Detection System
Model 3800 Series

Architect/Contractor Information Package
This package provides architects and contractors with the information necessary for successful installation and operation of your new 3M Detection System. This information includes guidelines that **must be followed** to help ensure optimal performance.

This package is divided into two sections:

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Dear Architect/Contractor:

I would like to take this opportunity to thank you for your interest in the 3M Library Systems products. I think you will find all of the information you will need to assist in the implementation of your plan.

3M LIBRARY SYSTEMS IS A LEADING SUPPLIER OF LIBRARY DETECTION, SELF SERVICE, AND PRODUCTIVITY SOLUTIONS. AS PART OF OUR OFFERING, 3M FACILITATES THE INSTALLATION AND AFTER-SALE SUPPORT (EITHER DURING WARRANTY OR BY SERVICE AGREEMENT WITH THE PURCHASE). 3M SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS APPLICABLE TO PRODUCT SUPPLIERS LIKE 3M.

BECAUSE 3M IS “NOT” A SUBCONTRACTOR, WE WILL NOT ACCEPT HOLDBACKS, OR OTHER PAYMENT RESERVATIONS. 3M'S SALES ARE EXPRESSLY MADE CONDITIONAL UPON THE CONTRACTOR'S AGREEMENT TO MAKE PAYMENT IN FULL WITHIN THIRTY (30) DAYS AFTER DATE OF SHIPMENT. IF THE PURCHASE IS TO BE TAX EXEMPT, A CERTIFICATE MUST BE FORWARDED TO 3M FOR THE FILE.

For service and installation, order status, or any additional questions, please feel free to contact 3M at 1-800-328-0067.

Sincerely,

Gregory P. Pfouts
National Sales Manager
3M Library Systems
Preinstallation Worksheet – 3M™ Detection Systems

Please complete this form and fax it to 3M at 1-800-795-9091

Today’s date _________________________________________
System model number(s) ______________________________________
Sales consultant ______________________________________
Accessories _________________________________________
Account name ________________________________________
Delayed warranty start date (if applicable) __________________
Key contact name ______________________________________
Model/serial number of equipment to be replaced/removed ________________
Installation location ____________________________________
3M dismantle at additional current rates.............. □
Install contact name ____________________________________
Customer dismantle and removal ........................... □
Preinstallation worksheet reviewer ________________________
Phone No. _________________________________________
Note: It is the customer’s responsibility to move the system within 10 ft. of the installation location before scheduling the installation.
Installation date _______________________________________
Purchasing/payment contact _____________________________
Phone No. _________________________________________
Does account require PO number for payment of invoices? Yes ______ No ______

Select ☐ a mounting option:

- Direct Mount
- Base Plate
- Buried Cable

Select ☐ a mounting option:

- Minimum distance to protected books: 3 ft. [914 mm]
- Minimum distance to steel-stud wall:
  - 3500 - 18 in. [457 mm]
  - 3800 - 3 ft. [914 mm]
  - 8800 - 6 in. [15,24 cm]
- Minimum distance to door frame:
  - 3500/3800 - 4 ft. [1,22 m] to comply with ADA
  - 8800 - 6 in. [15,24 cm]
- Minimum distance to large metal objects:
  - 3500 - 18 in. [457 mm]
  - 3800 - 3 ft. [914 mm]
  - 8800 - 6 in. [15,24 cm]

Your site layout must meet the following requirements to help ensure optimal performance:

- Minimum distance from system to large metal objects (windows, doors, walls, display cases, shelves, cabinets, picture frames, counter edges, waste baskets, and furniture):
  - 3500 - 18 in. [45,7 cm]
  - 3800 - 3 ft. [91,4 cm]
  - 8800 - 6 in. [15,24 cm]
- Minimum distance from system to CRT:
  - 3500/3800 - 7 ft. [2,13 m]
  - 8800 - 3 in. [7,6 cm]
- The Model 3500 electronics enclosure must be a minimum of 4 ft. [1,22 m] min./21 ft. [6,4 m] (wire-run distance) max. from system panels, and within 10 ft. [3,05 m] of the power source.
- The system must be at least 5 ft. [1,52 m] from copiers (3 in. [76,2 mm] for the Model 8800).
- The system must be at least 3 ft. [914 mm] from materials containing security markers.
- The system must be at least 4 ft. [1,22 m] from door frames to meet ADA requirements.
- The system must be within 10 ft.* [3,05 m] of the power source (9.84 ft.* 3,0 m for Model 8800).
  * Wire-run distance, not straight-line distance.
- 1.25-inch I.D. non-metallic conduit for buried-cable systems.

See the Architect/Contractor Information Package for system dimensions and requirements.

Draw your system layout in the following grid:

3M Library Systems
3M Center, Bldg. 225-4N-14
St. Paul, Minnesota  55144-1000  www.3m.com/us/library

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78-8123-7817-8, 060-A, Rev. G
The eleven most important points for the successful installation of 3M™ Detection Systems

1. Maintain the proper distance between the Detection System and large metal objects.  
   - The minimum distances from a Detection System Panel to a wall using metal studs and metal windows, doors, walls, cabinets, shelves, pipes, counter edges, display cases, wastebaskets, and furniture are:
     - **Model 3500** – 18 in. [457 mm]
     - **Model 3800** – 3 ft. [914 mm]

2. Locate the Detection System within the maximum distance to a power receptacle:  
   (These distances are measured in wire-run feet, not straight-line distance.)
   - Mount the **Model 3500** electronic enclosure within 10 ft. [3,05 m] of a power receptacle.
     - Note: The allowable distance between the **Model 3500** electronics enclosure and a detection panel is 4 ft. [1,2 m] minimum or 21 linear ft. [6,4 m] maximum.
   - The **Model 3800** power inlet can be a maximum of 10 ft. [3,05 m] from a power receptacle.

3. For buried-cable installations, use the following non-metallic conduit with correct spacing.  
   (Correctly sized conduit is needed to accommodate connectors on the ends of the cables.)
   - **Model 3500/3800** – use 1.25-inch [31,8-mm] I.D., non-metallic conduit

4. Locate the Detection System at least 5 ft. [1,52 m] from copier machines.

5. Maintain the minimum distance from the Detection System to a CRT display:
   - **Model 3800** – 8 ft. [2,44 m]
   - **Model 3500** – 7 ft. [2,13 m]

6. Avoid positioning the Detection System near power panels, data cables, and large conduits.
   - **Model 3500** - 5 ft. [1,52 m] minimum between the Detection System and power/data conduit.
   - **Model 3800** – 10 ft. [3,05 m] minimum between the Detection System and power/data conduit.

7. Provide a 4-foot [1,22 m] clear space between the Model system panels and any door.
   - Required for ADA (Americans with Disabilities Act) compliance.

8. Plan the system layout so that patrons entering and exiting the library do not interfere with each other.
   - Avoid two-way traffic in a single corridor.

9. Plan the system layout so that the corridor(s) are centered on the door(s).

10. Locate the system to allow good observation/supervision of the system by your circulation-desk staff.

11. Locate the system so that books and other secured items are stored at least 3 feet [914 mm] from the Detection System. (This helps ensure that secured items within the library are not detected by the system.)
    - Books and other secured items must be stored at least 3 feet [914 mm] from the Detection System.
    - Patrons and book carts with secured items cannot pass within 3 feet [914 mm] of the Detection System.
System Design Considerations
3M™ Detection Systems

The following design considerations should be addressed when planning the layout of any 3M Detection System.

**Patron traffic patterns**

1. Does your system layout plan center the corridor(s) on the door(s) and help establish normal traffic patterns?
2. Do patrons have an easy exit path?
   - Keep changes in traffic direction between check-out and exit to an absolute minimum.
3. Will patrons entering and exiting the library interfere with each other?
   - Avoid two-way traffic in a single corridor.
4. In the event of an alarm, is there room to identify or stop patrons before they leave the library?
5. Are there enough detection-system corridors available to handle typical amount of traffic and to meet codes?
6. While in the library, will patrons stand directly next to the system or carry secured items within three feet of the system?
   - This may cause false alarms.
7. Will your book carts fit through the corridor?

**System location**

1. Have you attempted to position the system so it can be moved as much as one foot in any direction (if necessary) to compensate for minor environmental interference?
2. Do check-out personnel have good visibility and access to the detection hardware?
3. Are all applicable codes met?
4. Have you investigated whether there are large metal objects hidden within or behind the walls?
5. Is power located to minimize the need to run cords and wire molding through traffic areas?
6. Will book carts with secured items be stored near the detection system?
   - To avoid false alarms, all secured items must be kept at least 3 ft. from the detection system at all times.
7. Have you considered future placement of CRTs and other electronic devices that may cause system interference?
Loss Reduction Guarantee and Standard Warranty
3M™ Detection Systems

One Year 3M™ Tattle-Tape™ Detection Systems Loss Reduction Guarantee: Subject to the Limitation of Liability below, 3M guarantees that your materials losses (loss of books, CDs, DVDs, and other rental assets from patron theft) will improve by an average of 80% during the period 12 months from the date of installation of a Tattle-Tape Detection System provided that a) you are the original purchaser; b) you have executed a one (1) year 3M Service Agreement for maintenance of the Library System product; c) the system has not been subjected to abuse, misuse, accident or neglect; d) you submit to 3M authenticated, written inventory records of your materials losses for the 12 months prior to installation of the system; and e) you submit authenticated, written inventory records of your materials losses for the 12 months following installation of the system. If your materials losses have not been reduced by at least 80% during this 12 month time frame, 3M will reimburse you for the difference between the actual loss reduction and 80%, at the cost of $25 per item. For example, if you’ve reduced losses by only 75%, 3M will reimburse you for 5% of those losses at the rate of $25 per item. Note that all claims under this guarantee must be submitted to 3M within 60 days following expiration of the date 12 months from the date of installation of the Tattle-Tape Detection System. Failure to submit a claim within this time frame will invalidate this guarantee. IMPORTANT: Consumables and non-3M branded products are excluded from this Guarantee. This Guarantee does not apply to the purchase of Tattle-Tape Detection Systems that are replacing prior models of 3M™ Tattle-Tape™ Detection Systems.

Warranty and Limited Remedy for Tattle-Tape™ Detection Systems: Unless stated otherwise in 3M product literature or packaging, 3M warrants that each Tattle-Tape Detection System meets the applicable specifications for a period of ninety (90) days from the date of shipment (or, in the case of hardware installed by 3M, from the date of installation). Any warranties related to 3M software are contained in separate 3M software licenses. Consumables and non-3M branded products are excluded from this Warranty and Limited Remedy.

3M MAKES NO OTHER GUARANTEES, WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. You are responsible for determining whether the 3M product is fit for a particular purpose and suitable for your application. If the 3M product is defective within the warranty period and provided that a) the product has not been subjected to abuse, misuse, accident or neglect and b) you have notified 3M within thirty (30) days after the defect was discovered, your exclusive remedy and 3M’s and seller’s sole obligation will be, at 3M’s option, to replace or repair the defective 3M product.

Limitation of Liability: EXCEPT WHERE PROHIBITED BY LAW, 3M AND SELLER WILL NOT BE LIABLE FOR ANY LOSS OR DAMAGE ARISING FROM TATTLE-TAPE DETECTION SYSTEMS, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL, REGARDLESS OF THE LEGAL THEORY ASSERTED, INCLUDING WARRANTY, CONTRACT, NEGLIGENCE OR STRICT LIABILITY.

Guarantee and Warranty Claims: For guarantee and warranty claims, and for service, call one of the following numbers:

In the US: 1-800-328-0067
In Canada: English 1-800-268-6235
          Français 1-800-567-3193
3M Model 3800 System Layout Checklist

This checklist defines the environment required to successfully install the Model 3800 Detection system. Compliance with these requirements will ensure that the Model 3800 performs as designed. Any compromising of these requirements may result in reduced effectiveness of your 3M system. Always follow applicable federal, state, and local codes when planning and completing installation of this equipment.

Power Requirements

1. Single phase 50 or 60 Hz power source.

2. System operates on 110/120 VAC within the United States, and is designed for worldwide use. Manual internal voltage select switches allow the system to operate on any power provided worldwide.

3. Maximum current draw is as follows:

<table>
<thead>
<tr>
<th>Model 3801</th>
<th>3802</th>
<th>3803</th>
<th>3804</th>
</tr>
</thead>
<tbody>
<tr>
<td>110/120 VAC:</td>
<td>4A</td>
<td>5A</td>
<td>5.5A</td>
</tr>
<tr>
<td>200/240 VAC:</td>
<td>2A</td>
<td>2.5A</td>
<td>2.8A</td>
</tr>
</tbody>
</table>

4. The system includes a 14-foot [4.2 m] power cord attached to the electronics chassis. The customer is responsible for providing an electrical outlet within the power cord length. Electrical cable length is measured in wire run feet, not straight line distance. The power cord may be plugged into an outlet or hardwired to an electrical box. Power cannot be supplied from under the detection system. It must be off to the side of the lattice.

5. The electronics chassis is attached to the end panel (panel A).
Power Requirements (Cont.)

6. For additional details on power wiring, conduits, options, etc., see the Model 3800 Installation Specifications and Contractor Installation Instructions for 3800.

7. A dedicated circuit is not required but is recommended to prevent overloading and loss of security. A minimum circuit capacity of 15A is required. Circuit loading must not exceed 50% of the rated circuit current to ensure voltage stability.

System Placement Relative to Interfering Objects

Doors (Metal framed) - ADA (Americans with Disabilities Act) requires a 4-foot [1.2 m] clear space at exit doors for wheelchair maneuvering space. If necessary, the system may be located between 3 and 4 feet [914 mm and 1.2 m] from a metal framed door; however, the door may require strapping (metal connectors across joints) to maintain optimum performance. Strapping is available at an additional charge for time and material to the customer.

- A system with an exit gate requires a 4-foot [1.2 m] setback from the end of the open gate arm to the door to meet ADA and to allow clearance for gate arm swing. This means that the detection panels must be set back at least 96 inches [2.43 m] from the door.

- The detection system must be turned off whenever a security-type chain link gate, or door closes off the walkway through the detection system.

Exit Control Hardware - Alvarado, Accent, and Lawrence are approved vendors for exit control hardware.

- The first post for an exit control system provided by one of the above vendors can be no closer than 12 inches [304 mm] in one of the locations specified in the diagram below:

- Exit control posts and railings from other vendors must be kept a minimum of 2 feet [609 mm] from the system since this hardware has not been tested with the 3M Library Security system.

- Metal railings surrounding the system using two or more horizontal members must be a minimum of 3 feet [914 mm] from a detection panel.

Computers (CRT) - For optimum performance, computer terminals should be placed at least 7 feet [2.13 m] from the closest detection panel. If necessary, the computer terminal may be located between 4 and 7 feet [1.2 and 2.13 m] from the closest detection panel; however, the computer terminal may require a metal shield which is available at an additional cost. Any distance less than 4 feet [1.2 m] from the closest detection panel is not allowed.
System Placement Relative to Interfering Objects (cont.)

Large Metal Objects (LMO) - Large metal objects are not allowed within 3 feet [914 mm] of a detection panel. Examples include: large metal shelves, refrigerators, heavy support beams, safes, heating/air conditioning duct work.

Counters with metal frames and metal merchandise display shelves - Counters that have a metal frame which forms a continuous, electrically conductive loop should not be located within 3 feet [914 mm] of a detection panel.

Windows (Metal framed) - For optimum performance, a 3M Library system should be placed at least 3 feet [914 mm] from a metal framed window.

Walls (Steel stud) - Walls with steel studs are not allowed within 3 feet [914 mm] of the closest detection panel. We recommend the use of wood for wall studs within 3 feet [914 mm] of the system.

Cash Registers - For optimum performance, cash registers should be placed at least 3 feet [914 mm] from the closest detection panel.

Book Carts - Plan layout so that there is not an obvious location for customers to leave book carts within 3 feet [914 mm] of detection panels.

Protected Material - Books and other protected articles should be at least 3 feet [914 mm] from the closest point of the security system.

- Plan layout so that patrons will not congregate or wait in line within 3 feet [914 mm] of a detection panel.

Power Panel Boxes - Power distribution boxes must be at least 6 feet [1,8 m] from detection panels.

Stereo Components - Stereo speakers, amplifiers, tape decks, and record players, are not allowed within 10 feet [3,0 m] of the detection panels. Compact disk players are not affected by the library system.

Copy Machines - Copy machines are not allowed within 5 feet [1,5 m] of the closest detection panel.

Credit Card Readers - Credit card readers should be placed a minimum of 10 feet [3,0 m] from the closest detection panel.

System Accessories

Distance Between Systems - The minimum distance between two Model 3800 systems is 4 feet [1,2 m]. The minimum distance to a Model 1365 or Model 1850 is 75 feet [22,8 m]. The minimum distance between a Model 2300 and a Model 3800 is 30 feet [9,14 m]. The minimum distance to a Model 3500 system is 10 feet (3.0 m).
Installation Specifications

Components:

The Model 3801 is a single corridor detection system consisting of two panels that can be mounted to a baseplate or directly to the floor. The electronics are enclosed in an electronics chassis that is attached to a panel. The standard corridor width is 36 inches [914 mm] to comply with ADA (Americans with Disabilities Act). The 3801 is also available in a 42 inch [1,06 m] corridor width. An alarm light is located on top of one panel and an audible alarm is located on top of the other panel. Power wiring and panel-to-panel wiring can be routed on the surface in UL listed wire mold or buried under the finished floor in an approved conduit. Other important product and installation facts are:

1. System can be rotated 180° to reverse the power entry and electronics chassis location.

2. Color: Pantone Cool Gray 4C.

3. System must be located on a level surface.

4. System installation location must comply with Model 3800 System Layout Checklist to avoid performance problems.

5. For cooling air flow and service, the system must be installed with the following minimum clearances between the panels and surrounding walls or objects:
   a. Fan on electronics chassis must be at least 4 inches [101 mm] away from solid objects.
   b. Panels should be at least 3 inches [76,2 mm] from walls.
   c. The minimum width opening requirements are shown in Table A.

<table>
<thead>
<tr>
<th>System Option</th>
<th>Minimum Opening Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridor Width</td>
<td>36 in.**</td>
</tr>
<tr>
<td>3801</td>
<td>51.5 in.*</td>
</tr>
<tr>
<td></td>
<td>[1,3 m]</td>
</tr>
</tbody>
</table>

* Includes 4 inch [101 mm] space for cooling air flow on electronics chassis side and 3 inch [76,2 mm] space for service clearance on opposite side.

** 36 inch and 42 inch, comply with ADA guidelines for corridor widths.
Model 3801 Dimensions:

**System Front View**
- Corridor Width Options: 36 in., 42 in.
- "A":
- "B":
- "C":

**System Side View**
- Alarm Indicator
- Cooling Fan
- Vent
- Power Cord: 14 ft. [4.2 m]
- Key Switch (ON/OFF)
- Electronic Chassis

**System Top View**
- "C":
- 26 in. [660 mm]

**Corridor and System Width**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in. [914 mm]</td>
<td>41 in. [1.04 m]</td>
<td>44.5 in. [1.13 m]</td>
<td></td>
</tr>
<tr>
<td>42 in. [1.06 m]</td>
<td>47 in. [1.19 m]</td>
<td>50.5 in. [1.28 m]</td>
<td></td>
</tr>
</tbody>
</table>
Power Requirements:

3M Model 3801 is a computer-based device which requires high quality, surge free, and noise free electrical power for optimum performance.

Energy Profile:

1. Single phase electrical power is required.
2. Designed for worldwide use with internal (manual) switch selection for voltages from 100 to 240 VAC, 50 or 60 Hz.
3. Maximum RMS current draw:
   a. 100/120 VAC: 4A
   b. 220/240 VAC: 2A
4. Power cord: 16 ga, 3 wire, S- rating
   14 feet [4,3m] long
   NEMA 5-15P plug type
5. Customer must supply an electrical outlet within the power cord length. A dedicated circuit is not required but is recommended to prevent overloading and loss of security. A minimum circuit capacity of 15A is required. Circuit loading must not exceed 50% of the rated circuit current to ensure voltage stability.

Panel-to-Panel Wiring Requirements:

Floor mounted system, surface wiring:
   Wires enclosed in wire mold and covered by a threshold. No customer construction required.

Floor mounted system, wiring under floor:
   Wires enclosed in 1.25 inch [31,7 mm] I.D. PVC conduit, enter system through mounting foot. See Contractor Installation Instructions for Model 3801 with Buried Cable.

Power Wiring Requirements:

Surface Wiring:
   Power cord enclosed in 2600 series wire mold enters system through side of mounting foot. No customer construction required.

Under Floor Wiring:
   Floor mounted electrical box directly under electronic chassis, using sealed fitting and terminating to power cord. See Contractor Installation Instructions for Model 3801 with Buried Cables.

Shipping Weight and Size:

Model 3801: 190 pounds [86,1 kg]
Shipping Carton: 220 pounds [99,7 kg]
3801 Baseplate Mounted
Shipping Carton: 200 pounds [90,7 kg]
3801 Floor Mounted
Shipping Carton: 200 pounds [90,7 kg]
with Buried Cables

Options:

CCTV Monitor
Auxiliary Relay Contacts
Voice Alarm
### Installation Specifications

**Components:**

The Model 3802 is a two corridor detection system consisting of three panels that can be mounted to a baseplate or directly to the floor. The electronics are enclosed in an electronics chassis that is attached to a panel. The standard corridors are 36 inches [914 mm] wide to comply with ADA (Americans with Disabilities Act). The 3802 is also available in a 42 inch [1,06 m] corridor width. An alarm light is located on top of each end panel to indicate which corridor is alarming. An audible alarm is located on top of the center panel. The audible alarm level is adjustable. Power wiring and panel-to-panel wiring can be routed on the surface in UL listed wire mold or buried under the finished floor in an approved conduit. Other important product and installation facts are:

1. System can be rotated 180° to reverse the power entry and electronics chassis location.
2. Color: Pantone Cool Gray 4C.
3. System must be located on a level surface.
4. System installation location must comply with Model 3800 System Layout Checklist to avoid performance problems.
5. For cooling air flow and service, the system must be installed with the following minimum clearances between the panels and surrounding walls or objects:
   a. Fan on electronics chassis must be at least 4 inches [101 mm] away from solid objects.
   b. Panels should be at least 3 inches [76,2 mm] from walls.
   c. The minimum width opening requirements are shown in Table A.

<table>
<thead>
<tr>
<th>System Option</th>
<th>Minimum Opening Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridor Width</td>
<td>36 in.**</td>
</tr>
<tr>
<td>3802</td>
<td>90 in.* [2,28 m]</td>
</tr>
</tbody>
</table>

* Includes 4 inch [101 mm] space for cooling air flow on electronics chassis side and 3 inch [76,2 mm] space for service clearance on opposite side.

** 36 inch and 42 inch corridors comply with ADA guidelines for corridor widths.
Model 3802 Dimensions:

System Front View

- 2.5 in. [63,5 mm]
- 70 in. [1,77 m]
- "A" "A"
- Corridor Width Options 36 in., 42 in.
- Patron Counter
- Key Switch (ON/OFF)

System Side View

- Alarm Indicator
- 26.5 in. [673 mm]
- 3.5 in. [88 mm]
- 21 in. [533 mm]
- 26 in. [660 mm]

System Top View

- 26 in. [660 mm]
- "C"

Corridor and System Width

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in.</td>
<td>79.5 in.</td>
<td>83 in.</td>
<td></td>
</tr>
<tr>
<td>[914 mm]</td>
<td>[2,01 m]</td>
<td>[2,1 m]</td>
<td></td>
</tr>
<tr>
<td>42 in.</td>
<td>91.5 in.</td>
<td>95 in.</td>
<td></td>
</tr>
<tr>
<td>[1,06 m]</td>
<td>[2,32 m]</td>
<td>[2,41 m]</td>
<td></td>
</tr>
</tbody>
</table>
Power Requirements:

3M Model 3802 is a computer-based device which requires high quality, surge free, and noise free electrical power for optimum performance.

Energy Profile:

1. Single phase electrical power is required.
2. Designed for worldwide use with internal (manual) switch selection for voltages from 100 to 240 VAC, 50 or 60 Hz.
3. Maximum RMS current draw:
   a. 100/120 VAC: 5A
   b. 220/240 VAC: 2.5A
4. Power cord: 16 ga, 3 wire, S- rating
   14 feet [4.3 m] long
   NEMA 5-15P plug type
5. Customer must supply an electrical outlet within the power cord length.
6. A dedicated circuit is not required but is recommended to prevent overloading and loss of security. A minimum circuit capacity of 15A is required. Circuit loading must not exceed 50% of the rated circuit current to ensure voltage stability.

Panel-to-Panel Wiring Requirements:

Floor mounted system, surface wiring:

Wires enclosed in wire mold and covered by a threshold. No customer construction required.

Floor mounted system, wiring under floor:

Wires enclosed in 1.25 inch [31.7 mm] I.D. PVC conduit, enter system through mounting foot. See Contractor Installation Instructions for Model 3802 with Buried Cable.

Power Wiring Requirements:

Surface Wiring:

Power cord enclosed in 2600 series wire mold enters system through side of mounting foot. No customer construction required.

Under Floor Wiring:

Floor mounted electrical box directly under electronic chassis, using sealed fitting and terminating to power cord. See Contractor Installation Instructions for Model 3802 with Buried Cables.

Shipping Weight and Size:

Model 3802: 250 pounds [113 kg]
Shipping Carton: 260 pounds [117 kg]
3802 Baseplate Mounted
Shipping Carton: 250 pounds [113 kg]
3802 Floor Mounted
Shipping Carton: 250 pounds [113 kg]
3802 Floor Mounted with Buried Cables

Options:

CCTV Monitor
Auxiliary Relay Contacts
Voice Alarm

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Components:

The Model 3803 is a three corridor detection system consisting of four panels that are mounted directly to the floor. The electronics are enclosed in an electronics chassis that is attached to a panel. The standard corridors are 36 inches [914 mm] wide to comply with ADA (Americans with Disabilities Act). The 3803 is also available in 42 inch [1,06 m] corridor width. An alarm light is located on top of the panels to indicate which corridor is alarming. An audible alarm is located on top of one panel. The audible alarm level is adjustable. Power wiring and panel-to-panel wiring can be routed on the surface in UL listed wire mold or buried under the finished floor in an approved conduit. Other important product and installation facts are:

1. System can be rotated 180° to reverse the power entry and electronics chassis location.

2. Color: Pantone Cool Gray 4C.

3. System must be located on a level surface.

4. System installation location must comply with Model 3800 System Layout Checklist to avoid performance problems.

5. For cooling air flow and service, the system must be installed with the following minimum clearances between the panels and surrounding walls or objects:
   
   a. Fan on electronics chassis must be at least 4 inches [101 mm] away from solid objects.
   
   b. Panels should be at least 3 inches [76,2 mm] from walls.
   
   c. The minimum width opening requirements are shown in Table A.

Power Requirements:

3M Model 3803 is a computer-based device which requires high quality, surge free, and noise free electrical power for optimum performance.

<table>
<thead>
<tr>
<th>System Option</th>
<th>Minimum Opening Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridor Width</td>
<td>36 in.**</td>
</tr>
<tr>
<td>3803</td>
<td>128.5 in.* [3,26 m]</td>
</tr>
</tbody>
</table>

* Includes 4 inch [101 mm] space for cooling air flow on electronics chassis side and 3 inch [76,2 mm] space for service clearance on opposite side.

** 36 inch corridors comply with ADA guidelines for corridor widths.
Model 3803 Dimensions:

**System Front View**

- "A" - 2.5 in. [63.5 mm]
- "A" - 36 in. [914 mm]
- "A" - 118 in. [2,99 m]
- "A" - 121.5 in. [3,08 m]
- "A" - 42 in. [1,06 m]
- "A" - 136 in. [3,45 m]
- "A" - 139.5 in. [3,54 m]

**System Side View**

- Alarm Indicator
- Cooling Fan System
- Power Cord 14 ft. [4.2 m]

**System Top View**

- "A" - 70 in. [1,77 m]
- "B" - 3.5 in. [88 mm]
- "B" - 21 in. [533 mm]
- "C" - 26 in. [660 mm]

**Corridor and System Width**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in. [914 mm]</td>
<td>118 in. [2,99 m]</td>
<td>121.5 in. [3,08 m]</td>
<td></td>
</tr>
<tr>
<td>42 in. [1,06 m]</td>
<td>136 in. [3,45 m]</td>
<td>139.5 in. [3,54 m]</td>
<td></td>
</tr>
</tbody>
</table>
Energy Profile:

1. Single phase electrical power is required.

2. Designed for worldwide use with internal (manual) switch selection for voltages from 100 to 240 VAC, 50 or 60 Hz.

3. Maximum RMS current draw:
   a. 100/120 VAC: 6.5
   b. 220/240 VAC: 3.2

4. Power cord: 16 ga, 3 wire, S- rating
   14 feet [4.3 m] long
   NEMA 5-15P plug type

5. Customer must supply an electrical outlet within the power cord length.

6. A dedicated circuit is not required but is recommended to prevent overloading and loss of security. A minimum circuit capacity of 15A is required. Circuit loading must not exceed 50% of the rated circuit current to ensure voltage stability.

Panel-to-Panel Wiring Requirements:

Floor mounted system, surface wiring:
   Wires enclosed in wire mold and covered by a threshold. No customer construction required.

Floor mounted system, wiring under floor:
   Wires enclosed in 1.25 inch [31.7 mm] I.D. PVC conduit, enter system through mounting foot. See Contractor Installation Instructions for Model 3803 with Buried Cable.

Power Wiring Requirements:

Surface Wiring:
   Power cord enclosed in 2600 series wire mold enters system through side of mounting foot or direct into electronics chassis. No customer construction required.

Under Floor Wiring:
   Floor mounted electrical box directly under electronic chassis, using sealed fitting and terminating to power cord. See Contractor Installation Instructions for Model 3803 with Buried Cables.

Shipping Weight and Size:

Model 3803: 310 pounds [140 kg]
Shipment Carton: 310 pounds [140 kg]
3803 Floor Mounted with Buried Cables 310 pounds [140 kg]

Options:

CCTV Monitor
Auxiliary Relay Contacts
Voice Alarm
Components:

The Model 3804 is a four corridor detection system consisting of five panels that are mounted directly to the floor. The electronics are enclosed in an electronics chassis that is attached to the panel. The standard corridors are 36 inches [914 mm] wide to comply with ADA (Americans with Disabilities Act). An alarm light is located on top of the panels to indicate which corridor is alarming. An audible alarm is located on top of one panel. The audible alarm level is adjustable. Power wiring and panel-to-panel wiring can be routed on the surface in UL listed wire mold or buried under the finished floor in an approved conduit. Other important product and installation facts are:

1. System can be rotated 180° to reverse the power entry and electronics chassis location.
2. Color: Pantone Cool Gray 4C.
3. System must be located on a level surface.
4. System installation location must comply with Model 3800 System Layout Checklist to avoid performance problems.
5. For cooling air flow and service, the system must be installed with the following minimum clearances between the panels and surrounding walls or objects:
   a. Fan on electronics chassis must be at least 4 inches [101 mm] away from solid objects.
   b. Panels should be at least 3 inches [76.2 mm] from walls.
   c. The minimum width opening requirements are shown in Table A.
6. Remote Electronics is not an option on 3804.

Power Requirements:

3M Model 3804 is a computer-based device which requires high quality, surge free, and noise free electrical power for optimum performance.

This product is classified as a Security System and, as such, UL requires that these systems be connected to an electrical supply that is not controlled by a switch (e.g. light switch).

<table>
<thead>
<tr>
<th>System Option</th>
<th>Minimum Opening Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridor Width</td>
<td>36 in.**</td>
</tr>
<tr>
<td>3804</td>
<td>167 in.*</td>
</tr>
<tr>
<td></td>
<td>[4.24 m]</td>
</tr>
</tbody>
</table>

* Includes 4 inch [101 mm] space for cooling air flow on electronics chassis side and 3 inch [76.2 mm] space for service clearance on opposite side.

** 36 inch corridors comply with ADA guidelines for corridor widths.
Model 3804 Dimensions:

System Front View

System Side View

System Top View

Corridor and System Width

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in. [914 mm]</td>
<td>160 in. [4,06 m]</td>
</tr>
</tbody>
</table>
Energy Profile:

1. Single phase electrical power is required.
2. Designed for worldwide use with internal (manual) switch selection for voltages from 100 to 240 VAC, 50 or 60 Hz.
3. Maximum RMS current draw:
   a. 100/120 VAC: 6.5A
   b. 220/240 VAC: 3.2A
4. Power cord: 16 ga, 3 wire, S- rating
   14 feet [4.3 m] long
   NEMA 5-15P plug type
5. Customer must supply an electrical outlet within the power cord length.
6. A dedicated circuit is not required but is recommended to prevent overloading and loss of security. A minimum circuit capacity of 15A is required. Circuit loading must not exceed 50% of the rated circuit current to ensure voltage stability.

Panel-to-Panel Wiring Requirements:

Floor mounted system, surface wiring:
Wires enclosed in wire mold and covered by a threshold. No customer construction required.

Floor mounted system, wiring under floor:
Wires enclosed in 1.25 inch [31.7 mm] I.D. PVC conduit, enter system through mounting foot. See Contractor Installation Instructions for Model 3804 with Buried Cable.

Power Wiring Requirements:

Surface Wiring:
Power cord enclosed in 2600 series wire mold enters system through side of mounting foot or direct into electronics chassis. No customer construction required.

Under Floor Wiring:
Floor mounted electrical box directly under electronic chassis, using sealed fitting and terminating to power cord. See Contractor Installation Instructions for Model 3804 with Buried Cables.

Shipping Weight and Size:
- Model 3804: 370 pounds [167 kg]
- Shipping Carton: 415 pounds [188 kg]
- Model 3804 Floor Mounted: 415 pounds [188 kg]

Options:
- CCTV Monitor
- Auxiliary Relay Contacts
- Voice Alarm

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Contractor Installation Instructions for
3M Model 3800 Buried Power

Note
Read all installation instructions before starting procedures. If there are any questions, call 3M Technical Service. 1-800-328-0067 option #6.

Materials Required

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Steel floor box, conduit, and associated wiring</td>
<td>Electrical Contractor</td>
</tr>
<tr>
<td>2. Floor box cover plate, gasket, and carpet ring if needed</td>
<td>Electrical Contractor</td>
</tr>
<tr>
<td>3. AC power cord (part of Model 3800 System)</td>
<td>3M</td>
</tr>
<tr>
<td>4. Device to cut trench in floor</td>
<td>Contractor</td>
</tr>
<tr>
<td>5. Material to fill in around and cover conduit after trench is cut</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

Installation Procedure

1. Install a steel floor box. Position box per Model 3801, 3802, 3803 or 3804 Contractor Layout Plan and figure 1. Floor box is typically 5 inches x 5 inches [127 x 127 mm], with a 4 inch [101 mm] cover flange. Some variations from the different suppliers utilize boxes with "pre-pour" and "after-pour" level adjustments. If necessary, request assistance from a 3M Service Technician in positioning floor box. The floor box cannot be located under the detection system. It must be off to the side of the lattice.

2. Complete wiring from floor box to 15-20 Amp circuit, preferably dedicated for the security system.

3. At system install, terminate system power cord to circuit wires, install gasket, cover plate, and carpet ring if required. Allow an extra 2 feet [609 mm] of power cord to be stored in the 3800 electronics chassis.

4. The 3M Service Technician will energize and check out the system.
Contractor Installation Instructions for 3M Model 3801 with Buried Cables (36 in. and 42 in. Corridors)

Note
Read all installation instructions before starting this installation procedure. If there are any questions, contact 3M Library Systems, Technical Service, 1-800-328-0067, option #6. If AC power wiring is also buried, see “Contractor Installation Instructions for 3M Model 3800 Buried Power”.

Materials Required

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Model 3801 and mounting hardware</td>
<td>3M</td>
</tr>
<tr>
<td>2. Rigid non-metallic conduit, 1.25 inch [31,7 mm] I.D. as defined in figure 1</td>
<td>Contractor</td>
</tr>
<tr>
<td><strong>Important Note:</strong> If metal conduit is used, make sure that it only extends a maximum of ¼ in. above the floor surface and that it does not touch any metal (including other metal conduit).</td>
<td></td>
</tr>
<tr>
<td>3. Concrete as required to pour floor</td>
<td>Contractor</td>
</tr>
<tr>
<td>4. Device to cut trench in floor (for existing construction)</td>
<td>Contractor</td>
</tr>
<tr>
<td>5. Materials to hold conduit in position while pouring floor</td>
<td>Contractor</td>
</tr>
<tr>
<td>6. Finish flooring</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

Installation Procedure

These instructions will be used by 3M installers and the contractor to ensure proper installation of the Model 3801 Detection System and buried cables.

1. At the request of the contractor, the 3M installer will visit the site to examine the site for an acceptable environment and to locate the system in an acceptable location. System setup and testing may be required to verify the location is acceptable.

2. Using the “Model 3801 Contractor Layout Plan”, the contractor will position and install the “Panel-to-Panel Conduit” and “AC Power Conduit” for each system. See figure 1. For installation details for buried AC power, see “Contractor Installation Instructions for 3M Model 3800, Buried Power”. The “Panel-to-Panel Conduit” must have a minimum I.D. of 1.25 inch [31,7 mm] to accept cables. If this conduit has an I.D. of less than 1.25 inch [31,7 mm] there will be an additional charge at installation.

3. Each bend radius in 1.25 inch [31,7 mm] conduit must be typical to the electrical industry. Water type 90° bends or fittings are not acceptable.

4. The contractor must avoid placing conduit or reinforcing rods in the anchor area of the mounting feet. Concrete in the area under the system mounting hardware must be a minimum of 3.5 inches [89 mm] thick for anchoring.

5. The contractor will complete the sub floor and finished floor in the installation area and will complete the AC power wiring to the site.

6. The 3M installer will install the system, anchors, and panel-to-panel wiring.

7. The contractor will provide an electrician for AC power wiring hookup to the system power cord.

8. The 3M installer will energize the system and will complete operational checks and adjustments.
**3M Model 3801 Buried Cable (36 in. and 42 in. Corridors)**

**Figure 1**

**Dimension “A” Table**

<table>
<thead>
<tr>
<th>Corridor Width</th>
<th>“A”</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in.*</td>
<td>38.5 in. [977 mm]</td>
</tr>
<tr>
<td>42 in.*</td>
<td>44.5 in. [1,13 m]</td>
</tr>
</tbody>
</table>

* 36 inch and 42 inch corridors comply with ADA guidelines for corridor widths.

See “Model 3801 Contractor Layout Plan” for exact location of conduits. **Location is critical because conduits must enter openings in system mounting hardware.**

**Notes**

1. Maximum depth of 1.25” [31.7 mm] I.D. conduit is 18 inches [457 mm] due to length of panel-to-panel cables.

2. Panel-to-panel conduit must not extend more than 3/8 inch [9.5 mm] above the finished floor.

3. Conduit and reinforcing rod must not interfere with anchor bolt locations.

4. Floor box for AC power must be located on the same side of the system as the electronics chassis.

5. For existing floors, the floor must be core drilled or trenched to accept buried conduits. Trench width should be kept to a minimum to avoid weakening the concrete in the anchor area.

6. Floor in area of mounting hardware must be flat, level, and high quality concrete. Minimum concrete thickness is 3.5 inches [89 mm].

7. See “3M Model 3800 System Layout Checklist” for minimum distances to interfering objects.

---

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Model 3801 Contractor Layout Plan - Buried Wiring and Power (36 in. and 42 in. Corridor Widths)

<table>
<thead>
<tr>
<th>Corridor Width</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in.</td>
<td>38.5 in</td>
<td>41 in</td>
</tr>
<tr>
<td>42 in.</td>
<td>44.5 in</td>
<td>47.0 in</td>
</tr>
</tbody>
</table>

Notes:
1. Power source can be from either side of M3800.
2. Power cord length is 14 feet [4.2 m].
3. If underground power is required, use a Flush Mount Floor Box, terminate the power cord in floor box. See "Installation Instructions - Under Floor Power".
4. Floor must be level and flat in area under mounting foot for each panel, and a minimum of 3 1/2 inches [89 mm] thick.
5. Conduit and reinforcing rod must not be located in anchor hole area under mounting foot.
6. Cable supplied for buried wiring is adequate for conduit buried a maximum depth of 18 inches [457 mm].
7. 36 inch and 42 inch corridors comply with ADA guidelines for corridor widths.
8. Remember to allow space for electronic chassis, air flow and service.

For further information or assistance, please contact:

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Important:
See Model 3800 System Layout Checklist for minimum distance to interfering objects.

For installation Opening Width Requirements, add 10.5 in. [266 mm] to the "B" dimension for attached electronic chassis, cooling air requirements, and panel servicing.

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Contractor Installation Instructions for 3M Model 3802 with Buried Cables (36 in. and 42 in. Corridors)

Note
Read all installation instructions before starting this installation procedure. If there are any questions, contact 3M Library Systems, Technical Service, 1-800-328-0067, option #6. If AC power wiring is also buried, see “Contractor Installation Instructions for 3M Model 3800, Buried Power”.

Materials Required

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Model 3802 and mounting hardware</td>
<td>3M</td>
</tr>
<tr>
<td>2. Rigid non-metallic conduit, 1.25 inch [31,7 mm] I.D. as defined in figure 1</td>
<td>Contractor</td>
</tr>
<tr>
<td>Important Note: If metal conduit is used, make sure that it only extends a maximum of ¼ in. above the floor surface and that it does not touch any metal (including other metal conduit).</td>
<td></td>
</tr>
<tr>
<td>3. Concrete as required to pour floor</td>
<td>Contractor</td>
</tr>
<tr>
<td>4. Device to cut trench in floor (for existing construction)</td>
<td>Contractor</td>
</tr>
<tr>
<td>5. Materials to hold conduit in position while pouring floor</td>
<td>Contractor</td>
</tr>
<tr>
<td>6. Finish flooring</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

Installation Procedure

These instructions will be used by 3M installers and the contractor to ensure proper installation of the Model 3802 Detection System and buried cables.

1. At the request of the contractor, the 3M installer will visit the site to examine the site for an acceptable environment and to locate the system in an acceptable location. System setup and testing may be required to verify the location is acceptable.

2. Using the “Model 3802 Contractor Layout Plan”, the contractor will position and install the “Panel-to-Panel Conduit” and “AC Power Conduit” for each system. See figure 1. For installation details for buried AC power, see “Contractor Installation Instructions for 3M Model 3800, Buried Power”. The “Panel-to-Panel Conduit” must have a minimum I.D. of 1.25 inch [31,7 mm] to accept cables. If this conduit has an I.D. of less than 1.25 inch [31,7 mm] there will be an additional charge at installation.

3. Each bend radius in 1.25 inch [31,7 mm] conduit must be typical to electrical industry. Water type 90° bends or fittings are not acceptable.

4. The contractor must avoid placing conduit or reinforcing rods in the anchor area of the mounting feet. Concrete in the area under the system mounting hardware must be a minimum of 3.5 inches [89 mm] thick for anchoring.

5. The contractor will complete the sub floor and finished floor in the installation area and will complete the AC power wiring to the site.

6. The 3M installer will install the system, anchors, and panel-to-panel wiring.

7. The contractor will provide an electrician for AC power wiring hookup to the system power cord.

8. The 3M installer will energize the system and will complete operational checks and adjustments.
3M Model 3802 Buried Cable (36 in. and 42 in. Corridors)

Figure 1

<table>
<thead>
<tr>
<th>Corridor Width</th>
<th>“A”</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in.*</td>
<td>38.5 in. [977 mm] * 36 inch and 42 inch corridors comply with ADA guidelines for corridor widths.</td>
</tr>
<tr>
<td>42 in.*</td>
<td>44.5 in. [1,13 m]</td>
</tr>
</tbody>
</table>

See “Model 3802 Contractor Layout Plan” for exact location of conduits. **Location is critical because conduits must enter openings in system mounting hardware.**

**Notes**

1. Maximum depth of 1.25 inch [31.7 mm] I.D. conduit is 18 inches [457 mm] due to length of panel-to-panel cables.

2. Panel-to-panel conduit must not extend more than 3/8 inch [9.5 mm] above the finished floor.

3. Conduit and reinforcing rod must not interfere with anchor bolt locations.

4. Floor box for AC power must be located on the same side of the system as the electronics chassis.

5. For existing floors, the floor must be core drilled or trenched to accept buried conduits. Trench width should be kept to a minimum to avoid weakening the concrete in the anchor area.

6. Floor in area of mounting hardware must be flat, level, and high quality concrete. Minimum concrete thickness is 3.5 inches [89 mm].

7. See “3M Model 3800 System Layout Checklist” for minimum distances to interfering objects.

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Model 3802 Contractor Layout Plan - Buried Wiring and Power
(36 in. and 42 in. Corridor Widths)

Section A-A
Conduit Radius to be Typical to Electrical Industry Standards
1 1/8 in. [31.7 mm] L.D.
Higrid Non-Metallic Conduit

"A" 0.25-0.5 in. [6-12 mm]

"A"

Corridor Width
2.5 in. [63.5 mm]

26 in. [660 mm]

Panel-to-Panel Wire Inlet
1 in. x 3 in. [25 mm x 70 mm]

Electronic Chassis
21 in. x 3.5 in.

8 ft. [2.4 m] min.
System to Door

5 ft. [1.5 m] min.
System to Door

Mounting Foot Outline

Mounting Foot

Anchor Holes (4 per Foot)
6.25 in. [158 mm]

10.25 in. [260 mm]

6.25 in. [158 mm]

Important:
See Model 3800 System Layout Checklist for minimum distance to interfering objects.

Notes:
1. Power source can be from either side of M3800.
2. Power cord length is 14 feet [4.27 m].
3. If underground power is required, use a Flush Mount Floor Box, terminate the power cord in floor box. See "Installation Instructions - Under Floor Power".
4. Floor must be level and flat in area under mounting foot for each panel, and a minimum of 3 1/2 inches [89 mm] thick.
5. Conduit and reinforcing rod must not be located in anchor hole area under mounting foot.
6. Cable supplied for buried wiring is adequate for conduit buried a maximum depth of 18 inches [457 mm].
7. 36 inch and 42 inch corridors comply with ADA guidelines for corridor widths.
8. Remember to allow space for electronic chassis, air flow and service.

For further information or assistance, please contact:
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1-800-328-0067

For Installation Opening Width Requirements, add 10.5 in. [266 mm] to the "B" dimension for attached electronic chassis, cooling air requirements, and panel servicing.

 dimension "A" and "B" Table

<table>
<thead>
<tr>
<th>Corridor Width</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in.</td>
<td>38.5 in. [977 mm]</td>
<td>79.5 in. [2.01 m]</td>
</tr>
<tr>
<td>42 in.</td>
<td>44.5 in. [1,113 mm]</td>
<td>91.5 in. [2.32 m]</td>
</tr>
</tbody>
</table>

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2-23
Contractor Installation Instructions for 3M Model 3803 with Buried Cables (36 in. and 42 in. Corridors)

Note
Read all installation instructions before starting this installation procedure. If there are any questions, contact 3M Library Systems, Technical Service, 1-800-328-0067, option #6. If AC power wiring is also buried, see “Contractor Installation Instructions for 3M Model 3800, Buried Power”.

Materials Required

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Model 3803 and mounting hardware</td>
<td>3M</td>
</tr>
<tr>
<td>2. Rigid non-metallic conduit, 1.25 inch [31,7 mm] I.D. as defined in figure 1</td>
<td>Contractor</td>
</tr>
<tr>
<td>Metallic conduit can be substituted for non-metallic if required by code.</td>
<td></td>
</tr>
<tr>
<td>Important Note: If metal conduit is used, make sure that it only extends a maximum of ¼ in. above the floor surface and that it does not touch any metal (including other metal conduit).</td>
<td></td>
</tr>
<tr>
<td>3. Concrete as required to pour floor</td>
<td>Contractor</td>
</tr>
<tr>
<td>4. Device to cut trench in floor (for existing construction)</td>
<td>Contractor</td>
</tr>
<tr>
<td>5. Materials to hold conduit in position while pouring floor</td>
<td>Contractor</td>
</tr>
<tr>
<td>6. Finish flooring</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

Installation Procedure

These instructions will be used by 3M installers and the contractor to ensure proper installation of the Model 3803 Detection System and buried cables.

1. At the request of the contractor, the 3M installer will visit the site to examine the site for an acceptable environment and to locate the system in an acceptable location. System setup and testing may be required to verify the location is acceptable.

2. Using the “Model 3803 Contractor Layout Plan”, the contractor will position and install the “Panel-to-Panel Conduit” and “AC Power Conduit” for each system. See figure 1. For installation details for buried AC power, see “Contractor Installation Instructions for 3M Model 3800, Buried Power”. The “Panel-to-Panel Conduit” must have a minimum I.D. of 1.25 inch [31,7 mm] to accept the system cables. If this conduit has an I.D. of less than 1.25 inch [31,7 mm] there will be an additional charge at installation.

3. Each bend radius in 1.25 inch [31.7 mm] conduit must be typical to electrical industry. Water type 90° bends or fittings are not acceptable.

4. The contractor must avoid placing conduit or reinforcing rods in the anchor area of the mounting feet. Concrete in the area under the system mounting hardware must be a minimum of 3.5 inches [89 mm] thick for anchoring.

5. The contractor will complete the sub floor and finished floor in the installation area and will complete the AC power wiring to the site.

6. The 3M installer will install the system, anchors, and panel-to-panel wiring.

7. The contractor will provide an electrician for AC power wiring hookup to the system power cord.

8. The 3M installer will energize the system and will complete operational checks and adjustments.
3M Model 3803 Buried Cable (36 in. and 42 in. Corridors)

Figure 1

<table>
<thead>
<tr>
<th>Dimension “A” Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridor Width</td>
</tr>
<tr>
<td>36 in.*</td>
</tr>
<tr>
<td>42 in.</td>
</tr>
</tbody>
</table>

"36 inch corridors comply with ADA guidelines for corridor widths.

See “Model 3803 Contractor Layout Plan” for exact location of conduits. **Location is critical because conduits must enter openings in system mounting hardware.**

**Notes**

1. Maximum depth of 1.25 inch [31,7 mm] I.D. conduit is 18 inches [457 mm] due to length of panel-to-panel cables.

2. Panel-to-panel conduit must not extend more than 3/8 inch [9,5 mm] above the finished floor.

3. Conduit and reinforcing rod must not interfere with anchor bolt locations.

4. Floor box for AC power must be located on the same side of the system as the electronics chassis.

5. For existing floors, the floor must be core drilled or trenched to accept buried conduits. Trench width should be kept to a minimum to avoid weakening the concrete in the anchor area.

6. Floor in area of mounting hardware must be flat, level, and high quality concrete. Minimum concrete thickness is 3.5 inches [89 mm].

7. See “3M Model 3800 System Layout Checklist” for minimum distances to interfering objects.
Model 3803 Contractor Layout Plan - Buried Wiring and Power
(36 in. and 42 in. Corridor Widths)

Conduit Radius to be
Typical to Electrical
Industry Standards

"A" 1 1/4 in. [31.7 mm] LD.
Rigid Non-Metallic Conduit

"A" 1 1/4 in. [31.7 mm] LD.
Rigid Non-Metallic Conduit

"A" 1 1/4 in. [31.7 mm] LD.
Rigid Non-Metallic Conduit

Notes:
1. Power source can be from either side of M3800.
2. Power cord length is 14 feet (4.3 m)
3. If underground power is required, use a Flush Mount
   Floor Box, terminate the power cord in floor box.
   See "Installation Instructions - Under Floor Power".
4. Floor must be level and flat in area under mounting foot
   for each panel, and a minimum of 3 1/2 inches [89 mm] thick.
5. Conduit and reinforcing rod must not be located in anchor
   hole area under mounting foot
6. Cable supplied for burial wiring is adequate for conduit buried
   a maximum depth of 18 inches [457 mm].
7. 36 inch corridors comply with ADA guidelines for
   corridor widths.
8. Remember to allow space for electronic chassis, air flow and
   service.

For further information or assistance, please contact:
3M Library Systems
3M Center, Bldg. 225-4N-14
St. Paul, Minnesota 55144-1000
1-800-328-0067

Important:
See Model 3800 System
Layout Checklist for minimum
distance to interfering objects.

For Installation Opening Width Requirements, add
10.5 in. [266 mm] to the "B" dimension for attached
electronic chassis, cooling air requirements, and
panel servicing.

<table>
<thead>
<tr>
<th>Corridor Width</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in.</td>
<td>36.5 in. [927 mm]</td>
<td>110 in. [2,899 mm]</td>
</tr>
<tr>
<td>42 in.</td>
<td>44.5 in. [1,126 mm]</td>
<td>130 in. [3,302 mm]</td>
</tr>
</tbody>
</table>

Dimension "A" and "B" Table

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Contractor Installation Instructions for 3M Model 3804 with Buried Cables (36 in. Corridors)

Note
Read all installation instructions before starting this installation procedure. If there are any questions, contact 3M Library Systems, Technical Service, 1-800-328-0067, option #6. If AC power wiring is also buried, see “Contractor Installation Instructions for 3M Model 3800, Buried Power”.

Materials Required

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Model 3804 and mounting hardware</td>
<td>3M</td>
</tr>
<tr>
<td>2. Rigid non-metallic conduit, 1.25 inch [31.7 mm] I.D. as defined in figure 1</td>
<td>Contractor</td>
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</table>

Installation Procedure

These instructions will be used by 3M installers and the contractor to ensure proper installation of the Model 3804 Detection System and buried cables.

1. At the request of the contractor, the 3M installer will visit the site to examine the site for an acceptable environment and to locate the system in an acceptable location. System setup and testing may be required to verify the location is acceptable.

2. Using the “Model 3804 Contractor Layout Plan”, the contractor will position and install the “Panel-to-Panel Conduit” and “AC Power Conduit” for each system. See figure 1. For installation details for buried AC power, see “Contractor Installation Instructions for 3M Model 3800, Buried Power”. The “Panel-to-Panel Conduit” must have a minimum I.D. of 1.25 inch [31.7 mm] to accept the system cables. If this conduit has an I.D. of less than 1.25 inch [31.7 mm] there will be an additional charge at installation.

3. Each bend radius in 1.25 inch [31.7 mm] conduit must be typical to electrical industry. Water type 90° bends or fittings are not acceptable.

4. The contractor must avoid placing conduit or reinforcing rods in the anchor area of the mounting feet. Concrete in the area under the system mounting hardware must be a minimum of 3.5 inches [89 mm] thick for anchoring.

5. The contractor will complete the sub floor and finished floor in the installation area and will complete the AC power wiring to the site.

6. The 3M installer will install the system, anchors, and panel-to-panel wiring.

7. The contractor will provide an electrician for AC power wiring hookup to the system power cord.

8. The 3M installer will energize the system and will complete operational checks and adjustments.
3M Model 3804 Buried Cable (36 in. Corridors)

Figure 1

<table>
<thead>
<tr>
<th>Corridor Width</th>
<th>“A”</th>
<th>* 36 inch corridors comply with ADA guidelines for corridor widths.</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in.*</td>
<td>38.5 in. [977 mm]</td>
<td></td>
</tr>
</tbody>
</table>

See "Model 3804 Contractor Layout Plan" for exact location of conduits. **Location is critical because conduits must enter openings in system mounting hardware.**

**Notes**

1. Maximum depth of 1.25 inch [31.7 mm] I.D. conduit is 18 inches [457 mm] due to length of panel-to-panel cables.

2. Panel-to-panel conduit must not extend more than 3/8 inch [9.5 mm] above the finished floor.

3. Conduit and reinforcing rod must not interfere with anchor bolt locations.

4. Floor box for AC power must be located on the same side of the system as the electronics chassis.

5. For existing floors, the floor must be core drilled or trenched to accept buried conduits. Trench width should be kept to a minimum to avoid weakening the concrete in the anchor area.

6. Floor in area of mounting hardware must be flat, level, and high quality concrete. Minimum concrete thickness is 3.5 inches [89 mm].

7. See "3M Model 3800 System Layout Checklist" for minimum distances to interfering objects.
Model 3804 Contractor Layout Plan - Buried Wiring and Power
(36 in. Corridor Widths)

Notes:
1. Power source can be from either side of 38004.
2. Power cord length is 14 feet (4.2 m).
3. If underground power is required, use a Flush Mount Floor Box, terminate the power cord in floor box. See "Installation Instructions - Under Floor Power".
4. Floor must be level and flat in area under mounting foot for each panel, and a minimum of 1/2 inches (299 mm) thick.
5. Conduit and reinforcing rod must not be located in another hole area under mounting foot.
6. Cable supplied for buried wiring is adequate for conduit buried a maximum depth of 18 inches (457 mm).
7. 36 inch corridors comply with ADA guidelines for corridor widths.
8. Remember to allow space for electronic access, air flow and service.

For further information or assistance, please contact:
3M Library Systems
3M Center, Bldg. 225-6M-14
St. Paul, Minnesota 55144-1000
1-800-328-0007

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<td>36 in.</td>
</tr>
</tbody>
</table>

For installation Overhead Width Requirements, add 18.0 in. (299 mm) to the "B" dimension for attached electronic chassis, cabling air requirements, and panel spacing.

Conduit Radius to Be Typical to Electrical Industry Standards
1/4 in. (6.4 mm) LD, Rigid Non Metallic Conduit

Conduit Foot Note
For installation Overhead Width Requirements, add 18.0 in. (299 mm) to the "B" dimension for attached electronic chassis, cabling air requirements, and panel spacing.

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