FLOAT SWITCH TESTING – VACUUM PUMP

ASI TECHNICAL GUIDELINE TO TEST FLOAT SWITCH IN VACUUM PUMP

PURPOSE

The vacuum pump utilizes a float switch to turn off the vacuum pump in the event the canister is filled with liquid. The float switch is routed through a relay mounted on the vacuum canister bracket. If there is not any power to the vacuum, the following tests can be used to determine a probable cause.

TOOLS REQUIRED

- Flat head screwdriver
- Multi-meter
- Jumper wire

IMPORTANT!
Before commencing on the following instructions, please read and follow all applicable warnings/cautions listed at the end of this technical guideline.

TESTING INSTRUCTIONS

1 Open the back door of the unit using a flat head screwdriver.

2 Locate the relay on the suction canister housing.

Test Continuity of the Float Switch

3 Verify that the float switch is working and that the canister has been purged. Ensure that the power to the cart is off or that the vacuum switch is off.

4 Use a multi-meter and use continuity test to connect 3/A1 to 6 Position on the Terminal Strip. If there is not an audible sound/continuity, the suction canister needs to be purged or the float switch can be inoperable and needs to be cleaned or replaced.

Float Switch Test – SN 180118 and after

5 a. Open the top of the delivery system according to delivery system type.

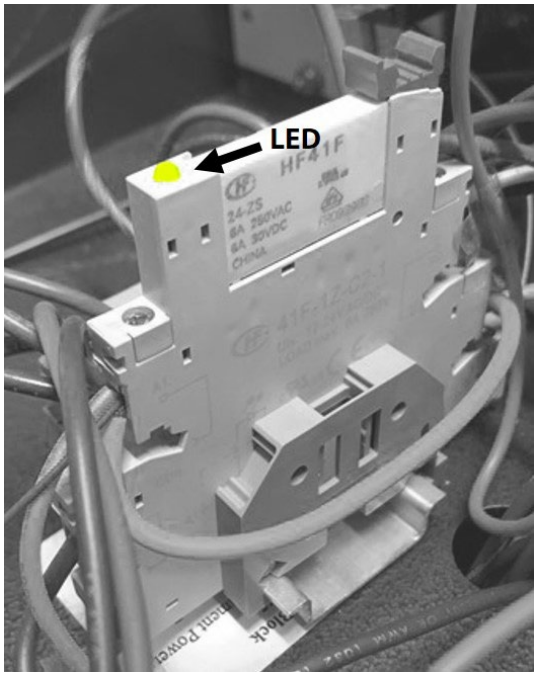
> ***See Technical Guideline, "Delivery System Internal Access" (65-0229) for instructions for opening the cover.***

b. Turn the power to the unit ON.

c. Once the inside of the unit has been accessed, locate the relay module tower (Fig. 1). There is a green light on the upper corner of the relay module.

d. When this light is illuminated, the float switch is in the down position. If the light is on, please move onto the "Relay Test" below.

e. If light is off, the float is in the up position and has cut off power to the vacuum. Please purge the suction canister to move the float into a down position. If the unit has already been purged, the float may be inoperable and/or stuck in the up position. Please clean float switch or replace the suction canister.

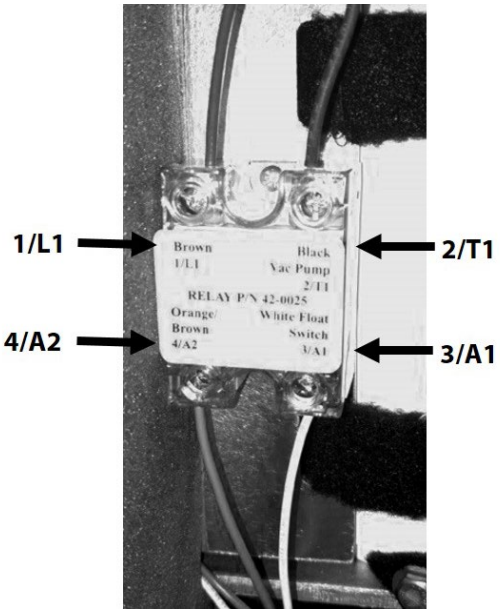


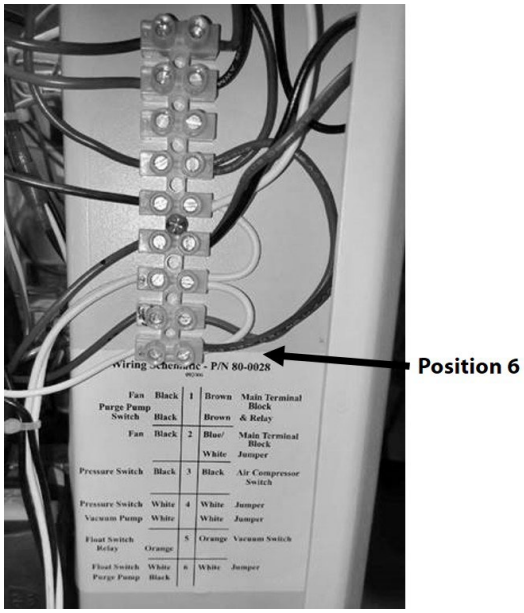
Relay Test

6 If continuity is present, restore power to the vacuum pump, turn on the switch and remove a suction handpiece from the holder if the system is equipped with autoholders. Run a jumper wire from 3/A1 to 6 Position on the terminal block. The vacuum pump should turn on and the light on the relay should illuminate. If not, verify connections to the relay are secure. Proceed with Vacuum Pump Test below before replacing the relay.

Vacuum Pump Test

7 Ensure power is active to the vacuum pump. Run a jumper wire from 1/L1 to 2/T1. The vacuum pump should turn on. If it does, the relay may be defective and require replacement. If no power, inspect the vacuum pump and capacitor.





WARNINGS/CAUTIONS

In addition to observing the normal precautions associated with standard dental practices and procedures, the following additional precautions should be strictly noted and observed during the set-up, operation, and maintenance of this system.

⚠ WARNING	⚠ AVERTISSEMENT
QUALIFIED PERSONNEL ONLY The product should only be operated by qualified personnel only. The operator bears responsibility for the correct settings and proper use of the system. ASI Dental (ASI) cannot be held liable for any malfunction of this product, or performance failure and/or its designed or desired utility, nor can ASI be held liable for injuries to persons or animals, in any case when the device is misused or not operated, applied or maintained in strict accordance with user/owner instructions set out in the operation manual. In the event of any doubt or question, the user is to contact ASI for clarification or assistance. Improperly maintained or operated systems or instruments may void the associated warranties.	**PERSONNEL QUALIFIÉ UNIQUEMENT** Le produit ne doit être utilisé que par du personnel qualifié. L'exploitant est responsable des réglages corrects et de l'utilisation correcte du système. ASI Dental (ASI) ne peut être tenu responsable de tout dysfonctionnement de ce produit, ou d'une défaillance de performance et/ou de son utilité conçue ou souhaitée, et ASI ne peut être tenu responsable des blessures aux personnes ou aux animaux, en tout cas lorsque l'appareil est mal utilisé ou pas utilisé, appliqué ou entretenu en stricte conformité avec les instructions de l'utilisateur/propriétaire énoncées dans le manuel d'utilisation. En cas de doute ou de question, l'utilisateur doit contacter ASI pour obtenir des éclaircissements ou de l'aide. Des systèmes ou instruments mal entretenus ou mal exploités peuvent annuler les garanties associées.

⚠ WARNING	⚠ AVERTISSEMENT
COMPRESSED AIR The compressed air system that operates this unit is under pressure. Compressed air can propel dust or loose particles and can cause bodily injury or damage. Always turn the system off and bleed off air pressure before attaching or removing air lines or accessories or servicing this unit. All air lines should be periodically inspected and replaced if worn or damaged. If an outside compressed air supply is used to power this unit, the air supply must be regulated to 80 psi or below. Excessive air pressure could cause certain components to rupture.	**AIR COMPRIMÉ** Le système d'air comprimé qui fait fonctionner cet appareil est sous pression. L'air comprimé peut propulser de la poussière ou des particules libres et peut causer des blessures ou des dommages corporels. Éteignez toujours le système et purgez la pression d'air avant de fixer ou de retirer les conduites d'air ou les accessoires ou de procéder à l'entretien de cet appareil. Toutes les conduites d'air doivent être inspectées périodiquement et remplacées si elles sont usées ou endommagées. Si une alimentation extérieure en air comprimé est utilisée pour alimenter cet appareil, l'alimentation en air doit être régulée à 80 psi ou moins. Une pression d'air excessive peut entraîner la rupture de certains composants.

⚠ WARNING	⚠ AVERTISSEMENT
ELECTRICAL VOLTAGE This system is powered by high voltage electricity. Like any other electrically powered device, if it is not used properly, it can cause electrical shock. Always plug the power cord into an electrical outlet with adequate fuse protection and proper grounding. In the event of a short circuit, grounding reduces the risk of shock by providing an escape wire for the electric current. Improper grounding of the unit can result in a risk of electric shock. Always unplug the unit before doing any service or repair to the unit.	**TENSION ELECTRIQUE** Ce système est alimenté par de l'électricité à haute tension. Comme tout autre appareil électrique, s'il n'est pas utilisé correctement, il peut provoquer un choc électrique. Branchez toujours le cordon d'alimentation dans une prise électrique avec une protection par fusible adéquate et une mise à la terre appropriée. En cas de court-circuit, la mise à la terre réduit le risque d'électrocution en fournissant un fil d'échappement pour le courant électrique. Une mauvaise mise à la terre de l'appareil peut entraîner un risque d'électrocution. Débranchez toujours l'appareil avant d'effectuer tout entretien ou réparation sur l'appareil.