

# BEFORE

## EE Mechanical

P. 215.478.5599

Date: 04-14-16 1:11 pm  
 Technician: Brian Kohler  
 Email: bkohler@automateddecision.com

### PERFORMANCE ASSESSMENT

#### Site Details

BLDG #1080  
 123 sunset blvd, santa monica ca 90210



#### Unit Details: Rooftop Unit (Packaged)

Unit Name: RTU 1  
 Manufacturer: TRANE  
 AD Model Number: TCD150C3  
 Model Number: TCD150C300BB  
 Serial Number: R05101088D  
 Year Manufactured: 2000  
 OEM Cooling Capacity: 11.833 TONS  
 OEM Efficiency Capacity: 9.8 EER  
 Condenser Fans: 1 QTY  
 Compressors: 2 QTY

#### Performance Report - Before

Cooling Capacity <sup>1</sup>	⚠️ 4.44 TONS
Energy Efficiency <sup>1</sup>	⚠️ 4.31 EER
Remaining Useful Life (RUL) <sup>2</sup>	1.86 YEARS
Cooling Capacity Index <sup>3</sup>	⚠️ 37%
Energy Efficiency Index <sup>3</sup>	⚠️ 44%
Power Index <sup>3</sup>	81%

#### Job Notes

There are no job notes available

#### Diagnostics

Alert! The unit is operating outside manufacturer specifications. Continued operation could cause equipment failure.

#### Measurements - Before

Temperatures	Main Unit		Compressor 1		Compressor 2	
Ambient air 88.0 F	Voltage (L1L2)	208.0 VAC	Current L1	21.0 AAC		
Condenser fans operating 1 QTY	Voltage (L2L3)	212.8 VAC	Current L2	19.3 AAC		
Condenser 1 leaving air 95.5 F	Voltage (L1L3)	207.2 VAC	Current L3	21.4 AAC		
	Current L1	39.1 AAC	Current L1	5.3 AAC		
	Current L2	38.8 AAC	Current L2	6.5 AAC		
	Current L3	30.2 AAC	Current L3	4.0 AAC		

1. Calculations are based on AHRI driving conditions 80 DB/67 WB Return Air and 95 Outside Air  
 2. RUL is an estimate calculated from the system performance, visual survey, ASHRAE climate zone, age of unit and distance to a sea coast.  
 3. Index value is the calculated value/OEM published value.

# AFTER

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P. 215.478.5599

Date: 04-14-16 1:23 pm  
 Technician: Brian Kohler  
 Email: bkohler@automateddecision.com

### PERFORMANCE ASSESSMENT

#### Site Details

BLDG #1080  
 123 sunset blvd, santa monica ca 90210



#### Unit Details: Rooftop Unit (Packaged)

Unit Name: RTU 1  
 Manufacturer: TRANE  
 AD Model Number: TCD150C3  
 Model Number: TCD150C300BB  
 Serial Number: R05101088D  
 Year Manufactured: 2000  
 OEM Cooling Capacity: 11.833 TONS  
 OEM Efficiency Capacity: 9.8 EER  
 Condenser Fans: 1 QTY  
 Compressors: 2 QTY

#### Performance Report - After

Cooling Capacity <sup>1</sup>	✅ 10.96 TONS
Energy Efficiency <sup>1</sup>	✅ 9.12 EER
Remaining Useful Life (RUL) <sup>2</sup>	2.39 YEARS
Cooling Capacity Index <sup>3</sup>	✅ 93%
Energy Efficiency Index <sup>3</sup>	✅ 93%
Power Index <sup>3</sup>	96%

#### Job Notes

Replaced 2nd stage compressor. Properly charged system with refrigerant. Replaced filters. Changed blower belt. Cleaned condenser coil with cleaner and water.

#### Diagnostics

Acceptable operating conditions

#### Measurements - After

Temperatures	Main Unit		Compressor 1		Compressor 2	
Ambient air 90.0 F	Voltage (L1L2)	208.6 VAC	Current L1	21.4 AAC		
Condenser fans operating 1 QTY	Voltage (L2L3)	212.7 VAC	Current L2	21.9 AAC		
Condenser 1 leaving air 105.3 F	Voltage (L1L3)	209.8 VAC	Current L3	20.7 AAC		
	Current L1	49.2 AAC	Current L1	9.7 AAC		
	Current L2	38.6 AAC	Current L2	9.7 AAC		
	Current L3	39.6 AAC	Current L3	10.0 AAC		

1. Calculations are based on AHRI driving conditions 80 DB/67 WB Return Air and 95 Outside Air  
 2. RUL is an estimate calculated from the system performance, visual survey, ASHRAE climate zone, age of unit and distance to a sea coast.  
 3. Index value is the calculated value/OEM published value.