HAMILTON SAFE®

Entrance Control System (ECS)
Trouble Shooting Guide

Document Number : 08-349

Crouzet Controller

The controller is completely wired and programmed at the Hamilton factory. Inputs and outputs along with IP addresses are listed below for troubleshooting purposes. See drawing 96-269 for more information.

Input Details	
I1	Push bar door 1 allows exit – overrides manual lock
I2	Door contact door 1 – verifies open or closed
I3	Bond sensor door 1 maglock – verifies locked or unlocked
I4	Door contact door 2 – verifies open or closed
I5	Bond sensor door 2 maglock – verifies locked or unlocked
I6	Door contact door 3 – verifies open or closed
I7	Bond sensor door 3 maglock – verifies locked or unlocked
I8	Push bar door 4 allows exit – overrides manual lock
I9	Door contact door 4 – verifies open or closed
IA	Bond sensor door 4 maglock – verifies locked or unlocked
IB	IR door 1 – detects person between door 1 and weapon detector
IC	IR door 2 – detects person between weapons detector and door 2
ID	IR door 3 and 4 – detects person on exit side
IE	Weapon detector alarm – reset via admit switch
IF	Wireless admit – function same as admit switch
IG	Capture on exit input

Output Details	
O1	Voice announcement on alarm
O2	Green light – OK to exit door 4
O3	Green light – OK to enter door 1
O4	Green light – OK to enter door 3
O5	Red light – Do not enter door 2
O6	Maglock power door 1
O7	Maglock power door 2
COMMON	For outputs O8, O9 & OA
O8	Maglock power door 3
O9	Maglock power door 4
OA	Cabin Lights

IP Addresses	
Master Console	192.168.0.10
Slave Console	192.168.0.11
Crouzet Controller	192.168.0.210
Subnet Mask All	255.255.255.0

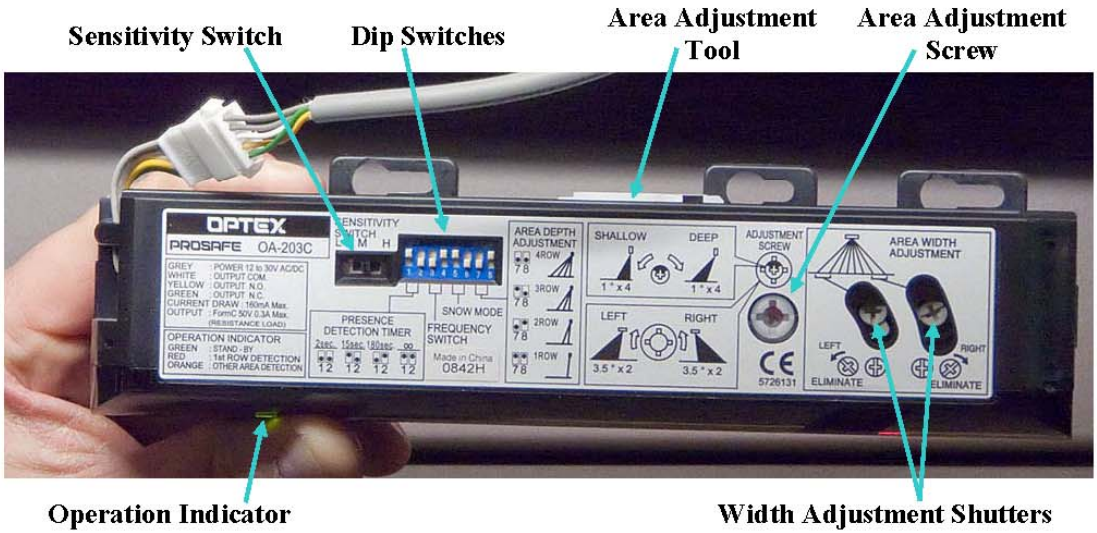
Entrance Control System Service Points

Top Five

1.) Infra Red Detectors
2.) Maglocks
3.) Door Closers
4.) Loops
5.) Touch Bars

OA-203C Infrared Motion Sensor Adjustments

The OA-203C sensor for each door is adjusted at the Hamilton factory for each door and should not need additional adjustment. If adjustment becomes necessary, or the sensor is replaced, follow the instructions below. Refer to the photo for each adjustment location. The sensor is shown removed from the wall for clarity.



Sensitivity Switch – All doors should be set to "M" for medium sensitivity in most cases but some sites may require high sensitivity.

Dip Switches – Set the 8 switches for each door according to the following chart:

	Door 1	Door 2	Door 3	Door 4
1	UP	UP	UP	UP
2	DOWN	DOWN	DOWN	DOWN
3	UP	UP	DOWN	DOWN
4	DOWN	UP	UP	DOWN
5	UP	UP	UP	UP
6	DOWN	DOWN	DOWN	DOWN
7	UP	DOWN	UP	UP
8	DOWN	UP	DOWN	DOWN

Area Adjustment Screw – This screw has outer and inner adjustment as follows:

Using the snub end of the area adjustment tool, adjust the width angle left or right between 0° and 7° (3.5° per click). Set all doors to the middle setting.

Using the phillips end of the area adjustment tool, adjust the depth angle between -4° and +4° (1° per click). Set all doors 2 clicks to the right from center.

Width Adjustment Shutters – With the long slots in the screw heads facing vertical, the full pattern width will be obtained. Turning the left screw counter-clockwise reduces the left side of the pattern by 3.5° per click. Turning the right screw clockwise reduces the right side of the pattern by 3.5° per click.

Door 1 – Eliminate the right side only.
Door 2 – Eliminate the left side only.
Door 3 – Eliminate the right side only.
Door 4 – Eliminate the left side only.

Loops

1. If loops are present the weapons detector may alarm on its own. It may also alarm as soon as door 1 moves.
a. Verify that all the door closers have the isolation kits installed.
b. Make sure that the mullion between the glass has not slid down to create a loop between the bottom rails.
c. Check to see if there are any electrical outlets, water pipes, metal chairs, and etc.. on the outside wall of the Entrance Control System. This side is the receiving side of the weapons detector, so it is more sensitive.

Touch Bars

Securitron (Touch Sense)
Locknetics – Touch Bar (New in 2005)
Verify that when it is touched or pushed it releases the door (This applies to both touch bars). If the switch is out of adjustment it could be telling the system that it is pushed, which in the case of door 1 will not let door 2 open. In the case of door 4, it will not let door 3 open, so if you have these symptoms you should check the door push bars.

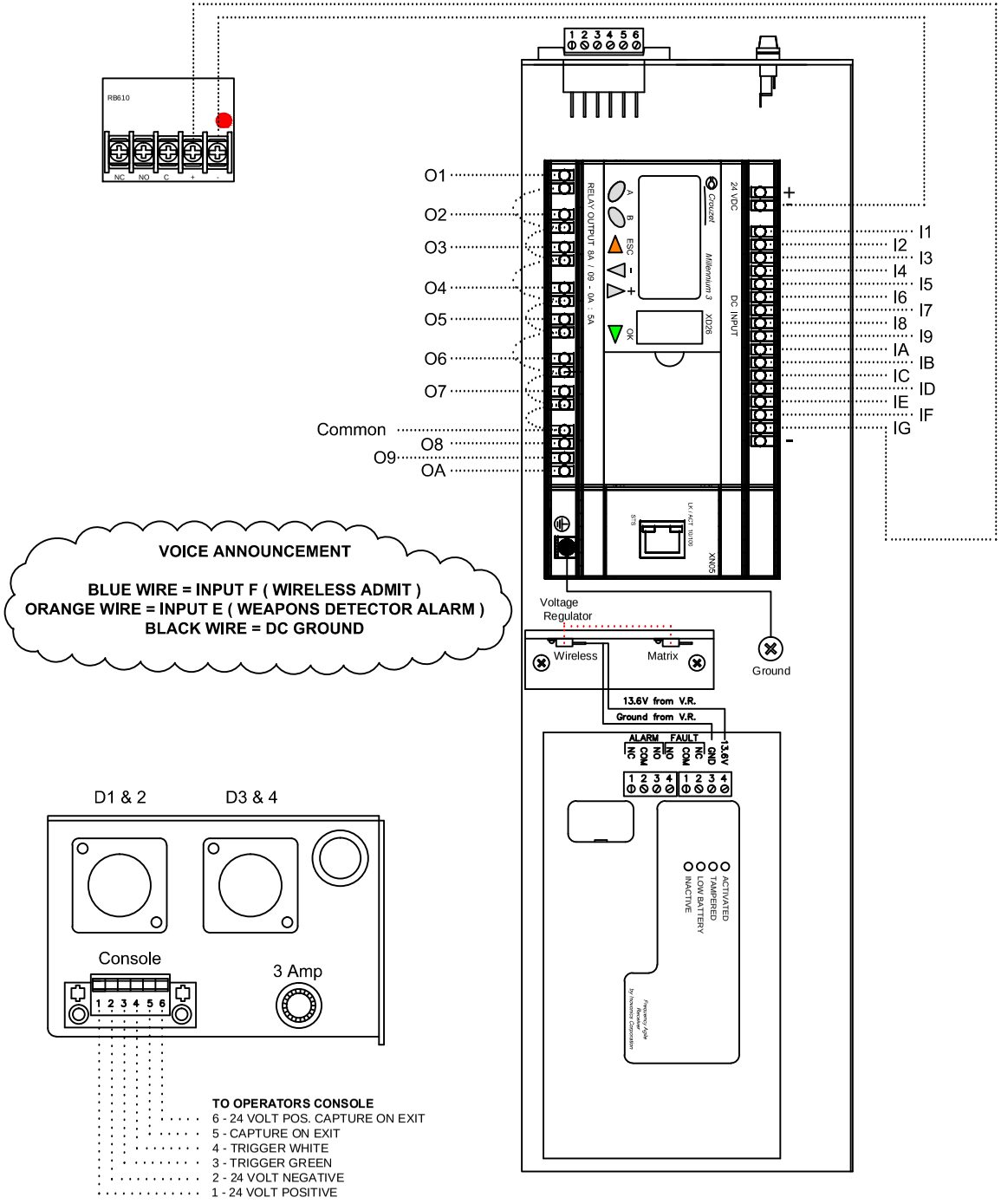
Maglocks

1. Clean the armature (strike) plate and maglock with scotch bright.
2. Make sure the armature (strike) plate is loose enough to seat flat against the maglock.
3. Check appropriate input on the Allen Bradley to see if the lock is showing that it is locked.
a. Door 1 Locked = Input 9
b. Door 2 Locked = Input 13
c. Door 3 Locked = Input 14
d. Door 4 Locked = Input 15
4. Check to see if the door is seated in the opening, not racked out in one corner, which may not allow the armature (strike) plate to sit flat on the maglock.

Door Closers

1. Make sure the closer is adjusted to leave tension on the door once it is closed. This is really important on doors 1 and 4.
2. Adjust the backstop on door 4 to avoid the wind pulling the adjustable slide arm out of adjustment.
3. In some cases it may require a door stop for door 4 so it does not continue to have problems

REV.-1	4-10-12	Added optional relay to monitor capture on exit.
REV.-2	.	.



VOICE ANNOUNCEMENT

BLUE WIRE = INPUT F (WIRELESS ADMIT)
ORANGE WIRE = INPUT E (WEAPONS DETECTOR ALARM)
BLACK WIRE = DC GROUND

Crouzet Controller Input Details

I1	Push bar door 1 allows exit - overrides manual lock
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I3	Bond sensor door 1 maglock - verifies locked or unlocked
I4	Door contact door 2 - verifies open or closed
I5	Bond sensor door 2 maglock - verifies locked or unlocked
I6	Door contact door 3 - verifies open or closed
I7	Bond sensor door 3 maglock - verifies locked or unlocked
I8	Push bar door 4 allows exit - overrides manual lock
I9	Door contact door 4 - verifies open or closed
IA	Bond sensor door 4 maglock - verifies locked or unlocked
IB	IR door 1 - detects person between door 1 and weapon detector
IC	IR door 2 - detects person between weapons detector and door 2
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IE	Weapon detector alarm - reset via admit switch
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Crouzet Controller Output Details

O1	Voice announcement on alarm
O2	Green light - OK to exit door 4
O3	Green light - OK to enter door 1
O4	Green light - OK to enter door 2
O5	Red light - Do not enter door 2
O6	Maglock power door 1
O7	Maglock power door 2
COMMON	For outputs O8, O9, & OA
O8	Maglock power door 3
O9	Maglock power door 4
OA	Cabin Lights

IP Addressed Crouzet Controller and Consoles

Master Console	IP Address is 192.168.0.10
Slave Console	IP Address is 192.168.0.11
Crouzet Controller	IP Address is 192.168.0.210
Subnet Mask All	Subnet Mask is 255.255.255.0

HAMILTON SAFE

2010 Entrance Control System
New Touch Screen Wiring Details
With Crouzet Controller and Inovonics Wireless Receiver Installed

Drawing Number : 96-269

Date : 10/9/09

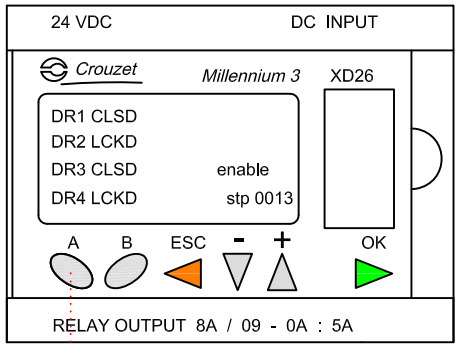
Exterior Door 1 and Door 4 Harness

D 1 & 4 (28) Pin Plug Number	Device ID	Harness Cable Color	Control Panel Connection	Device Plug Number (P)	Device Plug Pin Number	Device Wire Color	Device Connection
1	IR Over Door 1	Black	24 - VDC	P2	2	Grey	Power
1	Door 1 Maglock	Black	24 - VDC	P3	2	Black	24 - VDC
1	Door 4 Maglock	Black	24 - VDC	P17	2	Black	24 - VDC
1	Door 1 Red Light	Black	24 - VDC	P5	3	Black	
1	Door 1 Green Light	Black	24 - VDC	P5	3	Black	
1	Door 4 Green Light	Black	24 - VDC	P15	3	Black	
1	IR Over Door 4	Black	24 - VDC	P22	2	Gray	Power
2	Push Bar Door 1	White	Input - 1	P1	3	Black	Common
3	IR Over Door 1	Red	24 + VDC	P2	1	WHT/GRY	Common
3	Push Bar Door 1	Red	24 + VDC	P1	1	Red	N.O.
3	Door Contact Door 1	Red	24 + VDC	P4	1	Brown	N.O.
3	Door Contact Door 4	Red	24 + VDC	P14	1	Brown	N.O.
3	IR Over Door 4	Red	24 + VDC	P22	1	WHT/GRY	Common
3	Push Bar Door 4	Red	24 + VDC	P13	1	Red	N.O.
4	IR Over Door 1	Light Green	Input - B	P2	3	Yellow	N.O.
5	Door Contact Door 1	Orange	Input -2	P4	3	Brown	N.O.
6	Bond Sensor Door 1 Maglock	Light Blue	Input - 3	P3	3	Green	N.C.
7	Door Contact Door 4	WHT/BLK	Input - 9	P14	3	Brown	N.O.
8	Door 4 Maglock	RED/BLK	Output - 9 With 15 ohm Resistor	P17	1	WHT/RED	Common
9	Trigger	Light GRN/BLK		Console	4		
10	Bond Sensor Door 4 Maglock	ORG/BLK	Input - A	P17	3	Green	N.C.
11	Door 1 Maglock	Light BLUE/BLK	Output - 6 With 15 ohm Resistor	P3	1	WHT/RED	Common
12	Red Light - Door 1	BLK/WHT	Output - 6 With Diode	P5	1	Red	
13	Green Light - OK To Enter Door 1	RED/WHT	Output - 3	P5	1	Red	
14	IR Over Door 4	Light GRN/WHT	Input - D	P22	3	Yellow	N.O.
15	Trigger	Light BLUE/WHT		Console	3		
16	From Power Supply To Fuse	BLK/RED	24 + VDC	Power Supply	1		
17	Green Light - OK To Exit Door 4	WHT/RED	Output - 2	P15	1	Red	
18	Push Bar Door 4	ORG/RED	Input- 8	P13	3	Black	Common
19	From Power Supply To	Light BLU/RED	24 - VDC	Power Supply	2		
20	Handicap / Teller Call +	RED/GRN	N.O.	P16			Common
21	Handicap / Teller Call -	ORG GRN	Common	P16			N.O.
22	Not Used	BLK/WHT/RED					
23	Not Used	WHT/BLK/RED					
24	Not Used	RED/BLK/WHT					
25	Not Used	Light GRN/BLK/WHT					
26	Not Available						
27	Not Available						
28	Ground		24 - VDC				

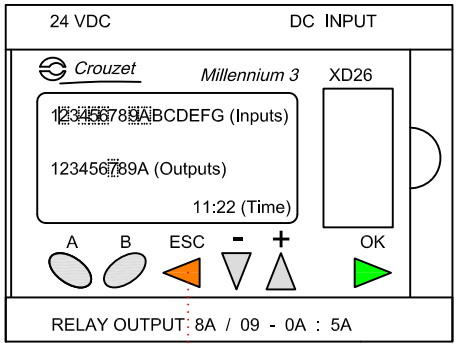
Interior Door 2 and Door 3 Harness

D 2 & 3 (28) Pin Plug Number	Device ID	Harness Cable Color	Control Panel Connection	Device Plug Number (P)	Device Plug Pin Number	Device Wire Color	Device Connection
1	Door 3 Maglock	Black	24 - VDC (2ND)	P11	2	Black	24 - VDC
1	IR Over Door 3	Black	24 - VDC (2ND)	P21	2	Gray	Power
1	IR Over Door 2	Black	24 - VDC (2ND)	P6	2	Gray	Common
1	Door 2 Red Light	Black	24 - VDC (2ND)	P9	3	Black	
1	Door 2 Green Light	Black	24 - VDC (2ND)	P9	3	Black	
1	Door 2 Maglock	Black	24 - VDC (2ND)	P7	2	Black	24 - VDC
2	Fuse To 24 + VDC (Red Jumper)	White	24 + VDC				
3	Voice Annoucement	Red	Output - 1				
3	Door Contact Door 2	Red	24 + VDC	P8	1	Brown	N.O.
3	IR Over Door 3	Red	24 + VDC	P21	1	WHT/GRY	Common
3	IR Over Door 2	Red	24 + VDC	P6	1	WHT/GRY	Power
3	Door Contact Door 3	Red	24 + VDC	P12	1	Brown	N.O.
4	Speaker -	Light Green	24 - VDC	P20	1		
5	Weapon Detector Alarm	Orange	Input - E	P19			
6	Weapon Detector Alarm	Light Blue	24 - VDC (2ND)	P19			
7	Microphone +	WHT/BLK	24 + VDC	P10	1	Red	
8	Microphone -	RED/BLACK	24 - VDC	P10	2	Black	
9	Bond Sensor Door 3 Maglock	Light GRN/BLK	Input - 7	P11	3	Green	N.C.
10	Door Contact Door 3	ORG/BLK	Input - 6	P12	3	Brown	N.O.
11	Door 3 Maglock	Light BLU/BLK	Ouput 8 - With 15 ohm Resistor	P11	1	WHT/RED	Common Power
12	Speaker +	BLK/WHT	24 + VDC	P20	3		
13	Door Contact Door 2	RED/WHT	Input - 4	P8	3	Brown	N.O.
14	IR Over Door 3	Light GRN/WHT	Input - D	P21	3	Yellow	N.O.
15	IR Over Door 2	Light BLU/WHT	Input - C	P6	3	Yellow	N.O.
16	Green Light Door 2	BLK/RED	Input - 4	P9	1	Red	
17	Door 2 Maglock	WHT/READ	Ouput 7 - With 15 ohm Resistor	P7	1	WHT/RED	Common Power
18	Bond Sensor Door 2 Maglock	ORG/RED	Input - 5	P7	3	Green	N.C.
19	Red Light Door 2	Light BLU/RED	Output - 5	P9	1	Red	
20	Computer (SO)	RED/GRN					
21	Computer (S1)	ORG/GRN					
22	Not Used	BLK/WHT/RED					
23	Not Used	WHT/BLK/RED					
24	Not Used	RED/BLK/WHT					
25	Not Used	Light GRN/BLK/WHT					
26	Not Available						
27	Not Available						
28	Ground		24 - VDC				

Push *A* button to enable or disable delayed egress.
The *p0013* should be flashing with a black box around them.
Push green *OK* button allow you change the time. The black box should be gone now allowing you to use the up or down buttons to set the desired time minimum of 6 seconds. To return to normal status push green *OK* button then the *A* button.
Note: ships from factory disabled



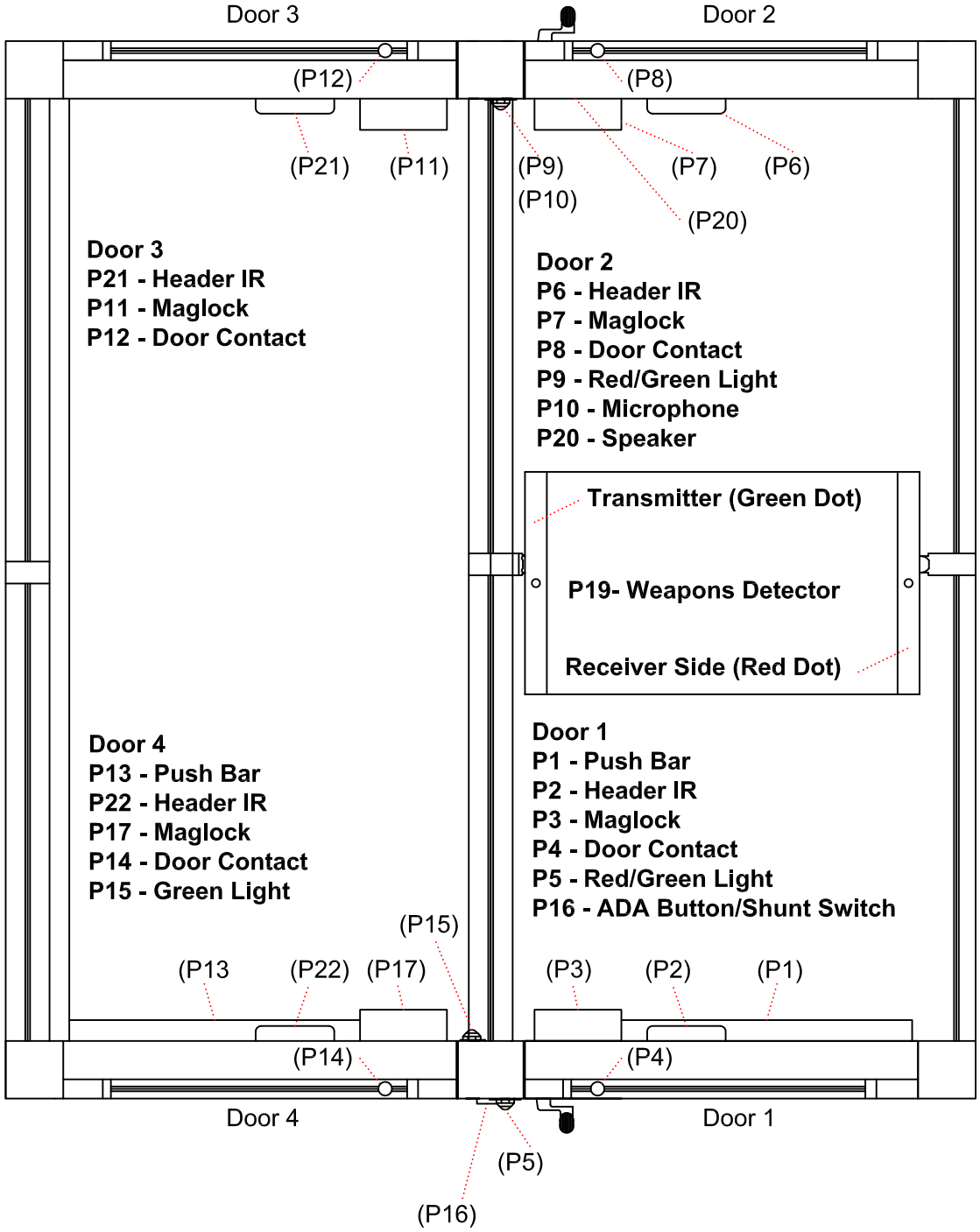
To View the Input and Outputs hold ESC button in (Orange button) (Note: Input/Output have a box around them when activated)



HAMILTON SAFE

2010 Entrance Control System
New Touch Screen Wiring Details
With Crouzet Controller and Inovonics
Wireless Receiver Installed

REV.-1	.	.
REV.-2	.	.



Normally located above ECS
(Can be remote mounted)

AL300ULM POWER SUPPLY

Power Supply - One 6 position plug
Shunt Switch
Power to Crouzet Controller
Trigger (On & Off)

ECS Controller to Weapons Detector Control

Power
7-Brown Wire to Weapons Detector Control
9-Blue Wire to Weapons Detector Control

Trigger
11-Orange Wire to Weapons Detector Control
12- Red Wire to Weapons Detector Control

Weapons Detector Panels to W.D. Control
Receiver (Red Dot-Outside Wall ECS)
B-Yellow Receiver Panel to WD Control
C-Black Receiver Panel to WD Control
K-Red Receiver Panel to WD Control
H-White Receiver Panel to WD Control
A-Green Receiver Panel to WD Control
Transmitter (Green Dot-Dividing Wall ECS)
D-Gray Transmitter Panel to WD Control
E-Blue Transmitter Panel to WD Control
F-Red Transmitter Panel to WD Control
Y-Brown Transmitter Panel to WD Control
9-Green Transmitter Panel to WD Control
7-White Transmitter Panel to WD Control
5-Yellow Transmitter Panel to WD Control
10-Black Transmitter Panel to WD Control

HAMILTON SAFE

2010 Entrance Control System
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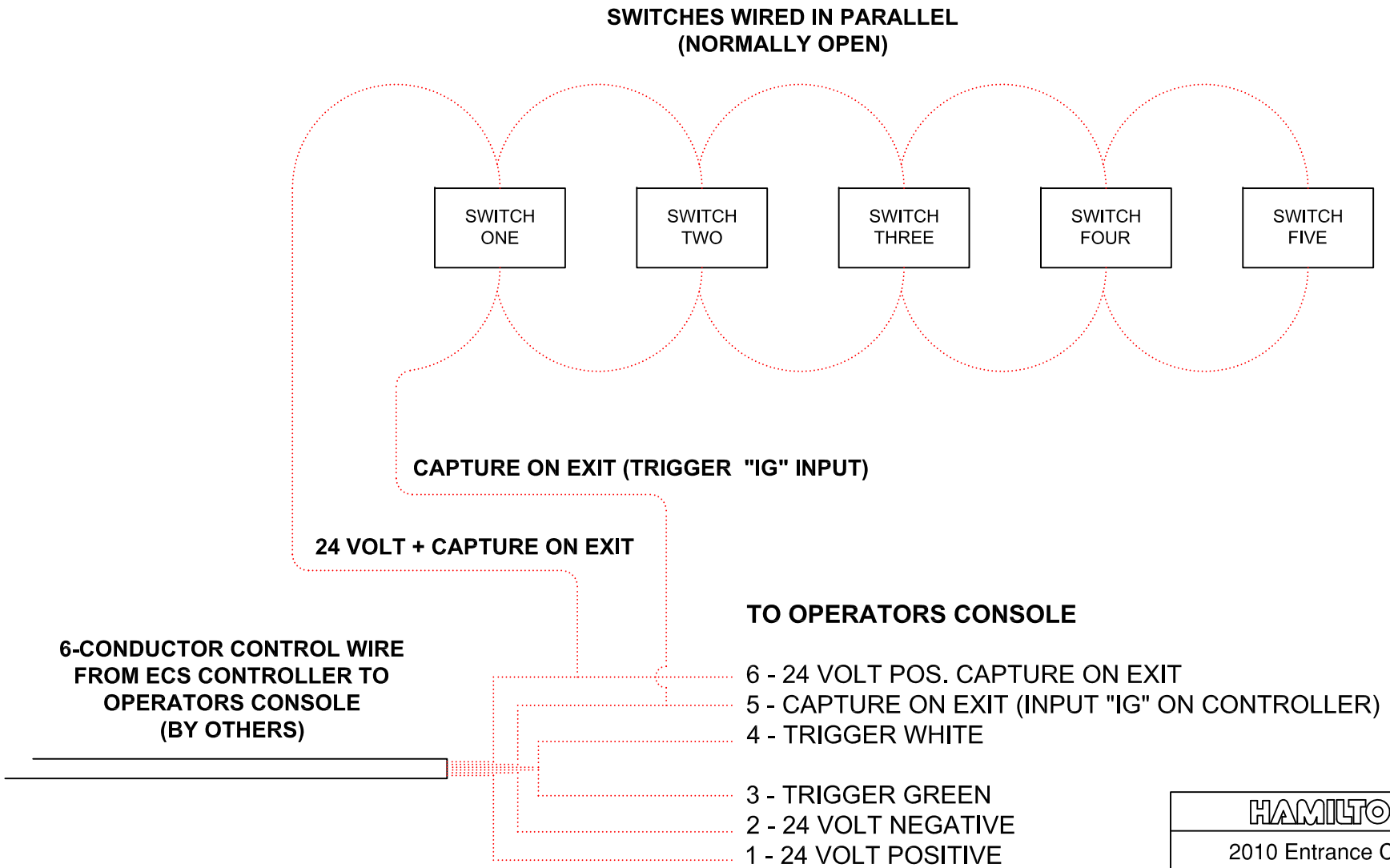
REV.-1	.	.
REV.-2	.	.

OPTIONAL FEATURE "CAPTURE ON EXIT" WIRING SCHEMATIC



HAMILTON SAFE

2010 Entrance Control System
New Touch Screen Wiring Details
With Crouzet Controller and Inovonics
Wireless Receiver Installed

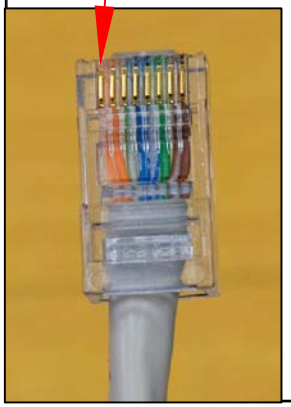
REV.-1	.	.
REV.-2	.	.

RJ-45 Color Chart Straight-Through

Wire	Color
1	Orange / White
2	Orange
3	Green / White
4	Blue
5	Blue / White
6	Green
7	Brown / White
8	Brown

Spring clip

Pin 1



To determine which wire is wire number 1, hold the cable so that the end of the plastic RJ-45 tip (the part that goes into a wall jack first) is facing away from you. Face the clip down so the copper side faces up (the springy clip will now be parallel to the floor). When looking down on the copper side, wire 1 will be on the far left.

HAMILTON SAFE

2010 Entrance Control System
New Touch Screen Wiring Details
With Crouzet Controller and Inovonics
Wireless Receiver Installed

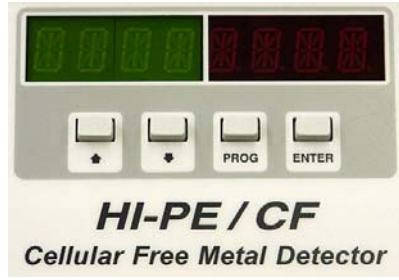
Drawing Number : 96-269

Date : 10/9/09

Programming the Metal Detector

The following chart shows the user adjustable settings on the metal detector. Ceia factory values are shown along with the recommended values for use in the ECS. Adjust these settings as needed.

Adjustable Setting	Ceia Factory Value	Recommended Value for ECS
Sensitivity	SE = 19	SE = 25
Max. Detection Speed	DS = 5	DS = 5
Baud Rate	BR = 9600	BR = 9600
TX Channel	CH = 50	CH = 50
Alarm Duration	AD = 1C	AD = 1C
Alarm Volume	AV = 3	As desired by customer
Alarm Tone	AT = 2	As desired by customer
Reset Mode	RM = A	RM = A



Metal Detector Keypad

Follow these steps to program the recommended values:

1) To begin there should be four dashes on the left side of the split screen. This is normal operation mode with no metal detector activation and no alarms.

2) Press the **PROG** key. Four dashes should appear on the right side of the split screen indicating program mode.

3) Press the **ENTER** key and then use the ▲ & ▼ arrow keys to scroll through the available program items.

4) While the item you wish to change is displayed (such as SE for Sensitivity) press the **ENTER** key and the current value will start flashing. Use the ▲ or ▼ arrow key to change the value as appropriate and then press the **ENTER** key again.

5) Use the ▲ & ▼ arrow keys to locate other settings and repeat step 4 as necessary to change their values. While programming the Alarm Volume and Alarm Tone you will hear the new sound as the value is changed with the arrow keys.

6) Once all items are programmed properly press the **PROG** key to exit program mode. Four dashes will once again appear on the left side of the split screen.

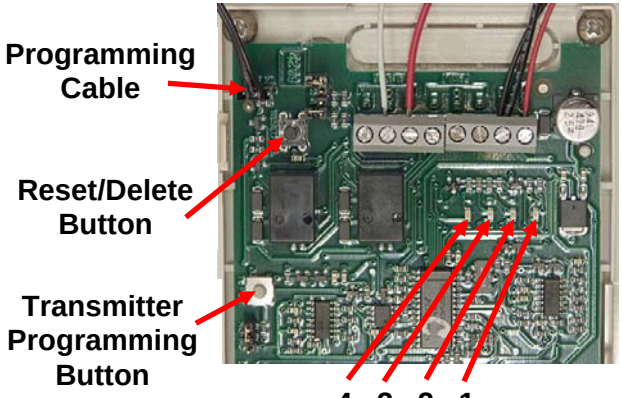
Programming the Wireless Transmitters

Up to (4) FA203S transmitters can be programmed to activate the FA404R receiver. Use the following procedure to program each transmitter used.

Removing the Transmitter Cover

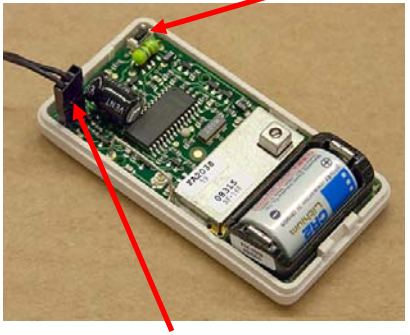
1) Pry off the cover from the receiver using a flat blade screwdriver at the slots on the sides. Also pry open each transmitter case the same way.
2) Attach one end of the programming cable to the receiver. Polarity is not important.
3) Place the receiver in programming mode by holding the Transmitter Programming Button for at least 1 second. The LED for transmitter 1 will either come on solid meaning that input is already programmed or the LED will blink meaning that input is not programmed. Pressing and holding the Transmitter Programming Button again selects transmitter 2. Repeat this step as necessary to view the programming status of each transmitter input.
4) With the LED blinking for the transmitter input you wish to program, connect the other end of the programming cable to a transmitter. Press the Transmitter Reset Button on the transmitter for at least 2 seconds. If successful, the LED on the receiver will change from blinking to steady when the button is released. After a short time period programming mode will exit automatically. Programming mode will also exit after approximately 30 seconds of inactivity.
5) Re-enter programming mode and repeat step 4 for each additional FA203S transmitter you wish to program.
6) Make sure that only one transmitter is programmed for each input. To delete a programmed input, press the Reset/Delete Button on the receiver while that input LED is lit in programming mode.

FA404R Receiver



Transmitter Program LED's

Transmitter Reset Button



Programming Cable

If a battery is removed or replaced in a transmitter it is not necessary to reprogram it. Simply press the Transmitter Reset Button after installing the battery.

Programming Wireless Admit Switches

Document Number: 08-338

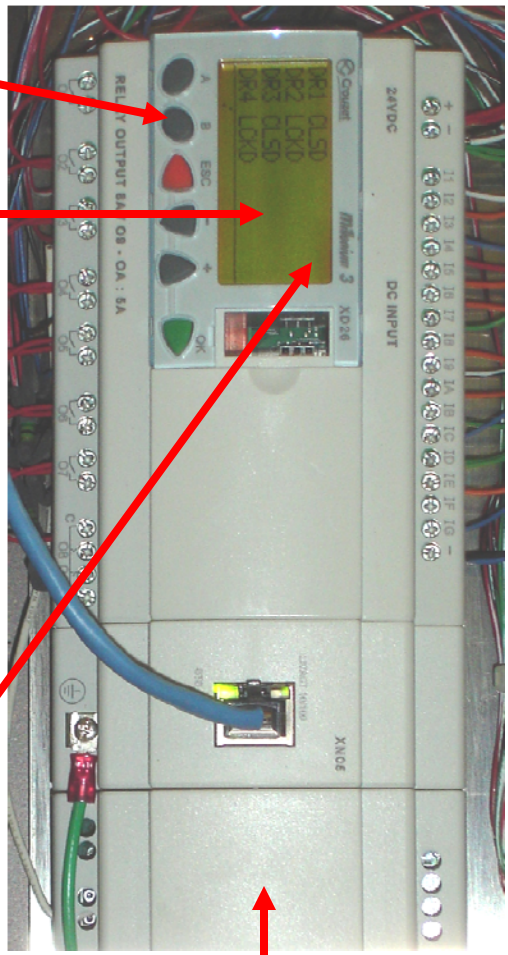
Date: 10/17/11

Hold “B” button until you see:

“REMOTE ON NOW”

Push the grey button on the key-fob remote until the “REMOTE ON NOW” goes off then the remote should be programmed.

Test the remote to see if it is resetting the system you should see a “C-1” pop up in the lower right hand corner of the controller display when it is pushed.



Wireless Receiver

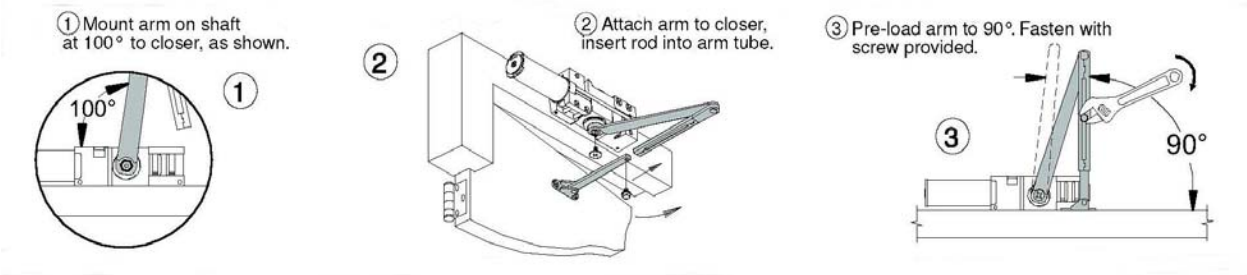
Key Fob

Note:
If more than one remote is desire repeat as needed there is no limit to the number of remotes that can be set up.

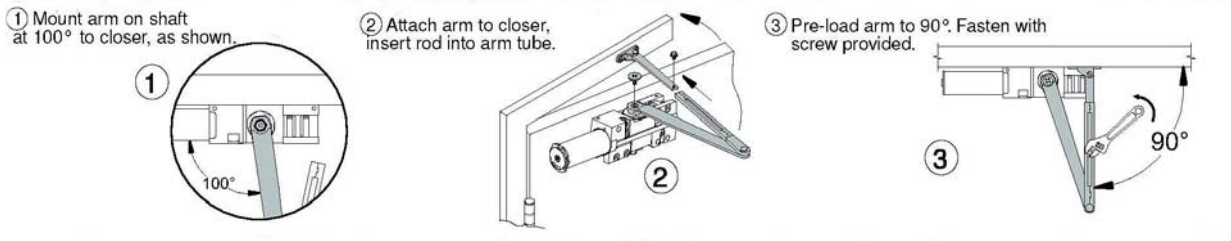
LCN 4041 Door Closer Adjustments

The door closer assemblies for all four doors of the ECS are installed and adjusted at the factory. In most cases the factory adjustments are satisfactory and do not need to change. Use the following guides if and when further adjustments are required.

When installing glass in a door it will be necessary to separate the door closer arm. The following procedures show how to properly adjust the arm after it is reconnected.

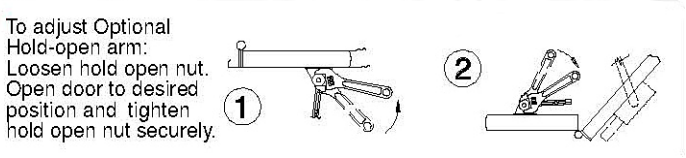


Closer Arm Adjustment for Doors 1, 2 & 4 (Push)



Closer Arm Adjustment for Door 3 (Pull)

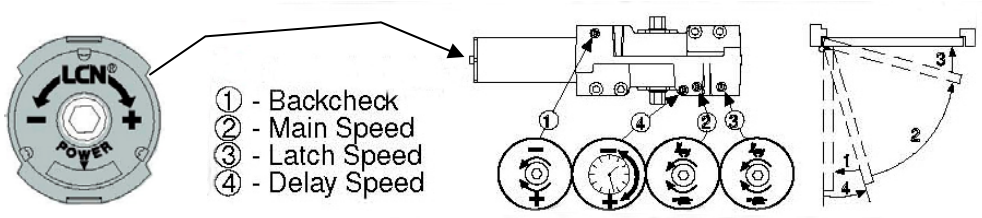
Use the procedure to the right if it ever becomes necessary to lock the closer arm in the open position. Be sure to readjust the closer arm using the previous instructions when returning the door to normal operation.



Hold Open Arm Adjustment

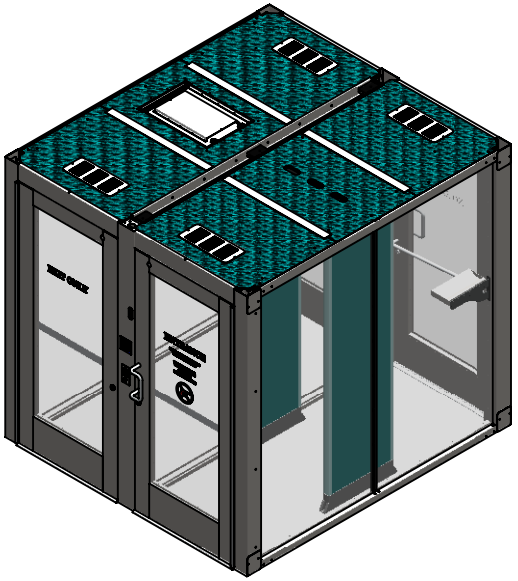
The speed that a door closes is an important consideration. If it closes too fast it can hinder a handicapped person or someone with children; if it closes too slow it causes a delay during entrance or exit because of the "man-trap" operation. Refer to the drawing below for the location of the closer speed adjustments.

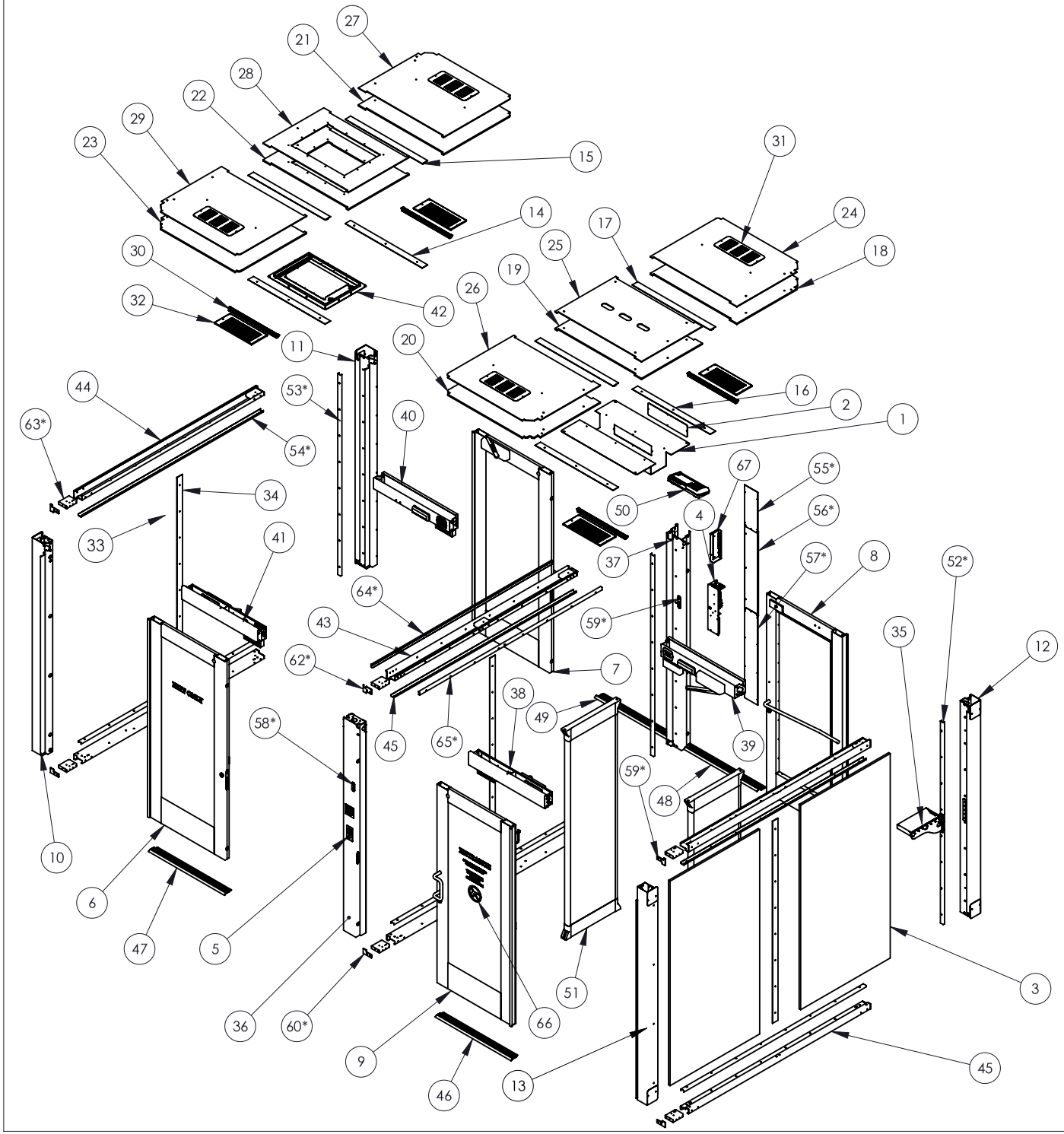
Closer Speed Adjustments



Power – Adjusts the spring power for the size of the door. Leave on the factory setting of "3".
Backcheck – Controls the amount of resistance to opening the door past a selectable point to prevent the door from being slammed into an adjacent wall.
Main Speed – Controls how fast the door closes from fully open to within about 5 degrees of closed. The main speed and latch speed should be adjusted to equal times.
Latch Speed – Controls how fast the door closes for those last few inches. The main speed and latch speed should be adjusted to equal times.

Rev - 1	--
Rev - 2	--





HAMILTON

2010 STANDARD ENTRANCE CONTROL UNIT

EXPLODED VIEW DRAWING

PAGE 1 OF 2

Drawing Number : 96-320	Date : 1-21-2010

Rev - 1	--
Rev - 2	--

2010 STANDARD ENTRANCE CONTROL UNIT EXPLODED VIEW DRAWING PARTS LIST

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QTY.
1	ECSTN-001	B10220	METAL DETECTOR BRIDGE	1
2	ECSTN-002	B10221	METAL DETECTOR BRIDGE COVER	1
3	******	B10222	CABIN GLASS - HP WHITE LEVEL 1	6
4	96-293	B10175	2010 ECS TOUCH SCREEN ELECTRICAL BOX	1
5	******	E10080	HANDICAP BUTTON KIT	1
6	96-312	96-312	DOOR 4 COMPLETE ASSEMBLY	1
7	96-311	96-311	DOOR 3 COMPLETE ASSEMBLY	1
8	96-310	96-310	DOOR 2 COMPLETE ASSEMBLY	1
9	96-309	96-309	DOOR 1 COMPLETE ASSEMBLY	1
10	ECSTN-SA-004	B10223	2010 ECS DOOR 4 CORNER POST	1
11	ECSTN-SA-003	B10224	2010 ECS DOOR 3 CORNER POST	1
12	ECSTN-SA-002	B10225	2010 ECS DOOR 2 CORNER POST	1
13	ECSTN-SA-001	B10226	2010 ECS DOOR 1 CORNER POST	1
14	ECSTN-077	B10227	ROOF MULLION MOUNTING STRIP - EXIT SIDE	2
15	ECSTN-SA-018	B10228	ROOF MULLION - EXIT SIDE	2
16	ECSTN-080	B10229	ROOF MULLION MOUNTING STRIP - ENTRANCE SIDE	2
17	ECSTN-SA-017	B10230	ROOF MULLION - ENTRANCE SIDE	2
18	ECSTN-073	B10231	ROOF - ENTRANCE SIDE DOOR 2	1
19	ECSTN-072	B10232	ROOF - ENTRANCE SIDE CENTER	1
20	ECSTN-071	B10233	ROOF - ENTRANCE SIDE DOOR 1	1
21	ECSTN-074	B10234	ROOF - EXIT SIDE DOOR 3	1
22	ECSTN-075	B10235	ROOF - EXIT SIDE CENTER	1
23	ECSTN-076	B10236	ROOF - EXIT SIDE DOOR 4	1
24	ECSTN-067	B10254	BR PANEL - ENTRANCE SIDE DOOR 2	1
25	ECSTN-066	B10255	BR PANEL - ENTRANCE SIDE CENTER	1
26	ECSTN-065	B10256	BR PANEL ENTRANCE SIDE DOOR 1	1
27	ECSTN-068	B10257	BR PANEL - EXIT SIDE DOOR 3	1
28	ECSTN-069	B10258	BR PANEL - EXIT SIDE CENTER	1
29	ECSTN-070	B10259	BR PANEL - EXIT SIDE DOOR 4	1
30	******	E10107	INTERIOR LIGHTING - LED FLAT RETAIL DISPLAY #FLD10058	4
31	ECSTN-083	B10260	UPPER CEILING VENT	4
32	******	B10261	LOWER CEILING VENT	4
33	ECSTN-SA-016	B10237	GLASS MULLION	3
34	ECSTN-061	B10238	GLASS MULLION RETAINING STRIP	3
35		B10239	2010 ECS SHELF	1
36	96-307	96-307	FRONT CENTER POST COMPLETE ASSEMBLY	1
37	96-306	96-306	REAR CENTER POST COMPLETE ASSEMBLY	1
38	96-316	96-316	HEADER - DOOR 1 COMPLETE ASSEMBLY	1
39	96-317	96-317	HEADER - DOOR 2 COMPLETE ASSEMBLY	1
40	96-318	96-318	HEADER - DOOR 3 COMPLETE ASSEMBLY	1
41	96-319	96-319	HEADER - DOOR 4 COMPLETE ASSEMBLY	1
42	ECSTN-SA-014	B10240	SERVICE HATCH	1
43	ECSTN-033	B10241	TOP CENTER RAIL	1
44	ECSTN-032	B10242	TOP OUTER RAIL	2
45	ECSTN-031	B10243	BOTTOM RAIL	3
46		B10250	TREAD PLATE - DOOR 1	1
47		B10251	TREAD PLATE - DOOR 4	1
48		B10252	TREAD PLATE - DOOR 2 **OPTIONAL**	1
49		B10253	TREAD PLATE - DOOR 3 **OPTIONAL**	1
50	******	E10090	CEIA HI-PE/CF METAL DETECTOR CONTROL BOX	1
51	******	E10091	WEAPONS DETECTOR SIDE PANEL	2

} CAN BE ORDERED TOGETHER AS KIT #E10092

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QTY.
52	ECSTN-011	B10244	UPRIGHT GLASS CHANNEL - DOOR 2	1
53	ECSTN-023	B10245	UPRIGHT GLASS CHANNEL	5
54	ECSTN-034	B10262	GLASS CHANNEL - TOP & BOTTOM RAIL	6
55	ECSTN-026	B10208	REAR CENTER POST COVER - TOP PANEL	1
56	ECSTN-027	B10209	REAR CENTER POST COVER - CENTER PANEL	1
57	ECSTN-028	B10207	REAR CENTER POST COVER - BOTTOM PANEL	1
58	******	E10082	FRONT CENTER POST RED-GREEN LIGHT ASSEMBLY	1
59	******	E10084	REAR CENTER POST RED-GREEN LIGHT W/ MIC ASSEMBLY	1
60	ECSTN-058	B10246	LEXAN SPACER - BOTTOM RAIL	6
61	ECSTN-059	B10247	LEXAN SPACER - TOP OUTER RAIL	4
62	ECSTN-060	B10248	LEXAN SPACER - TOP CENTER RAIL	2
63	ECSTN-XXX	B10249	TAP BLOCK	13
64	ECSTN-035	B10263	CEILING RETAINER - EXIT SIDE	1
65	ECSTN-036	B10264	CEILING RETAINER - ENTRANCE SIDE	1
66	******	H10097	DOOR DECAL KIT - COMPLETE - ENGLISH	1
67		-	AUDIO MATRIX COMPLETE ASSEMBLY	1

ITEMS NOT SHOWN

	******	E10097	DOOR 1 & 4 MAIN WIRING HARNESS	1
	******	E10098	DOOR 2 & 3 MAIN WIRING HARNESS	1
	******	E10099	BLUE CAT-5 CABLE FOR CONTROL HARNESS - 100 FT	1
	******	E10100	YELLOW CAT-5 CABLE FOR AUDIO HARNESS - 100FT	1
	******	E10101	6 CONDUCTOR WIRE FOR CONTROL HARNESS - 100 FT	1
	******	E10102	CABIN LED HARNESS	1
	******	E10103	AL600ULM POWER SUPPLY	1
	******	E10104	SECURITY LEVEL 1 TEST SAMPLE NILECJ.STD 0601.00	1
	******	E10106	MD SCOPE SOFTWARE COD 26894	1
	******	E10129	5 PORT DIGITAL SWITCH ***OPTIONAL***	1
	******	H10098	DOOR DECAL KIT - COMPLETE - SPANISH ***OPTIONAL***	1

HAMILTON

2010 STANDARD ENTRANCE CONTROL UNIT

EXPLODED VIEW DRAWING

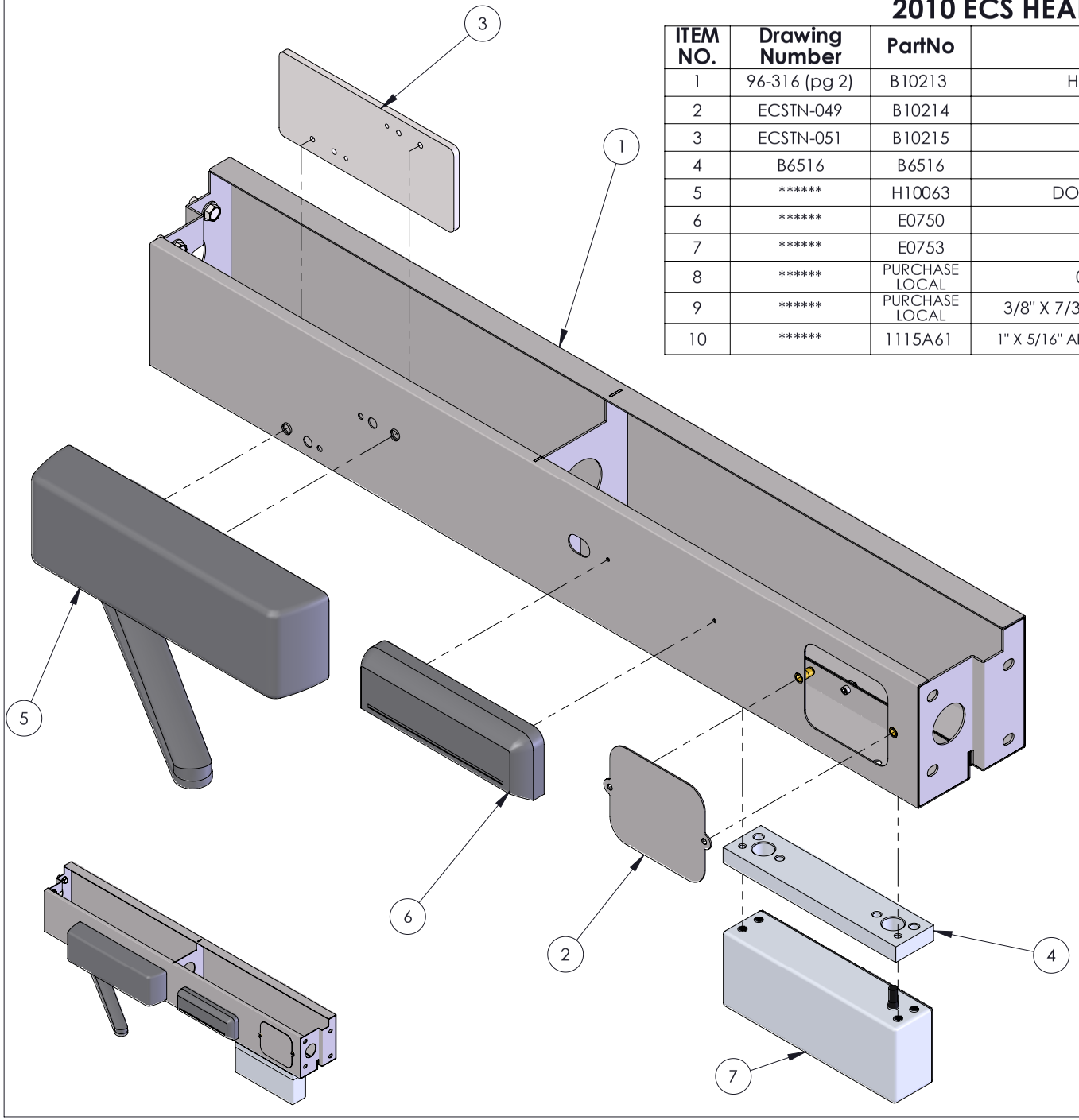
PAGE 2 0F 2

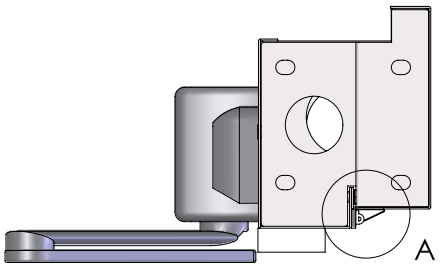
Drawing Number : 96-320	Date : 1-21-2010

Rev - 1	7-13-2010 (UPDATED DRAWING FOR HURRICANE RATING)
Rev - 2	--

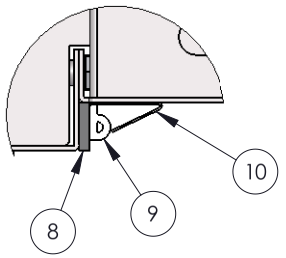
2010 ECS HEADER - DOOR 1 EXPLODED VIEW

ITEM NO.	Drawing Number	PartNo	Description	QTY.
1	96-316 (pg 2)	B10213	HEADER - DOOR 1 WELDED SUB ASSEMBLY	1
2	ECSTN-049	B10214	ACCESS COVER - HEADERS 1,3, & 4	1
3	ECSTN-051	B10215	DOOR CLOSER BACK-UP PLATE	1
4	B6516	B6516	MAG LOCK SPACER	1
5	******	H10063	DOOR CLOSER - LCN SUPER SMOOTHIE #4041	1
6	******	E0750	IR DETECTOR - OPTEX 0A 203CS	1
7	******	E0753	MAG LOCK -SECURITRON M62SC	1
8	******	PURCHASE LOCAL	0.500 X 0.110 FOAM WEATHERSTRIPPING	1
9	******	PURCHASE LOCAL	3/8" X 7/32" P PROFILE ALL CLIMATE RUBBER WEATHERSEAL	1
10	******	1115A61	1" X 5/16" ADHESIVE BACKED WEATHERSTRIPPING - McMASTER CARR	1





WEATHERSTRIPPING DETAIL "A"



RUN WEATHERSTRIPPING AS SHOWN
DOWN ENTIRE LENGTH OF PART
#8 - STANDARD UNITS.
ADD #9 & #10 FOR HURRICANE RATING

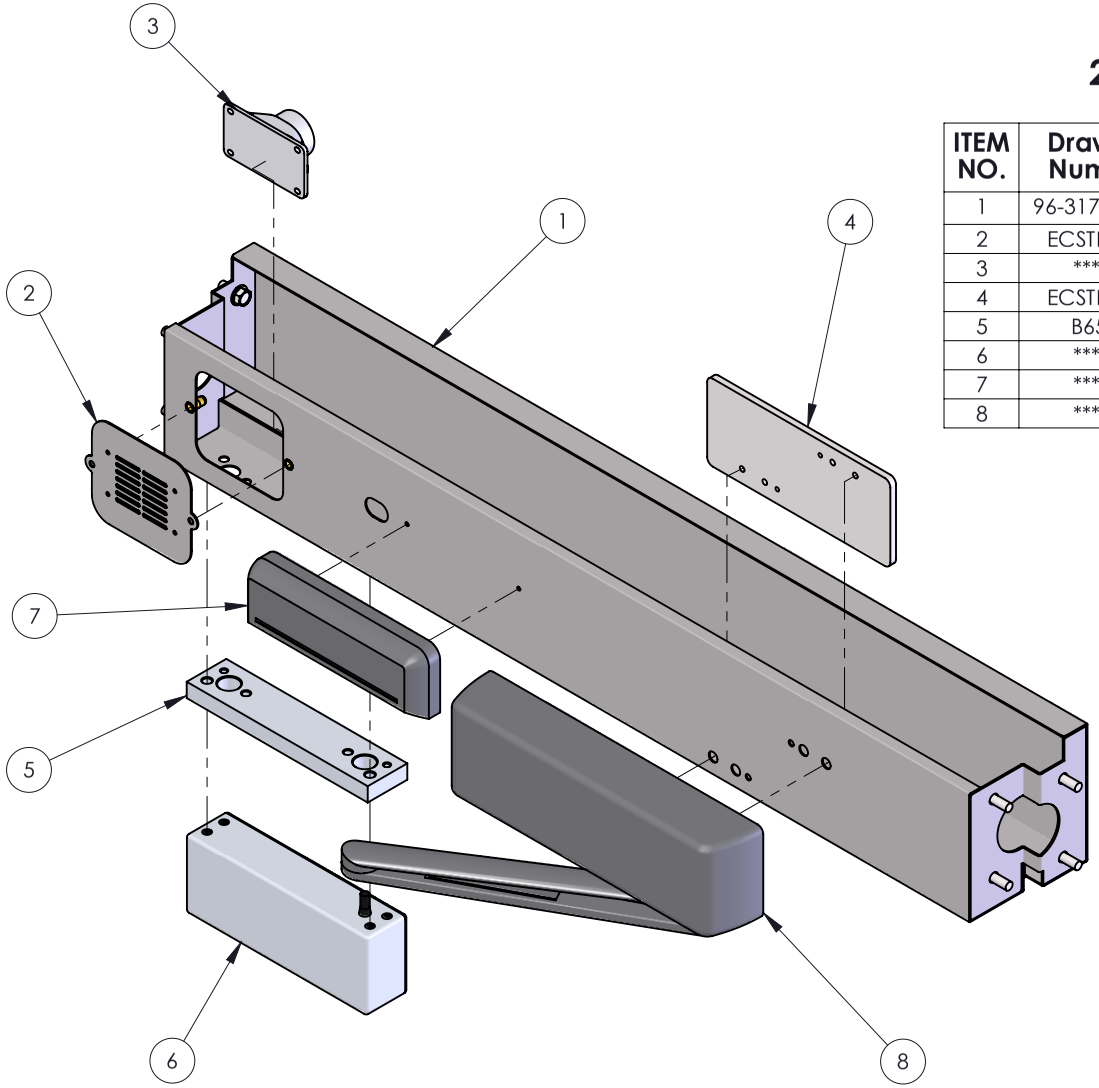
HAMILTON

2010 ENTRANCE CONTROL HEADER - DOOR 1
EXPLODED VIEW DRAWING
PAGE 1 OF 2

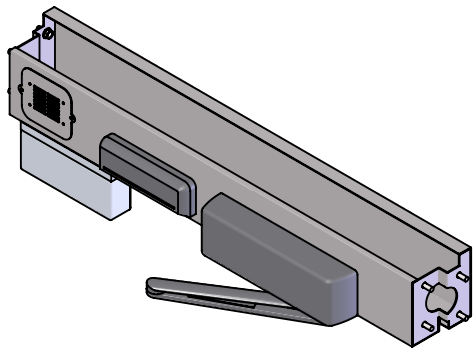
Drawing Number : 96-316	Date : 2-10-2010

Rev - 1	--
Rev - 2	--

2010 ECS HEADER - DOOR 2 EXPLODED VIEW



ITEM NO.	Drawing Number	PartNo	Description	QTY.
1	96-317 (pg 2)	B10217	HEADER - DOOR 2 WELDED SUB-ASSEMBLY	1
2	ECSTN-050	B10216	ACCESS COVER - HEADER 2	1
3	******	E0721	2 X 3 SPEAKER	1
4	ECSTN-051	B10215	DOOR CLOSER BACK-UP PLATE	1
5	B6516	B6516	MAG LOCK SPACER	1
6	******	E0753	MAG LOCK -SECURITRON M62SC	1
7	******	E0750	IR DETECTOR - OPTEX 0A 203CS	1
8	******	H10063	DOOR CLOSER - LCN SUPER SMOOTHEE #4041	1



HAMILTON

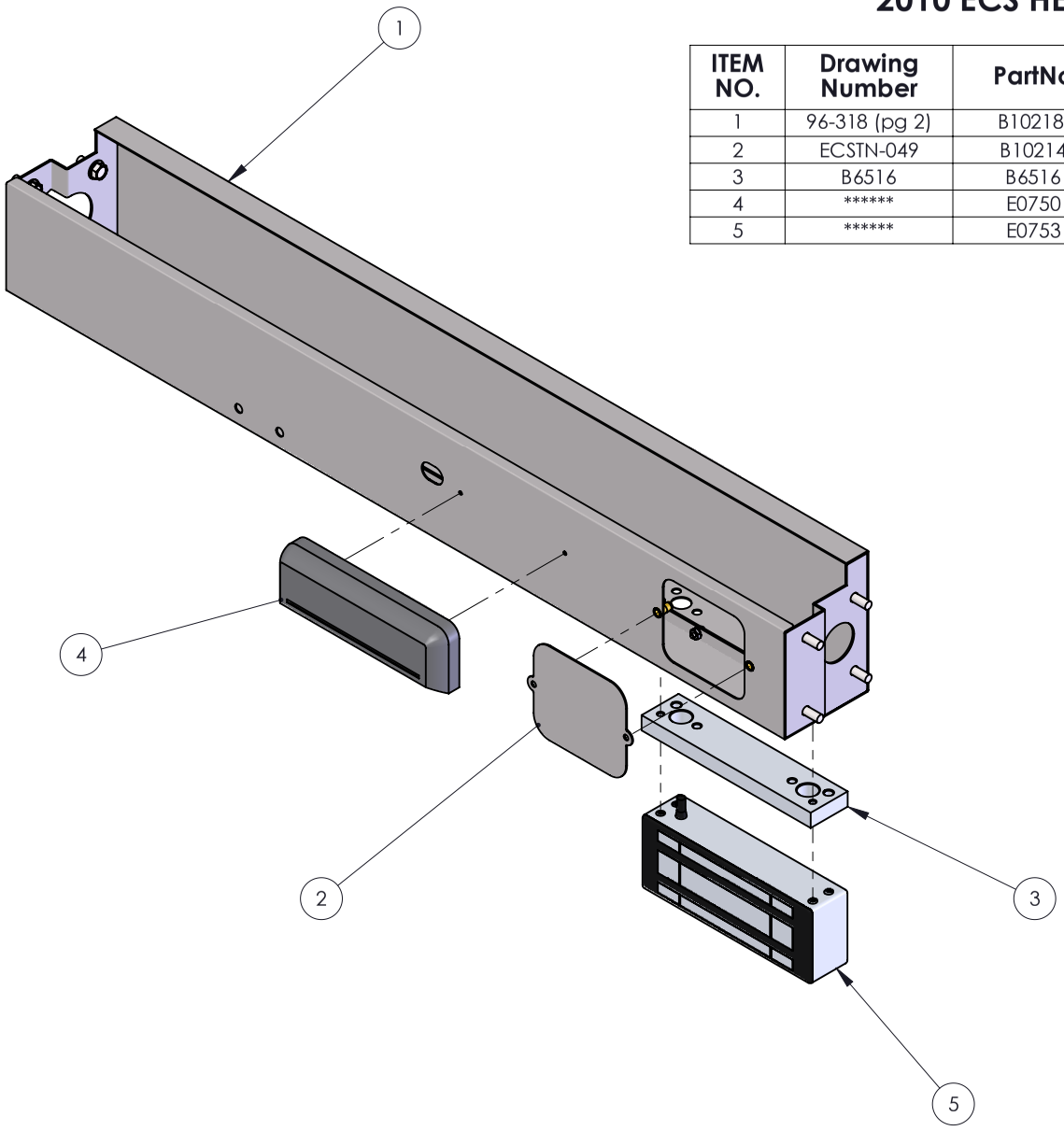
2010 ENTRANCE CONTROL HEADER - DOOR 2
EXPLODED VIEW DRAWING

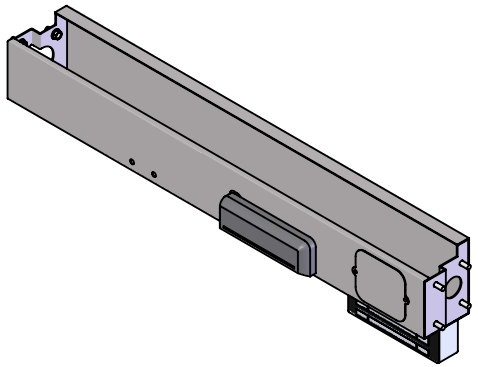
Drawing Number : 96-317	Date : 2-10-2010

Rev - 1	--
Rev - 2	--

2010 ECS HEADER - DOOR 3 EXPLODED VIEW

ITEM NO.	Drawing Number	PartNo	Description	QTY.
1	96-318 (pg 2)	B10218	HEADER - DOOR 3 WELDED SUB-ASSEMBLY	1
2	ECSTN-049	B10214	ACCESS COVER - HEADERS 1,3, & 4	1
3	B6516	B6516	MAG LOCK SPACER	1
4	******	E0750	IR DETECTOR - OPTEX 0A 203CS	1
5	******	E0753	MAG LOCK -SECURITRON M62SC	1





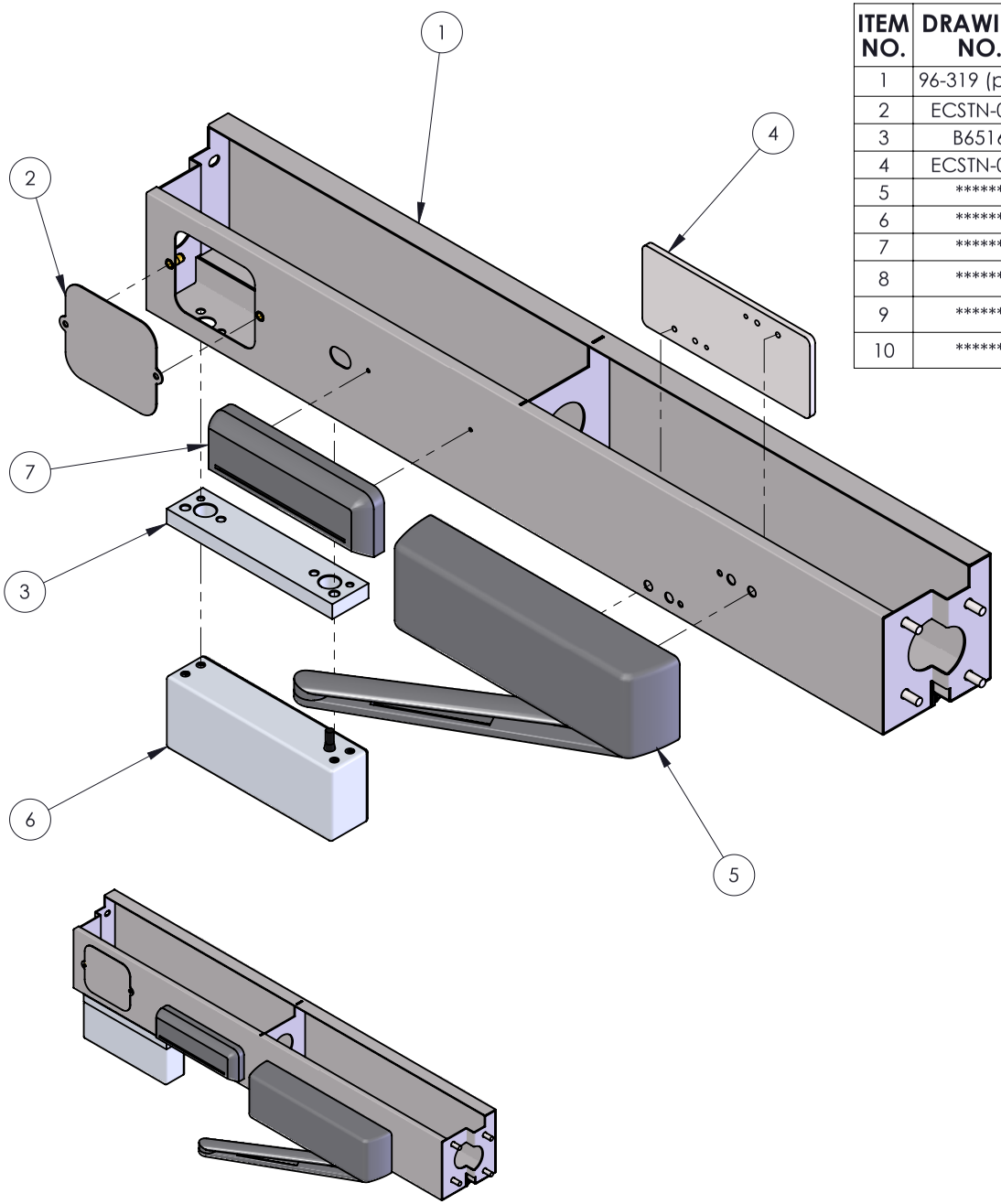
HAMILTON

2010 ENTRANCE CONTROL HEADER - DOOR 3
EXPLODED VIEW DRAWING
PAGE 1 OF 2

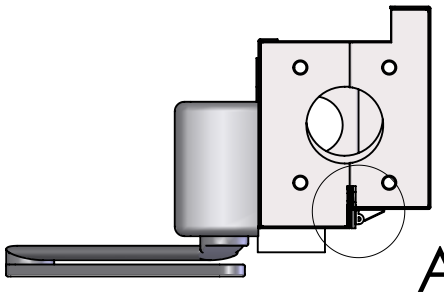
Drawing Number : 96-318	Date : 2-10-2010

Rev - 1	7-13-2010 (UPDATED DRAWING FOR HURRICANE RATING)
Rev - 2	--

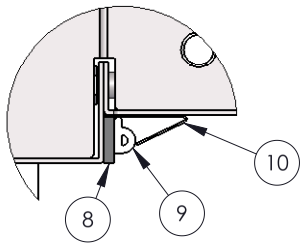
2010 ECS HEADER - DOOR 4 EXPLODED VIEW



ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QTY.
1	96-319 (pg 2)	B10209	HEADER - DOOR 4 WELDED SUB-ASSEMBLY	1
2	ECSTN-049	B10214	ACCESS COVER - HEADERS 1,3, & 4	1
3	B6516	B6516	MAG LOCK SPACER	1
4	ECSTN-051	B10215	DOOR CLOSER BACK-UP PLATE	1
5	******	H10063	DOOR CLOSER - LCN SUPER SMOOTHEE #4041	1
6	******	E0753	MAG LOCK -SECURITRON M62SC	1
7	******	E0750	IR DETECTOR - OPTEX 0A 203CS	1
8	******	PURCHASE LOCAL	0.500 X 0.110 FOAM WEATHERSTRIPPING	1
9	******	PURCHASE LOCAL	3/8" X 7/32" P PROFILE ALL CLIMATE RUBBER WEATHERSEAL	1
10	******	1115A61	1" X 5/16" ADHESIVE BACKED WEATHERSTRIPPING - McMASTER CARR	1



WEATHERSTRIPPING DETAIL "A"



RUN WEATHERSTRIPPING AS SHOWN
DOWN ENTIRE LENGTH OF PART
#8 - STANDARD UNITS
ADD #9 & #10 FOR HURRICANE RATING

HAMILTON

2010 ENTRANCE CONTROL HEADER - DOOR 4
EXPLODED VIEW DRAWING
PAGE 1 OF 2

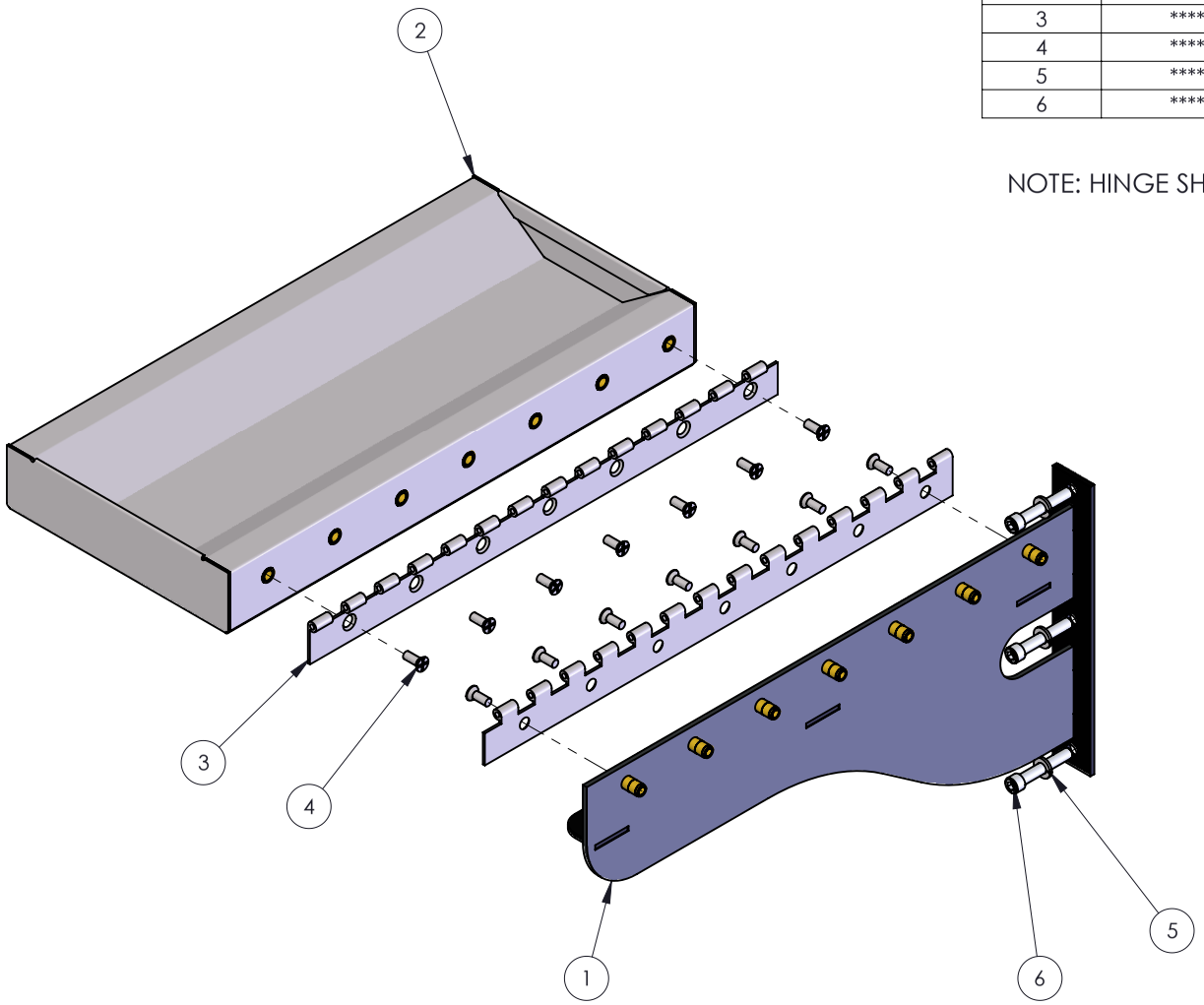
Drawing Number : 96-319	Date : 2-10-2010

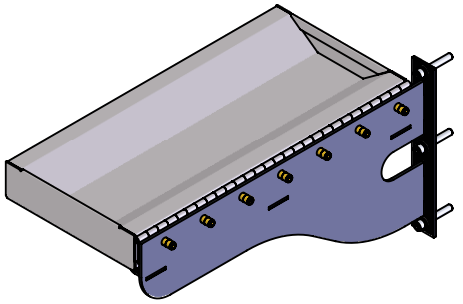
Rev - 1	--
Rev - 2	--

2010 ENTRANCE CONTROL SHELF - EXPLODED VIEW

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QTY.
1	ECSTN-SA-019	B10265	SHELF BRACKET SUB-ASSEMBLY	1
2	ECSTN-SA-015	B10266	SHELF SUB-ASSEMBLY	1
3	******	H10085	SHELF HINGE 2" OPEN - 1/4" KNUCKLE	1
4	******	H10086	10-32 X 1/2" FHMS - COUNTERSUNK	14
5	******	H10087	1/4-20 REGULAR SPLIT LOCK WASHER	3
6	******	H10088	1/4- 20 X 1-1/2" SCHS ZINC	3

NOTE: HINGE SHOWN IN 2 PIECES FOR BETTER VIEW OF SCREWS





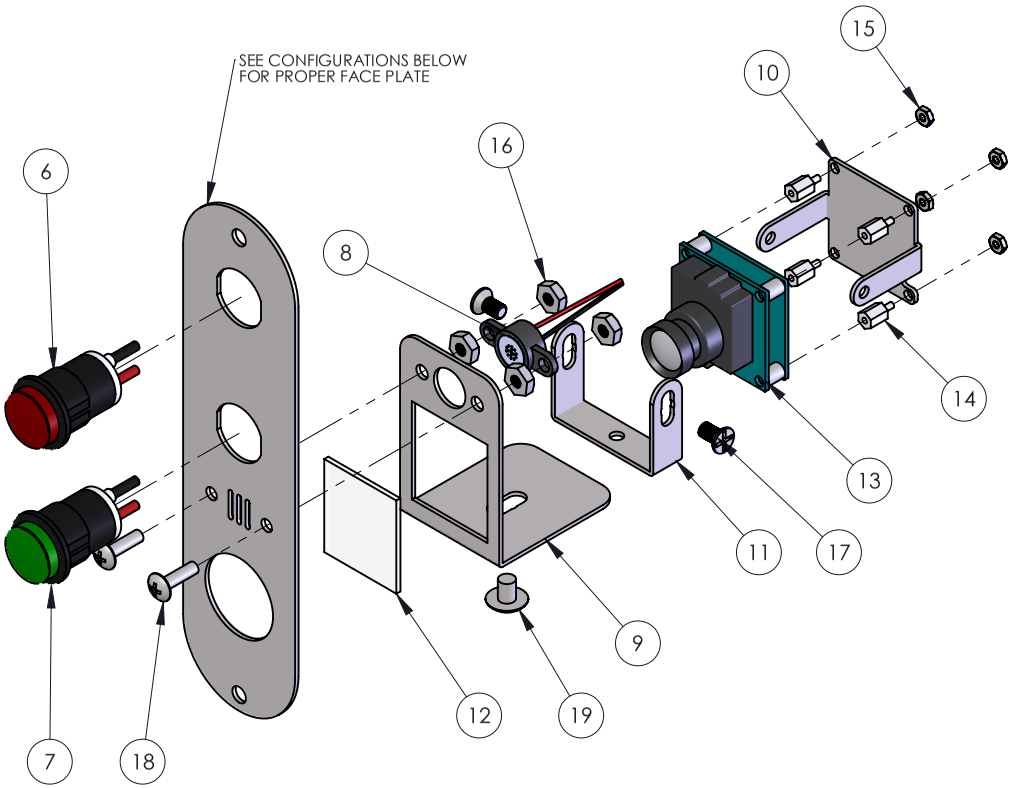
HAMILTON

2010 STANDARD ENTRANCE CONTROL UNIT

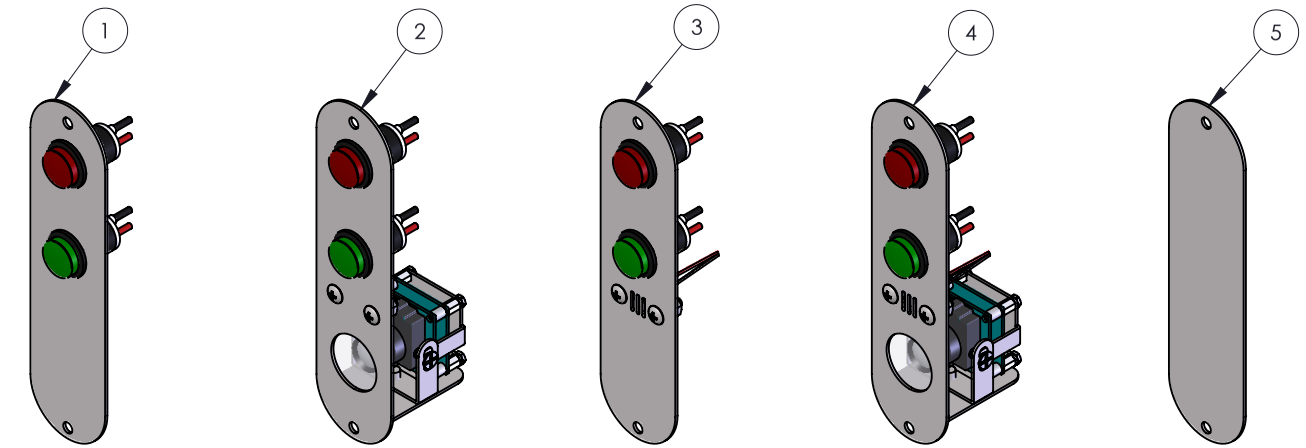
SHELF COMPLETE ASSEMBLY
EXPLODED VIEW DRAWING

PART #10239

Drawing Number : 96-577	Date : 3-23-2010



ITEM NO.	DRAWING NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	ECSTN-052-1	*****	TRAFFIC LIGHT BEZEL	1
2	ECSTN-052-3	******	TRAFFIC LIGHT AND CAMERA BEZEL	1
3	ECSTN-054-1	******	TRAFFIC LIGHT & MICROPHONE BEZEL	1
4	ECSTN-054	******	TRAFFIC LIGHT, MICROPHONE, & CAMERA BEZEL	1
5	ECSTN-052-2	*****	BLANK BEZEL	1
6	******	E10180	RED LIGHT	1
7	******	E10181	GREEN LIGHT	1
8	******	E0154	MICROPHONE ASSEMBLY	1
9	ECSTN-106	******	TRAFFIC CAMERA MOUNTING BRACKET	1
10	ECSTN-107	******	TRAFFIC CAMERA BOARD MOUNT	1
11	ECSTN-108	******	TRAFFIC CAMERA PIVOT BRACKET	1
12	BC-001	******	TRAFFIC CAMERA GLASS	1
13	******	E10199	IKEGAMI 1SD-A12-29 INTERNAL ASSEMBLY	1
14	******	H10202	3/8 X 1/4" LONG X 2-26 HEX STANDOFF	4
15	******	H10203	2-56 HEX NUT	4
16	******	H0157	6-32 HEX NUT	4
17	******	H0482	#8-32 X 1/4" PHILLIPS FHMS WITH # 6 HEAD	2
18	******	H0142	6-32 X 1/2" LONG PHIL THMS	2
19	******	H0425	10-32 X 1/4" PHILLIPS THMS	1



ASSEMBLY # B10468
DOOR 1 - STANDARD
WITH TRAFFIC LIGHTS

ASSEMBLY # B10469
DOOR 1 *OPTIONAL*
WITH TRAFFIC LIGHTS
AND CAMERA

ASSEMBLY # B10470
DOOR 2 - STANDARD
WITH TRAFFIC LIGHTS
AND MICROPHONE

ASSEMBY # B10471
DOOR 2 *OPTIONAL*
WITH TRAFFIC LIGHTS, CAMERA
AND MICROPHONE

BLANK PLATE

Rev - 1 --

Rev - 2

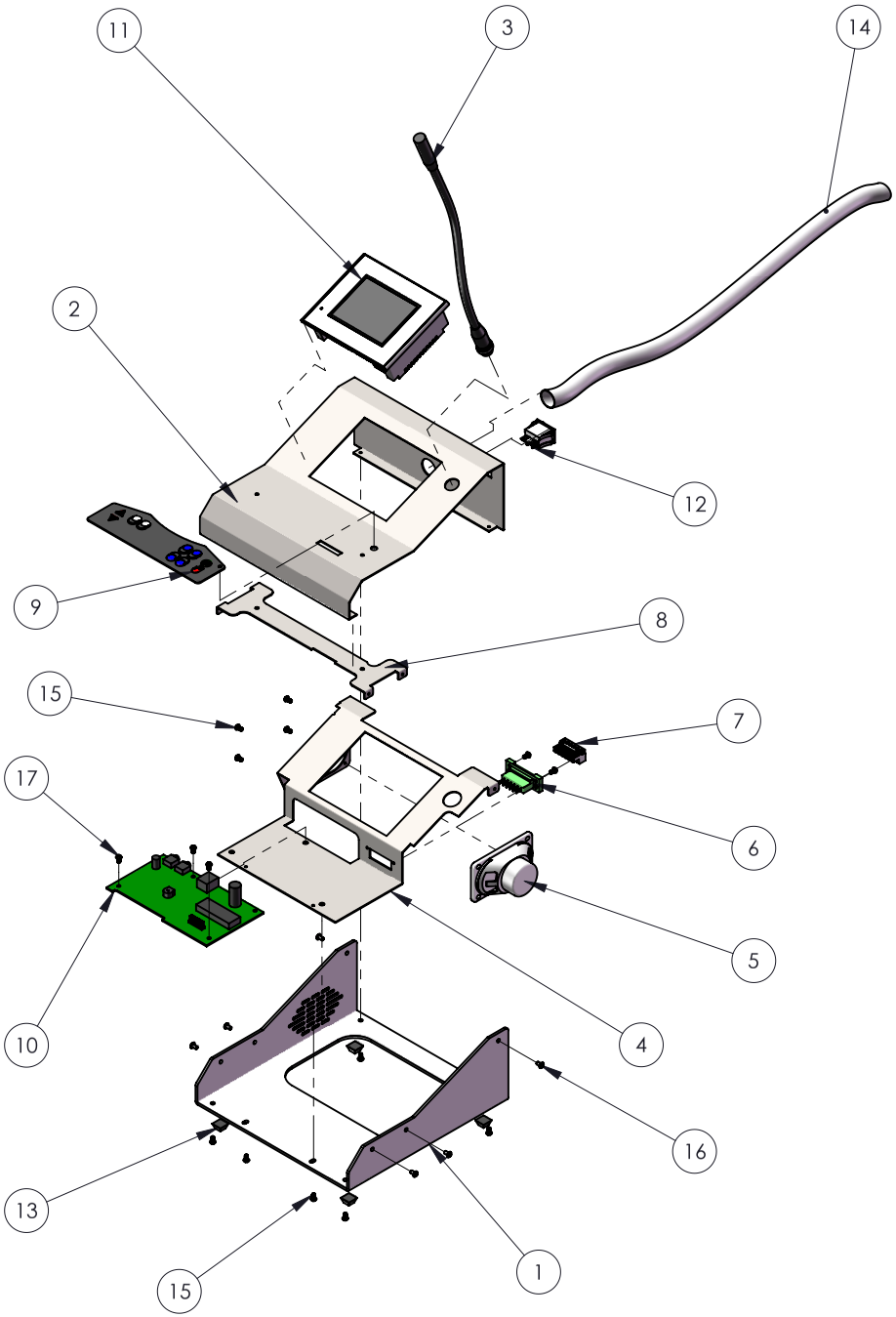
HAMILTON

2010 ENTRANCE CONTROL

TRAFFIC LIGHT, MICROPHONE, & CAMERA ASSEMBLIES
FOR REAR CENTER POST AND
OUTER FRONT CENTER POST

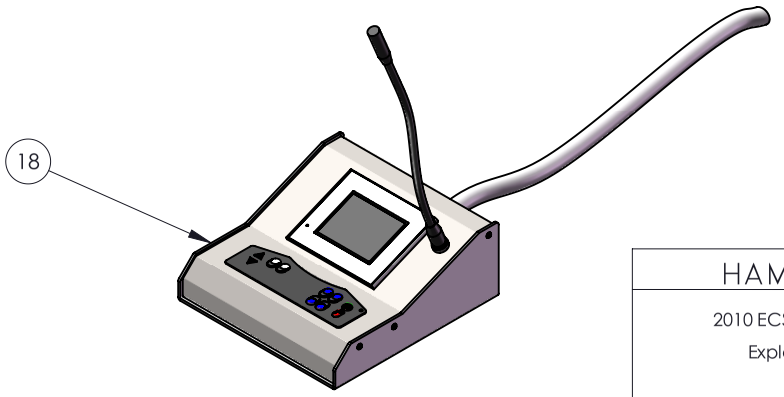
Drawing Number : 96-537 | Date : 2-8-2012

Rev - 1	ADDED NOTE FOR MULTIPLE CONSOLES
Rev - 2	



Entrance Control Touch Screen Console

Reference	Part Number	Drawing Number	Description	Qty
1	B10167	TSC-002	Touch Screen Operator's Console Base	1
2	B10168	TSC-001	Touch Screen Operator's Console Top Stainless Steel	1
3	E0605	******	Gooseneck Microphone	1
4	B10169	TSC-003	Touch Screen Inside Mounting Plate	1
5	E0721	*****	2 x 3 Speaker	1
6	E6032	******	Panel Mount Female, 6 Position (Phoenix # 707280)	1
7	E6033	******	Male Plug, 6 Position (Phoenix #1781027)	1
8	B10170	TSC-004	Touch Screen Keypad Bracket	1
9	E0895	******	Keypad 5501 Membrane (same As 701-20006-5000)	1
10	5001-CB	******	Audio Console Board	1
11	E1002	******	3.8" Touch Screen AGP 3200T	1
12	E10071	******	Red Rocker Power Switch (NKK-JWM11RC1A/UCV)	1
13	B10171	******	Rubber Base Feet (McMaster-Carr #9723K89)	4
14	E10072	******	3/4" Split Convoluted Sleeving or Wire Loom (7840K35)	1
15	Purchase Local	******	6-32 X 1/4" SST Phillips Truss Head Screw	12
16	Purchase Local	******	6-32 X 1/4" Black Button Socket Cap Screw	6
17	Purchase Local	******	6-32 X 1/4" R.H. Screw	3
18	B10016	96-289	Complete Touch Screen Console	1
Optional Items for Multiple Consoles (Not Shown)				
19	B10450	******	Complete Touch Screen Console - Slave	AS REQ'D
20	E10211	******	5 Port Digital Switch	AS REQ'D
Other Options				
21	E10212	******	Voice Alarm	1



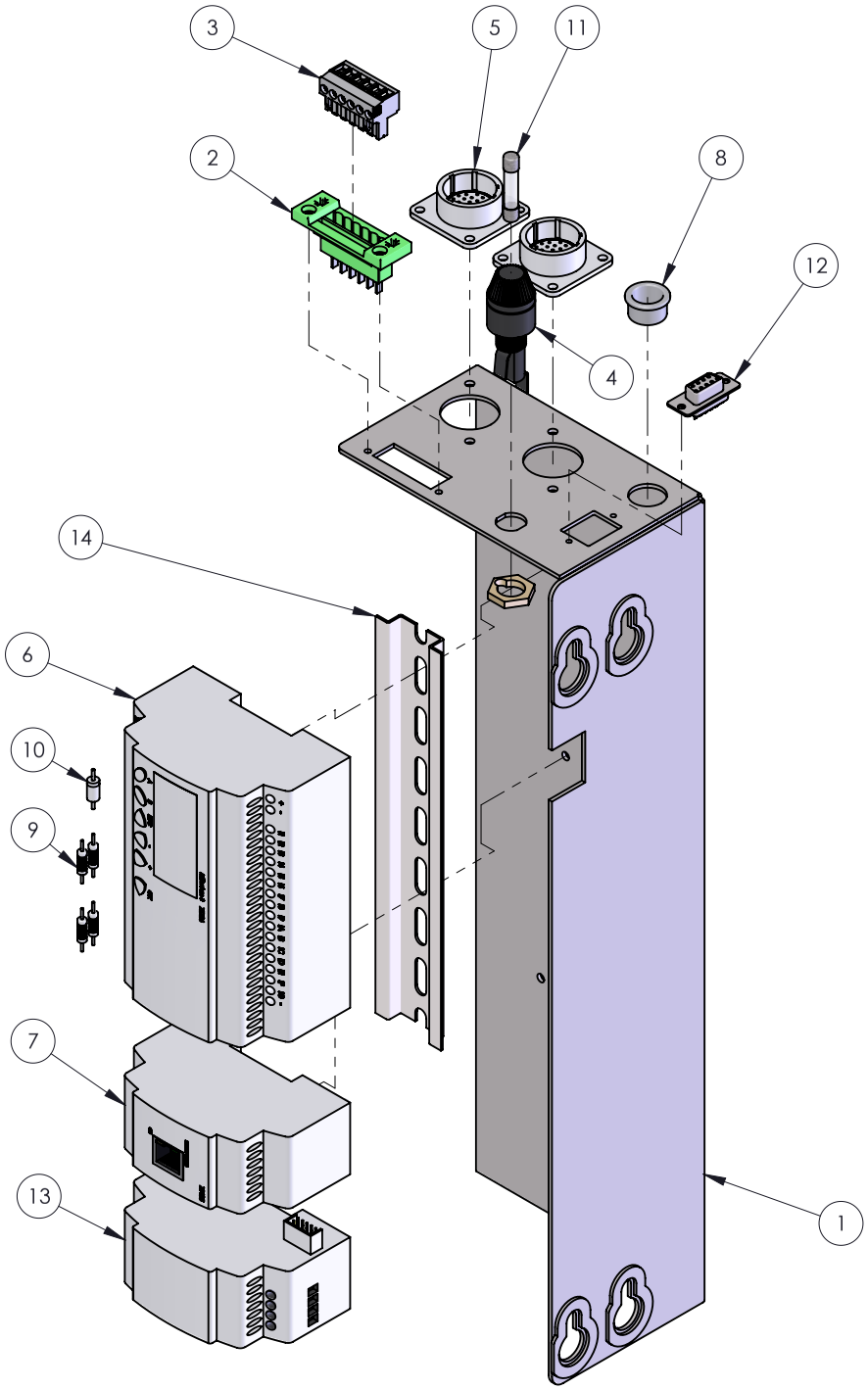
HAMILTON SAFE

2010 ECS Touch Screen Console

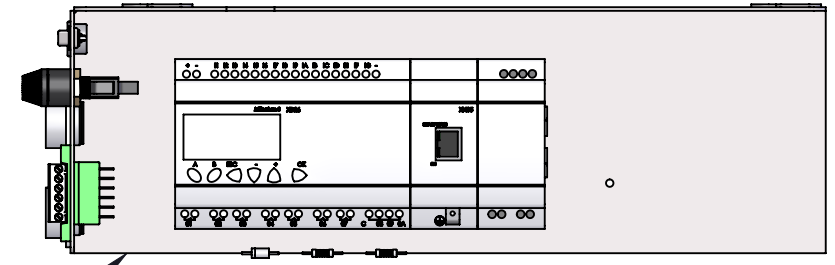
Exploded View Drawing

Drawing Number : 96-290 | Date : 12-7-2009

Touch Screen Control Box with Wireless Admit
Expoded View Drawing & Bill Of Material



Reference	Drawing Number	Part Number	Description	Qty
1	TCS-005-1	B10452	Main Control Box for Wireless Admit	1
2	******	E6032	Panel Mount Female, 6 Position (Phoenix #707280)	1
3	******	E6033	Male Plug, 6 Position (phoenix #1781027)	1
4	******	E0088	Fuse Holder - Little Fuse #345-613	1
5	******	E00177	AMP 28 Pin CPC Connector Receptacle Assembly	2
6	******	E1000	Crouzet Controller - Millenium 3 XD26 (specify program when ordering)	1
7	******	E1001	Crouzet Ethernet Module XNO5	1
8	******	H10172	Heyco SB-625-8 Snap Bushing	1
9	******	E10075	Resistiors - Maglocks	4
10	******	E10076	NTE569 Rectifier Diode - Maglock Door 1	1
11	******	E0268	3 Amp Fuse #MDA3	1
12	******	E10074	MD Scope Serial Port	1
13	******	E10198	Crouzet Wireless Admit Module XT01	1
14	TCS-006-1	B10453	Din Rail @ 7-3/4" Long	1
15	******	B10454	Complete Assembly of Control Box	1
16	******	E10210	Remote Keychain Access for Wireless Admit	1
17	******	E10213	Remote Desktop Access for Wireless Admit	1



Rev - 1 --

Rev - 2

HAMILTON

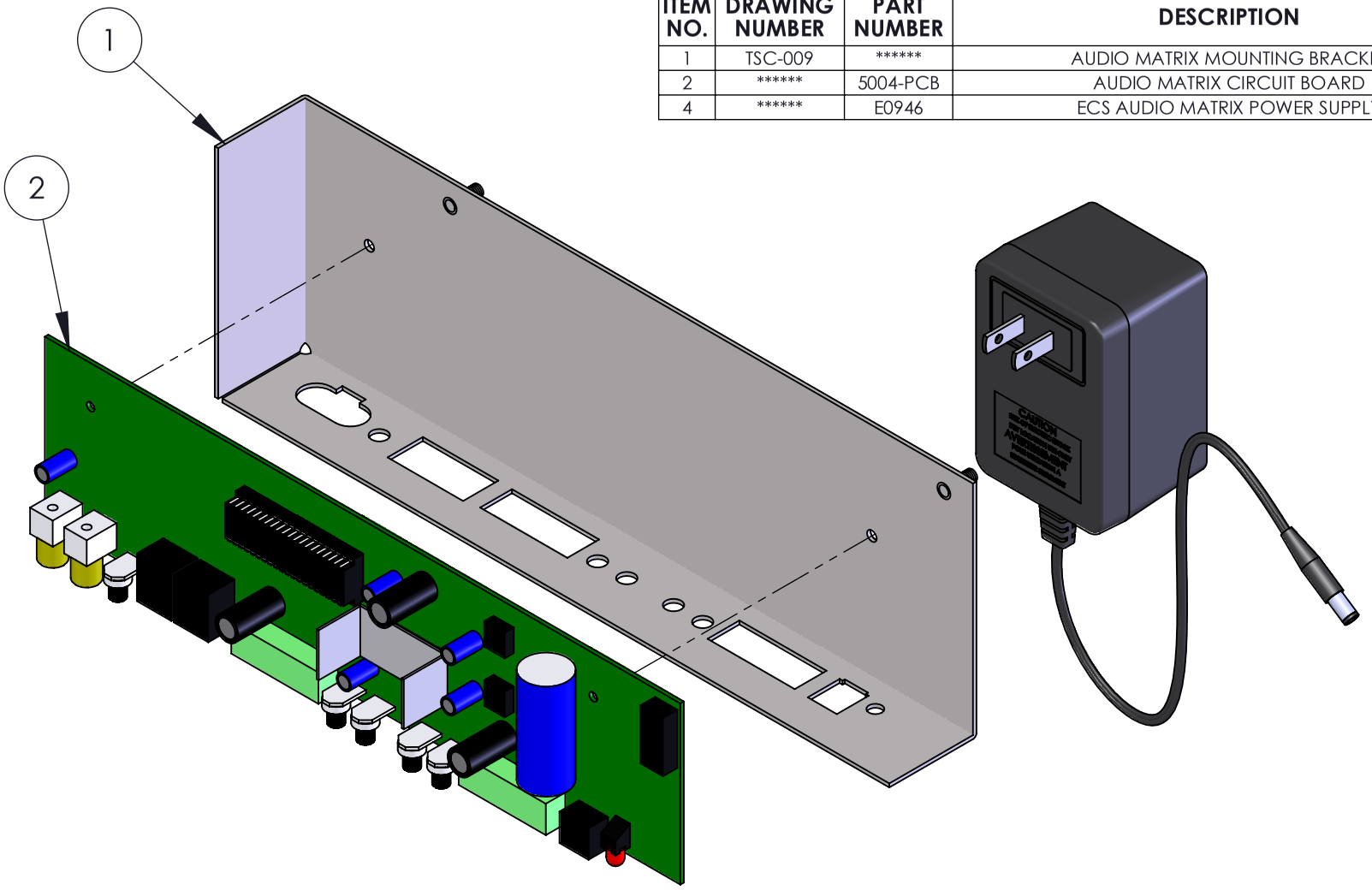
2010 ECS TOUCH SCREEN ELECTRICAL BOX
FOR WIRELESS ADMIT
EXPLODED VIEW DRAWING

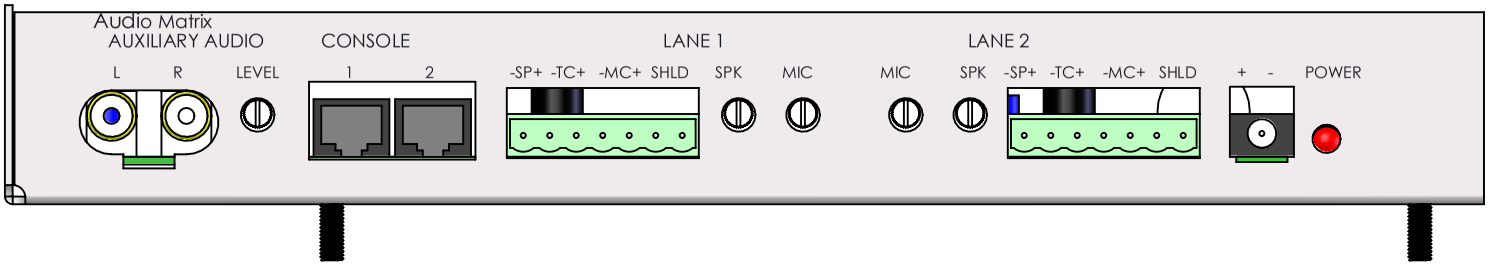
PART NUMBER: B10454

Drawing Number : 96-538 | Date : 1-3-2012

Rev - 1	--
Rev - 2	--

ITEM NO.	DRAWING NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	TSC-009	******	AUDIO MATRIX MOUNTING BRACKET	1
2	******	5004-PCB	AUDIO MATRIX CIRCUIT BOARD	1
4	******	E0946	ECS AUDIO MATRIX POWER SUPPLY	1





HAMILTON

2010 ENTRANCE CONTROL

AUDIO MATRIX

EXPLODED VIEW DRAWING

Drawing Number : 96-576	Date : 7-20-2010

HAMILTON SAFE®

Entrance Control Service Record

Model:	Install Date:	Bank Name:	Address:	Order Number:

Weekly Operation Test	Date:						
	Result:						
Quarterly Preventative Maintenance							
Maglocks	Date:						
	Result:						
IR Sensors	Date:						
	Result:						
Weapons Detector Verification	Date:						
	Result:						
Door Closers	Date:						
	Result:						
Inspect Door Sweeps	Date:						
	Result:						