



E-TES SD LOW-PROFILE

120 Volt Electric Thermal Energy System



Operator's Manual

“E-TES - World's Fastest Drying System”™



MB120LPTC
Revised: 06/26/2023



Table of Contents

Introduction	3
General Information	4
Warranty	5

SECTION 1

Heater Operation Safety	6
Warning Labels	8

SECTION 2

E-TES Temp Sensors	9
--------------------	---

SECTION 3

Heater Operation	10
------------------	----

SECTION 4

Troubleshooting	14
-----------------	----

SECTION 5

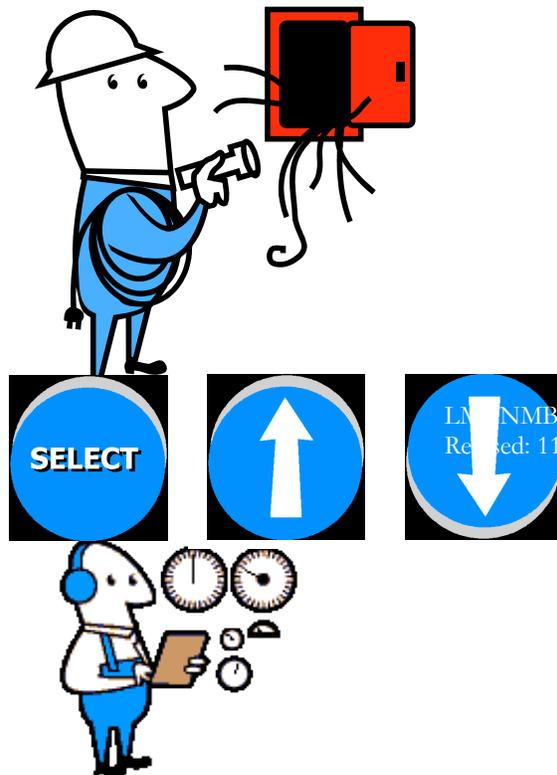
Heater Wiring	16
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SECTION 5

Heater Maintenance	16
--------------------	----

SECTION 6

Drying Carpet	17
Drying Wood Floors	19
Drying Walls	21



Introduction

Congratulations on your purchase of the E-TES Drying Systems E-TES 120 Volt Thermal Controlled System. This manual is a guide for safe operation and maintenance of this unit.



Read and understand this manual completely before operating this unit.



Do not use it in areas where gasoline, paint, or flammable liquids are used or stored.

The temperature controls of the E-TES 120 Volt Thermal Controlled Drying System unit are designed for safe operation in a variety of drying operations. If setup improperly the E-TES can raise the room temperature to 105°F, with air temperature leaving the snout at 140° and an internal temperature up to 210°F before it shuts off.



Improper operation, alteration, service or maintenance can cause property damage, personal injury or loss of life.

Service must be performed by a qualified technician, service agency or electrician. E-TES Drying Systems is in no way responsible and is excluded from liability in respect to any loss or damage which may arise due to improper operation, maintenance, or repair.

This manual should be maintained in legible condition adjacent to the unit or in a secure location for future reference.

Any questions pertaining to the operating or servicing of this unit should be directed to your nearest E-TES Drying Systems distributor.

This manual is written specifically for the E-TES 120 Volt Thermal Control Drying System units manufactured by:

AramSCO LLC
4282 S 590 W
Salt Lake City, UT 84123
801-261-1282

Information in this manual is subject to change without notice and does not represent a commitment on the part of AramSCO LLC.

General Information

E-TES 120 Volt Thermal Control Drying System ELECTRIC THERMAL ENERGY SYSTEM

SPECIFICATIONS:

10,000 Btu 120vac Electric Model (MB120LPC)
Height: 13.5"
Length: 26.5"
Width: 22.75"
Weight: 30 lbs.
Power: 120VAC/60Hz
Heater watt rating: 3000 watts
Cord 1 Amp Draw: 12amps
Cord 2 Amp Draw: 12amps
Operating Temp: 0 to 105°F
Storage Temp: -40 to 150°F

E-TES 120 Volt Thermal Control Drying System Replacement Equipment ELECTRIC THERMAL EXCHANGE UNIT

NM4407A (2) 8' - 12/3 GFCI Power Cords w/ 5-15P & bare wire ends

Additional / Optional Equipment

AX33 50' - 12/3 Extension Cord w/ 5-15P & 5-15R
AC262A Lay Flat Ducting 14" Dia. (22.5" flat) x 500'
AC25A Omni Dry 2.9 Centrifugal Air Mover
AC128 SureTest Circuit Analyzer
AX68 Breaker Buddy II
MB230 Single Stage Exhaust Controller
AC514 Flexi Dry Wall Drying System
MI22 Injectidry HP60FDP Floor Drying Package



Warranty

Your E-TES 120 Volt Thermal Control Drying System is designed to give you years of reliable service. If a problem should arise use the troubleshooting section in the operation manual to diagnose and correct the problem if possible. If you are unable to determine the cause or solution to the problem contact your distributor or E-TES Drying Systems for assistance.

E-TES Drying Systems warrants the roto-molded body of the E-TES 120 Volt Thermal Control Drying System to be free from defects in material or workmanship for five years from the date of purchase. **Warranty coverage does not include damage to body due to overheating after the first year.** All other components of the E-TES 120 Volt Thermal Controls are warranted to be free of defects in material and workmanship for one year from the date of purchase.

During the warranty period, E-TES Drying Systems will, at its option repair or replace components which prove to be defective.

- This warranty does not provide for replacement of complete units due to defective components.
- Service Labor is only covered for the first 90 days after the date of purchase.
- Any costs for transportation are not covered in this warranty.
- Replacement parts are warranted only for the remainder of the original warranty period.

This warranty **shall not** apply to defects resulting from improper operation, lack of maintenance, condensation, chemical corrosion, unauthorized modification, misuse or abuse.

This warranty **does not** cover normal wear to items such power cords, plug adapters or other items which require replacement as a result of ordinary usage.

To obtain warranty service for the E-TES 120 Volt Thermal Control Drying System, contact your distributor or E-TES Drying Systems. If the unit must be returned to E-TES Drying Systems or an authorized service center, the purchaser shall prepay shipping charges for products returned for warranty service.

No returned items will be accepted by E-TES Drying Systems without prior authorization. All returns must have a return authorization number, issued by E-TES Drying Systems, clearly marked on the exterior of the package.

E-TES Drying Systems makes no other warranty either expressed or implied with respect to this product. The remedies provided herein are the purchaser's sole and exclusive remedies.

In no event shall E-TES Drying Systems be liable for any direct, indirect, special, incidental or consequential damages.

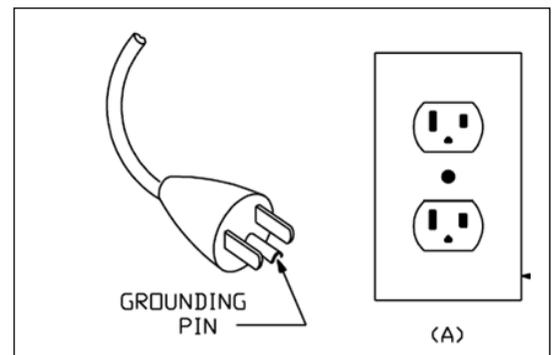
This warranty gives you specific legal rights. You may also have other rights which vary from jurisdiction to jurisdiction.

Heater Operation Safety

⚠️ WARNING

When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- Read all instructions before using this heater. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- This machine shall be grounded while in use to protect the operator from electric shock. The machine is provided with two three-conductor cords with three-contact grounding type attachment plugs to fit the proper grounding type receptacles. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect this wire to other than the grounding pin of the attachment plug.
- Connect to properly grounded outlets only. The 120volt power source must be wired and have 15 or 20 amp circuit breaker to safely handle the rated amperage of the unit. Examine the electric outlet before connecting your E-TES Drying System. A Loose fitting or damaged outlet can cause the power cord to overheat. **DO NOT use a loose fitting or damaged outlet.** If necessary, have an electrician repair the outlet before connecting your E-TES Drying System to prevent cord or outlet damage.
- This machine shall be connected to two separate nominal 120 volt 15 amp circuits with power cords that have grounding plugs that resembles the plug illustrated in the sketch shown to the right. Make sure that the machine is connected to an outlet having the same configuration as the plug. **No adapter should be used with this machine.**
- Always plug heaters directly into a wall outlet/receptacle using the power cords that come with the E-TES. **Never use with another extension cord or relocatable power tap (outlet/power strip).** The Ground Fault Circuit Interrupting (GFCI) protected cords supplied with the E-TES Drying System provide additional safety when operating the E-TES on wet surfaces. Keep cord connections off wet floors. Protect cord connections from damp surfaces and water sources. Always use the GFCI cords to reduce the risk of electrical shock. Test operation of GFCI before each use. (See Page 40) **DO NOT use outdoors. DO NOT use in standing water.**
- Do not run cord under carpeting. **DO NOT** cover cord with throw rugs, runners, or similar coverings. **Do not** route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.
- **DO NOT** operate any heater with a damaged cord or plug or after the heater malfunctions, has been dropped or damaged in any manner. Discard damaged cord or heater, or return to authorized service facility for examination and/or repair.
- This heater is hot when in use. To avoid burns, **DO NOT** let bare skin touch hot surfaces. Use handles when moving this heater. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes,



and curtains at least 3 feet (0.9 m) from the front of the heater and keep them away from the sides and rear.

- **DO NOT** operate this heater unless all panels and guards are in place and properly secured.
- Extreme caution is necessary when any heater is used near children or invalids and whenever the heater is left operating and unattended.
- Always unplug the heater when not in use. To unplug the heater, turn E-TES switch to off, then remove plugs from outlets.
- Unplug machine power cords from outlets before performing any repair on the heater.
- This heater is not intended for use in bathrooms, laundry areas and similar indoor locations. Never locate heater where it may fall into a bathtub or other water container.
- **DO NOT** insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock, fire, or damage the heater.
- To prevent a possible fire, **DO NOT** block air intakes or exhaust in any manner. **DO NOT** use on soft surfaces, like a bed, where openings may become blocked.
- **DO NOT** use in areas where gasoline, paint, or flammable liquids are used or stored.

WARNING

- **Always turn Heater OFF and keep air mover running for 5 minutes to cool heater before turning air mover OFF.** If air flow is turned off and the unit is not cooled properly the heater box and front grill may get very hot, creating a burn hazard or damaging the unit.
- Restriction of the air flow from the heater snout may cause E-TES to overheat and shutoff. Always have a air mover blowing air through E-TES when the E-TES power is turned on.
- Adequate air flow must be maintained across heating elements for proper, safe operation. Not having airflow may result in damage to heater and will void warranty.
- **DO NOT** direct the outlet air flow towards objects which may be damaged by heat.
- Remove Feet or carpet clamps from snout of air mover before placing air mover into E-TES Drying System to prevent damage to air seal gasket.

NOTICE

- **Always use E-TES Drying System in the room being dried so internal temperature sensors can control the temperature and keep room temperature below 105°F during the drying process.**

WARNING LABELS

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
NO USER-SERVICEABLE PARTS
INSIDE

AVERTISSEMENT
RISQUE DE CHOC ÉLECTRIQUE
NE PAS OUVRIR
AUCUNE PIÈCE À L'INTÉRIEUR



**CAUTION** – High temperature, Keep electrical cords, drapery, and other furnishings at least 3 feet (0.9 m) from the front of the heater and away from the side and rear.

AVERTISSEMENT - haute température, garder les cordons électriques, des rideaux, et d'autres furnishings au moins 3 pieds (0,9 m) du devant de l'appareil et à partir du côté et à l'arrière.

Use only NRTL listed power cords with GFCI protection connected to properly grounded electrical outlets.

Utilisez uniquement des cordons d'alimentation listés NRTL avec protection GFCI relié à des prises de terre.

Do not operate in standing water.

Ne pas utiliser dans l'eau stagnante.

Do not block air exhaust.

Ne bloquez pas l'air d'échappement.



E-TES Temp Sensors

E-TES Drying System Temperature Sensors are integrated into the unit.

In order to prevent damage from overheating the E-TES drying system utilizes thermostats that turn off the heating elements when temperature thresholds are reached.

Thermostat control for the E-TES Drying System is:

- Room air temperature entering heater: off at 105°F turns back on at 95°F
- Air temperature leaving Snout: off at 140°F turns back on at 110°F
- Internal E-TES temperature: off at 210°F turns back on at 190°F

Note: Thermostat set points are nominal with a small tolerance for variation.

Because the temperature of the incoming air is used to measure room temperature; the E-TES drying system can only limit the room temperature to 105°F if the incoming air is from the room being dried. To prevent the air temperature from exceeding 105°F, do not use the E-TES drying system to bring air into a room. If additional air circulation is needed, do so by adding an air mover in another location in the room.

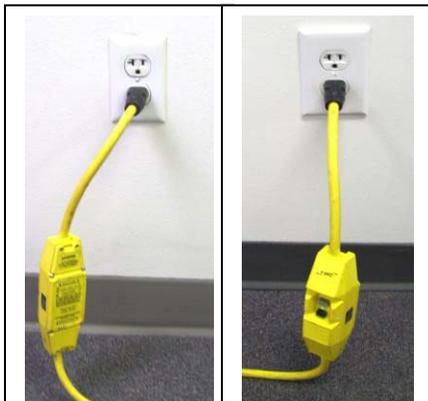
Heater Operation

WARNING

Knowledge of the proper operation of the heater and heat exchange system is required for safe operation and to keep heater and components operating properly.

- 1) Read and understand the E-TES Drying System Manual for correct setup procedures
- 2) Place the E-TES LPTC unit as required for your drying situation.

Connect the two GFCI E-TES power cords to two different 120volt outlets. If you have a 20amp circuit one air mover should be able to be plugged into the same circuit as one GFCI E-TES LPTC power cord. Check the circuit breakers and the amp draw of your air mover to determine if the circuit can handle the load. If you are unsure, plug the air movers into an outlet on a third circuit. Improper wiring of electrical outlets can prevent the indicator light from turning on. Using an overloaded circuit may cause the circuit breaker to blow even if both cords are on separate circuits. An AC128 SureTest Circuit Analyzer can be used to test the outlet wiring and existing load to reduce the chances of the circuit breakers tripping during E-TES operation



PLUG CORDS INTO TWO
OUTLETS ON TWO SEPARATE
CIRCUITS



CHECK CIRCUIT BREAKERS
TO DETERMINE THE
AMPERAGE CAPACITY FOR
EACH CIRCUIT



USE AC128
SURETEST CIRCUIT
ANALYZER TO CHECK
CIRCUIT LOAD

For more information on the capabilities and use of the AC128 Circuit Analyzer, see the Circuit Analyzer operator's manual

- 3) Make sure E-TES MB120LPTC unit power switch is in the OFF position, and then connect the receptacle end of the GFCI cords to E-TES MB120LPTC unit. Reset GFCI on both power cords. Push TEST button to test GFCI and if RESET button pops out and the red FAULT Indicator light turns on, push RESET button back in

and proceed with set-up. If RESET button does not pop out when TEST button is pushed, replace cord or contact your nearest service center for advice or assistance. When operating properly the red FAULT light on the GFCI unit will be OFF. Once the unit is plugged in and reset, if there is a power outage the GFCI will reset automatically. If tripped by a ground fault incident, the GFCI must be manually reset



FAULT INDICATOR LIGHT

GFCI TEST BUTTON

RESET BUTTON

- 4) With the power switch off, plug in power cords from E-TES LPTC unit. Observe DUAL CORD indicator light between CORD 1 and CORD 2. If green light is ON, cords are on separate circuits (poles) and you can proceed with set-up. If light is OFF both cords are on the same circuit (pole) and one cord must be moved. When cords are on separate circuits (pole) and green DUAL CORD indicator light is on proceed with set-up. Note: DUAL CORD light may take a minute after plugging in before it turns on.



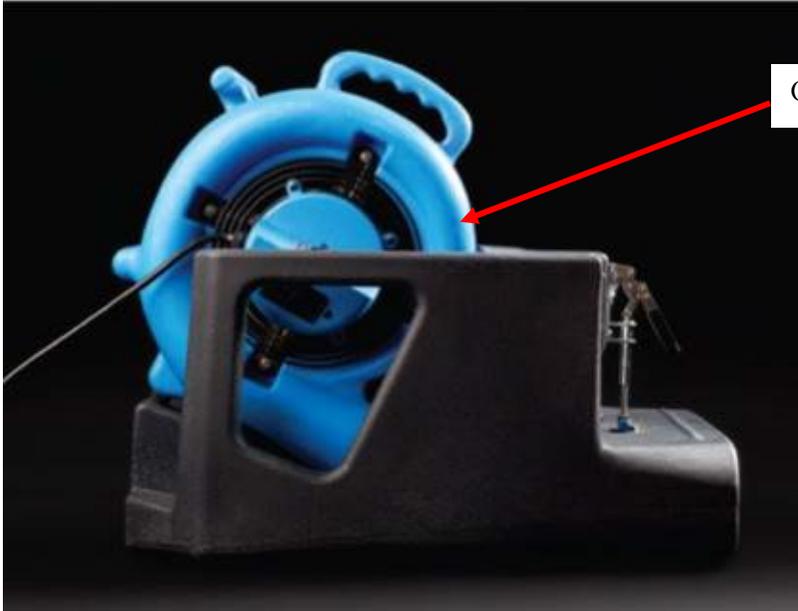
CORD #1

CORD #2

E-TES POWER SWITCH

DUAL CIRCUIT INDICATOR LIGHT
Must be ON for optimal performance

- 5) Place an air mover into the E-TES LPTC unit. Plug in the air mover and turn the air mover switch ON. Make sure air is blowing through the E-TES before turning on power to E-TES.



OMNIDRY 2.9 AIR MOVER

- 6) After air is blowing through the E-TES heater then the power switch can be turned on. Observe indicator lights. When all four (4) green lights are illuminated system is operating properly and the heating elements are getting power.



Indicator lights tell us the following.

- When the green **DUAL CORD** light is on, CORD 1 and CORD 2 are on separate circuits (poles). This light works with the heater turned off or on. If one or both cords are not getting power the light will remain off.
- When the green **POWER** light is on, it indicates that the heater switch is in the on position and the power has been supplied to the heater through CORD 1. If the green **POWER** light is OFF the **HEATER** lights will not light and unit is not heating.

- When the green **HEATER 1** light is on, it indicates that power is being supplied to the first heating element by CORD 1 and the unit is heating.
- When the green **HEATER 2** light is on, it indicates that power is being supplied to the second heating element by CORD 2 and the unit is heating. However, it will only turn on if **HEATER 1** is turned on and operating.
- When the **POWER** light is on but **HEATER 1** and **HEATER 2** lights are off; then the temperature threshold for one or more thermostats has been exceeded. When the temperature drops below the reset threshold the light(s) will turn green again and operation of the heating elements will resume. This happens when room temperature has exceeded 105° or internal heater threshold temperatures have been reached.

Note: CORD 1 provides power to the controls for the E-TES heater and heating element 1. CORD 2 provides power to heating element 2 but will not run without the controls being powered by CORD 1. If only one cord can be powered, or having both heating elements running produces too much heat; then plug CORD 1 into the power and leave CORD 2 unplugged. This will reduce the amount of heat by half.

- 7) Observe unit operation to be sure that air flow is kept at a high enough flow rate to prevent the heater from turning ON and OFF. Remove restrictions to increase air flow as needed to maintain proper air flow rate.
- 8) Make sure circuit breakers are not tripping and the power supply to the air mover and E-TES LPTC unit will not be interrupted.
- 9) When the E-TES LPTC unit is operating normally, the unit can be left alone during operation.

HEATER SHUTDOWN PROCEDURE

- 1) Turn the heater switch to the OFF position.
- 2) Keep the air mover running for 5 minutes to cool the heating elements.
- 3) When the unit has cooled turn the air mover OFF.

Troubleshooting

Problem	Cause	Solution
Circuit Breaker	Both cords on one circuit	Move one cord to a separate circuit
Blowing	Too much current demand on circuit	Move plug to another outlet & circuit or disconnect other devices from this circuit.
	Circuit breaker faulty	Move plug to another outlet & circuit or have electrician replace circuit breaker
	Heating Element faulty	Replace Heating Element
	Faulty power cord	Replace cord
	Faulty switches or internal wiring	Check wiring & test switches - Repair as needed *
Unit Not Heating	Unit Overheated Internal Room Temperature Thermostat exceeded 105°F	Observe Lights to determine function Correct condition, if the room temperature is below 85°F repair as needed *
	Unit Overheated Internal Heater Coil Thermostat exceeded 210°F	Let unit cool. Allow temperature to cool and unit to turn heat back on. Make sure air mover is working
HEATER 1 and / or HEATER 2	Unit Overheated Internal Snout Thermostat exceeded 140°F	Air Temperature leaving the E-TES unit has exceeded 140°F - Repair as needed *
	Internal Temperature sensor faulty	Wait for room to cool below 90°F or Repair as needed
Light OFF (GREEN)	Faulty Snout Temperature Sensor	Replace Snout Temperature Sensor
	Faulty switches or internal wiring	Check wiring & test switches - Repair as needed *
	Faulty Room Temperature Thermostats	Observe Lights to determine function Correct condition or Repair as needed *
	Faulty indicator light	Replace light
POWER Light OFF (GREEN)	Heater Switch in OFF position	Turn switch to ON position
	Building circuit breaker tripped.	Reset breakers or move cords to other outlets
	GFCI tripped	Reset GFCI
	Faulty power cord	Replace cord
	Faulty GFCI	Replace cord
	Faulty switches or internal wiring	Check wiring & test switches - Repair as needed *
	Faulty indicator light	Replace light

* **⚠ WARNING** To reduce the risk of injury, repairs to electrical systems should only be performed by experienced technicians. Contact your nearest service center for assistance.

E-TES SD Troubleshooting Continued

Problem	Cause	Solution
System Overheating	Snout Air Flow is restricted	Remove air flow restriction
	Air Flow Too Low	Turn Air Mover to higher speed
	Faulty Thermostats or internal wiring	Check wiring & test switches - Repair as needed *
	Faulty Internal Temperature Sensors	Replace one or both heater thermostats
	Faulty Snout Temperature Sensors	Replace one or both snout thermostats
	Faulty Room Temperature Sensors	Use Exhaust Controllers to cool room, replace one or both air intake thermostats

* **⚠️ WARNING** To reduce the risk of injury, repairs to electrical systems should only be performed by experienced technicians. Contact your nearest service center for assistance.

Heater Maintenance

The E-TES 120 Volt Thermal Control requires very little maintenance.

⚠ DANGER

Be sure to unplug both electrical cords prior to performing any service on the heater. Failure to do so may result in electrocution, serious injury and/or damage to equipment and surroundings.

⚠ WARNING

To keep this unit in **safe** operating condition, perform the following inspections each time before using this equipment:

- Remove lint or debris that may be collecting on heating elements or inside E-TES Drying System unit.
- Examine wiring to ensure wiring to switches and heating elements is not damaged or worn. Check wire connections to ensure that they are tight and have not worked loose due to vibration or other related conditions. Repair or replace wires before using this equipment.
- Examine plastic E-TES 120 Volt Thermal Control unit body for damage and repair or replace as needed.
- Check power cords for wear or damage and repair or replace as needed. Repair or replace worn or damaged power cords before using this equipment.
- Test GFCI and replace cord if GFCI is not operating properly. Replace cord as needed.



GFCI

When the GFCI cord is connected to the 120vac outlet, push the RESET Button. Then, push the TEST button to test the GFCI.

- If RESET button pops out and red FAULT light turns ON, push RESET button back in and proceed with your equipment set-up.
- If RESET button does not pop out and red FAULT light stays OFF when the TEST button is pushed, replace cord or contact your nearest service center for advice or assistance.



RESET Button
in ON position
Red FAULT
Light OFF

Power is flowing
through the
GFCI to the
equipment



RESET Button
in OFF position
Red FAULT
Light ON

No power is
being supplied
to the
equipment

Heater Set-up Procedures

The best way to dry wet carpet, hardwood floors and walls is to implement the Reets Evaporation Method utilizing your E-TES Drying System unit. The following steps will explain how to this method can be applied for drying different surfaces.

Carpet Drying Procedure

Step #1 – Extraction

1. This is the key for any drying. Extract as much of the water as possible with your portable or truck mounted equipment. A weighted extraction tool will compress the padding and carpet to remove more water. The more you remove with extraction, the faster the carpet will dry. Test extraction by squeezing the pad in your hand. Continue extracting until no more water can be squeezed out. If this level of extraction cannot be achieved, remove the pad.

Step #2 - Energy applied directly to the water (Temperature)

To contain the heat and apply the energy (heat) to the carpet and floor:

1. Set the snout of the E-TES Drying System unit under the carpet to create a “soft float”.
2. Pull up one corner of the carpet in the wet area and set the E-TES Drying System unit in the corner, on top of the pad. Larger rooms may require additional E-TES units. Leave 3-6 inches between the back of the E-TES box and the wall.
3. Pull the carpet up over the snout and secure the carpet to the E-TES unit with the carpet clamp. Then pull the E-TES back toward the wall to pull the carpet tight. Pulling the carpet tight will eliminate or reduce carpet flapping during the float.
4. Now place the one or two 10 lb. sandbags on the carpet, along the wall, on each side of the unit to hold down the carpet and prevent it from pulling off of the tack strip.
5. Cut the pad on each side of the E-TES unit and fold the pad up on top of the carpet. This will help seal the space between the carpet and the floor on each side of the E-TES unit to reduce air escaping. Secure the pad to the carpet with pad pins or use Foam Filler to make a good seal. A good seal will increase the amount of heated air flowing under the carpet and improve the float.



SAND BAG



6. Insert a centrifugal air mover into the E-TES box. Plug the air mover cord into the wall outlet. Connect the two GFCI power cords into two different 120v circuit outlets.
7. Turn on the air mover.
8. Adjust the speed of the air mover, use additional sand bags to hold the carpet down in some spots and pad pins to lift the carpet in some areas as needed to get the carpet floating and prevent flapping.

PAD PIN



Step #3 - Airflow applied directly to the water (Evaporation)

1. We are getting air movement with the air mover and the E-TES box is providing the heat. We are heating the water to cause the evaporation, and removing the vapor from the floor by providing airflow under and through the carpet. This heated air heats the carpet, walls, baseboards, sill plates and walls up to 12", that may also be wet, creating water vapor. As the air escapes through the carpet and along the walls opposite the E-TES unit, it carries the water vapor away from the wet surfaces.



Step #4 - Reduction of vapor saturation levels (humidity) by dehumidification or evacuation

1. As we have evaporated the moisture into the air, we need to remove it from the structure along with the excess heat. This is accomplished with the exhaust controller, an air mover, 14" lay flat duct and a duct ring. Set up the exhaust system to evacuate to the outside of the structure.
2. The E-TES LPTC unit is set to keep the ambient room temperature below 105°F.

NOTICE Overheating the structure may cause damage to structure or contents. Controlling the temperature is important to prevent damage.

Monitor your progress at least daily – more often if practical. Carpets, floors and walls will dry quickly!



Air mover with ducting connected to Exhaust Controller



Exhaust Controller MB230

Wood Floor Drying Procedure

Step #1 – Extraction

1. This is the key for any drying and especially for wood floor drying. Extract the pooled water on top of the wood with your portable or truck mounted equipment. Use a squeegee type wand. A carpet wand may scratch the floor's finish.
2. You can also use a mop or towels. The more you remove this way, the faster it will dry.
3. Now what about the water between or under the boards? Many times there is still a substantial amount of “free” water that can be extracted to speed up the drying. To remove that water, you need to use a floor drying panel system. Place the panels on the floor and attach the hoses in the position the system will be running; however, before you attach your blower unit, attach it to your extraction unit. Let this run for up to 30 minutes or as long as you can. Pull up each panel and, using a towel, wipe up the excess water that will have been drawn out of the floor system. Depending on the amount of water, you may wish to repeat that step. You will be amazed at the amount of extra water you can remove this way.
4. Now reposition your panels and tape them as needed. Attach your blower and start the system.



Step #2 - Energy applied directly to the water (*Temperature*)

1. Set up the wood floor drying panels and attach to the vacuum unit that was designed for this application.
2. Direct containment is the best way to apply the energy (heat) to the floor. Spread poly sheeting (4-6 mil) over the affected floor and cut slightly larger than the area.
3. Now place the 10 lb. sandbags around the perimeter every 3 – 4 feet or as needed to hold the poly sheeting down. You may even utilize any furniture in the room along the edges to hold the sheeting.
4. Place the snout of the E-TES under the sheeting and secure it with the clamp.
5. Insert a centrifugal air mover into the E-TES box. Plug in the E-TES and air mover cords.
6. Turn on the air mover and the E-TES unit.
7. If you have a crawlspace to place an E-TES or can direct more heated airflow below the floor, it will aid in the drying process.
8. It is important that the blower for the floor drying panel system be placed outside the direct containment (i.e. NOT under the poly sheeting). Remember to always use E-TES Drying System in the room being dried so internal temperature sensors can control the temperature and keep room temperature below 105°F during the drying process.



Step #3 - Airflow applied directly to the water (*Evaporation*)

1. We are getting air movement with two pieces of equipment – the air mover / E-TES box and also the floor drying panel system. We are heating the water to cause the evaporation, but the floor drying panel system is removing the vapor from the floor by providing airflow through the interspatial cavities in the floor.
2. The sandbags – rather than stapling/taping/sealing – allows the air to escape bringing with it water vapor and heating the walls, baseboards and sill plates that may also be affected.



Air mover with ducting connected to Exhaust Controller

Step #4 - Reduction of vapor saturation levels (*humidity*) by dehumidification or evacuation

1. Now that we have evaporated the moisture into the air, we need to remove it from the structure along with the excess heat. This is accomplished with the exhaust controller, an air mover, 14" lay flat duct and a duct ring. Set up the exhaust system to evacuate to the outside of the structure.

NOTICE Overheating the structure may cause damage to structure or contents.

Controlling the temperature is important to prevent damage.

Since there is less water in the wood than would be in a carpet/pad combination, the exhaust doesn't need to cycle as often. Monitor your progress at least daily – more often if practical.

Floors will dry quickly!

Exhaust Controller MB230



Wall Drying Procedure

Step #1 – Access Wall Cavity

1. Remove the base board from the wall. Remove the base board carefully, including cutting any caulk bead at the top to prevent damage to the drywall. If not damaged, the base board can be re-installed after the drying process is completed.
2. Locate the wall studs in the area to be dried.
3. Drill 1” diameter access holes through the wall. Locate the holes between the studs, just above the wall base plate. A maximum of eight (8) holes can be supplied per Flexi Dry system. Whenever possible place holes where they will be covered by the base board after drying is completed.
4. Insert one Flexi Dry outlet barb or hose into each hole. Turn tube to point air flow in the desired direction. Multiple Flexi Fry units can be connected together for larger areas.

Step #2 - Energy applied directly to the water (Temperature)

1. Insert the snout of the E-TES unit into the large opening of the Flexi Dry. Secure the Flexi Dry to the E-TES snout with the Velcro strap and the carpet clamp. Seal the ends of the Flexi Dry to prevent air leaking. When using multiple Flexi Dry units connected together, seal the Velcro strips on the other large openings to prevent air from leaking out.
2. Insert a centrifugal air mover into the E-TES box. Plug the air mover cord into a wall outlet. Connect the two GFCI power cords into two different 120v circuit outlets.
3. Turn on the air mover before turning on the E-TES.
4. Turn on the E-TES LPTC unit.
5. In some cases the Flexi Dry may restrict the E-TES outlet air flow enough to overheat and engage the E-TES thermostats and turn off the heat, HEATER lights turn off.



To prevent this: If only the interior wall space needs to be dried then unplug CORD 2 to reduce the heat by half. OR if the room is also being dried, open one end of the Flexi Dry to increase the total airflow. Opening the end just a small amount should increase the air flow enough to keep the E-TES LPTC operating. Opening the end too much may reduce the flow through the outlet tubes and increase the drying time.



Step #3 - Airflow applied directly to the water (Evaporation)

1. We are getting air movement into the wall with the air mover / E-TES box and the Flexi Dry system. We are heating the water to cause the evaporation, but the water vapor still needs to be removed from the wall.
2. If the wall is wet top to bottom, air outlet holes *may* need to be drilled at the top of the wall between the studs to allow the water vapor to be removed from the wall cavity. If the wall is only wet at the bottom, drill an outlet hole below the baseboard level to allow moist air to escape.

Step #4 - Reduction of vapor saturation levels (humidity) by dehumidification or evacuation

1. Now that we have evaporated the moisture into the air, we need to remove it from the structure along with the excess heat. This is accomplished with the exhaust controller, an air mover, 14" lay flat duct and a duct ring. Set up the exhaust system to evacuate to the outside of the structure.

NOTICE Overheating the structure may cause damage to structure or contents. Controlling the temperature is important to prevent damage.

Monitor your progress at least daily – more often if practical. Walls will dry quickly!



**Exhaust Controller
MB230**



**Air mover with ducting
connected to Exhaust
Controller**