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FUJITSU
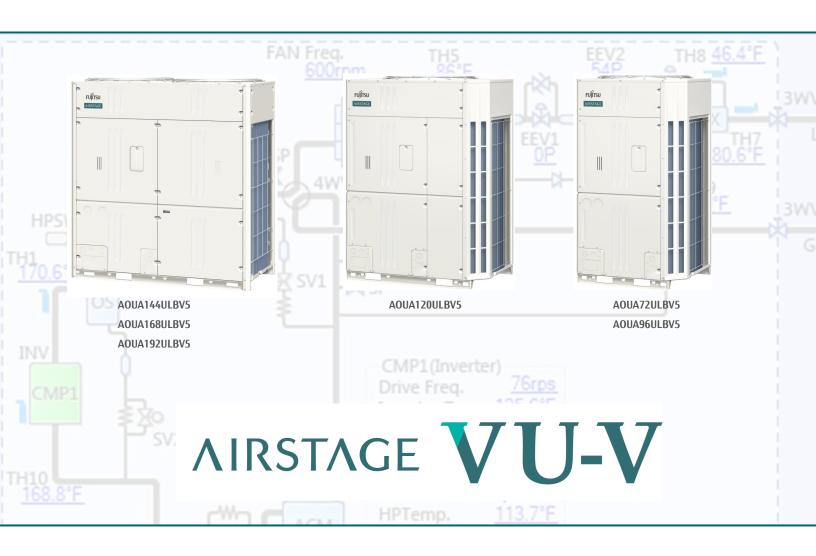
Extended Warranty Report
Airstage VU-V

Heat Pump & Heat Recovery VRF Systems

6 through 36 tons

208/230/3 phase

AOUA144ULBV5
AOUA168ULBV5
AOUA192ULBV5

AOUA120ULBV5

AOUA72ULBV5
AOUA96ULBV5

AIRSTAGE VU-V

To be completed by the Installing Contractor

Electronic completion only– Adobe Acrobat Reader required to complete

FUJITSU GENERAL AMERICA

AIRSTAGE VU-V

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Heat Pump & Heat Recovery Extended Warranty Report - 208/230 VAC

Please complete all entries. Please refer to the outdoor and indoor unit Installation Manual(s) as needed.

Please email the completed Extended Warranty Report and project installation photos to: **commissioning@fujitsugeneral.com**

PLEASE COMPLETE THIS PAGE ONCE PER PROJECT

System Owner				
Address		Phone		
City, State		State		
Installing Contractor				
Address		Phone		
Email				
Fujitsu Distributor or Rep.				
Report completed by:		Phone		
Email		Date		
Outdoor unit total		System type		
Indoor unit total				

OUTDOOR UNIT SETUP–ALL SYSTEMS						
	YES	NO			YES	NO
Outdoor unit(s) level, +/- 3° ?			"Fujitsu Pink" cable used for all ODU and IDU communication wiring?			
ALL outdoor unit minimum clearances met?			H1 & H2 cable- Primary to subordinate unit(s)? (2 & 3 ODU systems only)			
HEAT PUMP– (2) service valves open ONLY?			DIP SW. SET1 & SET4 in their factory default settings?			
HEAT RECOVERY– ALL (3) service valves open?			DIP SW. SET 2, SET 3 & SET 5 correctly adjusted per system?			
Total refrigerant charge written on inside unit cover?			Power ON at least (12) hours before start up?			

REFRIGERANT PIPING LENGTHS						
ACTUAL PIPE LENGTH			HEIGHT DIFFERENCE (STRAIGHT LINE MEASUREMENT)			
	YES	NO			YES	NO
ODU to Branch Kit ≤ 9 ft.?			ODU to IDU ≤ 164 ft.? (ODU ABOVE IDU)			
Farthest ODU (S2) and first Branch Kit ≤ 39 ft.? (3 ODUs only)			ODU to IDU ≤ 131 ft.? (ODU BELOW IDU)			
ODU to farthest IDU < 541 ft.?			Maximum height difference between indoor units ≤ 49 ft.?			
First Separation Tube to farthest IDU ≤ 295 ft.?			Maximum height difference between outdoor units ≤1 ft.?			
Nearest IDU to farthest IDU ≤ 196 ft.?			Max. height difference between RBU and IDUs ≤16 ft.? (Heat Recovery)			
Total liquid pipe length ≤ 3,280 ft.?			Max. height difference between RBUs ≤49 ft.? (Heat Recovery)			
Installed lengths entered into Design Simulator? (As-Built)			ODU arrangement– Primary ≥ Subordinate 1 ≥ Subordinate 2?			

REFRIGERANT PIPING – ALL SYSTEMS						
	YES	NO			YES	NO
All refrigerant piping properly supported and insulated?			nitrogen purge provided during brazing?			
Any refrigerant piping traps installed?			Did the 600 PSIG piping pressure test hold for at least 24 hours?			
Liquid line drier installed ?			ALL flare and pipe fittings tested for leaks?			
Vapor line (suction) drier installed?			Vacuum level of at least 500 microns obtained and held for 60 minutes?			
Drier, if used, installed in a bypass line?			Indoor unit Separation Tubes and/or Headers in their correct orientation?			
Compression fittings used?			Compression fittings (IF used) rated for 1,800 PSIG burst pressure?			

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PLEASE COMPLETE THIS PAGE ONCE PER REFRIGERANT CIRCUIT

REFRIGERANT SYSTEM #	SYSTEM TYPE	LOCATION (OPTIONAL)

REFRIGERANT CHARGE CALCULATION (ENTER VALUES TOP TO BOTTOM, L TO R)

REFRIGERANT CHARGE ADDER– LIQUID LINE ONLY			SYSTEM CHARGE CALCUATION				
Liquid Pipe Length	Refrigerant per foot	Total	Model	Qty.	Factory Charge	ODU Adder	Sub Total
	A	B	A X B	AOUA72ULBV5		25.8 lbs.		lbs.
1/4"		.014 lb. ft.	lb.	AOUA96ULBV5		25.8 lbs.		lbs.
3/8"		.039 lb. ft.	lb.	AOUA120ULBV5		26.0 lbs.	7.28 lbs.	lbs.
1/2"		.077 lb. ft.	lb.	AOUA144ULBV5		26.0 lbs.	17.20 lbs.	lbs.
5/8"		.120 lb. ft.	lb.	AOUA168ULBV5		26.0 lbs.	17.20 lbs.	lbs.
3/4"		.180 lb. ft.	lb.	AOUA192ULBV5		26.0 lbs.	17.20 lbs.	lbs.
Total additional refrigerant from liquid lines		lbs.	**Total field charge to add** (Liquid piping + ODU Adder)				lbs.
			Total System Charge (Liquid piping + ODU Adder + Pre-Charge)				lbs.

Maximum refrigerant charge check per system			Max. charge < (less than) limit?	
Number of ODUs per system	Tons	Maximum Allowable Total System Charge	YES	NO
1	6, 8, 10	77.2 lbs.		
1	12, 14, 16	108.0 lbs.		
2	18, 20, 22	154.3 lbs.		
2	24,26,28,30,32	216.1 lbs.		
3	34	231.5 lbs.		
3	36	324.1 lbs.		

OUTDOOOR UNIT BRANCH KIT AND INDOOR UNIT SEPARATION TUBE (OR HEADER) ANGULAR CHECK

OUTDOOR UNIT	YES	NO	INDOOR UNIT	YES	NO
Branch Kit within 10° parallel to the ground?			Separation Tube vertical OR within 15° parallel to the ground?		
Branch Kit installed vertically?			Header (if used) branch lines within 10° parallel to the ground?		
			Header (if used) tube flat within 1° parallel to the ground?		

ELECTRICAL PRE-START CHECK

Outdoor Unit Model			YES	NO	Indoor Unit(s)	YES	NO
AOUA72ULBV5	MCA = 29.3 A	MOCP = 40 A			MOCP = 15A		
AOUA96ULBV5	MCA = 37.7 A	MOCP = 50 A			Multiple indoor units on a single circuit breaker?		
AOUA120ULBV5	MCA = 43.9 A	MOCP = 60 A			Individual circuit breaker per indoor unit?		
AOUA144ULBV5	MCA = 49.8 A				Measured voltage at indoor unit disconnect or breaker 187 − 253 VAC?		
AOUA168ULBV5	MCA = 59.8 A	MOCP = 70 A			GFEB, GFCI or ELCB installed?		
AOUA192ULBV5	MCA = 71 A	MOCP = 80 A			UTZ−GXXA External Power Supply installed?		

Measured voltage at outdoor unit disconnect or breaker:				
L1-L2= V	L2-L3= V	L1-L3= V	Communication wiring resistance check	
			Outdoor unit resistance check (Measure at Primary ODU X1 & X2)	Ω
			Resistance check at farthest IDU, RBU, or Signal Amplifier	Ω

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PLEASE COMPLETE THIS PAGE ONCE PER REFRIGERANT CIRCUIT

REFRIGERANT SYSTEM #		SYSTEM TYPE		LOCATION (OPTIONAL)	

Outdoor Unit M/N	Serial Number	REF AD	Outdoor Unit DIP SW SET Settings (DEFAULT position shown) CLICK DIP SW to change												
			2-1	2-2	System type	2-4	UTY-SPWX	3-1	3-2	ODU Function	3-3	3-4	ODU Qty.	5-1	5-4	Resistance at X1 & X2
			ON OFF	ON OFF		ON OFF		ON OFF	ON OFF	Primary	ON OFF	ON OFF	Primary	ON OFF	ON OFF	Ω
			ON OFF	ON OFF		ON OFF		ON OFF	ON OFF	Subordinate 1				ON OFF		
			ON OFF	ON OFF		ON OFF		ON OFF	ON OFF	Subordinate 2				ON OFF		

Indoor Unit M/N	Serial Number	REF AD	IU AD	RC AD	Aux. heat?	SET 2-3	Function Settings									
							#	Setting	#	Setting	#	Setting	#	Setting	#	Setting

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PLEASE COMPLETE THIS PAGE ONCE PER REFRIGERANT CIRCUIT

REFRIGERANT SYSTEM #	SYSTEM TYPE	LOCATION (OPTIONAL)

Pipe length between Primary outdoor unit and NEAREST indoor unit	ft.	

Num.	Description	Setting Value	Num.	Description	Setting Value
00	Pipe length between Primary ODU and NEAREST IDU		29	ODU 7-segment pressure display (Mpa or PSI)	
10	Sequential Start Shift		30	Energy Saving Level (External input only)	
11	Cooling Capacity Shift (Suction pressure adjust)		32	Factory default– do not adjust	00
12	Heating Capacity Shift (Discharge pressure adjust)		33		
13	Factory default– do not adjust	00	35	IDU aux. heat selection method (enable for 36 & 37)	
14			36	Outdoor unit HEATING low temperature lockout	
15			37	IDU auxiliary heat balance point	
17	IDU height difference (Heat Recovery only)		40	Low Noise operation priority selection	
19	Factory default– do not adjust	00	41	Low Noise operation (enables settings 40 & 42)	
20	Emergency or Batch Stop selection (Ex. Input only)		42	Low Noise operation dB(A) reduction level	
21	Mode changeover selection		50	Factory default– do not adjust	
22	Snowfall protection (Fan cycling when ODU is OFF)		53	Intelligent Refrigerant Control**	
23	Snowfall protection interval selection		54	Factory default– do not adjust	00
24*	Static Pressure selection for discharge air ducting		61		
25	Factory default– do not adjust	00	62		
26			63		
27			70	Elect. Charge Apportionment Wattmeter Setting (1)	
28	ODU 7-segment temperature display (C or F)		73	Elect. Charge Apportionment Wattmeter Setting (2)	

NOTE– ALL OUTDOOR FUNCTION SETTINGS ABOVE ARE CONFIGURED AT THE PRIMARY ODU

*- SET THIS FUNCTION SETTING ON SUBORDINATE UNIT 1 AND 2 (WHEN USED)

**- IRC APPLICABLE TO -TLAV2 AND NEWER INDOOR UNITS (00- ENABLE, 01 -DISABLE)

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PLEASE COMPLETE THIS PAGE FOR HEAT RECOVERY ONLY- ONCE PER REFRIGERANT CIRCUIT

REFRIGERANT SYSTEM #	SYSTEM TYPE	LOCATION (OPTIONAL)

Refrigerant Branch Unit (RBU) Model Number	Serial Number	REF AD	RB AD	Comments:

REFRIGERANT BRANCH KIT UNIT (RBU) CHECK - HEAT RECOVERY INSTALLATION ONLY

INSTALLATION	YES	NO	ELECTRICAL	YES	NO
Horizontal position +/- 2° parallel to the ground?			Maximum breaker 15A?		
Maintenance clearances met for front cover removal?			Measured voltage at the RBU between $187 - 253$ VAC? (L1– L2(N)		
All other minimum clearances met?			Comm– X1 & X2 between OUT/RB and other RBU or ODU?		
IDU connected to port farthest from RBU inlet piping?			Comm– X1 & X2 between IU/U and IDU?		
Discharge and Suction lines correctly identified?			Comm– Shield ground connected to each ground terminal?		
Unused pinch pipes properly sealed?					

REFRIGERANT BRANCH KIT UNIT (RBU) DIP SWITCH POSITIONING

SET 1		Description	SET 2		Description
1	OFF	Factory position only – Do not adjust.	1	ON OFF	Determines IDU operating priority
2	OFF		2	ON OFF	
3	OFF		3	ON OFF	Determines IDU changeover time
			4	ON OFF	

BRANCH MERGING — 8 & 12 BRANCH MODELS ONLY - COMPLETE ONLY WHEN MERGING IS USED

Branch ID	Branch combination(s)	DIP SW S300			Terminal Block connection	Rotary Switch (RBU AD)	Comments
		1	2	3			
A-D		ON OFF	ON OFF	ON OFF			
E-H		ON OFF	ON OFF	ON OFF			
I-L		ON OFF	ON OFF	ON OFF			