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Trash and Linen
Chute System
E497175

EASY-WAVE®
Trash & Linen Chute System Installation

Easy-Wave® Trash & Linen Chute System Installation Instructions

REVISED: 25-JAN-18

Introduction

The Easy-Wave® trash & linen chute system is designed to lock out all other intake doors on the trash chute when a door is in use. The Easy-Wave® system's signature feature allows touchless, one-handed operation that unlocks the chute door when a motion sensor is activated. In electric interlock systems, the user then manually opens the door and disposes of their trash, while in pneumatic interlock systems the door automatically opens, allowing the user to deposit their trash or linen with ease. Each Easy-Wave® door is equipped with a motion sensor and an LED window. In systems with a trash sorter, a set of push-buttons allow the user to select a trash sorting option.

The system is equipped with a Master Controller that facilitates overall management of the Easy-Wave® system and any connected devices. The Master Controller contains a monitoring system that streamlines chute maintenance by identifying where service is needed. It can configure the trash or linen chute's responses to open doors, falling trash/linen, and alarm states. It also facilitates the mapping of chute doors to building floor levels and the use of a connected chute wash-down system. The Master Controller is equipped with a Lock Out toggle switch and a user interface with a 32 character LCD, an LED window, and two push-buttons.

This manual will provide information on how to install the Easy-Wave® trash & linen chute system.

600 Twin Rail Drive
Minooka • Illinois • 60447
Phone (815) 723-7632
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Specifications

Easy-Wave® Specifications:

- Low voltage Plug and Play for easy installation.
- Lock Out feature for maintenance.
- System is B.A.S. compatible.
- Sensor-based one-handed operation increases reliability.
- Electrical and pneumatic interlocks may be installed in combination.
- Pneumatic interlocks are completely hands-free and ADA compliant.
- Monitoring system showing real-time chute status streamlines maintenance.
- Chute wash-down can be initiated from the Master Controller.
- Optional Real-time Clock Module allows automatic start of chute wash-down.

Electrical Specifications:

- 100-240 VAC, 50/60 Hz 1.1 Amp service.
- All controls are low voltage.
- All electrical components are UL listed.
- Sensor based operation - no mechanical limit switches to fail or go out of adjustment.
- Master Controller has a 32 character backlit LCD.
- System status is displayed at all times on the Master Controller.

Table of Contents

Installation

The Easy-Wave® trash & linen chute system is simple to install. Each chute door is connected in sequence from the Master Controller at the base of the chute. All connections are made with low-voltage CAT5E cables, allowing for easy Plug and Play installation.

Make use of the schematics provided on pages 13 through 16 for a guide to the system's wiring.

After the chute itself has been installed by qualified technicians, installing each Easy-Wave® door on the chute should be undertaken from the bottom level to the top. This allows for the easiest troubleshooting of any installation-related problems.

When installing, **make sure all connections are complete and secure.** This means that **the connectors on the ends of cables must "click" when inserted** into a port. Loose connections are the most common cause of installation issues.

DANGER

GROUNDING INSTRUCTION

This appliance must be grounded. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the appliance is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

Phase 1 – Installing the Master Controller:

The first component that must be installed is the Master Controller. This is necessary to ensure the proper operation of the entire Easy-Wave® system.

1. Find a suitable location in the room where the bottom of the trash chute is located, and mount the Master Controller there. Make sure this location is near enough to a power outlet that the Master Controller's power cord will reach it.

2. Plug the Master Controller into a 120 V power outlet. It should turn on immediately. After a brief startup, the Master Controller should display a Fire Alarm at this time. **This is normal.**

3. Unplug the Master Controller from the power outlet. **All connections during chute installation should be made with the Master Controller disconnected from power.**

4. Run a length of CAT5E cable from the Master Controller's main connection through conduit to the lowest door opening. It is through this cable that the Master Controller will provide power to every door on the chute and conduct all of its operational and diagnostic checks.

Phase 2 – Installing Door Frames:

1. Install each Easy-Wave® door frame at the chute intake on each building level. **Do not install cover panels and door trim at this time.**

2. Ensure that the trash chute intake is securely fastened to the chute itself.

3. Securely fasten the Easy-Wave® door frame into the wall. **Do not tighten all fastenings at this time.**

4. Ensure that the trash chute intake is secured to the Easy-Wave® door frame.

5. Adjust the orientation of the door so that it is square with the wall surface and level.

6. Tighten all fastenings.

7. Ensure that the Easy-Wave® door opens and closes completely without impacting other objects. This is important to ensure the door's proper operation and prevent damage.

Phase 3 – Connecting Each Easy-Wave® Door to the System:

As stated earlier, all doors in the Easy-Wave® system are wired together in sequence from the Master Controller. To connect each Easy-Wave® door to the system follow the procedure below. Begin by connecting the door on the lowest floor level, then proceed up to the next level and connect that door.

1. Connect the CAT5E cable from the door on the floor below (or from the Master Controller, if connecting the first door in the sequence) to either of the open ports on the door's circuit board. These ports are interchangeable.

2. Insert a new length of CAT5E cable into the open port on the door's circuit board. ***If the door being installed is the topmost door on the chute,*** insert the "terminator" cable plug into that open port instead, and proceed immediately to Phase 4.

3. Run this length of CAT5E cable to the door on the next floor level up through some conduit.

4. Repeat this phase as necessary for every Easy-Wave® door on the chute.

Phase 4 – Verifying Door Connections:

Before installing **any** peripheral devices or components into the system, it **must** be verified that every door is successfully connected to the Master Controller and is not causing any faults.

1. Plug in the Master Controller to power up the system. Power is fed to every door from the Master Controller.

2. After a brief startup, the Master Controller should display a "Chute Idle" message. This verifies that all doors have been properly connected to the system.

3. Unplug the Master Controller.

4. If peripheral components are going to be installed on the trash chute, proceed to Phase 5. Otherwise, proceed to Phase 6.

3. In the event that the Master Controller is displaying a **Fire Alarm**, proceed to the "False Fire Alarm" entry of the Troubleshooting section (page 11).

4. In the event that the Master Controller is displaying a **"Door Stuck" Alarm**, proceed to the floor indicated on the display and ensure that the door is closed. If the door is closed but still indicating a "Door Stuck" Alarm, proceed to the "'Door Stuck' Alarm While Door is Closed" entry of the Troubleshooting section (page 12).

Phase 5 – Installing Peripheral Devices:

Peripheral devices such as heat sensors and smoke detectors are connected to the system using Adapter Tees. Adapter Tees are installed inside a door's component section. To install an Adapter Tee along with the associated peripheral device, follow this procedure:

1. Ensure that the Master Controller is unplugged and proceed to the door where the Adapter Tee is going to be installed.

2. Disconnect the CAT5E cable from the door on the floor below.

3. Connect that CAT5E cable to the port on the Adapter Tee labeled "DOWN \ BASE."

4. Connect the peripheral device via a length of RJ12 cable to the port on the Adapter Tee labeled "AUX \ BOOST." This port is parallel to the "DOWN \ BASE" port. Make sure the peripheral device is connected at the other end of the RJ12 cable.

5. Connect a short length of CAT5E cable from the remaining port on the Adapter Tee to the open port on the door's circuit board.

6. Plug in the Master Controller and check that it is not displaying any alarms. If it is not, the Adapter Tee has been properly connected.

7. In the event that the Master Controller is displaying a Fire Alarm, proceed to the "Troubleshooting – False Fire Alarm" section on page #.

8. Repeat this phase as necessary for all Adapter Tees that will be connected to the system.

Phase 6 – Installing Booster Power Supplies:

In the case of large trash chute systems, a power boost may be necessary to keep doors above certain floor levels from experiencing insufficient voltage. This power boost is achieved through the installation of a Booster Power Supply. When a Booster Power Supply is required, the floor on which it should be located will be indicated in the documentation provided with it. To install a Booster Power Supply, follow this procedure:

1. Ensure that the Master Controller is unplugged and proceed to the floor where the Booster Power Supply is going to be installed.

2. Disconnect the CAT5E cable from the door on the floor below.

3. Connect that CAT5E cable to the port on the Booster Tee labeled "DOWN \ BASE."

4. The Booster Power Supply comes with a Booster Tee, which is similar to an Adapter Tee, but in place of the "AUX \ BOOST" RJ12 connector on the Adapter Tee, the Booster Tee has a pair of wire terminals labeled "VBST" and "GND."

5. Connect the RED wire from the Booster Power Supply to the wire terminal labeled "VBST" on the Booster Tee.

6. Connect the YELLOW wire from the Booster Power Supply to the wire terminal labeled "GND" on the Booster Tee.

7. Connect a short length of CAT5E cable from the remaining port on the Booster Tee to the open port on the door's circuit board.

8. Plug in the Booster Power Supply.

9. There are two LEDs on the Booster Tee, labeled "Base Volts" and "Boost Volts." Both of these should be ON.

10. If the “Base Volts” LED is on but the “Boost Volts” LED is not, check that the Booster Power Supply is plugged in and connected properly. If so, contact American Chute.

11. Plug in the Master Controller and check that it is not displaying any alarms. If it is not, the Booster Power Supply has been properly installed.

12. In the event that the Master Controller is displaying a Fire Alarm, proceed to the “Troubleshooting – False Fire Alarm” section on page #.

13. Repeat this phase as necessary for all Booster Power Supplies that will be connected to the system.

Phase 7 – Completing Door Installation:

1. Install the cover panels onto each door. Ensure that the panels do not obstruct motion sensors or other controls on each door's control panel.

2. Install trim onto each door to cover all gaps between the door frame and the wall. Ensure that the trim does not obstruct the motion of the door.

Phase 8 – Installing the HRD Door Magnet:

(Note: Only use this procedure if the trash chute is equipped with an HRD Door and Magnet kit at its point of discharge. Otherwise, skip to Phase 10.)

An HRD (“Horizontal Rolling Discharge”) door is held open by the HRD Door Magnet, which deactivates in the event of a fire alarm signaled from the Master Controller. This shuts the bottom of the chute. This feature hinders the spread of any fire in the trash chute. The HRD Door Magnet comes as its own kit from American Chute. It is connected by RJ12 cable to the Master Controller.

The kit comes with two main components: a magnet housing, and a Master Controller adapter in two pieces. The magnet housing contains an electromagnet and one piece of the Master Controller adapter – it is a circuit board with two wires and an RJ12 connector affixed to it. The other piece of the adapter is the same, but independent from the magnet housing. There are two self-adhesive standoffs provided to fasten the adapter to the inside of the Master Controller.

Normally, the HRD Door Magnet kit will already be installed at the factory, in both the Master Controller and the magnet housing. In this case, all that would be necessary to ensure operation of the Door Magnet is to make the RJ12 cable connection between the housing and the Master Controller, as described in Step 11.

To install this kit, follow this procedure:

1. Unplug the Master Controller.

2. Open the magnet housing and the Master Controller's case by removing the necessary screws.

3. Inside the magnet housing, locate the end of the wire running from the J5-POS connection on the adapter circuit board. Connect this wire to the terminal on the electromagnet labeled “24V.”

4. Locate the end of the wire running from the J3-NEG connection on the adapter circuit board. Connect this wire to the terminal on the electromagnet labeled “COM.”

5. Locate the independent half of the Master Controller adapter. Insert the two self-adhesive standoffs into the mounting holes on its circuit board.

6. Using the adhesive standoffs now attached, affix this circuit board to the inside of the Master Controller's case at an accessible location.

7. Locate the end of the wire running from the J5-POS connection on this circuit board. Connect this wire to the terminal on the Master Controller circuit board labeled “J8 DC+.”

8. Locate the end of the wire running from the J5-NEG connection on this circuit board. Connect this wire to the terminal on the Master Controller circuit board labeled “J8 SW-.”

9. Screw the electromagnet into place inside the magnet housing.

10. Mount the magnet housing onto the magnet bracket of the HRD Door assembly.

11. Using a length of RJ12 cable, connect both halves of the adapter – the one in the magnet housing and the one inside the Master Controller case.

12. Close the magnet housing and the Master Controller's case using the appropriate

screws. Ensure that the RJ12 cable is not damaged.

13. Plug in the Master Controller.

14. Refer to the Easy-Wave® Trash/Linen Chute System Operating Instructions to configure Output #1 from the Master Controller to operate the HRD door magnet.

15. Configure "Out#1 Active State=OFF:TRUE"

16. Configure "Out#1 Active for Fire Alarm:TRUE"

17. Configure "Out#1 Active for Door Alarm:false"

18. Configure "Out#1 Active for Chute Busy:false"

19. Configure "Out#1 Active for Sorter Err:false"

Phase 9 – Testing the HRD Door Magnet:

1. Pull open the HRD door and attach the magnet striker plate on the door chain to the electromagnet. It should stick because the magnet should be on at this time.

2. Unplug the CAT5E cable from the Master Controller. The display should indicate a Fire Alarm.

3. The electromagnet should release, and the chute door should slide closed.

4. Plug the CAT5E cable back into the Master Controller. The display should return to a “Chute Idle” message.

5. Pull open the HRD door and re-attach the striker plate to the electromagnet.

6. Skip to Phase 12.

Phase 10 – Installing the Hopper Door Release:

(Note: This procedure is used on chutes with discharge doors of any other configuration than an HRD door.)

In the event of a fire alarm signaled from the Master Controller, the Hopper Door Release shuts the discharge door on the chute. This feature hinders the spread of any fire in the chute. The Hopper Door Release comes as its own kit from American Chute. It is connected by RJ12 cable to the Master Controller.

The kit comes with two main components: the Hopper Door Release housing, and a Master Controller adapter in two pieces. The Hopper Door Release housing contains a mechanical relay and one piece of the Master Controller adapter – it is a circuit board with two wires and an RJ12 connector affixed to it. The other piece of the adapter is the same, but independent from the release housing. There are two self-adhesive standoffs provided to fasten the adapter to the inside of the Master Controller.

As with the HRD Door Magnet kit, this kit is also typically installed at the factory, in both the Master Controller and the release housing. All that would need to be done in normal circumstances is to make the RJ12 cable connection between the release housing and the Master Controller, as described in Step 10.

To install this kit, follow this procedure:

1. Unplug the Master Controller.

2. Open the Hopper Door Release housing and the Master Controller's case by removing the necessary screws.

3. Inside the Hopper Door Release housing, locate the end of the wire running from the J5-POS connection on the adapter circuit board. Connect this wire to the terminal on the relay labeled “A.”

4. Locate the end of the wire running from the J3-NEG connection on the adapter circuit board. Connect this wire to the terminal on the relay labeled “B.”

5. Locate the independent half of the Master Controller adapter. Insert the two self-adhesive standoffs into the mounting holes on its circuit board.

6. Using the adhesive standoffs now attached, affix this circuit board to the inside of the Master Controller's case at an accessible location.

7. Locate the end of the wire running from the J5-POS connection on this circuit board.

Connect this wire to the terminal on the Master Controller circuit board labeled “J8 DC+.”

8. Locate the end of the wire running from the J5-NEG connection on this circuit board. Connect this wire to the terminal on the Master Controller circuit board labeled “J8 SW-.”

9. Mount the Hopper Door Release housing on the hopper at the appropriate location.

10. Using a length of RJ12 cable, connect both halves of the adapter – the one in the Hopper Door Release housing and the one inside the Master Controller case.

11. Close the Hopper Door Release housing and the Master Controller's case using the appropriate screws. Ensure that the RJ12 cable is not damaged.

12. Plug in the Master Controller.

13. Refer to the Easy-Wave® Trash Chute System Operating Instructions to configure Output #1 from the Master Controller to operate the Hopper Door Release.

14. Configure "Out#1 Active State=OFF: false"

15. Configure "Out#1 Active for Fire Alarm: TRUE"

16. Configure "Out#1 Active for Door Alarm: false"

17. Configure "Out#1 Active for Chute Busy: false"

18. Configure "Out#1 Active for Sorter Err: false"

Phase 11 – Testing the Hopper Door Release:

1. Pull open the hopper discharge door and connect it to the door release mechanism. The hopper door should remain open.

2. Unplug the CAT5E cable from the Master Controller. The display should indicate a Fire Alarm.

3. The Hopper Door Release should activate, and the hopper door should fall closed.

4. Plug the CAT5E cable back into the Master Controller. The display should return to a "Chute Idle" message.

5. Pull open the hopper discharge door and connect it to the door release mechanism.

Phase 12 – Installing the Trash Sorter:

(Note: Only follow this procedure if the trash chute is to be equipped with a trash sorter. If not, installation of the Easy-Wave® system is complete.)

Trash bi-sorters and tri-sorters allow the Easy-Wave® system to sort its incoming trash into various sorting options. This allows building owners to provide their tenants with the ability to responsibly dispose of recyclables, compost, paper, or other trash that falls into its own category. To make sure a trash sorter works with the Easy-Wave® system, follow this procedure:

1. Refer to the trash sorter's installation manual to properly install the trash sorter.

2. Ensure that the trash sorter is connected to the Master Controller as described in the sorter's manual.

3. Ensure that the Master Controller and the trash sorter are both plugged in. They both should not be displaying any error messages or alarms.

4. Proceed to any Easy-Wave® door on the trash chute and select a sorting option not currently selected by the trash sorter.

5. Return to the trash sorter and verify that it has moved its diverter plate to the selected trash sorting option.

Installation of the Easy-Wave® trash/linen chute system is now complete!

Troubleshooting

False Fire Alarm:

In the event that a Fire Alarm is being displayed by the Master Controller but there is no fire present, it is necessary to troubleshoot the cable connections in the system. A Fire Alarm is the Easy-Wave® system's default reaction to any connection fault that prevents communication between the chute doors and the Master Controller. Use the following procedure to locate and remedy the connection problem.

1. Unplug the Master Controller.

2. Select an Easy-Wave® door mid-way between the bottom-most and top-most doors in the system.

3. Remove the door's cover panel.

4. Disconnect the CAT5E cable that runs to the next door up in the system.

5. Insert the “terminator” cable plug into the port just disconnected.

6. Plug in the Master Controller and check if it is still displaying a false Fire Alarm. If it is not, skip to step 8.

7. Unplug the Master Controller and return to the floor with the “terminator” cable plug installed. Remove the “terminator” from its port and replace the CAT5E cable in its place. Proceed to the next floor **down** in the system and repeat steps 1-6 until the false fire alarm no longer is displayed on the Master Controller. Proceed to step 9.

8. Unplug the Master Controller and return to the floor with the “terminator” cable plug installed. Remove the “terminator” from its port and replace the CAT5E cable in its place. Proceed to the next floor **up** in the system and repeat steps 1-6 until the false Fire Alarm reappears on the Master Controller's display. Proceed to step 9.

9. The **last door visited** is the source of the connection fault. Ensure that the Master Controller is unplugged, then return to that door. Check all connections to make sure they are properly and completely seated. Again, **a “click” must be heard when connecting a cable to a port**, otherwise the connection will be faulty.

10. Plug in the Master Controller and check again to see if the false Fire Alarm has ended.

If so, skip to step 13.

11. If the false Fire Alarm has not ended, it is likely there is a physical break in the cable between the current door and the ones above and below it. Inspect the entire length of these cables for a break and replace as necessary.

12. If replacing the cables does not end the false Fire Alarm, contact American Chute.

13. If the false Fire Alarm has ended, replace all door cover panels.

"Door Stuck" Alarm While Door Is Closed:

In the event that a door is closed but the Master Controller is still registering a "Door Stuck" alarm at that door, the sensor on that door may not be properly aligned. Each Easy-Wave® door uses an infrared sensor instead of mechanical components to detect an open door. These sensors are will not undergo mechanical wear and tear and as a result they eliminate maintenance. Door sensors arrive from the factory calibrated to operate within the normal tolerances of the door's shape and size. The following procedure can be undertaken to correct problems with the door sensor:

1. Unplug the Master Controller.

2. At the affected door, remove the panel covering the door's control components.

3. The door sensor is located toward the right-hand side of the door frame, next to the door latch's solenoid. It is connected to the system with an orange cable and is fastened to the door's cross-bar by a nut.

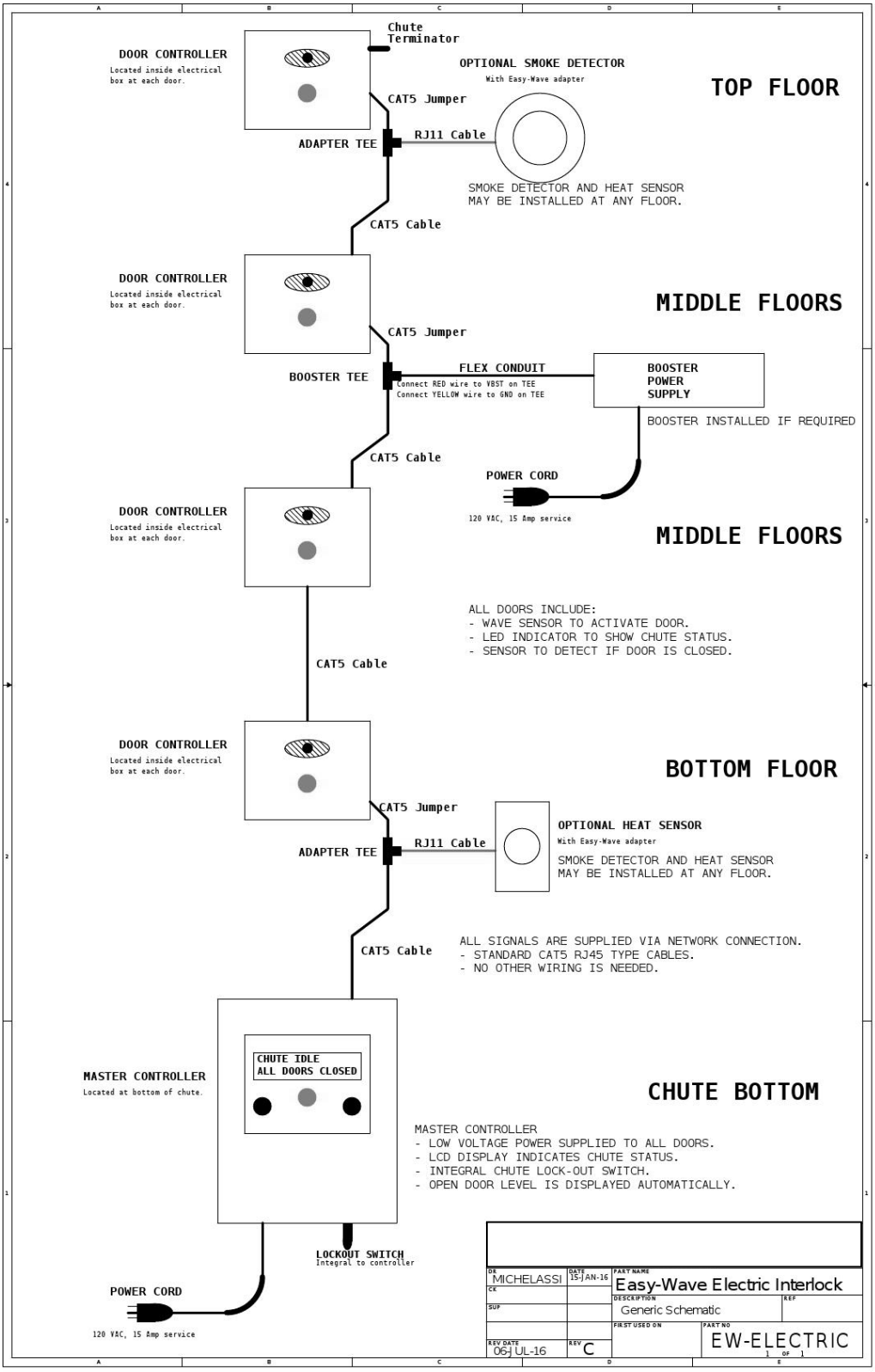
4. Use an open-ended wrench to loosen the nut on the cross-bar and re-position the sensor up or down as needed. The sensor should be flush with the bottom surface of the cross-bar.

5. Plug in the Master Controller. If the sensor is properly positioned, the Master Controller should no longer display a "Door Stuck" alarm, nor any "Door Open" message for the affected building level.

6. Secure the nut after successful adjustment to prevent future sensor movement.

7. Replace the cover panel.

Schematics


Chute Terminator
DOOR CONTROLLER
Located inside electrical box at each door.
OPTIONAL SMOKE DETECTOR
With Easy-Wave adapter
TOP FLOOR
CAT5 Jumper
ADAPTER TEE
RJ11 Cable
SMOKE DETECTOR AND HEAT SENSOR MAY BE INSTALLED AT ANY FLOOR.
CAT5 Cable
DOOR CONTROLLER
Located inside electrical box at each door.
MIDDLE FLOORS
CAT5 Jumper
BOOSTER TEE
FLEX CONDUIT
Connect RED wire to VBST on TEE
Connect YELLOW wire to GND on TEE
BOOSTER POWER SUPPLY
BOOSTER INSTALLED IF REQUIRED
CAT5 Cable
POWER CORD
120 VAC, 15 Amp service
DOOR CONTROLLER
Located inside electrical box at each door.
MIDDLE FLOORS
ALL DOORS INCLUDE:
- WAVE SENSOR TO ACTIVATE DOOR.
- LED INDICATOR TO SHOW CHUTE STATUS.
- SENSOR TO DETECT IF DOOR IS CLOSED.
CAT5 Cable
DOOR CONTROLLER
Located inside electrical box at each door.
BOTTOM FLOOR
CAT5 Jumper
ADAPTER TEE
RJ11 Cable
OPTIONAL HEAT SENSOR
With Easy-Wave adapter
SMOKE DETECTOR AND HEAT SENSOR MAY BE INSTALLED AT ANY FLOOR.
CAT5 Cable
ALL SIGNALS ARE SUPPLIED VIA NETWORK CONNECTION.
- STANDARD CAT5 RJ45 TYPE CABLES.
- NO OTHER WIRING IS NEEDED.
MASTER CONTROLLER
Located at bottom of chute.
CHUTE IDLE
ALL DOORS CLOSED
CHUTE BOTTOM
MASTER CONTROLLER
- LOW VOLTAGE POWER SUPPLIED TO ALL DOORS.
- LCD DISPLAY INDICATES CHUTE STATUS.
- INTEGRAL CHUTE LOCK-OUT SWITCH.
- OPEN DOOR LEVEL IS DISPLAYED AUTOMATICALLY.
LOCKOUT SWITCH
Integral to controller
POWER CORD
120 VAC, 15 Amp service
DR MICHELASSI
DATE 15-JAN-16
CK
SUP
REV DATE 06-JUL-16
REV C
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DESCRIPTION Generic Schematic
REF
FIRST USED ON
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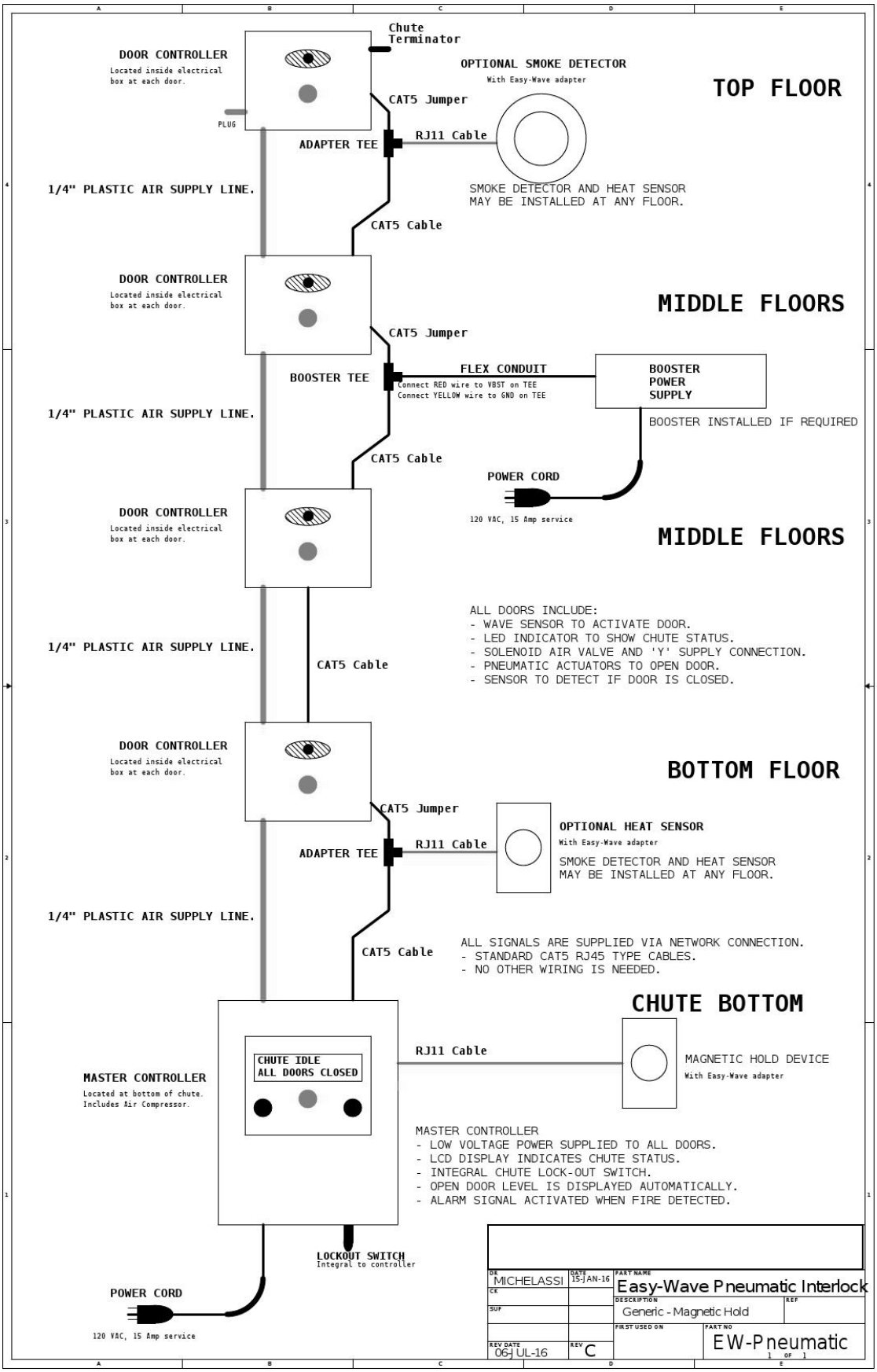
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MIDDLE FLOORS
ALL DOORS INCLUDE:
- WAVE SENSOR TO ACTIVATE DOOR.
- LED INDICATOR TO SHOW CHUTE STATUS.
- SOLENOID AIR VALVE AND 'Y' SUPPLY CONNECTION.
- PNEUMATIC ACTUATORS TO OPEN DOOR.
- SENSOR TO DETECT IF DOOR IS CLOSED.
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CHUTE BOTTOM
CHUTE IDLE
ALL DOORS CLOSED
RJ11 Cable
MAGNETIC HOLD DEVICE
With Easy-Wave adapter
MASTER CONTROLLER
Located at bottom of chute.
Includes Air Compressor.
MASTER CONTROLLER
- LOW VOLTAGE POWER SUPPLIED TO ALL DOORS.
- LCD DISPLAY INDICATES CHUTE STATUS.
- INTEGRAL CHUTE LOCK-OUT SWITCH.
- OPEN DOOR LEVEL IS DISPLAYED AUTOMATICALLY.
- ALARM SIGNAL ACTIVATED WHEN FIRE DETECTED.
LOCKOUT SWITCH
Integral to controller
POWER CORD
120 VAC, 15 Amp service
DR MICHELASSI
DATE 15-JAN-16
CK
SUP
REV DATE 06JUL-16
REV C
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REF
FIRST USED ON
PART NO EW-Pneumatic
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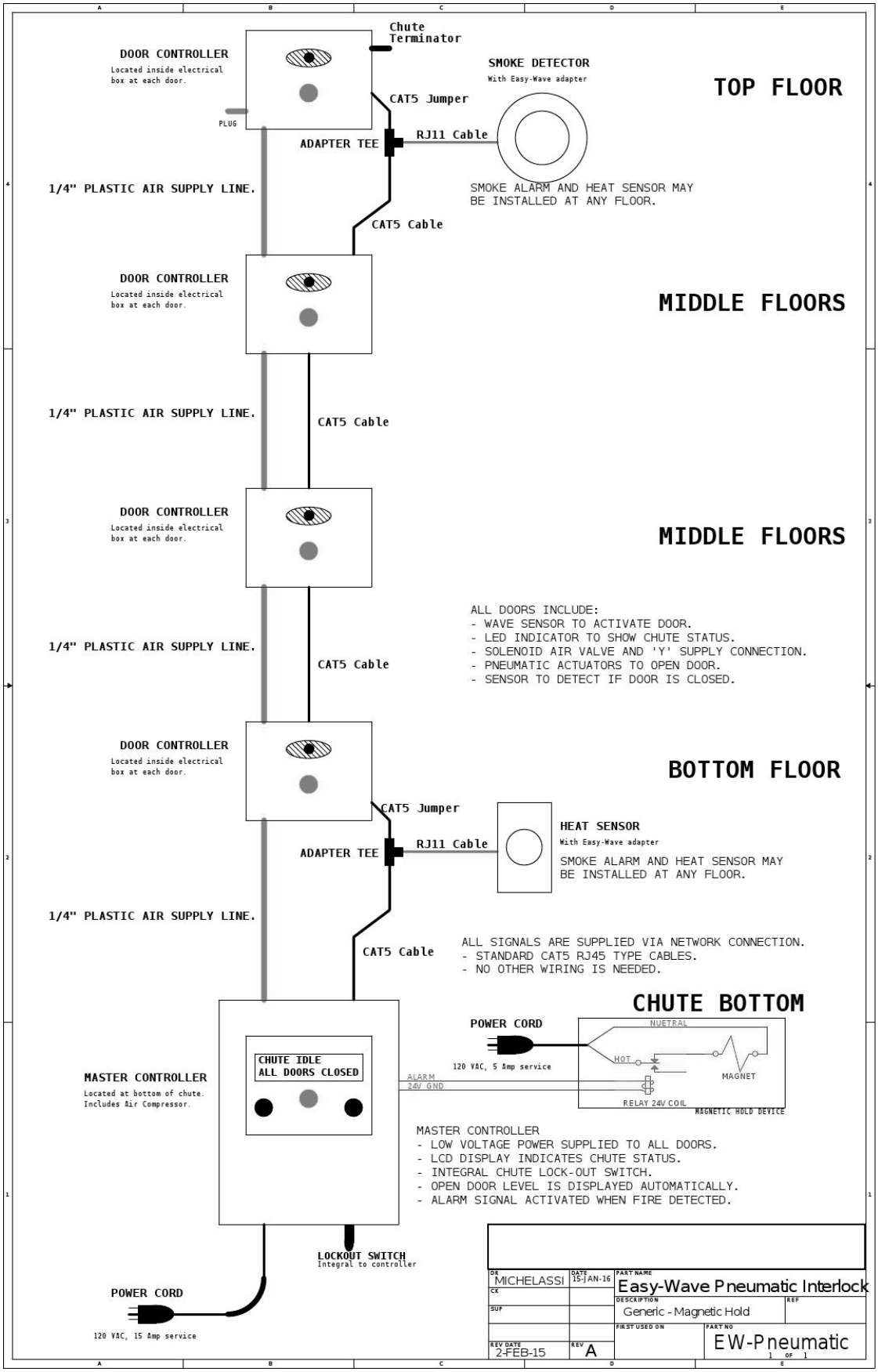
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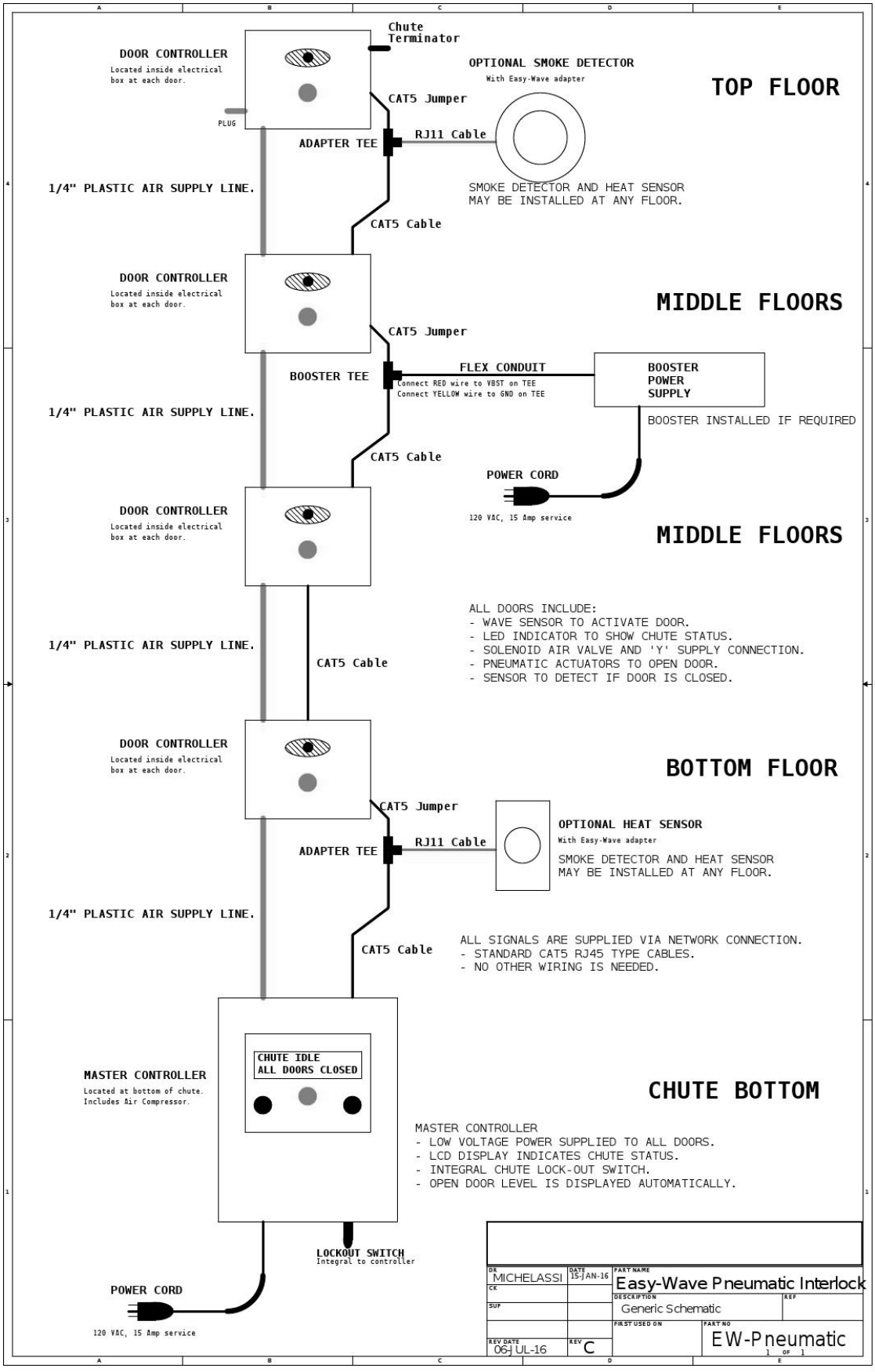
- WAVE SENSOR TO ACTIVATE DOOR.
- LED INDICATOR TO SHOW CHUTE STATUS.
- SOLENOID AIR VALVE AND 'Y' SUPPLY CONNECTION.
- PNEUMATIC ACTUATORS TO OPEN DOOR.
- SENSOR TO DETECT IF DOOR IS CLOSED.
1/4" PLASTIC AIR SUPPLY LINE.
CAT5 Cable
DOOR CONTROLLER
Located inside electrical box at each door.
BOTTOM FLOOR
CAT5 Jumper
HEAT SENSOR
With Easy-Wave adapter
ADAPTER TEE
RJ11 Cable
SMOKE ALARM AND HEAT SENSOR MAY BE INSTALLED AT ANY FLOOR.
1/4" PLASTIC AIR SUPPLY LINE.
CAT5 Cable
ALL SIGNALS ARE SUPPLIED VIA NETWORK CONNECTION.
- STANDARD CAT5 RJ45 TYPE CABLES.
- NO OTHER WIRING IS NEEDED.
CHUTE BOTTOM
POWER CORD
NUETRAL
HOT
MAGNET
120 VAC, 5 Amp service
ALARM
24V GND
RELAY 24V COIL
MAGNETIC HOLD DEVICE
MASTER CONTROLLER
Located at bottom of chute. Includes Air Compressor.
CHUTE IDLE
ALL DOORS CLOSED
MASTER CONTROLLER
- LOW VOLTAGE POWER SUPPLIED TO ALL DOORS.
- LCD DISPLAY INDICATES CHUTE STATUS.
- INTEGRAL CHUTE LOCK-OUT SWITCH.
- OPEN DOOR LEVEL IS DISPLAYED AUTOMATICALLY.
- ALARM SIGNAL ACTIVATED WHEN FIRE DETECTED.
LOCKOUT SWITCH
Integral to controller
POWER CORD
120 VAC, 15 Amp service
DR MICHELASSI
DATE 15-JAN-16
CK
SUP
REV DATE 2-FEB-15
REV A
PART NAME Easy-Wave Pneumatic Interlock
DESCRIPTION Generic - Magnetic Hold
REF
FIRST USED ON
PART NO EW-Pneumatic
1 OF 1


Chute Terminator
DOOR CONTROLLER
Located inside electrical box at each door.
OPTIONAL SMOKE DETECTOR
With Easy-Wave adapter
TOP FLOOR
PLUG
CAT5 Jumper
ADAPTER TEE
RJ11 Cable
1/4" PLASTIC AIR SUPPLY LINE.
SMOKE DETECTOR AND HEAT SENSOR MAY BE INSTALLED AT ANY FLOOR.
CAT5 Cable
DOOR CONTROLLER
Located inside electrical box at each door.
MIDDLE FLOORS
CAT5 Jumper
BOOSTER TEE
FLEX CONDUIT
Connect RED wire to VBST on TEE
Connect YELLOW wire to GND on TEE
BOOSTER POWER SUPPLY
1/4" PLASTIC AIR SUPPLY LINE.
BOOSTER INSTALLED IF REQUIRED
CAT5 Cable
POWER CORD
120 VAC, 15 Amp service
DOOR CONTROLLER
Located inside electrical box at each door.
MIDDLE FLOORS
ALL DOORS INCLUDE:
- WAVE SENSOR TO ACTIVATE DOOR.
- LED INDICATOR TO SHOW CHUTE STATUS.
- SOLENOID AIR VALVE AND 'Y' SUPPLY CONNECTION.
- PNEUMATIC ACTUATORS TO OPEN DOOR.
- SENSOR TO DETECT IF DOOR IS CLOSED.
1/4" PLASTIC AIR SUPPLY LINE.
CAT5 Cable
DOOR CONTROLLER
Located inside electrical box at each door.
BOTTOM FLOOR
CAT5 Jumper
ADAPTER TEE
RJ11 Cable
OPTIONAL HEAT SENSOR
With Easy-Wave adapter
SMOKE DETECTOR AND HEAT SENSOR MAY BE INSTALLED AT ANY FLOOR.
1/4" PLASTIC AIR SUPPLY LINE.
CAT5 Cable
ALL SIGNALS ARE SUPPLIED VIA NETWORK CONNECTION.
- STANDARD CAT5 RJ45 TYPE CABLES.
- NO OTHER WIRING IS NEEDED.
CHUTE IDLE
ALL DOORS CLOSED
MASTER CONTROLLER
Located at bottom of chute.
Includes Air Compressor.
CHUTE BOTTOM
MASTER CONTROLLER
- LOW VOLTAGE POWER SUPPLIED TO ALL DOORS.
- LCD DISPLAY INDICATES CHUTE STATUS.
- INTEGRAL CHUTE LOCK-OUT SWITCH.
- OPEN DOOR LEVEL IS DISPLAYED AUTOMATICALLY.
LOCKOUT SWITCH
Integral to controller
POWER CORD
120 VAC, 15 Amp service
DR MICHELASSI
DATE 15-JAN-16
CK
SUP
REV DATE 06-JUL-16
REV C
PART NAME Easy-Wave Pneumatic Interlock
DESCRIPTION Generic Schematic
REF
FIRST USED ON
PART NO EW-Pneumatic
1 OF 1