

Williams Refrigeration Australia

Technical Bulletin TB 18082020

Appliance Maintenance and Electrical Safety Guide - Topaz Refrigerated Cake Display Unit



**This technical bulletin is for use by qualified and competent persons only.
Always adhere to health and safety regulations and safe systems of work at all times.**

- **Introduction**

As part of our ISO 9000 quality management accreditation we routinely undertake after sales service checks to ensure our products are meeting customer needs.

Following a number of site inspections we have observed that some Topaz refrigerated cake display units may not have been regularly serviced in order to ensure reliable operation and prevent risk of damage or injury.

To ensure the safety of property and operators whilst using our Topaz refrigerated cake display units we wanted to highlight these requirements to you and ask you to share this information with customers who have purchased a Topaz refrigerated cake display unit.

- **What to look out for**

Water in and around the base of the Appliance.

Ensure that the appliance is level, and that condensate is being cleared. Check the drain line and remove any blockages. Ensure the drain line is positioned in the tray. Empty any water from the slide out lower drain tray.



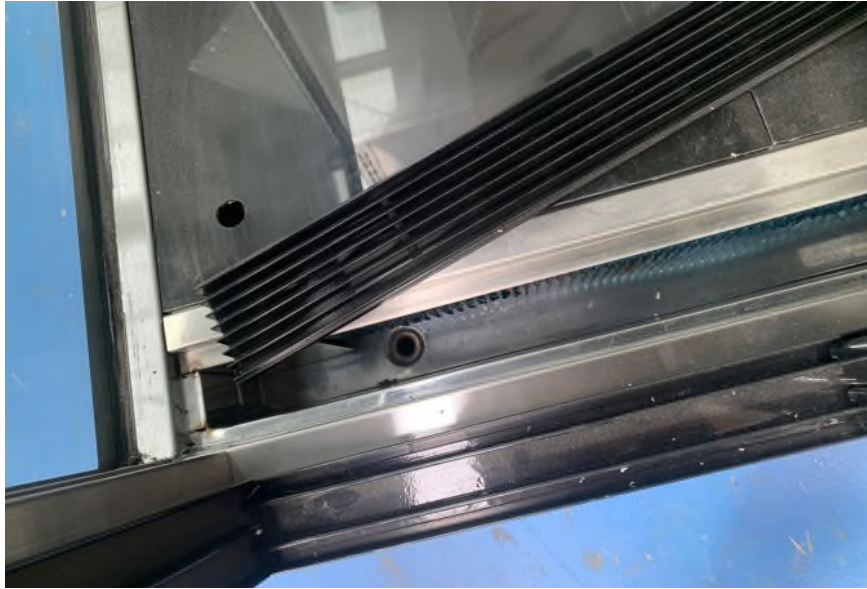
Blocked Condenser leading to poor performance, overheating and excessive energy consumption

We have noted a number of appliances where there has been a lack of condenser cleaning. This restricts airflow in the refrigeration system, causing damage to the compressor motor and wiring. This in turn can lead to overheating of electrical components. Condensers should be regularly cleaned to avoid the build-up of dust, dirt, grease and associated bacteria that can also generate unpleasant odours.



Cleaning of refrigerated base, shelves, gaskets and door tracks

Our inspections have noted instances of inadequate cleaning of the cake display base, shelves, gaskets and doors. A build-up of debris leads to component misalignment, poor air circulation and condensate that adversely affect the performance of the unit. End users are recommended to engage an appointed service technician to ensure appropriate cleaning and maintenance standard are upheld to ensure trouble free operation of the cake display unit.



Electrical Safety Checks – Only to be carried out by a qualified and competent electrical contractor

Regular electrical Test and Tagging using portable appliance tests form a key part of a good maintenance programme and are important in ensuring good electrical safety. Check all visible cables and insulation and inspect for any damage to the plug, and mains power cable. Also check for signs of, or damage caused by moisture, liquid or dust/ dirt ingress.

As noted in the operations manual, it is advised that the appliance should be connected to an RCD (electrical safety device). An RCD provides protection to end users from the potential risks of electrical shocks.

Our inspections have also noted some loose wire connections that can lead to electrical component damage. Ensure all electrical terminals & Earth connections are tight.

- We have prepared a separate Work Instruction to assist electrical contractors in safely undertaking electrical inspections. A copy of our work instruction is attached to this technical bulletin.

ELECTRICAL SAFETY CHECK

WILLIAMS TOPAZ CAKE DISPLAY

MODELS: HTC(H) 9/12/15/18 and HTCF(H) 9/12/15/18

NOTE: only a qualified and competent person must carry out this safety check. Adhere to all health and safety regulations and safe systems of work at all times.

There are several pieces of equipment that are required to carry out this work per below. Please ensure access to such prior to works commencement.

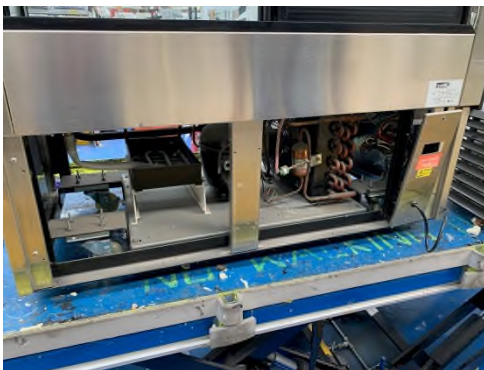
Electrical Safety Check

Before touching the cabinet use a 'volt stick' to check the metal surfaces of the cabinet to ensure there is no voltage present (test the 'volt stick' on a known live supply before and after testing the cabinet such as a mains cable which is energized).

1. Isolate the cabinet.

To safely isolate the cabinet from the electrical supply, ensure to correctly identify the respective mains lead for the cabinet, switch off the power and remove the plug from the socket outlet. Lock off the plug in a 'lock off' box.

2. The electrical lead should have an in date PAT test & tag.
3. Un-screw and remove the rear panels of the unit including the panel with the controller.

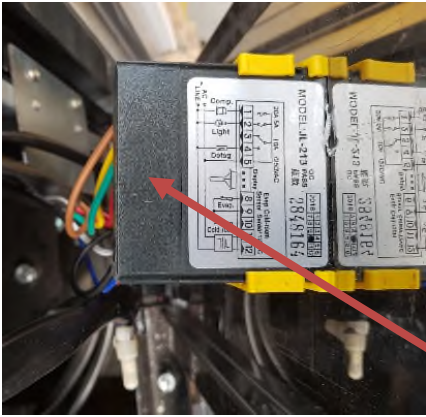


HTCH12

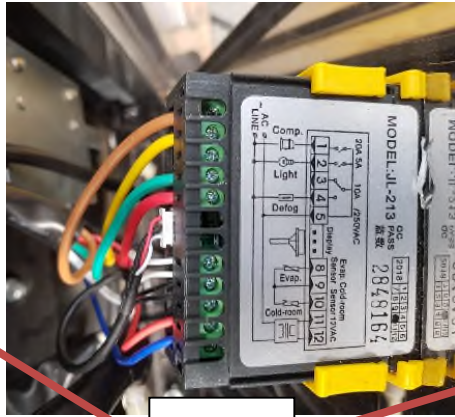
HTCFH12

WORK INSTRUCTION # 07149
ELECTRICAL SAFETY CHECK
WILLIAMS TOPAZ CAKE DISPLAY

4. Carefully remove the front panel which has the controller attached to it (note loose wires may be present behind it). Carefully remove the controller plastic cover as shown below. Prove the cabinet is dead using a voltage indicator (not 'volt stick') and proving unit (to prove the voltage indicator is working correctly before and after testing for voltage), checking all terminals for presence of voltage.



HTCH / HTCFH



remove
Cover

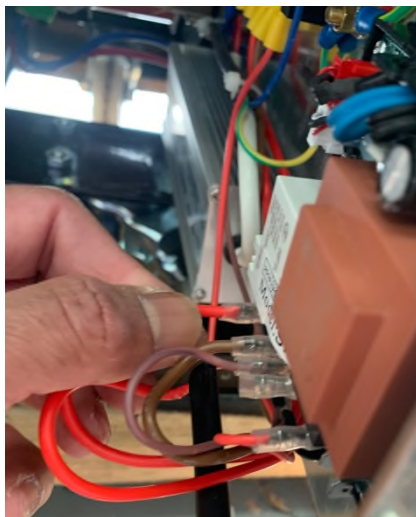


Newest HTCF

5. Check all wiring to the controller, making note of your findings below, i.e. loose wires. Check the controller and wires for signs of heat damage, particularly the underside of the controller; **replace the controller if it shows signs of damage**. If no replacement controller is available, notify the client that the equipment should remain out of service (using a lock off box) until the controller can be replaced for safety. It is advised to remake all the wiring to the controller using correct sized bootlace ferrules.

Be careful when tightening the screws of the controller as to not use excessive force (pushing down on the terminal) as this could break the solder contact of the terminal to the PCB.

For the Newest HTCF12 units (as picture above and below), also use a finger pull test to ensure that the wires are properly crimped into the spade terminals. Replace any faulty connectors.



Finger pull test

Newest HTCF12 only

ELECTRICAL SAFETY CHECK WILLIAMS TOPAZ CAKE DISPLAY

6. Whilst the front panel is removed, check all visible electrical terminations (i.e. the main terminal block) for loose wiring or poor connections. Refer photos below for access. Also check for damage to cable/wire insulation, electrical component damage, and any potential heat sources in close proximity to these which could cause damage; also check for signs of, or damage caused by, moisture/liquid or dust ingress. Check all earth bond terminal connections for tightness and robustness.



Remove screws and slide panel out for easier access



Ensure all terminals and earth connections are tight

7. When the inspection is complete, reassemble the cabinet replacing all covers and screws and removing the lock and lock off box. Carry out a portable appliance test to local electrical safety regulations which should include earth bond continuity (from the earth contact of the plug to exposed metal work/surfaces) and insulation resistance to prove the cabinet is safe to return to service.

8. Plug in and check operation.

FOR ENQUIRIES PLEASE CONTACT WILLIAMS REFRIGERATION AUSTRALIA ON (03) 8787 4747 OR wrasupport@williamsref.com.au