

# Motor Interface Board with Motor for SinBaD, Kit 826-1619

| Included in Kit 826-1619 |          |                       |
|--------------------------|----------|-----------------------|
| Part Number              | Quantity | Description           |
| 806-9394                 | 1        | Motor assembly        |
| 106-0242                 | 1        | Motor Interface Board |
| 809-0747                 | 2        | Thumbscrew            |
| 819-5777                 | 1        | Instructions          |
| 816-0493                 | 1        | Gasket set            |
| 200-0288                 | 1        | Moisture deflector    |
| 824-0818                 | 1        | Computer back cover   |
| 812-1331                 | 1        | Computer E-prom chip  |



Fig.1: Two screws hold the back in place.

Follow these steps to install the new components:

## Computer Rework

**NOTE: Unpack parts carefully. Packing will be reused.**

- Remove power from unit.
- Inspect for presence of a “C” stamped on motor mounting flange, which indicates the unit has been reworked. Confirm presence of new components by checking for the moisture deflector above the computer housing. See Fig: 10, 17. If new components are not present, proceed.

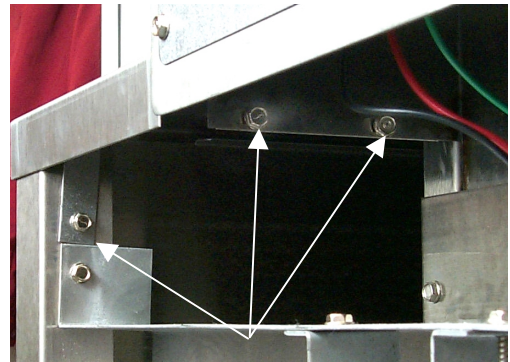


Fig.2: Three screws hold top in place.

- Remove hopper.
- Remove two screws holding the back cover in place and set back aside. Fig 1.
- Remove the three screws that hold the top cover in place. Fig. 2 **Note:** Two of the screws which secure the top on the larger Sinbad are inside the hopper motor housing.
- Remove wire harnesses from back of computer.
- Remove four mounting nuts from computer panel assembly and remove computer from unit.
- Remove the back of the computer assembly, noting the orientation of the plug openings.

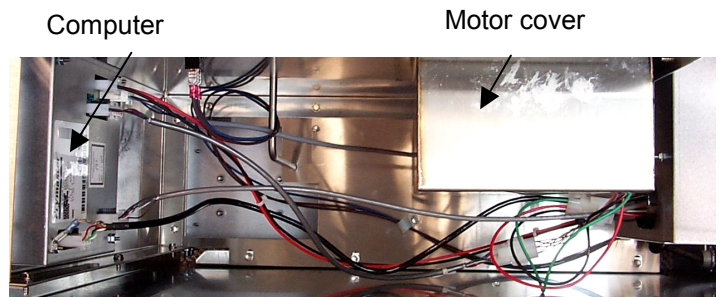


Fig.3: Interior of cabinet showing computer assembly and motor cover.

**NOTE:** If the E-prom is installed upside down, the drum motor runs constantly.

- Locate the E-prom chip and note the small dimple in the left bottom corner, Fig. 5, 6. The dimple serves as an orientation point. The new chip must be installed with the dimple positioned in the left bottom corner.

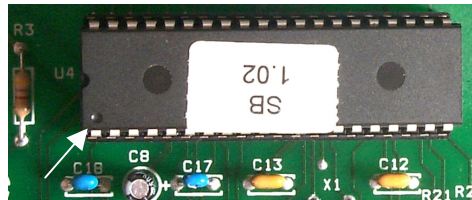
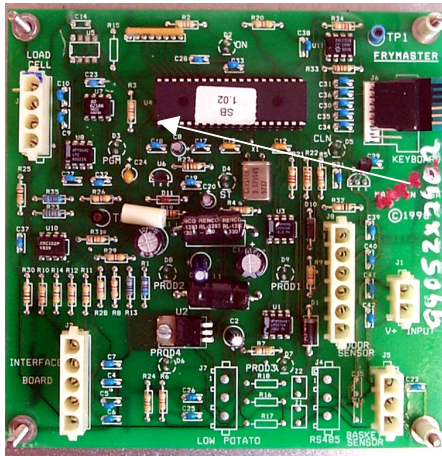


Fig 5, 6: The new chip must be installed with the dimple in the same position as the original chip, the bottom left corner.

- Ground your hands to the metal bezel that holds the computer board and touch the E-prom chip to safely eliminate any static electricity. Fig. 7.
- Gently rock the E-prom chip from its setting by prying with a small screwdriver blade on one side of the chip and then the other. Do not pull the chip out from one side. This can damage the chip. Fig. 8, 9.
- Orient the new chip over the socket, being careful to ensure the contacts are all inside the socket's wall.
- Gently press the new E-prom into position.

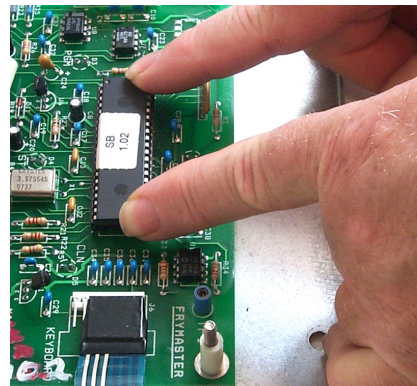


Fig. 7: Ground your hands by pressing a finger onto the computer fascia while touching the E-prom. This grounds you and prevents a static shock from being transmitted into the chip.

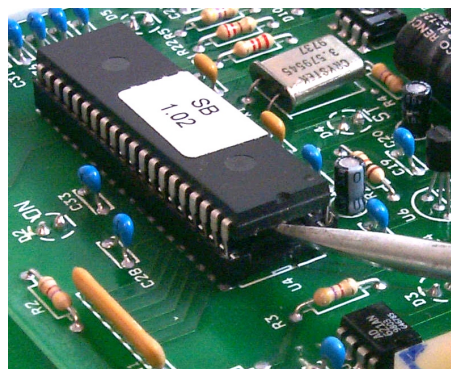


Fig. 8, 9: Gently pry the old chip out by lifting on alternate sides of the socket with a small screwdriver.



- Remove the gaskets from the service kit and separate the pieces. The thin perimeter gasket fits around the computer mounting plate. The denser gasket will fit over the components of the board and create a snug fit in the computer's rear cover.

- Use the deflector shroud included in the service kit as a template to position the surrounding perimeter gasket. Fig. 10. Remove the backing from the gasket and put it in place. **Ensure the ribbon cable on the board remains attached and unstressed.**
- Position the denser gasket on the computer's mounting studs as shown in Fig. 11 and remove the backing. Position the new back for the computer assembly, noting the orientation of the cutouts, and lower into position on the mounting studs. Ensure the leading edge of the back cover comes to rest on the lower gasket and the adhesive backing on the gasket grips the cover. Fig 12.
- Reinstall the star nuts, which hold the computer back in place. Do not overtighten. (3-7 in. lbs.)

Ribbon cable

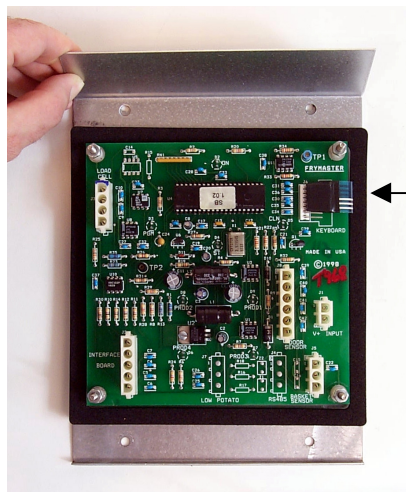


Fig.10: Use the deflector shroud to position the upper edge of the cutout gasket, which surrounds the computer interface board.

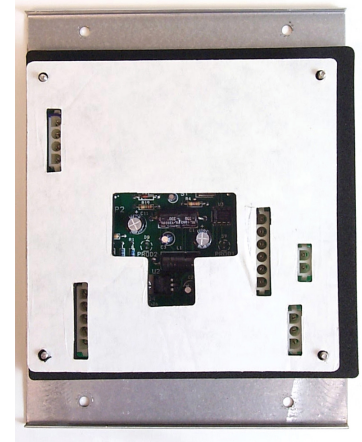


Fig.11: Position the denser gasket on the interface mounting studs with peel-off backing facing up.

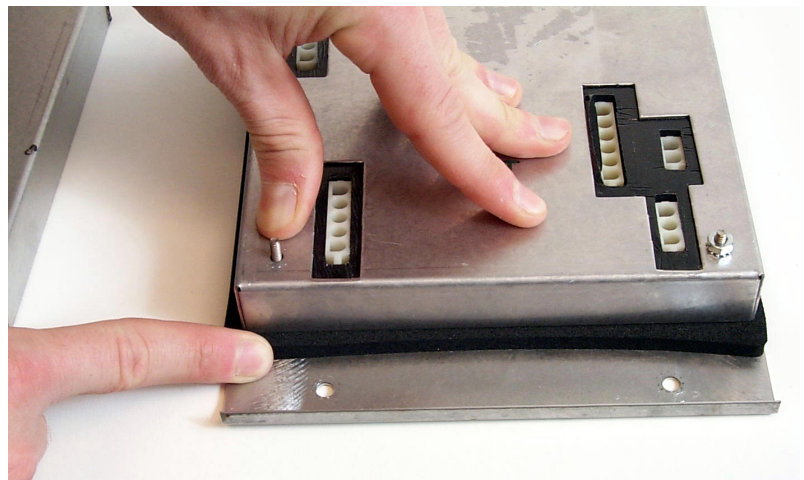


Fig.12: Ensure when positioning the computer cover that its edges rest on the perimeter gasket.

- Reinstall the computer assembly in the unit, securing the assembly with only the bottom nuts.
- Position deflector shroud on computer assembly's top mounting studs as shown. Fig. 13. Replace nuts and tighten. (3-7 in. lbs.)
- Return connecting plugs to computer back, ensuring plugs lock into place.



Fig.13: Position the deflector shroud on the upper mounting studs of the computer assembly.

### Interface Board Replacement

- With the top and back still off the unit, mark and remove the wiring harnesses from the motor interface board on the back of the unit.
- Remove the four mounting nuts, being careful to leave the spacers on the mounting studs. Fig. 14.
- Remove the original board and mark it with the provided return tag and pack carefully.
- Install the provided board. Ensure it is resting on the stud spacers. Fig. 15. Do not overtighten the four bolts that secure the board in place.
- Attach the wire terminals to the new board.

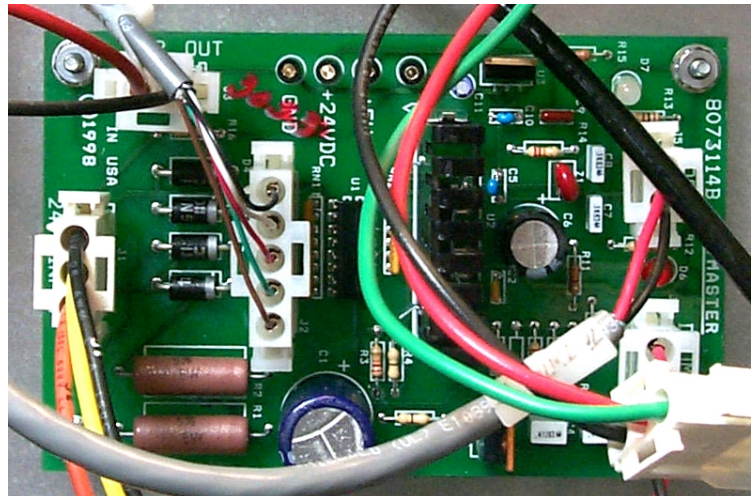


Fig.14: The motor interface is attached on four studs at the back of the unit.

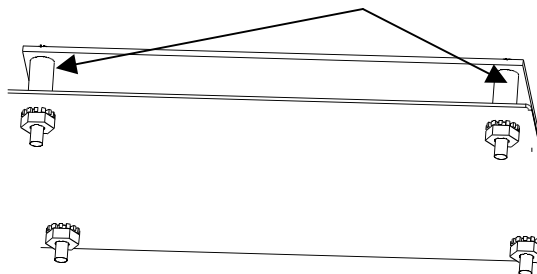


Fig.15: The motor interface board rests on spacers. Ensure the spacers are in place when the new board is mounted.

## Motor Replacement

- Remove the dispense chute. Press down lightly on the white dispense door if necessary to push the motor's lifting cam out of the way.
- Disconnect the motor wiring connectors from the motor interface board and Hall effects and feed them through hole in housing covering motor.
- Carefully remove the two bolts that hold the motor assembly to the load cell arm. NOTE: No upward torque should be applied to the bolts to loosen or tighten the motor assembly. Forceful upward motion can damage the load cell arm.
- Lift the motor from the cabinet side and remove from the unit.
- Apply medium-strength Loc-Tite to the mounting bolts and position the new motor. Tighten bolts being careful not to over tighten or to apply upward force, which can damage the load cell arm.
- Feed wiring of new motor through access hole on motor housing.
- Reconnect the wiring terminals to the interface board and Hall effects.
- Reinstall load chute.
- Return power to the unit and verify operation according to the attachment.
- Remove power.
- Replace top.
- Replace back.
- Inspect thumbscrews on hopper deflector. Replace with provided thumbscrews.
- Replace hopper and place back into operation.
- Carefully package and return the motor interface board, computer back cover and motor assembly to Frymaster in the boxes in which the new equipment was shipped.

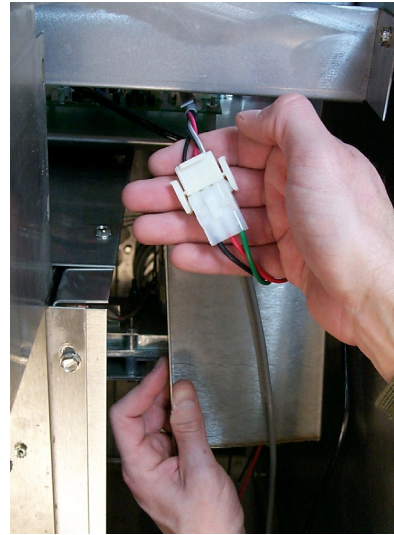
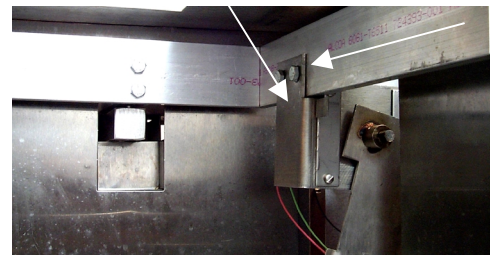


Fig.16: Disconnect the wiring harnesses inside the motor cover, which will free the motor.

A "C" stamped on this plate indicates the unit has been reworked.



Motor mount bolts

Fig.17: Two bolts hold the motor assembly to the load cell arm. Torque used to remove the bolts should be parallel to the load cell arm. Upward force, which can damage it, should not be exerted on the load cell arm

# SinBaD Setup Guide

- **Plug in unit to line power**
- **Turn on the on/off switch** Drum motor rotates for 2-3 seconds; no lights on computer.
  
- **Hit run button (top center)** Door opens. Computer looks for open-door Hall effect to be activated. If it is not, the center check hopper light illuminates. Computer cuts drive current to motor to 1.5 VDC, brake voltage. Red/green LED goes dim. (Disconnected from the interface board, motor receives 30 VDC)
  
- **The 1 - 4 lights flash.** The computer finds zero for the load cell. ( load chute must be in place and the load fork/dispense motor must be freely suspended). If unit does not zero, the run light and check light alternates.
  
- **Door closes, run light on** When zero is found, the door closes, the closed Hall effect is activated and motor current is reduced. Red-green LED dims and the computer waits for a load, 1-4, to be selected.
  
- **Select load 1-4** Load selected. Drum motor runs until the load cell count matches programmed count in computer.
  
- **Unit waits** If a heavier load is selected, unit will run to satisfy it.
  
- **Basket inserted** The proximity switch turns red and the load is dumped. The weighing sequence is run again. (UNIT ONLY ZEROS DURING INTIALIZATION).

## Programming weights

Unit plugged in, hopper off, chute installed. **Note:** Use Whopper patties, which weight  $\frac{1}{4}$  pound, for weights. You will need five.

- **Turn on the on/off switch** Drum motor runs briefly.
- **Push check button**
- **Quickly push the 1 button four times** The clear hopper light will light.
  
- **Push clear hopper button** Door opens and unit goes through zeroing routine and the door will close.
  
- **Put weight on the door** Weights should be  $\frac{1}{4}$  lbs. lighter than desired batch weight. For example, 3 paddies = 1lb.
  
- **Press a button, 1-4** Button will briefly light. This loads the weight into the selected button.
  
- **Press check button** Locks in the weights. Unit will lose new programming when powered down unless new weights are locked in.