

Enriched Work Order

Issue Description: No cold air

Model: [Trane XB13 Central Air Conditioner](#)

Work Order: WO789032

Location: Unit 301

Property: REDACTED, West Palm Beach, FL 33401

Mitigation Actions:

- Check and clean or replace air filters.
- Ensure proper airflow by checking vents.
- Reset the unit at the circuit breaker.
- Verify thermostat settings are correct.

Most Common Fix:

Refrigerant recharge (40% of similar issues for this specific asset)

- Average Cost: \$340.00
- Success Rate: 85%

Potential Diagnoses:

- Low refrigerant
- Failed Capacitor
- Faulty compressor

Manual Excerpt(s):

- Compressor: Over-temperature/pressure protection, sump heater, RECIP or SCROLL model, LR Amps 57.8-146.
- Refrigerant: Uses R-22, liquid line dryer prevents moisture and debris.
- Electrical: Min ampacity 8-33A, max fuse 15-50A, includes anti-short cycle timer.

Recommended Vendor(s):

- AC Masters - License #1239878

Fix/Replace Recommendation:

- Consider replacement due to recurring refrigerant and electrical issues, coupled with the unit's age (10+ years).

Relevant Work Orders & Previous Fixes

Work Order #	Date	Issue	Resolution	Cost
WO789028	09/05/2023	Low cooling	Refrigerant recharge	\$340.00
WO789026	07/15/2023	No cooling	Capacitor replacement	\$215.00
WO789024	05/20/2023	Reduced airflow	Air filter replacement	\$75.00
WO789022	03/10/2023	Strange noise	Fan motor lubrication	\$120.00
WO789020	01/05/2023	Thermostat malfunction	Thermostat replacement	\$180.00

Previous Fixes for Similar Issues

Fix Description	Average Cost	Frequency	Success Rate
Refrigerant recharge	\$340.00	40%	85%
Capacitor replacement	\$215.00	30%	95%
Compressor repair	\$850.00	30%	75%
Air filter replacement	\$75.00	15%	98%
Thermostat calibration	\$100.00	10%	90%

Potential Diagnosis

1. Low Refrigerant

Assessment: Refrigerant leaks are common in older units and can significantly reduce cooling efficiency.

Severity: Moderate to High; affects cooling performance and can lead to compressor damage if not addressed.

Vendor(s): AC Masters - License #1239878

Resolution Steps:

1. Perform leak detection test on refrigerant lines and components
2. Repair any identified leaks
3. Evacuate the system to remove moisture and non-condensables
4. Recharge the system with R-22 type refrigerant
5. Test system operation and cooling performance

Cost Estimate:

- Labor: \$85 - \$150 per hour (2 - 4 hours)
- Parts: \$50 - \$150 (Refrigerant), \$20 - \$100 (Misc. materials)
- Total Estimated Cost: \$340 - \$850

2. Failed Capacitor

Assessment: Capacitors are essential for starting the compressor and fan motors. They are prone to failure, especially in hot climates.

Severity: Moderate; prevents proper system startup but is relatively simple to fix.

Vendor(s): AC Masters - License #1239878

Resolution Steps:

1. Identify the failed capacitor through visual inspection and electrical testing
2. Discharge the old capacitor safely
3. Remove and replace the capacitor with one of matching specifications
4. Reconnect wires ensuring proper polarity
5. Test system operation

Cost Estimate:

- Labor: \$75 - \$120 per hour (1 - 2 hours)
- Parts: \$20 - \$50 (Capacitor)
- Total Estimated Cost: \$95 - \$290

3. Faulty Compressor

Assessment: The compressor is the heart of the AC system. Failure is serious but less common than other issues.

Severity: High; major component failure requiring extensive repair or replacement.

Vendor(s): AC Masters - License #1239878

Resolution Steps:

1. Confirm compressor failure through electrical and pressure tests
2. Recover remaining refrigerant from the system
3. Remove and replace the compressor
4. Install new filter drier and evacuate system
5. Recharge with correct refrigerant type and amount
6. Test system operation and adjust as needed

Cost Estimate:

- Labor: \$100 - \$150 per hour (4 - 6 hours)
- Parts: \$500 - \$1000 (Compressor), \$100 - \$200 (Misc. parts and refrigerant)
- Total Estimated Cost: \$1000 - \$2100

Follow-Up Questions

- Has there been any unusual noise or odor from the unit recently?
- Are certain areas of the property cooling less effectively than others?
- Have there been any recent power outages or electrical issues in the building?
- What is the current budget allocation for HVAC maintenance and replacement?