

# *Coleman Spas 600 Series*



By MAAX

## *Owner's Manual*

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Congratulations on your purchase of a Coleman Spa. Your Owner's Manual provides installation, operation and maintenance instructions. Please review it and keep it for future reference.

## Save These Instructions

### Owner's Record Information

Date Purchased \_\_\_\_\_

Purchased From \_\_\_\_\_

Phone Number \_\_\_\_\_

Installed By \_\_\_\_\_

Serial Number \_\_\_\_\_ Model \_\_\_\_\_

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# IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

(1) **READ AND FOLLOW ALL INSTRUCTIONS.**

- (2) A green colored terminal or a terminal marked G, GR, Ground, Grounding, or the international symbol\*  is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.

*\*IEC Publication 417, Symbol 5019.*

- (3) At least two lugs marked "BONDING LUGS" are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the hot tub or spa to these terminals with an insulated or bare copper conductor not smaller than No. 6 AWG.
- (4) All field-installed metal components such as rails, ladders, drains or similar hardware within 5 ft of the spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG.

(5) **SAVE THESE INSTRUCTIONS.**

**WARNING:** Children should not use spas or hot tubs without adult supervision

and

**AVERTISSEMENT:** Ne pas laisser les enfants utiliser une cuve de relaxation sans surveillance

**WARNING:** Do not use spas or hot tubs unless all suction guards are installed to prevent body and hair entrapment

and

**AVERTISSEMENT:** Pour éviter que les cheveux ou une partie du corps puissent être aspirés, ne pas utiliser une cuve de relaxation si les grilles de prise d'aspiration ne sont pas toutes en place

**WARNING:** People using medications and/or having an adverse medical history should consult a physician before using a spa or hot tub

and

**AVERTISSEMENT:** Les personnes qui prennent des médicaments ou ont des problèmes de santé devraient consulter un médecin avant d'utiliser une cuve de relaxation

**WARNING:** People with infectious diseases should not use a spa or hot tub

and

**AVERTISSEMENT:** Les personnes atteintes de maladies infectieuses ne devraient pas utiliser une cuve de relaxation

**WARNING:** To avoid injury exercise care when entering or exiting the spa or hot tub

and

**AVERTISSEMENT:** Pour éviter des blessures, user de prudence en entrant dans une cuve de relaxation et en sortant

**WARNING:** Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning

and

**AVERTISSEMENT:** Pour éviter l'évanouissement et la noyade éventuelle, ne prendre ni drogue ni alcool avant d'utiliser une cuve de relaxation ni quand on s'y trouve

**WARNING:** Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub

and

**AVERTISSEMENT:** Les femmes enceintes, que leur grossesse soit confirmée ou non, devraient consulter un médecin avant d'utiliser une cuve de relaxation

## Warnings

**WARNING:** Water temperature in excess of 100°F (38° C) may be injurious to your health and

**AVERTISSEMENT:** Il peut être dangereux pur la santé de se plonger dans de l'eau à plus de 38° C

**WARNING:** Before entering the spa or hot tub measure the water temperature with an accurate thermometer and

**AVERTISSEMENT:** Avant d'utiliser une cuve de relaxation mesurer la température de l'eau à l'aide d'un thermomètre précis

**WARNING:** Do not use a spa or hot tub immediately following strenuous exercise and

**AVERTISSEMENT:** Ne pas utiliser une cuve de relaxation immédiatement après un exercice fatigant

**WARNING:** Prolonged immersion in a spa or hot tub may be injurious to your health and

**AVERTISSEMENT:** L'utilisation prolongée d'une cuve de relaxation peut être dangereuse pour la santé

**WARNING:** Do not permit electric appliances (such as a light, telephone, radio, or television) within 1.5m of the spa or hot tub

and

**AVERTISSEMENT:** Ne pas placer d'appareil électrique (luminaire, téléphone, radio, téléviseur, etc) à moins de 1.5, de cette cuve de relaxation

**WARNING:** Maintain water chemistry in accordance with manufacturer's instruction and

**AVERTISSEMENT:** La teneur de l'eau en matières dissoutes doit être conforme aux firectives du fabricant.

**WARNING:** The use of alcohol or drugs can greatly increase the risk or fatal hyperthermia in hot tubs and spas

and

**AVERTISSEMENT:** La consommation d'alcool ou de drogue augmente considérablement les risques d'hyperthermie mortelle dans une cuve de relaxation.

## HYPERTHERMIA

The causes, symptoms, and effects of hyperthermia may be described as follows. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37° C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include

- (a) unawareness of impending hazard;
- (b) failure to perceive heat;
- (c) failure to recognize the need to exit spas;
- (d) physical inability to exit spa;
- (e) fetal damage in pregnant women; and
- (f) unconsciousness and danger of drowning.

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# IMPORTANT SAFETY INSTRUCTIONS

**Caution: Risk of electrical shock.  
Read and follow all instructions.**

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

## 1. READ AND FOLLOW ALL INSTRUCTIONS.

2. **Warning:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
3. A wire connector is provided on this unit to connect a minimum No. 6 AWG (5.15 mm<sup>2</sup>) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.
4. **Danger:** Risk of Injury.  
Never connect unit to a power supply with a load controller.

## IMPORTANT SAFETY INSTRUCTIONS

5. **Danger:** Risk of Accidental Drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this spa unless they are supervised at all times.
6. **Danger:** Risk of Injury. The suction fittings in this spa are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible.  
Never operate spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.
7. **Danger:** Risk of Electrical Shock. Install at least

5 ft (1.5 m) from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum No. 6 AWG (5.15 mm<sup>2</sup>) solid copper conductor attached to the wire connector on the terminal box that is provided for this purpose.

8. **Danger:** Risk of Electric Shock. Do not permit any electric appliance, such as a light, telephone, radio, or television, within 5 ft (1.5 m) of a spa.

**A licensed electrician should make the final electrical connections.**

The electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with section 422-20 of the National Electrical Code ANSI/NFPA 70-1987. This disconnecting means must be readily accessible for operation but installed at least 5 ft. (1.5 m) from the spa as required to comply with local code requirements. All electrical connections should comply with article 680-D of the NEC.

Install to provide drainage of compartment for electrical components.

9. **Warning:** To reduce the risk of injury:
  - a) The water in a spa should never exceed 104°F (40°C) . Water temperatures between 100°F (38°C) and 104°F (40°C) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.
  - b) Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should check with physician before entering spa, and limit spa water temperatures to 100°F (38°C).
  - c) Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices varies.
  - d) The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.
  - e) Persons suffering from obesity or with a medical history of heart disease, low or high

blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.

- f) Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

## 10. **SAVE THESE INSTRUCTIONS.**

### **Do's and Don'ts**

#### **Do:**

- Replace your cover immediately after use.
- Be aware of the dangers of a wet and slippery surface. Use caution when entering and exiting your spa.
- Have a **licensed electrician** make all final electrical connections.
- Keep your water chemistry correctly balanced. Untreated spa water will cause problems with your spa and equipment as well as being a health risk.
- Clean your filter monthly. (See filter maintenance pg. 21)
- Position your spa in such a way as to leave adequate room to access all sides for maintenance purposes.
- Use a bathing cap with long hair.
- Refer to information on hyperthermia on this page.
- Use only authorized spa care products for the best performance and to keep your water properly balanced for years of enjoyment.

#### **Don't:**

- Use the spa at 104°F (40°C) for long periods of time. Do refer to information on hyperthermia on this page.
- Use an extension cord to power your spa.
- Allow anyone to stand on the spa cover. It is not designed to support weight.
- Power the spa unless it is filled with water to the water level mark on the Weir door.
- Operate the pump for extended periods of time

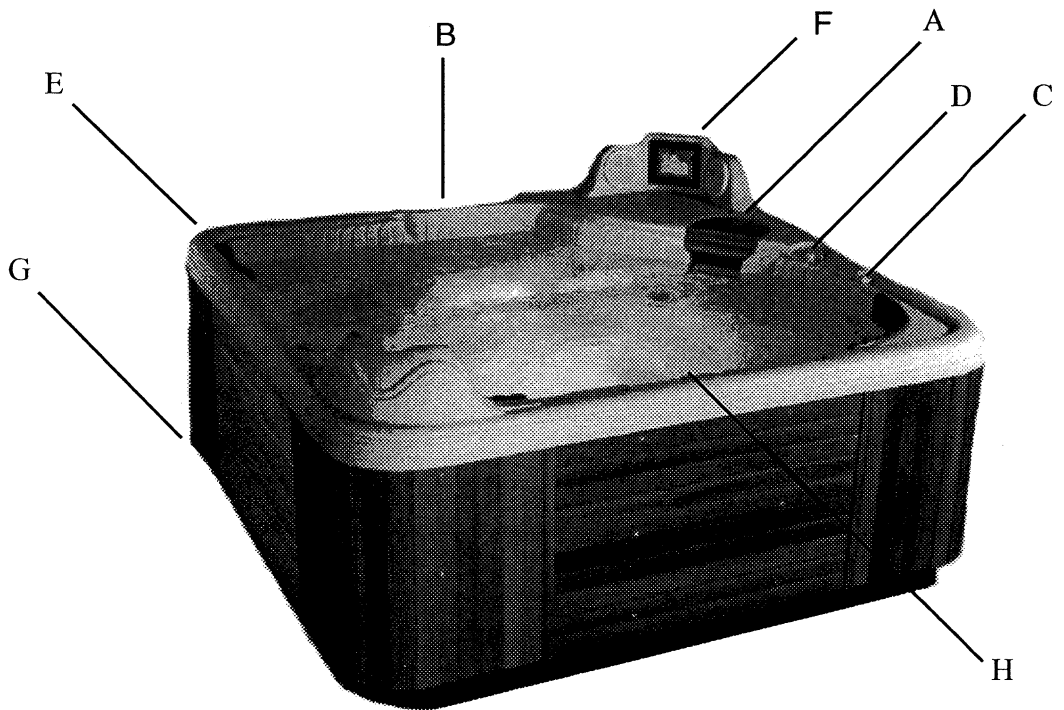
with the cover in place. Extended operation can cause heat build-up and interfere with spa operation.

### **Hyperthermia**

The causes, symptoms, and effects of hyperthermia may be described as follows: Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting. The effects of hyperthermia include (1) failure to perceive heat, (2) failure to recognize the need to exit spa or hot tub, (3) unawareness of impending hazard, (4) fetal damage in pregnant women, (5) physical inability to exit the spa or hot tub, and (6) unconsciousness resulting in the danger of drowning.

**Warning:** The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia.



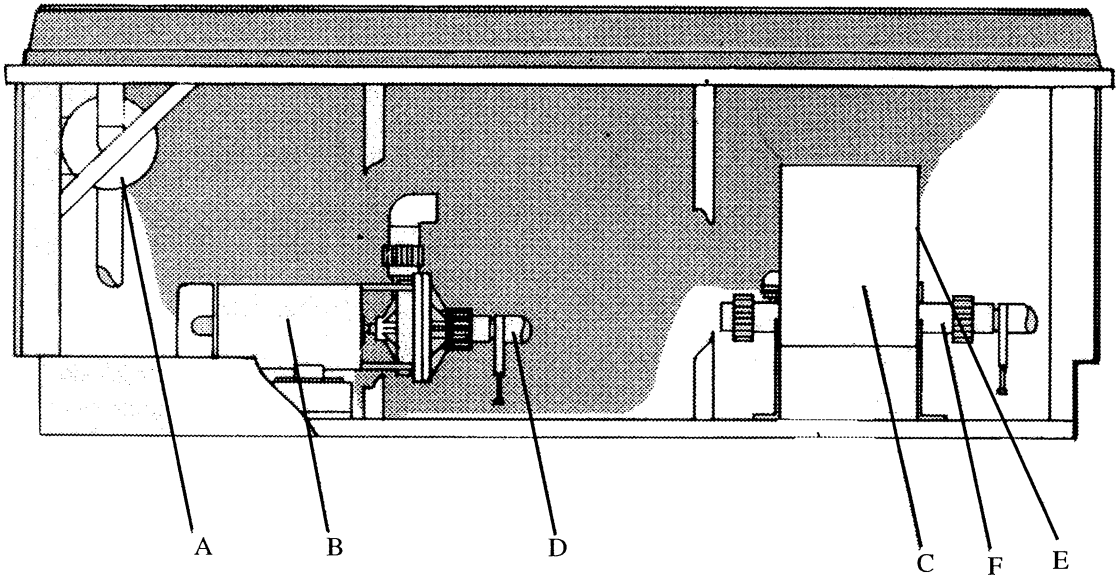


## Spa System Components

- A. **Filter Skimmer/Weir Door:** Removes floating debris from the water surface, provides a water return path to equipment, and houses water filter element.
- B. **Topside Control Panel:** Used to control temperature setting, pump for jets and light.
- C. **Air Controls:** Increases or decreases air entering the jets. Close during heating for maximum efficiency.
- D. **Coleman Spas Diverta Valve:** Used to direct the flow from the footwell jets to the front lounge seat.
- E. **Equipment Pack Service Panel (no user serviceable parts):** Spa support system consisting of one or two pumps, heater, and associated electrical controls (not shown).
- F. **Drain Access (Adjacent to the equipment service panel):** Spa drain faucets.
- G. **Manufacturer's Identification Label:** Contains identification information for warranty service.
- H. **Auxillary Control:** Used to control the pumps from the back of spa.

# Spa Components

Reference only. Equipment is not always as shown.



**Note: No consumer serviceable parts.**

- A. Air Blower:(Optional)** Provides a large volume of air to the air injectors in the footwell of the spa for a vigorous bubble action.
- B. Pumps:** Two on 600 Series spas. Low speed for efficient water circulation during filtration and heating; high speed for maximum action of the jets. The pump functions are activated by topside controls.
- C. Warning and Installation Label:** Contains important safety information and installation instructions.
- D. Slice Valves (4 or 5 Depending on model):** Shuts off water flow from the spa to the equipment while servicing. It must be open during normal operations.
- E. Electrical Connections:** The electrical plugs for the unit connect here. All existing connections should be intact.
- F. Heater Assembly:** Thermostatically controlled and equipped with an overheat safety shut-off.

## Spa Installation

**Danger: Risk of electrical shock. Install at least 5 feet from all metal surfaces.**

The electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 422- 20 of the National Electrical Code, ANSI/NFPA70-1987. The disconnecting means must be readily accessible but installed at least 5 feet (1.5 meters) from the spa water. All electrical connections should comply with article 680-D of the NEC.

### Site and Positioning

Locate the spa on solid, level foundation or flooring. Keep in mind the weight of the filled spa (in excess of 4,000 lbs. on some models). If you have any doubts about the load bearing ability of your chosen site, contact an architect, your building department or a building contractor. The entire perimeter of the spa cabinet and the spa bottom must be evenly supported.

If your spa is installed outdoors, we recommend that you provide a concrete pad for the spa to rest on (8ft.x8ft.x4" level pad). Failure to provide a level surface could structurally damage your spa and will void the warranty.

The spa must be installed to allow access for service and maintenance on all four sides; therefore, below grade level installation is not recommended.

### Outdoor Installation

Keep the following additional factors in mind when installing your spa outdoors:

1. Local codes pertaining to fencing.
2. Local electrical and plumbing codes.
3. View from your house.
4. Wind direction.
5. Exposure to sunlight.
6. Location in regard to trees (falling leaves and shade).
7. Dressing and bathroom location.
8. Storage area for maintenance equipment and chemicals.
9. Location to facilitate adult supervision.

10. Landscaping and nighttime lighting.
11. Access to equipment cabinet panels.
12. Power supply location and foot traffic.

### Indoor Installation

Keep the following additional factors in mind when installing your spa indoors:

1. Indoor spas promote high humidity, so a means of decreasing this humidity must be provided. This can be accomplished by using either ventilation fans or oversized de-humidifiers. Consult your dealer.
2. Floor drains must be provided to drain off water which may cause walking hazards and /or water damage.
3. Floor area should be flat and non-skid. No carpeting, ceramic tile is preferred.
4. Walls, ceilings, woodwork should be of materials capable of withstanding high humidity (redwood, cedar).
5. Be sure floor load bearing capacities are adequate to support the concentrated spa weight.
6. Spas should be double checked for leaks before installing to avoid possible water damage.
7. Indoor sunrooms are capable of maintaining high ambient temperatures which may effect the spa water temperature. It is **NOT** recommended that you operate your filter cycles for longer than 4 hours under these conditions.

## Electrical Information

**Caution: Risk of electrical shock. Read and follow all instructions.**

### Ground-Fault Circuit-Interrupter

A qualified licensed electrician shall connect the spa to a circuit protected by a GFCI. This is a requirement by the National Electric Code, article 680-42, and is also in compliance with Underwriter's Laboratories, Inc.

## **Important Safety Instructions**

Prior to performing any service to the spa equipment, turn off all primary electrical power at the main circuit breaker or disconnect panel. All field electrical connections can be made by removing the front panel of the electrical control box. To gain access to the control box you must remove the exterior equipment access panel.

All electrical connections to this spa package must be accomplished by a qualified **licensed electrician** in accordance with the National Electrical Code and in accordance with local electrical codes in effect at the time of installation.

All connections should be made in accordance with the wiring diagram in the control box.

This equipment is designed to operate on 60Hz alternating current only, at a voltage of 240 volts as required.

Connections should be made using copper conductors only. The connecting wire and circuit breakers or fuses must all be sized to accommodate the Total Ampere load as specified on the equipment label.

**ALL UNIONS MUST BE HAND-TIGHT AND ALL SLICE VALVES MUST BE LOCKED IN THE "OPEN" POSITION BEFORE FILLING OR REFILLING THE SPA!**

## **Installation Options**

### **600 Series**

#### **240 Volt Installation (only)**

##### **Models:**

- 600 Series models.

##### **Electrical Requirements:**

- 240 Volts, 60Hz, Single Phase, 60 amp. or \*40 amp GFCI, 4 wire service, including ground.

##### **\*40 Amp Option**

**The heater can only be activated with the pump on low speed. Only the internal light can be operating at the same time without disabling the heater. See your authorized Coleman Spas dealer to select this option.**

**Units to be operated at 240 volts must have all electrical connections made by a qualified electrician in accordance with the National Electric Code and in accordance with all local**

### **electrical codes in effect at the time of installation.**

There are 3 pre drilled holes in the pedestal or base of the unit to bring the conduit to the equipment compartment. Care should be taken to avoid contact with critical components when routing wiring through cabinet.

Coleman recommends using copper line for all electrical connections.

Coleman spas installed for 240 volt operation require a 4 wire, 60 amp., 240 volt subfeed in non-metallic pipe to the spa equipment compartment (line 1, line 2, common and ground). Refer to wiring diagram on pages 28. A green colored terminal (or wire connector marked "G", "GR", "Grounding") is provided in the control box. To reduce the risk of electrical shock, connect this terminal or connector to the grounding terminal of your electrical service or supply panel with a continuous green insulated copper wire equivalent to the circuit conductor supplying this equipment. In addition, a second pressure wire connector is provided on the surface of the control box for bonding to local ground points. To reduce the risk of electrical shock, this connector should be bonded with a No. 6 AWG copper wire to any metal ladders, water pipes, or any metal within 5 feet of the spa.

The UL and the NEC (National Electric Code) both dictate that the amperage rating and the amperage requirements be listed on all electrical appliances. Coleman Spas supplies both the rating and the requirements printed on our spas and in our manuals. The rating merely designates a class or range of amperages. For example, an appliance rated at 48 amps may actually draw as little as 43.2 amps or as much as 52.8 amps. But it is rated at 48 amps regardless. In contrast, the requirement listed on an appliance states the size of load that the wiring, overcurrent protective device, etc. must be capable of supporting in order to supply current to this appliance. This requirement includes a built-in safety factor. Home inspectors, licensed electricians, and UL technicians receive training explaining the difference between these two terms.

The NEC states: "The ampacity of the branch-circuit conductors, and the rating or setting of overcurrent protective devices, shall not be less than 125% of the total load of the nameplate rating" see article 680-41h of the NEC and UL section 63.1.

## ***Start Up Procedures***

(UL Device Rating) times 125% = (Device Requirements)

(48 Amperes) times 125% = (60 Amperes)

Therefore a spa with a rating of 48 amperes will need an overcurrent protective device and copper wiring capable of handling 60 Amperes.

## **Start Up Procedures**

Follow recommendations for site location and electrical connection. The water line on the weir door (see skimmer, page 6) is the level at which the water should be maintained.

**Note: Never operate the spa when the water level is below water level mark on weir door. It can damage the pumps and heater and is potentially dangerous.**

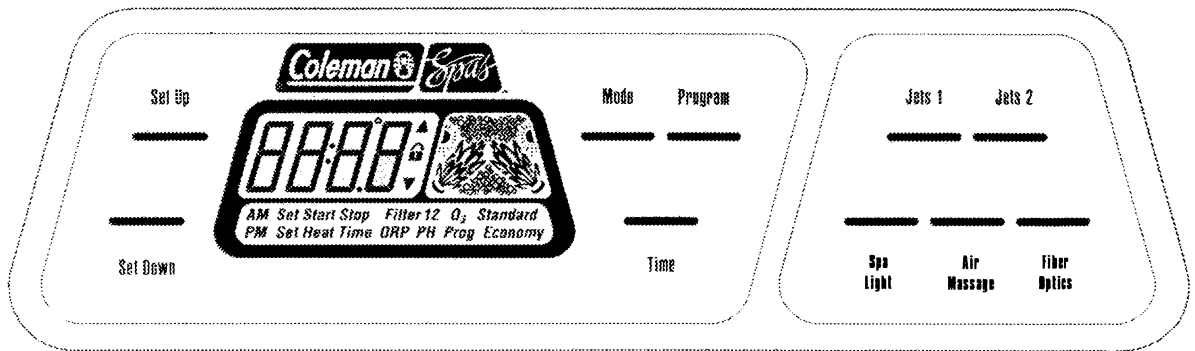
1. Fill the spa through the filter hole to the water line on the weir door with tap water. Never use “softened” water in your spa.
2. Turn power on to unit at circuit breaker or disconnect.
3. Open the air controls and cycle the jets from high to low. Water should come from the therapy jets. If water flow is not established, turn off jets and see Priming Spa (page 23).

**Important: Do not operate the spa without full water flow.**

4. Add chemicals. See Chemical treatment and Water Maintenance section (page 19).

Follow Operating Instructions for your particular model and set the spa to heat to the desired temperature. Initially you may find that the spa requires 12 to 14 hours to reach temperature. Keep your thermal cover on the unit and close the air controls to help the heating process.

# Operating Instructions



## Powerworks 600 Series Control System

The 600 series Powerworks Control offers you the ultimate in spa control. The backlit, Liquid Crystal Display (LCD) displays current temperature and operating status. Each feature is actuated through the control panel pad. Simply touch the appropriate button to activate desired function.

At start up, when power is supplied to the spa, it will be necessary to set the time and filtration cycles. Default settings: ECON, 100°F (38° C), and filter between 2 AM-5 AM and 2 PM-5 PM.

### User's Pads

**Program Pad**  
 Used for initiating time setting, filter programming and panel lock.

**Mode Pad**  
 Switches the spa from economy to standard mode and vice-versa. In economy mode, the spa will heat to set temperature only during the filter cycles. In the standard mode, the spa will be heated automatically to the set temperature. This pad also resets the control in the rare instance of an overheat.

**Check your water temperature before you enter the spa**

**Temperature Controls**  
**Set Up**  
**Set Down**  
 When either of these pads are touched once, the LCD will display the temperature which has been set, as well as the words "set heat". Each time either of these pads is pressed again, the set temperature will increase or decrease, depending on which pad is pressed. After 3 seconds, the LCD will automatically display the spa temperature.

**Note:** Used with inversion feature. (page 14)  
**Note:** There is a temperature lock feature. (See the lock section, page 13).

**Note:** 600 series spas that are wired 40 amp will not heat with Jets 1 on high speed, Jets 2 on either speed, or with the optional comfort air massage system on.

**Jets 1**  
 The sequence of jet action is:  
 1-Low whirlpool jets  
 2-High whirlpool jets  
 3-Off

**Jets 2**  
 The sequence of jet action is:  
 1-Low therapy jets  
 2-High therapy jets  
 3-Off

The low speed whirlpool is timed to automatically turn off after four hours of operation. The high speed whirlpool and therapy jets are timed to turn off automatically after thirty minutes of operation.

**Note:** The low-speed pump on Jets 1 will operate automatically whenever the heater is on, when a

filter cycle is activated or when a freezing condition is detected. When this automatic activation occurs, the low-speed pump cannot be deactivated by the "JETS" pad; however, the high-speed pump may be started.



**Air Massage**

All 600 Series spas are optionally equipped with a variable three speed air massage system.

The sequence is:

- 1-High
- 2-Medium
- 3-Low
- 4-Off

The air massage system is timed to turn off automatically after 30 minutes of operation.

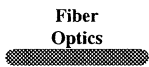


**Spa Light**

Touch this pad sequentially to adjust the spa light. The Sequence is:

- 1-High
- 2-Medium
- 3-Low
- 4-Off

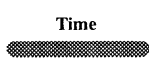
The spa light will automatically turn off after 60 minutes.



**Fiber Optics**

Touch this pad sequentially to adjust the fiber optic lighting. The sequence is:

- 1-Light and Color Wheel On
- 2-Stop Color Wheel
- 3-Off



**Time**

Touch to view the time of day.

Touch again to view the set spa temperature. The current spa temperature display will automatically resume after five seconds.

**Time and Filtration Cycles**

This control has been specifically designed so that by simply connecting the spa to its properly grounded source and touching the mode pad, the spa will function properly and safely at 100°F. In this mode, all user pads will be completely functional. However,

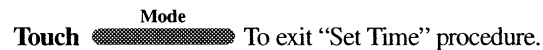
to fully utilize the unique capabilities of this control, it is important to set the time of day properly.

**Setting The Time**

Once the spa has been properly connected, notice the "set time" message flashing on the LCD screen.



After either pad is touched once, time will advance or decrease in one minute increments. Press either pad again to stop the display's time setting cycle.



**Preset Filter Cycles**

Now that the time has been set correctly, your spa will automatically filter itself for a 3-hour period every 12 hours. Whenever a filter cycle is active, this automatic filtering sequence is indicated by the following messages on the LCD screen:

**Filter 1**

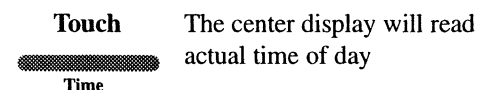
The first filter cycle is automatically activated at 2:00 a.m. and operates the low-speed pump until 5:00 a.m. The heater will operate in the economy mode.

**Filter 2**

The second filter cycle is automatically activated at 2:00 p.m. and operates the low-speed pump until 5:00 p.m. Again, the heater will operate in the economy mode. During this cycle, a short purge function occurs on the second pump, and the blower.

**Changing Filter Cycles**

If the preset times are inconvenient, if a different duration is preferred, or if you wish to leave the heater off during filtering, the following procedure can be used to change the automatic filter cycle settings.



The center display will read actual time of day

Then  
Program **“Set Time”**

Then  
Program **“Set Start Filter 1”**

At this point, each time the program pad is pressed, the filter-start time, the heater-enable status, and the filter-stop time will be indicated on the LCD screen.

When the filter-start or filter-stop times are displayed on the screen:

Touch **Set Up** or **Set Down**

to reset the times.

When the “Set Heat” message is displayed:

Touch **Set Up** or **Set Down**

to set the center display to “on” or “off”. In the “on” position, the spa will warm to the set temperature during the filter cycles. In the “off” position, the heater will not be activated during the filter cycles.

**Note:** Must be in the “on” position to use the heater in the Economy mode. The off setting does not affect Standard mode. In cold weather, we recommend using the standard settings.

After entering the filter-set routine, you must:

Touch **Program**

to proceed through all the start and stop times for both filter cycles. Just follow the same procedure to adjust the “Filter 2” settings.

Note: Under freezing conditions do not override the

Note: At the start of the second filtration cycle pump 2 is activated and a short air injector cycle is run. This is to clear the water in the air injectors and ensure complete filtration

**Note: To properly clean and maintain your spa, a filter time of at least six hours per day (total of both cycles) is recommended.**

second filtration cycle.

To exit the filter-set procedure:

Touch **Mode** and the LCD will display the current water temperature.

### Clean Up Cycle

After periods of heavy use, turn the jets on to “low whirlpool” for a four-hour Clean Up Cycle.

### Ozone Operation

Your 600 Series spa is standard equipped with a Coleman Clean Zone® Ozonator. The system will produce ozone whenever the spa is in a timed filtration cycle. Activation of the low whirlpool jets via the “jets” pad will initiate filtration, but not ozone production. Activation of other functions during timed filtration cycles will suspend ozone production for 30 minutes from the last time a pad is touched.

### pH Sensor Operation

Spas equipped with the pH sensor option will provide an accurate pH reading to assist water maintenance. To view pH, touch the time pad twice. Recommended range is 7.2 to 7.6. If the pH of the spa water is outside of this range, the display will alternately flash the current temperature and pH reading. If this occurs, add chemicals as necessary to bring the pH into range. See Winterizing (page 24) for information on special pH sensor care.

## Locking Features

### Panel Lock

To help prevent unauthorized use of your spa, the 600 Series Digital control has incorporated a unique panel locking system.

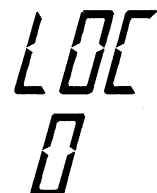
To lock the panel:

Touch **The Center Display will Read**

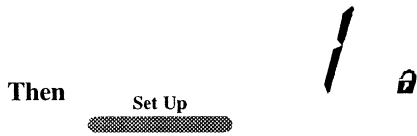
**Program**

Then

**Mode**

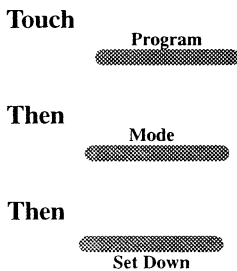






This sequence must be done within **three seconds** to activate the Panel Lock feature. The center display will show the spa temperature along with the lock symbol. All the panel pads are now deactivated except the program pad, which is used to initiate the unlock sequence.

**To unlock the panel:**

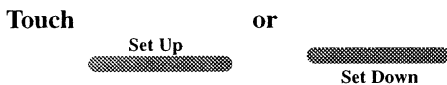


When the control panel lock is engaged, all automatic spa functions will operate normally but cannot be altered. To unlock the panel, the three pads must be pressed in the correct sequence and within **three seconds**. When the last pad is pressed, the lock symbol will disappear. All pads are now active.

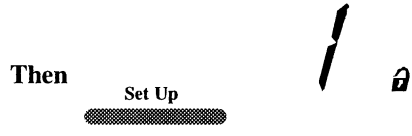
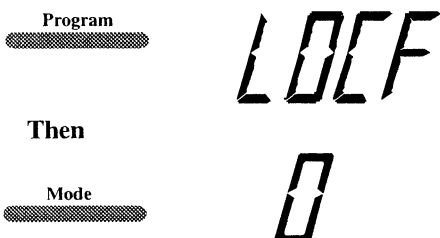
**Temperature Lock**

This feature prevents unauthorized temperature adjustment of your spa water. While setting your spa water temperature, **after you have pressed either temperature pad**, follow the instructions below to lock your set temperature.

**To lock the temperature:**

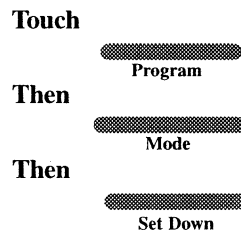


Touch The Center Display will Read



The set lock pads must be pressed within **three seconds** to activate the lock. Within three seconds the center display will show the spa temperature along with the lock symbol. The set temperature pads will be deactivated and when pushed, the set temperature will appear with a double arrow next to it.

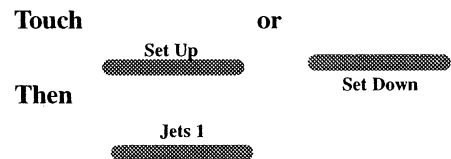
**To unlock the temperature:**



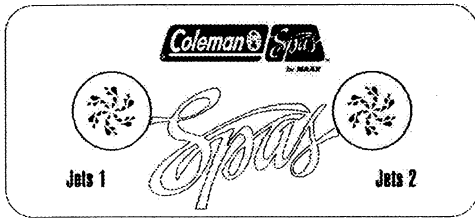
To unlock the panel, the three pads must be pressed in the correct sequence and within **two seconds**. When the last pad is pressed, the lock symbol will disappear. All pads are now active.

**Inversion Feature**

The alpha-numeric LCD display can be inverted in order to make reading the display while inside the spa easier. To invert the display:



## Auxillary Panel



The auxillary panel controls the two jet pumps from the therapy seat. Touch each pad to control the pumps in the following sequence:

This pad controls the whirlpool jet action as follows:

Jets 1



- 1–Low whirlpool jets
- 2–High whirlpool jets
- 3–Off

This pad controls the therapy jet action as follows:

Jets 2



- 1–Low therapy jets
- 2–High therapy jets
- 3–Off

## **600 Series equipped with FX integrated Entertainment System Option**

Your spa is equipped with the finest JVC brand Audio and Video systems designed for the ultimate spa entertainment experience. At startup, power is supplied to the entertainment system so it is always ready for your enjoyment.

### **Startup:**

Locate your JVC Individual Instruction manuals packaged with your Coleman Spas Owner's manual, read and understand the operation of each device. Install supplied batteries into each remote control. Follow all JVC directions for proper usage and operation of your system.

### **Remote controls:**

Entertainment system remote controls are not waterproof; remotes should not be operated from inside the spa. Remote usage is limited to setup outside the tub before entrance. Recommended remote storage is behind the equipment doors or indoors. Do not expose remotes to rain, submersion, or splashed water. Please refer to your operator's manual for complete directions.

Stereo Remote control ( JVC Model Rm - RK32 ) will operate by pointing the remote at the equipment enclosure located on the front skirt panel of the spa.

Television VCR Remote controls: The Television remote ( JVC Model RM - RK37 ) will operate by pointing the remote at the Television Display. Additionally the Television remote will operate the remote VCR operations. The VCR Remote ( JVC Model RM - RK20 ) will operate by pointing the remote at the equipment enclosure located on the front skirt panel of the spa.

### **Cleaning and Care:**

Your FX Integrated Entertainment System is built for the minimum of maintenance. Care of the acrylic Stereo Equipment doors and Television screen only with a soft cloth and mild detergent or window cleaner. Do not use abrasive or petroleum based cleaners. Refer to your JVC component manual for maintenance of your equipment.

### **Basic Operations Stereo System:**

To activate the Stereo, locate the power button on the upper left hand corner of the stereo unit. When power is connected to your spa the button will glow red. Select and hold the power until the unit greets you with "Hello" and release the power button.

Select the source you would like to listen to:

1. CD
2. FM/AM broadcast radio
3. CD-CH "Line In" (used only with the Television VCR option).

**Radio:** To listen to radio,

1. Select "Fm/AM"
2. Adjust the volume knob at the left hand side of the unit (Circular ring the "SEL" button).
3. Select the station frequency using the "SSM" button on the right hand side of the unit displaying up and down arrows.

**CD:** To listen to a CD,

1. Load a CD into the stereo unit's thin slot located along the top horizontal slot in the unit.
2. The stereo will automatically switch to CD Mode
3. Adjust the volume to a comfortable listening level as stated above.

**CD-CH:** This is a "Line In" function only used for the Television option. Refer to the following section Basic Operations Television Video for use.

**Power off:** To turn off the the Stereo, select and hold the Power button until the system displays "Good Bye" and the system blinks, release the button.

### **Television Video Option:**

Review your owner's manual for instructions on usage of your Broadcast television and VHS Video system. The Television system audio is used in conjunction with the spa stereo system.

### **Basic Operations Television Video:**

When power is connected to your spa, the television standby light will glow red. To activate the television, locate the Television remote control JVC Model RM-RK37.

1. Turn on the Television power by selecting the red power button located at the top left side of the remote. The Television standby lamp will turn off and the television screen will activate.
2. Select the viewing source. Your TV is equipped with 3 sources
  - (A) TV
  - (B) Video 1
  - (C) Video 2. (Not Used).
3. Turn on the "power" (refer to Basic Operation Stereo System) and select "CD-CH" which will display "Line In".

**Television:** To view Television Channels locate the circular Mode button toward the top center of your remote ringed by the Channel and H/P VOL Ring.

1. Select the Mode button
2. Your screen will display a source on your screen.
3. Continue to select the mode button until "TV" is displayed.
4. Change channels using the circular ring "CH" up or "CH" down.
5. The audio for your television and video viewing is replayed through your stereo system. The "H/P Vol" on your television remote is disabled to provide a superior audio video experience through the stereo system.
6. Adjust the stereo volume to a comfortable listening level. Refer to Basic Stereo Operations for use.

**VHS Video:** To view a VHS movie, using the mode button on the television remote,

1. Select "Video 1".
2. Using the VCR remote, select the "Power" button, bottom left hand corner, the "Power" indicator on the VCR will glow red.
3. Slide down the Cassette Tape Door to reveal the tape cassette tray.
4. Slide a VHS tape into the cassette tray slowly until the unit automatically draws the tape in.

5. Select the "Play" function to begin replaying the tape
6. Adjust the volume on the stereo to a comfortable listening level.

### **Television Reception:**

Your television comes with standard broadcast channel coverage (VHF 2-12 and UHF 13-69. Your television Spa contains a specialized (2 Diversity) antenna designed for optimum reception of these channels. For best television reception, the antennas may require adjustment for best picture quality. For more information please review your JVC instruction manuals.

### **Cable Capable:**

Your television spa is equipped with a standard coaxial (F type) connector for cable television. The connector is located inside the spa cabinet, beneath the front panel and on the left-hand side of the Steel equipment enclosure. To hook up cable television your local cable supplier must provide a cable connection to the spa input and a Cable Box to receive and decode cable television. The JVC television is not a Cable ready device. Cable may be viewed by selecting channel 2 or 4 on the spa TV (dependent on your cable supplier) and using a third party cable box to provide Cable Television.

### **Trouble:**

If you are having trouble, consult the troubleshooting table of your JVC owner's manual located in each component's Owners Manual. Write down the symptoms your system is experiencing and report them to Coleman Customer Care Line. Be prepared to answer questions about the trouble you are experiencing; the Care line will assist you as expediently as possible. The Customer Care Line is located on the last inside page of this owner's manual.

## Safety Features

Your Coleman spa is equipped with several safety features which are designed to protect the user and the equipment.

### Automatic Time Outs

#### 600 Series

The low speed whirlpool settings on the pumps are timed to automatically turn off after four hours of operation. The high speed whirlpool, therapy jets and air massage systems are timed to turn off automatically after thirty minutes of operation. The spa light and fiber optic system will turn off automatically after 60 minutes.

### Error Messages

The 600 Series control system is designed with several error messages that will automatically be displayed on the LCD screen. These messages help describe the operating status of your spa.

#### Water Overheat Protection

**OH1** Each 600 Series control is equipped with a temperature sensor. If a problem is detected with the temperature sensor, an "OH1" symbol will be displayed in the LCD window.

The water temperature sensor constantly monitors the temperature of the spa water. If at any time the spa water reaches a temperature of 112°F, the spa will be disabled. Once the water temperature cools down to a temperature below 110°F the spa will automatically reset itself.

#### Hi-Limit Overheat Protection

Each 600 Series control is also equipped with a hi-limit sensor. If a problem is detected with the hi-limit sensor, an "OH2" symbol will be displayed in the LCD window.

**OH2** The hi-limit sensor constantly monitors the temperature of the heater housing. If at any time the heater housing reaches a temperature of 118°F the spa will be disabled. When the heater temperature cools down to 116°F, the spa can be reset by touching the "Mode" pad on the control panel. An overheat condition caused by the hi-limit sensor is often caused by a faulty flow switch or restricted water flow and should be investigated thoroughly prior to resetting the controls.

**Note:** After an "OH" message, it is important that you check the water temperature before entering the spa.

**Note:** If the "OH" message remains, the spa water temperature does not go down, or the spa will not accept a reset, contact your dealer immediately and DO NOT use the spa.

#### Open Flow Switch

Each 600 Series spa is equipped with a pressure switch located on the tailpiece of the heater that allows the control system to detect problems with water flow conditions. If a *Low Flow* condition is detected, the "FL1" symbol will be displayed in the LCD window.

**FL1** A low flow condition will occur when the pressure switch fails to close while the pump is operating on low speed. Check to make sure all slice valves are open, that there are no obstructions in the pump or water line, and that the filter is clean of any debris. If the problem persists, contact your dealer for assistance.

#### Closed Flow Switch

**FL2** If a "FL2" message is displayed in the LCD window, a *No Flow* situation has occurred and the spa will be deactivated. A *No Flow* condition will occur when the pressure switch is in a closed position without the pump running. Contact your dealer immediately for assistance and DO NOT use the spa.

#### Open Sensor Detection - Hi-Limit

**SN1** If an "SN1" message is displayed in the LCD window, a problem with the Hi-Limit sensor has been detected. The sensor is non-functional and the spa will be deactivated. Contact your local dealer for assistance.

#### Open Sensor Detection - Temperature

**SN2** If an "SN2" message is displayed in the LCD window, a problem with the Temperature sensor has been detected. The sensor is non-functional and the spa will be deactivated. Contact your local dealer for assistance.

#### Temperature Set Back

If the control system detects that the spa water is 20°F (6.7°C) cooler than the temperature set point, a "COOL" message will be displayed in the LCD window. The heater will automatically activate to provide heat and freeze protection. No corrective action is necessary.

#### Freeze Protection

**ICE** Your 600 Series control system is also equipped with a freeze protection program. When a freeze condition is detected (temperature of the heater tube is below 40°F) the system software will automatically activate the heater and both pumps to prevent the water from freezing.

# Jets, Air Controls and Air Injectors

## Jets

Coleman's 600 Series jets are individually engineered to provide a unique hydro-massage. The jet system is designed so that all like sized jet nozzles are interchangeable and can be added in any quantity. All full sized jets are adjustable from a fully open to a closed position. It is very important that you NEVER SHUT ALL FULL SIZED JETS OFF AT ONE TIME! Depending on the model, your spa will have a combination of the following jets.

**Cyclone Therapeutic (XL Cyclone, Cyclone, & LS Luxury):** Positioned to focus on large muscle groups, these jets deliver a concentrated, high volume stream of water for a deep massage. Each jet is fully adjustable, allowing users to set the water flow to the most comfortable setting. The nozzle can be rotated to target sore muscle areas.

**Cyclone Turbo Swirl Jets (XL Cyclone, Cyclone, & LS Luxury):** Positioned to focus on muscle tension zones, these jets deliver a spinning V-shaped water stream for a gentle, pulsating massage. Each jet is fully adjustable, allowing users to set the water flow to the most comfortable setting.

**Diverter/Whirlpool:** Positioned to create overall water circulation, this multi-purpose, high volume jet provides whirlpool action throughout the entire spa. In the "on" position the high volume water stream provides a deep massage for the feet and lower extremities.

**Euro Jets:** Positioned in the footwell of the spa, these jets deliver a penetrating massage to dissolve tension in the lower legs. The two Euro jets in the footwell are the entry point for ozone produced during the automatic filtration cycles. Euro jets are not adjustable.

**Note:** Ozone production is suspended when other functions are activated on the control panel.

## Air Controls

The intensity of the jet action can be controlled by altering the amount of air injected with water through the jets. Your spa has 4 air controls located on the lip of the spa. Each control activates air to specific jets in the spa allowing you to create various combinations and levels of jet action to suit individual taste.

## Comfort Air Massage

The air massage systems generates a vigorous air and water massage action throughout the spa.

**Note:** During the second filtration cycle, the air

**Note: Air controls should be closed during heating cycles for maximum energy efficiency.**

massage system and second pump are activated for thirty seconds to clear the pipelines and ensure complete filtration.

## Maintenance

### Water Chemistry

Water chemistry is critical in a spa system. The combination of high temperature and small volume means that the chemical balance must be watched carefully. Use only authorized spa care products for the best performance and to keep your water properly balanced for years of enjoyment. For water usage information, please see the table on page 21.

### Sanitizing

Sanitizing your water destroys harmful organisms and keeps your spa healthy and safe. Two commonly used spa sanitizers are bromine and chlorine, with ozone being used as an oxidizer. Chlorine and bromine are chemicals that you will add to the water. Ozone is a gas that is produced by an ozonator and injected into the water. It is important that a residual of sanitizer remain in your water. High water temperature, aeration and use will increase the need for sanitizer. In addition to maintaining a residual, it is important to "shock" your spa water periodically and after heavy use. The addition of substantial amounts of sanitizer super-chlorinates the water and oxidizes non-filterable organic residue. Allow the sanitizer level to drop back to the residual amount before using. Also use your Clean Up Cycle (page 13), after heavy use for additional filtration. **Note:** Coleman Spas does not recommend the use of trichlor (swimming pool chlorine) in its spas.

## pH Level

pH is a balance of acidity and alkalinity in the water. Maintaining proper pH is important for the effectiveness of your sanitizer, for user comfort and to prevent corrosion of the spa equipment.

**Note:** Keep a chlorine or bromine residual of 3.0 to 5.0 ppm. Tests should be done daily with your test kit.

**Note:** Never mix two chemicals together. Never store any chemicals in the equipment compartment.

**Note:** Do not use muriatic acid to balance pH as it will damage your spa surface and equipment.

### Recommended Levels

**pH:** 7.2–7.6 (Ideal 7.4–7.6)

**Sanitizer Residual:** 3.0–5.0 ppm

**Total Dissolved Solids:** 100–200 ppm

**Free Available Sanitizer:** 3.0–5.0 ppm

**Note:** Make sure you use fresh test kit reagents. They lose their accuracy with age. (Date the bottle upon purchase). The use of a tri-color test kit is recommended.

**Total Alkalinity:** 80–100 ppm ideal for dichlor, and bromine.

## pH Sensor Operation

600 series spas equipped with the pH sensor option will provide a pH reading to assist water maintenance. To view pH, touch the time pad twice. Recommended range is 7.2 to 7.6. If the pH of the spa water is outside of this range, the display will alternately flash the current temperature and pH reading. If this occurs, add chemicals as necessary to bring the pH into range.

## Water Maintenance With the Powerworks® Ozonator

Equipping your spa with a Coleman Clean Zone® Ozonator is a smart decision. The use of ozone in conjunction with the normal spa sanitizing and water balancing chemicals will give you a cleaner, healthier spa environment. Maintenance and chemical usage may be significantly reduced, and you will enjoy cleaner water.

## Sanitizing With Ozone

Spas vary in size and the amount that they are used will vary considerably from family to family. For this reason you will need to establish your sanitizing

program based upon your own personal use. When using ozone you should start by balancing your water chemistry as you normally would. A spa should run and be ozonated no less than four hours per day. This starting point should **NOT** be considered final. If your spa is heavily used, this run time should be increased. Your spa produces ozone during filtration cycles. (See page 13).

The amount of a residual sanitizer (chlorine or bromine) that you maintain in the water will also vary depending on use. It is recommended that you maintain a residual of 3.0–5.0 ppm. Periodically, and after periods of heavy use, it is necessary to “shock” your spa with additional amounts of sanitizer. Refer to your spa care products for further information.

## Specialty Chemicals

Although ozone will reduce the need for specialty chemicals, it is recommended to always have some on hand. There may come a time when you will be required to add some of these due to heavy usage of the spa or when changing the water.

If you are in an area which has metals in the source water, a specialty chemical program should be followed to avoid staining. Use only authorized spa care products for the best performance and to keep your water properly balanced for years of enjoyment.

These guidelines cover the most common procedures when operating a spa with ozone. Should you encounter a situation which you don't completely understand, contact your dealer for assistance.

## Hot Water Guide

Problem	Cause	Solution
Cloudy Water	<ul style="list-style-type: none"> <li>Inadequate filtration/dirty filter</li> <li>Excessive oils/organic matter</li> <li>Improper sanitation/bacteria</li> <li>High pH and/or high alkalinity</li> <li>Suspended particles/organic matter</li> <li>High total dissolved solids (TDS)</li> </ul>	<ul style="list-style-type: none"> <li>Check to make sure the filter is running properly/Clean filter with a filter cleaner or degreaser.</li> <li>Shock the spa with a chlorine or bromine sanitizer/shock or other shock treatment product.</li> <li>Increase sanitizer level to balance water and shock if needed.</li> <li>Adjust pH; add appropriate sodium bisulfate product.</li> <li>Use clarifier Note: Do not use polymer based clarifiers with your CleanZone-equipped spa.</li> <li>Depending on the severity-drain the spa to half and refill; or drain the spa completely, clean and refill.</li> </ul>
Water Odor	<ul style="list-style-type: none"> <li>Excessive organics/too many chloramines insufficient free available</li> <li>Improper sanitation</li> <li>Inadequate filtration</li> <li>Low pH</li> </ul>	<ul style="list-style-type: none"> <li>Shock the spa with a chlorine or bromine sanitizer/shock or other shock treatment product.</li> <li>Increase sanitizer level to balance water; shock if needed.</li> <li>Check to make sure the filter is running properly/Clean filter with a filter cleaner or degreaser.</li> <li>Raise pH with sodium bicarbonate product. If metals are present, add chelating agent.</li> </ul>
Chlorine Odor	<ul style="list-style-type: none"> <li>Too many chloramines-insufficient free available chlorine</li> <li>Low pH</li> </ul>	<ul style="list-style-type: none"> <li>Shock the spa with a chlorine sanitizer/shock or non-chlorine shock treatment.</li> <li>Adjust pH; raise pH with sodium bicarbonate product.</li> </ul>
Bromine Odor/ Yellow Water	<ul style="list-style-type: none"> <li>Low pH</li> </ul>	<ul style="list-style-type: none"> <li>Adjust pH; raise pH with sodium bicarbonate product.</li> </ul>
Musty Odor	<ul style="list-style-type: none"> <li>Bacterial or algae growth</li> </ul>	<ul style="list-style-type: none"> <li>Shock the spa with a chlorine or bromine sanitizer/shock or equivalent shock treatment product. If problem is visible drain, clean, refill and balance spa.</li> </ul>
Foaming/Scum Ring Around the Tub	<ul style="list-style-type: none"> <li>Build up of body oils, lotion and chemicals resulting from soap or detergent</li> </ul>	<ul style="list-style-type: none"> <li>Add defoamer; or drain and refill.</li> </ul>
Algae	<ul style="list-style-type: none"> <li>pH Imbalance</li> <li>Low free chlorine or bromine concentration</li> </ul>	<ul style="list-style-type: none"> <li>Adjust pH</li> <li>Shock with a chlorine or bromine sanitizer/shock or other shock treatment product.</li> </ul>
Eye Irritation	<ul style="list-style-type: none"> <li>Low pH</li> <li>Insufficient free available chlorine</li> </ul>	<ul style="list-style-type: none"> <li>Raise pH with sodium bicarbonate product.</li> <li>Shock with a chlorine sanitizer/shock or other shock treatment product.</li> </ul>
Skin Irritation/ Rash	<ul style="list-style-type: none"> <li>Unsanitary/polluted water</li> </ul>	<ul style="list-style-type: none"> <li>Keep recommended sanitizer residual at all times; superchlorinate or use a non-</li> </ul>



Scale	<ul style="list-style-type: none"> <li>• Soaking too long</li> <li>• Water temperature too high</li> <li>• Too much calcium dissolved in water pH and total alkalinity too high</li> </ul>	<ul style="list-style-type: none"> <li>• chlorine shock treatment.</li> <li>• Soak for smaller intervals, such as 15 minutes.</li> <li>• Reduce water temperature.</li> <li>• Add a scale control product. Adjust total alkalinity and pH levels by adding the appropriate sodium bisulfate product; with concentrated scale deposits-drain the spa, scrub the scale off, refill the spa and balance the water.</li> </ul>
Erratic pH Test Results/Unusual pH Test Color	<ul style="list-style-type: none"> <li>• Sanitizer level too high</li> <li>• Old pH indicator dye</li> </ul>	<ul style="list-style-type: none"> <li>• Test the pH, when the sanitizer level is below 5 ppm</li> <li>• Replace the pH indicator dye.</li> </ul>
Sanitizer Dissipating Too Rapidly	<ul style="list-style-type: none"> <li>• Excessive organics in water</li> <li>• Temperature too high</li> <li>• Low pH</li> <li>• Low pH Corrosion of Metal Fixtures</li> <li>• Low calcium hardness</li> <li>• Low total alkalinity</li> </ul>	<ul style="list-style-type: none"> <li>• Increase shock dosage; add sanitizer; have bathers shower before entering spa.</li> <li>• Reduce temperature.</li> <li>• Raise pH with sodium bicarbonate product.</li> <li>• Use a chelating agent if metals are present. Keep proper pH level (7.2 to 7.6).</li> <li>• Use a chelating agent if metals are present. Maintain minimum 150-200 ppm calcium hardness.</li> <li>• Use a chelating agent if metals are present. Maintain proper alkalinity for type of sanitizer used.</li> </ul>

## Spa Cabinet Care

Your custom spa cabinet is made from quality handcrafted redwood or cedar. It has been treated with a sealer and stain prior to spa assembly to preserve its appearance and help prevent weathering. Further wood protection requirements depend on spa location (indoors or outdoors, sun, shade, etc.), and local climate conditions. **Re-treat 3 to 4 times per year, with an appropriate product recommended by your authorized dealer.**

**Cleaning the spa cabinet:** Rinse dirt and dust regularly with clear water. To remove stubborn dirt, grime, and mild discoloration, wash with a mild detergent and warm water.

## Spa Surface Care and Cleaning

Your spa shell is made of a reinforced acrylic material. A minimum amount of care and cleaning will keep your spa looking new for years.

**To protect your spa finish, always keep your cover on the spa when not in use.**

Use a spa cleaner for residue and lime buildup at the water level of the spa surface. This can be applied to the acrylic surface with a soft cloth and wiped clean. Use small amounts to avoid polluting spa water. It may be necessary to lower the water level 2 to 3 inches before cleaning if heavily soiled at the waterline.

Use common household, non-abrasive cleaners to clean your spa shell. (For example: Lysol Basin, Tub & Tile Cleaner®; Glass Plus®; Mr. Clean®; and Top Job®, or a mild dishwashing detergent such as Ivory® Liquid.) Rinse well and dry with a clean cloth.

Do not allow your spa's acrylic surface to come

**Never use abrasive cleaners.**

into contact with products such as acetone (nail polish remover), nail polish, dry cleaning solution, lacquer thinners, gasoline, pine oil, etc.

Remove dust and dry dirt with a soft, damp cloth.

Clean grease, oil, paint and ink stains with isopropyl (rubbing) alcohol.

Avoid using razor blades or other sharp instruments that might scratch the surface.

## Filter Maintenance

The removable filter cartridge is located in the filter canister beneath the strainer basket. The filter should be inspected at least **monthly during normal use**, and more often during heavy use.

**Keep the filter clean! A clogged filter decreases both performance and water quality.**

**To clean the filter, simply follow these steps:**  
(Note: It is not necessary to drain the spa.)

1. Turn the pump off.
2. Remove skimmer lid.
3. Remove strainer basket.
4. Remove filter cartridge from the filter canister by grasping the top and lifting upwards.
5. Soak filter in filter cleaner/degreaser and hose out filter cartridge, unless replacing with new cartridge.
6. Place filter cartridge back into filter canister. When the spa is empty, the Weir door will block the filter canister. You must hold it out of the way when reinstalling the cartridge. When the tub is full of water the door will float so you will have easy access for installing the filter cartridge.
7. Replace strainer basket and skimmer lid.
8. Turn the pump ON.

**Note:** During normal filter maintenance, it will be necessary to occasionally remove oils that coat the filter reducing filter flow. To remove these oils, soak the cartridge in a plastic pail containing a commercial filter cleaning solution (available from your Coleman Spas dealer or most pool supply stores). Follow the manufacturer's instructions for use.

We suggest that you replace your filter cartridge yearly to maintain optimum performance. Filter maintenance depends on usage. Coleman recommends the filter be cleaned once every 90 days at a minimum, more often after heavy use or if water becomes cloudy.

## Draining Spa

Always turn power off to your spa before draining. Immediately after turning the spa back on, lower the temperature setting so the heater will not come on. Keep the heater disabled until you have full

flow coming out your jets for several minutes.

The water level in the spa must be kept at its normal level water line mark. **Note:** Evaporation and splashing will cause the water level to drop.

High concentrations of impurities caused by water evaporation, body oils, perfumes, and other contaminants may accumulate in the spa and cannot be filtered out. Consequently, it is advisable to drain your spa and refill it with fresh water every six to eight weeks or more often, depending on the amount of use.

## Drain Access

All 600 Series spas are equipped with an external drain. The external drain is used when draining and filling your spa for normal water maintenance purposes.

The external drain is located in the lower part of the front access panel. To use this drain, simply remove the outer black cap, connect a standard garden hose to the fitting, turn the back of the valve counter-clockwise 90°, then pull out to open the valve.

**Note:** Do NOT attempt to use the pump to drain the spa.

**Note:** Close and replace caps on all drains prior to refilling the spa.

## Priming Spa

Be aware that after draining and refilling your spa you may need to discharge air in the system in order for the pump to operate again. Should you experience an air-lock, you can remove the filter and insert a garden hose into the center hole and flush water through the system.

**Warning:** Turn off electrical supply before removing cabinet panels.

## Winterizing

In cold climates where freezing temperatures occur, special care is required to prevent the possibility of damage to the spa and equipment due to freezing.

If you plan on using your spa during cold months, be sure your pump and heater are in good working order. The spa shell has been insulated to provide efficient operation in cold weather areas.

**Special Note:** If you do not intend to use your spa during the winter months and there is danger of freezing, the spa must be winterized! You must do the following:

1. Turn off all electrical power to the spa.
2. Drain the spa through all of the drain hoses. Open all unions, and remove drain plugs from bottom of pumps. The drain hoses will not drain off all of the water. You may use a wet-vac to remove the remaining water from the spa. R.V. antifreeze should be added to any remaining water in the spa through the bottom of the skimmer and through the jets. If antifreeze is used, it must be an inhibitor Propylene Glycol such as Dow Frost available through Dow Chemical Distributors.
3. Be sure to drain **all** drain hoses.
4. The filter should be drained, and the cartridge removed and cleaned.
5. Check to see that there is no water in the heater element chamber and plumbing lines. (Loosen unions, pump unions, and drain plug on pump.)
6. Clean your spa as per previous maintenance instructions.
7. Cover your spa with a waterproof, water-shedding, impenetrable cover, such as a tarp.
8. For further information on blowing out the plumbing lines and winterizing procedures, contact your local dealer.
9. If your spa is equipped with the pH sensor option, this sensor must be kept wet at all times. During winterization, remove sensor and reinstall original cap on sensor. The cap should be filled with water.

**Note:** If you elect not to drain your spa and the temperature is going to be below freezing for extended periods of time, especially 0° F(-19.4°C) and sub zero, it is best to operate the spa heater at high temperature (95°-104°F) (35°-40°C). If the tub is not going to be used and kept in the 100°F

(37.7°C) range, you may have problems if your power goes out. It is wise during these bad weather periods to set the thermostat higher. This will keep the spa water from freezing quickly if you have a power failure.

## Light Bulbs

The Spa light bulb is serviceable from outside the spa. You must remove the panel and insulation closest to the light. Once the panel is removed, look for the bulb holding bracket and pull bracket towards you to change the bulb.

# Problem Solving Guide

Problem	Usual Cause	Solution
1. System not operating.	A. House circuit breaker tripped or if OFF position.	A. Reset circuit breaker on home breaker panel.
2. Heater not functioning.	A. Water level too low. B. Heater mode not selected. C. No power to heater. D. Thermostat set lower than water. E. Heater not operating. F. Flow switch malfunction.	A. Refer to temperature and heater control instructions on page 11. B. Check house circuit breaker. C. Set to desired temperature. D. Set to desired temperature. E. Contact dealer. F. Contact dealer.
3. Water not clean.	A. Clogged or blocked floor suction or skimmer. B. Filter clogged (dirty). C. Poor water chemistry. D. Insufficient filtering time. E. Improper maintenance. F. High content of solids in water.	A. Clean floor suction/skimmer. B. Clean or replace. C. See "Chemical Treatment" section. D. Run filtration mode longer. Contact dealer. E. See maintenance section. F. Use clarifier or drain and refill spa.
4. Abnormal water usage.	A. Excessive evaporation and/or splashing.	A. Use spa cover.
5. Overheating.	A. High ambient temperature B. Direct sunlight, high outdoor temps	A. See page 8, Indoor Installation. B. Move spa into shade, wait for cooler weather
6. Low water flow from jets.	A. Operating in FILTER mode-low speed. B. Clogged or blocked suction or skimmer. C. Dirty filter. D. Jets in off position. E. Slice valves closed. F. Diverta Valve in other position	A. Select hi-speed jets. B. Clean floor suction/skimmer. C. Clean or replace. D. Open adjustable jets. E. Open slice valves F. Rotate Diverta Valve to select appropriate jets.

# Problem Solving Guide

<b>Problem</b>	<b>Usual Cause</b>	<b>Solution</b>
7. No water flow from jets.	A. Pump not primed.	A. See priming section page 23.
	B. House circuit breaker tripped, no power to system.	B. Reset circuit breaker at home panel.
	C. Faulty pump or motor.	C. Contact dealer.
	D. Pump surges.	D. Low water. Check level on Weir door.
	E. Jets in off position.	E. Open jets.
	F. Slice valves closed.	F. Open slice valves.
8. Noisy pump and motor.	A. Clogged floor suction or skimmer.	A. Clean floor suction/skimmer.
	B. Low water level.	B. Add water to water level on weir door.
	C. Damaged or worn motor bearings.	C. Contact dealer.
9. Water leakage from under spa.	A. Check unions and drain hoses.	A. Tighten unions or drain caps
10. No air flow from jets.	A. Air control not open.	A. Open control.
	B. Jet nozzle not sealed properly.	B. Check jet nozzles.
	C. Jet nozzle missing.	C. Inspect jets.
11. Motor will not operate.	A. House circuit breaker tripped or in OFF position.	A. Reset circuit breaker
	B. Improper or defective wiring or electrical supply.	B. Contact dealer.
	C. Thermal Overload Protection switch tripped.	C. Auto reset after motor has cooled. Contact dealer if motor continues to cycle.
12. The spa will not shut off	A. Spa trying to heat	A. Check set temperature in Standard mode
	B. 600 Series overlapping filter cycles.	B. Reset filter times.
	C. Spa is in filter cycle	C. Normal. No need to change.
	D. Freeze Protection	D. Wait for spa to heat to normal temperature

# Spa Soaking Guidelines

1. Persons with heart disease, diabetes, high or low blood pressure or any serious illness, and pregnant women should not enter a spa without prior consultation with their doctor.
2. People with skin, ear, genital or other body infections, open sores or wounds should not use the spa because of the possibility of spreading infection.
3. Before entering, look at the water in your spa. If there is cloudiness or foaming, or if a strong chlorine smell is present, the water needs treatment. Soaking in such water greatly increases your chances of getting a skin rash (pseudomonas). Be sure to maintain the water properly. Ask your Authorized Coleman Spas Dealer for guidance.
4. Shower with soap and water before and after using the spa. Showering before use washes away many of the common skin bacteria, and removes lotions, deodorants, creams, etc. Perspiration and lotions will reduce the effectiveness of the sanitizer and lessen the ability of the filter to work efficiently.
5. Enter the spa slowly and cautiously. Be careful of your footing, and allow your body to gradually get used to the water temperature. Leave slowly as well, because your leg muscles may be sufficiently relaxed to make you a bit unsteady, and you may become lightheaded.
6. Soaking for too long makes some people nauseous, dizzy, lightheaded or faint. **Don't soak in 104°F (40°C) water for an extended period of time.** If you wish to soak for a longer period of time in high temperatures, leave the spa after 15 minutes, shower, cool down and then return for another brief stay. In lower temperatures (e.g. 98.6°F (37°C)—normal body temperature) most people can comfortably and safely soak for longer periods at one sitting. If you have any questions about what's right for you and your family, consult with your doctor.
7. Be sure you check the water temperature before and while in the spa.
8. Never use the spa while under the influence of alcohol.
9. With any drug or medication, consult with your doctor about potential harmful effects from combined use of the drug and hot water soaking.
10. Never use the spa when you are alone, for safety's sake.
11. Never allow children to use the spa unsupervised.

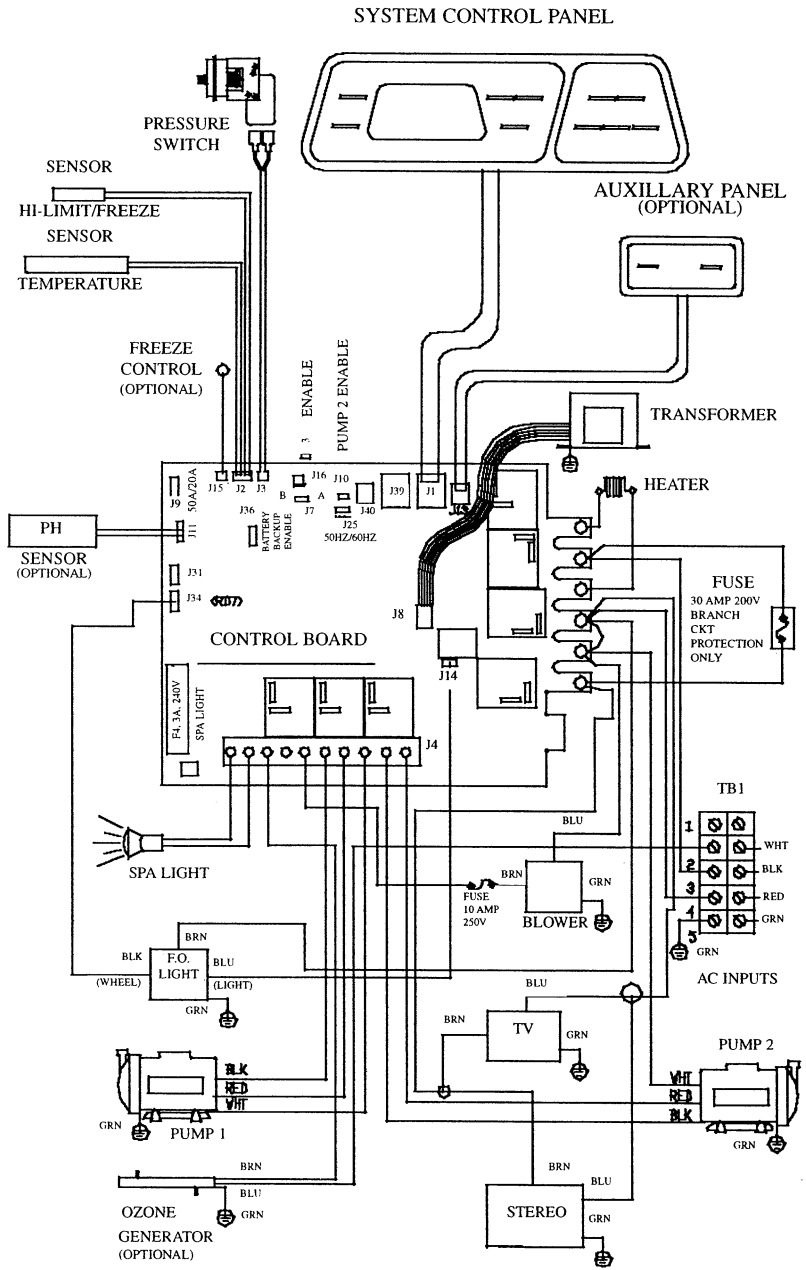
## Technical Specifications

Structural Features	Model 605FX	Model 607FX	Model 608FX
Western Red Select Cabinet	Horizontal & Vertical	Horizontal & Vertical	Horizontal & Vertical
Dimensions (allow 1/4" variance)	88" x 88" x 35" *	91-1/4" x 95-1/2" x 38"	95" x 95-1/2" x 38"
Seating Capacity	5	6	7
Usable Gallons	375 *	425 *	465 *
Weight in lbs(empty/full)	750/3750 *	1050/4450 *	1125/4850 *
Electrical Requirements	240V, 40A/60A	240V,40A/60A	240V,40A/60A

\* Estimate at time of printing.

# 600 Series System Wiring Diagram

## 600 SYSTEM WIRING DIAGRAM



READILY ACCESSIBLE  
DISCONNECTING MEANS SHALL BE  
PROVIDED DURING INSTALLATION





## Safety Sign

The safety sign enclosed with your Owner's Manual should be permanently installed where visible to the users of the spa.

The sign is adhesive backed and there are also four screws supplied for mounting on rough surfaces.

It is very important that you, as a spa owner, review the important safety instructions before you operate your spa. It is equally important that you instruct all users, even occasional ones, as to the warnings associated with spa use.

You may obtain additional signs or replacement ones by contacting:

MAAX SPAS ARIZONA  
Customer Care  
25605 South Arizona Avenue  
Chandler, Arizona 85248

### **Limited Warranty Summary**

Please see the Warranty Card included with your product for complete warranty information.

Please note that in order to perform prompt warranty service it is extremely important that you return your warranty card complete with model and serial number to MAAX Spas (Arizona), Inc. immediately upon installation.

MAAX Spas (Arizona), Inc. provides a limited warranty to our customers. It applies to the spa structure, surface, most plumbing, the pump, heater, blower, and controls.

The warranty has limitations. These include improper maintenance, improper installation, misuse, abuse, accident, fire, normal wear and tear or improper water maintenance. Unauthorized modifications of the spa may void the warranty. Replacement costs associated with transportation, removal, and reinstallation are the sole responsibility of the spa owner.

This manual refers to only year 2001 model spas. MAAX Spas (Arizona), Inc. reserves the right to make changes in design or material of its products at any time without incurring liability. This limited warranty applies to the first retail purchaser and terminates upon any transfer of ownership.



By MAAX

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