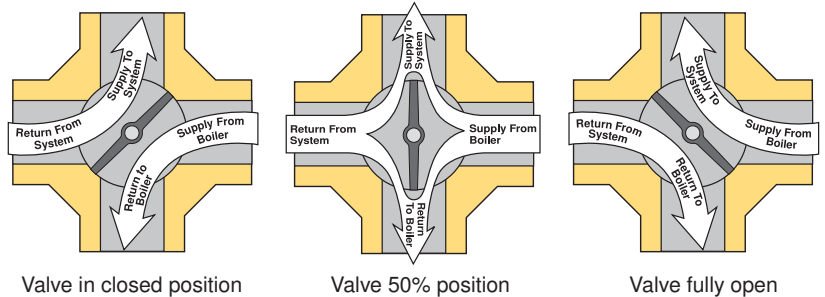




The 4-Way Brass Mixing Valve 721 is used to mix supply water from a heat source with water returning from a system. It is designed for use in either closed loop or open loop hydronic systems. It connects to pipe using standard female NPT threads. The valve provides a maximum leak through rate of 1% to allow for water expansion during temperature changes. The valve position can be manually set using the handle. An Actuating Motor 741 can be used to automatically operate the valve.

Sequence of Operation

When the flap is in the fully closed position, 100% of the boiler supply water is returned to the boiler and 100% of the heating system return water is supplied to the system. When the valve flap is in the fully open position, 100% of the boiler supply water enters the heating system and 100% of the heating system return water returns to the boiler. Mixing of the water takes place when the valve flap is in an intermediate position.



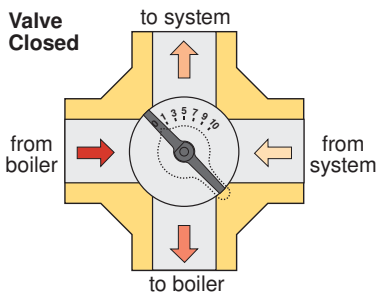
Installation

Check the contents of the package. If any of the items listed below are missing or damaged, please refer to the Limited Warranty and Product Return Procedure on the back of this brochure and contact your wholesaler or local tekmar representative.

- One Mixing Valve & One Data Brochure D721

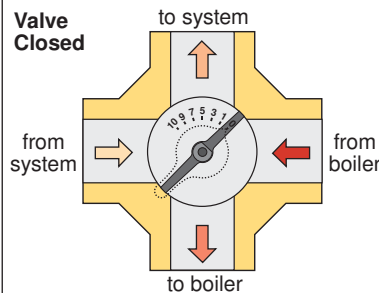
IMPORTANT: When mounting the valve, leave a minimum of 4" (10 cm) clearance between the bottom cover and surroundings. This will ensure that all valve components can be easily serviced.

Clockwise to Open



As delivered, no changes required.

Counter Clockwise to Open



Remove the "C" clip from the shaft. Turn over the indicator plate in order to reverse the scale. Re-install the indicator plate, "C" clip and handle. (components shown below)

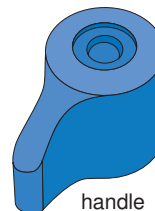
Replacement Parts

The Mixing Valve Handle Kit M3047 contains a replacement manual valve handle, a brass screw, a "C" clip, and a position indicator plate.

The Replacement O-Ring kit contains a small, a medium and a large o-ring. Use M3056 kit for valves 3/4" to 1-1/4".



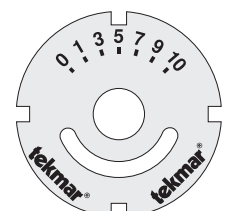
brass screw



handle



"C" clip



indicator plate

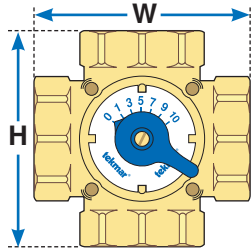
Technical Data

4-Way Mixing Valve 721 Brass

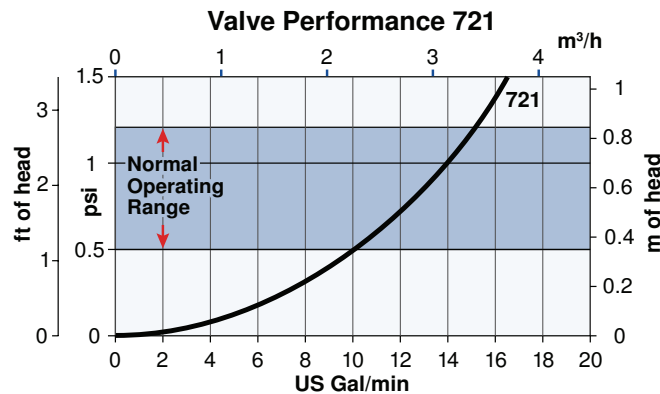
Literature	— D 721
Maximum Operating Pressure	— 146 psi (10 bar)
Operating Temperature Range	— -20 to 248°F (-28 to 120°C)
Valve Body and Vane	— CW 617N - EN 12165 Brass
Shaft Seal	— EPDM Peroxide "O" ring
Main Seal	— EPDM Peroxide "O" ring

Acceptable Fluid Media — Chilled and hot water with antifreeze (max. 60%), consisting of ethylene glycol, propylene glycol, methanol, ethanol, isopropanol, and anticorrosive compounds.

Not for use with fluids that contain mineral oil or chlorinated pool water.



Type	Pipe Size	CV Value	Dimension H	Dimension W	Packaged Weight
721	1"	14	3" (76 mm)	3" (76 mm)	1.8 lbs (800 g)



Limited Warranty and Product Return Procedure

Limited Warranty *The liability of tekmar under this warranty is limited. The Purchaser, by taking receipt of any tekmar product ("Product"), acknowledges the terms of the Limited Warranty in effect at the time of such Product sale and acknowledges that it has read and understands same.*

The tekmar Limited Warranty to the Purchaser on the Products sold hereunder is a manufacturer's pass-through warranty which the Purchaser is authorized to pass through to its customers. Under the Limited Warranty, each tekmar Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with tekmar's instructions, ordinary wear and tear excepted. The pass-through warranty period is for a period of twenty-four (24) months from the production date if the Product is not installed during that period, or twelve (12) months from the documented date of installation if installed within twenty-four (24) months from the production date.

The liability of tekmar under the Limited Warranty shall be limited to, at tekmar's sole discretion: the cost of parts and labor provided by tekmar to repair defects in materials and/or workmanship of the defective product; or to the exchange of the defective product for a warranty replacement product; or to the granting of credit limited to the original cost of the defective product, and such repair, exchange or credit shall be the sole remedy available from tekmar, and, without limiting the foregoing in any way, tekmar is not responsible, in contract, tort or strict product liability, for any other losses, costs, expenses, inconveniences, or damages, whether direct, indirect, special, secondary, incidental or consequential, arising from ownership or use of the product, or from defects in workmanship or materials, including any liability for fundamental breach of contract.

The pass-through Limited Warranty applies only to those defective Products returned to tekmar during the warranty period. This Limited Warranty does not cover the cost of the parts or labor to remove or transport the defective Product, or to reinstall the repaired or replacement Product, all such costs and expenses being subject to Purchaser's agreement and warranty with its customers.

Any representations or warranties about the Products made by Purchaser to its customers which are different from or in excess of the tekmar Limited Warranty are

the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold tekmar harmless from and against any and all claims, liabilities and damages of any kind or nature which arise out of or are related to any such representations or warranties by Purchaser to its customers.

The pass-through Limited Warranty does not apply if the returned Product has been damaged by negligence by persons other than tekmar, accident, fire, Act of God, abuse or misuse; or has been damaged by modifications, alterations or attachments made subsequent to purchase which have not been authorized by tekmar; or if the Product was not installed in compliance with tekmar's instructions and/or the local codes and ordinances; or if due to defective installation of the Product; or if the Product was not used in compliance with tekmar's instructions.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH THE GOVERNING LAW ALLOWS PARTIES TO CONTRACTUALLY EXCLUDE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DURABILITY OR DESCRIPTION OF THE PRODUCT, ITS NON-INFRINGEMENT OF ANY RELEVANT PATENTS OR TRADEMARKS, AND ITS COMPLIANCE WITH OR NON-VIOLATION OF ANY APPLICABLE ENVIRONMENTAL, HEALTH OR SAFETY LEGISLATION; THE TERM OF ANY OTHER WARRANTY NOT HEREBY CONTRACTUALLY EXCLUDED IS LIMITED SUCH THAT IT SHALL NOT EXTEND BEYOND TWENTY-FOUR (24) MONTHS FROM THE PRODUCTION DATE, TO THE EXTENT THAT SUCH LIMITATION IS ALLOWED BY THE GOVERNING LAW.

Product Warranty Return Procedure All Products that are believed to have defects in workmanship or materials must be returned, together with a written description of the defect, to the tekmar Representative assigned to the territory in which such Product is located. If tekmar receives an inquiry from someone other than a tekmar Representative, including an inquiry from Purchaser (if not a tekmar Representative) or Purchaser's customers, regarding a potential warranty claim, tekmar's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.

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