

Hamilton Manufacturing Corporation

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WASHCARD INSTALLATION INSTRUCTIONS

The WashCard system is a debit card system capable of interfacing with all Hamilton Mfg. ACW style controllers (AutoCashier, AUTOTEC, ACW-4-K, and ACW-4-P). This debit system monitors the function selection buttons on the ACW to determine the customer's choice of wash. If a card is then passed through the reader, the WashCard Controller will determine if the customer's account is valid and has enough credit for the wash selected.

The installation procedures are identical for all styles of ACW machines. Therefore, the name ACW will be used to refer to the AutoCashier, AUTOTEC, ACW-4-K and ACW-4-P.

REQUIREMENTS

To connect the WashCard System to a Hamilton machine, the following items are needed:

1. A WashCard System, which includes a Controller, Card Reader, and Cards, may be obtained from the following source:

WashCard Sales
2266 North Second St.
North St. Paul, MN 55109
PH: (612) 439-5740

2. The Hamilton WashCard Harness Kit for an ACW is part # 48-2011A, and for an AUTOTEC is # 48-2011B. After Controller version 4.3.12TR, the ACW kit can be used for both ACW's and AUTOTEC's. When using the old style buttons, use part #48-2011A and for new style buttons, the part number is 48-2011C. These kits contain the following:
 - Four Contact Blocks
 - One Wash Selection Debit System Harness
 - One Intermediate Coin Mech Harness
3. 3-Conductor Shielded Cable (the length of which depends on the installation).
4. 20 AWG Wire (the number of wires used depends on the installation). It is recommended that different colors be used for various connections.

CARD READER INSTALLATION

While viewing the ACW cabinet door from the back, locate the three pre-drilled holes used to mount the WashCard Card Reader. These holes are located in the same area as the Coin Mech position furthest to the right, when viewed from the back of the door.

The two 7/32" holes are used to rigidly mount the Card Reader. The 5/16" hole is for routing the communications cable from the Card Reader to the WashCard Controller. Once the holes have been located, drill through the lexan material covering the holes. Next, mount the Card Reader on to the door using weather resistant hardware. There is a hole in

the door, which is intended for the communications cable. Be sure to pull the cable through this hole.

ELECTRICAL INSTALLATION

1. Install the contact blocks onto the function selection switches, which are the four lower push buttons. You will notice that there is already one contact block installed on each switch. These are used by the ACW Controller and cannot be used for the WashCard System. To attach the new contact blocks, snap them into position next to the existing contact blocks.
2. Install the Wash Selection Debit System by sliding the terminals on the Wash Selection Debit System Harness onto the terminals of the newly installed contact blocks. The correct orientation should have the WHT/BLK/BLU and BRN wires going to the top wash selection button. This will leave the loose wire ends directed towards the bottom of the cabinet.
3. Install the Intermediate Coin Mech Harness between the Coin Mech(s) and the Main Harness. To find the correct connection, follow the short Coin Mech Harness (enclosed in a white sleeving) to the point where it meets the Main System Harness (enclosed in black sleeving). Disconnect the four pin connectors and install the Intermediate Coin Mech Harness between them.
4. There are seven 22 AWG (min) wires and one 3-Conductor Shielded Cable that runs from the ACW to the WashCard Controller. These wires need to be run through conduit that DOES NOT contain any 110VAC carrying wires.
5. To make the wiring connections on the ACW side, it is suggested that the run wires are soldered to the loose wire ends of the Wash Selection Debit System Harness and the Intermediate Coin Mech Harness. However, if another method is used, it is very important to make sure that a good mechanical and electrical connection has been made.

WIRE CONNECTIONS

On the side with the WashCard Controller, the wire runs get connected to various terminal block locations on the WashCard Controller. The chart below shows the wire color of the line coming from one of the two Hamilton WashCard Installation Harnesses, the corresponding terminal block, and the terminal block location where the wire should be connected to the WashCard Controller.

HAMILTON WIRE COLOR	WASHCARD CONTROLLER TB-A (POSITION)
WHT / BLK / RED (FUNCTION 1)	10
WHT / BLK / YEL (FUNCTION 2)	12
WHT / BLK / ORG (FUNCTION 3)	14
WHT / BLK / BLU (FUNCTION 4)	16
BRN (FROM SWITCH BLOCK HARNESS)	11

- WashCard Controller Terminal Block A positions 11 & 15 should be connected together with a short piece of jumper wire.

HAMILTON WIRE COLOR (INTERMEDIATE COIN MECH HARNESS)	WASHCARD CONTROLLER TB-C (POSITION)
BRN	2
PNK OR WHT	3

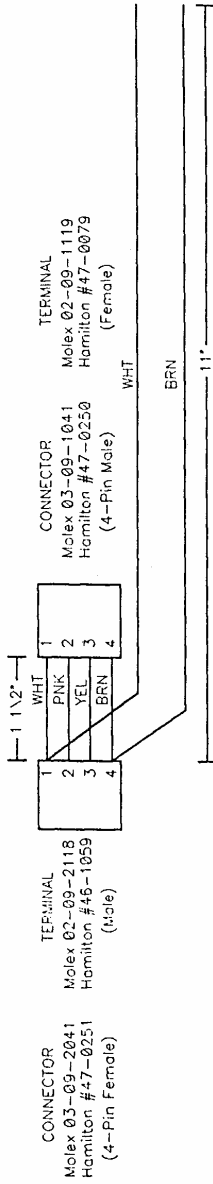
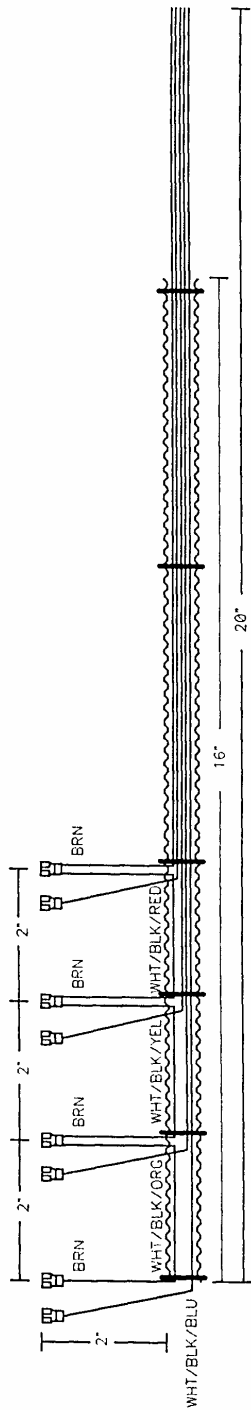
*The Intermediate Coin Mech Harness will either have a pink or white wire, depending on the ACW model being used.

TESTING

1. Power up both the Hamilton ACW and the WashCard Systems.
2. Program a card in the WashCard System. (Refer to the WashCard Sales documentation.)
3. Press a wash selection on the ACW. The Display should show which wash was selected.
4. Swipe the WashCard through the reader. If it is acknowledged and approved, the color of the light on the Card Reader will briefly change from RED to GREEN.
5. Shortly after, the ACW display will acknowledge that the wash has been paid for and send a "start wash" signal to the car wash.
 - If the card was not approved, the ACW will continue to display the wash selection message and wait for cash to be deposited.
 - To swipe the card again, it is necessary to re-press the wash selection first.
 - It is important that the accepted card signal from the WashCard Controller to the ACW be greater than 200ms (20 tenths of a second). This time is programmable (refer to the WashCard Sales documentation for programming procedures). However, 25 tenths of a second is the recommended value.

* All wire UL1007 20AWG

* All terminals
Molex AA-4176
Hamilton #47-0073



WashCard Controller Connections

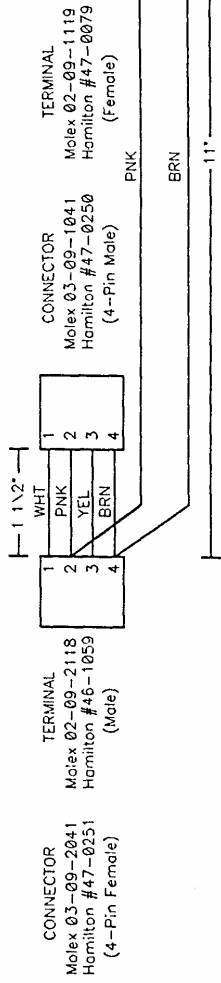
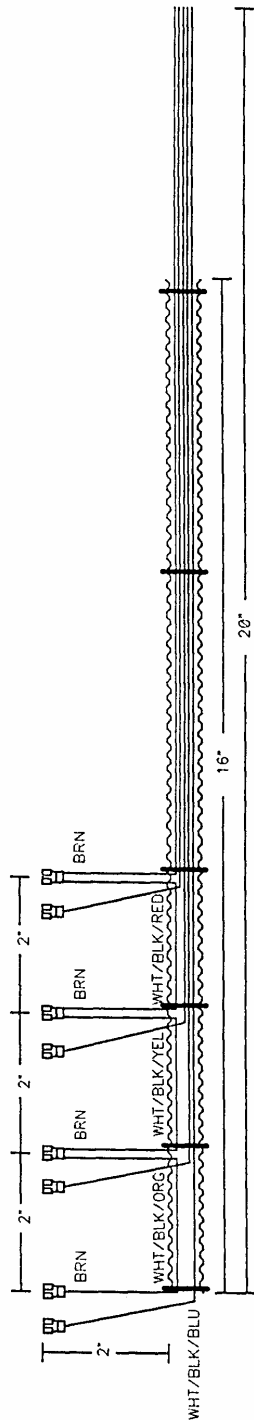
WCC-TB-A	SWITCH BLOCK HARNESS
#10 - INPUT #5	WHT/BLK/RED - FUNCTION #1
#12 - INPUT #6	WHT/BLK/YEL - FUNCTION #2
#14 - INPUT #7	WHT/BLK/ORG - FUNCTION #3
#16 - INPUT #8	WHT/BLK/BLU - FUNCTION #4
#11 - Common 5 & 6	BRN - COMMON
#15 - Common 7 & 8 (Jumper terminals #11 and #15)	

WCC-TB-C	COIN MECH HARNESS
#2 - COMMON	BRN - COMMON
#3 - N.O.	WHT - QUARTER INPUT

Title	Auto-TEC WashCard Harness Kit	Rev	1.0
Size	A	Number	48-2011B

* All wire UL1007 20AWG

* All terminals
Molex AA-4176
Hamilton #47-0073



WashCard Controller Connections

WCC TB-A	SWITCH BLOCK HARNESS
#10 - INPUT #5	WHT/BLK/RED - FUNCTION #1
#12 - INPUT #6	WHT/BLK/YEL - FUNCTION #2
#14 - INPUT #7	WHT/BLK/ORG - FUNCTION #3
#16 - INPUT #8	WHT/BLK/BLU - FUNCTION #4
#11 - Common 5 & 6	BRN - COMMON
#15 - Common 7 & 8 (Jumper terminals #11 and #15)	

WCC TB-C	COIN MECH HARNESS
#2 - COMMON	BRN - COMMON
#3 - N.O.	PNK - TOKEN INPUT

Title	
Auto-Cashier	WashCard Harness Kit
Size	A
Number	48-2011A
Rev	1.0