



TECHNICAL SERVICE BULLETIN

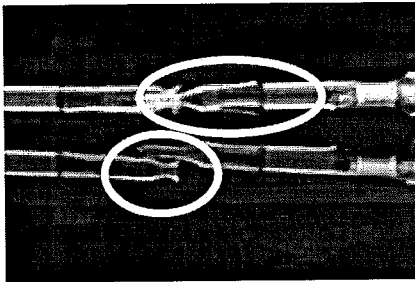
Product: VIPER FCB

Subject: MOTOR BOARD ERRORS ("Motor Stall," "No Motor," or "MTR Comm Error")

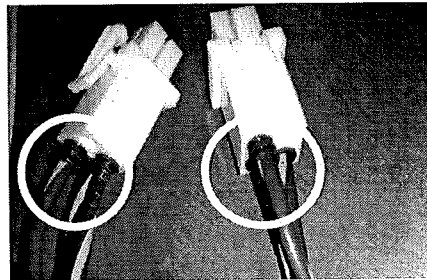
Date: AUGUST 6, 2013

Description of Potential Issue:

The motor board wiring harnesses may not be making an adequate connection due to pins that have backed out of the wiring harness housing or pins that are not centered correctly within the wiring harness housing. With this inadequate connection Viper units can experience several errors that are shown on the user interface as "No Motor," "Motor Stall," or "MTR Comm Err."



X-Ray view of improper pin alignment



View of pins backing out of the housing

Corrective Action:

All Viper units manufactured after April 29, 2013, with serial numbers after **62C1322VP005** (22nd week of 2013) have had new wiring installed for each motor and motor board. If you have a Viper that was manufactured before the above date and before the above mentioned serial number, that is experiencing a large number of "No Motor", "Motor Stall", or "MTR Comm Err", individual wiring is now available for each motor. Please note the different part numbers for each motor, as each motor should have a different identification on the wire to aid in troubleshooting once the new wiring is installed. New wiring part numbers are as follows:

| Wire Harness Required: | Wire ID. |
|--|-----------------|
| 1. Motor 1 with harness Part #: 620323348 | Solid Color |
| 2. Motor 2 with harness Part #: 620323706 | White Line |
| 3. Motor 3 with harness Part #: 620323717 | Black Line |
| 4. Motor 4 with harness Part #: 620046535 | Grey Line |

This change would only need to be made with Viper's that are experiencing the "No Motor", "Motor Stall", or "MTR Comm Err" errors.

Additional Information:

Instructions for installing the new individual wires to each motor board are as follows. PLEASE NOTE THE CAUTIONS AND WARNINGS BEFORE COMPLETING THE FOLLOWING TASKS.

QUALIFIED SERVICE PERSONNEL ONLY

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. **ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY.**

WARNING

Disconnect power to the unit before servicing. Follow all lock out/tag out procedures established by the user. Verify all of the power is off to the unit before any work is performed. **FAILURE TO DISCONNECT ALL POWER TO THE UNIT COULD RESULT IN DAMAGE TO THE EQUIPMENT, INJURY OR DEATH.**

**CO2 (CARBON DIOXIDE) WARNING
DANGER**

CO2 displaces oxygen. Strict attention **MUST** be observed in the prevention of CO2 gas leaks in the entire CO2 and soft drink system. If a CO2 gas leak is suspected, particularly in a small area, **IMMEDIATELY** ventilate the contaminated area before attemptin to repair the leak. Personnel exposed to high concentrations of CO2 gas experience tremors which are followed rapidly by loss of consciousness and **DEATH**.

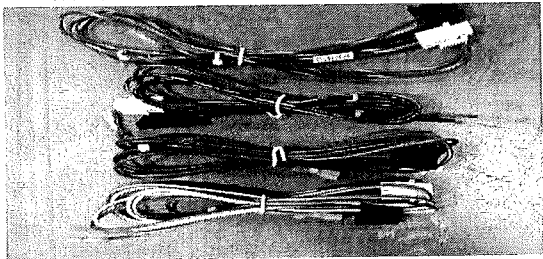
Wiring installation instructions

1. Wire Harness Required:

Motor 1 with harness Part #: 620323348
Motor 2 with harness Part #: 620323706
Motor 3 with harness Part #: 620323717
Motor 4 with harness Part #: 620046535

Wire ID.

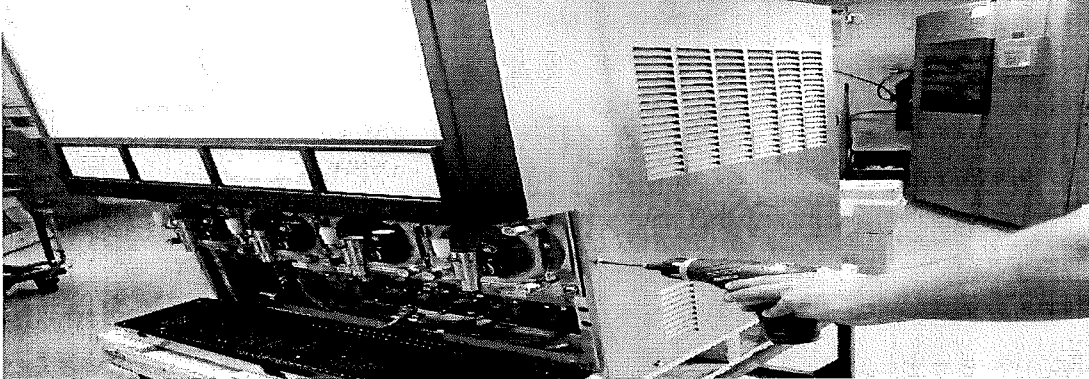
Solid Color
White Line
Black Line
Grey Line



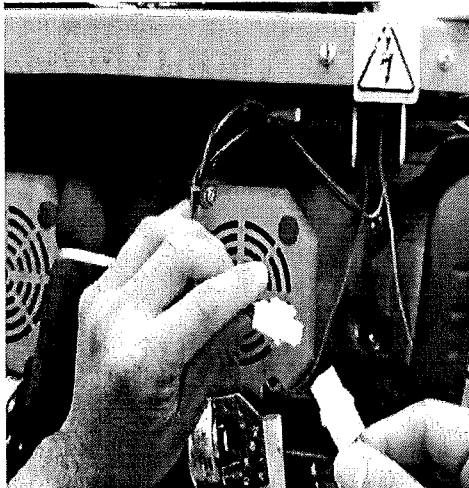
Bundle Harness will be replaced, with a single harnesses (see part numbers above).

2. Removal of old Harnesses:

1. Unplug the unit and follow all appropriate shutdown and lockout procedures.
2. Depressurize syrup, water, and CO2 on the unit.
3. Get access to all sides of unit.
4. Remove 3 screws from both sides and 4 at the back of the unit to remove the panels

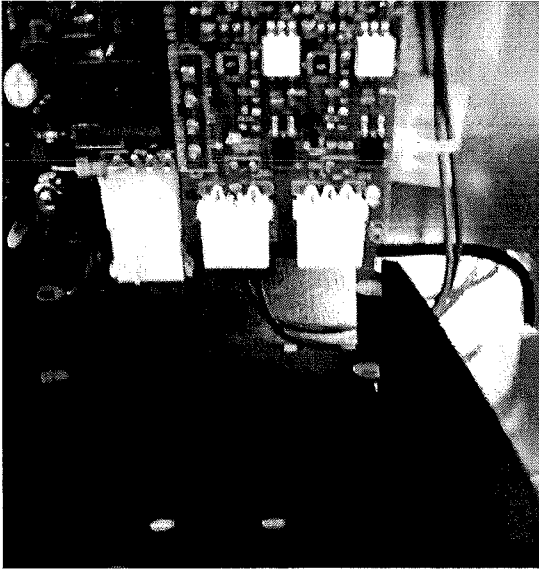


5. Remove all panels as shown
6. Disconnect all harnesses from the motors and capacitors
7. Review all harnesses connected to the motor, especially for the barrel that was identified with the error message. Look for pins that have backed out of the housing on the harness or motor housing or have pins that are not centered in the housing (Reference pictures above).



8. Lift the merchandiser, open the E-box, and flip the black board shield back.

9. Disconnect and remove the harnesses from the motor board.



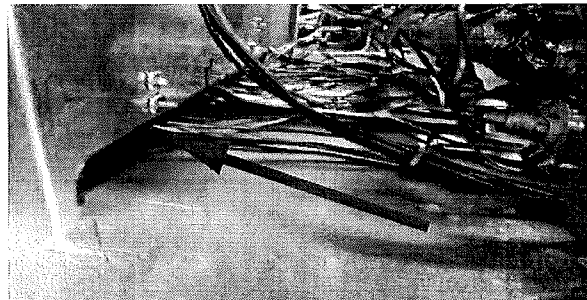
10. Carefully pull the harness out the back of the unit (if done without care, there is potential to damage other wires and connectors).
11. Scrap out harnesses removed.

3. Installation of the new harnesses

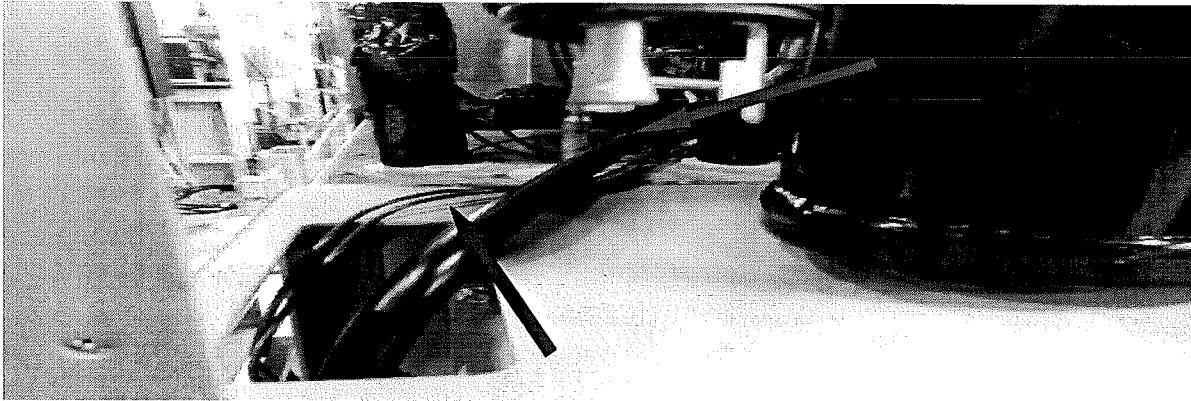
Note: Make sure the harness part number is paired with the correct motor number (see page 2)

1. Start with harnesses for motor number 1 & 2
2. Go to the right side of the machine (when facing machine) directly behind the E-box
3. Lift up other wires on foam pack and slide the board connectors for motors number 1 and 2 through the opening, under the E-box.
4. Go to the E-box and plug the connector into the correct terminal (see layout, the board also has labels) until you hear a <CLICK> sound (push the connector in gently)
5. Re-plumb the harness to the motor and connect the capacitor first and connect the motor and harness connectors last.

Repeat steps 2, 3 and 4 above for the motor harness number 3&4 (Plumb in the harness number 3&4 behind the filter copper tube to the board. (See picture)).



Expander board is attached to 3 and 4 motor units only. The plug in locations are marked with 1, 2, 3, or 4



4. Functional Test Inspection

1. Connect the unit to the power outlet
2. Press MENU ,MAINT
3. Press arrow down to MANUAL DIAG and then press GO
4. Scroll down to motor 1 and then press ON. (Note: make sure the motor/barrel #1 is spinning) not any other.
5. Let it spin for about 15 to 20 seconds and then press OFF
6. Repeat the point number 4 and 5 for other motors/barrels to verify that the harnesses are connected to the appropriate motors.

Re-install panels (sides and back).

