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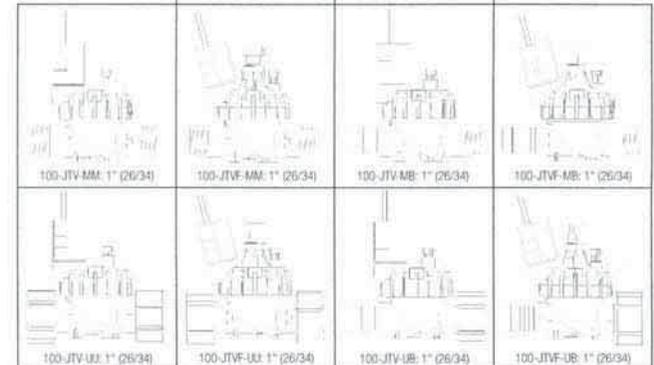
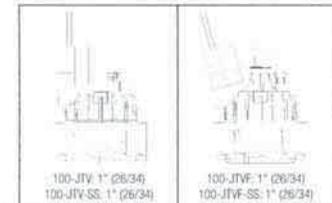
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RAIN BIRD

JTV & JTVF VALVES

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Before Installation

1. Make sure you have sufficient water supply, pressure, and flow. Connect pipes to primary water source.
2. Install master valves, pressure regulators, and backflow preventers as needed. For system design information,

Connect Adapters to Valve

4a (Threaded non-union models only)

To make a watertight seal, wrap 1½ to 2 turns of Teflon tape around the threads on two male x slip adapters (A) or on the male threads of the valve (B; MM and MB models)

4b (Threaded union models only)

To make a watertight seal, use male threaded adapters with a smooth, flat face for the o-ring to seal against.

CAUTION: Do not use teflon tape for union valve models.

Connect Valve to Pipes

- 7 Carefully apply a small amount of solvent cement to the inside of the adapter (A, threaded connector) or valve inlet port (B, slip connector). Apply a small amount of cement to the outside of the water supply pipe. Then attach the valve to the pipe. The valve solenoid **MUST** be on the downstream side (C).

CAUTION: Use only a small amount of solvent cement. Excess cement can damage the valve internally.

Connect Valve Wires

10. Select a wire gauge that meets electrical specifications. Multi-strand, direct-burial wire is recommended. Refer to local building codes for additional requirements.

- 11 Use a watertight connector to connect one lead on each valve to a common wire (A). Either lead may be used. All valves on the same controller can share the same common wire.

Operate Valve Manually

- 12 To open the internal bleed, turn the solenoid handle (A) counterclockwise ¼ to ½ turn. Be sure to re-tighten the solenoid completely. Always use the solenoid handle, which is designed to shut the valve off completely and keep it from "weeping."

To reduce flow (JTVF models only), turn the flow control stem (B) clockwise. Use your fingers or a slot-head

refer to the *Rain Bird Irrigation Design Guide*. Refer to local building codes for additional requirements.

- 3 Flush the system thoroughly until the water from the submain runs clear.

- 5 Screw the adapters into the valve water ports and hand tighten.

- 6 Carefully tighten the adapters one to two additional turns past hand-tight.

CAUTION: Do not over-tighten the adapters. You may damage the valve or block the exit ports.

- 8 Cement the lateral pipe to the adapter (A, threaded connector) or valve outlet port (B, slip connector), as described in step 7.

- 9 To attach an MB model valve to low-density polyethylene pipe, cut the pipe square and clean. Slip one or two clamps over the poly pipe.

If necessary, carefully heat the poly pipe for easier installation. Slip the poly pipe completely over the barb (A). Then clamp (B) the pipe securely to the barb for a leak-proof seal.

Use a watertight connector to connect the second lead on each valve to a power wire (B). Each power wire must be run separately to the controller.

- 12 Connect the shared common wire (A) to the common terminal on the controller. Connect one power wire from each valve (B) to a station terminal on the controller.

screwdriver. To increase flow, turn the stem counterclockwise.

To open the external bleed, turn the bleed screw (C) counterclockwise two turns. Use the external bleed to flush the valve when you first start the system. Turn the screw clockwise to close it.

Operating Ranges

	100-JTV, 100-JTVF, 100-JTV-MM¹, 100-JTV-MM¹, 100-JTV-MB¹, 100-JTVF-MB¹, 100-JTV-SS, 100-JTVF-SS, 100-JTV-UU³, 100-JTVF-UU³, 100-JTV-UB³, 100-JTVF-UB³
Flow ²	1 to 30 GPM (0,23 to 6,82 m ³ /h; 0,06 to 1,89 l/s)
Pressure	15 - 150 psi (1,0 - 10,3 bars)

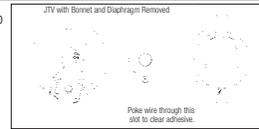
¹ JTV/JTVF male x male (MM) and male x barb (MB) are not recommended for flows exceeding 30 GPM (6,8 m³/h or 1,9 l/s).

² For flows below 3 GPM (0,75 m³/h or 0,21 l/s), or any Landscape Drip application, use RBY-100-200MX filter installed upstream.

³ JTV/JTVF union x union (UU) and union x barb (UB) are not recommended for flows exceeding 20 GPM (4,5 m³/h or 1,3 l/s).

Troubleshooting

Symptom	Solution
Valve won't shut off completely. Sprinklers "weep."	Loosen solenoid ½ turn and then tighten the solenoid completely (¼ turn beyond hand tight). Use the solenoid handle, which is specifically designed to shut the valve off completely and keep it from "weeping." Also tighten the bleed screw and bonnet. Use the external bleed screw to flush the valve. If performance does not improve, turn off water. Unscrew bonnet and remove. Remove diaphragm and clean it in clear water. Reinstall diaphragm and bonnet. If necessary, replace the diaphragm with kit number 231771.
Valve won't open.	Check water source, controller power, and flow control to make sure they are open. Turn off water. Unscrew bonnet and remove. Inspect body for debris. If filter is missing from diaphragm, replace diaphragm with kit number 231771. Turn off water. Remove solenoid and replace with a known working solenoid. If the valve still won't open, replace the solenoid.
Valve slams on / off (water hammer).	Check system water pressure. If pressure is greater than 80 psi (5,5 bars), install a pressure regulator on the line before the valve to reduce water pressure.
Connectors on Union Valve are leaking	Check to ensure the yellow o-ring inside the union connector is in place. If lost, replace with part #231771. If necessary, tighten connectors further.
Valve opens manually but not electrically	Check for blocked dump port (especially slip x slip). Remove bonnet. Remove diaphragm. Insert a probe (flag marker wire or paper clip) as shown.



NOTE: During winter shutdown, drain the system to protect JTV valves from freezing. Failure to properly drain lines may damage the valves. Be sure to comply with all local guidelines.



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