

# WaveRider Installation

## Speed Queen®

**Single Machine**

**Side-Car  
Enclosure**

**Coin & Card**

**MDC/Pulse Mode**

**METER CASE  
MOUNTING**



## Laundry Machine Model Numbers

This document applies to the WaveReader installation process following Alliance/Speed Queen model numbers:

### Washers

### Dryers



**If you cannot locate the model number of the machine you require in the lists above, please contact MicroPayments Customer Service at:  
Tel: 800-332-4835 Press 2**

# Installation Kit Contents & Required Tools

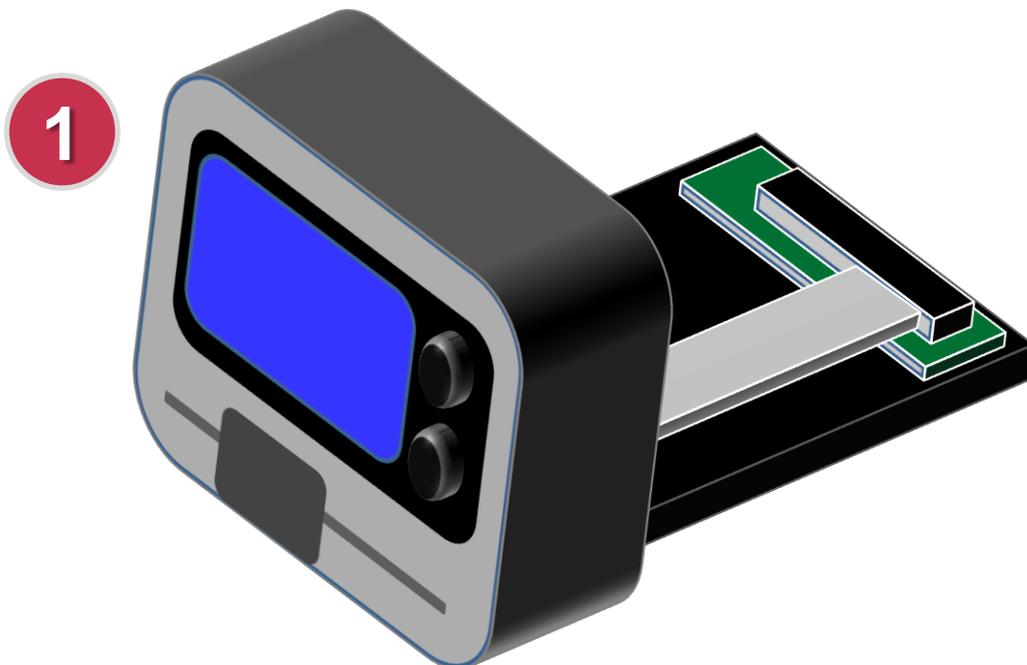
This following tables list the required tools & components for the installation process. If you cannot locate and/or identify any of the components listed above, please contact MicroPayments Customer Service at 800-332-4835, then press 2.

## Required Tools

- **#10 Pin-in-Star Torx Driver**
- **1/4" Socket Driver**
- **7/16" Socket & Ratchet**
- **Phillips Head Screwdriver (medium)**
- **Flat Head Screwdriver (medium)**

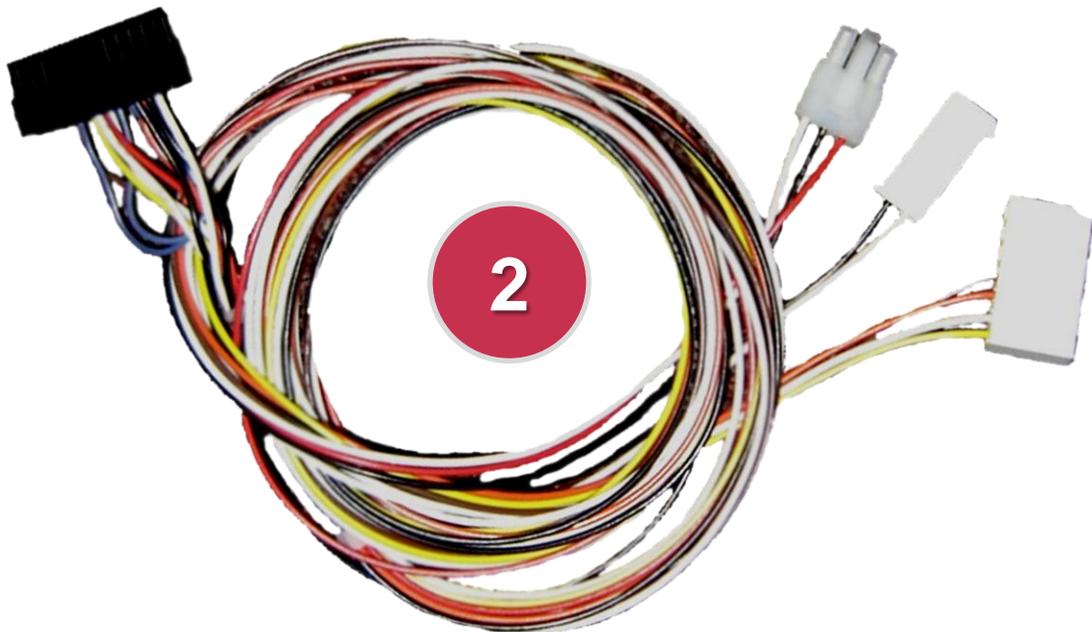
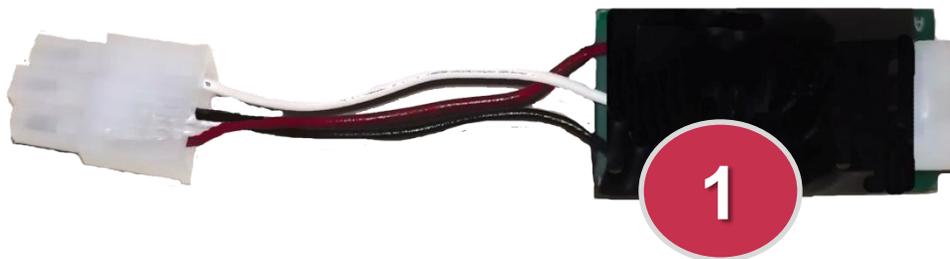
## WaveReader

Item	Qty	Part Number	Description
1	1	WLAU-NNNNNN	WaveReader



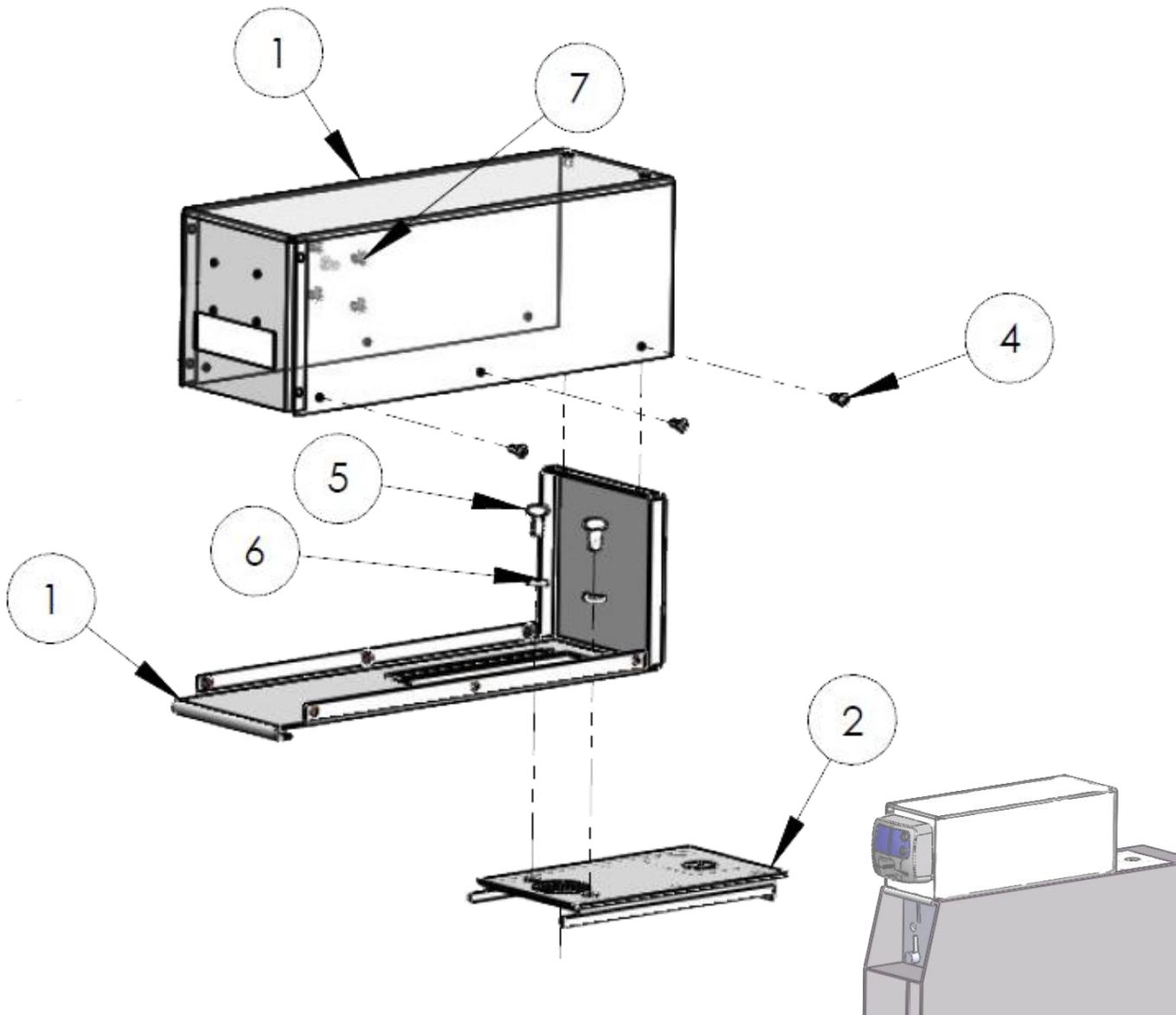
## Interface Harness

KIT-HRN-050-6-012			Harness Kit for Speed Queen Coin & Card
Item	Qty	Part Number	Description
1	1	ASM-050-6-012	Stuffed Speed Queen Coin Drop board
2	1	AYS-050-6-009	Cable, Speed Queen Pulse for WR + Coin



## Side Car Housing

KIT-050-6-032S			Speed Queen Side-Car Enclosure Kit (meter case mounting)
Item	Qty	Part Number	Description
1	1	MFP-050-6-032-011	Side Car Cover
1	1	MFP-050-6-032-012	Side Car Base
2	1	MFP-050-6-027	Side Car Access Door - Speed Queen
5	2	SRW-1/4-20X.50HM	Bolt 1/4-20x1/2 Hex Zinc Plated
7	4	SRW-632X.188PPL	Screw 6-32 x 3/16" Pan Head Phil locking
4	6	SRW-632X.375BTSS	Screw 6-32 x 3/8" Button Torx Socket
6	2	WAS-1/4-20L	Washer 1/4-20 locking MMC#91102A750





**!! WARNING !!**

**MAKE SURE THAT ALL POWER HAS BEEN REMOVED FROM THE MACHINE BEFORE ATTEMPTING TO INSTALL ANY HARDWARE OR CABLING!**

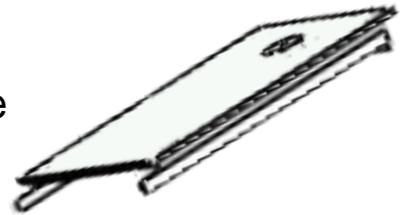
## Preparation

Disconnect the laundry machine from all power sources before performing any of the following steps.

### Installation

**1**

Remove the current coin vault service door, and remove the locking mechanism from the service door. You will need the lock, later.

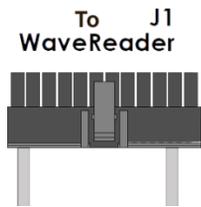


**2**

Using a screw driver, remove the screws that secure the backsplash and lower the panel.



**3**

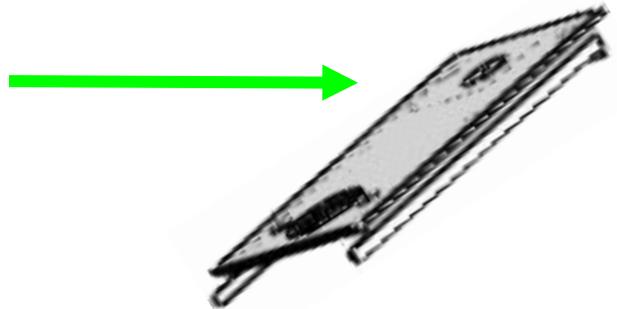


Route the WaveReader interface harness along the interior of the backslash enclosure and the large single end (J1) of the WaveReader harness end into the meter case via the main cable access hole.



**4**

Install the locking mechanism that was removed from the original Service Door onto the new Service Door supplied in the Side Car Kit.



**5**

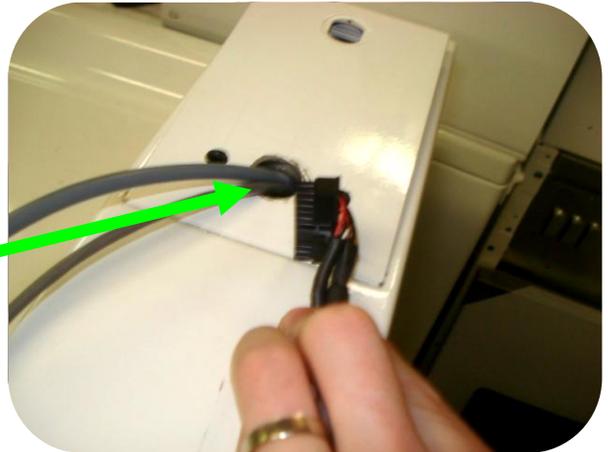
Pull the harness through the meter case's service door opening, and then through the cable access hole in the new Service Door as shown.



## Installation

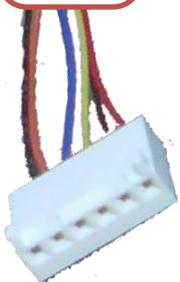
**6**

Pull the harness through the meter case's service door opening, and then through the cable access hole in the new Service Door as shown.



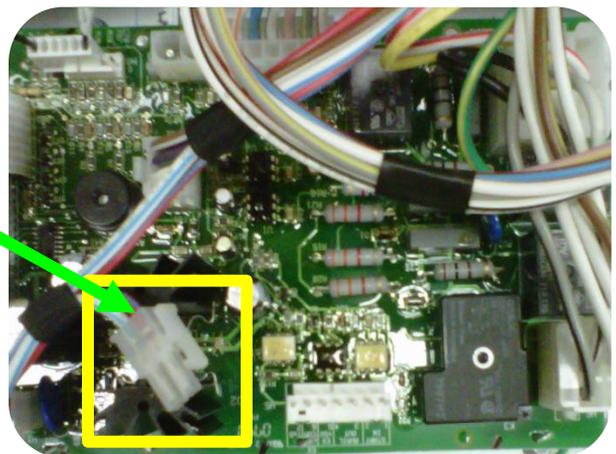
**7**

On the main panel, connect **J3** of the WaveReader harness to the **H5** connector on the Speed Queen control board, in the yellow box. On some Quantum control boards, the connector may be labeled H4.



**8**

On the main panel, connect **J3** of the WaveReader harness to the **H1** connector on the Speed Queen control board, in the yellow box.

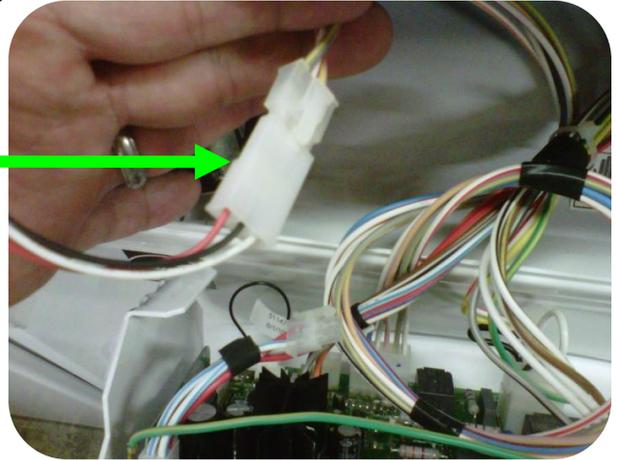


# Installation

**9**

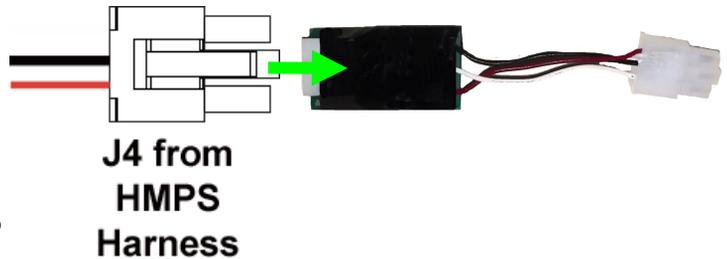
On the control board locate the plug where the **coin drop is connected**. It should be a small three (3) pin plug that routes out of the **H3** connector from the control board.

**Disconnect it.**



**10**

Locate the **Coin Adapter Board**. Connect **J4** of the WaveReader harness to the mating connector on the **Coin Adapter Board**.



**11**

Connect the Coin Drop into the other side of the **Coin Adapter Board**.

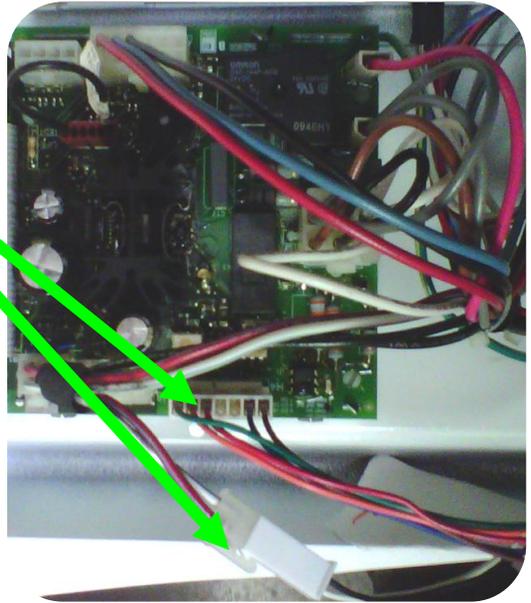
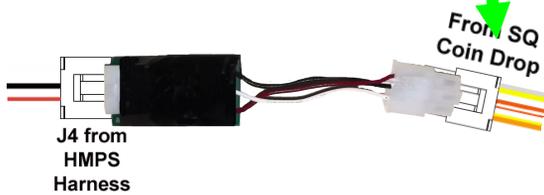
**From SQ Coin Drop**



# Installation

**12**

The completed wiring assembly should look like this...



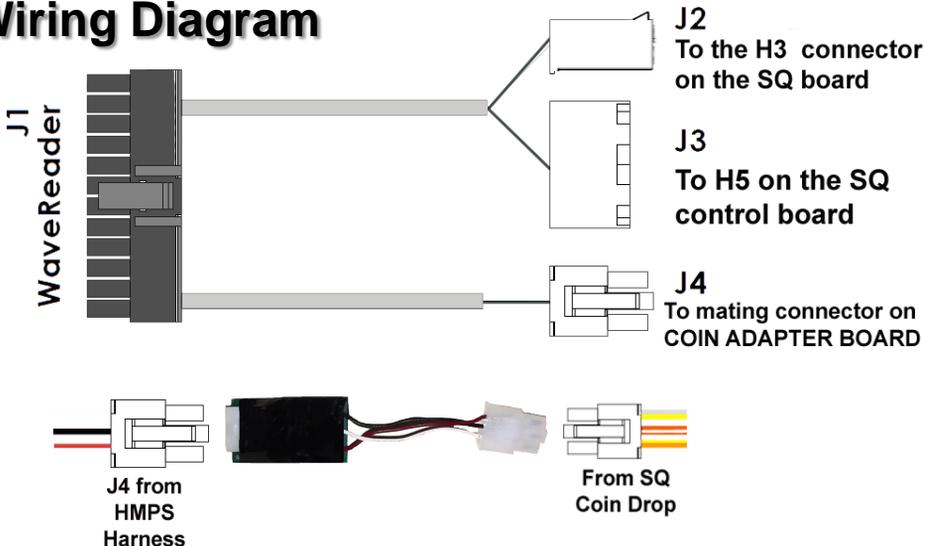
**13**

Locate the **Serial Jumper** on the control board and remove it.



**14**

## Wiring Diagram



**15**

Pull WaveReader harness through the large, center opening of the Side Car bottom. Make sure that the curved lip on the bottom panel is facing the front of the meter case.



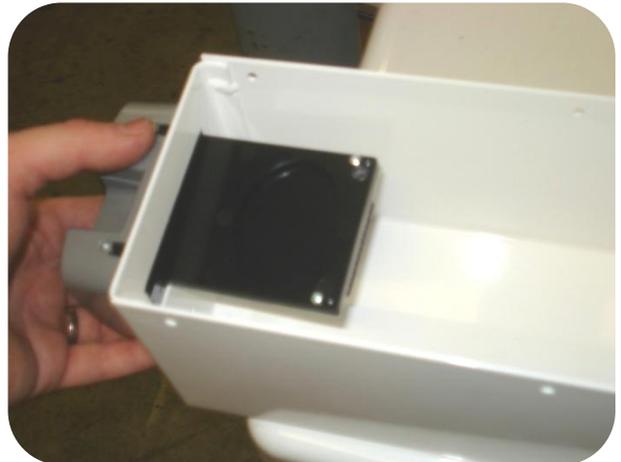
**16**

Rest the Side Car bottom on top of the meter case and slide it rearward until the curved lip securely grabs the upper-front edge of the meter case. Bolt the Side Car bottom to the new service door lid with the two (2) **1/4-20x1/2 Zinc Plated Hex Bolts** and washers that were supplied with the kit.



**17**

Locate the top cover of the Side Car Kit, and turn it over. Insert the WaveReader into the cover and position as shown.



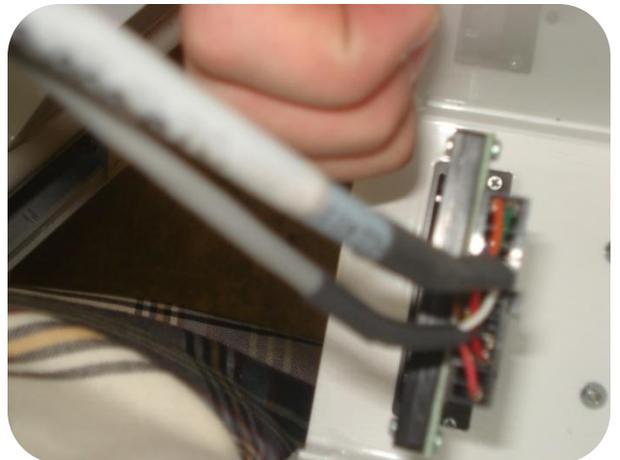
**18**

Secure the WaveReader to the top cover with the four (4) 6-32 Philips Pan Head Locking Screws that were supplied with the Side Car Kit.



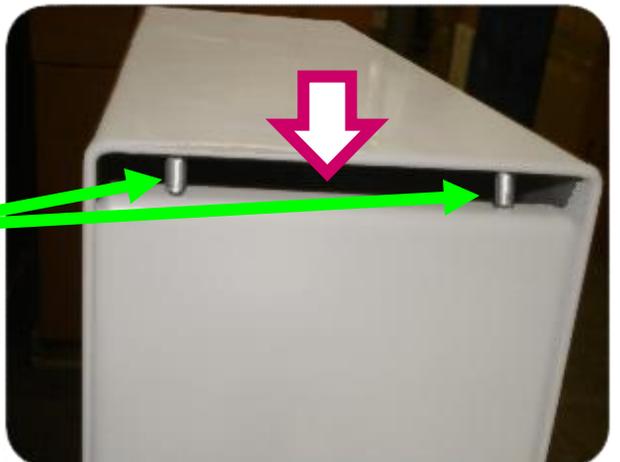
**19**

Connect F1 of the WaveReader harness to the connector on the back of the reader.



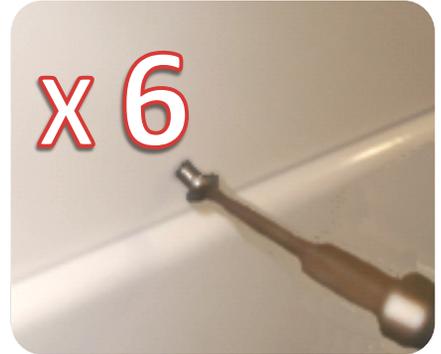
**20**

Position the top Side Car cover so that the **two (2) retaining pins** at the back edge line up with their mating holes in the bottom cover. Tap the top cover down so that the pins are fully inserted.



**21**

Install the six (6) 6-32 x 3/8" Button Torx screws to secure the Side Car top cover to the bottom panel. There are three (3) per side.



**22**

Finished assembly.



**23**

MDC style Speed Queen machines will require a few programming steps to ensure proper operation with a WaveReader.

1. The Serial Jumper on the control board must be removed for proper operation.
2. For **Quantum** style machines (operating in Pulse Mode), **all cycle prices must be set to the same value.**
3. The Start Value Pulse 'PLSE' must be set to the same coin value as the WaveReader's. Typically, this value is \$.25. The programming steps for this are detailed in

## 24

**PLSE Programming** – special care should be paid to this setting. The *modified* excerpt below is from Speed Queen’s ‘**MDC Frontload Washer Programming Manual**’ and is provided for convenience. Please refer to your machine’s manual for confirmation.

### Programming MDC

#### 4. Start Pulse Value “PLSE”

This option allows the owner to program the value of the start pulse with an aftermarket central card reader or pay system.

##### How to Program Start Pulse Value

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the PERM PRESS/WARM (^) or the DELICATES/COLD (v) keypad until “PrOg” appears in the Four-Digit Display.

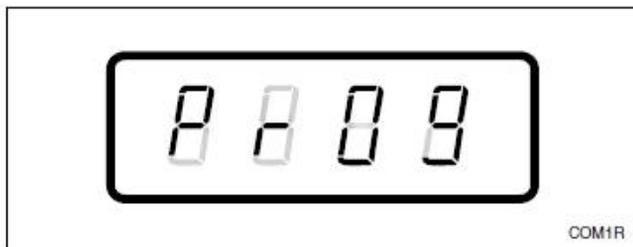


Figure 14

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the PERM PRESS/WARM (^) or the DELICATES/COLD (v) keypad to scroll through the programmable options until “PLSE” appears in the Four-Digit Display.



Figure 15

5. When “PLSE” appears in the Four-Digit Display, press the START (enter) keypad. There are four digits in Start Pulse Value, and the fourth digit will become the active digit. The active digit will flash one second on and one second off.



Figure 16

**NOTE:** The start pulse can be set from 1 to 9999.

6. Press the PERM PRESS/WARM (^) or the DELICATES/COLD (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
7. Repeat step 6 for each of the four digits. When the START (enter) keypad is pressed and the last digit is the active digit, the changes to the start pulse value will be saved into the memory. The next option, “CyCL”, will appear in the Four-Digit Display.

**NOTE:** To program “CyCL” (Cycle Stages), refer to option 5. To program other options, refer to the appropriate section.

##### How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL/HOT keypad with one hand, press the NORMAL/WARM keypad with the other hand. The control will revert back to the previous mode of operation.



**27**

Using zip-ties, secure all wiring harnesses to prevent pinching, wire-strain, and chafing.



**28**

Apply the self-adhesive sticker that displays the accepted card brands (supplied) in a clearly visible location .



**29**

Reattach all machine panels.

