

Installation and Maintenance Manual

Preliminary



HSA 822MS

Motorized Hideaway Surface Access Enclosure

68-617-04 Rev. Ax1
03 05

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 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 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 le 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 écrasés 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 y 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 dagegestellt 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 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 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 Electronics
1001 East Ball Road
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
Kyodo Building
16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
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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HSA 822MS

1 Chapter One

Introduction

About the HSA 822MS Hideaway Enclosures

Features

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

About the HSA 822MS Hideaway Enclosures

The Extron HSA 822MS is a furniture-mounted, motorized architectural solution for computer video interface connector access and control. The top (table) surface of the HSA can be made from the portion of the furniture that is removed for the HSA installation to provide an inconspicuous appearance (figure 1-1).

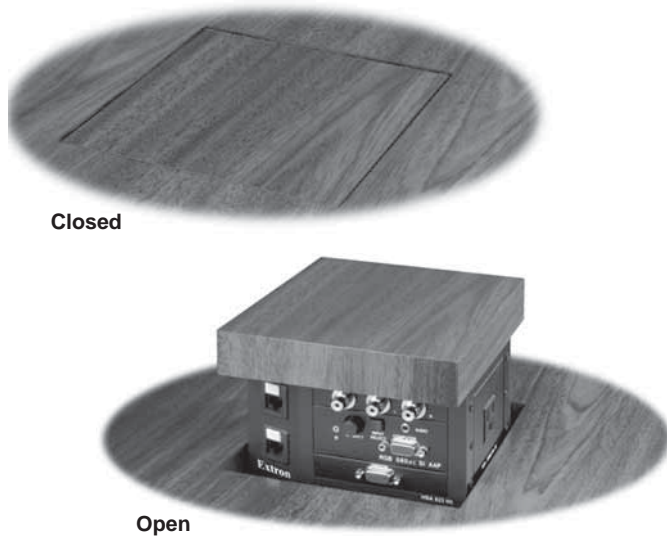


Figure 1-1 — HSA 822MS hideaway enclosure

The HSA 822MS 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 US version, with US power receptacles, and an international version. Several different types of power receptacles are available for the international version, including UK, French, Israeli, Australian, Indian, European, and Swiss receptacles.

The motorized action is remotely 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 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 an IEC 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 822MS can be optimized with one through four RGB 580xi AAPs connected to one through four RGB 580xi Remote Interfaces (figure 1-2).

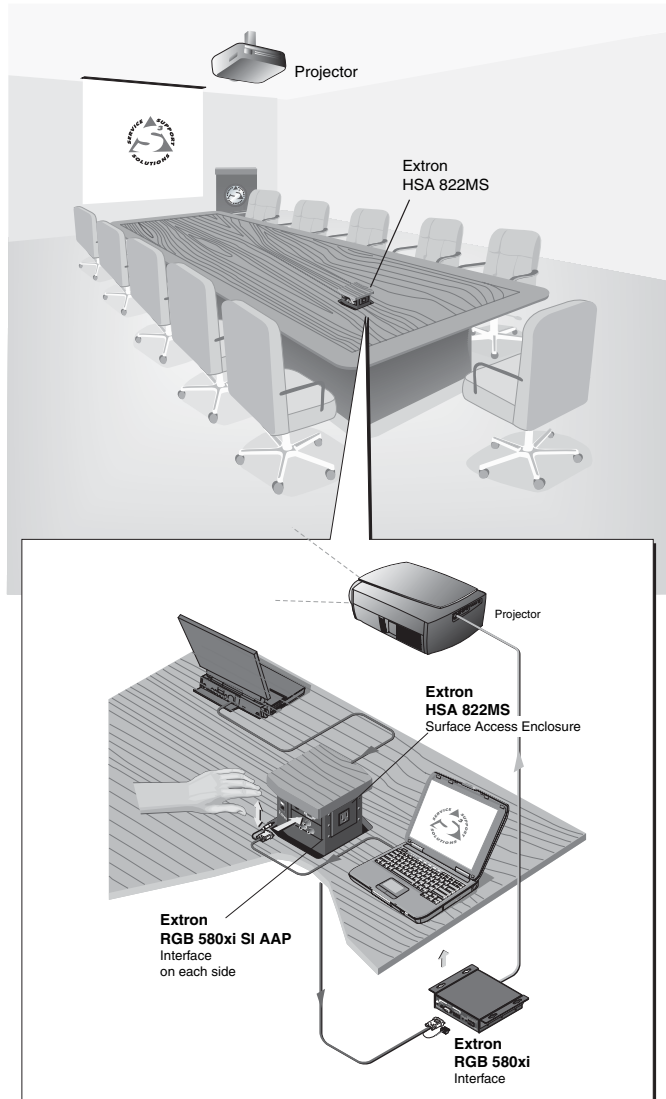


Figure 1-2 — HSA 822MS and RGB 580xi configuration

Features

- Easy access to connectors and controls
- Durable motorized movement
- Motion-limiting safety features to prevent injury and equipment damage
- 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
- RJ-45 (CAT 5/6) network and data connections
- Grounded AC plugs



Chapter Two

Installation

Installation Overview

Preparing the Table

Preparing the HSA

Mounting the HSA

Mounting the Table Surface

Making Final Adjustments

Cabling and Installing the AAPs

Routing the AAP Cables

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 822MS:

- 1 If desired, install 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 Have a reputable carpenter or other craftsman cut a hole in the surface where the enclosure will be installed to the exact dimensions of the HSA. Retain the removed piece of the table surface to form the top of the HSA. See *Preparing the Table* on page 2-4.
- 4 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.
- 5 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.
- 6 Remove the yellow shipping restraint and partially disassemble the HSA to gain necessary internal access. See *Preparing the HSA* on page 2-5.
- 7 Mount the HSA in the table. See *Mounting the HSA* on page 2-8.
- 8 Secure the piece of the table removed in 3 to the top of the HSA. See *Mounting the Table Surface* on page 2-9.
- 9 Adjust the height of the surface block. See *Making Final Adjustments* on page 2-11.
- 10 If applicable, connect cables to the rear connectors on the AAPs to be installed in the HSA 822MS. Install the desired AAPs on the AAP/RJ-45 panel of the enclosure. See *Cabling and Installing the AAPs* on page 2-14.

- 11 Route and secure the AAP cables inside the enclosure. See *Routing the AAP Cables* on page 2-16.
- 12 Connect the power, RJ-45, and control and status cables to the underside of the enclosure. See *Cabling the Enclosure* on page 2-18.
- 13 Connect power cords and turn on the devices that connect to the surface access enclosure.

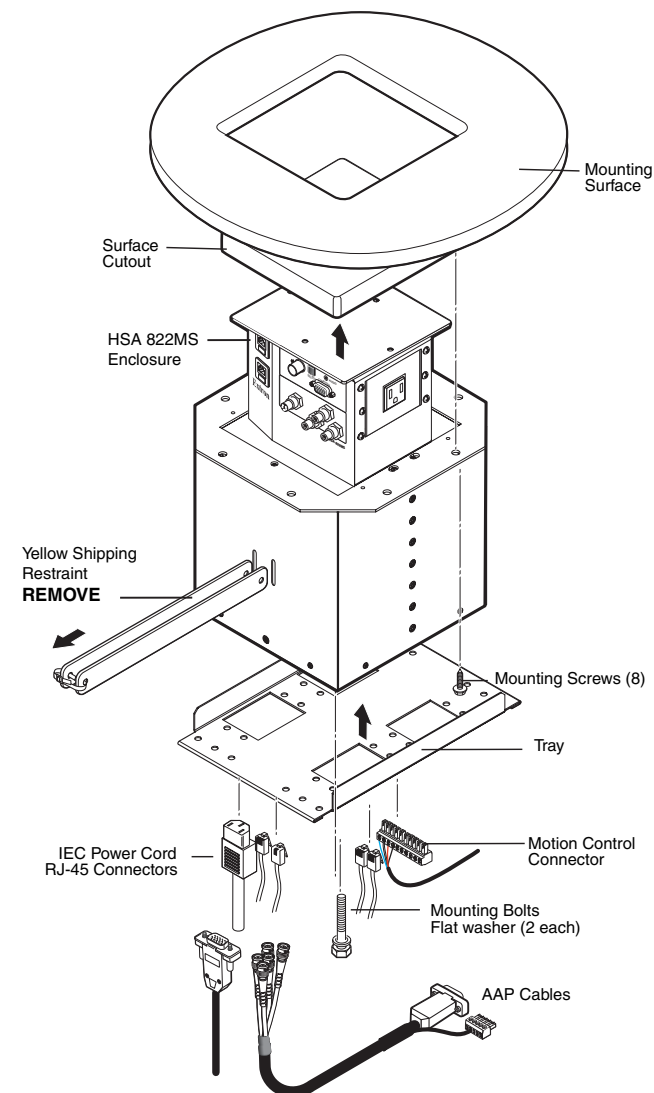


Figure 2-1 — Mounting the HSA 822MS enclosure

The preferred and **recommended** method for preparing the table is to have the hole cut to the exact dimensions identified in appendix A by a reputable carpenter or other craftsman.

Preparing the Table

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

NOTE When selecting a mounting location, be aware that the HSA 822MS is not exactly square. The cable and AAP access is on the 6.220" (15.80 cm) side. Angle the cut for the optimum positioning. If necessary, use a square to ensure that the cut is properly positioned. Extron is not responsible for improperly-positioned HSA products.

NOTE The levelling adjustment allows the HSA to be installed in a table with a thickness between 3/4" (1.9 cm) and 1.5" (3.8 cm).

The preferred and **recommended** method for preparing the table is to have the hole cut to the **exact dimensions** identified in appendix A by a reputable carpenter or other craftsman. Save the removed material or fabricate a piece of the same material that is the same size of the removed material for use as the top surface of the HSA.

NOTE For best results, the surface block dimension should be 1/32" to 1/16" (1 mm) smaller on all four sides than the cutout hole.

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

1. Turn the table upside-down.

CAUTION Protect the table surface.

2. Place the metal drilling template into the hole in the table. The drilling template should fit snugly into the hole, with no noticeable sideways or top-to-bottom motion.

NOTE The metal drilling template should fit snugly in the hole. If the template can move, the hole size is too large.

3. Drill pilot holes, each 3/32" (2.4 mm) in diameter by 1/4" (7 mm) deep, at each of the template's eight standoff guides (figure 2-2).

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



Figure 2-2 — Using the drilling template

4. Remove the drilling template. Keep the template for future installations.

Preparing the HSA

1. Set the HSA 822MS on its side on a work surface.
2. Cut the tie wraps that lock the yellow shipping restraints in place and remove the restraints (figure 2-3).

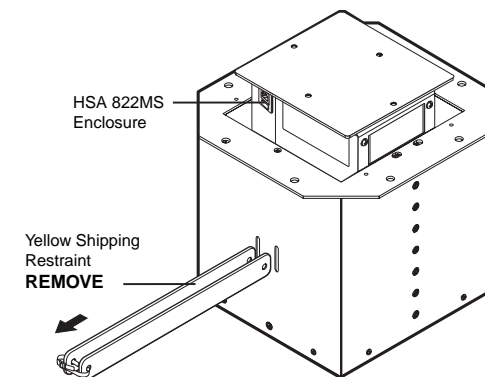


Figure 2-3 — Removing the shipping restraints

3. Remove and retain the four screws in the corners of each side's surface of the enclosure shroud "cube" (figure 2-4). Remove the two halves of the shroud and set them aside.

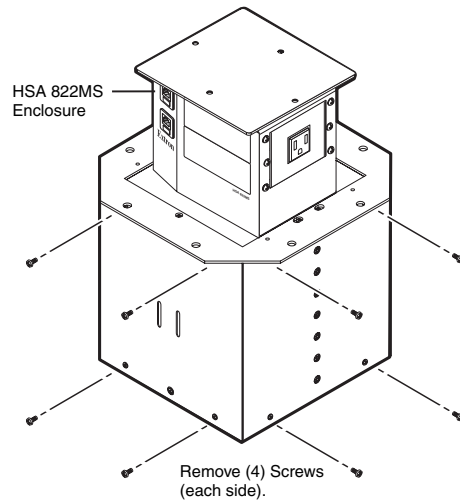


Figure 2-4 — Removing the shroud

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.

4. Manually raise the top surface.
5. For both AAP/RJ-45 panels, remove the top and bottom screws on the right and left sides of the panel (figure 2-5). Retain the screws. Lift the panels away from the enclosure as far as the connected cables allow.

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

6. To ensure that you reinstall the RJ-45 connectors in the proper position when the installation 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).

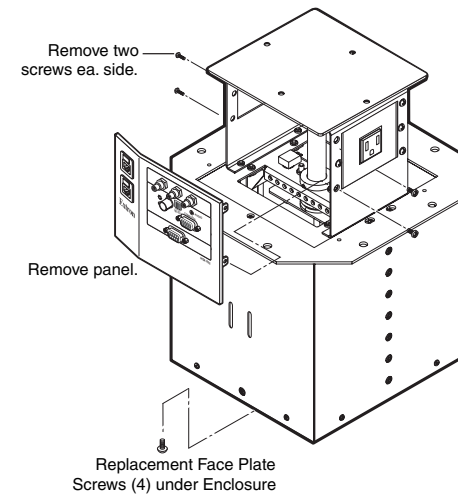


Figure 2-5 — Removing the AAP/RJ-45 panel

7. 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.
8. Disconnect any cables from the rear of the existing AAPs.
9. Set the AAP/RJ-45 panels aside.
10. Remove and retain the four 1/4" nuts that secure the top plate to the lifting plate (figure 2-6). Set the plate aside.

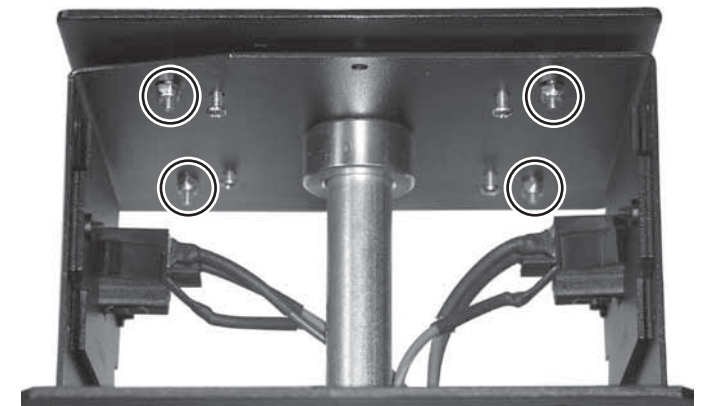
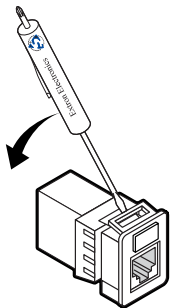


Figure 2-6 — Location of the top plate nuts

11. Remove the two bolts and washers that secure the tray to the underside of the HSA and remove the tray.

Mounting the HSA

1. Place the HSA upside-down over the table. Using the eight provided #8-32 wood screws and #8 washers, secure the HSA to the underside of the table (figure 2-7). Leave the screws slightly loosened for adjustment.

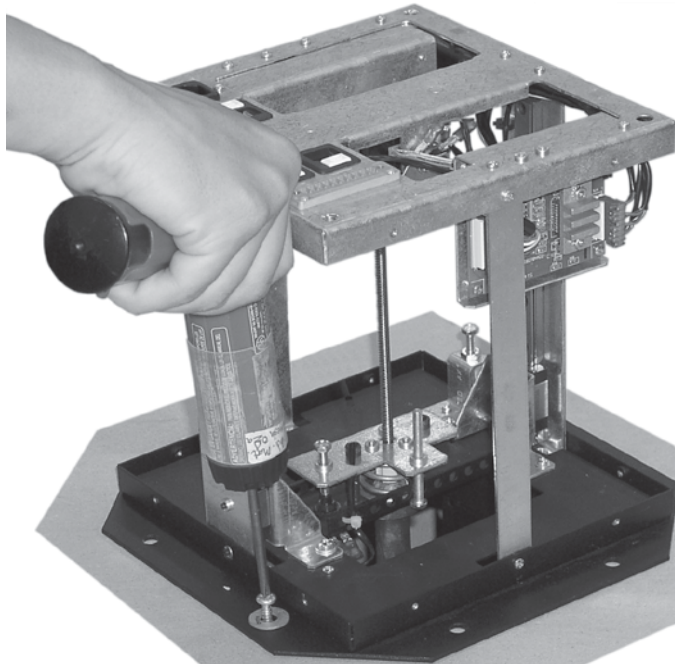


Figure 2-7 — Securing the HSA to the table

2. Turn the table right-side-up and place it in a level location, preferably in the final installation location.

Mounting the Table Surface

1. Place the piece of table material (the surface block) that you will use as the top of the HSA **upside-down** on a protected surface.

CAUTION *Protect the block's finished surface.*

2. Measure and draw centerlines (figure 2-8) at:
 - 3.21" (8.15 cm) (or one half the length) along the 6.42" (16.31 cm) length of the surface block
 - 3.07" (7.8 cm) (or one half the width) along the 6.14" (15.6 cm) length of the surface block

CAUTION *It is **crucial** that you place the top plate over the surface block as closely **centered** as possible and that the long edge of the surface block is parallel to the long end of the top plate. The plate has only a minimal adjustment capability.*

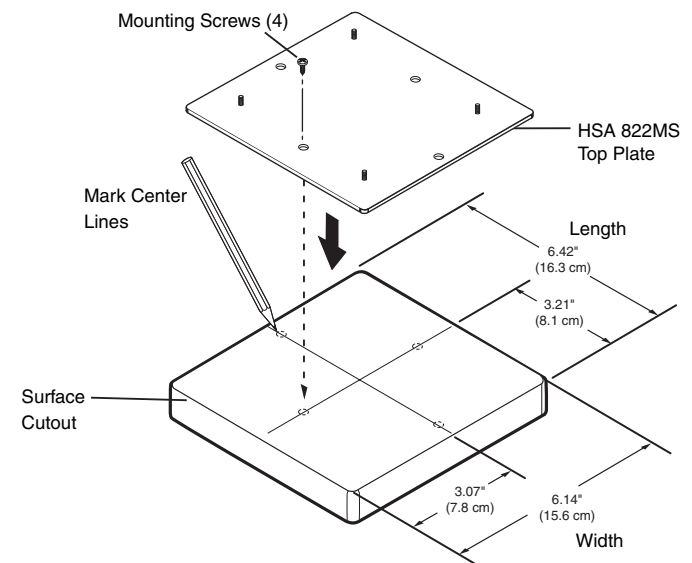


Figure 2-8 — Centering the plate over the surface block

3. Place the top plate on top of the surface block, screw side up. Align the long edge of the plate with the long edge of the surface block. Position the plate so that the centerlines that you drew in step 2 cut through the center of each of the four screw holes in the plate (figure 2-8).

4. Firmly hold the top plate in position and drill pilot holes, each $\frac{3}{32}$ " in diameter by $\frac{1}{4}$ " deep, at each of the top plate's four screw holes (figure 2-9).

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

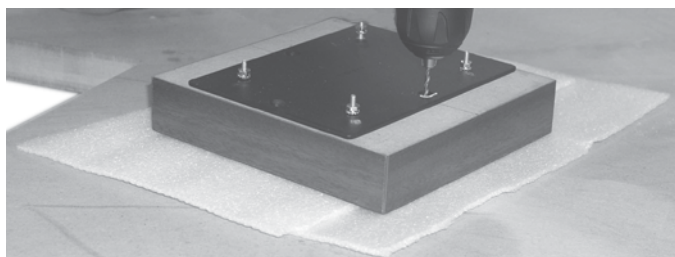


Figure 2-9 — Drilling pilot holes

5. Using the four provided #6 x $\frac{1}{2}$ " Philips flathead screws, secure the top plate to the surface block.
6. Using the four $\frac{1}{4}$ " nuts that you removed in *Preparing the HSA*, step 10, secure the top plate to the lifting plate (figure 2-10). Leave the nuts slightly loosened for adjustment.

NOTE The surface block can fit either of two ways. For surfaces with a grain pattern, check that the pattern of the surface block is the best match for the grain pattern of the table surface. If necessary, reverse the direction of the block.

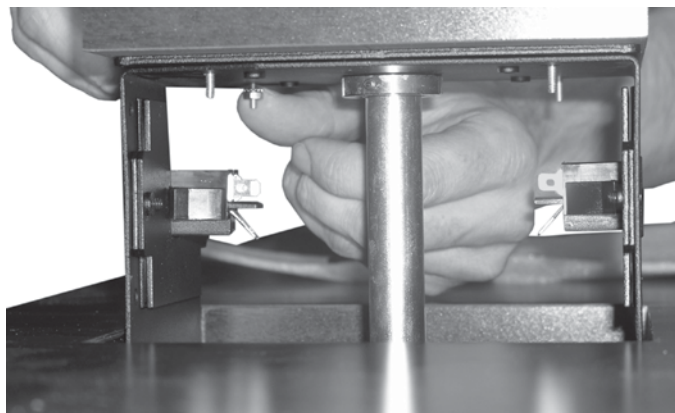
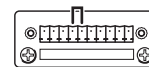


Figure 2-10 — Securing the surface block and top plate to the lifting plate

Making Final Adjustments

1. On the 10-pin control and status captive screw connector on the underside of the HSA, use a piece of wire to temporarily jumper pin 4 to pin 5 to enable the manual activation (press to activate) operation of the HSA.
2. With the unit unpowered, gently press on the surface block to retract (close) the unit. The surface block should fit snugly within the cut-out hole.



If the surface block impacts the sides of the hole, adjust the positioning of the HSA and the surface block. With the installation screws and nuts left slightly loosened, the HSA and/or the surface block should be able to be moved enough for the surface block to fit snugly. Leave the installation screws and nuts left slightly loosened.

2. Connect the enclosure to the appropriate power source:
 - 125 VAC, 60 Hz, 5 A (US domestic version)
 - 220-240 V, 50/60 Hz, 5 A (international versions)

The HSA moves to its home (retracted) position, close to flush with the table surface.

4. Check that the surface block is horizontal, and not tipped to one side or the other. If necessary, adjust the surface block to be horizontal as follows:
 - a. Slowly tighten the adjustment screw, on the underside of the top plate (figure 2-11), that is closest to the lowest side of the surface block to raise that side.

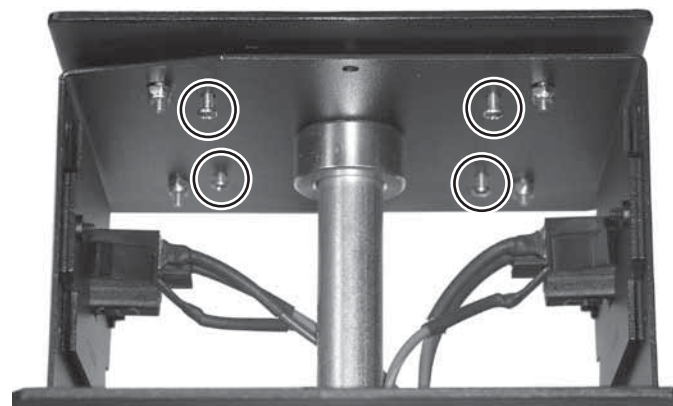
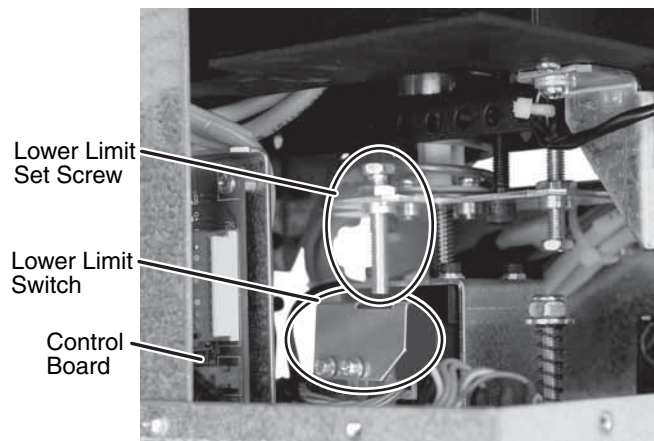


Figure 2-11 — Location of level adjustment screws

- b. If necessary, slowly tighten one or more of the other adjustment screws to raise a corner or side of the surface block to horizontal.
5. Adjust the height of the surface block to be flush with the table surface as follows:

NOTE Since all tables have different widths, it is normal for this to need adjustment.

- a. Hold the platform up and unplug the AC power connector.
- b. Locate the lower limit switch assembly (figure 2-12) inside the enclosure.



NOTE RJ-45 connectors are removed for visibility.

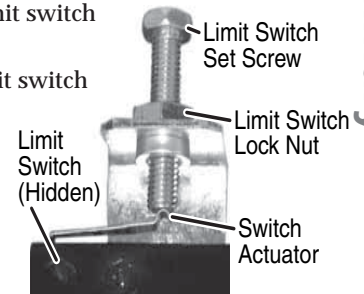
Figure 2-12 — Location of lower limit switch assembly (seen from the side)

NOTE A generic limit switch assembly is shown in close-up below. The lower limit switch assembly looks similar, but is not identical to the close-up shown, but parts of the lower limit assembly are concealed from view.

- c. Loosen the lower limit switch lock nut.
- d. Rotate the lower limit switch 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 affect immediately. You must use the motor mechanism to raise and lower the platform to see the affect of your adjustment.

- e. Plug in AC power.

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

- f. Press on the surface block to raise and lower the platform to check the adjusted height. If necessary, repeat step 5d.
- g. When the surface block is flush with the table surface to your satisfaction, tighten the lower limit switch lock nut.

6. Check that the surface block is centered in the cut-out hole.

If the surface block is not centered in the hole, adjust the positioning of the surface block. With the installation screws and nuts left slightly loosened, the HSA and surface block should be able to be moved enough for the surface block to be centered.

When the surface block is satisfactorily centered in the hole, tighten the four 1/4" nuts that secure the top plate to the lifting plate (figure 2-6 on page 2-7).

7. Tighten the eight #8-32 wood screws that secure the HSA to the underside of the table (figure 2-7 on page 2-8).

8. Press on the surface block to raise and lower the platform. Double check that the surface block is centered in the cut-out hole. If necessary, loosen the top plate nuts and repeat step 6.
9. Double check that the surface block is flush with the table surface. If necessary, repeat step 5.
10. Double check that the surface block is horizontal and not tipped to one side or the other. If necessary, repeat step 4.
11. On the underside of the HSA, disconnect AC power.
12. When you are satisfied that the HSA is centered, flush, and horizontal, reinstall the two shroud halves to the enclosure frame with the eight screws per shroud half (four per side) that you removed in *Preparing the HSA*, step 3. Orient the shroud halves such that the vertical column of center holes align with the column of screw inserts on the vertical slides.

Cabling and Installing the AAPs

Extron's various single space and double space AAP devices, including the various RGB 580xi AAPs, can be mounted to the HSA 822MS. 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.

1. 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.

2. Remove the blank AAPs in the HSA AAP/RJ-45 panel by removing the four #4-40 nuts and captive washers.
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 2-13).

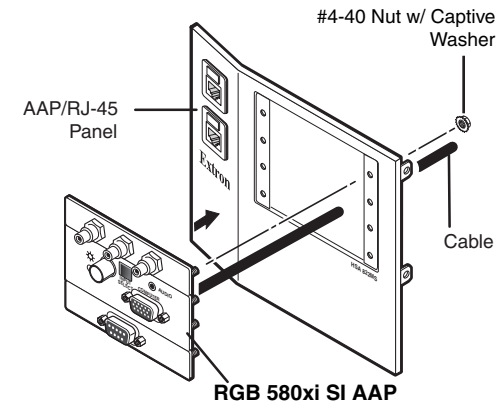


Figure 2-13 — Mounting an AAP on the AAP/RJ-45 panel

4. Replace the AAP/RJ-45 panel in the surface mount enclosure and secure it in place with the screws removed in *Preparing the HSA*, step 6. If you lose an AAP/RJ-45 panel screw, four spare screws are stored in the underside of the enclosure (figure 2-15 on page 2-18, item ⑤).

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 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. Connect the enclosure to the appropriate power source:
 - 125 VAC, 60 Hz, 5 A (US domestic version)
 - 220-240 V, 50/60 Hz, 5 A (international versions)
2. Press on the surface block to open the top panel and extend the AAP cables to their maximum pull.
3. To prevent wear and tear or binding of the movement 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 on the underside of the HSA (figure 2-14).
4. On the underside of the HSA, remove the jumper from the 10 pin control and status captive screw connector.

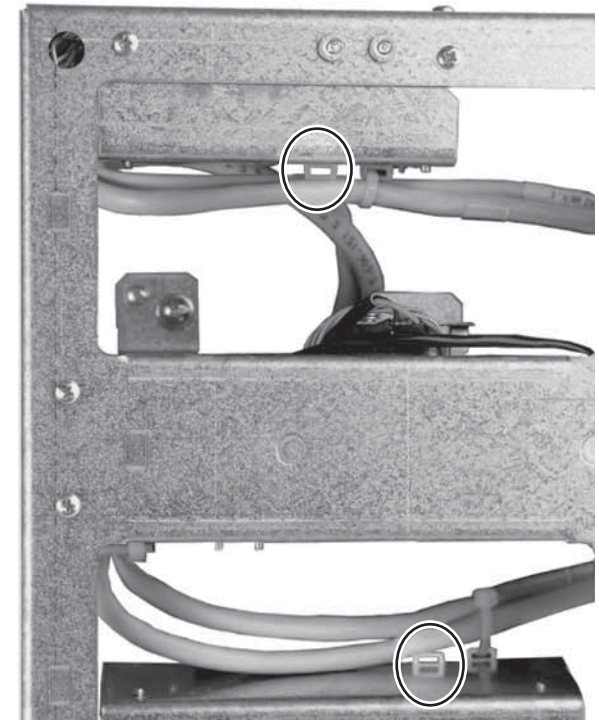
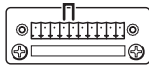


Figure 2-14 — Cable tie-downs inside the HSA (seen from underneath)

Cabling the Enclosure

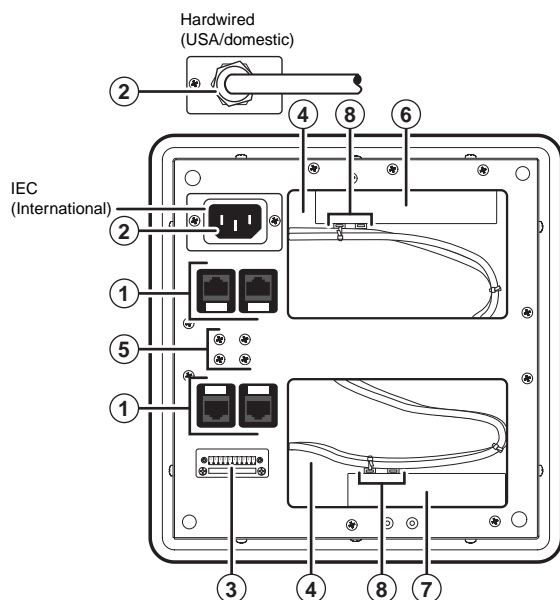


Figure 2-15 — HSA 822MS underside features

- ① **RJ-45 connectors** — See *Cabling the RJ-45 connectors* on page 2-19.
- ② **AC power connector** — Connect the enclosure to the appropriate AC power source:
 - **US domestic version** — 125 VAC, 60 Hz, 5 A, using the hardwired standard US power connector
 - **International versions** — 220-240 V, 50/60 Hz, 5 A, using standard IEC power connector
- ③ **Control and status captive screw connector** — See *Cabling the control and status connector* on page 2-20.
- ④ **Cable access holes***
- ⑤ **Spare AAP/RJ-45 panel screws***
- ⑥ **Power supply assembly***
- ⑦ **Control board assembly***
- ⑧ **Cable tie-downs***

NOTE Items marked with an asterisk (*) are concealed by the removable tray.

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) plug can be connected to the RJ-45 jack.

The bottom RJ-45 connectors match up with the AAP/RJ-45 panel RJ-45 connectors as shown in figure 2-16. 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.

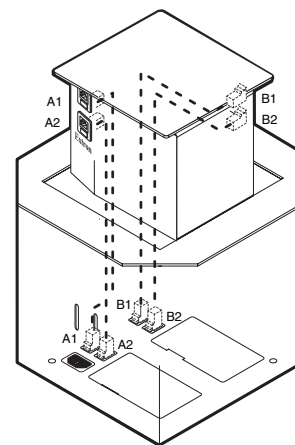


Figure 2-16 — HSA 822MS RJ-45 connectors

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 2-17) and snapping a new icon in place.

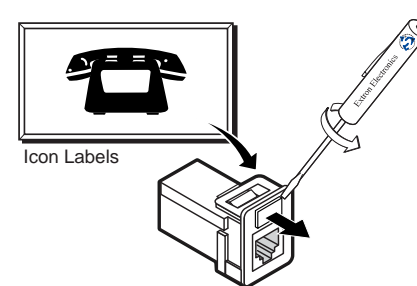
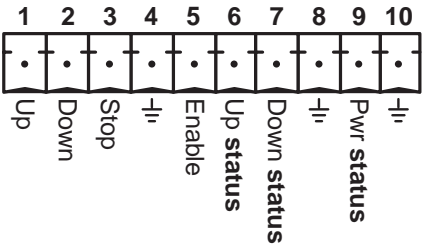


Figure 2-17 — Changing the connector icon

Cabling the control and status connector

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 2-18 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.

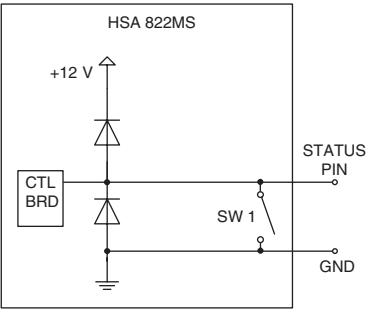
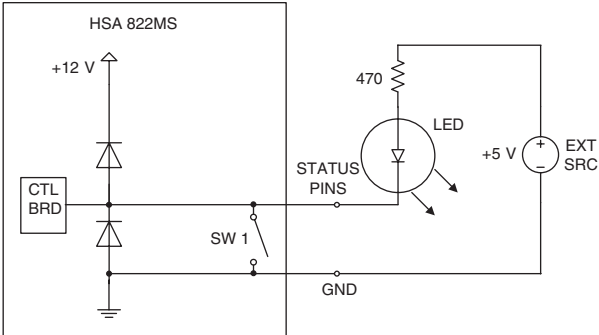


Figure 2-18 — Equivalent status pin circuit

Figure 2-19 expands upon figure 2-18 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 2-19 — 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 as power is applied to the HSA.

Figure 2-20 shows a typical locally-constructed contact closure control and LED indication device.

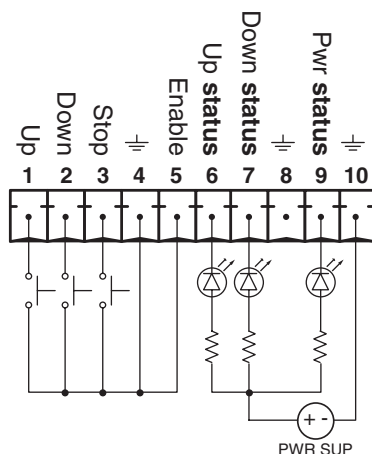


Figure 2-20 — Typical local control device

Figure 2-21 shows the HSA connected to an Extron MLC 226 MediaLink™ Controller. The status pin can trigger the MLC's digital input.

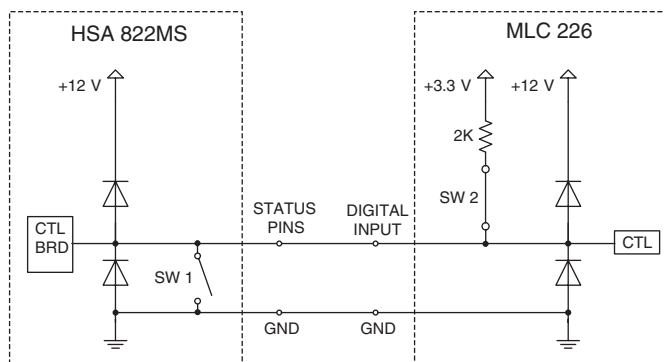


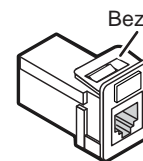
Figure 2-21 — Typical MediaLink control device

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.

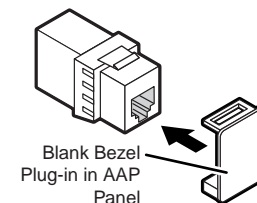
Bezels

The HSA 822MS 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.





Chapter Three

Maintenance and Modifications

Replacing an AAP

Replacing the Bezels

Removing and Replacing the Shroud

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 shroud from the HSA 822MS.

- Replacing an AAP
- Replacing the bezels
- Removing and replacing the HSA shroud (in advance of 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 (with the tray removed) and many of the maintenance-related features.

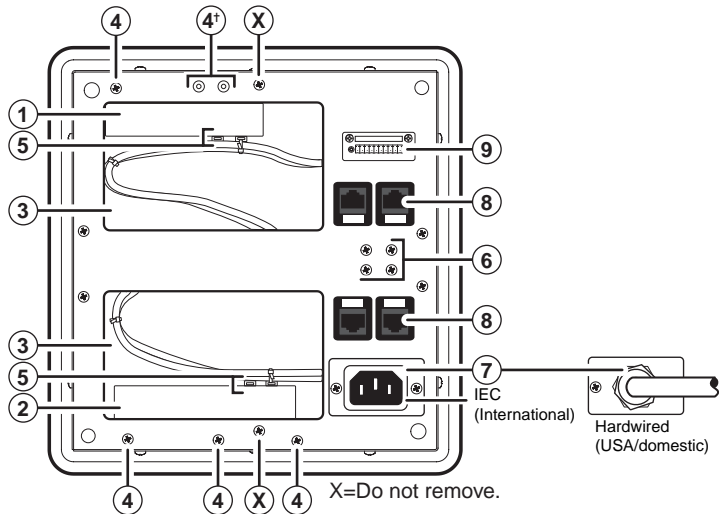


Figure 3-1 — HSA 822MS maintenance features

- | | |
|--------------------------|--------------------------------------|
| 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 | X 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.

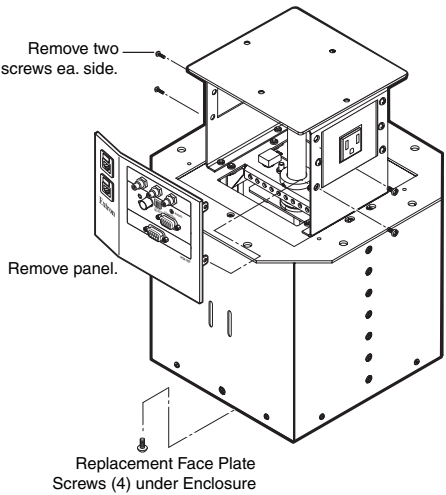


Figure 3-2 — Removing the AAP/RJ-45 panel

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 822MS 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,** 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 shows the tie-downs) 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.
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).

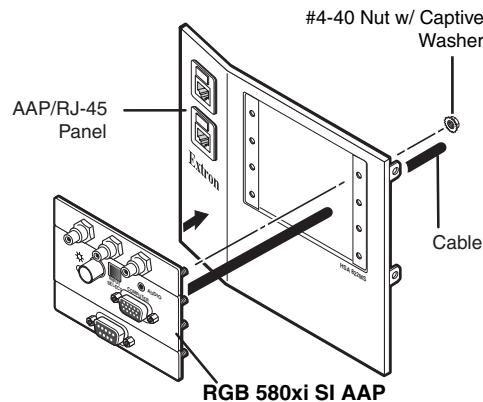


Figure 3-3 — Mounting an AAP device

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* on page 2-16.

Replacing the Bezels

The HSA 822MS 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.

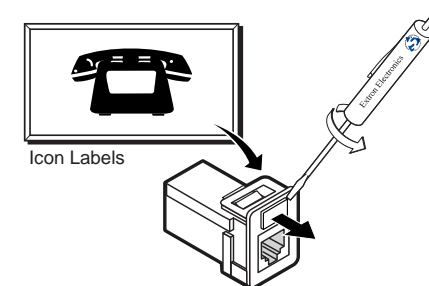
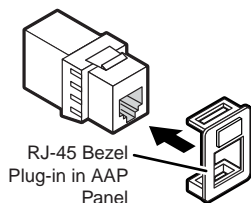


Figure 3-4 — Changing the connector icon

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 Shroud

Many maintenance procedures require removing the protective enclosure shroud from the HSA 822MS. Remove and replace the shroud as follows:

1. Remove and retain the four screws in the corners of each side's surface of the enclosure shroud "cube" (figure 3-5). Remove the two halves of the shroud.

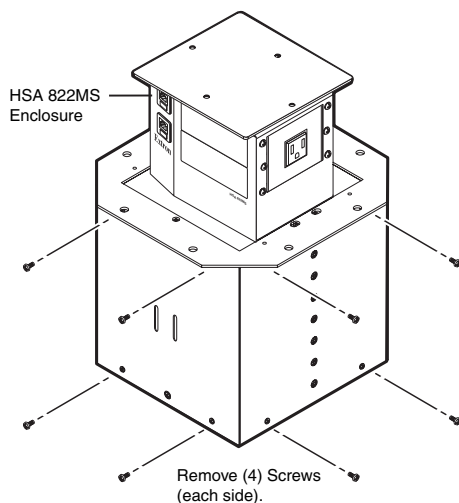


Figure 3-5 — Removing the shroud

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.

2. Perform the desired maintenance procedure.

3. Secure the two shroud halves to the enclosure frame with the eight screws per shroud half (four per side) removed in step 1. Orient the shroud halves such that the vertical column of center holes align with the column of screw inserts on the vertical slides.

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 position. Set the platform's height as follows:

1. Remove the shroud. See *Removing and Replacing the Shroud*, on page 3-6, step 1.
2. 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.

3. Locate the upper limit switch assembly (figure 3-6) inside the enclosure.

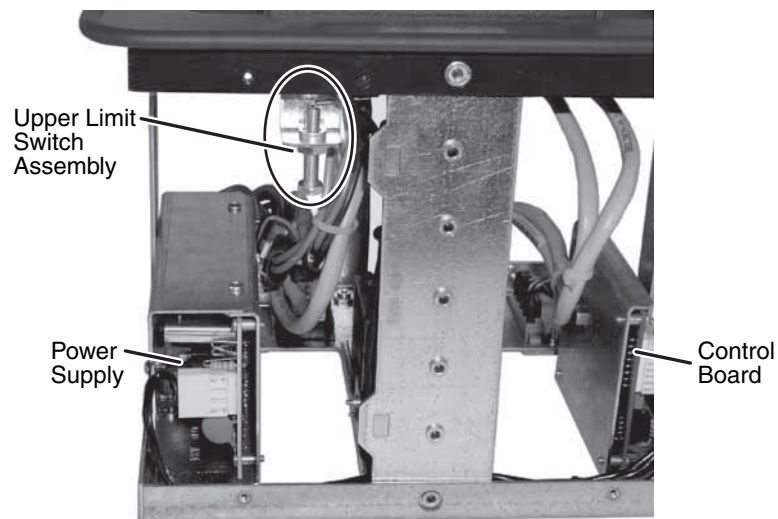
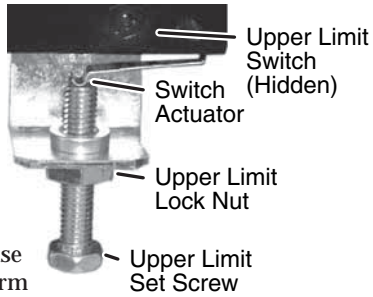


Figure 3-6 — Location of upper limit switch assembly (seen from the side)

4. Loosen the upper limit lock nut.
5. Rotate the upper limit set screw:

Clockwise to lower the upper limit of platform motion.

Counterclockwise 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 affect of your adjustment.

6. Lower and raise the platform to check the adjusted height. If necessary, repeat step 5.
7. Tighten the upper limit lock nut.
8. Reinstall the shroud. See *Removing and Replacing the Shroud*, on page 3-6, step 3.

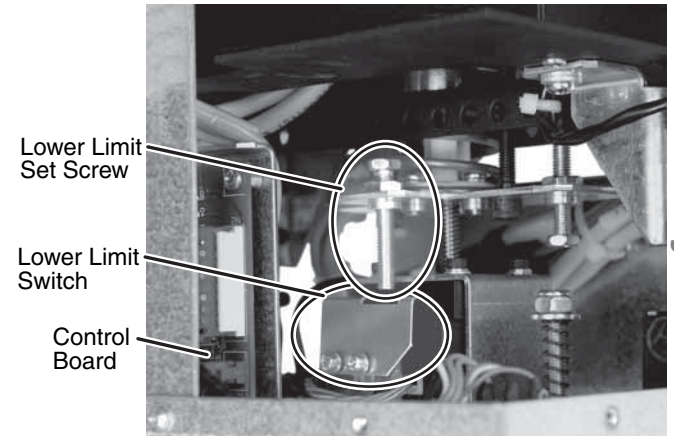
Setting the Lower Limit Switch (Lowered Platform Height)

NOTE This switch's position is properly set during the installation.

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. Disconnect AC power.
2. Remove the shroud. See *Removing and Replacing the Shroud*, on page 3-6, step 1.
3. Locate the lower limit switch assembly (figure 3-7) inside the enclosure. Loosen the lower limit lock nut.

NOTE The lower limit switch looks similar to, but not exactly like the upper limit switch shown on page 3-8.



NOTE RJ-45 connectors are removed for visibility.

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

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 affect of your adjustment.

5. Plug in AC power.

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, repeat step 1 and then step 4.
7. Tighten the lower limit lock nut.
8. Reinstall the shroud. See *Removing and Replacing the Shroud*, on page 3-6, step 3.

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. Set the height of the platform as follows:

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

1. Remove the shroud. See *Removing and Replacing the Shroud*, on page 3-6, step 1.
2. 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.

3. Locate the manual release switch assembly (figure 3-8) inside the enclosure.

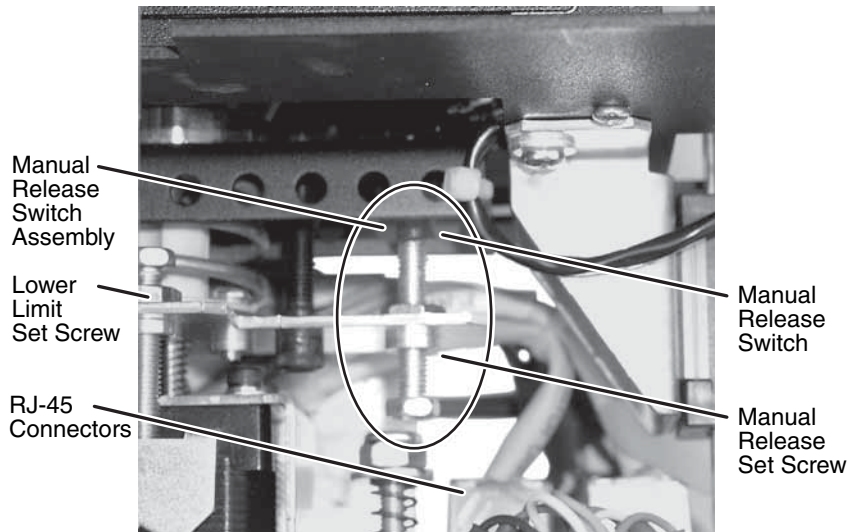


Figure 3-8 — Location of manual release switch assembly (seen from the side)

NOTE The manual release switch looks similar to, but not exactly like the upper limit switch shown on page 3-8.

4. Loosen the manual release lock nut.

5. 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).

6. Press on the platform to activate the press-to-activate function. If necessary, repeat step 5.

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.

7. Tighten the manual release lock nut.

8. Reinstall the shroud. See *Removing and Replacing the Shroud*, on page 3-6, step 3.

Safety Switch — Location only

The safety switch (figure 3-9) 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.

NOTE Figure 3-9 shows the HSA with the shroud removed.

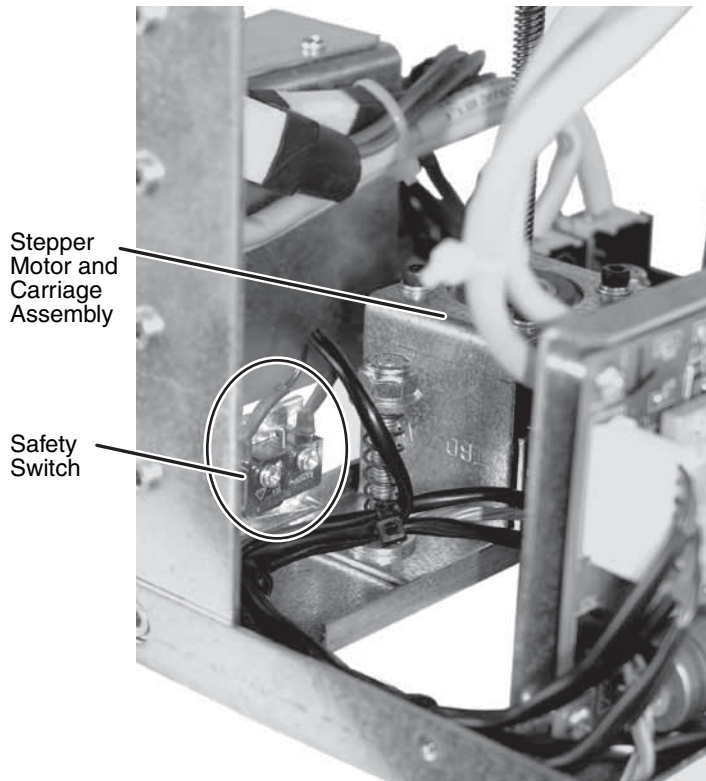


Figure 3-9 — Location of the safety switch (seen from the side)

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. Disconnect AC power.
2. Remove the shroud. See *Removing and Replacing the Shroud*, on page 3-6, step 1.
3. 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 shows the tie-downs) that route the AAP cables and network (CAT 6) cables inside the enclosure.
4. 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 (X) (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.

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



Appendix A

Reference Information

Specifications

Part Numbers

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

- Power..... 100 VAC to 240 VAC, 50/60 Hz, 25 watts, internal, autoswitchable
- 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 Allow only a reputable carpenter or craftsman to cut the 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 improperly cut mounting holes.

- Top plate (outer rim)..... 9.54" W x 9.82" D
(24.23 cm W x 24.94 cm D)
- Top plate (vertically lifting plate, not included—to be provided by customer)
6.14" W x 6.42" D
(15.49 cm W x 16.31 cm D)
- Surface cutout 6.220" ±0.0325" W (AAP access from front and back) x 6.500" ±0.0325" D
(15.80 ±0.083 cm W x 16.51 ±0.083 cm D)

- Tray (figure A-1) A = 1.09" (2.77 cm)
B = 7.30" (18.54 cm)
C = 10.98" (27.89 cm)

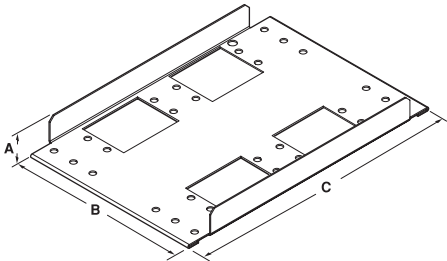


Figure A-1 — Tray dimensions

- Product/shipping weight..... 10.0 lbs (4.5 kg)/17 lbs (8 kg)
- 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 822MS

HSA 822MS	Part number
HSA 822MS US Enclosure (black anodized)	60-721-0A
HSA 822MS International Enclosure (black anodized)	60-719-0n

NOTE For the international versions, the n in the part number identifies the AC power connector. Specify the desired power connector when ordering.

Included parts

Part	Part number
HSA 822MS Hideaway Products manual	
Snap-in icon inserts	
RJ-45 connector bezel plug-in inserts (assorted colors and blank)	
10-pin captive screw connector	100-319-11
IEC power cord (International models only)	

Template, replacement parts, and accessories

Part	Part number
HSA 822MS drilling template	70-??xxx??-01
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 AAP 12' (black)	70-130-02
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 SI AAP 3' (black)	70-137-02
RGB 580xi SI AAP 6' (black)	70-138-02



B

Appendix B

Packaging for Shipment

Packaging for Shipment

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

The HSA 822MS's 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 822MS 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.
2. Disconnect all cables, remove any AAPs, remove the HSA 822MS from the table or desk, and remove the surface block as follows:
 - a. 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.*

- b. Reach through the cable access holes on the underside of the HSA and cut the tie wraps that route the AAP cables out of the way (figure B-2).

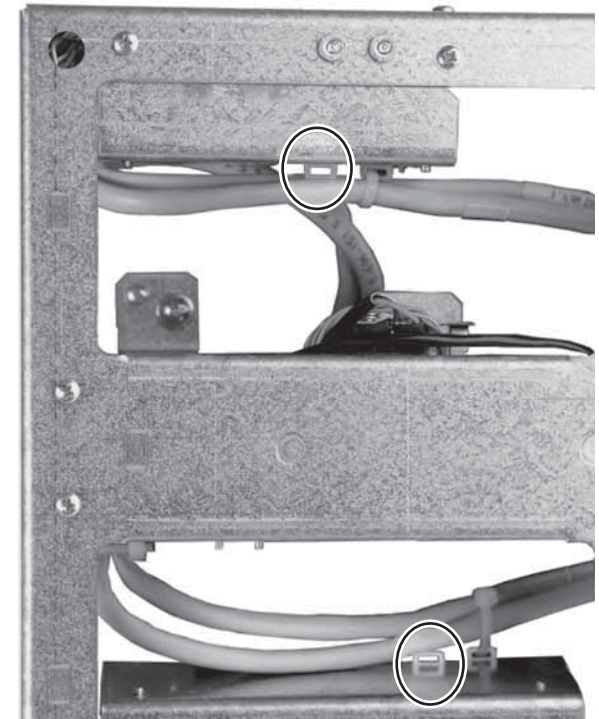


Figure B-2 — Cable tie-downs inside the HSA (seen from underneath)

- c. For both AAP/RJ-45 panels, remove the top and bottom screws on the right and left sides of the panel (figure B-3). 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.

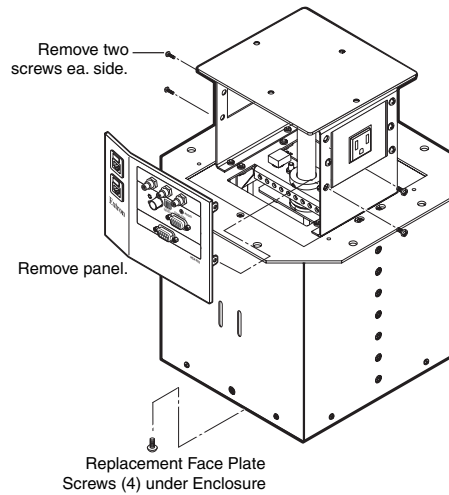


Figure B-3 — Removing the AAP/RJ-45 panel

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 finish of the furniture in which the HSA 822MS is installed when removing the panels.

- d. Remove the two bolts and washers that secure the tray to the underside of the HSA and remove the tray.
- e. Disconnect any cables from the rear of the existing AAPs. 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 shows the tie-downs) that route the AAP cables inside the enclosure. Carefully pull the cables through and out the bottom of the HSA.
- f. Remove the AAP(s) that you intend to keep from the AAP/RJ-45 panels by unscrewing the nuts on the rear of the AAP/RJ-45 panels that secure the AAPs in place (figure B-4).

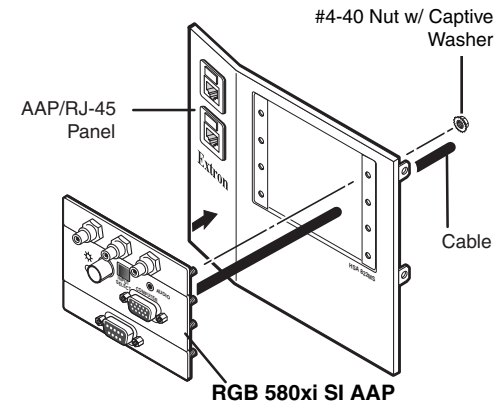


Figure B-4 — Mounting an AAP device

- g. Use the two bolts and washers that you removed in step d to reinstall the tray to the underside of HSA.
- h. Remove and retain the four 1/4" nuts that secure the top plate to the lifting plate (figure B-5) and remove the plate.

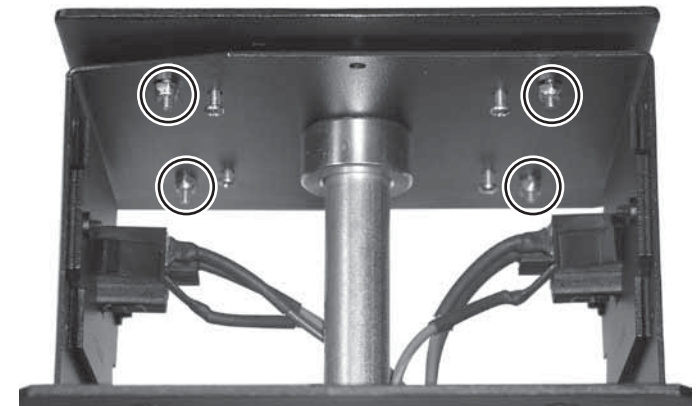


Figure B-5 — Location of the top plate nuts

- i. Remove the four flathead screws that secure the top plate to the surface block. Retain the surface block if another HSA is to be installed in the table.
- j. Using the four 1/4" nuts that you removed in step 2h, secure the top plate to the lifting plate (figure B-6).

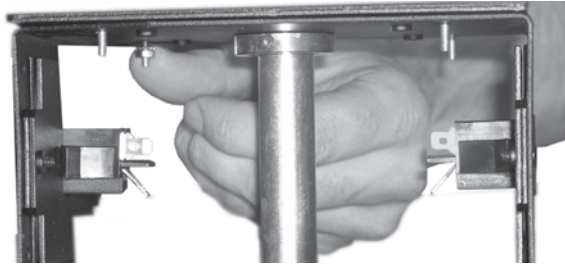


Figure B-6 — Securing the top plate to the lifting plate

- k. Replace the AAP/RJ-45 panels in the surface mount enclosure and secure them in place with the screws removed in step 2c. 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).

- l. Disconnect the IEC power cord (international versions only), 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.
- m. On the underside of the table, support the HSA while you remove the eight screws that secure the enclosure to the table (figure B-7). Lift the enclosure away from the table.

CAUTION 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.

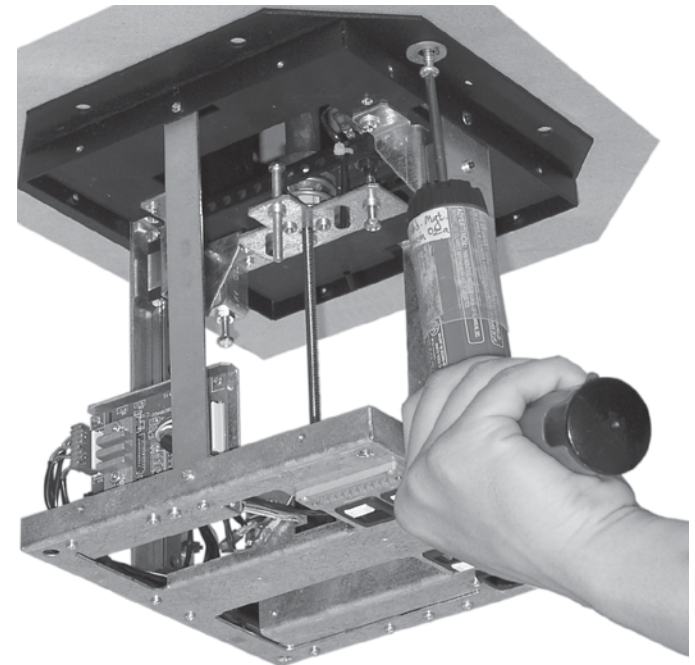


Figure B-7 — Removing the HSA from the table

3. With the platform extended approximately 1" (2.5 cm), insert the yellow shipping restraints through the slotted holes in one side of the enclosure's shroud (figure B-8) and out the holes in the opposite side. Use the included tie-wraps to secure the shipping restraints in place.

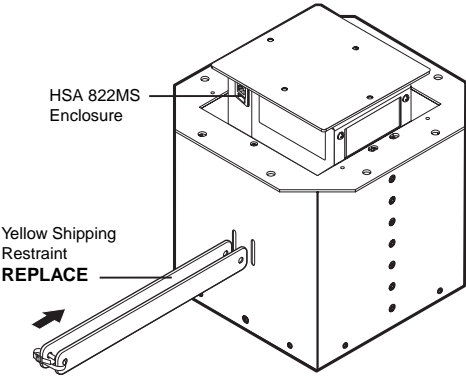


Figure B-8 — Installing the shipping restraints

4. Insert the HSA 822MS into one of the foam shells (figure B-9). Either open end of the open top panel fits into the recesses in the foam.

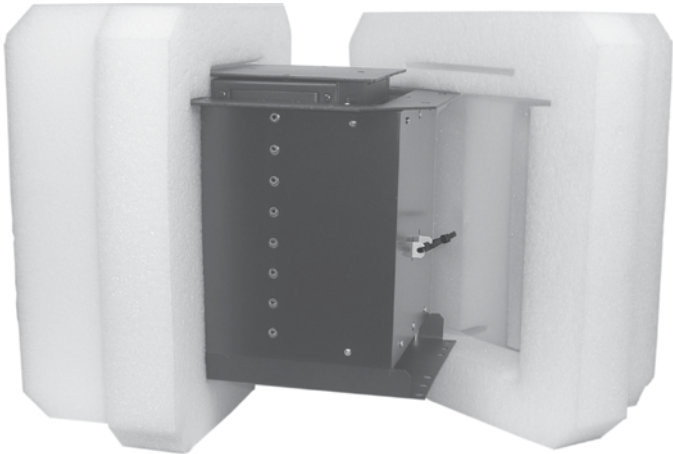


Figure B-9 — Installing the foam shell

5. Insert the opposite end of the HSA 822MS into the remaining foam shell (figure B-10). Firmly push the foam shells together as far as they will go to completely suspend the HSA.

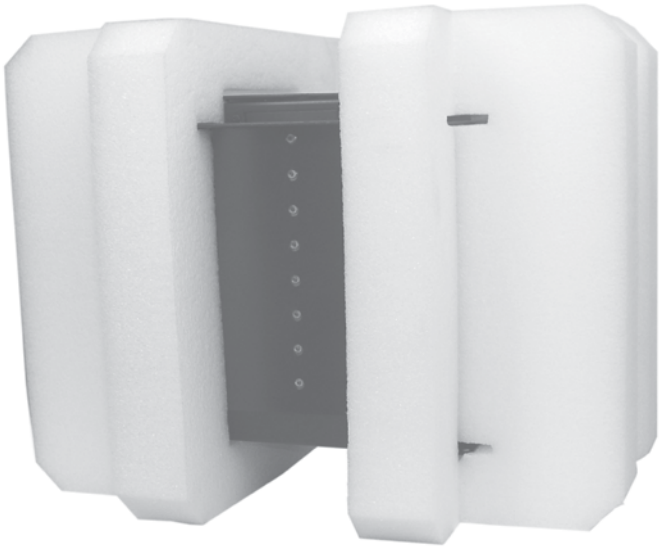


Figure B-10 — HSA suspended in the foam

Packaging for Shipment, Cont'd

6. Lower the foam-protected HSA into the shipping carton (figure B-11).



Figure B-11 — Placing the HSA in the shipping carton

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

Preliminary