

Technical Service Bulletin:

TXV Replacement & Adjustment

Models: Bosch IDS BVA1.0



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Please read this entire document prior to proceeding with any work.



WARNING:

- ▶ This bulletin is intended to provide technical guidance to a professional who is licensed and qualified to work on heat pump products, components, and refrigerant. If you are not qualified to work on such equipment, please obtain the services of such a professional.



This outdoor unit should be matched with indoor unit that has TXV or EXV for cooling. The TXV replacement options noted in this sheet supersede those in the installation guide. Please reference this sheet for all refrigerant metering options.

For Models BVA-24WN1-M18, BVA-36WN1-M18, BVA-48WN1-M18 or BVA-60WN1-M18 with original copper evaporator coil.

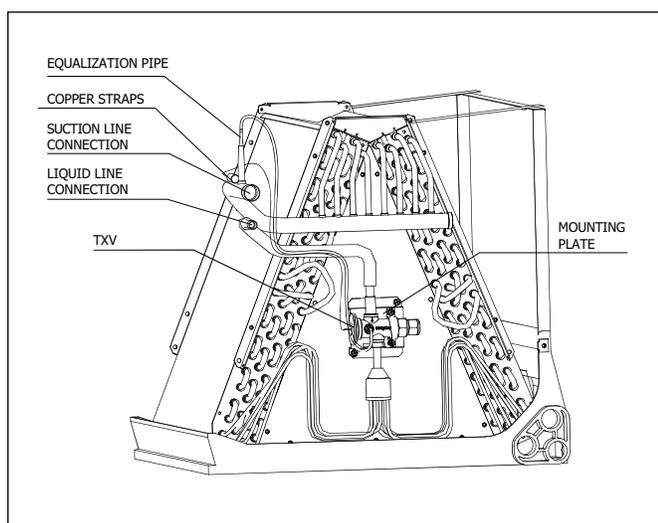


Figure 1 TXV Location and Connections

TXV Replacement Procedure

1. Remove the screws and front coil panel.
2. Remove the rubber plugs from the liquid and vapor lines.
3. Unwrap copper strap on sensing bulb and dismount the sensing bulb.
4. Take off TXV mounting clip ring.
5. Sweat and take off two pipes from TXV. Be extra careful not to overheat the pipes as damage could be caused!

NOTICE:

- ▶ Be extra careful not to overheat the pipes as damage may occur!

6. Connect and braze two pipes to new TXV. Be sure the direction of arrow on TXV towards distributor. The TXV must be mounted in the CORRECT direction of flow. Place the TXV equalizer line 3 to 4 mm inside the small hole on the vapor line.
7. Wrap the new TXV with a wet rag to prevent overheating while brazing. Use a nitrogen flow and braze all connections. The sensing bulb should only be mounted after all brazing has taken place, this is to prevent it from being damaged by heat.
8. Allow tubing to cool and pressurize line sets with 150 PSI of nitrogen to check braze connections for leaks. Make repairs as needed.
9. Use the supplied copper straps to secure the TXV sensing bulb on top of the vapor line.
10. Use clip ring to hold TXV on mounting plate.
11. Insulate the entire vapor line and sensing bulb. It is also recommended to insulate the TXV and liquid line between the valve and coil to prevent condensation in hot humid environments.
12. Replace the front coil panel and secure in place.
13. Follow the steps in the installation manual for vacuum requirements and system start up procedures.
14. Allow system to run for a minimum of 20 minutes in cooling mode.

TXV Adjustment Procedure

1. Allow system to run for a minimum of 20 minutes in cooling mode.
2. **For TXV installation:**
 - a. Adjust the expansion valve to achieve 12 degrees of superheat.
3. **When TXV adjustment is required:**
 - a. First, take off the nut at the bottom of TXV, then turn the adjustment rod (see Fig.2 below) to adjust:
 - ▶ when superheat is below 12F, turn clockwise (View from bottom).
 - ▶ when superheat is higher than 18F, turn counter-clockwise (View from bottom).



If you have any questions regarding the information provided in this document, please contact the Bosch Technical Support Department by phone at 1-800-283-3787, or via email at ac.techsupport@us.bosch.com

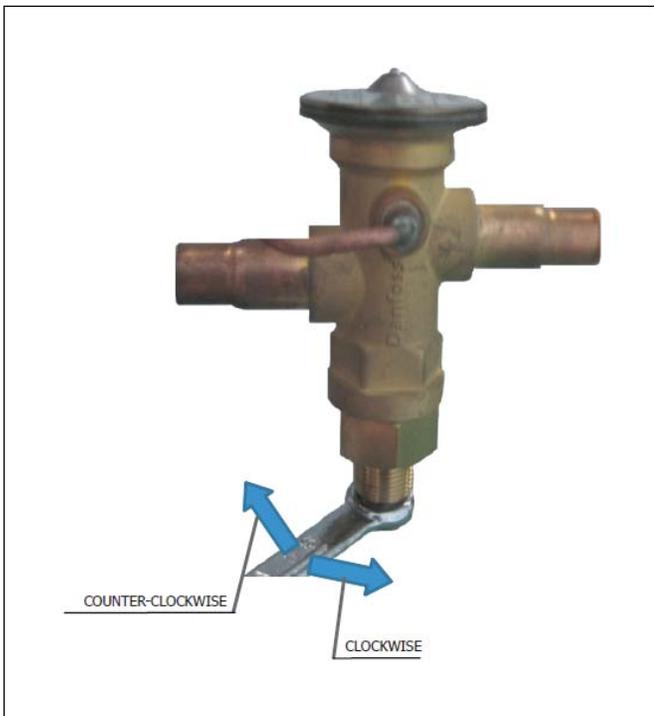


Figure 2 TXV Adjustment Rod

4. Allow system to run for an additional 10 minutes to verify the subcooling and superheat readings.



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