Hamilton Manufacturing Corporation

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RNS-CCT /DRS-CCT
Manual

TABLE OF CONTENTS

ABOUT THIS MANUAL

This manual will provide the operator with important information about installing and maintaining the CCT. General information is provided for the hopper, validator, stacker and controller. However, if additional information is needed for these components, please refer to the appropriate manual. To obtain assistance from the manufacturer, please call (800) 837-5561 or (419) 867-4858.

When calling for assistance, it is very important to have serial numbers readily available. Please record these numbers in the spaces provided. It is important to account the serial numbers for each hopper.

CCT Serial #_____

Validator Serial #_____

Hopper Serial #_____

Card Reader Serial #_____

Stacker Serial #_____

Controller Serial #_____

Key/Lock #_____

Please complete the warranty card, which was included with your changer, and return it to the manufacturer.

I. INTRODUCTION

The Hamilton model RNS-CCT is a single rear-load changer designed to accept credit cards or Hamilton Customer Value Cards to dispense tokens. It provides a cost effective way for the carwash operator to allow his customers to use credit cards to purchase car wash services in the bays or at the vacuums without having to install card readers at each of these locations. This machine works exclusively with the Hamilton Data Access Network and its associated components.

II. INSTALLATION

NOTE: It is very important to read and understand all of these instructions before attempting installation. HAMILTON WILL NOT BE RESPONSIBLE FOR INJURY DUE TO IMPROPER INSTALLATION.

Mounting

1. DURING INSTALLATION, REMOVE ALL MAJOR COMPONENTS FROM THE CHANGER.

2. Cut an opening in the wall measuring a minimum of 34-$^5/_8$" H x 9" W for RNS, 34-$^3/_4$" H x 18-$^1/_8$" W for DRS.

3. Caulk around the outside edge of the opening.

4. Place the cabinet in the opening and press until the flange is flush on all sides.

5. Fasten the cabinet by bolting or welding a 2" angle iron on both sides of the cabinet.

Hamilton will not be responsible for injury due to improper installation.

FACEPLATE: 38 $^5/_8$" H x 12" W for RNS, 38 $^1/_4$" H x 21 $^5/_8$" W for DRS.
Reference Appendix (D & E on pages 22 & 23)

Electrical

This changer is operated on 120 VAC, 60 Hz. This changer uses a 5 AMP CIRCUIT BREAKER. This unit may be hard-wired with conduit if desired.**A GROUND FAULT INTERRUPTER IS REQUIRED.** The recommended Ground Fault Interrupter should have the following specifications:
   - 120 VAC
   - 15 AMP
   - 6-10mA trip level
   - Should **not** trip when power is removed from circuit.

Attached to the main harness is a 1-pin white Molex connected to a white wire. There should be a bright yellow tag attached to this wire with the following warning:

> **WARNING: For security reasons, this plug should remain disconnected until such time as you need to utilize the hopper's manual run switch.**

There is no need to connect this plug for normal operation. If for some reason you wish to utilize the manual run switch, be sure to unplug the Molex afterward.

III. OPERATION

To operate the RNS-CCT the user must follow the instructions displayed on the machines 2-line 20-character LCD display. The SCROLL button is used to select from up to six programmable charge/token amounts, or to select Customer Value Card balance check.

The user first selects the amount of tokens he wants to purchase by pressing the SCROLL button, then swipes a credit card. Next the machine will display a "PROCESSING…" message while it validates the card using the Data Access Network. This usually only takes a few seconds, then it dispenses the tokens. If only one charge/token amount is programmed then the user does not have to make a selection first. Simply swipe a credit card and the machine will dispense the programmed amount of tokens.

IV. PROGRAMMING

Programming the various configuration parameters in the RNS-CCT can be accomplished using two mechanisms; the handheld programmer and the D.A.N. configuration screens. The handheld must be used to program the network settings that establish a connection to the Data Access Network. After the network connection has been established the rest of the programming can be done using the handheld or the D.A.N. user interface.

Disconnect the DB-9 connector and harness from the controller and connect the handheld programmer.

Now cycle power or press the reset button on the controller so that it will recognize that the handheld programmer has been connected. Press the "ESC" button on the handheld and a brief message "CONNECTED TO DTV VERSION X.XX" will be displayed followed by the main menu.

NETWORK SETTINGS

Program the network settings using the following instructions as a guide to the menus on the handheld.

The main menu screen displays:

> **1 PROGRAM PAYOUTS**
> **2 VIEW AUDITS**
> **3 CLEAR TEMP AUDITS**
> **4 MISC. & SETUP**

Press 4 for Misc. & Setup.

Next screen displays:

> ***PASSWORD***

Using your handheld, input the six digit password number. The factory default password is 123456. Once the correct password number is entered it will automatically change to the next screen:

> **1 ERROR HISTORY**
>
> **3 CHANGER IP & MASK**
> **4 DAN IP**

Press 3 for Changer IP & Mask.

Next screen displays:

CHANGER
IP: 000.000.000.000
MSK: 255.255.000.000
F1=EDIT IP   F2=MASK

Press F1 to Edit IP.

Next screen displays:

CHANGER
IP: 000.000.000.000
MSK: 255.255.000.000
F1=EDIT IP   F2=MASK

Note: The first number in the IP address will be highlighted. You can then input the IP address using the numerical keys on the hand-held.

Note: Each machine in your network must have a unique IP address.

Once you have entered your IP address, you will want to edit your Mask.

Press F2 to Edit Mask.

Next screen displays:

CHANGER
IP: 000.000.000.000
MSK: 255.255.000.000
F1=EDIT IP   F2=MASK

Note: The first number in your MSK address will be highlighted. You can input your Mask address using the numerical keys on the handheld. This address will be the numbers you acquired from the D.A.N.

Once you have entered your MSK address, you will want to input your D.A.N. address.

Press ESC.

Next screen displays:

1 ERROR HISTORY

3 CHANGER IP & MASK
4 DAN IP

Press 4 for DAN IP.

Next screen displays:

DAN
IP: 000.000.000.000

F1=EDIT IP

Press F1 to Edit IP.

Next screen displays:

DAN
IP: 000.000.000.000
F1= EDIT IP

Note: The first number in the IP address will be highlighted. Input your IP address using the numerical keys on the handheld. This address will be the numbers you acquired from the D.A.N.

Press ESC.

Next screen displays:

1 ERROR HISTORY

3 CHANGER IP & MASK
4 DAN IP

Press ESC.

Next screen displays:

1 PROGRAM PAYOUTS
2 VIEW AUDITS
3 CLEAR TEMP AUDITS
4 MISC. & SETUP

Press Exit.

Next screen displays:

*** WARNING ***
SWITCHES H & I SHOULD
BE TURNED BACK OFF
** PRESS ESC**

When switches H & I are turned off, Press ESC.

Next screen displays:

Once that screen appears, disconnect your handheld cable from the controller and reinstall the original system harness. Now cycle power or press the reset button on the controller.

PAYOUTS

The amounts to charge the credit card and number of tokens to dispense can be programmed using the configuration screen available from the DAN, or by using the handheld interface. If you don't want to use all of the six possible selection choices set the charge amount to zero and that selection will be skipped. If only one selection is left programmed with a non-zero charge amount then the user will not be required to push the button to make a selection. Since there are no choices for the user in this case he simply swipes a card and the machine dispenses the programmed amount of tokens.

If you are using Hamilton Customer Value Cards to help market your carwash you can allow your customers to check their card balance at this machine. To make "Balance Check" one of the selection choices enter the special charge amount of $99.99. This will present the customer with the option to swipe a value card then display the remaining balance.

OPTIONS

You have a programmable option to enable or disable accepting value cards for purchase of tokens at this machine. You might choose not to accept value cards if you are both selling value cards at a discount and offering bonus payouts for larger token purchases. This prevents your customer from "double dipping" the incentive discounts. Value card balance checks are still available in either case. By default accepting value cards is enabled.

You have a programmable option to enable or disable accepting credit cards at the machine. You might choose not to accept credit cards if you are using Hamilton Value Cards and your main purpose for the machine was to convert the card value into tokens that can be used easily in the wash bays, vacs, and vending machines. This makes the machine accept only Hamilton Value Cards eliminating the higher transaction fees associated with credit cards. By default accepting credit cards is enabled.

SPECIAL STATUS DISPLAY MESSAGES

Normal operation when the machine is powered up is to display the controller version number for a few seconds then "Welcome" with scrolling instructions for the customer. If it fails to operate properly and goes out

of service one of the following messages may be displayed. Here is an explanation of these messages that may be helpful for troubleshooting.

eDEVICE NOT FOUND

This message indicates the controller could not communicate with the serial to Ethernet converter. Check the harness connections at the DB-9 connector on the controller and the RJ-45 connector at the serial to Ethernet converter. Also check the status LEDs on the converter for power and other activity.

NO ETHERNET LINK

This message is displayed when the serial to Ethernet converter reports to the controller that it can not find a physical connection to the Ethernet network. Check the CAT-5 cabling between the converter and its first point of active termination (usually a network switch).

DAN NOT CONNECTED

This message is displayed when the controller finds an Ethernet network present but is not able to establish a socket connection to the Data Access Network. Check the DAN IP and Controller IP settings for any conflicts. Confirm that the D.A.N. program is running. Check to see if the D.A.N. is successfully connected to any other device on the same network. It is not required that the D.A.N. be connected to the internet at this point however it will be necessary to successfully process a card transaction.

It is normal for this message to be displayed for a few minutes after power up or a network disconnection until the socket connection can be re-established.

V. Validator Mounting

STA Mounting Instructions

1. Unplug the power cord or remove all power from the system at the circuit breaker.

2. Remove the existing Stacker and Validator.

3. Remove the Validator bracket from the mounting studs located on the front wall of the cabinet. Disconnect the heater pad (if present) and remove it as well.

4. Secure the new Validator mounting bracket assembly (37-0055B) to the studs on the front wall of the cabinet using four 1/4-20 nuts.

5. Secure the adhesive backed foam seal to the inside of the cabinet front around the Validator opening.

6. Connect the small end of the 9-pin harness adapter to the STA Validator and the other end to the system harness.

7. Slide the Validator into the Validator bracket from the rear.

8. Connect the Stacker harness and hang the Stacker from the back of the Validator mounting bracket.

STA/Stacker Mounting
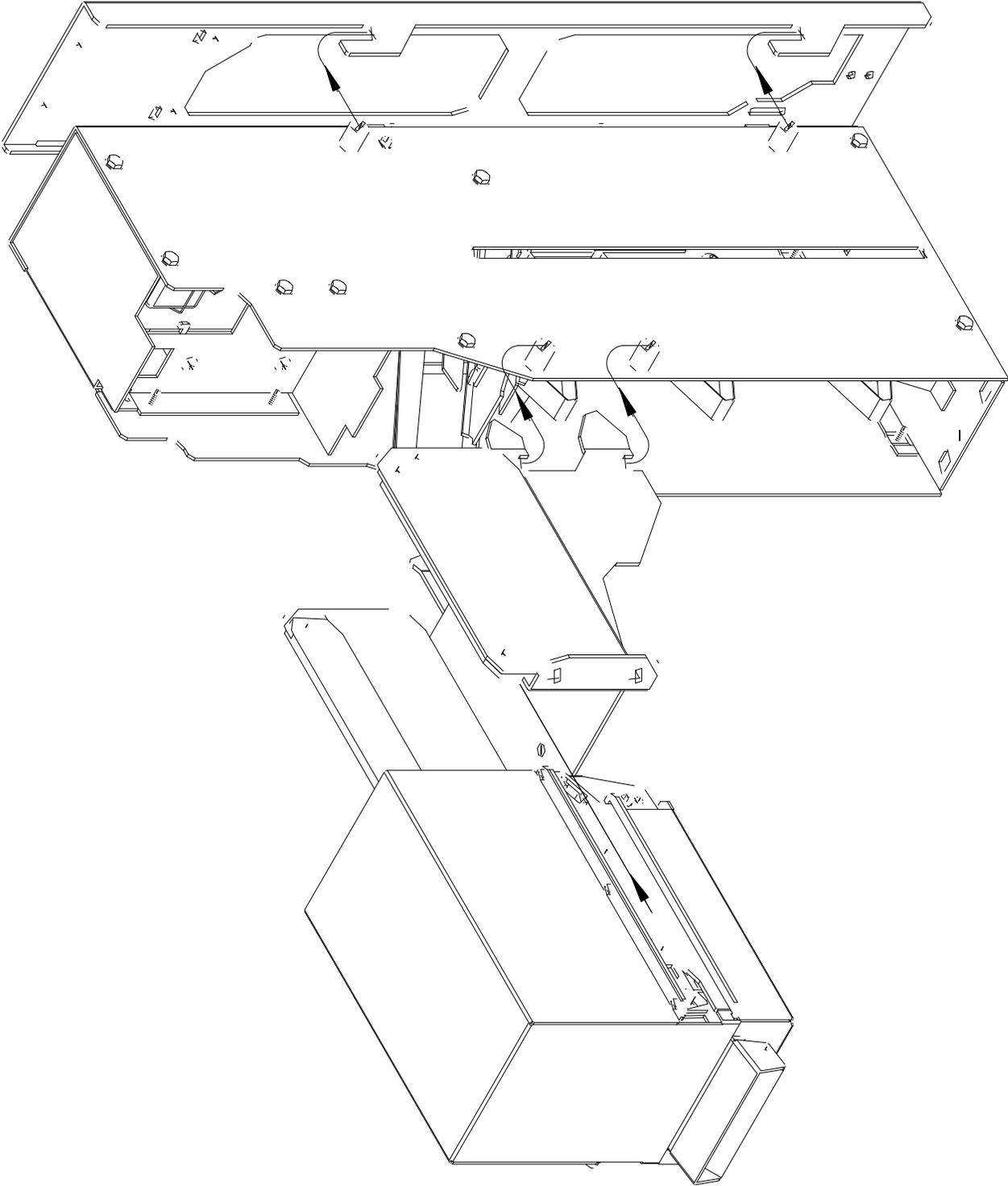
Coinco®/Mars® Mounting Instructions

In the following section, part quantities are represented by paranthesis and the # indicates the index number according to the diagram on pages 8-9.

1. Mount Cover Plate-#14 to Filler Plate-#12 using (2) 10-24 x $^3/_8$ Philips head screws-#13.

2. Then mount to face of cabinet using (4) $^1/_4$-20 Hex nuts-#3 and (4) internal lock washers-#4.

3. Take Slider-#9 and Validator Face Plate-#10 and insert (4) 8-32 x $^5/_8$ ball studs-#11 through Face Plate and insert into front of cabinet. Then take (4) 8-32 nylon nuts-#8 and tighten on ball studs.

4. Mount (4) 10-32 x $^3/_{16}$ Phillister head screws-#17 to Validator Plate-#7. Screwing them from inside to out.

5. Then mount Security Bracket-#1 to the bottom of the two Phillister head screws so it swings up and down.

6. Take U-Channel-#5 and place it inside of Validator Plate-#7 and match up with studs on face of cabinet.

7. Then by taking (4) $^1/_4$-20 Hex nuts-#3 and (4) 1/4 internal lock washers-#4, mount to cabinet and tighten down.

8. Then take Validator and place into U-Channel-#5 and mount it with (4) 8-32 x $^5/_8$ Philips head screws-#2. Then swing Security Plate-#1 up and hook onto the top two Phillister head screws-#17 of Validator Plate-#7.

9. For the Coinco® Validator only, take Power Pack Holder-#15 and mount to studs on door using (2) 6-32 Hex nuts-#16.

10. For the Mars® Validator only, Take Relay Box-#15 and mount above Power Box on face of cabinet using (2) 10-24 nylon lock nuts-#16.

Coinco® Parts Layout

LEXAN

CABINET FACE

COINCO VALIDATOR

CABINET DOOR

Mars® Parts Layout

LEXAN

CABINET FACE

CABINET FACE
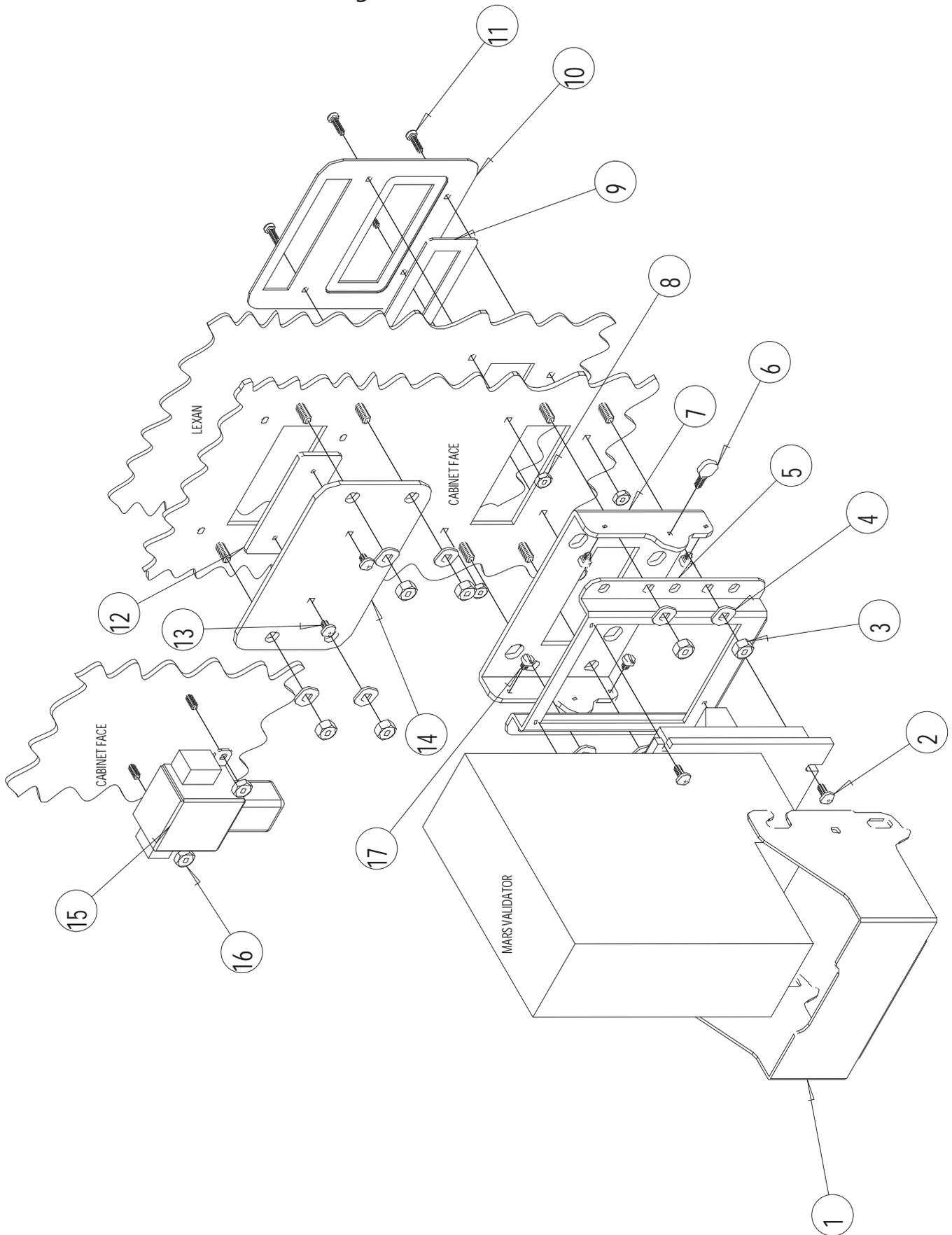
MARS VALIDATOR

Parts Index

ITEM #	PART #	MOUNTING PARTS FOR COINCO	QTY.
1	60-2053	SECURITY BRACKET	1
2	90-0145	#8-32 X 5/8 PHILLIPS HEAD SCREW	4
3	90-0331	#1/4-20 HEX NUT	4
4	90-0403	#1/4 INTERNAL LOCK WASHER	4
5	60-2051	U-CHANNEL	1
6	90-0629	#10-32 X 1/2 THUMB SCREW	1
7	60-2050	VALIDATOR PLATE	1
9	60-2054	SLIDER	1
10	60-0284	VALIDATOR FACE PLATE	1
11	90-0517	#8-32 X 5/8 BALL STUD	4
13	90-0148	#10-24 X 3/8 PHILLIPS HEAD SCREW	2
17	90-0628	#10-32 X 3/16 PHILLISTER HEAD	4

ITEM #	PART #	MOUNTING PARTS FOR MARS	QTY.
1	60-2055	SECURITY BRACKET	1
2	90-0145	#8-32 X 5/8 PHILLIPS HEAD SCREW	4
3	90-0331	#1/4-20 HEX NUT	4
4	90-0403	#1/4 INTERNAL LOCK WASHER	4
5	60-2051	U-CHANNEL	1
6	90-0629	#10-32 X 1/2 THUMB SCREW	1
7	60-2050	VALIDATOR PLATE	1
8	90-0321	#8-32 NYLON NUT	4
9	60-2052	UVM SLIDER	1
10	60-0284	VALIDATOR FACE PLATE	1
11	90-0517	#8-32 X 5/8 BALL STUD	4
13	90-0148	#10-24 X 3/8 PHILLIPS HEAD SCREW	2
17	90-0628	#10-32 X 3/16 PHILLISTER HEAD	4

VI. Parts

The following parts are standard equipment. All quantities are doubled for the DRS unless noted otherwise.

PART #	DESCRIPTION	QTY.
61-2715	CABINET, RNS-CCT	1
61-2650	CABINET, DRS-CCT	1
63-5006	LOCK BARRELS	2
63-5005	LOCK INSERTS	1
61-2153	LOCK BRACKET	2
90-0275	LOCK BOLT	2
90-0335	LOCK NUT SQUARE	2
63-5040	LOCK CRANK	1
60-0347	ACCESS SHEILD, RNS	1
60-0346	ACCESS SHEILD, DRS	1
60-0350	FLIPPER	1
63-5186	LEXAN PANEL, RNS-CCT	1
63-5182	LEXAN PANEL, DRS-CCT (HAMILTON)	1
63-5183	LEXAN PANEL, DRS-CCT (3RD PARTY)	1
11-0033	BRACKET, HOPPER PIVOT	1or 2
49-1022CLR	POWER BOX 5 AMP	1
100-0119	CARD READER FLUSH MOUNT	1
05-0032	LCD DISPLAY DTV	1
60-2058	CARD READER BOX	1
60-2059	CARD READER CONNECTOR PLATE	1
49-9035	BUTTON ACW G/L BLUE	1
49-0550	POWER SUPPLY CRC	1
49-9454	CONTROLLER COMPLETE DTV/CCT	1
49-9450	CONTROLLER COMPLETE DAN CHANGER	1
05-0023	ASSEMBLY SERIAL TO ETHERNET	1 or 2
100-0136	COMPLETE HANDHELD KIT	1
49-1222	NETWORK DATALINE SURPRESSOR	1 or 2
11-0100	HOPPER TALL (QUARTER)	
11-0100A	HOPPER TALL (NICKEL)	
11-0100B	HOPPER TALL (DIME)	
11-0100D	HOPPER TALL (.800 TOKEN)	1
11-0100E	HOPPER TALL (1.125 TOKEN)	
11-0100F	HOPPER TALL (GOLD $)	
11-0100N	HOPPER TALL (THIN NICKLE)	
48-3186	HARNESS, CCT BUTTON	1
48-3183	HARNESS, DRS -CCT	1
48-1005	HARNESS 1H	1 or 2
48-3169	HARNESS APRO TO ETHERNET	1 or 2
48-3208	CABLE 20" CAT 5	1 or 2

APPENDIX A
1-H Harness Diagram (48-1005)
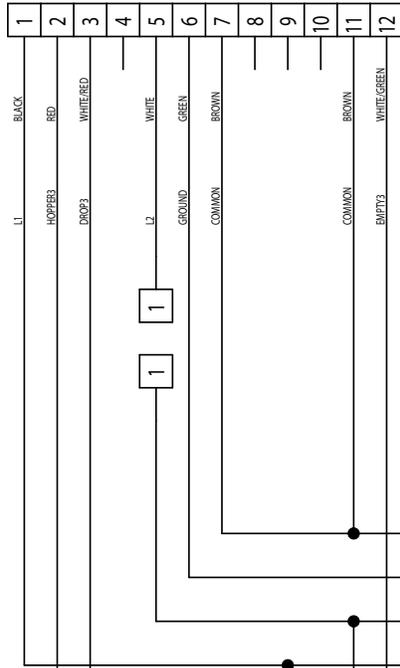
APPENDIX B
CCT (48-3183)

SERIAL TO ETHERNET CONVERTER

#	Color	Signal
1	BROWN	
2	BLUE	+5V
3	YELLOW	
4	GREEN	
5	RED	T2
6	BLACK	R2
7	ORANGE	COM
8	GREY	

LCD DISPLAY

#	Color	Signal
1		
2	BLACK	COM
3	GREEN	RXD
4	RED	+5V

POWER

#	Color	Signal
1	RED	+5V
2	BLACK	COM

CARD READER

#	Color	Signal
1	RED	+5V
2	BLACK	COM
3	BROWN	TXD

DTV CONTROLLER SERIAL PORT

#	Color	Signal
1	BLACK	COM
2	GREEN	T1
3	BROWN	R1
4	PURPLE	SENSE
5	ORANGE	COM
6	RED	T2
7	BLACK	R2
8	BLUE	+5V
9	BLACK	COM

RESET BUTTON

#	Color	Signal
1	PURPLE	SENSE
2	ORANGE	COM
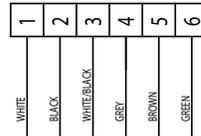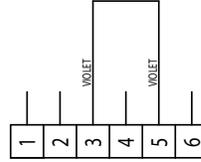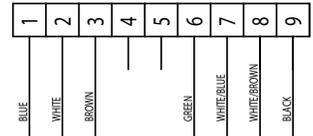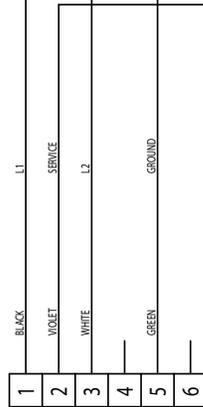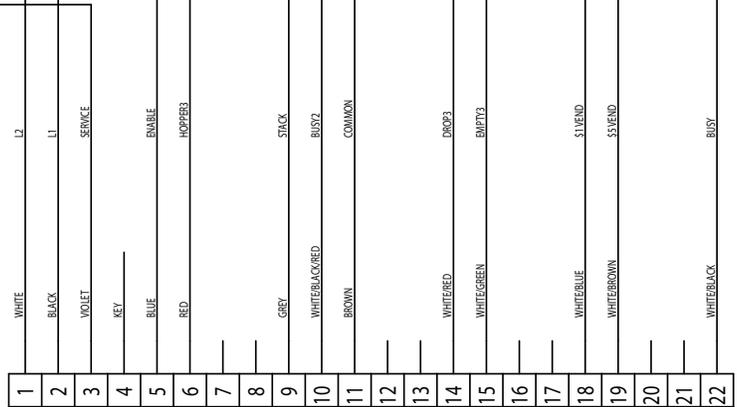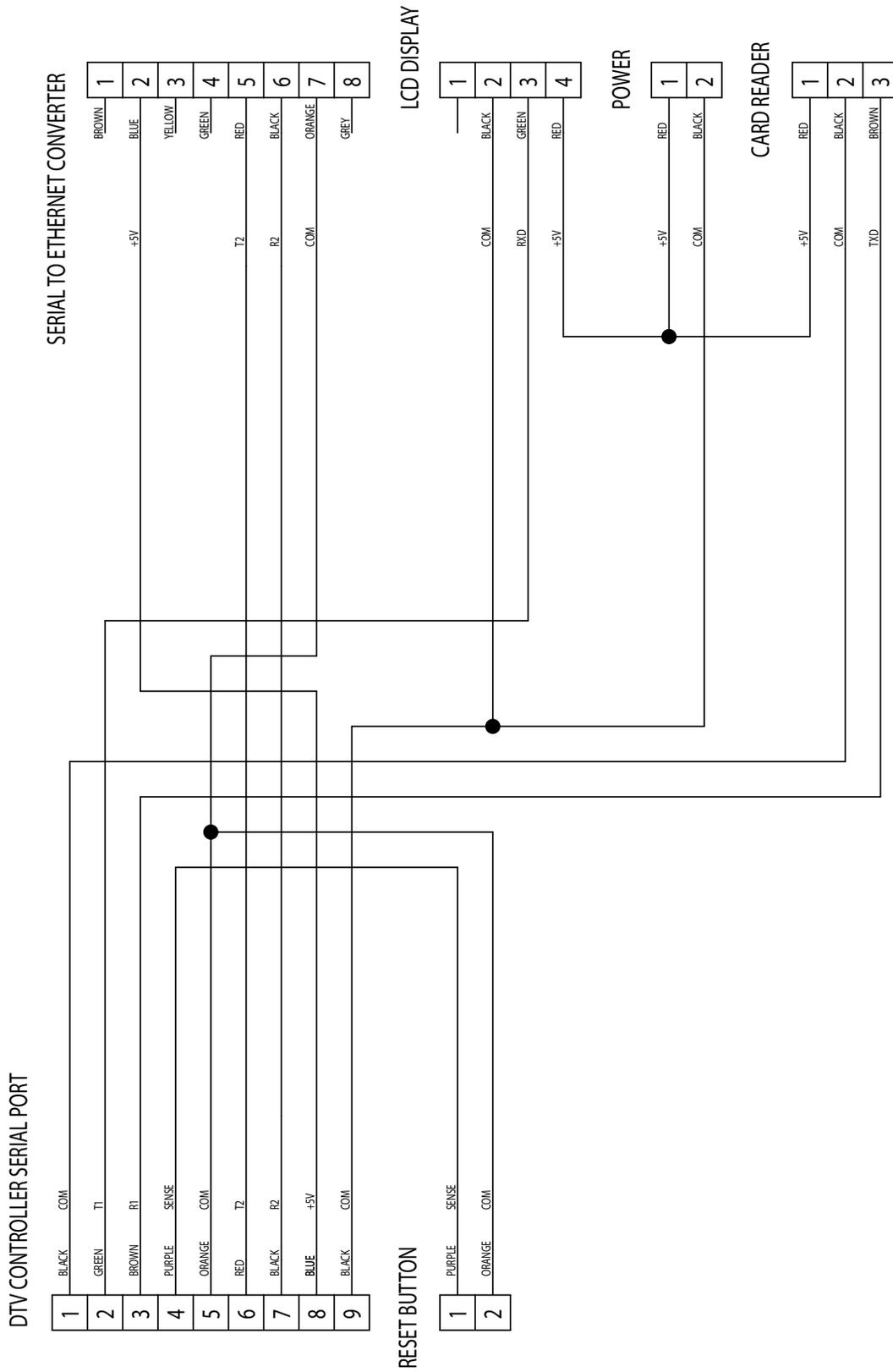
APPENDIX C
CCT Button (48-3186)

CONTROLLER POSITION 21

CONTROLLER POSITION 12

1   PINK

1   BROWN

COIN

COMMON

BUTTON

PINK   COIN

BROWN   COMMON

1

2
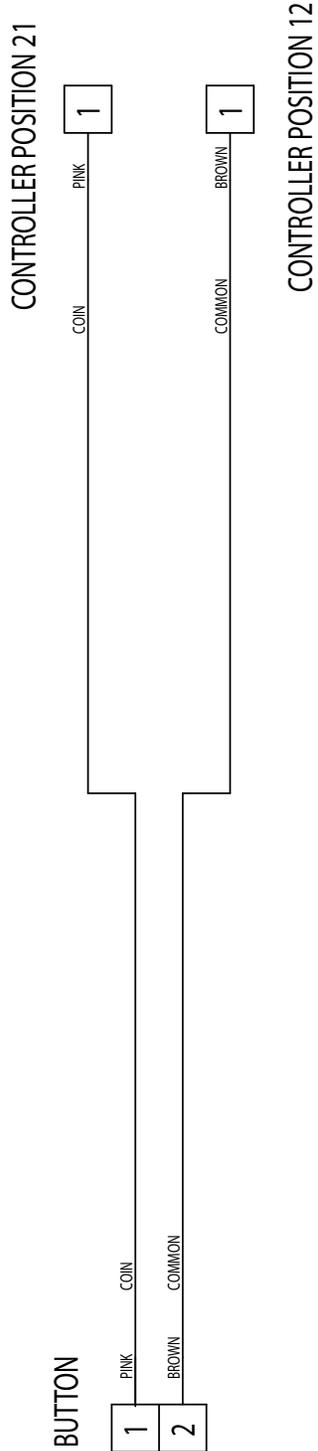
APPENDIX D
RNS-CCT Cabinet

1 1/2   9   1 1/2

12

TOP

8 1/2

11 15/16

38 5/8

DISPLAY WINDOW

BUTTON

CARD READER

32 1/4

30 1/8

28

FRONT

7   2

RIGHT
SIDE

34 5/8

19 1/2

5

5 1/8

2

Ø7/8
KNOCKOUTS
FOR MOUNTING
(8 PLCS)
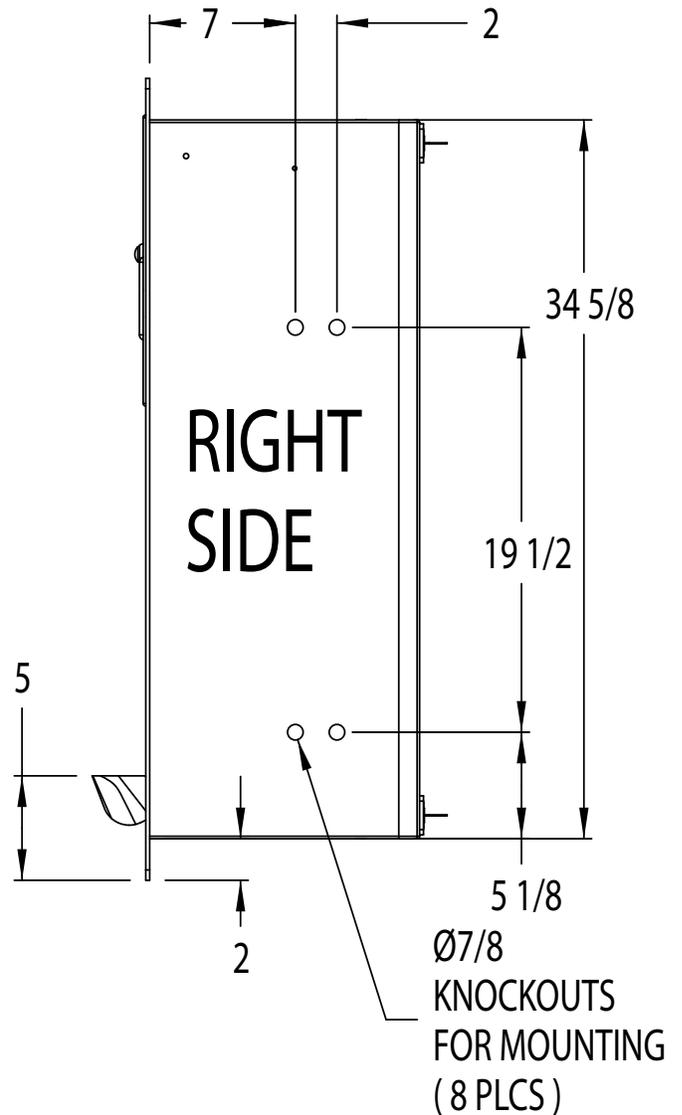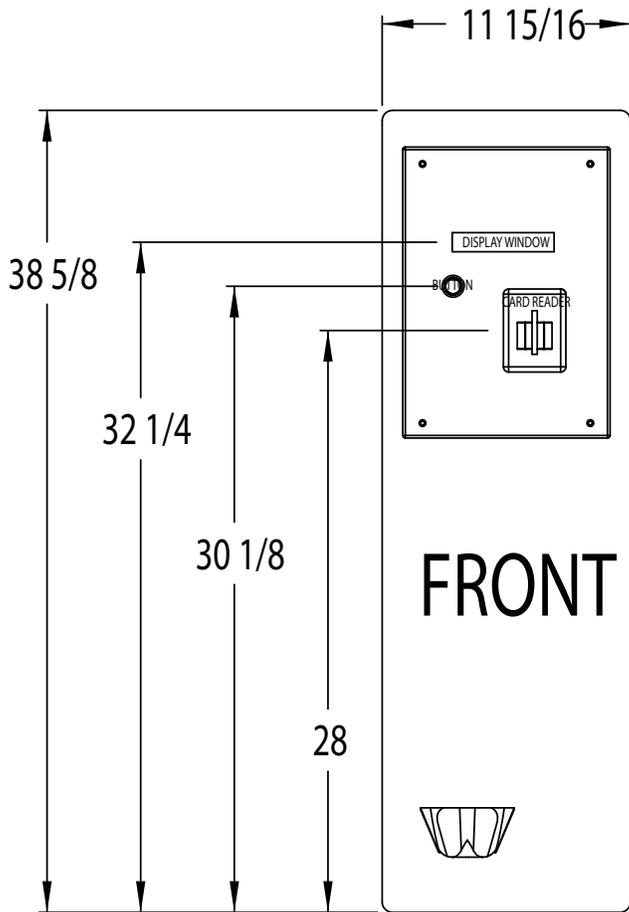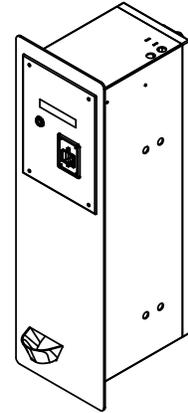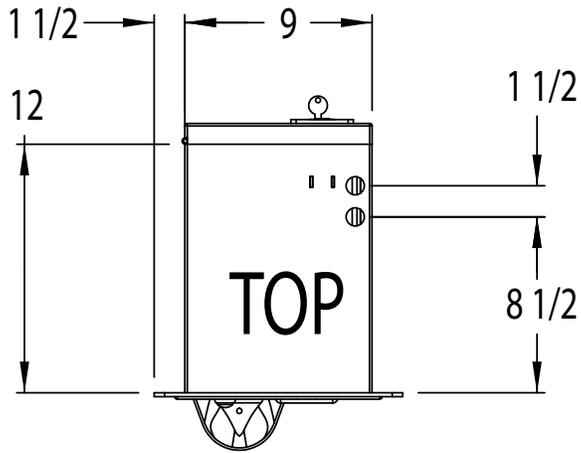
APPENDIX E
DRS-CCT Cabinet

Ø7/8
FOR WIRING
(2 PLCS)

18 1/8

1 1/2

14 3/8

9 7/8

TOP

1 3/4

21 5/8

OUT OF SERVICE LIGHT

DISPLAY WINDOW

SELECTION BUTTON

HAMILTON VALIDATOR

3RD PARTY VALIDATOR

CARD READER

38 1/4

34 3/16

30 11/16

25 5/8

FRONT

31 15/16

29 13/16

27 7/16

7 3/8

2

34 3/4

RIGHT
SIDE

20 3/4

5

1 3/4

5 1/4

Ø7/8
KNOCKOUTS
FOR MOUNTING
(8 PLCS)
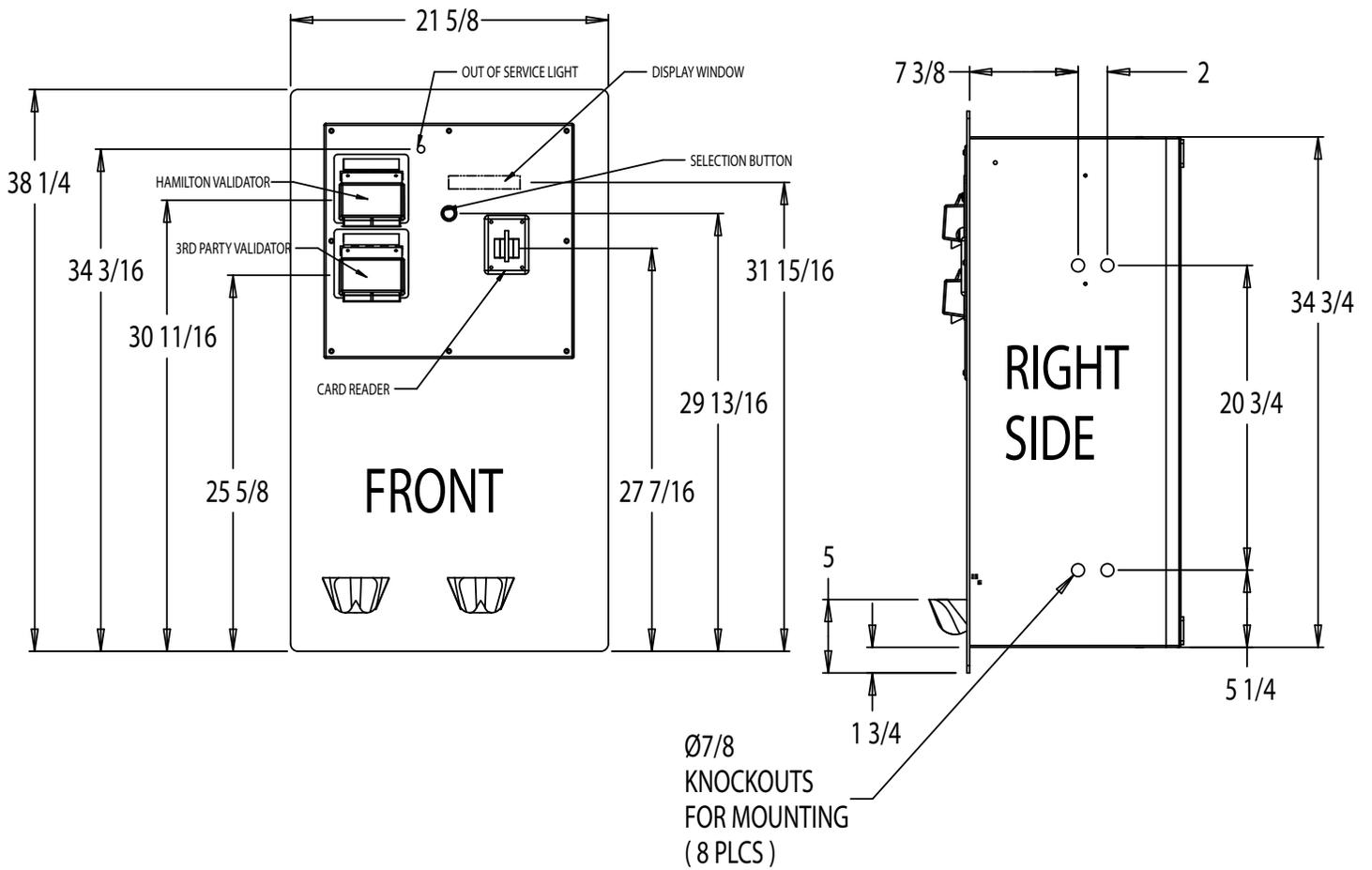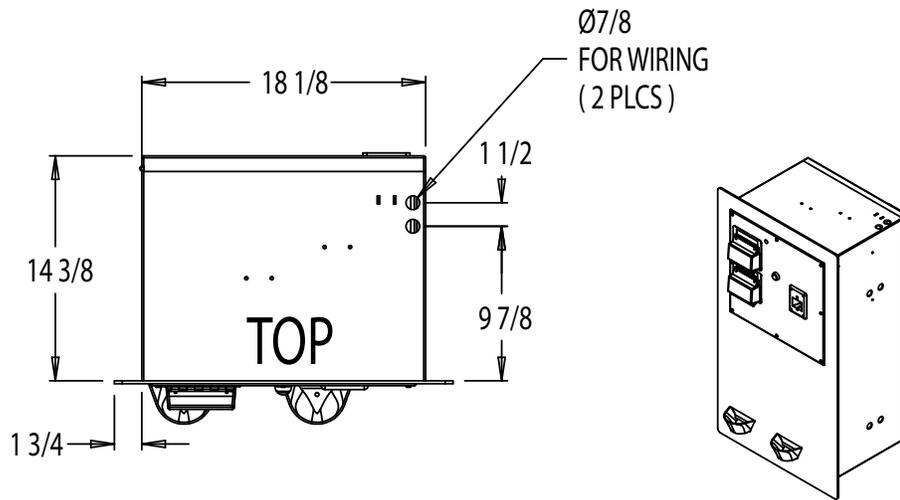
LIMITED WARRANTY AGREEMENT
OF HAMILTON MANUFACTURING CORP.

Hamilton Manufacturing Corp., an Ohio Corporation, ("Seller") warrants to Purchaser that all new equipment shall be free from defects in material and factory workmanship for a period of one (1) year from the original shipping date. Hamilton Manufacturing Corp. further warrants if any part of said new equipment in Seller's sole opinion, requires replacement or repair due to a defect in material or factory workmanship during said period, Seller will repair or replace said new equipment. Purchaser's remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of the equipment as Seller may choose, and Seller's obligation to remedy such defects shall not exceed the Purchaser's original cost for the equipment. Purchaser EXPRESSLY AGREES this is the EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties which extend beyond the face hereof. All warranty repair service must be performed by either a Factory Trained Service Representative or **HAMILTON MANUFACTURING CORP., 1026 Hamilton Drive, Holland, Ohio 43528 PHONE (419) 867-4858 or (800) 837-5561, FAX (419) 867-4867.**

The limited warranty for new equipment is conditioned upon the following:

1. The subject equipment has not, in the Seller's sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.
2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.
3. The coverage of this warranty shall not extend to expendable parts.
4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.
5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.
6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.
7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.
8. Use of the equipment for anything other than its intended and designed use will void the Limited Warranty Agreement. Use of equipment for anything other than its intended and designed use includes, but is not limited to, downloading software/applications not certified by Seller such as e-mail, spyware, screen savers, viruses, worms, third party software, web search engines, cookies, spam, desktop applications, games, web surfing, etc.

Seller further warrants all repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. for a period of ninety (90) days from the date the repair or service work was performed. Purchaser's remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of equipment as Seller may choose, and Seller's obligation to remedy such defects shall not exceed the Purchaser's depreciated value of the equipment. Purchaser EXPRESSLY AGREES this is an EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties on repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. which extend beyond the face hereof.

The limited warranty for repair and service work is conditioned upon the following:

1. The subject equipment has not, in the Seller's sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.
2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.
3. The coverage of this warranty shall not extend to expendable parts.
4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.
5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.
6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.
7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.
8. No person or entity other than a factory trained representative or Hamilton Manufacturing Corp. has performed or attempted to perform the subject repair or service.
9. Using equipment which has been serviced or repaired for anything other than its intended or designed use such as downloading software applications not certified by Seller will void the Limited Warranty Agreement. This includes software/applications such as e-mail, spyware, screen savers, viruses, worms, third party software, web search engines, cookies, spam, desktop applications, games, web surfing, etc.

THIS AGREEMENT IS MADE WITH THE EXPRESS UNDERSTANDING THAT THERE ARE NO IMPLIED WARRANTIES THAT THE EQUIPMENT SHALL BE <u>MERCHANTABLE</u>, OR THAT THE GOODS SHALL BE <u>FIT FOR ANY PARTICULAR PURPOSE</u>. PURCHASER HEREBY ACKNOWLEDGES THAT IT IS NOT RELYING ON THE SELLER'S SKILL OR JUDGMENT TO SELECT OR FURNISH EQUIPMENT SUITABLE FOR ANY PARTICULAR PURPOSE AND THAT THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THAT WHICH IS DESCRIBED HEREIN.

The Purchaser agrees that in no event will the Seller be liable for direct, indirect, or consequential damages or for injury resulting from any defective or non-conforming new, repaired or serviced equipment, or for any loss, damage or expense of any kind, including loss of profits, business interruption, loss of business information or other pecuniary loss arising in connection with this Limited Warranty Agreement, or with the use of, or inability to use the subject equipment regardless of Sellers knowledge of the possibility of the same.

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