

M&R Specialty Trailers and Trucks – Operating Manual

We would like to thank you for purchasing your concession with M&R Specialty Trailers and Trucks, and we welcome you to the “family”. We hope that you are happy with your concession truck or trailer, and that you had a pleasurable experience working with us. We realize that it can be a stressful and expensive endeavor, and we strive to be as helpful as possible throughout the process.

The following pages offer information to help you familiarize yourself with the major components of your concession, as well as operating instructions and maintenance suggestions. Every concession we build is different as far as layout and equipment, but the plumbing, gas, electrical, and many of the mechanical systems are the same. So we hope that you will read through the following while getting used to operating your concession. We also have a tutorial video page you can access here: www.mr-trailers.com/tutorial_videos/.

A large percentage of our customers pick up their concessions in person at our facility, which allows them to spend some quality time with us while getting acclimated with their concession. During that time we do a hands on walkthrough and demonstration of how to work the concession systems. It can be a lot to remember in one setting, and it is reiterated that at any point that you need help, or advice or if you do have a failure, or something breaks, to give us a call. We will try to help you in any way possible. After all, your success directly affects our success.

When you picked up your concession, or when it was delivered, you received a packet which included all of your instructions and warrantee information for your equipment as well as the air conditioner, water heater, and trailer axles etc. There are registration cards to be filled out for the trailer, axles and A/C units. Most all of the standard cooking equipment which you purchased through us is under warrantee. The service and tech support numbers for each manufacturer are located in their respective manuals. If you have an issue with a piece of equipment, please give us a call and we will start by trying to help you walk through possible solutions. If you need help setting up warrantee service we are happy to help, but you will need to schedule it due to logistics etc. We have not had many warrantee issues with equipment and when we have it usually is worked out quickly and easily.

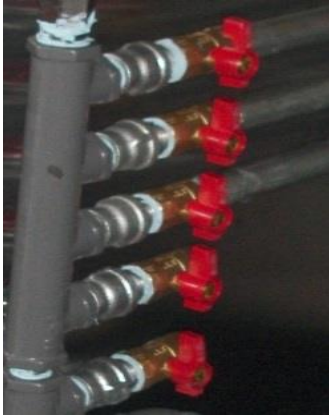
It should go without saying, but your concession will need to be kept up and there is scheduled and non-scheduled maintenance that will need to be attended to. We will cover some of this maintenance in the pages to follow. Remember that you are operating from a mobile unit, and care should be taken not to drive aggressively or in areas that could cause damage to your concession or equipment. Because of the flexing in transit and expansion and contraction due to changing weather conditions, it is important check plumbing and gas connections and fittings regularly for leaks. All of the components, systems and equipment are tested at our facility prior to you taking possession of the unit and any potential problems are addressed at that time. Often times the first thing that happens leaving our location is a long road trip. Please test your gas and plumbing connections when you reach your destination. You may find a gas or plumbing leak, and usually all that will be necessary is to tighten a connection and you will be leak free. As always, feel free to call us and we will be happy to walk through any issues with you.

Cleanliness is probably the next most important maintenance issue. Keeping your concession clean and free of oil and grime only helps in being able to see and easily address any issues that may arise.

GAS SYSTEM

If your concession has gas equipment or a gas generator, you will likely have a complete gas system. Your gas system may include:

Two 100 LB propane tanks - installed on tank racks on the front or back of the concession. The tanks have a valve with a handle located at the top of the bottle. Open the valve by turning the handle counter clockwise until it stops. Close the valve when finished operating by turning the handle clockwise until hand tight.



Shut off valves – Allows you to stop the gas from going past a certain point. The shut off valves are installed in the hard pipes of your gas system. They have a red handle which only turns a quarter turn. When the handle is in line with the pipe it is installed in it is opened and will let gas through the line. When the handle is turned at 90 degrees from the direction the pipe runs it is in the off position and will not let gas passed that point. There are multiple shutoffs in the system and they will have to all be opened to a particular piece of equipment for that equipment to work.



Regulator - Your regulator reduces the pressure from the tanks to a correct pressure for your equipment. If there are shutoffs in the line between the tank and the regulator, they will have to be opened for the tank side you wish to use, to let the regulator get gas. There is typically a shutoff after the regulator which will keep any gas from going into the truck or trailer. This shutoff must be opened for gas to reach your equipment.

You may have a directional regulator installed on your concession depending on the gas needs of your equipment. The directional regulator has a handle located on the top. The center position for the handle is the off position. You can “point” the handle either left or right depending on which propane tank you wish to use at the time.

You may also have a single green regulator on your concession. This type of regulator may have shutoffs installed in the line before reaching the regulator, which will allow you to either run off of one tank or the other depending on which tank you decide to run the system from. This regulator is also sometimes installed without shutoffs in the line, in which case you will simply open the valve on the tank you want to use, and the system will be live to that point.

Hard Pipe- Hard pipe refers to the steel threaded pipes that are fitted to run gas from the regulator, underneath the concession, and usually up through the floor into the concession. There is not much to worry about in the hard lines, however, all joints should be sprayed with soapy water periodically to check for leaks. If you find a leak in the hard pipes it is probably best to have it looked at and tightened by a professional gas contractor. If your concession has a fire suppression system, where the hard pipe comes into the concession, just above the floor, will be located a small red box that is connected to the suppression system. The purpose of this box is to disable gas from coming into the trailer in the event of a fire. There is a pull station which is used to activate the suppression system in case of fire. This pull station is usually located near an exit door.



Manifold –After the hard pipe comes through the floor and above the fire suppression box, will be your manifold. The manifold is the part that splits the gas line to go to each individual piece of equipment. There will be a shut off as discussed above for each piece of equipment. This allows you to be able to have gas running to only the pieces of equipment you want to receive the gas. For instance, you may have a malfunctioning piece of equipment that needs

repairs. You could still operate the other pieces of equipment and not allow any gas to go to the equipment needing



repairs by closing the shutoff at the manifold. Appliances often have pilot lights. Make sure the manifold valve that corresponds with that appliance is on the “off” position until you are ready to light the appliance. When you are ready, open the manifold valve and immediately light the appliance. **DO NOT LEAVE MANIFOLD VALVES OPEN UNLESS YOU ARE USING THAT APPLIANCE!**

Maintenance – The most important thing you can do in maintaining your gas system is to check if for leaks. Fill a spray bottle with water and some dish soap so it will foam. Spray all joints and connections in the gas system with the soapy water and observe it to see if there are any bubbles forming, indicating a leak. If you discover a leak, you can try to tighten that fitting with a wrench until the bubbles stop. When tightening any fitting you will likely need

to use two wrenches to avoid loosening the next fitting in the line. If you are not successful at stopping a leak, have it looked at by a gas contractor or qualified individual.

You need to check your gas system at least quarterly but preferably any time before you start cooking. Any time you smell propane after the bottle has been opened for a couple of minutes do not use any equipment before checking your gas. The odor you smell in propane is an additive to let people know that there is propane in the air, and to not light anything until it is determined where the smell is coming from.

Your concession moves and flexes during transit, and it is not unusual for plumbing and gas fittings to work themselves loose, this is why it is so important to maintain and check your gas system for leaks.

New NFPA Requirements Include:

From the 2017 edition of NFPA 96

B.19.2.1 All recreational vehicles equipped with a propane appliance and an electrical system shall be equipped with a propane detector listed and marked on the device as being suitable for use in the vehicles under the requirements of ANSI/UL 1484, Standard for Residential Gas Detectors, and installed according to the terms of its listing (1192:6.3.3.1)

B.19.2.2 The LP-Gas leak detection system shall be tested monthly.

B.19.2.3 LP-Gas systems shall be inspected prior to each use.

B.19.2.4 LP-Gas leak detection testing shall be performed every time a new LP-Gas connection is made or an LP-Gas cylinder is changed out.

B.19.2.5 LP-Gas leak detection testing shall be documented and the documentation shall be held in the mobile or temporary unit and made available to the AHJ upon request.

HOOD SYSTEM

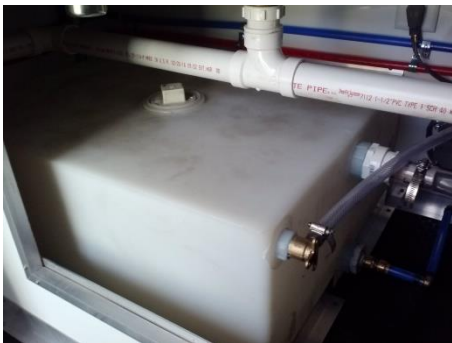
Hood Cleaning – The NFPA 96 Standard chart below to get an idea of what frequency would be best for your vehicle.

System Description	Cleaning Frequency
Systems serving solid fuel cooking operations	Monthly (12x/year)
Systems serving high-volume cooking operations, such as 24-hour cooking, charbroiling, or wok cooking	Quarterly (4x/year)
Systems serving moderate-volume cooking operations	Semi-annually (2x/year)
Systems serving low-volume cooking operations, such as churches, day camps, seasonal businesses, or senior centers	Annually (1x/year)

PLUMBING SYSTEM

The Plumbing system for your trailer is made up of many different parts. We will discuss all of the major parts and their function and maintenance in detail below.

Fresh Water Tank - Your fresh water tank typically has 20 to 30 gallons of capacity. Your waste tank will be at least 15% greater in capacity. The fresh water tank is typically located under or near your sinks inside the trailer. Maintenance will include periodically checking to make sure the threaded fitting are snug and not leaking. Also check to make sure there are no kinks in the small clear vent hose.



Water Fill – The water fill fitting is mounted on the outside of the trailer or truck, and will usually have a small white door over it with a keyed lock. Behind the door you will find a 1-1/4" male fitting with a cap on it. You can remove the cap

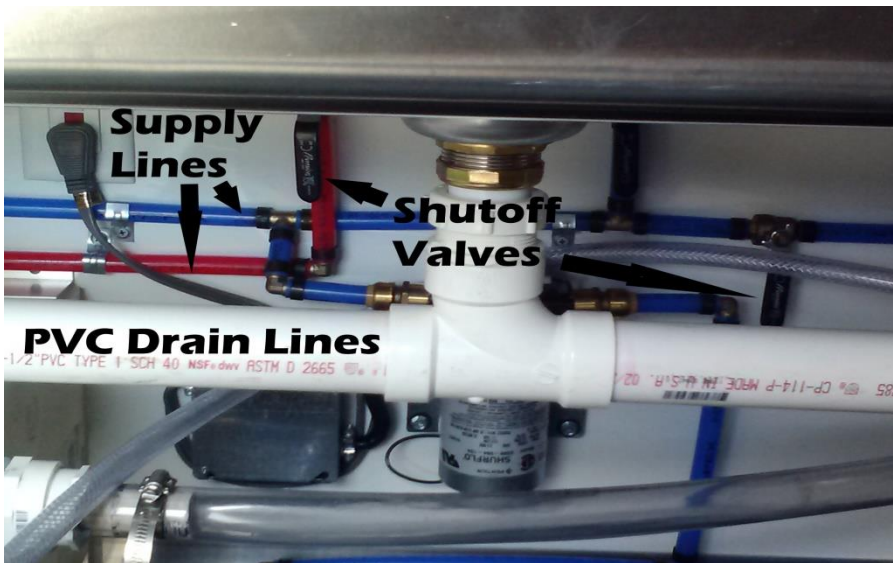


and fill your fresh water tank from here, from either a food grade hose or other water source, depending on what you require. There is also a female hose bib fitting behind the door. If fresh water is available to you to run your concession, you can simply connect a food grade hose to the water supply and connect the hose to this fitting. Turn the water on, and your concession sinks will operate from the water pressure created from the hose and the water pump will not need to run at all.

Water Pump – Your water pump is located inside the trailer, near the fresh water tank. It will have Blue Pex water supply lines connected to it and it will also be either plugged into or hard wired to an electrical source. Your water pump breaker in the electrical panel must be on for the pump to work. The pump will only come on when you open a hot or cold valve to release water to one of your sinks or other water sources. The pump makes a loud rattling noise when pumping water which will become faster the more you open the faucet. Do not be alarmed at the noise. It is normal and will stop when you turn the faucet closed. The only maintenance needed here is to make sure the breaker is on, and that the threaded connection to the supply lines are snug and not leaking. If there is a leak at the pump, you may be able to tighten the fitting a bit to stop the leak.



Supply Lines – The supply lines in your concession are the red “hot”, and Blue “cold” lines that run from your pump and hot water heater to your faucets and plumbing fixtures. There are shut-offs installed in these lines to allow you to keep the water from running passed a certain point if you are doing repair work or have another reason to not want water going to your fixtures. The shutoffs work the same as your gas shutoffs. There is a handle on the fitting and when the handle is facing the same direction as the water line, the valve is opened. When the



handle faces across or perpendicular to the line, the valve is off and the water will not go passed the valve. The shutoffs are typically located in the hot and cold lines just below each faucet. There will also be one located in between the water tank itself and the water pump; this one will be opened when you are using water from your water tank. If you are using water from a hose connected to the female fitting in the water fill box, you will need to open the valve located just inside of the fill box and close off the one going to the water tank. If you develop a leak in a supply line it

is likely at the connection to the faucet itself, you can try to tighten the nut slightly to stop the leak. Any other leaks in the supply lines, though unlikely, will need to be crimped and will require a plumber to do this.

Drain Lines- The plumbing drain lines in your concession are the PVC pipes that are connected to your sinks and drain into your waste tank which is located underneath your trailer or truck. Due to the nature of a mobile concession and the movement that regularly occurs, there are a few suspect places that may develop a leak. There is typically a manifold made of PVC that will connect all of your sink strainers to the waste lines. Nuts at the top of the pipe connected to your strainers under the sink do need to be checked and tightened periodically. Hand tightening very snug is usually enough, if they are over tightened it may strip out the nut, which will then need to be replaced. Teflon plumbers tape is also a great suggestion at these connections if you should develop a leak.

Waste Tank – Your waste tank is located under the concession, usually in the vicinity of the sinks. The main drain line for the sinks is piped into the top of the waste tank. An air space is left at this connection, so backpressure will not back waste water from the tanks into your sink. If you do not empty your waste tank regularly, and allow it to become full, water will leak from this air gap and puddle under the concession. If you are leaking waste water from the tank, the tank is likely too full and will need to be emptied. Some of the plumbing done under a truck or a trailer is located close to the

ground. Every effort is made to keep all lines as high as possible, but there is a chance that you may snag your plumbing lines if you run over debris, or limbs etc. that may be in the road. If you know you ran over anything that protrudes from the road, you need to inspect under the trailer to make sure no plumbing lines have been damaged or pulled loose.

Drain valve – The drain valve is connected to the waste water tank, and is easily accessible from outside of the



concession. The drain valve has a handle that pulls out away from the housing that the pipe is connected to. Pull the handle and water will flow from the drain pipe. Drain hoses are available from any camping goods store or Wal-Mart. The drain hose will have a twist lock fitting that will connect to the drain valve, and allow you to dump the grey water where you desire. The drain pipe should be rinsed with fresh water after use.

Electric Hot Water Heater- Your concession will have either a gas or electric hot water heater. The electric version will be located inside the concession near the water tank and pump. The water heater has a temperature control dial located on the front. It will be adjusted to “ideal” when it leaves our shop, you can adjust the temperature to your needs with this dial. The breaker in the main electrical panel will need to be in the ON position for the water heater to work. Depending on the power needs of your concession and the size of your generator, you may wish to conserve amperage by powering off your electric hot water heater at the breaker and only heating water when needed. The amperage savings will be approximately 12 amps. **DO NOT HAVE POWER TO THE WATER HEATER IF NO WATER IS IN THE HEATER.** If you do this you can damage the heating elements inside.

Propane Hot Water Heater – If your concession has a standard propane water heater, there is also an “ON/OFF” switch



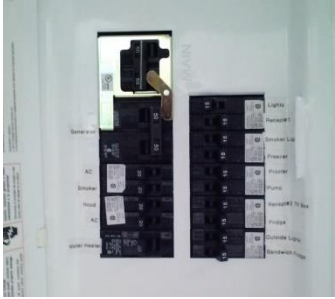
located at the bottom of the unit. The switch will have to be in the “ON” position for heater to work. Caution must be taken in the event of freezing weather. Your water heater may be equipped with “quick connect” gas and water fittings which will allow you to remove the water heater from the concession and store it inside during the freeze. If the water heater is not removable it will have a shutoff connected to a pipe at the bottom of the unit. This shutoff valve will allow you to empty all of the water from the coils in the water heater. To drain the heater you will need to open the shut off valve by facing the handle in the same direction as the line, and then go into the trailer and open the faucet valves without the breaker to the pump being turned on. This will allow air into the system and allow the water to drip out of the heater coils. If you do not drain the water heater during a freeze, the water

in the coils will expand and may internally damage the water heater.

The electrical system in your concession is relatively maintenance free. However it is important to understand how it works since you will likely be using power from two sources, your generator, or shore power.

ELECTRICAL SYSTEM

Electrical Panel – Your concession is equipped with a standard electrical panel like the one in your home. Inside of the panel you will find two larger main breakers located at the top of the panel, and any number of smaller circuit breakers. The circuit breakers will be labeled, indicating what appliance or outlet is associated with that breaker. For the appliance or outlet to work, its breaker must be switched to the on position.



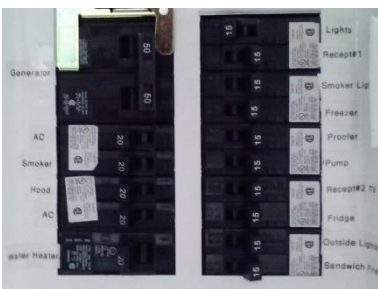
Main Breakers – The two larger main breakers mentioned above, determine which power source you will be receiving your power from; either by plugging into a shore power source



or making your own power with your generator. One of the two main breakers is labeled shore power and the other is labeled generator. These two breakers are tied together with a metal strap (transfer switch) so that as you switch one breaker on, it automatically switches the other to off. The strap tying the breakers together sometimes wears over time and will not push or pull the second breaker all the way over. This is why we suggest flipping these two breakers at the same time, one in each hand. They should never have both point to the center or both point to the outside edges of the panel. Which way the switches point will depend on whether you want to run off of shore power or generator power. The on position for all of the breakers has the switch handle pointed toward the center of the two rows of breakers, and by contrast, the off position will have the switch handle pointed to the outer edges of the box. So, going back to the two main breakers at the top left, if you want to run off of the generator, the generator breaker will be turned on (toward the center) and the shore power breaker (which is tied to it) will go to the off position. If you want to run on shore power, the shore power breaker will be turned on (Toward the center) and the generator breaker will be turned off (toward the outer edge of the box).

It is important to understand that there is a potential to back feed your generator which can damage it. As simple rule of thumb, there should never be a reason to plug in your shore power plug if you are running off of your generator, and likewise, there is no reason to ever start your generator if you are plugged into shore power. Having the shore power main breaker and the generator main breaker both switched to the on can also open the door to back feeding your generator. Please make sure you understand this procedure, and if you need help, never hesitate to contact us.

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Circuit Breakers – Your circuit breakers are the smaller 15 and 20 amp breakers located in two rows underneath the main breakers discussed above. Most of you appliances will have a dedicated circuit breaker; some smaller appliances may have two or more devices or outlets on one breaker depending on how many amps each device is pulling. The added amp value of devices run off of one breaker must be less than the max amperage marked on the breaker or the breaker will trip. If a breaker trips due to a surge, the power will not run past the breaker in the panel box. When a breaker trips, you simply need to go into the panel and switch the breaker from “off” back to the

“on” position. If the same breaker continues to trip, you may be overloading the circuit, or the breaker may not be functioning correctly and may need to be replaced. Most electrical problems will likely require help from an electrician or checking with us here at M&R.

Ground Fault Outlets – Exterior outlets, and outlets located near a water fixture will likely be ground fault outlets, which means, the outlet has its own breaker built in. Ground fault outlets will have two buttons located on their face. One is a test button that lets you test that the outlet, when you press the test button or if water enters the outlet the outlet



breaker will trip. You simply need to press the reset button on the outlet to reset it. You need to push the button in with a screwdriver or pencil to get it to reset.

Shore Power – You have the ability to run all of the electric in your concession from shore power; however you will need 220 volts to operate everything. Your shore power cord will be fitted with a thirty or fifty amp twist lock plug, unless you have requested otherwise for your area. You will likely need to coordinate with your event sponsors to make sure they are supplying a plug that you are able to plug into. If not, there are a number of different styles of adaptors available at camping goods stores. You can purchase a 120 Volt adaptor for your 240 plug. If you are running your concession on 120V, remember that you will not be able to draw more than 20 or 30 amps from the outlet that you are plugged into, depending on what size breaker the output outlet is connected to. The amps put out by a 110V outlet may be enough to run a refrigerator and freezer, depending on their size, but not much more.

Generator – If requested, your concession will be set up with a generator to supply power. Choosing which generator you will require is one of the most important decisions you made in designing your concession with us. Due to the cost of generators, we stress that we include all of the amperage for any equipment that you may potentially need in the future. The generator has a set max output that it can create and it is not an infinite source of power. Adding one piece of equipment more than what was discussed with us in the beginning may overload your generator and cause it to shut down. Sometimes you can turn off an appliance that is not being used to run a different appliance that has been added. (Your water heater may not need to run all day for example). We do not recommend setting your concession up this way, but due to the expense involved in upsizing to the next generator, it may be necessary to plan to do so.

Startup – There is a procedure to starting and shutting down your generator to avoid throwing a breaker on start up. Each appliance in your concession draws more power upon start up than it does after the motor is already running, therefore you do not want all appliances to start running at the same time. To achieve this, first make sure all of your circuit breakers are switched to the off position. Next, make sure the top main breaker for the generator side is switched to the “on” position”, while at the same time making absolutely sure that the shore power breaker is set to the “off” position.

Remote Start – Your concession likely has a remote start located inside of the trailer. Models may vary, but the most common will simply have one rocker switch labeled “Prime” and “Start”. To start the generator, push the prime side until the light comes on, on the switch. At this point, push the switch in the opposite direction to crank the generator. When you hear the generator start to run, release the button. Push and hold the switch in the off position until genset stops running to turn it off.

Power Up – Now go to your individual circuit breakers. Start with the largest appliances, such as the A/C unit, refrigerators, freezers etc. and switch each breaker to the on position, allowing about four seconds between each breaker. This allows each appliance to run through its startup amps and reach the run amp requirement before starting up the next item.

Power Down – In contrast to powering up, simply switch each appliance breaker to the off position before shutting down the generator. You may want to leave the breaker for the lights in the on position, that way you will have light as soon as the generator starts. This way your panel is in position to power up the next time you are ready to set up. Push the remote start button to off to shut down the generator and you are ready to go.

If you purchased your generator through M&R, the operation manual will be in the packet of information we gave you when the concession was picked up or delivered. Read the manual to familiarize yourself with break in time, and service schedules. As with any combustion engine keeping clean oil in your generator is key for a long life.

