

RVMC-USISM36-1 Retrofit Kit

****TURN OFF MACHINE POWER BEFORE INSTALLATION****

READ ALL INSTRUCTIONS BEFORE INSTALLATION OF KIT

NOTE: This RVMC-USISM36-1 kit will work in most USI 3000-3100 series legacy snack vendors to support SM3, SM4 & SM6 Versatile based controller snack machines. This kit will not support satellite/side cabinets or soda machines. Use RVMC-USI3100 kit for use in F80 controller-based snack machines. Due to variances in cabinet design some modification may be necessary.

Retrofit kit contents:

| PART NAME | QUANTITY | PART NUMBER |
|-----------------------------------|----------|-------------|
| PCBA, USI SM3 Retrofit Controller | 1 | 10-0279-10 |
| USI SM3 Retrofit Display Assembly | 1 | 05-1170-00 |
| USI SM6 Keypad Adapter | 1 | 11-1700-20 |
| USI SM6 Power Adapter | 1 | 11-1700-21 |
| USI MDB Extension | 1 | 11-1700-06 |
| USI iVend Sensor Adaptor Cable | 1 | 11-1700-36 |

Tools Needed:

Common Hand Tools: Screwdrivers, Diagonal Cutters, Zip Ties, Cordless Drill (if display bracket needs modification), ¼" Socket Set, Nutdriver, 1/8-1/4" Drill Bits, Electrical Tape

IMPORTANT: As mentioned, the RVMC-USISM36-1 kit supports multiple generations of USI machines. The keypad (11-1700-20) and power adapter harness (11-1700-21) included with this kit is to enhance flexibility to support multiple USI cabinets and is only needed on some USI models.

If you intend to reuse the factory iVend sensors with the replacement controller, you must use an MDB changer. J6 Micromech header provides power to factory sensors using the included 11-1700-36 vend sensor adaptor cable which disallows use of a dumbmech changer.

Before beginning installation, use the table below to identify which harnesses you will need. Known machines that must use the keypad and power adapter harnesses are: 3053,3054,3184,3185.

Tip: You may want to take a photo of the controller with cover plate removed exposing all the factory cabling plugged as a reference in case you need to refer to it later. All machine side cabling is unique, all connector ends are different and have keys installed in various locations which makes installing the new controller much easier. As an example, a 10-pin cable with pin 6 keyed is the factory incoming power harness. A 10-pin cable with pin 3 keyed is the pulse bill validator cable.

This kit supports 2 different style power and keypad connections to fit as many model machines as possible. Before beginning, please determine if your machine is equipped with a 13 or 11 pin keypad? Check the factory power cable plugged into the board. Is it a 10 or 3 pin cable? If you locate one cable or the other, you'll know whether the kit adaptor cables are needed. Generally, the rule of thumb to follow is this... If your machine uses a 13-pin keypad, it will have a 10-pin power cable and no kit adaptor cables needed, just plug the factory harness to the controller. Likewise, if your machine uses an 11-pin keypad, it will use a 3-pin power cable. If your machine has an 11-pin keypad or 3-pin power cable, you'll need to use both adaptor cables in the kit. See controller connections on page 5.

| Factory Machine Connector | Corresponding Kit Harness |
|---|--|
| 10-pin with pin 6 keyed power | None, Use original factory harness to J1 Power |
| 3-pin power | Must use 11-1700-21 power adapter harness to connect the 3-pin factory power connector to J1 Power |
| 13-pin Keypad | None, No adapter is used, plug factory harness to controller |
| 11-pin Keypad | Must use 11-1700-20 keypad transition harness. The 13-pin connector plugs directly to J4 on the controller |
| 11 or 15-pin Factory iVend Sensor Harness | Optional: Use 11-1700-36 sensor cable adaptor, some machines have an 11-pin instead of 15 |

Installation

Follow the steps to install the new USI Snack Mart Retrofit Kit:

1. Unplug the power from the machine. Failure to do so could result in damage to the machine or electric shock.
2. Slide the control panel assembly out (Figure 1) and locate the Vending Machine Controller VMC. The VMC is usually mounted directly behind the keypad but on some model machines the controller may be mounted on the side of the cabinet. Carefully, unplug all connections to board. (Figure 2)
3. Using a screwdriver, remove the four screws that mount the VMC and remove the VMC from the machine.
4. Locate the factory display PCB mounted above the VMC. Some models will require that the bill acceptor be removed to gain access to the display board. Unscrew the four screws mounting the PCB display and remove it from the machine.

Note: due to variances in cabinet design, you may see something slightly different.

5. The new display panel provided can now be mounted in the machine. To accommodate support for as many models as possible, there are additional mounting holes in the display bracket that may or may not be needed. Locate the new display (05-1170-00) in the retrofit kit. This will mount exactly where the old display board was mounted, using same mounting holes and screws.



Figure 1

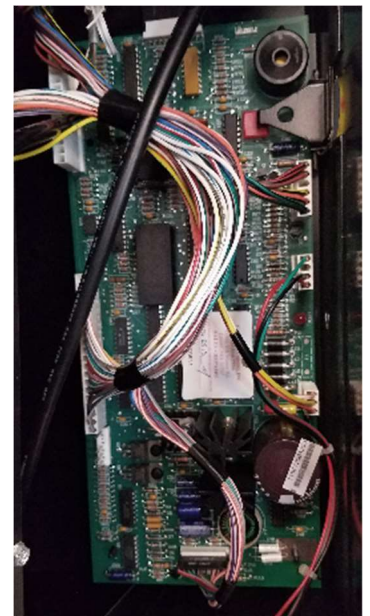


Figure 2

6. Orient the panel so that the header on the display is towards the top of the machine. The DEX plug should also be facing towards the inside of the machine. Some machines require you to remove the DEX-27 from the display bracket and zip tie to secure if clearance is an issue. Refer to figures 3a and 3b.



Figure 3a

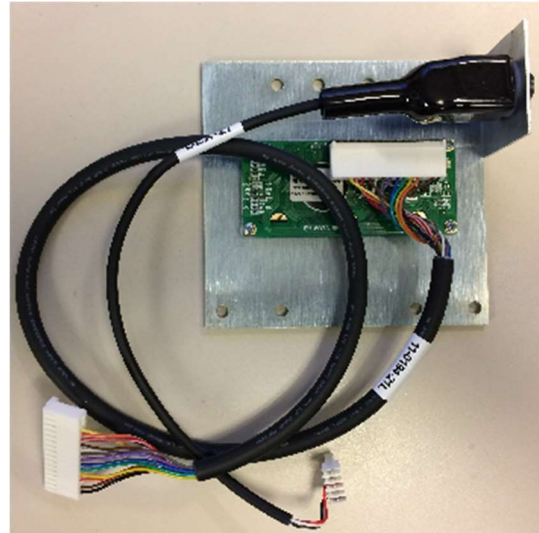


Figure 3b

7. Mount the new retrofit VMC (10-0279-10) in the machine utilizing the existing standoffs and screws. The controller will mount exactly like the original VMC, using the same four mounting holes and screws. Orient the new controller just like the factory controller was mounted whether it's keypad up or down. Its permissible to mount the board in any orientation if the cabling can reach the controller without strain.

Note: some controllers are on the door, other models inside the cabinet. On some model machines the keypad header is installed facing up. Refer to Figure 4. Note use of 11-1700-20 keypad adaptor cable.

8. Since this controller supports multiple keypad layouts, switch 3 is used to tell the controller what keypad to support. Make sure switch 3 on the controller is set for OFF (down) for Snack Mart 3 (13-pin keypad) installations or ON (up) for Snack Mart 6 (11-pin keypad) installations. See SW1 on Figure 5

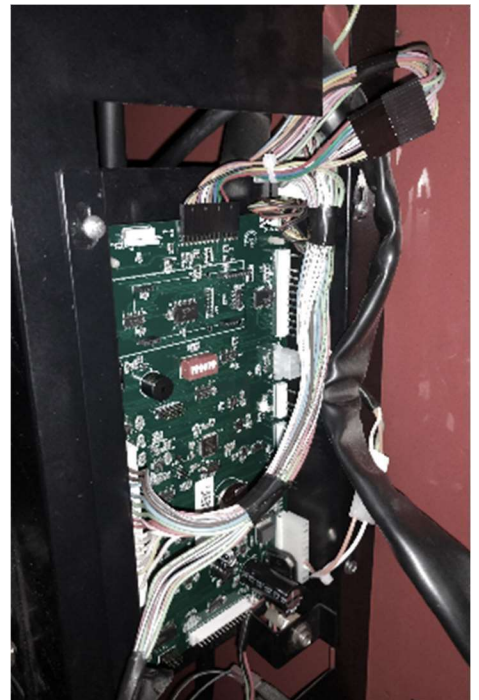


Figure 4

Harness Connections

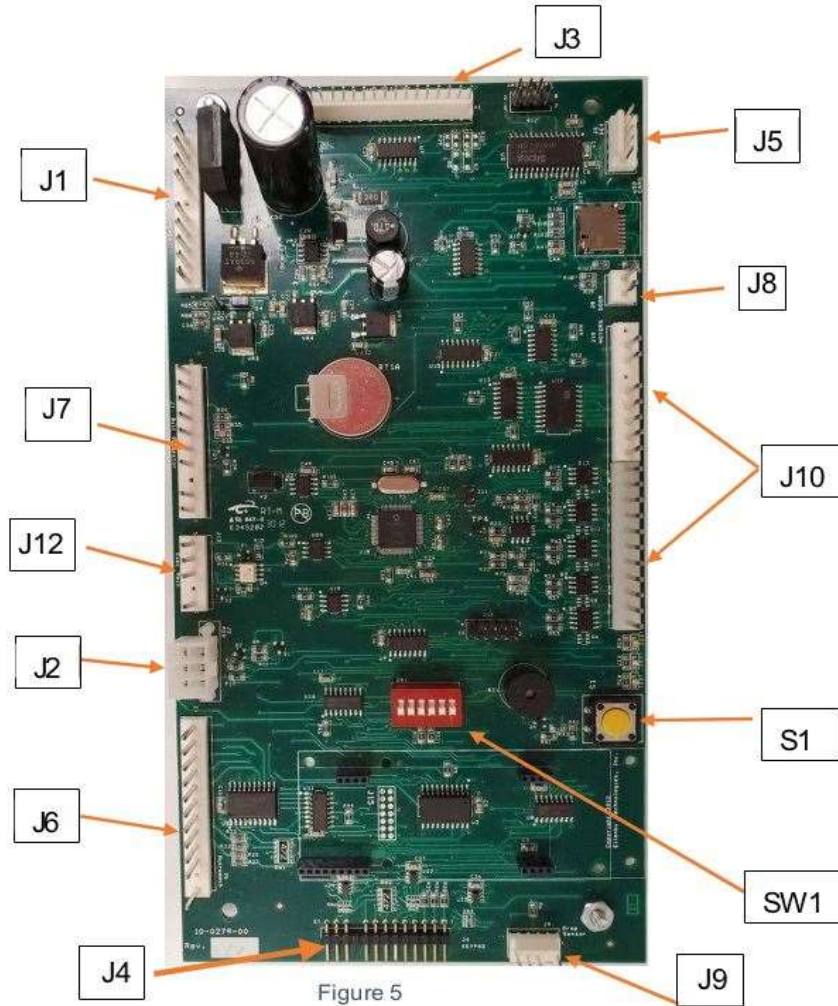


Figure 5

| | |
|-----|---|
| J3 | OLED Display Cable |
| J5 | DEX-27 Cable |
| J8 | Door Switch if applicable |
| J10 | Motor Cable (20-pin header with pins 2 & 4 keyed) |
| S1 | Service Mode Switch |
| SW1 | Switches control machine model, keypad type and sensor selection |
| J9 | Drop Sensor Connection |
| J4 | 13-pin keypad harness connection only or use 11-1700-20 with 11-pin keypad, then plug to J4 |
| J6 | 24v Dumbmech/Micromech Changer – Also used to provide power to factory equipped iVend sensors |
| J2 | MDB peripherals (Coin, Bill, Card, etc) plugs directly into J2 unless 11-1700-06 MDB extension cable is needed. |
| J12 | Executive Mech- DO NOT USE |
| J7* | 24v Pulse Bill Validator |
| J1 | Factory 10-pin harness or use 11-1700-21 with 3-pin power harness, then plug into J1. |

Factory iVend Sensor Installation

Note: If you intend to reuse the USI factory iVend sensors with an InOne controller, you must use an MDB changer. For both USI kits we sell, one leg of the sensor adapter “Y” harness (green & brown wires) will plug into J6 micromech to power the factory sensors.

1. Locate the 11 or 15 pin factory sensor harness connection as shown in fig. 6 inside the machine cabinet. The gray wire coming in from the top of the photo is the factory style 15-pin USI sensor harness, the bottom wire shown in Fig. 6 is the 11-pin side of the included 11-1700-36 sensor adaptor cable. On some model machines, typically 3129-3132, they may use a short jumper harness that must be removed first.
2. Locate the 11-1700-36 sensor adaptor cable in the kit box. Figure 7 shows the harness.
3. This is a “Y” style cable assembly. Plug the 11-pin connector into the 15-pin machine connector, it’s keyed to fit only one way.
4. Plug the 12-pin connector with green and brown wires into J6 Micromech.
5. Plug the 5-pin connector with black and white wire to J9 Drop Sensor
6. On the control board, turn Switch 4 ON to activate sensors. See Figure 8 for correct cable placement and switch setting
7. Tap service mode button to go into service mode, then scroll down to the “Options” menu and find “Motor Stop”. Set “Motor Stop” to “Drop” or “Both”. If set for Both, the selection rotates one full revolution and stops at home and puts a message on the display to “please make another choice”. If set for “Drop” the selection rotates one full revolution, if product drop is not detected, the vend motor will turn at half speed, 2-3 turns to force the product to drop without requiring the customer to do anything else. The choice is yours to make what motor stop position you choose. Usually motor stop “Both” is best for public facing locations. For other accounts where the machine is used daily by the same people, maybe “Drop” is the better choice. If set for “Drop” be aware that motors will probably not come back to home on some vends which is normal.

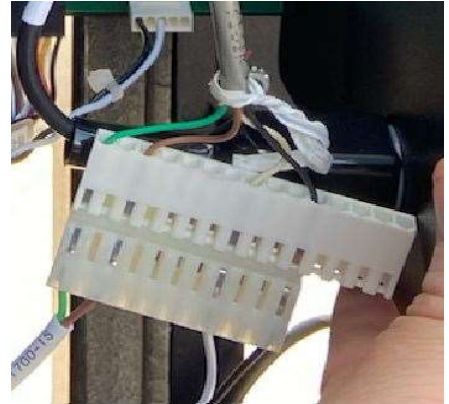


Figure 6

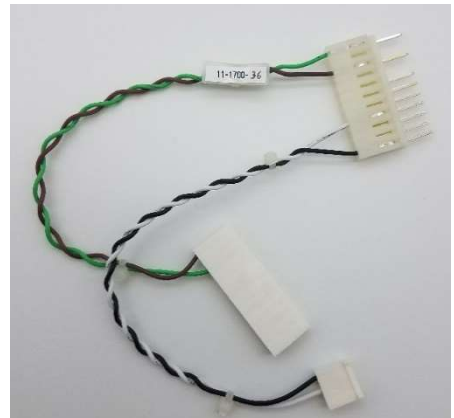


Figure 7



Figure 8