

RVA JACKS

Automatic JII Leveling System Operating Instructions

**IMPORTANT: ALWAYS VISUALLY CHECK TO ENSURE JACKS
UP BEFORE MOVING OR DRIVING THE COACH**

SYSTEM OVERVIEW

Your jack system is microprocessor operated with features built-in to handle many different leveling problems. The system consists of the jacks with mounting brackets, a control console, wiring harness, motor pump, level module, dash mounted controls (on some models), bong (warning) alarm, and a valve complex with manual retract provisions.

AUTOMATIC LEVELING

1. Motor home should be in parking gear during operation of the leveling system. Ignition key should be in ignition position, although some coaches were configured from the factory to operate with the key in the accessory position.
2. Turn on the switch labeled "POWER" on the control console. One of the red lights located on or under the dash will also go on when the "POWER" switch is activated. All lights on the control console should flash on for at least $\frac{1}{4}$ of a second (except the "WARNING JACKS DOWN" light).

The initial powering on of the control console performs a self-diagnostics test. If either of the green lights is on, the system will remain inoperative, indicating a short in the system or a malfunctioning control console.

If powering on produces no lights, check for burnt fuses. A fuse for the control console is located at the lower end of the box at the bottom. To gain access to this fuse, remove the one inch perforated plastic cap. The fuse is located on the printed circuit board inside this opening. Remove the fuse with a small screwdriver and replace with an AGA 15 fuse, NO LARGER. Another fuse or circuit breaker is also located under the dash. See wiring diagram.

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Once the system is powered on, one or two yellow lights may be illuminated. Whichever yellow light or lights are on, indicate that particular jack or jacks need to be lowered in order to obtain a level condition. If no yellow lights are on after initial power up, your coach is level.

3. Press rocker switch labeled “AUTOMATIC LEVELING” and release. The top green light will start blinking and after a ½ second delay the motor pump will come on and all the jacks will start extending downward. The system will attempt to do a complete level in one operation. The coach is level when all yellow lights go out and the top green light stops blinking and goes out. If leveling is not accomplished on the first all jacks plant down phase, the system will attempt to level four more times at seven second intervals.

Note: If the battery is weak and is wired to power both the automatic leveling system motor pump and the control console, during the automatic leveling phase either green light may stay on and the system will become inoperative. If this occurs, cycle the main “POWER” switch off and on and attempt “AUTOMATIC LEVELING” again. If the above re-occurs, check the battery voltage. It should not drop below 9 volts during automatic operation. If the battery is good and the system continues to be inoperative, one of the following things can be done:

- a) Install larger capacity battery
- b) Install heavier gauge battery cable to the motor pump
- c) Power the control console from a separate battery from the one used for the motor pump. Motor pumps can operate down to 6 volts. The control console is designed become inoperative at approximately 8 volts.

4. As the jacks extend downward the “WARNING JACKS DOWN” red light and the other dash mounted red light will start blinking and a bong alarm will begin sounding. This alarm will also come on if the control console is off but the jacks are down when the ignition key is turned on.

5. During automatic leveling phase, if both green lights start flashing alternately, this is an indication that you have either reached maximum physical extension on one or more of the jacks or have reached maximum pressure for automatic operation. After the automatic leveling phase has ceased, if one or more of the yellow lights are on, press the manual extend switch for the appropriate jack. This action by-passes the automatic pressure switch limit and allows an increased pressure to be applied to the jack. If the yellow light is still on, a block could be placed under one of the jack pads to get additional height or find another place to attempt leveling. If a block is placed under a jack, only one jack should be blocked at any time. If blocking the jack pad of one of the rear jacks is necessary and the coach is on a slope, the opposite set of rear

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wheels must first be blocked to prevent rolling. If anyone is going to change a tire or go under the motor home, the chassis frame **must first** be supported with appropriately rated jack stands.

***DO NOT ATTEMPT TO CHANGE TIRES OR GO UNDER THE MOTORHOME WITH RVA JACKS EXTENDED**

6. The motor home will be level when the top green light stops blinking and all the yellow lights are out. If desired the “ALL JACKS RETRACT” or “MANUAL” mode can be done instantly at any time during any operation. However, this will override and cancel the automatic operation. To re-initiate the automatic operation, press the automatic switch.

7. When leveling is complete, turn off switch labeled “POWER” on the control console. Turn off the ignition key.

ALL JACKS RETRACT **(AUTOMATIC RETRACT)**

1. Turn on switch labeled “POWER” on the control console.
2. Press rocker switch labeled “ALL JACKS RETRACT” and release. The bottom green light will start blinking and all jacks will start retracting. This operation has a four minute timer after which the bottom green light will stop blinking and go out.

NOTE: On coaches prior to 2000, the “ALL JACKS RETRACT” switch has a built in redundancy feature that allows you to retract the jacks when the “POWER” switch is off. If there is power to the control console (ignition key is on and all fuses related to the automatic are good), simply press and hold the “ALL JACKS RETRACT” switch and the jacks will retract as long as you hold the switch down. This feature can be used if the control console malfunctions after the jacks are extended. In the event that all power is disabled, not available, or the control console is not powered, the jacks, can still be retracted with your manual retract T-valves on the valve complex located somewhere outside your motor home. Contact your dealer, installer, or manufacturer for its location. As you face the valve complex you will see three T-valve handles. The valve located furthest from the reservoir corresponds to the left rear jack, the valve in the

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center corresponds to the front jack, and the T-valve on the right corresponds to the right rear jack. When the T-valves are opened (counterclockwise) the fluid flows back to the motor pump reservoir and the appropriate jack will retract. When these valves are used, remember to close the T-valves after use, otherwise neither the automatic nor the manual system will operate properly.

3. Turn off switch labeled "POWER" on your control console. Turn off the ignition key.

MANUAL OPERATION

OF

LEVELING SYSTEM

1. Turn on switch labeled "POWER" on the control console.
2. Each of the yellow light and switch combinations corresponds to each jack as positioned on the motor home and is labeled as such. If a particular jack is to be extended, simply push the rocker switch on the extend side and hold until desired extension is reached. If a jack needs to be retracted, push the rocker switch on the retract side and hold until desired position is reached. When the corresponding yellow light for a jack is off, that particular jack is at the level position.
3. When leveling is complete turn off switch labeled "POWER" on the control console. Turn off the ignition key.

IMPORTANT NOTES

1. The leveling system is equipped with a warning device to indicate the position of your jacks. The pulsating red light and bong alarm will come on when any jack is extended to more than 5" to 6" from full retracted position. This device will also indicate low fluid level. SEE Note #3 for filling instructions.

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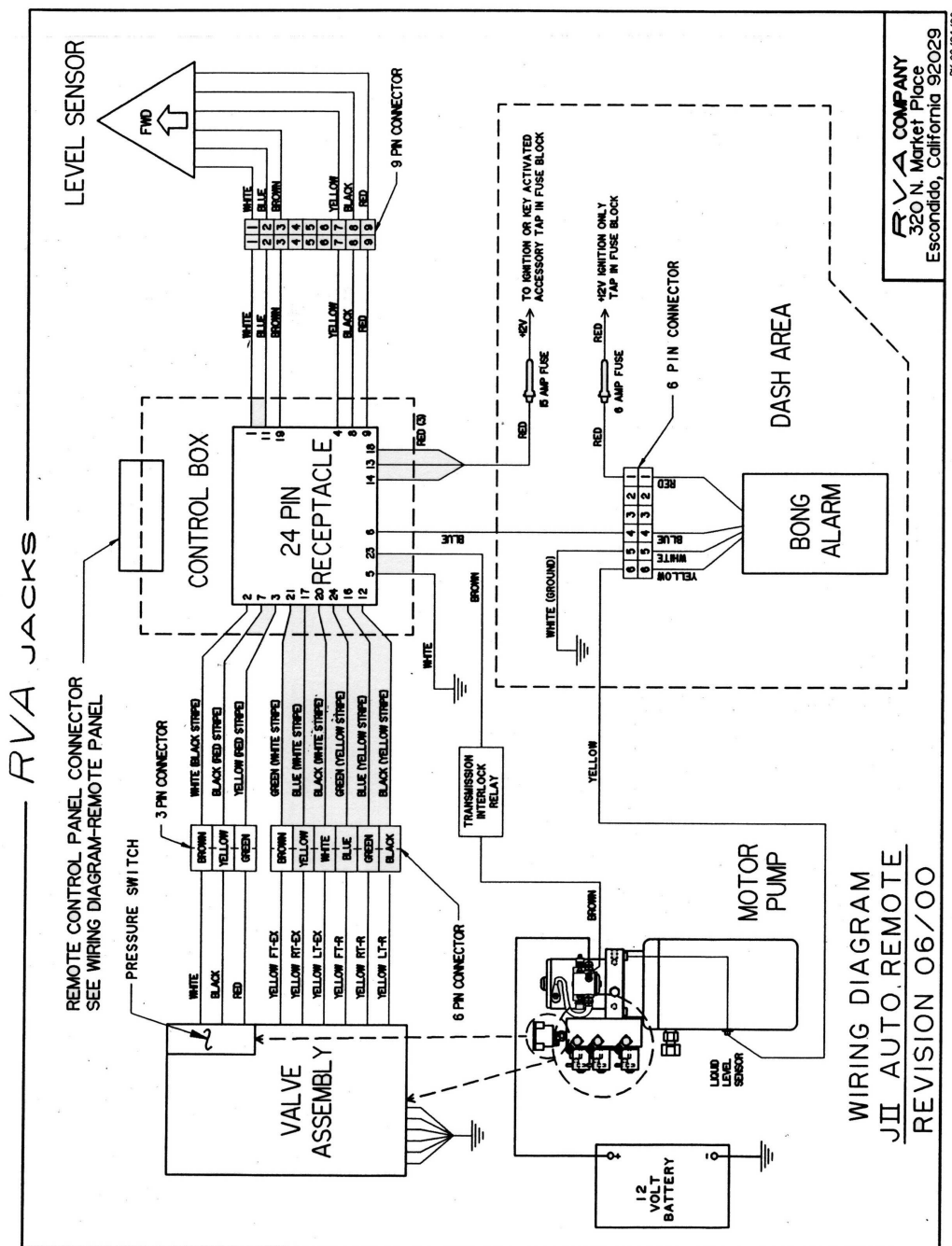
2. Learn the sounds of a normal pump as jacks extend, the relief valve as jacks extend fully, and the gurgling sound of the pump when the unit is low on fluid. If necessary to add fluid, use regular Automatic Transmission Fluid (Dexron III).
3. If it is necessary to fill with additional fluid, start by extending any jack 6" from fully retracted position (other jacks should be fully retracted). Unscrew reservoir cap from the top of the pump, fill with fluid until red light and bong turn off, then stop adding fluid and replace the cap.
4. Do not attempt to level on an extremely un-leveled surface. This can cause damage to jacks.
5. When jacks are fully extended, occasionally wipe dirt from the jack ram/rod. This will help lengthen life of jack. WD-40 will serve as a solvent as well as a lubricant.
6. Some assembly lubrication, both oil and grease on the extended jack ram is normal, and aids in lubrication of the ram. The presence of assembly lube on the extended jack ram does not indicate a leak.
7. If a component of the hydraulic system has been removed and replaced (such as a jack, pump, valve assembly, etc.) air will probably have been introduced into the system. In order for the system to work properly, each jack must be fully extended and retracted at least twice to remove all air (self-bleeding operation). Additional air can also be trapped in the manual emergency release T-valves located on the valve manifold. With the jacks fully extended, open the manual emergency release valves to bleed out the trapped air. This will retract the jacks at the same time; close the handles. After the bleeding operation, the liquid level might need to be reset. See note #3.
8. A majority of the fittings in the hydraulic system are pipe threads. At the factory all male pipe threads are wrapped with at least three turns of Teflon tape, except for the first thread at the tip of the fitting. A small amount of grease is applied to the un-tefloned tip of the fitting and to the mating female thread. The above procedure insures proper sealing and prevention of Teflon tape entering into the hydraulic system. If a fitting is removed, residual Teflon tape must be removed from both the male and mating female threads, if they are to be reassembled. A maximum practical amount of filtration has been incorporated into the system to prevent dirt from contaminating the operation and sealing of the valves. When assembling components, special attention is required to maintain cleanliness.

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9. If a block is placed under a jack, only one jack should be blocked at any one time. **Do not** block more than one jack at a time. If blocking the jack pad of one of the rear jacks is necessary and the coach is on a slope, the opposite set of rear tires must be first blocked to prevent rolling. If anyone is going to change a tire or go under the motor home, the chassis frame must first be supported with appropriately rated jack stands.
10. If the Control console (computer) is to be removed or replaced, all 12V power to the console should be disconnected. The console power switch should also be in the “OFF” position. Connecting and disconnecting the console while the 12V power source is connected (“hot plugging/socketing”) will very likely cause damage to the microprocessor and other sensitive electrical components in your control console box.

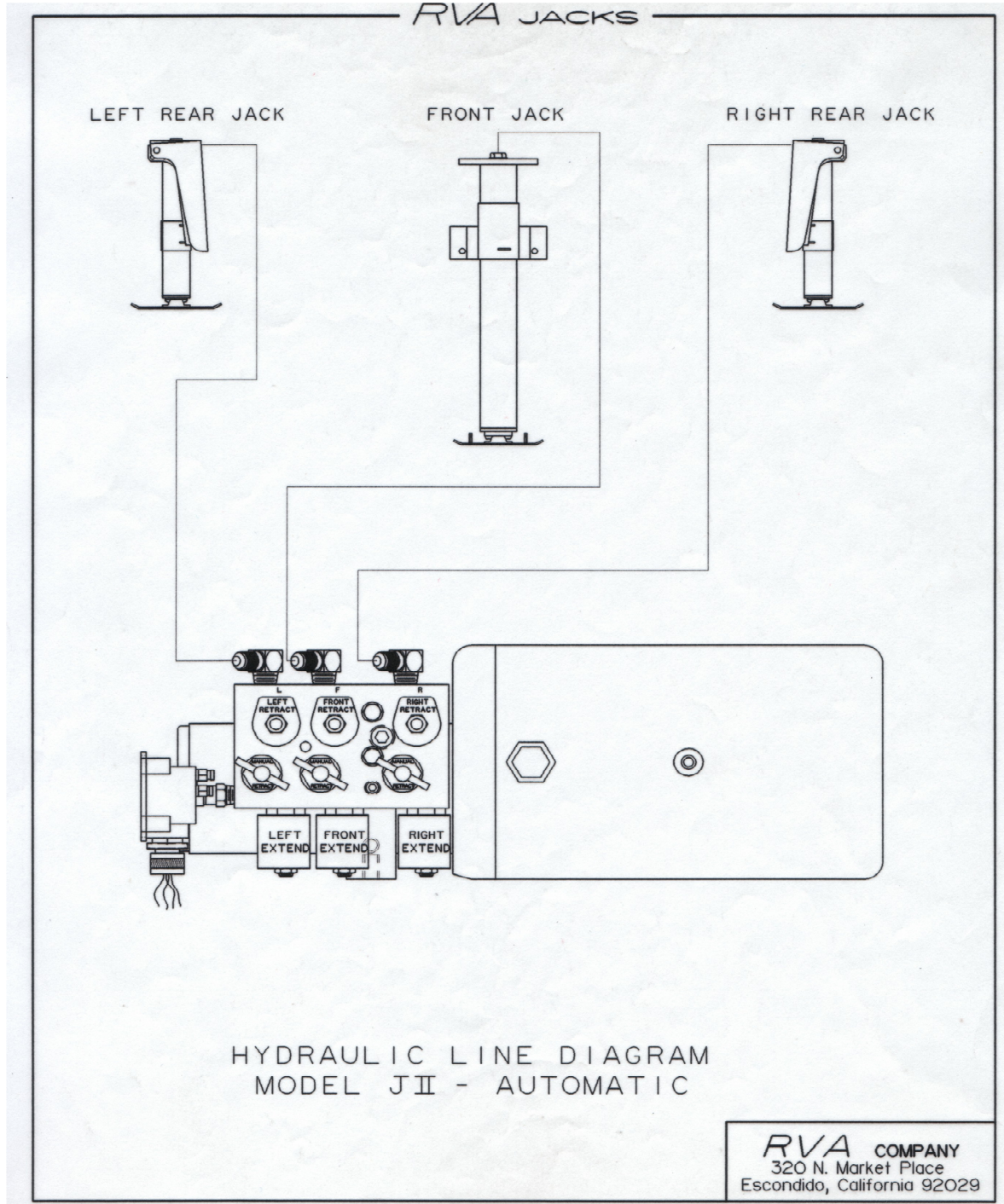
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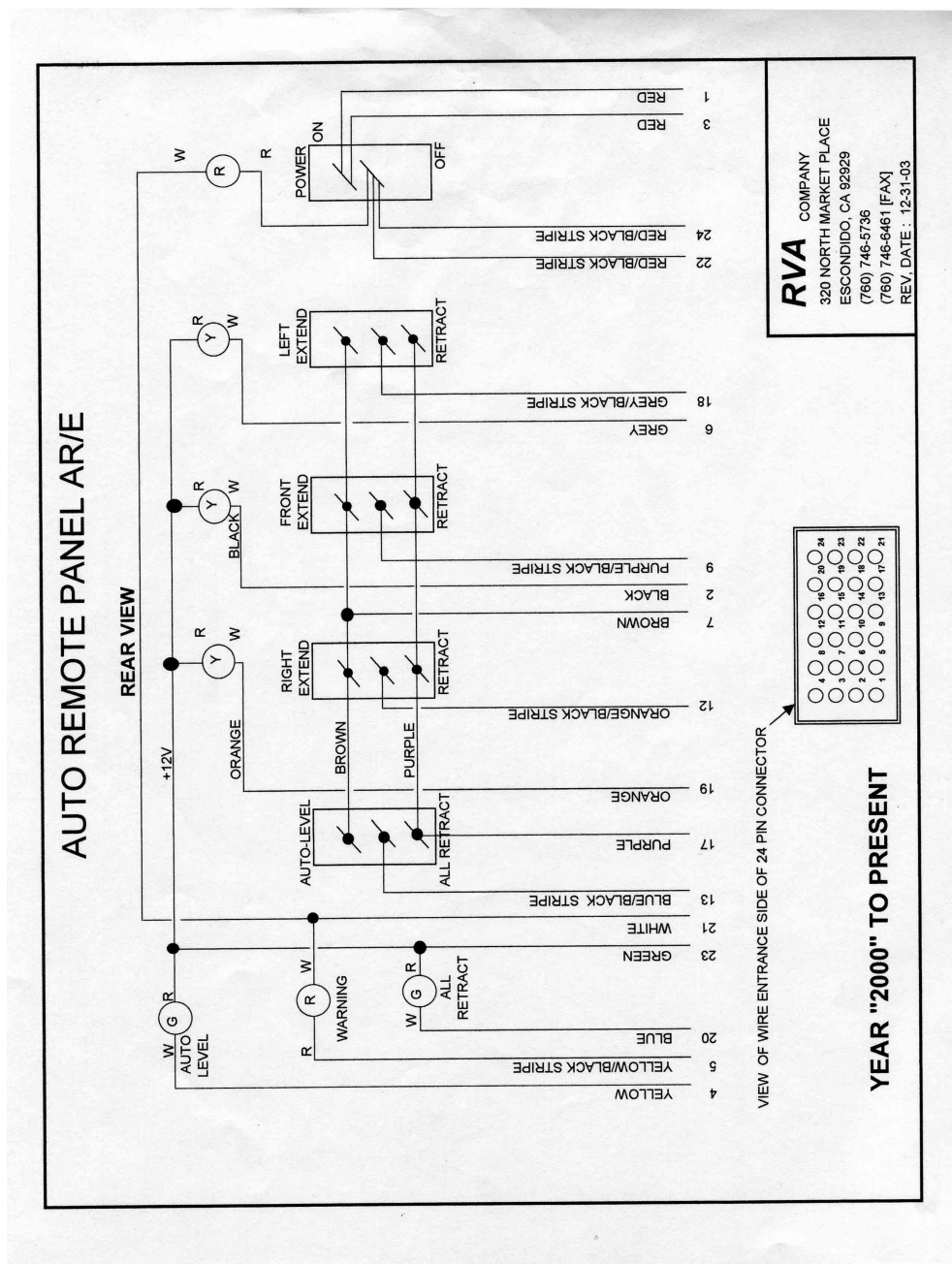
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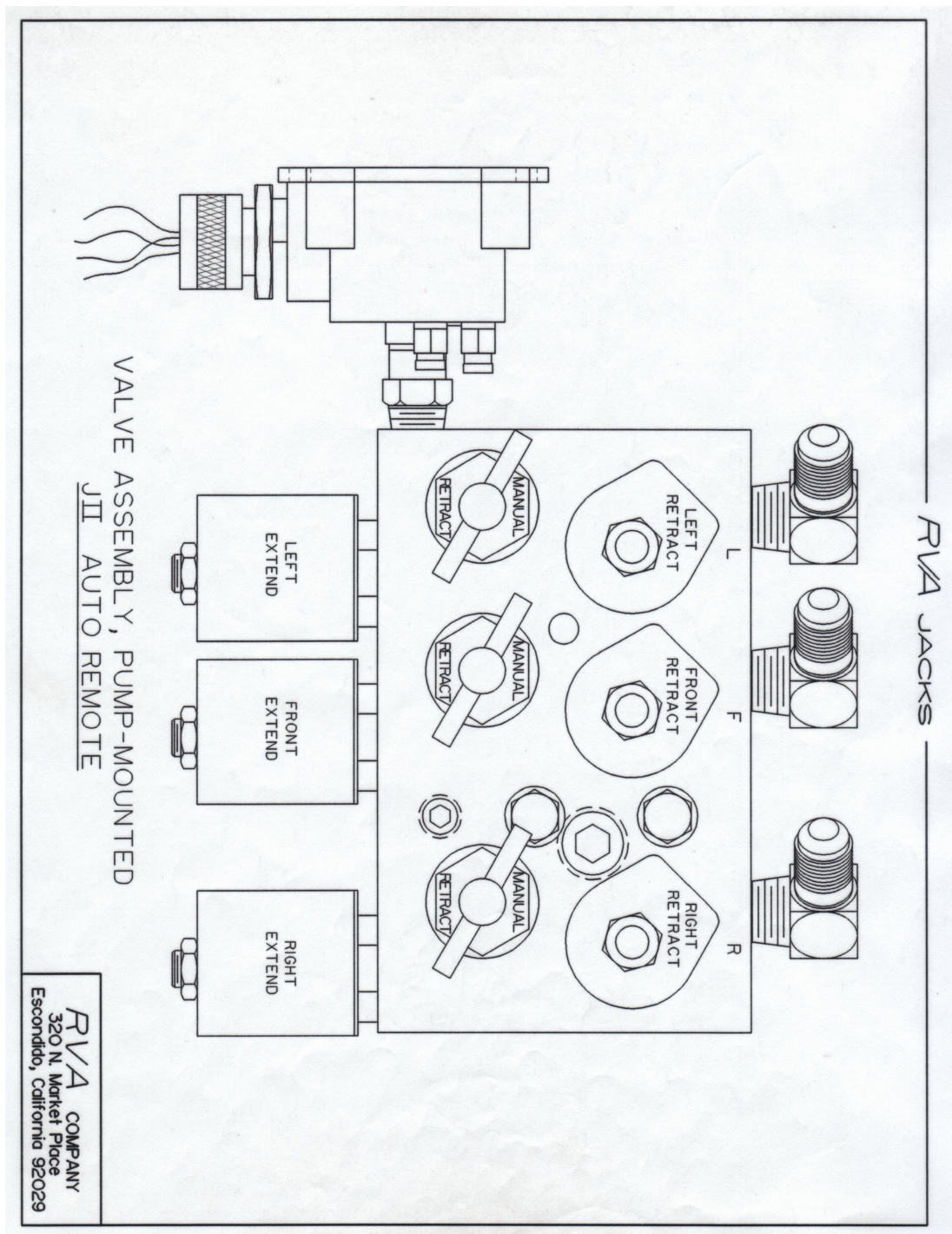
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