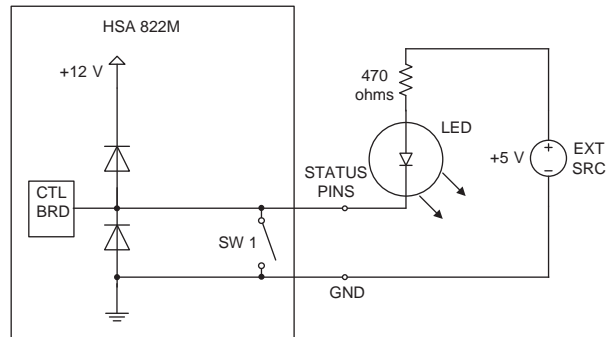


Figure 2-11 — Equivalent status pin circuit

Figure 2-12 expands upon figure 2-11 to show suggested circuitry to display the HSA's status. In this figure, the LED lights for as long as the status pin is pulled low (the switch is shorted [closed]).



NOTE This drawing shows a standard +5 V power supply. +12 V is another standard power supply that can be used in this circuit. If you use a +12 V supply, use a 2k ohm resistor in place of the 470 ohm resistor shown.

Figure 2-12 — Typical status display circuit

If connected to a position (up or down) status pin, the LED lights when the HSA platform is in the stated position. The LED is unlit when the platform is in motion or in the opposite position. Under no circumstances should both position LEDs light simultaneously.

If connected to the power status pin, the LED is lit when power is applied to the HSA.

Figure 2-13 shows a typical locally-constructed contact closure control and LED indication device.

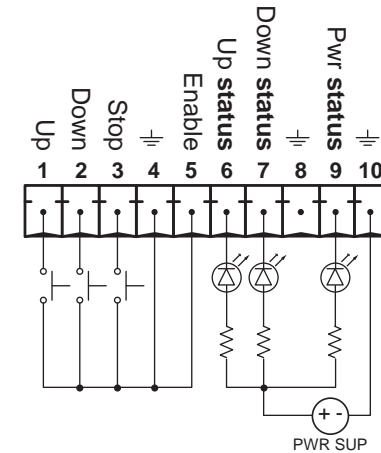


Figure 2-13 — Typical local control device

Figure 2-14 shows the HSA connected to an Extron MLC 226 MediaLink® Controller. The status pin can trigger the MLC's digital input.

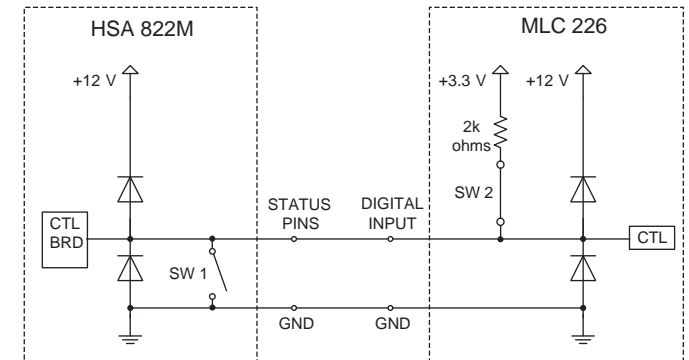


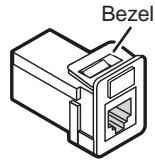
Figure 2-14 — Typical MediaLink control device

NOTE The MLC's pull-up resistor to 3.3 VDC must be activated (the MLC's switch 2 closed). Refer to the MLC 226 product manual.

NOTE The flex I/O port on an Extron IP Link® Ethernet Control Interface can be used in place of the MLC 226 and its digital input port.

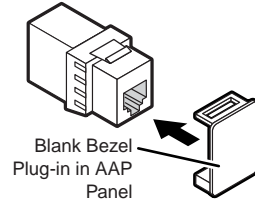
Bezels

The HSA 822M ships with RJ-45/RJ-11 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 AAP/RJ-45 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 (shown at right) to hold it conveniently out of the way. Retain the removed connector bezel plug-in for any possible later use.



HSA 822M

Chapter Three

Maintenance and Modifications

Replacing an AAP

Replacing the Bezels

Removing and Replacing the Enclosure

Setting the Upper Limit Switch (Elevated Platform Height)

Setting the Lower Limit Switch (Lowered Platform Height)

Setting the Manual Release Switch

Safety Switch — Location Only

Replacing the Control Board Assembly and Power Supply Assembly

CAUTION Installation and service must be performed by authorized personnel only.

This chapter provides the following procedures:

NOTE Maintenance procedures marked with an asterisk (*) require removing the HSA 822M from the table.

- Replacing an AAP
- Replacing the bezels
- Removing and replacing the HSA in the table (for other maintenance procedures)*
- Adjusting the upper-level and lower-level stop point and the manual mode release point*
- Replacing the power supply assembly and the control board assembly*

Figure 3-1 shows the underside of the enclosure and many of the maintenance-related features.

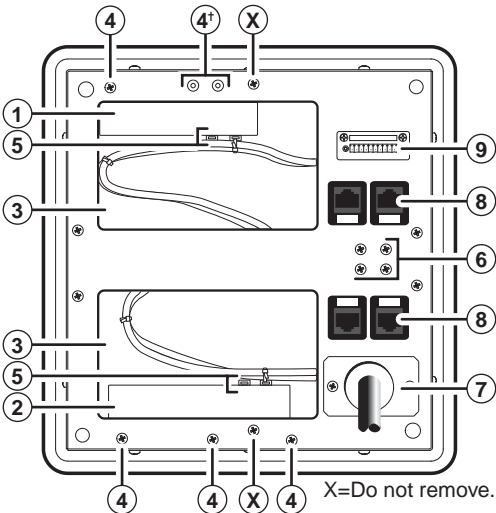


Figure 3-1 — HSA 822M maintenance features

- | | |
|--------------------------|--------------------------------------|
| ① Control board assembly | ⑥ Spare AAP/RJ-45 panel screws |
| ② Power supply assembly | ⑦ AC power connector |
| ③ Cable access holes | ⑧ RJ-45 connector |
| ④ Assembly screws† | ⑨ Control and status connector |
| ⑤ Cable tie-downs | ⓧ Structural screws — Do not remove. |

NOTE The screws indicated by a dagger (†) on figure 3-1 are accessible from the top (inside the enclosure).

Replacing an AAP

Replace one or more AAPs as follows:

1. Activate the motor to raise the platform, and then disconnect the AC power.

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

NOTE When AC power is removed, the platform may sink partially down into the HSA.

2. Remove and retain the top and bottom screws on the right and left sides of the AAP/RJ-45 panel (figure 3-2). Lift the panel away from the enclosure as far as the connected cables allow and then allow the panel to dangle, supported by its connected cables.

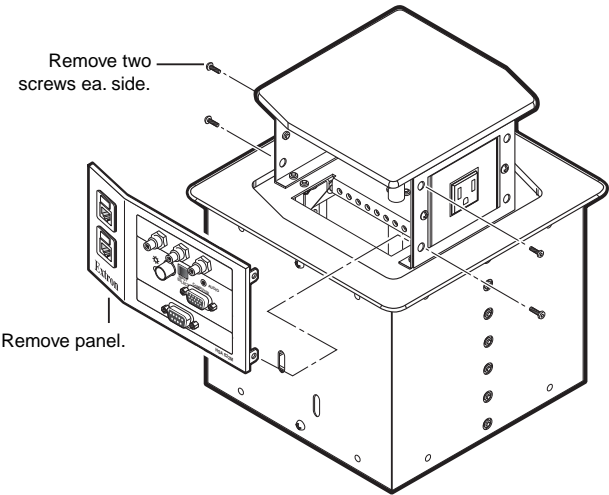


Figure 3-2 — Removing the AAP/RJ-45 panel

NOTE The center screws on each side of the AAP/RJ-45 panel do not fasten the AAP/RJ-45 panel in place. They secure the AC power outlet.

CAUTION Ensure that the edges of the AAP/RJ-45 panels do not scratch the finished surface of the top panel flange or the furniture in which the HSA 822M is installed when removing the panels.

3. Disconnect any cables from the rear of the AAP(s) that are being replaced.
4. **If an AAP cable is no longer required in your system**, on the underside of the clamshell, cut the tie wraps that route the AAP cables out of the way.
5. **If an AAP cable is no longer required in your system**, on the underside of the table, remove the two bolts (shown at right) that secure the clamshell to the surface mount enclosure and remove the clamshell.
6. **If an AAP cable is no longer required in your system**, from the underside of the enclosure, reach into the cable access holes (figure 3-1 on page 3-2, item ③), and cut the tie wraps (⑤) that route the AAP cables and network (CAT 6) cables inside the enclosure.
7. **If an AAP 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.
8. Remove the AAP(s) that you no longer want from the AAP/RJ-45 panel by unscrewing the nuts on the rear of the AAP/RJ-45 panel that secure the AAPs in place.
9. Cable the rear of the AAP(s) to be installed before attaching the AAP(s) 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 AAP(s). If applicable, refer to the cabling information in the documentation for the AAP.
10. Insert each AAP's screws through the holes in the AAP opening of the AAP/RJ-45 panel. Secure each AAP to the panel with the provided captive washers and #4-40 nuts (figure 3-3).

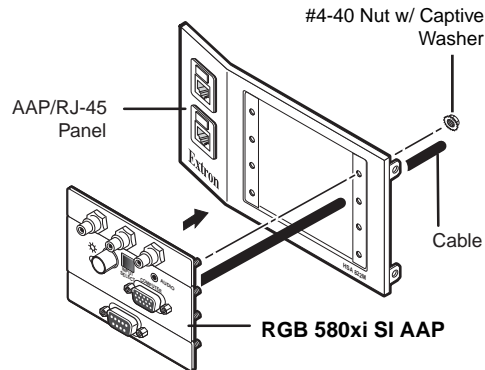


Figure 3-3 — Mounting an AAP device

11. Replace the AAP/RJ-45 panel in the surface mount enclosure and secure them in place with the screws removed in step 2. If you lose an AAP/RJ-45 panel screw, four spare screws are stored in the underside of the enclosure (figure 3-1 on page 3-2, item ⑥).
12. **If you replaced an AAP cable**, to prevent wear and tear caused by cable movement, secure the AAP cables underneath the table. See “Routing the AAP Cables and Installing the Clamshell” on page 2-9.

Replacing the Bezels

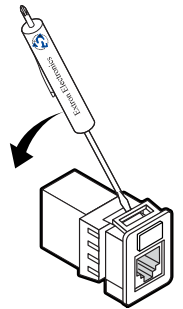
The HSA 822M ships with RJ-45 connector bezel plug-ins in a variety of colors and a black, blank bezel. Replace a bezel as follows:

1. Remove and retain the top and bottom screws on the right and left sides of the AAP/RJ-45 panel (figure 3-2). Lift the panel away from the enclosure as far as the connected cables allow and then allow the panel to dangle, supported by its connected cables.

NOTE The center screws on each side of the AAP/RJ-45 panel do not fasten the AAP/RJ-45 panel in place. They secure the AC power outlet.

NOTE Ensure that the edges of the AAP/RJ-45 panels do not scratch the finished surface of the top panel flange when removing the panels.

2. With a Tweezer, push down on and gently twist on the front of each RJ-45 connector detent to disconnect the connector from the rear of the AAP/RJ-45 panel plug-in.
3. Pinch the top and bottom bezel detents together and push the bezel through the AAP/RJ-45 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 Tweezer (figure 3-4) and snapping a new icon in place.

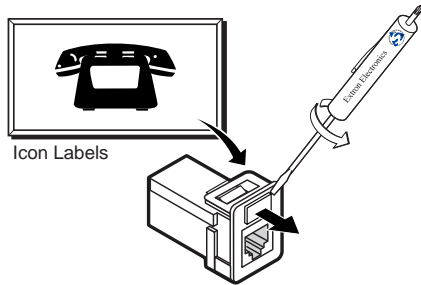
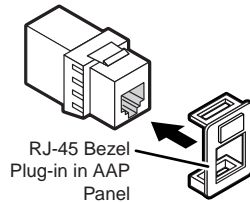


Figure 3-4 — Changing the connector icon

5. Snap the interior RJ-45 cable connectors onto the rear of the replacement RJ-45 AAP panel bezel plug-ins.
6. Replace the AAP/RJ-45 panel in the surface mount enclosure and secure it in place with the screws removed in step 1. If you lose an AAP/RJ-45 panel screw, four spare screws are stored in the underside of the enclosure (figure 3-1 on page 3-2, item ⑥).



Removing and Replacing the Enclosure

Many maintenance procedures require removing the HSA 822M from the table. Remove and replace the surface mount enclosure as follows:

1. Activate the motor to raise the platform and then disconnect the AC power.

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

NOTE When AC power is removed, the platform may sink partially down into the HSA.

2. On the underside of the clamshell, cut the tie wraps that route the AAP cables out of the way.
3. For both AAP/RJ-45 panels, remove the top and bottom screws on the right and left sides of the panel (figure 3-2). Retain the screws. Lift the panels away from the enclosure as far as the connected cables allow and then allow the panels to dangle, supported by their connected cables.

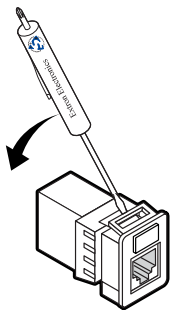
NOTE The center screws on each side of the AAP/RJ-45 panel do not fasten the AAP/RJ-45 panel in place. They secure the AC power outlet.

CAUTION Ensure that the edges of the AAP/RJ-45 panels do not scratch the finished surface of the top panel flange or the furniture in which the HSA 822M is installed when removing the panels.

4. To ensure that you reinstall the RJ-45 connectors in the proper position when the maintenance is complete, tag the internal CAT 6 cables to define their installation location (such as top or bottom and side A or B).

Also tag the side of the enclosure itself (A or B).

5. With a Tweezer, inside the AAP/RJ-45 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 AAP/RJ-45 panel plug-in.
6. Disconnect any cables from the rear of the existing AAPs.
7. Set the AAP/RJ-45 panels aside.
8. Disconnect the IEC power cord, the RJ-45 connectors, and the control and status connector (figure 3-1 on page 3-2, items ⑦, ⑧, and ⑨) from the connectors on the underside of the HSA.



9. On the underside of the table, remove the two bolts that secure the clamshell to the surface mount enclosure and remove the clamshell (figure 3-5).

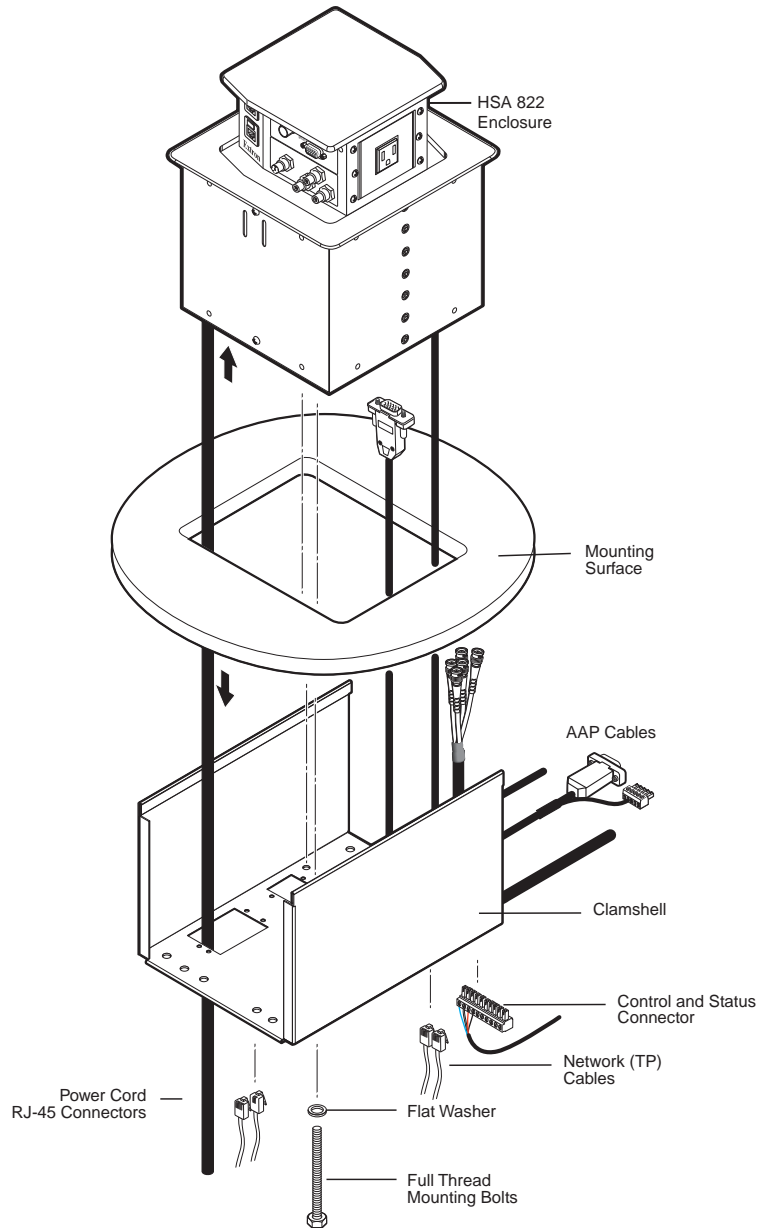


Figure 3-5 — Removing the HSA 822M from the table

10. From the underside of the enclosure, reach into the cable access holes (figure 3-1 on page 3-2, item ③), and cut the tie wraps (⑤) that route the AAP cables and network (CAT 6) cables inside the enclosure. Carefully pull the cables through and out the bottom of the HSA.

11. Lift the enclosure out of the table.

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.

12. Remove and retain the four screws in the corners of each side's surface of the enclosure shroud "cube" (figure 3-6). Remove the two halves of the shroud.

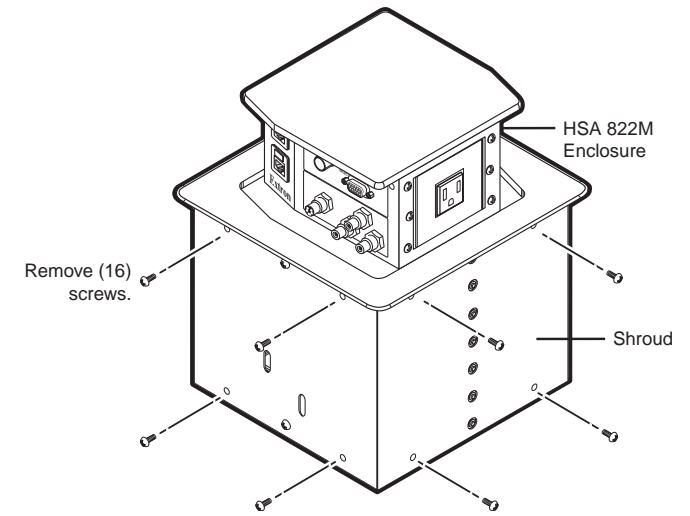
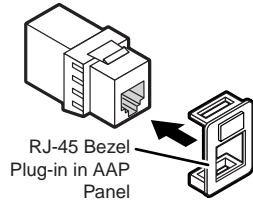


Figure 3-6 — Removing the shroud

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

13. Perform the desired maintenance procedure.
14. Secure the two shroud halves to the enclosure frame with the eight screws per shroud half (four per side) removed in step 2. Orient the shroud halves such that the vertical column of center holes align with the column of screw inserts on the vertical slides.
15. Carefully lower the HSA enclosure into the table opening.
16. Cable the rear of the AAPs that are fastened to the AAP/RJ-45 panel. 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.
17. Snap the interior RJ-45 cable connectors onto the rear of the RJ-45 AAP panel bezel plug-ins in the locations identified by the tags.
18. Replace the AAP/RJ-45 panel in the surface mount enclosure and secure it in place with the screws removed in step 1. If you lose an AAP/RJ-45 panel screw, four spare screws are stored in the underside of the enclosure (figure 3-1 on page 3-2, item ⑥).
19. To prevent wear and tear caused by cable movement, secure the AAP cables underneath the table. See page 2-9, "Routing the AAP Cables and Installing the Clamshell".
20. Connect the IEC power cord, the RJ-45 connectors, and the control and status connector (figure 3-1 on page 3-2, items ⑦, ⑧, and ⑨) to the connectors on the underside of the HSA.



Setting the Upper Limit Switch (Elevated Platform Height)

NOTE This switch's position is properly set in the factory.

The upper limit switch sets the stop point for the raised platform. If the switch is set too low, the platform does not rise high enough. If the switch is set too high, the motor attempts to raise the platform past the mechanical stop and then lowers the platform to the recessed (flush) position. Set the platform's height as follows:

1. Remove the surface mount enclosure from the table. See "Removing and Replacing the Enclosure", steps 1 through 12. Place the enclosure on a horizontal surface. Let the AC and control and status connectors (figure 3-1 on page 3-2, items ⑦ and ⑨) overhang the edge of the surface so that they are accessible.
2. Plug in AC power and the control and status device.
3. Activate the motor to raise the platform. Leave AC power applied to the HSA.

WARNING Do not reach tools or your hands into the area behind the AC connectors or into the vicinity of the power supply.

4. Locate the upper limit switch assembly (figure 3-7) inside the enclosure.

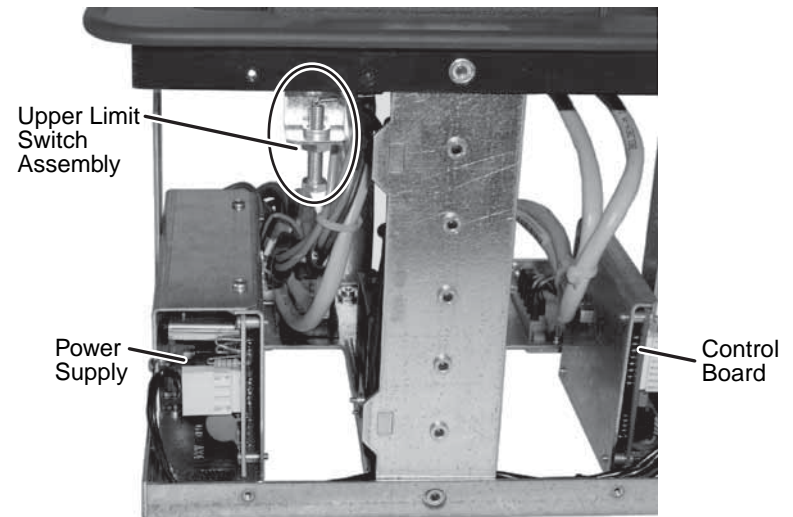
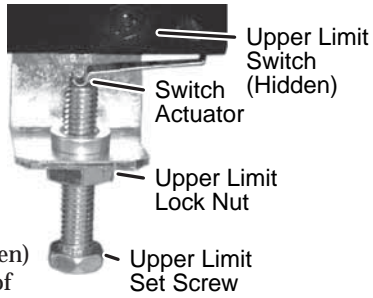


Figure 3-7 — Location of upper limit switch assembly (seen from the side)

5. Loosen the upper limit lock nut.
6. Rotate the upper limit set screw:
Clockwise (tighten) to lower the upper limit of platform motion.
Counterclockwise (loosen) to raise the upper limit of platform motion.



NOTE Adjustments do not take effect immediately. You must use the motor mechanism to lower and raise the platform to see the effect of your adjustment.

7. Lower and raise the platform to check the adjusted height. If necessary, repeat step 6.
8. Tighten the upper limit lock nut.
9. Disconnect the power and control and status connectors.
10. Reinstall the surface mount enclosure. See “Removing and Replacing the Enclosure”, steps 14 through 20.

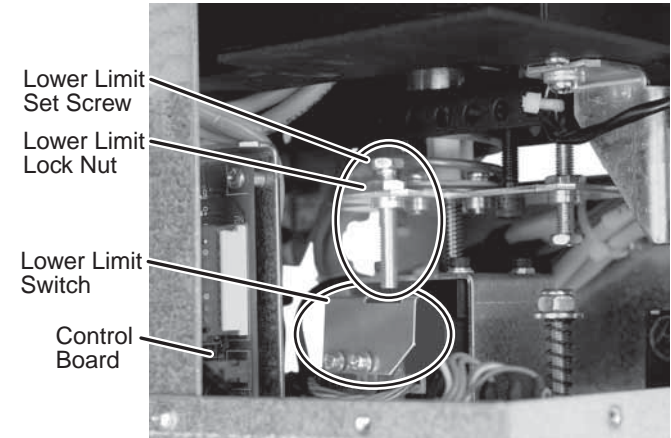
Setting the Lower Limit Switch (Lowered Platform Height)

NOTE This switch's position is properly set in the factory.

The lower limit switch sets the stop point for the lowered platform. If the switch is set too high or low, the retracted platform is not flush with the surrounding flange. Set the retracted height of the platform as follows:

1. Remove the surface mount enclosure from the table. See “Removing and Replacing the Enclosure”, steps 1 through 12. Place the enclosure on a horizontal surface. To protect the finish, place the enclosure on a soft cloth. Let the AC and control and status connectors (figure 3-1 on page 3-2, items ⑦ and ⑨) overhang the edge of the surface so that they are accessible.

2. Locate the lower limit switch assembly (figure 3-8) inside the enclosure.



NOTE RJ-45 connectors are removed for visibility.

Figure 3-8 — Location of lower limit switch assembly (seen from the side)

NOTE The lower limit switch looks similar to, but not exactly like the upper limit switch shown on page 3-12.

3. Loosen the lower limit lock nut.
4. Rotate the lower limit set screw:
Clockwise to raise the stop point of the retracted platform.
Counterclockwise to lower the stop point of the retracted platform.

NOTE Adjustments do not take effect immediately. You must use the motor mechanism to raise and lower the platform to see the effect of your adjustment.

5. Plug in AC power and the control and status device.

WARNING Do not reach tools or your hands into the area behind the AC connectors or into the vicinity of the power supply.

6. Raise and lower the platform to check the adjusted height. If necessary, unplug power and repeat step 4.
7. Tighten the lower limit lock nut.
8. Disconnect the power and control and status connectors.
9. Reinstall the surface mount enclosure. See “Removing and Replacing the Enclosure”, steps 14 through 20.

Setting the Manual Release Switch

NOTE *This switch's position is properly set in the factory.*

The manual release switch sets the amount of pressure needed to activate the press-to-activate feature. If the switch is set too low, you may have to push too hard on the platform. If the switch is set too high, the drive mechanism may activate sporadically.

NOTE *It is unlikely that the position of the manual release switch will ever need adjustment.*

Set the sensitivity of the release as follows:

1. Remove the surface mount enclosure from the table. See "Removing and Replacing the Enclosure", steps 1 through 12. Place the enclosure on a horizontal surface. To protect the finish, place the enclosure on a soft cloth. Let the AC and control and status connectors (figure 3-1 on page 3-2, items ⑦ and ⑨) overhang the edge of the surface so that they are accessible.
2. Plug in AC power and the control and status device.
3. Activate the motor to raise the platform. Leave AC power applied to the HSA.

WARNING *Do not reach tools or your hands into the area behind the AC connectors or into the vicinity of the power supply.*

4. Locate the manual release switch assembly (figure 3-9) inside the enclosure.

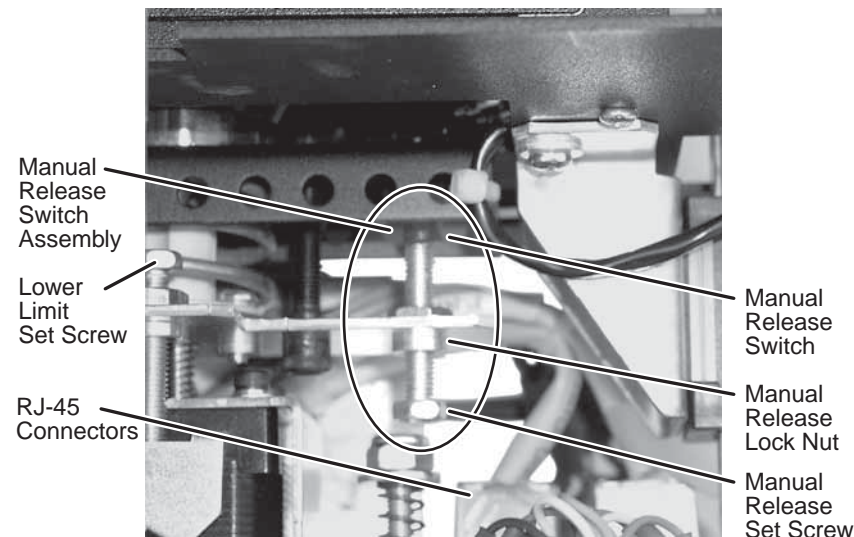


Figure 3-9 — Location of manual release switch assembly (seen from the side)

NOTE *The manual release switch looks similar to, but not exactly like the upper limit switch shown on page 3-12.*

5. Loosen the manual release lock nut.
6. Rotate the manual set screw:
Clockwise to make the manual release more sensitive.
Counterclockwise to make the manual release less sensitive (you must push harder to activate the press-to-activate feature).
7. Press on the platform to activate the press-to-activate function. If necessary, repeat step 6.

NOTE *Pin 5 of the control and status connector (figure 3-1 on page 3-2, item ⑨) must be tied to ground to enable the press-to-activate function.*

8. Tighten the manual release lock nut.
9. Disconnect the power and control and status connectors.
10. Reinstall the surface mount enclosure. See "Removing and Replacing the Enclosure", steps 14 through 20.

Safety Switch — Location Only

The safety switch (figure 3-10) stops the downward motion of platform when it encounters an obstruction to its smooth operation. If an obstruction is present that blocks the platform's travel, the stepper motor's carriage lifts and activates the safety switch. The HSA's motor logic automatically reverses the platform's motion and raises the platform to the upper position. The carriage typically reverses with less than twelve pounds of pressure applied to the obstruction.

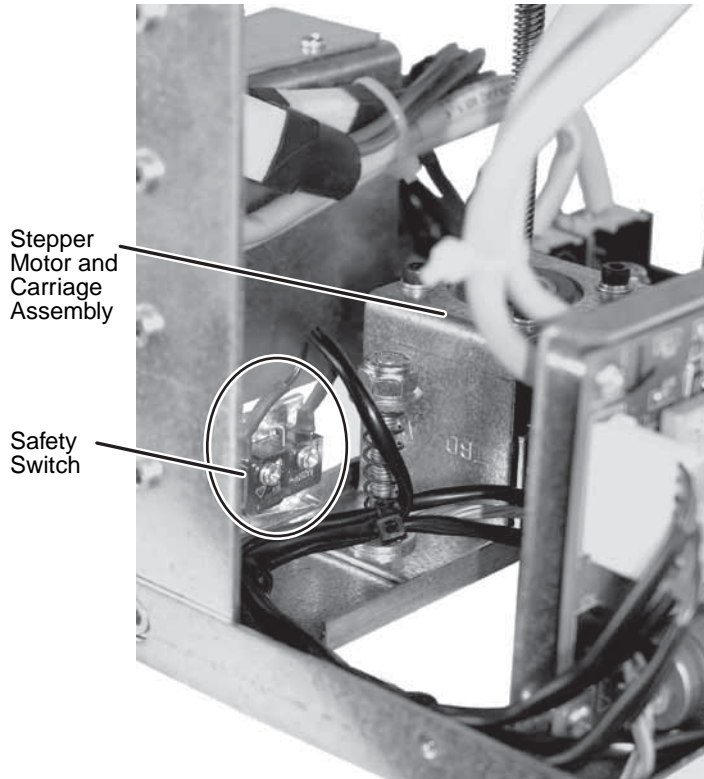


Figure 3-10 — Location of the safety switch (seen from the side)

NOTE The safety switch cannot be adjusted.

Replacing the Control Board Assembly and Power Supply Assembly

The control board assembly (figure 3-1 on page 3-2, ①) and the power supply assembly (②) can be replaced, if necessary, as follows:

1. Remove the surface mount enclosure from the table. See "Removing and Replacing the Enclosure", steps 1 through 12. Place the enclosure on a horizontal surface. To protect the finish, place the enclosure on a soft cloth.
2. From the underside of the enclosure, reach into the cable access holes (figure 3-1 on page 3-2, item ③), and cut the tie wraps ⑤ that route the AAP cables and network (CAT 6) cables inside the enclosure.
3. Remove the three screws (figure 3-1 on page 3-2, item ④) that secure the assembly to be replaced to the underside of the enclosure.

NOTE For the control board assembly, screws indicated by an asterisk (*) on figure 3-1 are accessible from the top (inside the enclosure).

NOTE Do **not** remove screw ⑧ (figure 3-1 on page 3-2). This screw does not secure the power supply assembly in any way; rather, it provides structural support to the enclosure.

4. Remove all connectors from the assembly to be replaced.
5. Remove the assembly from the enclosure.
6. Secure the replacement assembly in the enclosure with the screws removed in step 3.
7. Reconnect all connectors removed in step 4.
8. Retie all of the network (CAT 6) and AAP cables removed in step 2 to the tie-downs (figure 3-1 on page 3-2, item ⑤) on the assembly that was replaced.
9. Reinstall the surface mount enclosure. See "Removing and Replacing the Enclosure", steps 14 through 20.



A

Appendix A

Reference Information

Specifications

Part Numbers

Top Plate Dimensions

Reference Information

Specifications

Control/remote

- Contact closure (1) 3.5 mm female captive screw connector, 10 pole
- Contact closure/level pin configuration
 - Pin 1 = up, pin 2 = down, pin 3 = stop,
 - pin 5 = enable push operation, pin 6 = status up,
 - pin 7 = status down, pin 9 = status power,
 - pins 4, 8, and 10 = ground

General

NOTE The Universal AC outlet is fully compatible with Europlug, British, Indian, Danish, and Italian plug types. See the Universal AC outlet guide on the Extron Web site, www.extron.com, for compatibility details on all plug types

- Power 100 VAC to 240 VAC, 50-60 Hz, 25 watts, internal
- Temperature/humidity . Storage: -40 to +158°F (-40 to +70°C) / 10% to 90%, noncondensing
 - Operating: +32 to +122°F (0 to +50°C) / 10% to 90%, noncondensing
- Rack mount No, but furniture mountable
- Enclosure type Metal
- Enclosure approximate dimensions

CAUTION Use the appropriate metal Extron routing template or refer to the surface cutout dimensions here before cutting a hole in the furniture or other surface. Pay special attention to the direction the unit will face; the unit's AAP and connector access side is underlined. Extron is not responsible for miscut mounting holes.

- Top plate (outer rim) 8.470" W x 8.750" D
(21.51 cm W x 22.23 cm D)
- Top plate (vertically lifting plate) 6.220" W x 6.500" D
(15.80 cm W x 16.51 cm D)
- Surface cutout 7.90" ±0.0325" W (AAP access from front and back) x 8.250" ±0.0325" D
(20.07 ±0.083 cm W x 20.96 ±0.083 cm D)
- Clamshell (figure A-1) A = 7.24" (18.39 cm)
B = 8.25" (21.0 cm)
C = 10.98" (27.89 cm)

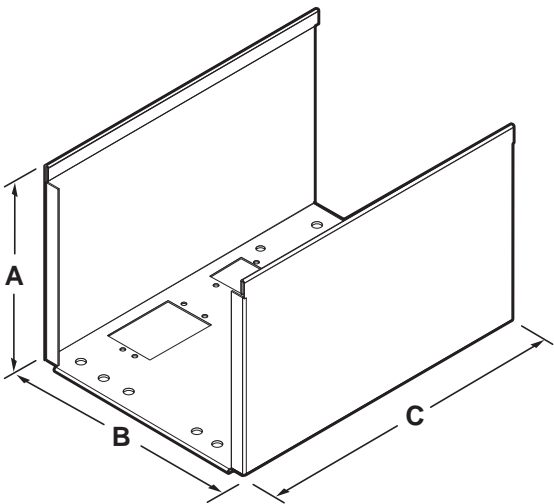


Figure A-1 — Clamshell dimensions

- Product/shipping weight 10.0 lbs (4.5 kg)/17 lbs (8 kg)
- Listings CSA, c-UL
- Compliances CE
- MTBF (stepper motor) 100,000 cycles
- Warranty 3 years parts and labor

NOTE Specifications are subject to change without notice.

Part Numbers

HSA 822M

HSA 822M	Part number
HSA 822M US Enclosure (black anodized)	60-719-0A
HSA 822M International Enclosure (black anodized)	60-719-nn

NOTE The USA version of the HSA 822M is also available in a brushed aluminum finish. Visit the Extron Web site, www.extron.com for more part numbers.

NOTE For the international versions, the nn in the part number identifies the AC power connector and finish (black anodized or brushed aluminum). Specify the desired power connector and finish when ordering.

Included parts

Part	Part number
HSA 822M User's Manual	
Snap-in icon inserts	
RJ-45 connector bezel plug-in inserts (assorted colors and blank)	
10-pin captive screw connector	10-332-13
1/4 - 20, 1", 1 1/2", 2", 2 1/2" full thread bolts	
-or- M6 x 65 mm, 50 mm, 40 mm, 25 mm full thread bolts	
IEC power cord (US model only)	

Template, replacement parts, and accessories

Part	Part number
HSA 822 routing template	70-191-01
NOTE The HSA 822M mounts in exactly the same size hole as the HSA 822 and uses the same metal mounting template.	
HSA 822M/MS power supply assembly	70-461-01
HSA 822M/MS control board assembly	70-462-01
HSA 822 RJ-11 cable kit	70-226-01
HSA 822 flexible conduit adapter kit	70-228-01

Interface accessories

Accessory	Part number
RGB 580xi	60-362-01
RGB 580xi AAP 3' (black)	70-128-02
RGB 580xi AAP 6' (black)	70-129-02
RGB 580xi S AAP 3' (black)	70-134-02
RGB 580xi S AAP 6' (black)	70-135-02
RGB 580xi SI AAP 3' (black)	70-137-02
RGB 580xi SI AAP 6' (black)	70-138-02

Top Plate Dimensions

The preferred and recommended method for cutting the table is to use the metal routing template, part #70-191-01 (figure A-2 and chapter 2, "Installation").

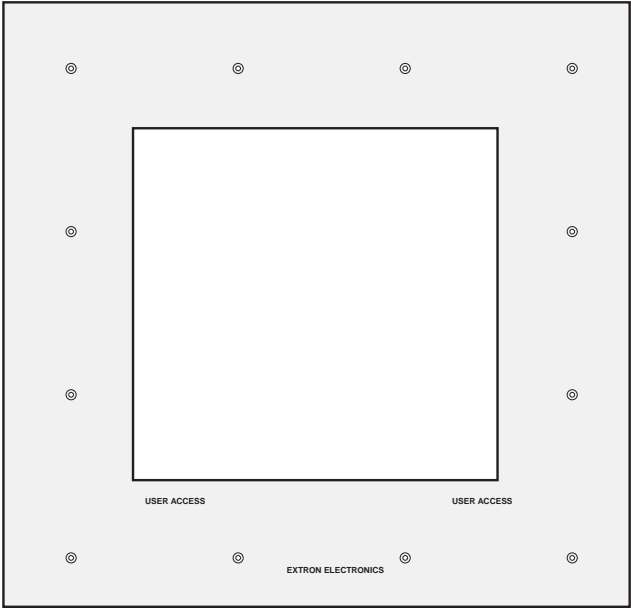


Figure A-2 — HSA 822 metal routing template

NOTE The HSA 822M mounts in exactly the same size hole as the HSA 822 and uses the same metal mounting template.

If you choose not to use metal routing template available from Extron, the cut-out template (figure A-3 on the next page) will help you properly prepare the mounting surface. The cutout template is **not to scale** and is **for reference only**. The surface cut-out area dimensions for the template are **marked in bold type**.

NOTE The HSA 822M mounts in exactly the same size hole as the HSA 822 and uses the same paper cut-out template.

For a full size paper template, visit the Extron Web site (www.extron.com) or call the Extron S³ Sales & Technical Support Hotline.

HSA 822M cut-out template

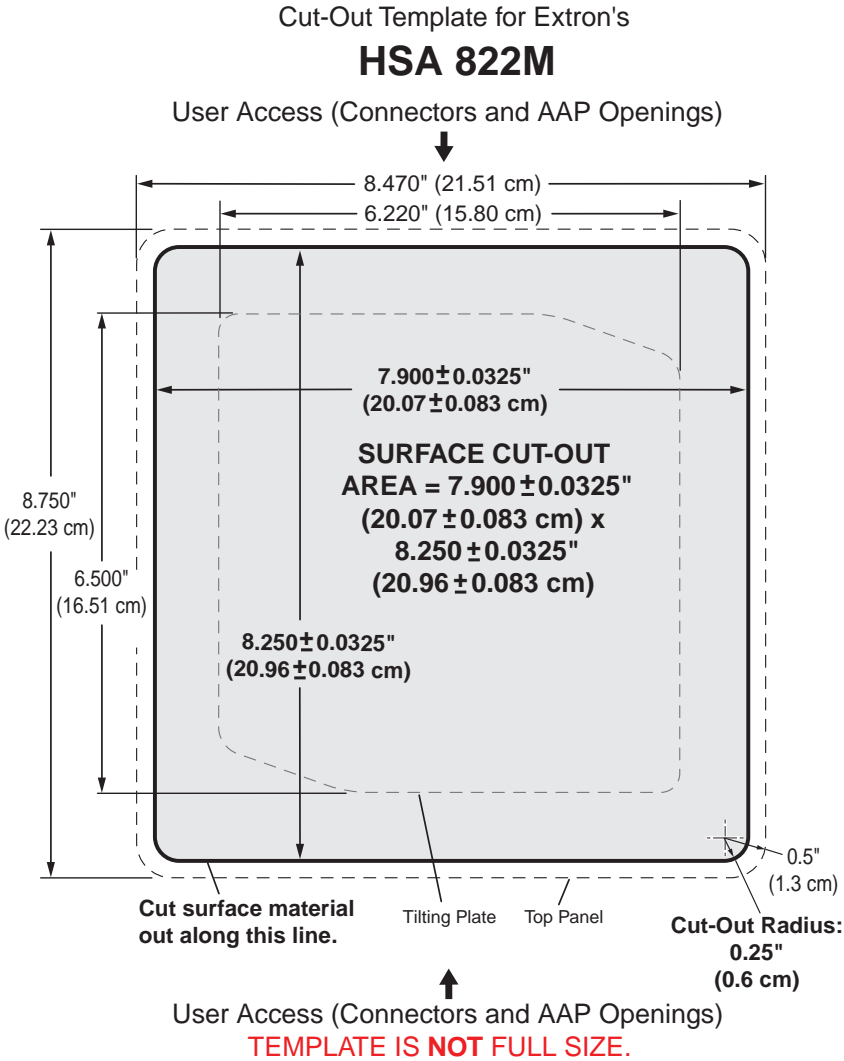


Figure A-3 — HSA 822M cut-out template



B

Appendix B

Packaging for Shipment

Packaging for Shipment

CAUTION *Installation and service must be performed by authorized personnel only.*

The HSA 822M'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, shipping restraints, and foam cut to fit the HSA (figure B-1).

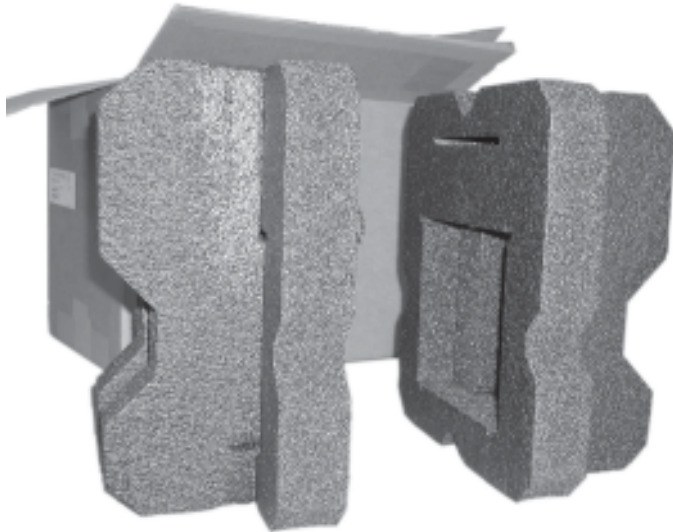


Figure B-1 — HSA 822M return kit

Package an HSA for shipment as follows:

1. Contact the Extron S³ 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 822M from the table or desk. See "Removing and Replacing the Enclosure", steps 1 through 11, in chapter 3, "Maintenance and Modifications". Place the enclosure on a horizontal surface. To protect the finish, place the enclosure on a soft cloth or rubber mat.
3. With the platform fully extended, insert the yellow shipping restraints through the slotted holes in one side of the enclosure's shroud (figure B-2) and out the holes in the opposite side. Use the included tie-wraps to secure the shipping restraints in place.

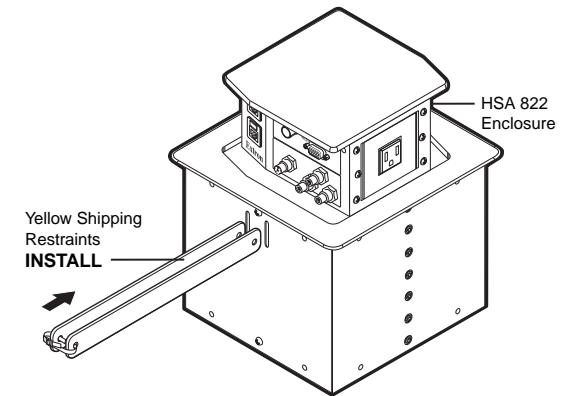


Figure B-2 — Installing the shipping restraints

Packaging for Shipment, Cont'd

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



Figure B-3 — 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 rubber strips that protect the flanged edges of the top of the surface enclosure (figure B-4).

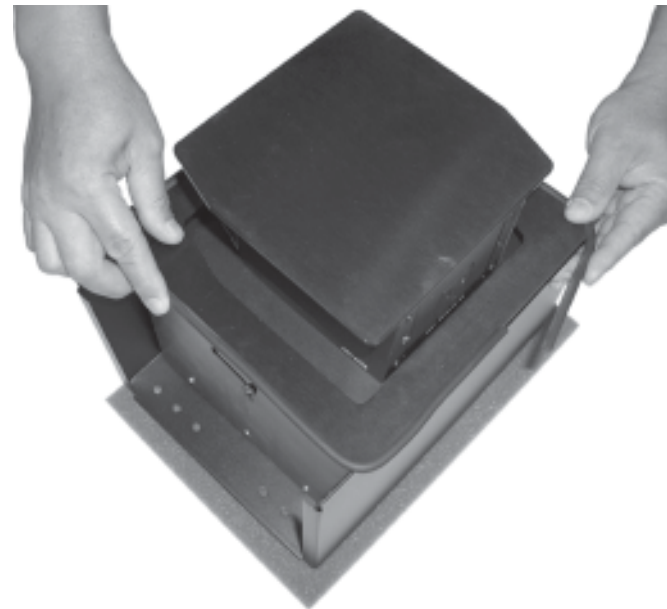


Figure B-4 — Installing protective strips

6. Insert the HSA 822M and the clamshell into one of the foam shells (figure B-5). Either open end of the clamshell and the open top panel fits into the recesses in the foam.

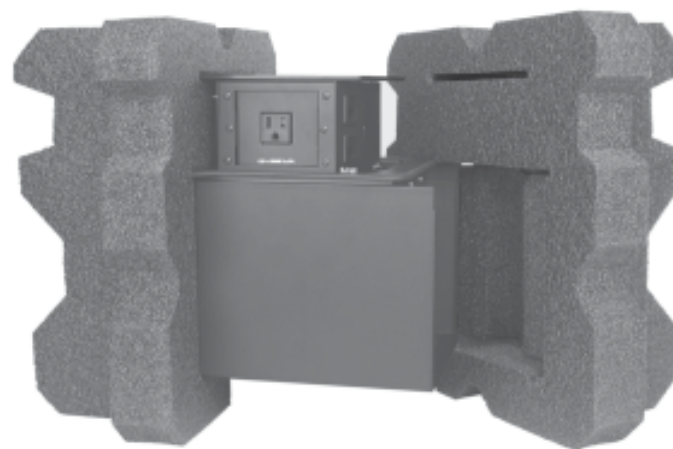


Figure B-5 — Installing the foam shell

Packaging for Shipment, Cont'd

7. Insert the opposite end of the HSA 822M and the clamshell into the remaining foam shell (figure B-6). 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.

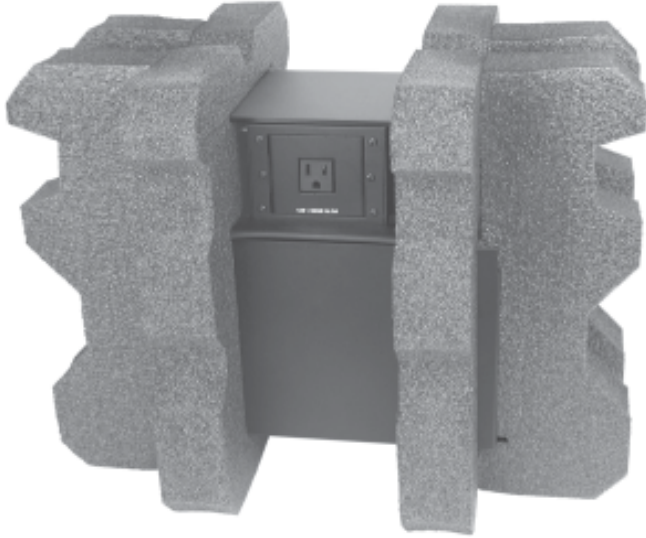


Figure B-6 — HSA suspended in the foam

8. Lower the foam-protected HSA into the shipping carton (figure B-7).



Figure B-7 — Placing the HSA in the shipping carton

9. Close the shipping carton and seal it with high quality shipping tape.
10. Ship the HSA to Extron using a reputable shipping company.