

HSM3632/HSM3664 Graphic Annunciator Installation Instructions

2021-11-03 HSM3632/HSM3664



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Introduction

The HSM3632 and HSM3664 are graphic annunciator kits that add a graphic display for your security system's status and operation. The graphic display indicates zone openings and closings, trouble conditions, device operation and system status. This type of display is most useful for showing users precisely where on the premises zones are open or in alarm. The HSM3632 can display up to 32 events, and the HSM3664 can display up to 64 events.

The display area of the HSM3632 is 8% in \times 11 in (216 mm \times 279 mm). The HSM3632 is designed for offices, manufacturing plants and residential applications.

The HSM3664 graphic annunciator features an 11 in \times 17 in (279 mm \times 432 mm) display screen. The HSM3664 is designed for larger installations, such as manufacturing plants, warehouses, large offices and residential apartment buildings.

Note: This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.

Before you begin

This manual describes how to install an HSM3632 or HSM3664 annunciator on a PowerSeries Pro (HS3032/HS3128/HS3248) or PowerSeries Neo (HS2016/HS2032/HS2064/HS2128) security system.

Before installing the annunciator, complete the following steps.

- 1. Plan the installation and wiring of the security system (refer to the panel installation manual).
- 2. Install the control panel, and install and enroll at least one keypad to use for programming. Refer to the panel installation manual.
- 3. Install and enroll the zone expander modules. Refer to the panel installation manual and module installation sheets.
- 4. Install and enroll all detectors in their intended locations.

Installing the annunciator - overview

- Choose the zones and events you want to indicate.
- Choose the supplied point display artwork or create your own graphic display artwork.
- Unpack the annunciator kit to ensure you have the necessary parts.
- If you use your own graphic artwork, create a draft copy for when you set up and test the annunciator.
- Assemble the annunciator (see Assembling the annunciator).
- Choose an appropriate mounting location for the annunciator and use the appropriate hardware to mount the annunciator cabinet.
- Determine if a corbus re-power module is required. If required, install the HSM3204 module. Refer to the HSM3204 installation instructions.
- Remove power from the system and complete the annunciator wiring (see Wiring and installation).
- Restore power to the system and complete the programming, module enrollment, and PGM output programming (refer to the panel installation manual).
- Replace the draft artwork with a completed copy of the finished artwork.

Unpacking the HSM3632/HSM3664 kit

Check that you have all the necessary parts.

The HSM3632 kit includes the following items.

- One HSM3632 cabinet, beige, $10.3''(H) \times 13.3''(W)'' \times 2.6''(D)$, with an 8.5 in × 11 in (216 mm × 279 mm) display area and space for four HSM2208 modules.
- Two, HSM2208 8-zone output modules.
- One PC4600LG package, four plastic grids used to hold LED indicators in place behind the display screen.
- Grid mounting hardware.
- One PC4600LA-M LED package: 10 red, 5 yellow, 1 green LED assemblies.
- One PC4632GP Point/Graphic Display Package.
 - 2 8.5 in × 11 in film transparencies (for graphics)
 - 1 8.5 in × 11 in silk-screened transparency (for point annunciation)
 - 1-8.5 in × 11 in light diffuser sheet
 - 1 8.5 in × 11 in lexan front protective sheet

The HSM3632C kit includes the following items.

- One HSM3632C cabinet, beige, $10.3''(H) \times 13.3''(W)'' \times 2.6''(D)$, with an 8.5 in × 11 in (216 mm × 279 mm) display area and space for four HSM2208 modules.
- One PC4600LG package, four plastic grids used to hold LED indicators in place behind the display screen.
- · Grid mounting hardware.
- One PC4632GP Point/Graphic Display Package.
 - 2 8.5 in × 11 in film transparencies (for graphics)
 - 1 8.5 in × 11 in silk-screened transparency (for point annunciation)
 - 1 –8.5 in × 11 in light diffuser sheet
 - 1 8.5 in × 11 in lexan front protective sheet

The HSM3664 kit includes the following items.

- One HSM3664 cabinet, beige, 18.7 in (H) \times 13.3 in (W) \times 2.6 in (D), with an 11 in \times 17 in (279 mm \times 432 mm) display area and space for 8 HSM2208 modules.
- Four, HSM2208 8-zone output modules.
- Two PC4600LG packages. 8 plastic grids to hold LED indicators in place behind the display screen.
- Grid mounting hardware.
- One PC4600LA-M LED package: 10 red, 5 yellow, and 1 green LED assemblies.
- One PC4600LA-R LED package: 16 red LED assemblies.
- One PC43632GP point/graphic display package.
 - 2 11 in × 17 in film transparencies (for graphics)
 - 1 –11 in × 17 in silk-screened transparency (for point annunciation)
 - 1 –11 in × 17 in light diffuser sheet
 - 1 –11 in × 17 in lexan front protective sheet

The HSM3664C kit includes the following items.

- One HSM3664C cabinet, beige, 18.7 in (H) \times 13.3 in (W) \times 2.6 in (D), with an 11 in \times 17 in (279 mm \times 432 mm) display area and space for 8 HSM2208 modules.
- Two PC4600LG packages. 8 plastic grids to hold LED indicators in place behind the display screen.
- Grid mounting hardware.
- One PC43632GP point/graphic display package.
 - 2 11 in × 17 in film transparencies (for graphics)
 - 1 –11 in × 17 in silk-screened transparency (for point annunciation)
 - 1 –11 in × 17 in light diffuser sheet
 - 1 –11 in × 17 in lexan front protective sheet

HSM3632/HSM3664 Parts and accessories

The annunciator kits include enough LED assemblies for two HSM2208 modules. If you add additional HSM2208 output modules to your annunciator, you need to order additional LED assemblies from the list below. You can also order any of the packages below if you need replacement parts.

- PC4632FT flush trim for HSM3632
- PC4664FT flush trim for HSM3664
- PC4600LA-R package of 16 red LED assemblies
- PC4600LA-Y package of 16 yellow LED assemblies
- PC4600LA-G package of 16 green LED assemblies
- PC4600LA-M package of 10 red, 5 yellow, 1 green LED assemblies
- PC4600LG package of 4 LED grids to position LED indicator assemblies
- PC4632GP point/graphic display package for HSM3632
 - 2 8.5" x 11" film transparencies (for graphics)
 - 1 8.5" x 11" silk-screened transparency (for point annunciation)
 - 1 8.5" x 11" light diffuser sheet
 - 1 8.5" x 11" lexan front protective sheet
- PC4664GP point/graphic display package for HSM3664
 - 2 11" x 17" film transparencies (for graphics)
 - 1 11" x 17" silk-screened transparency (for point display annunciation)
 - 1 11" x 17" light diffuser sheet
 - 1 11" x 17" lexan front protective sheet

Creating the annunciator artwork

The annunciator kit includes one ready-made point display graphic and two sheets of clear lexan to create a graphic-style display. This provides two options for communicating the annunciator information to the end-user.

The point display provides a listing of the alarms, zones, and other indicated events. An LED illuminates next to the zone name when zones are open or in alarm. A graphic-style display provides a visual status of the system by using a floor plan. When designing the display, work with the users to determine what should be indicated, and how it can be displayed clearly.

Using the point display graphic

- 1. Program the annunciator.
- 2. Align the LEDs in the grid with the clear circles on the graphic.
- 3. Label each LED with an appropriate description.
- 4. Insert the graphic in the annunciator door as described in Assembling the annunciator.

Fire Alarm Zone 1 Electrical Chemical Warehouse Partition 1 Room Zone 10 Trouble Fire Alarm Computer Lobby Partition 2 Warehouse Room Trouble Fire Alarm Shipping Office 6 Partition 3 Offices Fire Alarm Zone 12 Office 7 Trouble Zone 4 Office 1 Lunch Partition 4 Fire Alarm Trouble Office 2 Office 8 **Flectrical** Partition 5 Trouble Zone 14 Office 9 Office 3 Partition 6 Trouble Zone 7 Office 4 Zone 15 Office 10 Trouble Fire **Trouble** Partition 7 Bell Trouble Office 5 Office 11 **Partition 8** Trouble

Figure 1: Sample HSM3664 point display

Using a graphic display

The HSM3632 and HSM3664 kits each come with two blank transparent sheets cut to fit the display area which can be used to create a floor plan of the premises.

The ? symbol indicates the placement of LED indicators behind the screen. When a zone is activated, the LED illuminates in the zone location. This display is useful for showing users precisely where on the premises zones are open or in alarm.

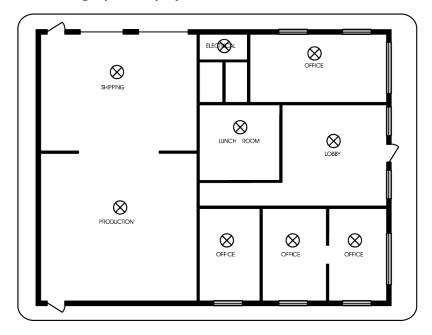
Designing a display draft

Design a draft of the graphic before you complete the finished artwork. Decide on the type and total number of annunciated zones and events. Use the LED grid provided to determine the placement of the LEDs.

For temporary use, the display can be quickly sketched on plain paper and then photocopied onto a transparency. If you draw the display on translucent paper, such as tracing paper, a transparency is not needed. Mount the tracing paper in the display.

Check that your display lines up with the placement of the LEDs in the grid. Make any necessary adjustments before you print a final copy of your graphic.

Figure 2: Sample HSM3632 graphic display



Drawing the display

Print the graphic display on clear or translucent material so that the LED indicators behind the display can be easily seen. Ensure that the material you are using is safe for photocopiers. For the HSM3664, use one 11 in x 17 in (279 mm \times 432 mm) sheet or two 8½ in \times 11 in (216 mm \times 279 mm) sheets placed side by side.

Computer artwork can be printed directly on transparent film with most printers. When your artwork is completed, install the display. See Assembling the annunciator.

Note: Ensure the transparency material you use is safe for your printer/photocopier.

Assembling and installing the HSM3632/HSM3664

Read each section carefully before you begin.

Assembling the annunciator

Assemble the HSM3632/HSM3664 before mounting it on the wall.

- 1. Press the white nylon circuit board mounting studs into the raised mounting holes from the back of the panel. Install all of the nylon studs now so that you can install additional output module boards later, if necessary.
- 2. Align each of the HSM2208 mounting holes with three of the white nylon mounting studs.
- 3. Press each module onto the mounting studs.

Figure 3: HSM3632 module placement

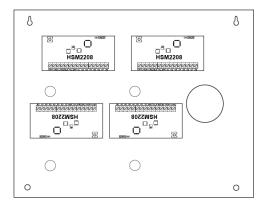
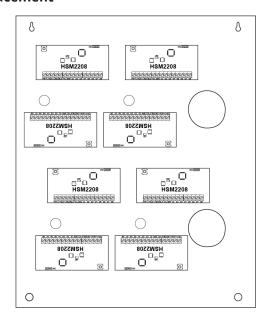
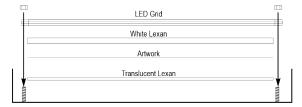


Figure 4: HSM3664 module placement



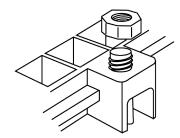
4. Place the annunciator display artwork, either the supplied point artwork or your own artwork, between the translucent lexan sheet and the white lexan sheet so that the artwork can be seen through the translucent sheet.

Figure 5: Assembling the graphic display sheets



- 5. Place the lexan sheets in the display area in the door so that the translucent sheet faces outwards. Ensure that your artwork is visible and right side up when the door is closed.
- 6. Place one of the black plastic LED grids onto the mounting studs surrounding the display area. Place the LED grids so that the notch rests against the door, refer to Figure 6.

Figure 6: LED grid installation



- 7. Place the grid in the center of the display area to hold the lexan sheets in place while the remaining grids are installed. Hold the grid in place with the supplied nuts.
- 8. Install the remaining grids and secure with the supplied nuts. When the grids are installed, make sure that the artwork is straight.
- 9. Place the nuts on the mounting studs to hold the grids in place, but do not completely tighten them.

Mounting the graphic annunciator

Mount the HSM3632/HSM3664 annunciator where it is clearly visible and easily accessible.

- (i) **Note:** Mount the graphic annunciator at a height of 2 meters (6.5 feet) or less. Before operation, the equipment enclosure must be secured to the building structure. When you choose a location, complete the following steps.
 - 1. Position the enclosure vertically in the mounting location and mark the two top screw holes.
 - 2. Remove the enclosure then install the two top screws part way in (use anchors if needed).
 - (i) **Note:** Use plastic wall plugs if the cabinet is being mounted on a brick, cinder block, drywall, or plaster wall.
 - **Note:** Use four screws appropriate for the wall material on which it is mounted. Ensure they are inserted through the four mounting holes provided in the back of the enclosure base
 - (i) **Note:** The minimum screw size is #6 (3.5 mm) pan head, with a minimum length of 1 in (25 mm).
 - 3. Hang the enclosure on the installed screws then mark the two bottom mounting holes.
 - 4. Remove the enclosure from the wall and install the necessary components inside.

- 5. Hang the enclosure on the top two screws.
- 6. Install the two bottom screws, use anchors if needed. Ensure that all four screws are securely tightened.
- 7. Secure the enclosure door by inserting screws through the top and bottom door mounting holes provided on the right side of the enclosure.
 - (i) **Note:** Use a minimum of two, self-tapping screws #6 (3.5 mm), pan head, with a minimum length of 0.5 in (10.27 mm).

Tamper protection switches can be installed on the enclosure, including door opening protection and/or removal from the mounting position.

Repowering the corbus

The HSM3632 annunciator can illuminate up to 32 LEDs simultaneously and the HSM3664 annunciator can illuminate up to 64 LEDs simultaneously. Each LED will draw up to 20mA of current which needs to be included in the corbus current calculation. If the required corbus current exceeds the amount available from the system, an HSM3204 corbus repeater module should be used to power the HSM3632/HSM3664.

Table 1: HSM3632/HSM3664 current ratings

Current ratings	
Non power-limited connections	None
Power-limited Class II connections	Corbus (Red, Blk, Grn, Tmp, Com, O1-O8)
Input voltage (provided by compatible control panel)	10.8 VDC - 12.5 VDC
Current draw	40 mA - 200 mA per module

(i) **Note:** To prevent the demand for current from adversely affecting the operation of the system, repower the corbus as described in your control panel installation manual and in the HSM3204 installation instruction sheet.

Wiring and installation

- ① **Note:** Always disconnect power when you connect modules to the corbus.
- (i) Note: The maximum wire length from the alarm panel must be 1,000 ft / 305 m.

Internal and/or external wiring for this module must be routed, supported, clamped, or secured to reduce the possibility of:

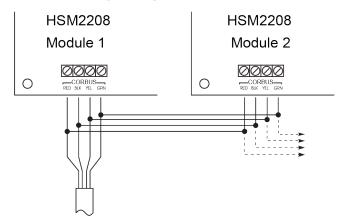
- excessive strain on wire and on terminal connections
- loosening of terminal connections
- damage to conductor insulation
 - (i) Note: Wiring size 18-22 AWG must be used.

Wiring the corbus to the HSM2208 output modules

- 1. Disconnect power to the entire security system.
- 2. Pull the Corbus wire into the cabinet.
- 3. Connect the red, black, yellow, and green conductors of the corbus to the corresponding RED, BLK, YEL, and GRN terminals on the first HSM2208 module.

4. Connect one set of red, black, yellow and green conductor wires for each HSM2208 output module installed in the annunciator.

Figure 7: Connecting multiple HSM2208 modules



Installing the tamper switch

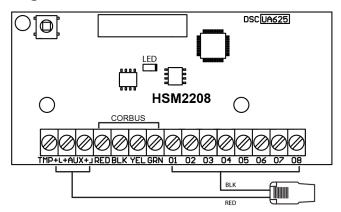
- 1. Install the tamper switch according to the manufacturer's instructions.
- 2. Connect the leads of the tamper switch to the TMP and COM terminals of the first HSM2208 module.
- 3. If more than one HSM2208 module is used, install a jumper between the TMP and COM terminals of the other HSM2208 modules.
- 4. If you do not use a tamper switch with the annunciator, install a jumper between the TMP and COM terminals on all the installed HSM2208 modules.
 - (i) Note: Tamper switch is not supplied.
 - **Note:** The cover tamper switch is required for ULC-S304 Level 2 installations and both the cover and enclosure base tamper switch is required for ULC-S304 Level 3 and Level 4 installations.
 - Note: Only use compatible tamper switches for the enclosures. For example, Diptronics part no. DTSM-644KV-T/R(054). Contact rated 12V, 50 mA. DSC order code: 80020124.

Installing the LED indicators

To install the LED indicators complete the following steps.

- (i) **Note:** The LED indicators supplied are ready to install and do not require a resistor between the LED and the terminal.
- (i) Note: The HSM3632 is supplied with 16 LED indicators and the HSM3664 is supplied with 32 LED indicators. Additional LED indicators are available for order. Contact your distributor.
 - 1. Connect the red lead to one of the AUX+ terminals on the HSM2208 output module.
 - 2. Connect the black lead to one of the O1 to O8 terminals on the same module.

Figure 8: LED assembly wiring



- 3. Press the plastic LED indicator into the appropriate location on the LED grid. To remove the LED indicators from the grid, firmly pull the LED indicator straight up from the grid, do not twist or bend.
- 4. Install the remaining LED indicators, connecting one LED to an available O terminal on the HSM2208 module.
- 5. Ensure cabinet wiring does not interfere with the motion of the cabinet door.

Enrolling and programming

Refer to the panel installation manual for instructions on enrolling and programming the output modules.

Safety Information

This equipment must be installed by a skilled person only; skilled persons are persons who have training or experience in the equipment technology, particularly the various energies and energy magnitudes used in the equipment. Skilled persons are expected to use their training and experience to recognize energy sources capable of causing pain or injury and to take action for protection from injury. Skilled persons are persons who have training or experience in the equipment technology, particularly the various energies and energy magnitudes used in the equipment. Skilled persons are expected to use their training and experience to recognize energy sources capable of causing pain or injury and to take action for protection from injuries.

Before you install this equipment, disconnect all power sources (for example mains, battery, telephone line) connected to the controller panel, etc. Install the equipment indoor in a non-hazardous location only where the following conditions are met:

- Pollution degree Maximum 2
- Over voltages Category II

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Digital Security Controls warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original purchaser must promptly notify Digital Security Controls in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period. There is absolutely no warranty on software and all software products are sold as a user license under the terms of the software license agreement included with the product. The Customer assumes all responsibility for the proper selection, installation, operation and maintenance of any products purchased from DSC. Custom products are only warranted to the extent that they do not function upon delivery. In such cases, DSC can replace or credit at its option.

International Warranty

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls shall not be responsible for any customs fees, taxes, or VAT that may be due.

Warranty Procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Conditions to Void Warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- damage incurred in shipping or handling;
- damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- damage due to causes beyond the control of Digital Security Controls such as excessive voltage, mechanical shock, water damage;
- damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls:
- defects caused by failure to provide a suitable installation environment for the products;
- damage caused by use of the products for purposes other than those for which it was designed;damage from improper maintenance;
- damage arising out of any other abuse, mishandling or improper application of the products.

Items Not Covered by Warranty

In addition to the items which void the Warranty, the following items shall not be covered by Warranty: (i) freight cost to the repair centre; (ii) products which are not identified with DSC's product label and lot number or serial number; (iii) products disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection or testing to verify any warranty claim. Access cards or tags returned for replacement under warranty will be credited or replaced at DSC's option. Products not covered by this warranty, or otherwise out of warranty due to age, misuse, or damage shall be evaluated, and a repair estimate shall be provided. No repair

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Disclaimer of Warranties

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) and of all other obligations or liabilities on the part of Digital Security Controls. Digital Security Controls neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product. This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.

Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Out of Warranty Repairs

Digital Security Controls will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Products which Digital Security Controls determines to be repairable will be repaired and returned. A set fee which Digital Security Controls has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

FCC Compliance Statement

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so the alarm control & receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

Industry Canada CAN ICES-3(B)/NMB-3(B)

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