



Benha University

Dr : Mohamed Ahmed Ebrahim



Undergraduate Course

Electric Installation Design

Dr. Mohamed Ahmed Ebrahim

E-mail: mohamed.mohamed@feng.bu.edu.eg

Web site: <http://bu.edu.eg/staff/mohamedmohamed033>



Dr : Mohamed Ahmed Ebrahim



Lecture (11)



Dr : Mohamed Ahmed Ebrahim



Household Appliances Troubleshooting

Dr : Mohamed Ahmed Ebrahim

Electrical Appliances (general overview)

Problem	Possible Cause	Solution
Unit doesn't work (it makes no sounds, will not start or stops working).	No electricity is reaching the appliance.	<ul style="list-style-type: none">• Check to see if plug has fallen out, or is loose in the receptacle. If loose, twist both prongs slightly with pliers.• Check wall receptacle. Plug in a small lamp you know is working. If lamp doesn't light, check fuse or circuit breaker.• Reset circuit breaker or change fuse; replace fuse with one of appropriate amperage.• Check wall switch; it may control outlet.• Check appliance switch or dial settings.

Problem	Possible Cause	Solution
2. Unit starts, but repeatedly blows fuses or trips circuit breaker.	<ol style="list-style-type: none">1. Loose wire connection in appliance plug.2. Overloaded electric circuit.3. Too many appliances on electrical circuit.	<ul style="list-style-type: none">• Unplug appliance. Tighten electrical connection in plug, if accessible, with screwdriver.• Reduce work load and/or clean appliance , according to the manufacturer's instructions.

Refrigerator & Freezer Appliances

Problem	Possible Cause	Solution
1. Unit doesn't cool (lights and compressor operate).	Dirty or clogged condenser coil (lint, dust and dirt).	<ul style="list-style-type: none">• Clean the coils on the bottom or back of refrigerator or freezer with brush or vacuum
2. Frost builds up quickly; moisture on shelves.	Door not closing properly.	<ul style="list-style-type: none">• Readjust door, as per manufacturer's instructions.• Pitch unit slightly back, by extending bottom front levelers.
3. Excessive operating noise.	Drain pan rattles	<ul style="list-style-type: none">• Replace drain pan in proper position under the appliance. Refrigerator not level.• Adjust leveling legs as per manufacturer's Instructions.

Dishwasher Appliances

Problem	Possible Cause	Solution
Insufficient amount of water or no water.	Selector switch or timer is set past FILL cycle.	<ul style="list-style-type: none">• Reset timing mechanism to the beginning of the cycle.
2. Dishwasher leaks.	<ul style="list-style-type: none">• Door not latched properly.• Unit not level.	<ul style="list-style-type: none">• Open door and relatch.• Adjust levelers on bottom of machine, as per manufacturer's instructions.
3. Water doesn't pump out	<ul style="list-style-type: none">• Garbage disposal on sink not cleared.• Door opened before end of cycle.• Timer control was advanced prematurely.	<ul style="list-style-type: none">• Run garbage disposal unit to remove the garbage.• Continue cycle to completion, or recycle.• Reset cycle, or continue cycle to end.

Washing Machine Appliances

Problem	Possible Cause	Solution
1. Washer is noisy.	<ul style="list-style-type: none">• Drain hose outlet too high.• Machine is not level.• Unbalanced load.	<ul style="list-style-type: none">• Top of drain hose outlet should be less than seven feet above floor.• Reset adjustable legs on bottom of machine so it sits level and is securely balanced.• Stop machine. Check load balance.
2. Machine will not drain.	<ul style="list-style-type: none">• Drain hose blocked.	<ul style="list-style-type: none">• Straighten drain hose. Clear end of hose to free of debris.
3. Water on floor surrounding machine.	<ul style="list-style-type: none">• Hose connections are loose.	<ul style="list-style-type: none">• Check and tighten connections to machine and/or replace hose connection washers on faucets

Clothes Dryer Appliances

Problem	Possible Cause	Solution
1. Motor runs but dryer does not heat.	<ul style="list-style-type: none">Blown fuse or tripped circuit on one side of 220-volt power line.	<ul style="list-style-type: none">All electric dryers have two fuses or two circuit breakers. One of these pairs is either blown or tripped. Replace or reset.
2. Clothes overheat.	<ul style="list-style-type: none">Vent connection is blocked or vent pipe has too many bends.	<ul style="list-style-type: none">Clean vent pipe connection of lint or debris.
2. Dryer unit will not shut off.	<ul style="list-style-type: none">Room in which machine is located is too cold.	<ul style="list-style-type: none">Install unit in warmer room (should be 50°F or more), or provide adequate heat to existing room.
3. Clothes do not dry, or drying time is too long.	<ul style="list-style-type: none">Dryer is overloaded.	<ul style="list-style-type: none">Check “Use & Care” manual for proper load levels.