

R-074-2018

July 20th, 2018

To: All Branch Managers, Branch Sales, Service, and Parts Managers, Distributor Principals, Distributor Sales, Service, Parts, and Territory Managers, Regional Sales Managers, Vice Presidents.

Subject: Updated TXV Application Summary for Residential Split Systems

This letter provides an update to R-145-2017 specifically in regards to matching YZF, CZH and YZH with MaxAlloy™ aluminum indoor coils and air handlers.

Matching YZF, CZH, and YZH with MaxAlloy™ aluminum indoor sections.

The following **UPDATED** table provides guidance for matching legacy Affinity units with MaxAlloy™ aluminum indoor coils and air handlers. **Cells highlighted in light green are new information added since the last published date.**

Outdoor Unit	CZH 18 SEER AC				YZH 18 SEER HP				YZF 16 SEER HP					
Indoor Unit	24	36	48	60	24	36	48	60	24	30	36	42	48	60
AE30B									BB1					
AE36B		BF1				BF1			BB1	BB1				
AE36C									BB1	BB1				
AE42C											BB1	BC1		
AE48C											BB1	BC1		
AE48D											BB1	BC1		
AE60D													BC1	BC1
AVC30B									BB1	BB1				
AVC36B	BA1	BF1			BA1	BF1				BB1				
AVC36C	BA1	BF1			BA1	BF1			BB1	BB1				
AVC42C	BA1	BF1			BA1	BF1					BB1	BC1		
AVC48C	BA1	BF1	BC1		BA1	BF1	BC1				BB1	BC1		
AVC48D	BA1	BF1	BC1		BA1	BF1	BC1				BB1	BC1		
AVC60C		BF1	BC1			BF1	BC1	BG1						
AVC60D		BF1	BC1	BG1		BF1	BC1	BG1					BC1	BC
Outdoor Unit	CZH 18 SEER AC				YZH 18 SEER HP				YZF 16 SEER HP					
Indoor Unit	24	36	48	60	24	36	48	60	24	30	36	42	48	60
CF/CM30									BB1					
CF/CM/CU30									BB1					
CF/CM36	BA1	BF1			BA1	BF1			BB1	BB1				
CF/CM/CU36	BA1	BF1			BA1	BF1			BB1	BB1				
CF42	BA1	BF1			BA1	BF1				BB1	BB1			
CF/CM42	BA1	BF1			BA1	BF1				BB1	BB1			
CF/CM/CU42	BA1	BF1			BA1	BF1				BB1	BB1			
CF/CM48	BA1	BF1	BC1		BA1	BF1	BC1				BB1	BC1		
CF/CM/CU48	BA1	BF1	BC1		BA1	BF1	BC1				BB1	BC1		
CF/CM60	BA1	BF1	BC1		BA1	BF1	BC1	BG1						
CF/CM/CU60	BA1	BF1	BC1		BA1	BF1	BC1	BG1						
CF/CM64		BF1	BC1	BG1		BF1	BC1	BG1					BC1	BC1

The above listed TXV numbers are the recommended size for each match shown.
 Use the Source1 TXV kit, S1-1TVMXXX Series Kit. Example S1-1TVMBA1
 Always confirm system matches. Obtain certified system ratings from www.ahridirectory.org

Matching GAW units with (A) copper indoor; (B) MaxAlloy™ indoor units.

The following table provides guidance for matching GAW outdoor units with legacy copper ID coils and air handlers as well as MaxAlloy™ ID coils and air handlers.

Outdoor Unit	GAW14 14 SEER High EER						
Indoor Unit	18	24	30	36	42	48	60
AHE60D				2A1	2C1		
AHV36C	2A1						
AHV60D					2C1		
AE60D				CB1	CD1	CD1	CD1
AVC60D				CB1	CD1	CD1	CD1
FC/MC/PC37A	2A1						
FC/MC/PC43	2A1						
FC/MC/PC48	2A1						
FC/MC62D		2A1	2A1	2A1	2C1		
FC64D		2A1	2A1	2A1	2C1	2C1	2C1
CF/CM/CU42	CA1						
CF/CM/CU48	CA1						
CF/CM64		CA1	CB1	CB1	CD1	CD1	CD1

The above listed TXV numbers are the recommended size for each match shown.

Use the Source1 TXV kit, S1-1TVMXXX Series Kit. Example S1-1TVMCA1 or S1-1TVM2C1
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TXV Nomenclature Table

1	Product Category	1=Non-Electrical Accessory
TV	Family Identifier	TV=Thermal Expansion Valve
M	Equalizer Fitting	M=Mechanical
B	Refrigerant	B=R410A (E-Chassis) C=R-22 (Y-Chassis) D=R-407C (E-Chassis)
A	TXV Indicator	A=Valve A B=Valve B, etc.
1	Connection Style	1=Chatleff 2=Aeroquip

TXV STYLE

For the new (aluminum) indoor coils and air handlers, a new TXV connection style is used. The distributor connection at the indoor coils is a Chatleff style versus an Aeroquip design used previously.

A Chatleff connection utilizes a Teflon seal in a .750" diameter, while the Aeroquip uses a .625" connection.

The indoor TXVs and orifices designed for the new platform will not mount to the current copper coils. The designs are **not** interchangeable.

Aeroquip (Legacy ID)



Chatleff (New ID)



Matching New R-410A Outdoor with Legacy (Copper) Indoor Coils and Air Handlers.

All new outdoor units matched with legacy (copper) indoor units will require an indoor TXV. The indoor orifices shipped with the new outdoor units will **not** fit the legacy indoor coils, and the orifice sizes listed in the System Charge Table for the new outdoor units are not equivalent to the same orifice size in the current indoor coil design.

When applying a legacy indoor coil with a new outdoor unit, it is not an approved match up to use an orifice. The recommended indoor expansion device is determined by the TXV listed for the new outdoor unit in the cross reference matrix found at the end of this letter.

Install the TXV according to the instructions provided with the TXV Kit.

To determine the proper system refrigerant charge, follow the Outdoor Unit Installation Instructions and the Charging Chart provided with the outdoor unit and online in the Service Application Data file.

As always, verify system matches and performance in the online AHRI directory at www.ahridirectory.org.

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Outdoor Unit	YFD 13 SEER AC							YCG 17 SEER MC AC							YCD 13 SEER MC AC							
	RAC13F 13 SEER AC							RAC17L 17 SEER MC AC							RAC13L 13 SEER MC AC							
Indoor Unit	18	24	30	36	42	48	60	18	24	30	36	42	48	60	18	24	30	36	42	48	60	
AHE18B	BA2							BA2							BA2							
AHE24B	BA2	BA2						BA2	BA2	BH2					BA2	BA2	BA2					
AHE30B	BA2	BA2	BB2					BA2	BA2	BH2					BA2	BA2	BA2					
AHE36C		BA2	BB2	BC2					BA2	BH2	BA2					BA2	BA2	BC2				
AHE42D		BA2	BB2	BC2	BC2				BA2	BH2	BA2	BB2				BA2	BA2	BC2	BC2			
AHE48D				BC2	BC2						BA2	BB2	BC2					BC2	BC2	BC2		
AHE60D					BC2	BC2	BD2				BA2	BB2	BC2	BG2						BC2	BC2	BD2
AHR22B								BA2							BA2							
AHR24B									BA2							BA2						
AHR29B								BA2														
AHR34C									BA2													
AHR36B											BA2											
AHR42C											BA2	BB2										
AHR48D												BB2	BC2									
AHR60D												BB2	BC2									
AHV18B	BA2							BA2							BA2							
AHV24B	BA2							BA2	BA2						BA2	BA2						
AHV30B		BA2	BB2						BA2	BH2						BA2						
AHV36C	BA2	BA2	BB2	BC2					BA2	BH2						BA2	BA2	BC2				
AHV42D			BB2	BC2	BC2						BA2	BB2					BA2	BC2	BC2			
AHV48D				BC2	BC2						BA2	BB2	BC2					BC2	BC2	BC2		
AHV60D					BC2	BC2	BD2					BB2	BC2	BG2						BC2	BC2	BD2
FC/MC/PC18	BA2							BA2							BA2							
FC/MC/PC24	BA2	BA2						BA2							BA2							
FC/MC/PC30	BA2		BB2					BA2							BA2							
FC/MC/PC32A	BA2	BA2	BB2					BA2	BA2						BA2	BA2						
FC/MC/PC35		BA2	BB2					BA2	BA2	BH2					BA2	BA2	BA2					
FC/MC/PC36	BA2	BA2	BB2	BC2					BA2	BH2						BA2	BA2					
FC/MC/PC37A		BA2	BB2	BC2					BA2	BH2	BA2					BA2	BA2	BC2				
FC/MC/PC43		BA2	BB2	BC2	BC2				BA2	BH2	BA2	BB2				BA2	BA2	BC2	BC2			
FC/MC/PC48				BC2	BC2	BC2					BA2	BB2	BC2					BC2	BC2	BC2		
FC/MC/PC60					BC2		BD2				BA2	BB2	BC2	BG2						BC2	BC2	BD2
FC/MC62D					BC2	BC2	BD2				BA2	BB2	BC2	BG2						BC2	BC2	BD2
FC64D					BC2	BC2	BD2					BB2	BC2	BG2						BC2	BC2	BD2
HD24	BA2	BA2						BA2	BA2						BA2	BA2						
HD36	BA2	BA2	BB2	BC2					BA2	BH2						BA2	BA2	BC2				
HD48				BC2	BC2	BC2					BA2	BB2	BC2					BC2	BC2	BC2		
HD60					BC2	BC2	BD2				BA2	BB2	BC2	BG2						BC2	BC2	BD2
UC18								BA2							BA2							
UC24								BA2							BA2							
UC30								BA2							BA2							
UC36								BA2	BA2	BH2						BA2	BA2					
UC48											BA2	BB2	BC2					BC2	BC2	BC2		
UC60C											BA2	BB2	BC2	BG2						BC2	BC2	BD2

Outdoor Unit	YFE 14 SEER AC							YCS 14 SEER High EER							YCE 14 SEER MC AC							
	RAC14F 14 SEER AC							RAW14L 14 SEER High EER							RAC14L 14 SEER MC AC							
Indoor Unit	18	24	30	36	42	48	60	18	24	30	36	42	48	60	18	24	30	36	42	48	60	
AHE18B	BA2							BA2							BA2							
AHE24B	BA2	BA2	BB2					BA2	BA2	BB2					BA2	BA2	BB2					
AHE30B	BA2	BA2	BB2					BA2	BA2	BB2					BA2	BA2	BB2					
AHE36C		BA2	BB2	BC2					BA2	BB2	BC2					BA2	BB2	BC2				
AHE42D		BA2	BB2	BC2	BC2				BA2	BB2	BC2	BC2				BA2	BB2	BC2	BC2			
AHE48D				BC2	BC2	BC2					BC2	BC2	BC2					BC2	BC2	BC2		
AHE60D					BC2	BC2					BC2	BC2	BC2	BD2				BC2	BC2	BC2	BD2	
AHR22B	BA2														BA2							
AHR24B		BA2							BA2							BA2						
AHR29B		BA2																				
AHR34C		BA2							BA2							BA2						
AHR36B																						
AHR42C																						
AHR48D																						
AHR60D																						
AHV18B	BA2							BA2							BA2							
AHV24B	BA2	BA2						BA2	BA2						BA2	BA2						
AHV30B	BA2	BA2	BB2						BA2	BB2						BA2	BB2					
AHV36C	BA2	BA2	BB2	BC2					BA2	BB2	BC2					BA2	BB2	BC2				
AHV42D			BB2	BC2	BC2					BB2	BC2	BC2					BB2	BC2	BC2			
AHV48D				BC2	BC2	BC2					BC2	BC2	BC2					BC2	BC2	BC2		
AHV60D					BC2	BC2	BD2					BC2	BC2						BC2	BC2		
FC/MC/PC18	BA2							BA2							BA2							
FC/MC/PC24	BA2							BA2							BA2							
FC/MC/PC30	BA2							BA2							BA2							
FC/MC/PC32A	BA2	BA2						BA2	BA2						BA2	BA2						
FC/MC/PC35	BA2	BA2	BB2					BA2	BA2	BB2					BA2	BA2	BB2					
FC/MC/PC36		BA2	BB2						BA2	BB2						BA2	BB2					
FC/MC/PC37A		BA2	BB2						BA2	BB2						BA2	BB2					
FC/MC/PC43		BA2	BB2	BC2	BC2				BA2	BB2	BC2	BC2				BA2	BB2	BC2	BC2			
FC/MC/PC48				BC2	BC2	BC2					BC2	BC2	BC2					BC2	BC2	BC2		
FC/MC/PC60					BC2	BC2						BC2	BC2	BD2					BC2	BC2	BD2	
FC/MC62D					BC2	BC2						BC2	BC2	BD2					BC2	BC2	BD2	
FC64D					BC2	BC2	BD2					BC2	BC2	BD2					BC2	BC2	BD2	
HD24	BA2	BA2						BA2	BA2						BA2	BA2						
HD36		BA2	BB2	BC2					BA2	BB2						BA2	BB2					
HD48				BC2	BC2	BC2					BC2	BC2	BC2					BC2	BC2	BC2		
HD60					BC2	BC2						BC2	BC2						BC2	BC2		
UC18	BA2							BA2							BA2							
UC24	BA2							BA2							BA2							
UC30	BA2							BA2							BA2							
UC36		BA2							BA2							BA2	BB2					
UC48				BC2	BC2	BC2					BC2	BC2	BC2					BC2	BC2	BC2		
UC60C					BC2	BC2						BC2	BC2						BC2	BC2		

Outdoor Unit	YHE 14 SEER HP								TCD 13 SEER 3ph AC					TCG 17 SEER 3ph AC			THE 14 SEER 3ph HP				
	RHP14L 14 SEER HP																				
Indoor Unit	18	24	30	35	36	42	48	60	30	36	42	48	60	36	48	60	30	36	42	48	60
AHE18B	BA2																				
AHE24B		BA2																			
AHE30B		BA2	BB2														BB2				
AHE36C			BB2	BE2	BF2									BA2			BB2	BF2	BF2		
AHE42D				BE2		BF2								BA2				BF2	BF2		
AHE48D						BF2	BC2							BA2	BC2						BC2
AHE60D							BC2	BG2						BA2	BC2	BG2					
AHR22B																					
AHR24B																					
AHR29B																					
AHR34C			BB2																		
AHR36B														BA2			BB2				
AHR42C					BF2									BA2				BF2			
AHR48D											BC2					BC2					
AHR60D											BC2					BC2					
AHV18B	BA2																				
AHV24B		BA2																			
AHV30B		BA2	BB2														BB2				
AHV36C			BB2	BE2	BF2												BB2	BF2	BF2		
AHV42D				BE2		BF2												BF2	BF2		
AHV48D						BF2	BC2									BC2					BC2
AHV60D							BC2	BG2								BC2	BG2				
FC/MC/PC18	BA2																				
FC/MC/PC24	BA2	BA2																			
FC/MC/PC30		BA2																			
FC/MC/PC32A		BA2	BB2														BB2				
FC/MC/PC35		BA2	BB2						BB2								BB2				
FC/MC/PC36			BB2						BB2												
FC/MC/PC37A			BB2	BE2					BB2					BA2			BB2				
FC/MC/PC43			BB2	BE2					BB2	BC2	BC2			BA2			BB2	BF2	BF2		
FC/MC/PC48				BE2	BF2	BF2	BC2			BC2	BC2	BC2		BA2	BC2			BF2	BF2		
FC/MC/PC60						BF2	BC2					BC2	BD2	BA2	BC2	BG2					BC2
FC/MC62D								BG2				BC2	BD2	BA2	BC2	BG2					BG2
FC64D								BG2				BC2			BC2	BG2					BG2
HD24																					
HD36									BB2												
HD48										BC2	BC2	BC2		BA2	BC2						
HD60														BA2	BC2	BG2					
UC18																					
UC24																					
UC30																					
UC36									BB2												
UC48										BC2	BC2	BC2		BA2	BC2						
UC60C												BC2		BA2	BC2	BG2					

The above listed TXV numbers are the recommended size for each match shown.

Use the Source1 TXV kit, S1-1TVMXXX Series Kit. Example S1-1TVMBB2

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