

Pharmacy Drive-up Systems

Installation Manual

HAMILTON AIR®

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System Identification:

RX-SYS01 Drive-up pneumatic tube system with 3x5 window

Typically a reverse direction drive-up where as customer side of vehicle is not against building. System includes HA1000 with two-way video, exterior audio

handset, 3x5 window, and PBX tie-in.

RX-SYS02 Drive-up pneumatic tube system with "Hurricane" turbine

Typically used for remote locations or long run applications. System includes HA1000 with two-way video, hurricane turbine pack, exterior audio handset, and PBX tie-in. Turbine pack can be remotely mounted for long run applications.

RX-SYS03 Walk-up Drawer

System includes 3x3 window, 400DD, exterior handset, and PBX tie-in

RX-SYS04 <u>Drive-up Drawer</u>

System includes 3x5 window, DCD-18, exterior handset, and PBX tie-in

RX-SYS05 Drive-up pneumatic tube system with 3x5 window and DCD-18

Typical drive-up system with one drawer lane against building and one pneumatic tube lane. System includes HA1000 with two-way video, 3x5 window, DCD-18,

exterior audio handsets, and PBX tie-in.

RX-CC01 Secure Credit Card Enclosure for Pneumatic Lane

Enclosure houses two-way video and credit card machine.

RX-IR01 Vehicle IR detection kit

Kit includes Optex LX-402 IR sensor, Chime, and power supply.

RX-OCSIGN Open/Closed Sign with switch (Installed by others)

Kit includes signal tech signs with lane status switches.

HA-1000 Pneumatic Tube System

Important:

HA-1000 system requires CAT5 interconnection

All Models that include the I/O control boards (E0873) are interconnected from customer to teller unit with a single **CAT5 cable** (E0889).

Preoperational settings and inspections

All Micro-Switches

All micro-switches should be inspected for proper adjustment and operation by manually moving the door and safety bar before operating unit. Switches should be set to allow for variations in the set-points due to temperature changes and/or vibrations. This will insure that all adjustments and operations are satisfactory.

HA1000 Jumper Settings

Jumper #1 (JP1)	Manual Teller = $JP1 - ON$
Jumper #2 (JP2)	Manual Teller = JP2 – ON
Jumper #3 (JP3)	Manual Teller = JP2 – ON

Door Auto-Close Option

There is a fourth jumper that can be placed across pins #1 and #2 on the J4 input connector that will enable the door auto-close feature. This optional feature when activated by this jumper closes the customer door after three minutes of no activity with the unit. After the door has auto-closed, pressing either the send or teller call buttons will re-open the door for the customers.

HA1000 Switch Settings

The switches on the control boards are used to set functions and test operations. There are three slide switches and one pushbutton switch located on the control boards. The three slide switches are labeled #1, #2, and #3 while the fourth pushbutton switch (SW4) is labeled "Carrier Recall". Momentarily pressing SW4 recalls the carrier to this end of the tube system.

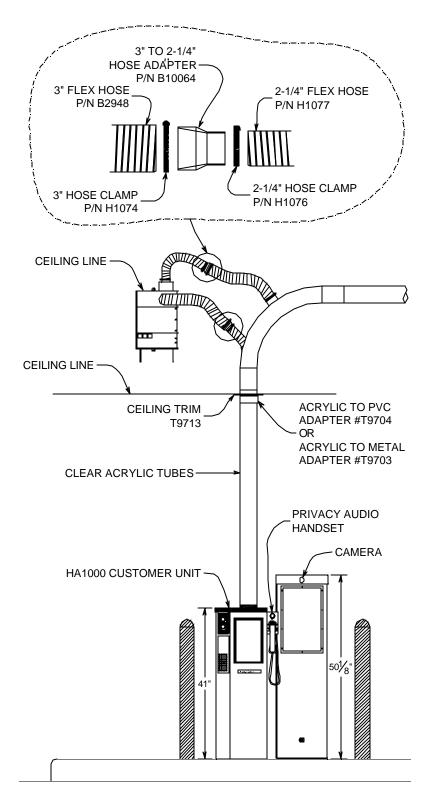
Standard switch settings for Customer mounted control board

SW1	Switch 1: Blower Run Time Set. "Off" is normal setting. Switching "On" enables
	blower "Time-Set" mode. See "Blower Run Time Set" for full instructions on setting
	blower run times.

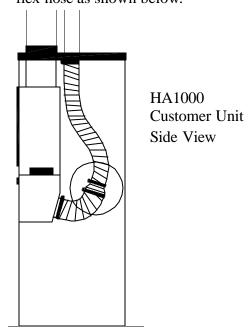
- •Activate "Turbine Test Mode" by holding SW4 while switching SW1 "On" if customer door is open and turbines are connected to this control board. Send and teller call will activate the pressure and vacuum turbines.
- •If SW3 is turned on before SW1, the unit will enter "Door Test Mode" which allows send and teller call buttons to operate the customer door motor open and closed.
- SW2 Switch 2: **Turbine Mode.** "Off" is normal setting with single stage turbine.
- SW3 Switch 3: <u>Unit Selection.</u> "Off" is normal setting for board mounted in customer unit.

Remote Mounted Turbine Pack

System RX-SYS05 includes the "Hurricane" turbine pack which increases carrier travel speed for long tube run applications. If the tube run is less than 200 feet in length, the turbine pack can be mounted inside the HA1000 customer unit. If the tube run is more than 200 feet in length and because the turbine motors will be running for extended time periods, the turbine pack should be mounted in the canopy above the customer unit. Below are instructions for a remote mounted turbine pack.

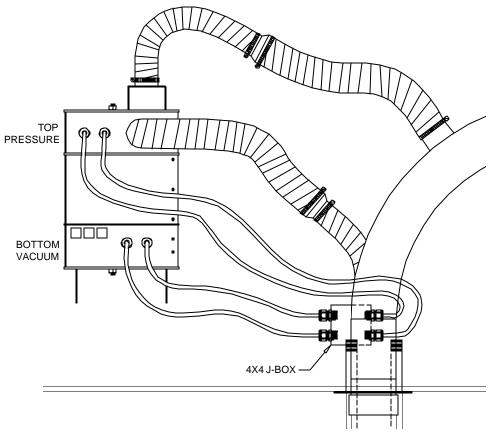


- 1) Install vented bend above customer unit in place of the standard non-vented bend.
- 2) Use acrylic to PVC or metal tubing adapter to connect acrylic tube to bend above customer unit.
- 3) Extend 2-1/4" acrylic brake tube into canopy area above customer unit.
- 4) Mount turbine pack above customer unit in canopy or other suitable location in close proximity.
- 5) Connect top turbine port to port on vented bend above customer unit with flex hose.
- 6) Connect side turbine port to 2-1/4" acrylic brake tube with flex hose.
- 7) Extend power wires from turbine pack down to customer unit control board and connect as normal.
- 8) Connect 2-1/4" top cap to 3" port inside HA1000 customer unit with flex hose as shown below.

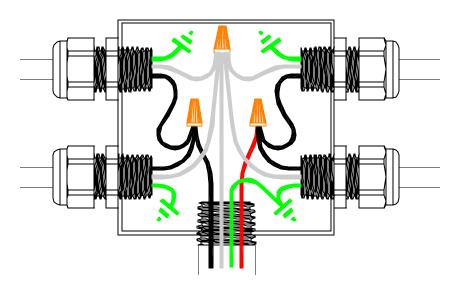


HA1000 Remote Mounted Turbine Pack Wiring

The "Hurricane" turbine pack has four power cords exiting the pack, two in the top chamber for the pressure motors and two in the lower chamber for the vacuum motors as shown below.



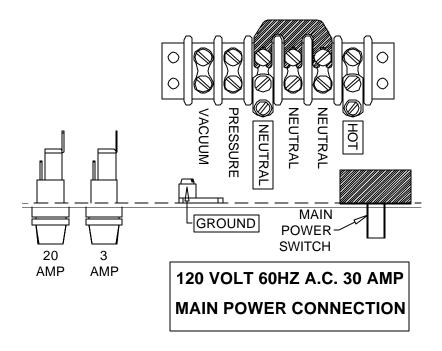
Connect the two black wires from the pressure motors to the red wire running down to the customer control board. Connect the two black wires from the vacuum motors to the black wire running down to the customer control board. Connect all four white wires from all four motors to the white wire running down to the customer control board. Connect all four green wires to the green or bare wire running down to the customer control board.



HA1000 Remote Mounted Turbine Pack Wiring

Turbine Power:

The wires connected to the turbine pack located above the canopy ceiling will need to extend down the conduit into the HA1000 customer unit control panel. In the lower corner of the control panel you will need to locate the terminal strip as shown below. Connect the red wire from the pressure motors to the terminal labeled "Pressure". Connect the black wire from the vacuum motors to the terminal labeled "Vacuum". Connect the white wire from all the motors to the terminal labeled "Neutral". Connect the green or bare wire from all the motors to the terminal labeled "Ground".



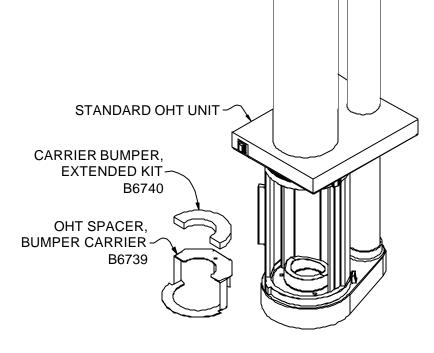
Main Power:

Connect the main power, 120 volt, 60Hz, 30 amp, to the terminal strip located in the HA1000 control panel as shown above. Connect the main hot wire to the terminal labeled "Hot". Connect the main neutral wire to the terminal labeled "Neutral". Connect the main ground wire to the terminal labeled "Ground".

Note: The main power switch in the HA1000 unit only disconnects the power from this main terminal strip to the rest of the control panel, it does not disconnect power coming from main power panel and connected to the lower terminal strip. A circuit breaker or power disconnect located in the main power panel will need to be switched off to disconnect all power from HA1000 unit.

Extended Carrier Bumper Kit

RX tube systems are sent with the larger capacity carrier that is blue in color. The HA1000 system requires the carrier bumpers to be lifted so this carrier will operate properly. The extended carrier bumper kit includes all parts necessary to lift both inside and outside carrier bumpers.



Installation instructions:

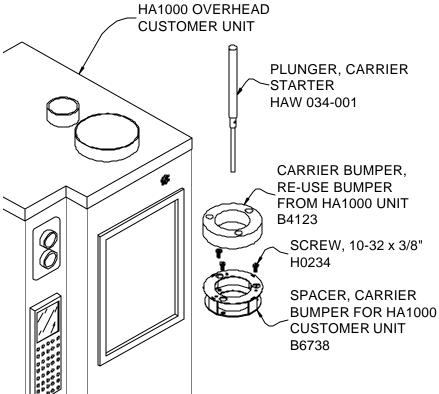
OHT Interior Unit

Kit includes metal bumper spacer and new bumper. Existing bumper remains in place.

- 1) Attach new carrier bumper to the extended metal frame with adhesive strip on back.
- 2) Attach bumper metal frame to inside OHT unit with adhesive strip on bottom of frame. Extended bumper frame fits around existing bumper and flap without removal.

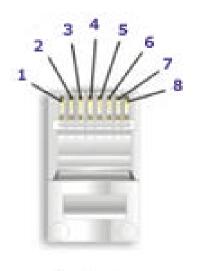
HA1000 Customer Unit

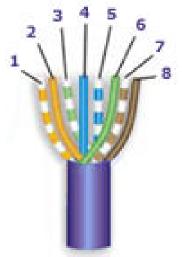
- 1) Remove carrier starter plunger from HA1000, and replace with longer plunger supplied in kit.
- 2) Remove carrier bumper with all hardware and save for step #4.
- 3) Install metal bumper spacer to existing bumper mounting holes in HA1000 using hardware provided.
- 4) Reinstall carrier bumper on to new bumper spacer using hardware removed with bumper in step #2.



CAT5 Interconnect Cable Wiring

The I/O control board system requires an interconnect cable to connect the manual teller unit to the control board located in the customer unit and/or the control board located in the teller unit to the control board located in the customer unit. This cable is a standard category 5 (CAT5) cable, Hamilton part number E0889, and terminated with male RJ-45 connectors on both ends. The connectors should be wired in the straight through design as shown below on both ends. There are commercially available testers that can be used to verify correct connector installation and function.



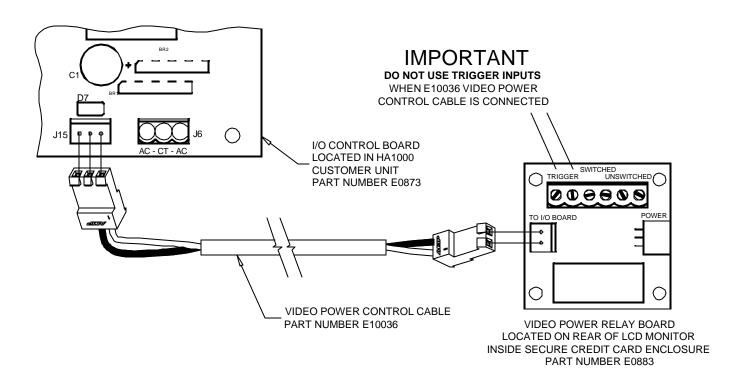


Wire	Pin #	Teller Connections
White/Orange	1	Spare
Orange	2	Teller Nigh Lock
White/Green	3	Teller Carrier Arrival
Blue	4	Teller Recall
White/Blue	5	Door Closed / Teller Send
Green	6	Common
White/Brown	7	RS485 A
Brown	8	RS485 B

Video Power Control Cable Installation

The E10036 video power control cable will be used to trigger the secure cabinet door operation along with video monitor power. E10036 cable has a three pin connector for connection with terminal #J15 on the E0873 I/O control board located in the HA1000 customer unit. The two pin connector on the opposite end of the E10036 cable connects to J3 on the E0883 relay board located on the back of the LCD monitor. Note, this cable does not power the secure enclosure door or video monitor, it only triggers the control relays. The power for the door motor and video equipment is supplied from a separate 5.5amp 12VDC power supply. See pages 21 and 22 for additional details.

Operation: video power will be controlled with the pneumatic units nightlock switch. When the unit is in normal operating mode, the rx-cc01 secure cabinet door should be powered open, and the video monitor on. Switching to nightlock mode will automatically close the secure enclosure and shut down the pneumatic tube lane.



HA1000 Blower Run-Time Set Procedure

The "blower run time" is set using switch number one (SW1), which is located on the control board in the customer unit. The unit is shipped with a default time stored of about 3 seconds. This procedure will overwrite any existing times set in system. This time can be reset as often as necessary. **Power failure will NOT affect the times stored.**

To restore default blower run times:

- 1) Turn power "OFF" to unit.
- 2) Turn SW1 "ON".
- 3) Turn power "ON" to unit.
- 4) Return SW1 to "OFF".
- 5) Default blower run time is restored.

The blower run time can be set with both directions of carrier travel using the same time or in a three stage cycle. The three stage cycle includes individual times for the two directions of carrier travel along with a third time for the carrier to free fall in the clear acrylic tube after the blowers stop and before the customer door opens.

Setting procedure for blower run time. (Single time for both directions)

- 1) Restore default times as described above.
- 2) Before beginning, the carrier must be in customer unit with customer door open.
- 3) Turn SW1 to the "ON" position. (LED indicator will light)
- 4) Push and hold either "Customer Send" or "Teller Recall" button until carrier arrives in the teller unit. Releasing button stores the time for this cycle.
 - •Note: For systems with carrier arrival switches at both ends, when the carrier arrives at the teller unit and activates the carrier arrival switch, the blowers will automatically turn off.
- 5) Turn SW1 to the "OFF" position to store the cycle time for both directions.
 - •Note: For systems with carrier arrival switches at both ends, the system will now run until it arrives and activates the carrier arrival switches at both customer and teller.

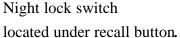
Setting procedure for blower run time. (Three stage cycle time)

- 1) Before beginning, the carrier must be in customer unit with customer door open.
- 2) Turn SW1 to the "ON" position. (LED indicator will light)
- 3) Push and hold either "Customer Send" or "Teller Recall" button until carrier arrives in the teller unit. Releasing button stores the time for this cycle.
- 4) Push and hold either "Teller Send" or "Teller Call" button until carrier arrives in the clear acrylic tube on the customer unit. Releasing the button stores the time held for this cycle. (Turbines will shut off, customer door stays closed)
- 5) When carrier lands in customer unit, press and release "Teller Call" button to open the door. This stores a third time for carrier free fall time in the clear acrylic tubing.
 - Turn SW1 to the "Off" position for normal operation.

Night Lock Switch on Over Head Teller

Night lock operation.

The night lock function is used to turn the lane off for the night or whenever the lane will not be used. The night lock function will close the customer unit and call the carrier inside, if needed, to prevent outside use of the lane. If there is a video monitor connected to the control circuit using Hamilton cable #E10036, the night lock function will also turn the video monitor off for this lane. Note, if multiple lanes are installed, each lane will have its own separate night lock switch.

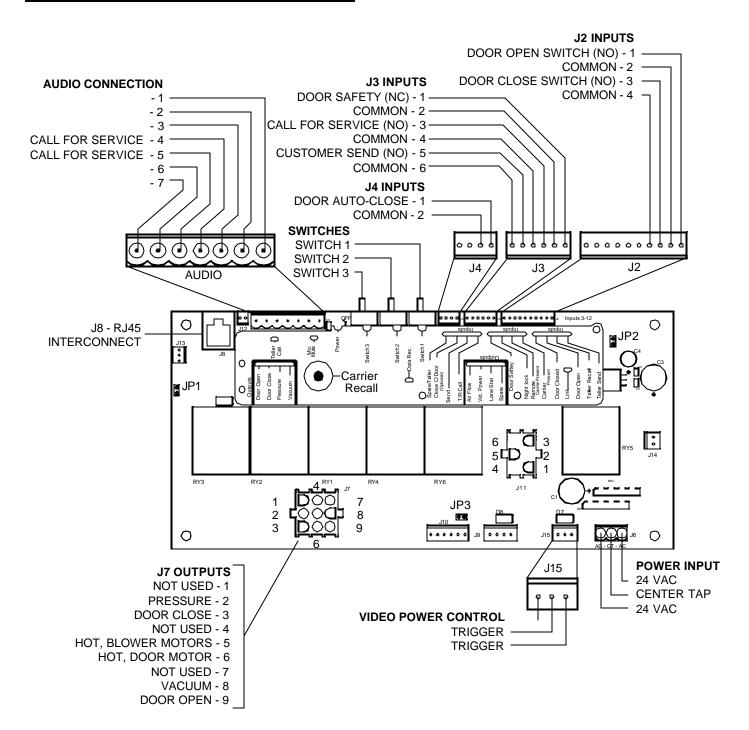




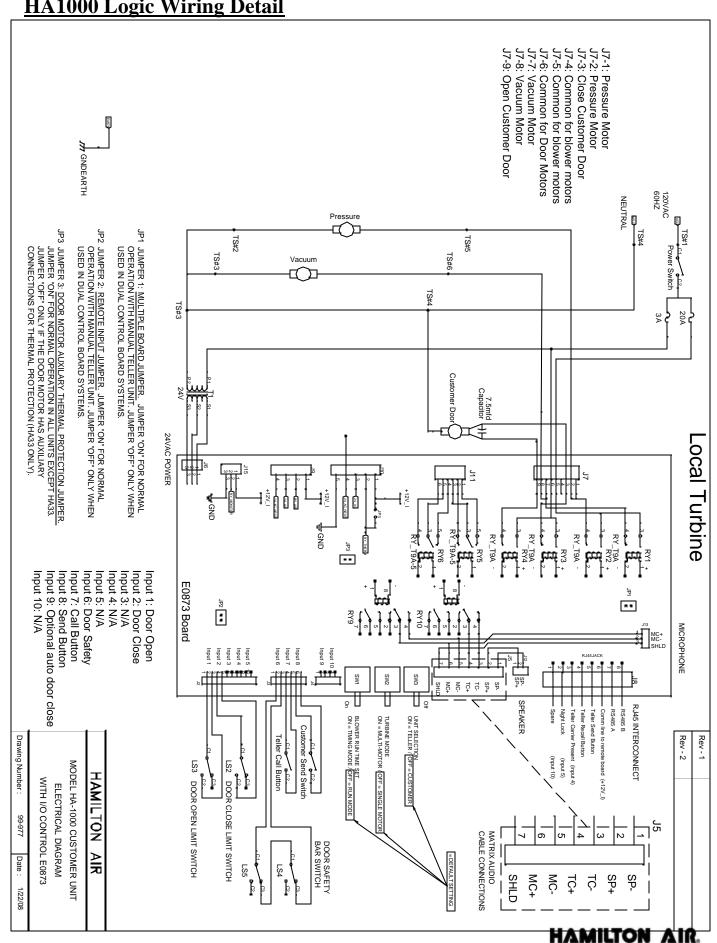
The night lock switch is shown pushed to the back which is the normal run position.

Pulling the switch forward will put the lane in the night lock mode.

HA1000 Control Board Connections



HA1000 Logic Wiring Detail

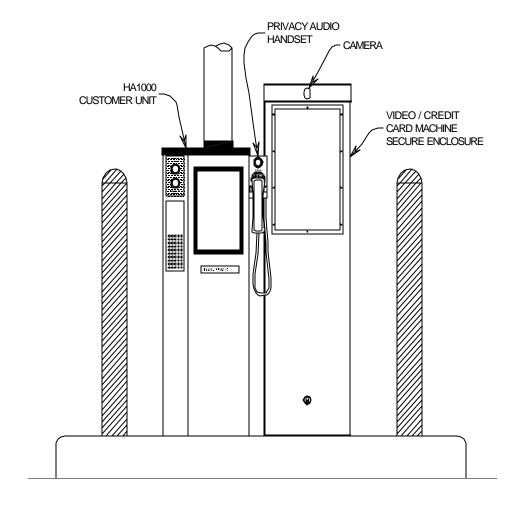


Pharmacy Audio Handset Mounting

The pharmacy drive-up audio consist of a customer phone handset unit with a microphone and speaker mounted in the phone enclosure. The phone enclosure should be mounted as shown below so that the handset will be within easy reach of the customer from their vehicle.

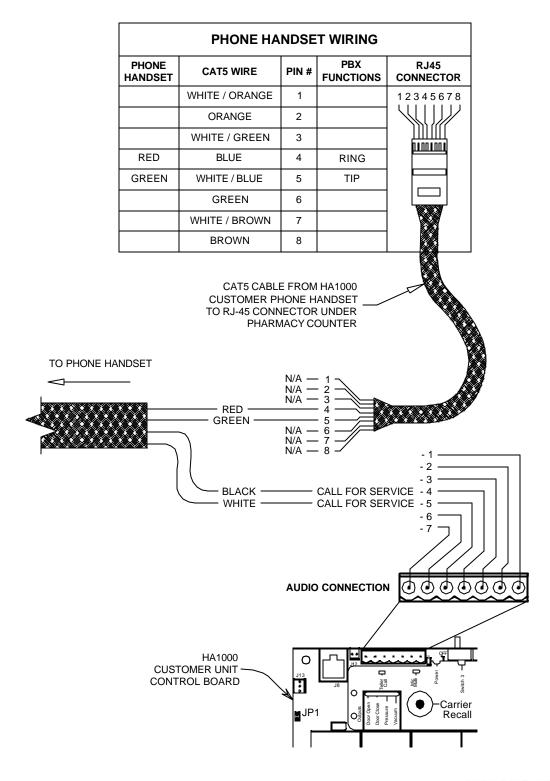
Attached phone enclosure to side of HA1000 front panel using screws provided in phone handset kit.

Feed wires from phone enclosure into the HA1000 customer unit so connections can be made as explained in this manual.



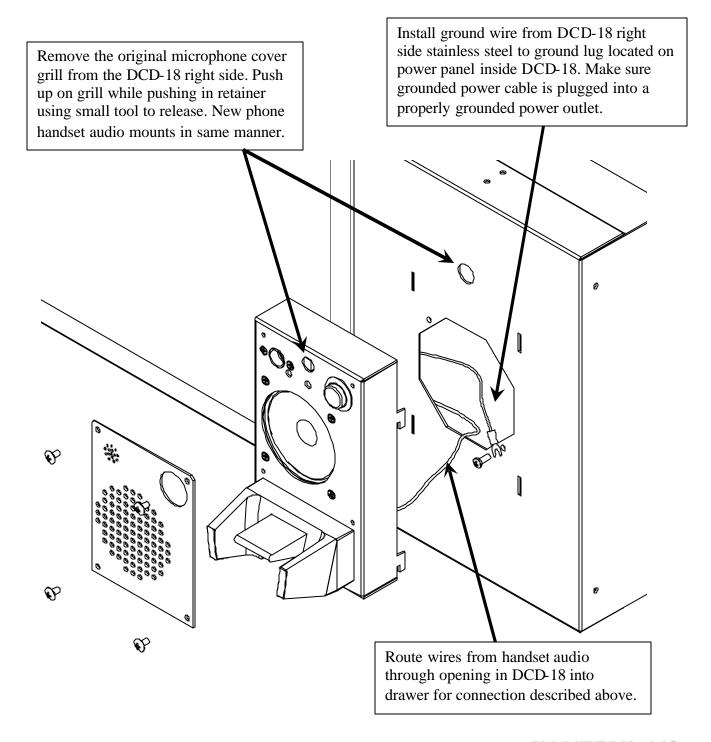
Pharmacy Audio Handset Connections

The phone requires a single CAT5 cable from the customer unit to inside under the pharmacy counter. The pharmacy Tell-Com provider will supply a properly formatted jack for the connection of this cable under the pharmacy counter. Install an RJ-45 connector to the audio CAT5 cable under the pharmacy counter using the T568B configuration as shown in the chart below. Inside the HA1000 customer unit, connect the CAT5 cable to the phone handset red and green wires also shown below. Connect the call circuit from the HA1000 to the phone handset black and white wires as shown below.



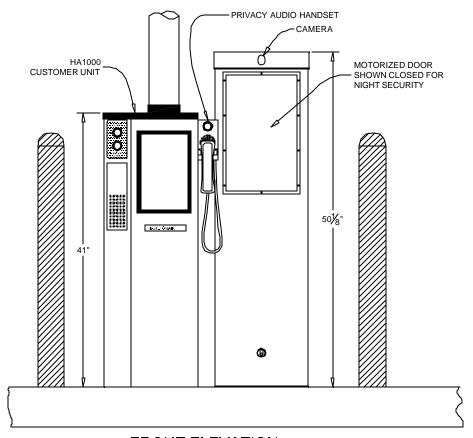
Pharmacy Audio Handset Mounting on Transaction Drawer

Note: Before installing audio system, install ground wire as shown from ground lug on power panel inside DCD-18 drawer up to the right side stainless steel panel where the new audio phone handset will mount. The phone requires a single CAT5 cable from the customer unit to inside under the pharmacy counter. The pharmacy Tell-Com provider will supply a properly formatted jack for the connection of this cable under the pharmacy counter. Install an RJ-45 connector to the audio CAT5 cable under the pharmacy counter using the T568B configuration shown previously. Inside the DCD-18 transaction drawer unit, connect the CAT5 cable to the phone handset red and green wires also shown previously. Connect the call circuit from the DCD-18 transaction drawer to the phone handset black and white wires.

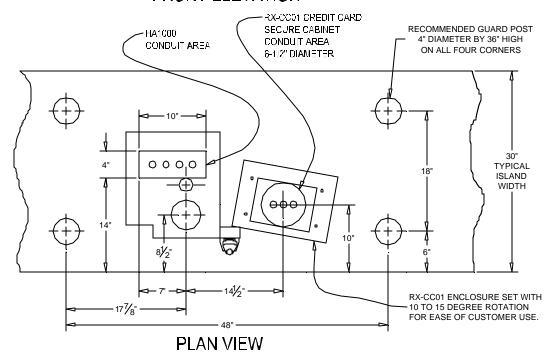


RX-CC01 Video / Credit Card Enclosure

The video / credit card unit (RX-CC01) typically stands to the right side of the HA1000. The RX-CC01 unit is angled approximately 15 degrees towards the customer to ease access. The drawings below show typical installation details.

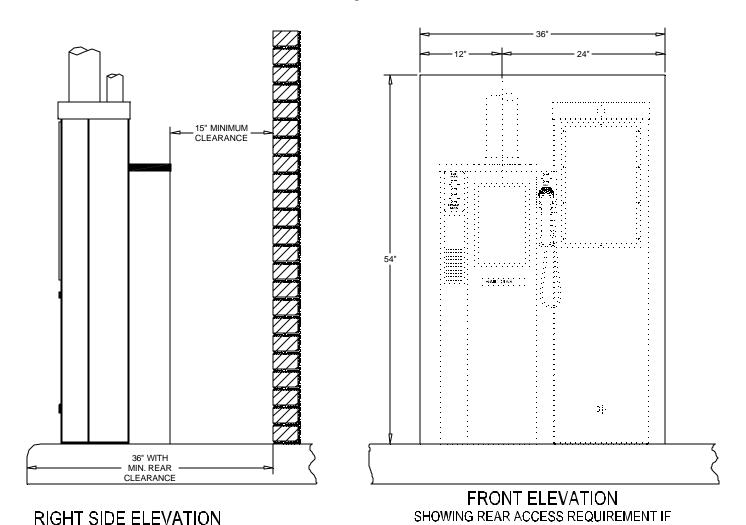


FRONT ELEVATION



RX-CC01 Video / Credit Card Enclosure

If RX-CC01 and the HA1000 unit will have a barrier located behind, appropriate clearance is needed for installation and service of the machines. The drawings below show recommend clearance.



Rear access requirements

The RX-CC01 and HA1000 require access to all sides for service and installation. A minimum clear distance to all sides of the RX-CC01 and HA1000 units is 15".

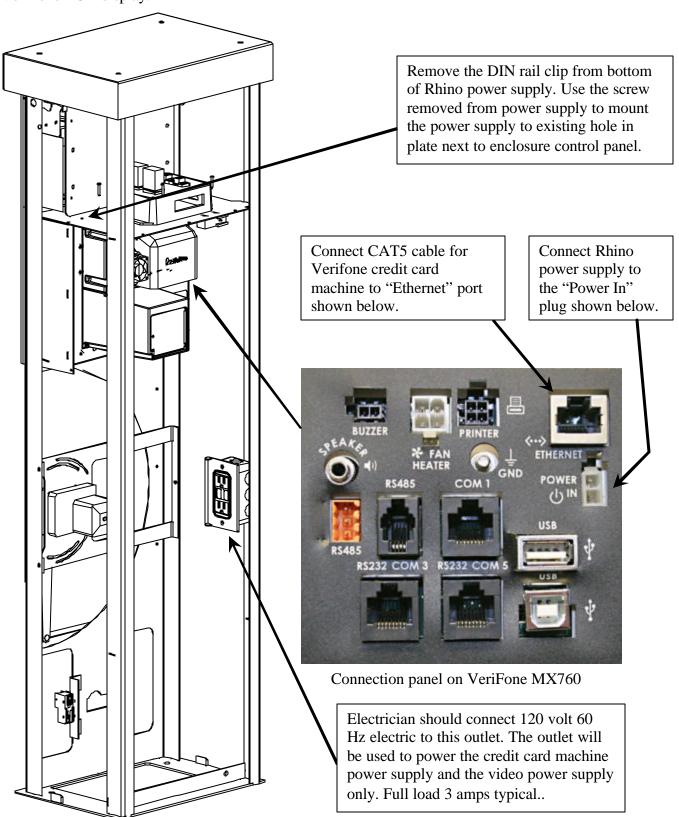
Rear access may be required if obstruction, such as wall or wind barrier, is located less than 15" from rear of the RX-CC01 or HA1000 customer unit.

Rear access can be a removable section or service door to allow access to the rear of the remote units during installation and/or service. Minimum size of this rear access shown above 54" high x 36" wide.

OBSTRUCTION IS CLOSER THAN 15" TO REAR OF UNIT

VeriFone Credit Card Machine Connections

Install the VeriFone model MX760 credit card machine (Supplied by Others) into secure enclosure using 4x12mm screws provided. Install RJ-45 connector onto the CAT5 cable using the T568B standard configuration. When VeriFone credit card machine powers up, you should see "Welcome" screen on VeriFone LCD display.



RX-CC01 Video Power Connection

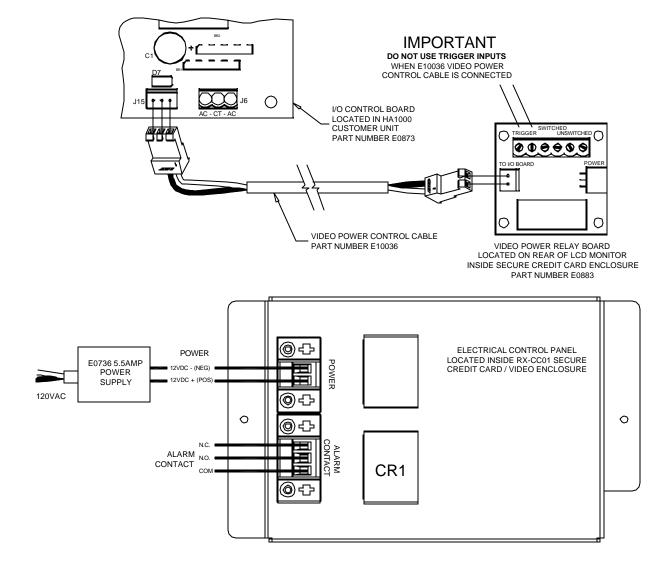
The RX-CC01 has an electrical control panel located in the rear of the unit behind the LCD monitor. This panel has one(1) relay and two(2) connectors on its top.

The connector labeled 12VDC Power requires an E0736 5.5amp 12VDC power supply to be connected. This supply will power the camera, LCD monitor, and the door motor in the RX-CC01 enclosure.

The connector labeled Alarm is used for optional alarm monitoring of the cabinet cover panels.

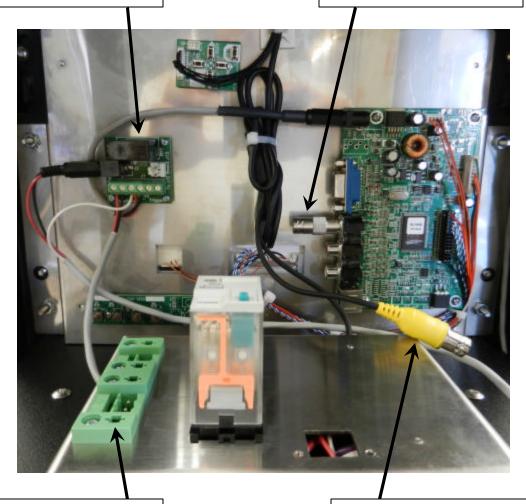
The video power control cable (E10036) has a three pin connector for connection to terminal #J15 on the E0873 I/O control board located in the HA1000 customer unit. The two pin connector on the opposite end of the E10036 cable connects to J3 on the E0883 relay board located on the back of the LCD monitor.

Operation: video power will be controlled with the pneumatic units nightlock switch. When the unit is in normal operating mode, the RX-CC01 cabinet door should be powered open, and the video monitor powered ON. Switching to nightlock mode will automatically close the RX-CC01 enclosure door and shut down the pneumatic tube lane by sending the carrier to the inside terminal.



RX-CC01 Video Power Connection

Video Power Relay Board Part Number E0883 Monitor Video Input BNC Adapter in top RCA (Yellow) Jack

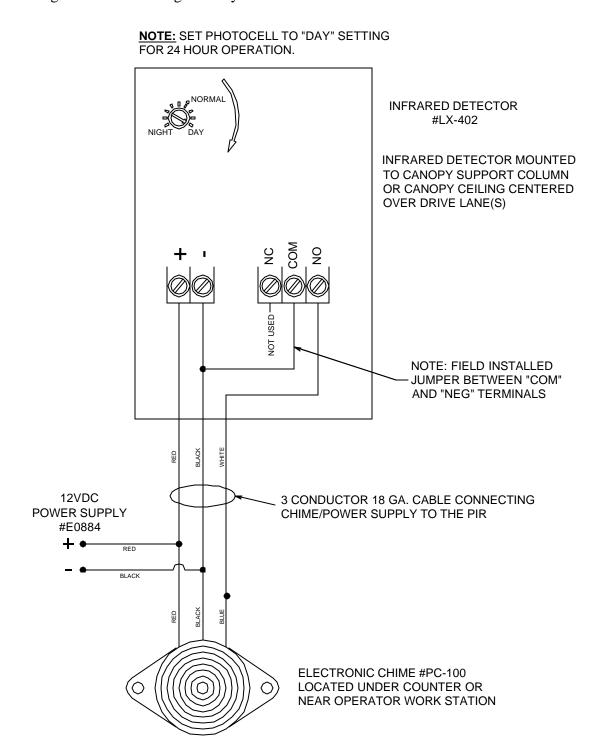


Green Connectors 12VDC Power and Alarm Connections Camera Video Output Yellow BNC on Cable

RX-IR01 IR Vehicle Detection Kit

The RX-IR01 IR Vehicle Detection Kit includes an Optex LX-402 IR sensor, electronic chime, 12VDC power supply, and 3 conductor 18 gauge cable.

The IR sensor should be mounted over the drive-up lane(s) so it picks up any vehicle entering the lane(s) for service. The detector can be set and masked off so it only detects the traffic in the lane(s) and not people walking or vehicles driving close by.



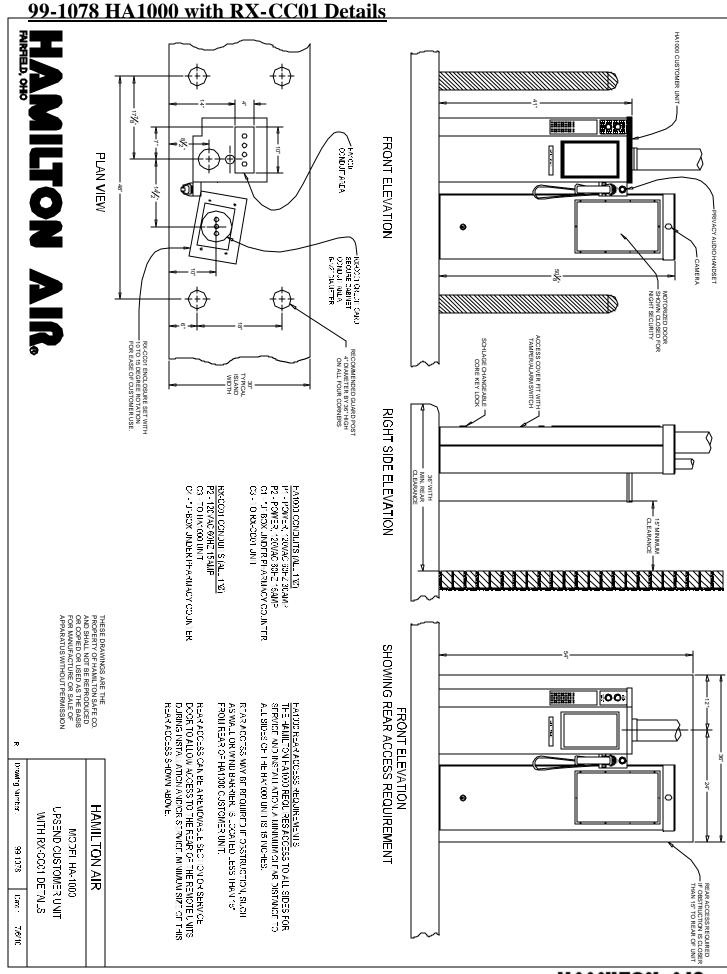
5550 Pharmacy Video Console

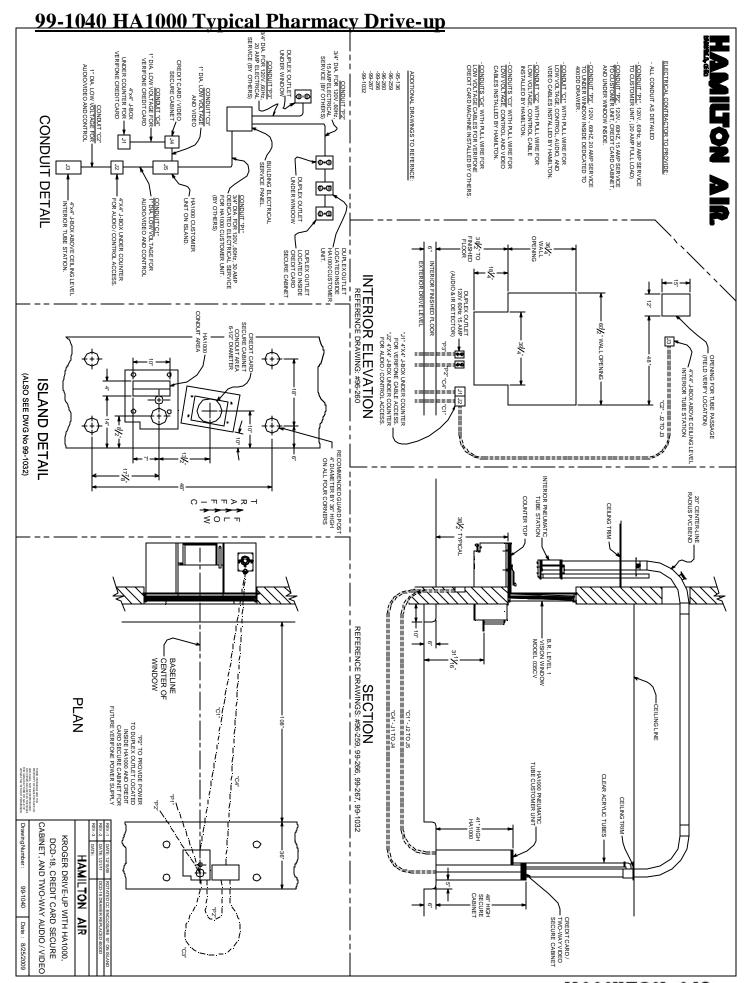
The pharmacy video console is sent with a wall mount bracket and a desk pedestal. The best type of mount can be used depending on the setup of the pharmacy counter and space around pneumatic tube system. Determine the best location or check with local pharmacy personnel for desired location.

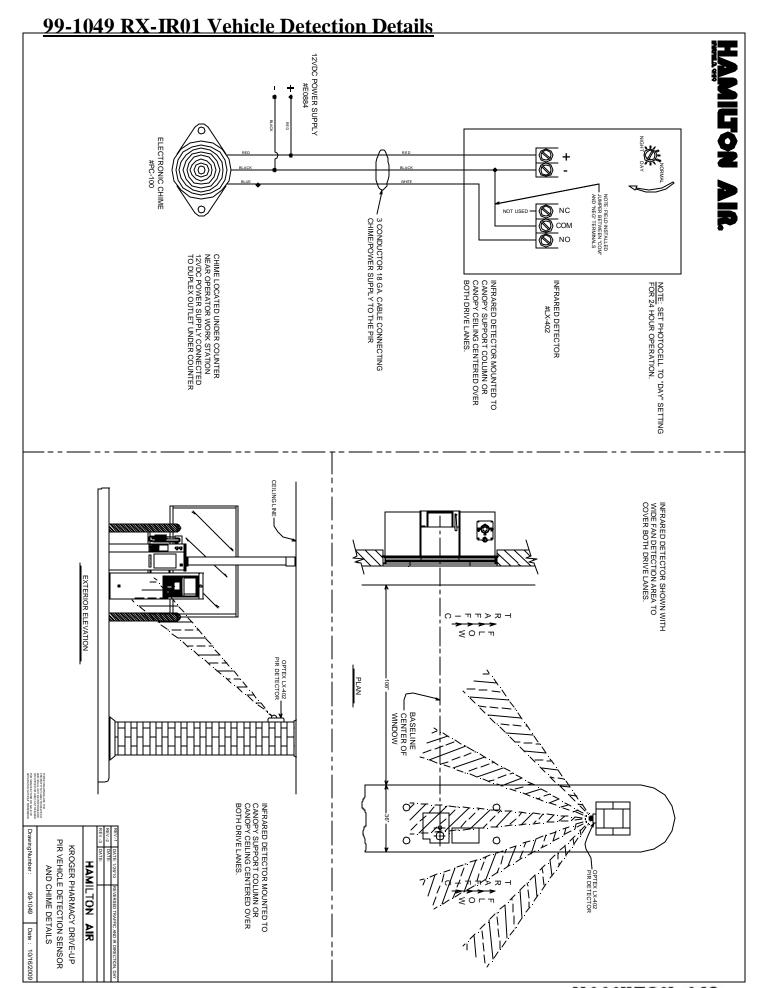


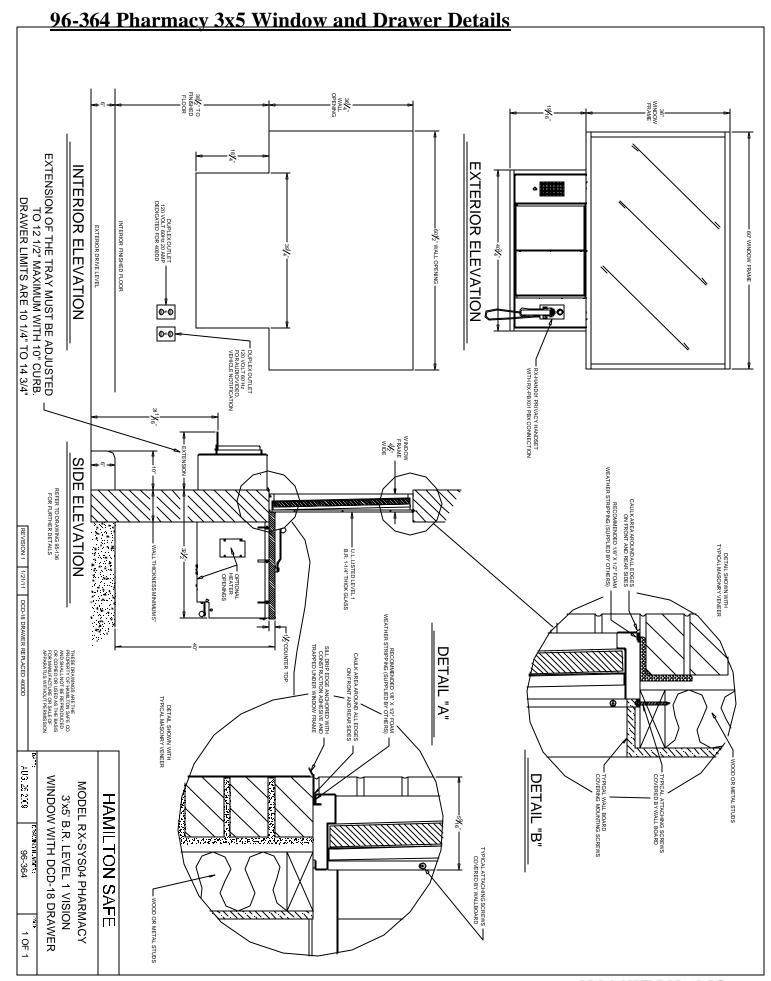


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Typical Wiring Detail

Conduit	Junction	Description	Wire
C1	J2 - J5	Audio, system interconnect, video	CAT5 (2), Coax (2)
C2	J2 - J3	System interconnect, PIR	CAT5, 3 Cond.
C3	J4 - J5	Video	Coax (2)
C4	J1 - J4	VeriFone interconnect and power	CAT5, VeriFone Ext. Cable, 2 Cond.

Junction	Conduit	Description	
J1	C4	4"x4" junction box located under counter for VeriFone credit card machine connections	
J2	C1 & C2	4"x4" junction box located under counter for Audio / Video Connections	
J3	C2	4"x4" junction box located above ceiling for interior tube station interconnect	
		Secure Cabinet, Credit card and	
J4	C4 & P2	video	
J5	C1 & P1	HA1000 Customer Unit	

Wire	Conduit	Description	Locations
CAT5	C1	Audio	HA1000 handset to Kroger PBX unit
CAT5	C1 & C2	System interconnect	HA1000 to Interior tube station above ceiling
Coax (2)	C1 & C3	Video, 2-way	Secure Cabinet video to 5550 interior video station
			Chime and power supply located under counter to PIR located in
3 Cond.	C2	PIR Vehicle detection	canopy
CAT5	C4	VeriFone MX760 (Future)	Secure Cabinet to junction box under counter
2 Cond.	C4	VeriFone MX760 (Future)	Secure Cabinet to junction box under counter
VeriFone			
Ext.	C4	VeriFone QX720	Secure Cabinet to junction box under counter