Display level	Cause code	Temporary	Alarm text	Alarm definition	Possible cause	Action		
		cause code			Outdoor sensor TL1 missing	Install outdoor sensor		
					Signal cable not connected to outdoor	Connect signal cable to outdoor		
				Warning failure (>170 kOhm) on sensor TL1,	sensor TL1 Signal cable not connected to I/O board	sensor TL1 Connect signal cable to I/O board		
Installer	5201		Warning outdoor sensor TL1 failure	after 3 faults in 2 hours.	Failure on signal cable to outdoor sensor TL1	Check/replace signal cable to outdoor sensor TL1		
				9	Outdoor sensor TL1 is out of range	Check sensor TL1 ohm value to relevant sensor table		
					Outdoor sensor TL1 faulty I/O board not working	Replace outdoor sensor TL1 Replace I/O board		
					Outdoor sensor TL1/signal cable short circuited	Check sensor TL1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal		
Installer	5202		Warning outdoor sensor TL1 short circuited	Warning short circuit (<900 Ohm) on sensor TL1, after 3 faults in 2 hours.	Outdoor sensor TL1 short circuited	Check ohm value with relevant sensor table/replace outdoor sensor TL1		
					Signal cable to outdoor sensor TL1 short circuited	Repair/replace signal cable to outdoor sensor TL1		
				Alarm after 3 faults in 3 hours, or 15 minutes	I/O board not working See possible causes for cause code 5201,	Replace I/O board  See possible action for action		
Customer	5203		Alarm outdoor sensor TL1 faulty	failure/short circuit on sensor T0.	5202	code 5201, 5202  Check sensor T0/signal cable ohm		
					Flow sensor T0/signal cable failure.	value with sensor table with inner part disconnected from I/O board terminal		
Installer	5204		Warning flow sensor T0 failure	Warning failure (>179 kOhm) on sensor T0, after 3 faults in 2 hours.	Screw terminal on I/O board to flow sensor T0 not tightened	Check screw terminal		
					Flow sensor T0/signal cable failure.	Replace flow sensor T0		
					I/O board not working	Replace I/O board  Check sensor T0/signal cable ohm		
				Weekler short develop (200 Ohm) and To	Flow sensor T0/signal cable short circuited.	value with sensor table with inner part disconnected from I/O board terminal		
Installer	5205	5205	5205	5205 Warning flow sens	Warning flow sensor T0 short circuited	Warning short circuit (<390 Ohm) on sensor T0 after 3 faults in 2 hours.	Flow sensor T0 short circuited Signal cable to flow sensor TL1 short	Check ohm value with relevant sensor table/replace flow sensor T0 Repair/replace signal cable to flow
				circuited I/O board not working	sensor T0 Replace I/O board			
Customer	5206		Alarm flow sensor T0 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor T0.	See possible causes for cause code 5204, 5205	See possible action for action code 5204, 5205		
		07 Warning Z1 he	Warning Z1 heat transfer fluid out sensor W	Warning failure (>179 kOhm) on sensor TC1 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC1/signal cable failure.	Check sensor TC1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal		
Installer	5207		TC1 failure		Screw terminal on I/O board to flow sensor TC1 not tightened Flow sensor TC1/signal cable failure.	Check screw terminal Replace flow sensor TC1		
					I/O board not working	Replace I/O board Check sensor TC1/signal cable		
			Warning 71 heat transfer fluid out sensor	Warning short circuit (<390 Ohm) on sensor	Heat transfer fluid out sensor TC1/signal cable short circuited.	ohm value with sensor table with inner part disconnected from I/O board terminal Check ohm value with relevant		
Installer	5208		Warning Z1 heat transfer fluid out sensor TC1 short circuited Warning short circuit (<390 Ohm) on sensor TC1 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC1 short circuited	sensor table/replace heat transfer fluid out sensor TC1			
					Signal cable to heat transfer fluid out sensor TC1 short circuited I/O board not working	Repair/replace signal cable to heat transfer out sensor TC1 Replace I/O board		
Customer	5209		Alarm Z1 heat transfer fluid out sensor TC1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TC1.	See possible causes for cause code 5207, 5208	See possible action for cause code 5207, 5208		
			Warning Z2 heat transfer fluid out sensor	Warning failure (>179 kOhm) on sensor TC1	Heat transfer fluid out sensor TC1 heat pump 2/signal cable failure.	Check sensor TC1 heat pump 2/signal cable ohm value with sensor table with inner part disconnected from I/O board		
Installer	5210	5210	5210	Warning 22 heat transfer fluid out sensor		heat pump 2 after 3 faults in 2 hours.	Screw terminal on I/O board to flow sensor TC1 heat pump 2 not tightened Heat transfer fluid out sensor TC1 heat pump 2/signal cable failure.	w sensor Check screw terminal
					I/O board not working	Replace I/O board  Check sensor TC1 heat pump		
					Heat transfer fluid out sensor TC1 heat pump 2/signal cable short circuited.	2/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal		
Installer	5211		Warning Z2 heat transfer fluid out sensor TC1 short circuited	Warning short circuit (<390 Ohm) on sensor TC1 heat pump 2 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC1 heat pump 2 short circuited	Check ohm value with relevant sensor table/replace heat transfer fluid out sensor TC1 heat pump 2		
					Signal cable to flow sensor T0 short circuited	Repair/replace signal cable to heat transfer out sensor TC1		
Cuetomas	5242		Alarm Z2 heat transfer fluid out sensor TC1	Alarm after 3 faults in 3 hours, or 15 minutes	I/O board not working See possible causes for cause code 5210,	Replace I/O board  See possible action for cause		
Customer	5212		faulty	failure/short circuit on sensor TC1 heat pump 2.	5211	code 5210, 5211 Check sensor TC0/signal cable		
Installer	5213		Warning Z1 heat transfer fluid in sensor TC0 failure	Warning failure (>179 kOhm) on sensor TC0 after 3 faults in 2 hours.	Heat transfer fluid out sensor TC0/signal cable failure.  Screw terminal on I/O board to flow sensor	ohm value with sensor table with inner part disconnected from I/O board terminal		
				and, J laund in 2 flouis.	TC0 not tightened Flow sensor TC0/signal cable failure.	Check screw terminal Replace flow sensor TC0		
					I/O board not working	Replace I/O board Check sensor TC0/signal cable		
			Warning 71 heat transfer fluid in conce-	Warning short circuit (-200 Ohm) on con	Heat transfer fluid in sensor TC0/signal cable short circuited.	ohm value with sensor table with inner part disconnected from I/O board terminal		
Installer	5214		Warning Z1 heat transfer fluid in sensor TC0 short circuited	100 after 3 faults in 2 flours.	Heat transfer fluid in sensor TC0 short circuited  Signal cable to heat transfer fluid out	Check ohm value with relevant sensor table/replace heat transfer fluid in sensor TC0 Repair/replace signal cable to heat		
					sensor TC0 short circuited I/O board not working	transfer out sensor TC0 Replace I/O board		
Customer	5215		Alarm Z1 heat transfer fluid in sensor TC0	Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TC0.	See possible causes for cause code 5213,	See possible action for cause		
			faulty		5214	code 5213, 5214		

					Heat transfer fluid out sensor TC0 heat pump 2/signal cable failure.	Check sensor TC0 heat pump 2/signal cable ohm value with sensor table with inner part disconnected from I/O board		
Installer	5216	Warning Z	2 heat transfer fluid in sensor TC0 failure	Warning failure (>179 kOhm) on sensor TC0 after 3 faults in 2 hours.	Screw terminal on I/O board to flow sensor	terminal		
			1 00 Iumaro		TC0 heat pump 2 not tightened	Check screw terminal		
					Flow sensor TC0 heat pump 2/signal cable failure.	Replace flow sensor TC0 heat pump 2		
					I/O board not working	Replace I/O board Check sensor TC0 heat pump		
					Heat transfer fluid in sensor TC0 heat pump 2/signal cable short circuited.	2/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal		
Installer	5217		2 heat transfer fluid in sensor TC0 short circuited	Warning short circuit (<390 Ohm) on sensor TC0 heat pump 2 after 3 faults in 2 hours.	Heat transfer fluid in sensor TC0 heat pump 2 short circuited	Check ohm value with relevant sensor table/replace heat trans fluid in sensor TC0 heat pump		
					Signal cable to heat transfer fluid out sensor TC0 heat pump 2 short circuited	Repair/replace signal cable to transfer fluid out sensor TC0 h pump 2		
Customer	5218	Alarm Z2 he	eat transfer fluid in sensor TC0		I/O board not working See possible causes for cause code 5217,	Replace I/O board See possible action for cause		
Customer	3210		faulty	failure/short circuit on sensor TC0.	5216  Pool temperature sensor TP1/signal cable failure.	code 5216, 5217  Check sensor TP1/signal cable ohm value with sensor table w inner part disconnected from I		
Installer	5234	Warning F	Pool temperature sensor TP1	Warning failure (>179 kOhm) on sensor TP1	Screw terminal on I/O board to Pool	board terminal		
			failure	after 3 faults in 2 hours	temperature sensor TP1 not tightened	Check screw terminal		
					Pool temperature sensor TP1/signal cable failure.	Replace pool temperature sen TP1		
					I/O board not working	Replace I/O board Check pool temperature sense		
					Pool temperature sensor TP1/signal cable short circuited.	TP1/signal cable ohm value wi sensor table with inner part disconnected from I/O board terminal		
Installer	5235	Warning Poo	ol temperature sensor TP1 short circuited	Warning short circuit (<390 Ohm) on sensor TP1 after 3 faults in 2 hours.	Pool temperature sensor TP1 short circuited	Check ohm value with relevan sensor table/replace pool temperature sensor TP1		
					Signal cable to heat transfer fluid out pool temperature sensor TP1 short circuited	Repair/replace signal cable to temperature sensor TP1		
Custom	Faac	A/ 5 ·	tomporature concer TD4 form	Alarm after 3 faults in 3 hours, or 15 minutes	I/O board not working See possible causes for cause code 5234,	Replace I/O board See possible action for cause		
Customer	5236	Alarm Pool	temperature sensor TP1 faulty	failure/short circuit on sensor TC0.	5235	code 5234, 5235 Check sensor TW1/signal cabl ohm value with sensor table w		
Installer	5237	Warning Z	Warning Z1 hot water sensor TW1 failure	Warning failure (>179 kOhm) on sensor TW1	Hot water sensor TW1/signal cable failure.  Screw terminal on I/O board to hot water	inner part disconnected from board terminal		
				after 3 faults in 2 hours.	sensor TW1 not tightened	Check screw terminal		
				Hot water sensor TW1/signal cable failure.	Replace flow sensor TW1			
					I/O board not working	Replace I/O board Check sensor TW1/signal cabl		
				Hot water sensor TW1/signal cable short circuited.	ohm value with sensor table wi			
Installer	5238	5238	5238	Warning Z	Warning Z1 hot water sensor TW1 short circuited	Warning short circuit (<390 Ohm) on sensor TW1 after 3 faults in 2 hours.	Heat transfer fluid in sensor TW1 short	Check ohm value with relevan sensor table/replace heat tran
				Circuited	TWT and 3 launs in 2 flours.	circuited Signal cable to heat transfer fluid out	fluid in sensor TW1	
					sensor TW1 short circuited	Repair/replace signal cable to transfer out sensor TW1		
Customer	5239	Alarm 74	hot water sensor TW1 faulty	Alarm after 3 faults in 3 hours, or 15 minutes	I/O board not working See possible causes for cause code 5237,	Replace I/O board See possible action for cause		
Oustonier	3233	Admizi	not water sensor TWT lauty	failure/short circuit on sensor TW1.	5238	code 5237, 5238 Vent the heating system as pe		
					Low system pressure, air in heating system	instructions in manual, top up water in heating system.		
					Dirt in system filter/filter ball SC1 Poor circulation in heat transfer	Clean system filter/filter ball S Check adjuster valves/radiator		
					system/heating system	thermostats		
					Fuse F1 faulty Defective pressure switch	Replace fuse F1 Replace pressure switch		
					Defective overheat protection	Check cut-out temperature (96		
Customer	5246		Alarm Z1 electric cassette E2 tripped overheat protection / pressure switch	Alarm when overheat protection electric element or system pressure switch MC1 broken (<0.5 bar) in Air module.	Defective I/O board, no PWM signal to	Replace overheat protection  Disconnect PWM signal on terminal 36,37 on I/O board,		
					circulation pump  Fuse F50 I/O board faulty	circulation pump should incre to 100% Replace fuse F50		
					Defective I/O board, 230 V missing on terminal 01 (51, N)	Check for 230 V on terminal 01 N) on I/O board		
					Defective I/O board	Replace I/O board Replace circulation pump		
					<u>Defective circulation pump</u> Contactor to electric additional heat sticks in closed position	Check / replace contactor		
Customer	5247		electric cassette E2 tripped protection / pressure switch	Alarm when overheat protection electric element or system pressure switch MC1 broken in Air module 2.	See alarm 5246 above	See action for alarm 5246 abo		
Customer	5249		ur heat pump Z1 is not working		Heat curve/hot water temperature set too high	Check/adjust temperatures		
340tOHI61	32-73		er setting is set too high.		Dirt in system filter/filter ball SC1	Clean system filter/filter ball S		
	5251		ur heat pump Z2 is not working		Heat curve/hot water temperature set too	Check/adjust temperatures		
Customer			ecause your heat curve or hot er setting is set too high.		high  Dirt in system filter/filter ball SC1	Clean system filter/filter ball S		
Installer	5252		Heat pump Z1 limited by low medium flow (check filter)	Warning when heat transfer fluid delta >13K in heating mode, or >7K in cooling mode.	Poor circulation in heat transfer system/heating system	Check adjuster valves/radiato thermostats		
					Bad contact in CAN bus connections on Installer board/ I/O board heat pump	Check CAN bus connections of Installer board/ I/O board heat pump		
		Morning	at numn hoard 71 disconnected	Poor connection or interference on CAN bus	Failure on CAN bus cable between tower and heat pump	Replace CAN bus cable betwe tower and heat pump		
Installer	5265	Warning Heat pump board Z1 disconnected	Poor connection or interference on CAN bus between heat pump and inner part.	Wrong type of CAN bus cable Can bus cable placed together with power	Replace to correct type of cab Separate Can bus and power of by at least 100 mm			
Installer	5265				supply to heat pump			
Installer	5265				supply to heat pump Incorrect earthing of CAN bus cable	Remove/connect cable shield to/from earth		
Installer	5265	Alarm Heat	t pump board Z1 disconnected	Alarm after 3 warnings in 3 hours or failure for 15 minutes		Remove/connect cable shield to/from earth  See action for warning 5265 a		
		Alarm Heat	pump board Z1 disconnected		Incorrect earthing of CAN bus cable	Remove/connect cable shield		

Installer	5267		Warning Heat pump board Z2 disconnected	Poor connection or interference on CAN bus between heat pump 2 and inner part.	Failure on CAN bus cable between tower and heat pump 2 Wrong type of CAN bus cable	Replace CAN bus cable between tower and heat pump 2 Replace to correct type of cable
					Can bus cable placed together with power supply to heat pump 2	Separate Can bus and power cable by at least 100 mm Remove/connect cable shield
				Alarm after 3 warnings in 3 hours or failure for	Incorrect earthing of CAN bus cable	to/from earth
Customer	5268		Alarm Heat pump board Z2 disconnected	15 minutes	See causes for warning 5267 above	See action for warning 5267 above
					Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
Customer	5269		Alarm Z1 electric cassette EE has high temperature	Alarm when sensor TC1>87°C. Alarm resets when TC1<80°C.	Poor circulation in heat transfer system/heating system	Check adjuster valves/radiator thermostats
			·		Defective TC1 sensor	Check sensor TC1 with relevant
Customer	5270		Alarm Z2 electric cassette EE has high	Alarm when sensor TC1>87°C. Alarm resets	See causes for alarm 5269 above	sensor table/replace sensor TC1 See action for alarm 5269 above
Customer	3270		temperature	when TC1<80°C electric additional heat/tower 2.	See causes for alarm 3203 above	
					Defective T0 sensor	Check sensor TC0 with relevant sensor table/replace sensor TC0
			Alama Hastina and and high flam	Alamanda and To Man flow and an intil	3-way valve VW1 does not switch from HW position	Check function on 3-way valve VW1
Customer	5271		Alarm Heating system 1 high flow temperature	Alarm when sensor T0 > "Max flow set point" by 5 K.	Check that terminal 53 (O3) on I/O board gives 230 V in HW mode	If 230 V in HW mode replace VW1 motor part/cable
					Check that terminal 53 (O3) on I/O board	If 230 V not available in HW mode
					gives 230 V in HW mode Overheat protection has tripped	replace IO/board Reset overheat protection
Customer	5272		Alarm External additional heat EM does not work	Alarm external additional heat/overheat protection Alarm at 230 V on terminal 64 on installer board inner part.	See causes for alarm 5246	See action for alarm 5246
					Tripped fuse in distribution box	Replace/reset fuse in distribution box
				Alarm for phase loss, only 3-phase models. 1-	Tripped fuse in tower	Reset fuse in tower
Customer	5273		Alarm Heat pump Z1 phase guard alarm	phase: L1 missing = inner part no voltage. L3 missing = heat pump no voltage.	Phase(s) missing on input terminal heat pump	Check all phases available on input terminal in heat pump
				inissing = near pullip no voltage.	Phase(s) missing on input terminal on EMI filter in inverter	Check all phases available on input terminal on EMI filter
					If there is voltage on all phases on EMI filter the inverter is faulty	Replace inverter
Customer	5274		Alarm Heat pump Z2 phase guard alarm	Alarm as above, for heat pump 2.	See causes for alarm 5273	See action for alarm 5273
Customer	3214		Adminited pump 22 phase guard diamin	Admin as above, for fleat pump 2.	Diode on anode board shines red	Check connections/cabling on
					Check LED is green on anode board	terminal X2 and anode rod in tank  If diode is green, check that
Customer	5275		Alarm Anode does not work  Alarm on voltage > 1 Volt DC on terminal 45,	If voltage > 1 V DC on terminal 45, 46 on installer board, installer board is malfunctioning	Replace installer board	
		Alarm Anode does not		on installer board longer than 6 hours.	No green LED on anode board	Check there is 230 V on terminal X1 on anode board
					If there is 230 V on terminal X1 on anode board and LED is green, the anode board is	Replace anode board
					malfunctioning Dirty/clogged air heat exchanger on heat	Clean air heat exchanger on heat
					pump  Blocked/low air flow to air heat exchanger	pump Ensure adequate air flow over air
					on heat pump	heat exchanger.
					Fan not working Fan without 230V	Activate test outdoor unit Check there is 230V on output PL3
				Alarm when JR1 > 65°C in cooling mode in	For without 0.40V signal	Check there is 0-10V on output
Customer	5283		JR1 Alarm Clean heat pump Z2	heat pump 2.	Fan without 0-10V signal	PL3 PWM terminal 20 (20, 26) as per test outdoor unit
					Fan defective	If there is voltage as above, replace fan
						replace fall
					I/O board not working	If there is voltage as above,
					Poor/loss of circulation in heat transfer	If there is voltage as above, replace I/O board Check adjuster valves/radiator
					=	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant
					Poor/loss of circulation in heat transfer system/heating system  Defective TC3 sensor	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51,
					Poor/loss of circulation in heat transfer system/heating system	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on
Installer	5285		Warning freeze protection is active	Warning if TC3 < 5°C. Warning resets when TC3	Poor/loss of circulation in heat transfer system/heating system  Defective TC3 sensor	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board
Installer	5285		Warning freeze protection is active	Warning if TC3 < 5°C. Warning resets when TC3 and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor Defective I/O board, no PWM signal	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check nessor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 37, on I/O board,
Installer	5285		Warning freeze protection is active		Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor Defective I/O board, no PWM signal Defective I/O board, no PWM signal	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check nessor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal of terminal 36,37 on I/O board, circulation pump should increase to 109%
Installer	5285		Warning freeze protection is active		Poor/loss of circulation in heat transfer system/heating system  Defective TC3 sensor  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check ensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PFWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board
Installer	5285		Warning freeze protection is active		Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective Clo board Defective Clo board Defective circulation pump Dirty/clogged air heat exchanger on heat pump	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sonsor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board
Installer	5285		Warning freeze protection is active		Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective circulation pump Dirty/clogged air heat exchanger on heat pump Blocked/low air flow to air heat exchanger on heat pump	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 93, 70 n I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger.
Installer	5285		Warning freeze protection is active		Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective circulation pump Dirty/clogged air heat exchanger on heat pump Blocked/low air flow to air heat exchanger on heat pump Fan not working	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3
Installer	5285		Warning freeze protection is active		Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective circulation pump Dirty/clogged air heat exchanger on heat pump Blocked/low air flow to air heat exchanger on heat pump	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check ensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PFWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N)
Installer	5285		Warning freeze protection is active  JR1 Alarm Clean heat pump Z1		Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective circulation pump Dirty/clogged air heat exchanger on heat pump Blocked/low air flow to air heat exchanger on heat pump Fan not working	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sonsor TC3 with relevant sensor table/replace sensor TC3 Check to 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 03, 37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output L3 PWM terminal 20 (20, 26) as
				and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective I/O	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check nessor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 35,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit there is voltage as above,
				and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective circulation pump Diotyclogged air heat exchanger on heat pump Blocked/low air flow to air heat exchanger on heat pump Fan not working Fan without 230V  Fan without 0-10V signal  Fan defective	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace fan If there is voltage as above,
				and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective I/O board Defective I/O board Defective Circulation pump Dirty/clogged air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Dirty/clogged air heat exchanger on heat	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PVM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Clean air heat exchanger on heat pump Clean air heat exchanger on the theat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 per test outdoor unit If there is voltage as above, replace I/O board If there is voltage as above, replace I/O board Clean air heat exchanger on heat
				and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system  Defective I/O board, no PWM signal  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51. N)  Defective I/O board  Defective circulation pump  Dirty/clogged air heat exchanger on heat pump  Fan not working  Fan without 230V  Fan defective  I/O board not working  Dirty/clogged air heat exchanger on heat pump  Biocked/low air flow to air heat exchanger on heat pump  Fan other to the total control of the total	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check ensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PFWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 terminal 23 (78, N) Check there is voltage as above, replace I/O board If there is voltage as above, replace I/O board
				and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective I/O board Defective U/O board Defective Circulation pump Dirty/clogged air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Dirty/clogged air heat exchanger on heat pump	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PFWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PFW terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace I/O board If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump
				and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective I/O board Defective I/O board Defective D/O board D/O	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check nessor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Check there is 230 V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace I/O board If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump
				and TC1 > 7°C.	Poor/loss of circulation in heat transfer system/heating system Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Dirty/clogged air heat exchanger on heat pump Bilocked/low air flow to air heat exchanger on heat pump Fan not working Fan out working Fan without 230V	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check nessor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 pwM terminal 20 (20, 28) as per test outdoor unit If there is voltage as above, replace I/O board If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 230V on output PL3 terminal 32 (78, N) Check there is 230V on output PL3 terminal 32 (78, N) Check there is 230V on output PL3 terminal 32 (78, N)
				and TC1 > 7°C.  Alarm when JR1 > 65°C in cooling mode.	Poor/loss of circulation in heat transfer system/heating system Defective TC3 sensor Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective U/O board Defective I/O board Defective I/O board Defective U/O board Defective U/O board Defective U/O board Defective U/O board Defective I/O board not working Fan without 0-10V signal Fan defective I/O board not working Dirty/clogged air heat exchanger on heat pump Blocked/low air flow to air heat exchanger on heat pump Blocked/low air flow to air heat exchanger on heat pump Fan not working Fan not working	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 terminal 32 (78, N) Check there is voltage as above, replace I/O board If there is voltage as above, replace I/O board If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test at exchanger on heat pump Clean air heat exchanger on heat pump Clean air heat exchanger on the pump Clean air heat exchanger on
Customer	5292		JR1 Alarm Clean heat pump Z1	and TC1 > 7°C.  Alarm when JR1 > 65°C in cooling mode.	Poor/loss of circulation in heat transfer system/heating system Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Dirty/clogged air heat exchanger on heat pump Bilocked/low air flow to air heat exchanger on heat pump Fan not working Fan out working Fan without 230V	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check ensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PFWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 terminal 22 (20, 26) as
Customer	5292		JR1 Alarm Clean heat pump Z1	and TC1 > 7°C.  Alarm when JR1 > 65°C in cooling mode.	Poor/loss of circulation in heat transfer system/heating system Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Dirty/clogged air heat exchanger on heat pump Dirty/clogged air heat exchanger on heat Dump Dirty/clogged air heat exchanger on heat Dump Dirty/clogged air heat exchanger on heat Dump Dirty/clogged air flow to air heat exchanger On heat bump Fan not working Fan not working Fan without 230V Fan without 0-10V signal	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PVM signal on terminal 36,37 on I/O board, circulation pump should increase to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace i/O board not sensor to 100% Check for 230 V on terminal 01 (51, N) on I/O board Replace i/O board Replace i/O board Replace i/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 pVM terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78. N) Check there is 30V on output PL3 terminal 32 (78. N) Check there is 30V on output PL3 terminal 32 (78. N) Check there is 30V on output PL3 terminal 32 (78. N) Check there is 30V on output PL3 terminal 32 (78. N) Check there is 30V on output PL3 terminal 20 (20, 28) as per test outdoor unit Life the is voltage as above, output PL3 terminal 20 (20, 28) as per test outdoor unit lift there is voltage as above, output PL3 terminal 20 (20, 28) as per test outdoor unit lift there is voltage as above, lift the
Customer	5292		JR1 Alarm Clean heat pump Z1	and TC1 > 7°C.  Alarm when JR1 > 65°C in cooling mode.	Poor/loss of circulation in heat transfer system/heating system Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, no PWM signal Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board Defective I/O board Defective i/C board Defective circulation pump Dirty/clogged air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan defective I/O board not working Dirty/clogged air heat exchanger on heat pump Ean not working Dirty/clogged air heat exchanger on heat pump Fan defective I/O board not working Dirty/clogged air heat exchanger on heat pump Fan not working Fan without 230V Fan without 0-10V signal Fan feet pump Fan not working Fan without 230V Fan without 230V Fan without 0-10V signal Fan defective	If there is voltage as above, replace I/O board Check adjuster valves/radiator thermostats Check ensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board I/O board Clean air heat exchanger on heat pump Ensure adequate air flow over air heat exchanger. Activate test outdoor unit Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 pryM terminal 20 (20, 28) as per test outdoor unit If there is voltage as above, replace I/O board Clean air heat exchanger on heat pump Clean air heat exchanger on heat pump Clean air heat exchanger on heat pump Clean I/O board Clean air heat exchanger on heat pump Clean I/O board Clean air heat exchanger on heat pump La tyminal 32 (78, N) Check there is 230V on output PL3 terminal 32 (78, N) Check there is 0-10V on output PL3 terminal 32 (78, N) Check there is voltage as above, replace I/O or output PL3 terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace I/O or output PL3 terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace I/O or output PL3 terminal 20 (20, 26) as per test outdoor unit If there is voltage as above, replace I/O or output PL3 terminal 20 (20, 26) as per test outdoor unit

Installer	5294		Warning Dew point monitor has tripped	>2.5V DC on terminal MK2 (34,35) dew point monitor in Installer board	Installer board not working	Measure voltage on terminal MK2 (34, 35 on installer board with cable to humidity sensor disconnected, If voltage is less than 2.5 V DC disconnect Installer board
Customer	5295		Alarm Dew point monitor has tripped	Alarm after 30 minute warning	See causes for warning 5294	See action for warning 5294
					Coil to 4-way valve not working	Check resistance in magnetic coil on 4-way valve (1.3-1.5 kOhm), if not replace coil
			Cooling mode Alarm heat pump Z1. Fault	Alarm if TR3>TR4 and TC3>TC0 after 5 minutes	Check function of 4-way valve	Activate test outdoor unit, see separate document
Customer	5296		on 4-way valve, cannot switch to cooling	in cooling mode	230 V lost on terminal VR4 (81, N) Fault on sensor (TR3, TR4, TC3, TC0)	Replace I/O board Check sensor is in correct position, check sensor value with relevant sensor table and temperature
					4-way valve jams/not working	Replace 4-way valve
					Check function of 4-way valve	Activate test outdoor unit, see separate document
Customer	5297		Alarm heat pump Z1. Fault on 4-way valve, cannot switch to heating	Alarm if TR4>TR3 and TC0>TC3 after 5 minutes in heating mode		Check sensor is in correct position, check sensor value with relevant sensor table and temperature
					230 V on terminal VR4 during cooling mode/defrosting	Replace I/O board
					4-way valve jams/not working	Replace 4-way valve
					Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
					Poor circulation in heat transfer system/heating system	Ensure adequate flow
					Air in heat transfer system/heating system	Vent the heating system as per instructions in manual, top up with water in heating system.  Check sensor value with relevant
					Fault on sensor TC3, TC0, T0	sensor table and actual
Installer	5298		Warning Heat pump Z1 pressure too high	Warning if JR1>67°C (44 bar G).	VW1 does not switch from hot water to heat	Check VW1 position A=hot water, B=radiator
iii Stailei	3233		on JR1	Training it 51(120) C (44 Dat G).	Defective Installer board	Check that terminal 53 gives 230 V only for hot water
				Defective Installer board, no PWM signal	Only for not water Disconnect PWM signal on terminal 36,37 on Installer board, circulation pump should increase to 100%, if not replace circulation pump	
					Defective Installer board, 230 V missing on terminal 01 (51, N) Defective Installer board	Check for 230 V on terminal 01 (51, N) on Installer board  Replace Installer board
Customer	5299		Alarm Heat pump Z1 pressure too high on JR1	Alarm if JR1>67°C (44 bar G) 3 times in 2 hours	See warning 5298 above	See action for warning 5298 above
			J.K.		Pressure switch not working	Broken circuit <43bar = replace
Installer	5300		Warning Heat pump Z2 high pressure	Warning if HP switch MR1 cuts out (44 bar)	Failure/poor connection in cabling between	Pressure switch Check cabling/connections
	5301		switch has tripped  Alarm Heat pump Z2 high pressure switch	Alarm if HP switch MR1 2 warning in 3 hours	MR1 and inverter Failure/poor connection in cabling between MR1 and inverter	between MR1 and inverter Check that high pressure switch is closed See action for warning 5298, alarm
Customer			has tripped	heat pump 2	See warning 5298, alarm 5299 above	5299 above
Installer	5302		Warning Z1 high temperature on compressor driver	Internal high temperature in inverter, > 80°C gives warning	Poor heat transfer to cooling coil	Check screw union to cooling coil
Customer	5303		Alarm Z1 high temperature on compressor driver	Internal high temperature protection in inverter. > 80°C 3 warning in 3 hours, or warning active > 30 minutes gives alarm.	See warning 5302 above  Defective inverter	See action for warning 5302 above
Installer	5304		Warning Z2 high temperature on compressor driver	Internal high temperature in inverter heat pump 2, > 80°C gives warning	See warning 5302 above	See action for warning 5302 above
Customer	5305		Alarm Z2 high temperature on compressor	Internal high temperature protection in	See alarm 5303 above	See action for alarm 5303 above
Customer	3303		driver heat pump 2	inverter. > 80°C 3 warning in 3 hours, or warning active > 30 minutes gives alarm.	See alarm 5505 above	
Installer	5310		Warning heat pump Z1 high hot gas temperature	Warning if TR6 > max temp (90 or 115°C) for more than 60 seconds	Suction gas overheating too high  Check suction gas overheating	Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-
					Oneck suction gas overheating	JR0
Customer	5311		Alarm heat pump Z1 high hot gas temperature	Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes.	See warning 5310 above	See action for warning 5310 above
1					Suction gas overheating too high	Check that suction gas
Installer	5312		Warning heat pump Z2 high hot gas temperature	Warning if TR6 > max temp (90 or 115°C) for more than 60 seconds heat pump 2	Suction gas overheating too high	overheating does not exceed 10C continuously
Installer	5312			more than 60 seconds heat pump 2	Suction gas overheating too high  Check suction gas overheating	overheating does not exceed 10C
Installer	5312			more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90,	Check suction gas overheating Suction gas overheating too high	overheating does not exceed 10C continuously Suction gas overheating = TR5- JR0 Check that suction gas overheating does not exceed 10C continuously
			temperature  Alarm heat pump Z2 high hot gas	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes	Check suction gas overheating	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C
			temperature  Alarm heat pump Z2 high hot gas	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes	Check suction gas overheating Suction gas overheating too high Check suction gas overheating Hot gas sensor TR6/signal cable failure.	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6	Check suction gas overheating Suction gas overheating too high Check suction gas overheating Hot gas sensor TR6/signal cable failure. Screw terminal on I/O board to hot gas sensor TR6 not tightened	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6	Check suction gas overheating Suction gas overheating too high Check suction gas overheating Hot gas sensor TR6/signal cable failure. Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure.	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure  Warning heat pump Z1 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor	Check suction gas overheating Suction gas overheating too high Check suction gas overheating Hot gas sensor TR6/signal cable failure. Screw terminal on I/O board to hot gas sensor TR6 not tightened	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O actual temperature disconnected ohm value with sensor table and actual temperature disconnected
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure. I/O board not working  Hot gas sensor TR6/signal cable short circuited.	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure  Warning heat pump Z1 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure. I/O board not working  Hot gas sensor TR6/signal cable short circuited.  Signal cable to hot gas sensor TR6 short circuited	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Repair/replace signal cable to hot gas sensor TR6
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure  Warning heat pump Z1 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor TR6 after 3 faults in 2 hours.	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened  Hot gas sensor TR6/signal cable failure.  I/O board not working  Hot gas sensor TR6/signal cable short circuited.  Signal cable to hot gas sensor TR6 short circuited  I/O board not working	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Replace I/O board Repairreplace signal cable to hot gas sensor TR6 Repairreplace signal cable to hot gas sensor TR6 Replace I/O board Repairreplace signal cable to hot gas sensor TR6 Replace I/O board
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure  Warning heat pump Z1 hot gas sensor TR6 short circuit	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor TR6 after 3 faults in 2 hours.	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure. I/O board not working  Hot gas sensor TR6/signal cable short circuited. Signal cable to hot gas sensor TR6 short circuited I/O board not working  See possible causes for cause code 5314, 5315	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Repair/replace signal cable to hot gas sensor TR6 Replace I/O board See possible action for cause code 5314, 5315 Check sensor TR6/signal cable ohm value with sensor table and
Customer	5313		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure  Warning heat pump Z1 hot gas sensor TR6 short circuit  Alarm heat pump Z1 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor TR6 after 3 faults in 2 hours.	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened  Hot gas sensor TR6/signal cable failure.  I/O board not working  Hot gas sensor TR6/signal cable short circuited.  Signal cable to hot gas sensor TR6 short circuited  I/O board not working  See possible causes for cause code 5314, 5315  Hot gas sensor TR6/signal cable failure.	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sonsor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Replace I/O board Replace I/O board from I/O board terminal Replace I/O board for cause code 5314, 5315 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Customer  Installer  Installer  Customer	5313 5314 5315 5316		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure  Warning heat pump Z1 hot gas sensor TR6 short circuit  Alarm heat pump Z1 hot gas sensor TR6 faulty  Warning heat pump Z2 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor TR6 after 3 faults in 2 hours.  Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR6  Warning failure (>364 kOhm) on sensor TR6	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure. I/O board not working  Hot gas sensor TR6/signal cable short circuited.  Signal cable to hot gas sensor TR6 short circuited I/O board not working See possible causes for cause code 5314, 5315  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Replace I/O board Replace I/O board Replace I/O board terminal Repair/replace signal cable to hot gas sensor TR6 Replace I/O board See possible action for cause code 5314. 5315 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Customer  Installer  Installer  Customer	5313 5314 5315 5316		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 failure  Warning heat pump Z1 hot gas sensor TR6 short circuit  Alarm heat pump Z1 hot gas sensor TR6 faulty  Warning heat pump Z2 hot gas sensor TR6	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor TR6 after 3 faults in 2 hours.  Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR6  Warning failure (>364 kOhm) on sensor TR6	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened  Hot gas sensor TR6/signal cable failure.  I/O board not working  Hot gas sensor TR6/signal cable short circuited.  Signal cable to hot gas sensor TR6 short circuited  I/O board not working  See possible causes for cause code 5314, 5315  Hot gas sensor TR6/signal cable failure.	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Repair/replace signal cable to hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board
Customer  Installer  Installer  Customer	5313 5314 5315 5316		temperature  Alarm heat pump Z2 high hot gas temperature  Warning heat pump Z1 hot gas sensor TR6 faillure  Warning heat pump Z1 hot gas sensor TR6 short circuit  Alarm heat pump Z1 hot gas sensor TR6 faulty  Warning heat pump Z2 hot gas sensor TR6 faillure	more than 60 seconds heat pump 2  Alarm after 3 warnings in 3 hours (TR6 > 90, 115°) or warning active longer than 30 minutes heat pump 2  Warning failure (>364 kOhm) on sensor TR6 after 3 faults in 2 hours.  Warning short circuit (>350 kOhm) on sensor TR6 after 3 faults in 2 hours.  Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR6  Warning failure (>364 kOhm) on sensor TR6	Check suction gas overheating  Suction gas overheating too high  Check suction gas overheating  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened Hot gas sensor TR6/signal cable failure. I/O board not working  Hot gas sensor TR6/signal cable short circuited.  Signal cable to hot gas sensor TR6 short circuited I/O board not working See possible causes for cause code 5314, 5315  Hot gas sensor TR6/signal cable failure.  Screw terminal on I/O board to hot gas sensor TR6 not tightened	overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check that suction gas overheating does not exceed 10C continuously Suction gas overheating = TR5-JR0 Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal Replace hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Repair/replace signal cable to hot gas sensor TR6 Replace I/O board Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR6/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check screw terminal

Install I	5318 I	maining near paint as nor gas sens	or the   Halling allert ellegit (2000 ellin) on action		Cheek ohm velve with
Installer	3316	short circuited	TR6 heat pump 2 after 3 faults in 2 hours.	Hot gas sensor TR6 short circuited	Check ohm value with relevant sensor table/replace hot gas sensor TR6
				Signal cable to hot gas sensor TR6 short circuited	Repair/replace signal cable to heat transfer out sensor TC1
Customer	5319	Alarm heat pump Z2 hot gas senso heat pump 2 faulty	TR6 Alarm after 3 faults in 3 hours, or 15 minutes failure/short circuit on sensor TR6	I/O board not working See possible causes for cause code 5317, 5318	Replace I/O board See possible action for action code 5317, 5318
Installer	5320	Warning heat pump Z1 condenser s	ensor Warning failure (>390 kOhm) on condenser	Condenser sensor TC3/signal cable failure.	Check sensor TC3/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
installer	3320	TC3 failure	sensor TC3 after 3 faults in 2 hours	Screw terminal on I/O board to condenser sensor TC3 not tightened	Check screw terminal
				Condenser sensor TC3/signal cable failure.	Replace hot gas sensor TC3
				I/O board not working  Condenser sensor TC3/signal cable short circuited.	Replace I/O board  Check sensor TC3/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5321	Warning heat pump Z1 condenser s TC3 short circuited	ensor Warning short circuit (<390 Ohm) on condenser sensor TC3 after 3 faults in 2 hours.		Check ohm value with relevant sensor table and actual temperature/replace condenser sensor TC3
				Signal cable to condenser sensor/sensor TC3 short circuited  I/O board not working	Repair/replace signal cable/sensor to condenser sensor TC3  Replace I/O board
Customer	5322	Alarm heat pump Z1 condenser sens		See possible causes for cause code 5320,	See possible action for action
-		faulty	failure/short circuit on condenser sensor TC3	5321	Cheek 200, 5321
			Warning failure (>390 kOhm) on condenser	Condenser sensor TC3/signal cable short circuited	Check sensor TC3/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5323	Warning heat pump Z2 condenser s TC3 failure	sensor TC3 heat pump 2 after 3 faults in 2 hours	Condenser sensor TC3 short circuited	Check ohm value with relevant sensor table and actual temperature/replace condenser sensor TC3
				Signal cable to flow sensor T0 short circuited	Repair/replace signal cable to condenser sensor TC3
				I/O board not working	Replace I/O board Check sensor TC3/signal cable
			Warning short circuit (<390 Ohm) on	Condenser sensor TC3/signal cable short circuited.	ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5324	Warning heat pump Z2 condenser sensor TC3 short circuited	condenser sensor TC3 heat pump 2 after 3 faults in 2 hours.	Condenser sensor TC3 short circuited	sensor table and actual temperature/replace condenser sensor TC3
				Signal cable to condenser sensor/sensor TC3 short circuited  I/O board not working	Repair/replace signal cable/sensor to condenser sensor TC3  Replace I/O board
Customer	5325	Alarm heat pump Z2 condenser sens		See possible causes for cause code 5323,	See possible action for action
		faulty	failure/short circuit on condenser sensor TC3	No voltage to outdoor part	code 5323, 5324 Check 230/400 V connections in
		Warning heat pump Z1 communication error to compressor driver	tion Warning if > 20% of data sent to inverter	Interference on MOD bus	tower and ODU  Check MOD bus cable/connection terminals between I/O board and
Installer	5330		returns with error (wrong answer or no answer)	)	inverter Check cabling and routing (at least
				Incorrect CAN bus cable routing between IDU, ODU	100 mm between power cable and Can bus cable)
				No voltage to outdoor part	Check 230/400 V connections in tower and ODU
Customer	5331	Alarm heat pump Z1 communication	error Alarm if communication lost or > 30% of data sent to inverter returns with error (wrong	Interference on MOD bus	Check MOD bus cable/connection terminals between I/O board and inverter Check cabling and routing (at least
Oustomer	3331	to compressor driver	answer or no answer)	Incorrect CAN bus cable routing between IDU, ODU	100 mm between power cable and Can bus cable) Check for 12V DC on MOD bus
				I/O board not working  Inverter not working	terminal (31, 34) on I/O board. If no 12V DC. replace I/O board Replace inverter
				No voltage to outdoor part	Check 230/400 V connections in tower and ODU
Installer	5332	Warning heat pump Z2 communica	Warning if > 20% of data sent to inverter heat pump 2 returns with error (wrong answer or no	Interference on MOD bus	Check MOD bus cable/connection terminals between I/O board and
		error to compressor driver	answer)	Incorrect CAN bus cable routing between	inverter Check cabling and routing (at least
				IDU, ODU	100 mm between power cable and Can bus cable) Check 230/400 V connections in
				No voltage to outdoor part	tower and ODU Check MOD bus cable/connection
Cuotor	Faaa	Alarm heat pump Z2 communication	Alarm if communication lost or > 30% of data	Interference on MOD bus	terminals between I/O board and inverter Check cabling and routing (at least
Customer	5333	to compressor driver	sent to inverter heat pump 2 returns with error (wrong answer or no answer)	Incorrect CAN bus cable routing between IDU, ODU	100 mm between power cable and Can bus cable) Check for 12V DC on MOD bus
				I/O board not working  Inverter not working	terminal (31, 34) on I/O board. If no 12V DC. replace I/O board Replace inverter
In-4-17	F0.4=	Warning heat pump Z1 input voltag	Warning if input AC voltage to inverter < 165V	Poor contact in voltage supply to IDU/ODU	Check voltage supply
Installer	5347	low	for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V	Low input mains voltage	In event of repeated warnings contact electricity supplier
				Gap in cabling between compressor and inverter	Check cabling/connections between compressor and inverter
				Gap in cabling between compressor and inverter	Check cabling/connections between compressor and inverter
Installer		Warning heat num 74	Warning compressor motor (Synchronous		O
Installer	5350	Warning heat pump Z1 asynchronou on compressor	warning compressor motor (Synchronous motor) not synchronous, after 5 unsuccessful attempts to start	Oil/fluid in compressor when trying to start	Compressor sensor TR1 shows wrong value
Installer	5350		motor) not synchronous, after 5 unsuccessful	Compressor sensor TR1 shows wrong value	wrong value Check compressor sensor TR1 with relevant sensor table and actual temperature
Installer	5350		motor) not synchronous, after 5 unsuccessful attempts to start	Compressor sensor TR1 shows wrong value  If I/O board has been replaced, incorrect adjustment of rotary encoder on I/O board	wrong value Check compressor sensor TR1 with relevant sensor table and

	]	]			Gap in cabling between compressor and	Check cabling/connections	
					Gap in cabling between compressor and inverter	Check cabling/connections between compressor and inverter	
Installer				Warning compressor motor (Synchronous		Compressor sensor TR1 shows	
	5352		Warning heat pump Z2 asynchronous drive on compressor heat pump 2	motor) not synchronous, after 5 unsuccessful	Oil/fluid in compressor when trying to start	wrong value Check compressor sensor TR1	
			5.1 55.11p.155551 11541 pa.1.1p 2	attempts to start heat pump 2	Compressor sensor TR1 shows wrong value	with relevant sensor table and	
						actual temperature Check adjustment with relevant	
					If I/O board has been replaced, incorrect adjustment of rotary encoder on I/O board	wiring diagram	
0	5050		Alarm heat pump Z2 asynchronous drive on	Alarm after 3 warnings in 3 hours, or if warning	0	See possible action for action	
Customer	5353		compressor	is active for 30 minutes. Resets after 4 minutes if cause does not remain	See possible causes for cause code 5352	code 5352	
					Failure/short circuit in cabling between	Check cabling between inverter	
				Warning if inverter registers overcurrent >42 A	inverter and compressor	and compressor	
Installer	5354		Warning heat pump Z1 overcurrent compressor	DC to compressor >20 microseconds. Warning		Measure resistance between	
			ooproceer	resets after 4 minutes if cause does not remain	Electrical fault in compressor	windings and earth. With resistance < 10kOhm replace	
					Investor not working	compressor	
Customer	5355		Alarm heat pump Z1 Overcurrent	Alarm after 3 warnings in 3 hours, or if warning	Inverter not working See possible causes for cause code 5354	Replace inverter See possible action for action	
			compressor	is active for 30 minutes	· · · · · · · · · · · · · · · · · · ·	code 5354	
					Failure/short circuit in cabling between	Check cabling between inverter	
Installer			Warning host nump 72 overcurrent	Warning if inverter registers overcurrent >42 A	inverter and compressor	and compressor	
Installer	5356		Warning heat pump Z2 overcurrent compressor	DC to compressor >20 microseconds heat pump 2. Warning resets after 4 minutes if		Measure resistance between	
				cause does not remain	Electrical fault in compressor	windings and earth. With resistance < 10kOhm replace	
					Investor not working	compressor	
Customer	5357		Alarm heat pump Z2 Overcurrent on	Alarm after 3 warnings in 3 hours, or if warning	Inverter not working See possible causes for cause code 5356	Replace inverter See possible action for action	
			compressor	is active for 30 minutes	-	In event of repeated warnings	
Installer	5360		Warning heat pump Z2 PFC overcurrent on compressor driver	Warning if input AC current > 31A 6 times. Resets after 4 minutes if fault does not remain	Short dip in power supply/mains	In event of repeated warnings contact electricity supplier	
					Internal fault in inverter	Replace inverter	
Customer	5361	<u> </u>	Alarm heat pump Z2 PFC overcurrent on compressor driver	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5360	See possible action for action code 5360	
				Info if DC bus voltage >440 V > 30 seconds.	Too high voltage to heat pump	Check main fuses for poor contact	
Customer	5362		Info heat pump Z1 overvoltage	Resets after 4 minutes if DC bus voltage < 380	Too mgii voltage to near pump		
				V	Too high input mains voltage	In event of repeated warnings contact electricity supplier	
					Motor not correctly installed	Check valve motor	
					Check that valves open/close in correct order	Activate test outdoor unit	
				Warning if suction gas overheating < 2°C and		Measure resistance between cable	
Installer	5366		Warning heat pump Z1 low overheating	hot gas overheating < 20°C	Expansion valve motor defective	orange, red, yellow and black to grey. 46Kohm = ok, in event of	
					failure or short circuit replace		
							Expansion valve VR1 open too much/sticks
				Alarm after 3 warnings in 3 hours, or if warning	in open position	expansion valve	
Customer	5367		Alarm heat pump Z1 low overheating	is active for 30 minutes	See possible causes for cause code 5366	See possible action for action code 5366	
					Motor not correctly installed	Check valve motor	
					Check that valves open/close in correct order	Activate test outdoor unit	
Installer	5368		Warning heat pump Z2 low overheating	Warning if suction gas overheating < 2°C and	5.43.	Measure resistance between cable orange, red, yellow and black to	
instanci	3300		Walning heat pump 22 low overheating	hot gas overheating < 20°C heat pump 2	Expansion valve motor defective	grey. 46Kohm = ok, in event of	
						failure or short circuit replace valve motor	
					Expansion valve VR1 open too much/sticks in open position	With repeated warnings replace expansion valve	
				Alarm after 3 warnings in 3 hours, or if warning		See possible action for action	
Customer	5369		Alarm heat pump Z2 low overheating	is active for 30 minutes	See possible causes for cause code 5368	code 5368	
					Poor/loss of circulation in heat transfer system/heating system	Check adjuster valves/radiator thermostats	
					Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1	
					Air in heat transfer system/heating system	Vent the heating system as per instructions in manual, top up with	
	1			Air in heat transfer system/heating system	instructions in manual, top up with water in heating system.		
	<u> </u>		Warning heat name 74 feet	Wassing if TC2 , F2C Wassing	Air in heat transfer system/heating system  Defective TC3 sensor	instructions in manual, top up with	
Installer	5374		Warning heat pump Z1 freeze protection of condenser	Warning if TC3 < 5°C. Warning resets when TC3 and TC1 > 7°C.		instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51,	
Installer	5374				Defective TC3 sensor	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on VO board Disconnect PWM signal on	
Installer	5374				Defective TC3 sensor	instructions in manual, top up with water in heating system.  Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board	
Installer	5374				Defective TC3 sensor Defective VO board, 230 V missing	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 3,37 on I/O board, circulation pump should increase to 100%	
Installer	5374				Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)	instructions in manual, top up with water in heating system.  Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board	
Installer	5374				Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36, 37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, Check for 230 V on terminal 05, 150).	
Installer	5374		condenser  Alarm heat pump Z1 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning	Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board See possible action for action	
			condenser	and TC1 > 7°C.	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective Circulation pump  See possible causes for cause code 5374	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump See possible action for action code 5374	
			condenser  Alarm heat pump Z1 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board  Defective I/O board  Defective I/O board  Perective I/O board  Perective I/O board  Perective I/O board  Poor/loss of circulation pump	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on Urboard, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Check adjuster valves/radiator thermostats	
			condenser  Alarm heat pump Z1 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective I/O board  Poor/loss of circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per	
			condenser  Alarm heat pump Z1 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N) Defective I/O board  Defective I/O board  Defective I/O board  Perective I/O board  Perective I/O board  Perective I/O board  Poor/loss of circulation pump	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on Urboard, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace i/O board Replace circulation pump See possible action for action code 5374 Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with	
			condenser  Alarm heat pump Z1 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective I/O board  Poor/loss of circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1	instructions in manual, top up with water in heating system.  Check sensor TC3 with relevant sensor table/replace sensor TC3. Check for 230 V on terminal 01 (51, N) on I/O board  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%.  Check for 230 V on terminal 01 (51, N) on I/O board  Replace I/O board  Replace I/O board  Replace sirculation pump  See possible action for action code 5374  Check adjuster valves/radiator thermostats  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.	
			Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective Circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Defective TC3 sensor	instructions in manual, top up with water in heating system.  Check sensor TC3 with relevant sensor table/replace sensor TC3. Check for 230 V on terminal 01 (51, N) on I/O board.  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%.  Check for 230 V on terminal 01 (51, N) on I/O board.  Replace I/O board  Replace I/O board  Replace I/O board  Replace i/C board  Check for 230 V on terminal 01 (51, N) on I/O board  Check adjuster valves/radiator thermostats  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system as per instructions in manual, top up with water in heating system.	
Customer	5375		condenser  Alarm heat pump Z1 freeze protection of condenser	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective Circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3. Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 93, 70 n I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump. See possible action for action code 5374 Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system system check sensor TC3 with relevant sensor table/replace sensor TC3	
Customer	5375		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective Circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Defective TC3 sensor	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace i/O board Check for 230 V on terminal 01 (51, N) on I/O board The control of the c	
Customer	5375		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective Circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system  Defective TC3 sensor  Defective I/O board, 230 V missing	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Replace sirculation pump See possible action for action code 5374 Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 3,37 on I/O board, circulation pump should increase to 100%	
Customer	5375		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning	Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board 230 V missing on terminal 01 (51, N)  See possible causes for cause code 5374  Poorfloss of circulation pump  Defective I/O board 230 V missing on terminal 01 (51, N)  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing on terminal 01 (51, N)	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Replace I/O board Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, terminal	
Customer	5375		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective i/O board  Defective circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing on terminal 01 (51, N)	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump See possible action for action code 5374 Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Checkaplus on the manual of 100%. Check for 230 V on terminal 01 (51, N) on I/O board Checkaplus of the manual of 100%. Check for 230 V on terminal 01 (51, N) on I/O board	
Customer	5375 5376		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective i/C board  Defective circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace i/C board Replace i/C board Check for 230 V on terminal 01 (51, N) on I/O board Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system as per instructions TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board	
Customer	5375		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of condenser	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning resets when TC3 and TC1 > 7°C.	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective i/O board  Defective circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing on terminal 01 (51, N)	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Replace sirculation pump See possible action for action code 5374 Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system as to heck construction in manual, top up with water in heating system as per Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 3,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace circulation pump See possible action for action code 5376	
Customer	5375 5376		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of condenser	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning resets when TC3 and TC1 > 7°C.	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective i/C board  Defective circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace i/O board Check for 230 V on terminal 01 (51, N) on I/O board Check adjuster valves/radiator thermostats Clean system filter/filter ball SC1 Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system as per instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board See possible action for action	
Customer	5375 5376		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of condenser	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning resets when TC3 and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes heat pump 2  Warning if TR24 < 25°C or pressure sensor PH1 < 30°C after 800 seconds in defrosting.	Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective I/O board  Defective I/O board  Defective Circulation pump  See possible causes for cause code 5374  Poor/loss of circulation in heat transfer system/heating system  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace I/O board Replace I/O board Replace I/O to the third the I/O to I	
Customer  Installer  Customer	5375 5376		Alarm heat pump Z1 freeze protection of condenser  Warning heat pump Z2 freeze protection of condenser  Alarm heat pump Z2 freeze protection of condenser	and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes  Warning if TC3 < 5°C heat pump 2. Warning resets when TC3 and TC1 > 7°C.  Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes heat pump 2  Warning if TR24 < 25°C or pressure sensor PH1	Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, no PWM signal  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Dirt in system filter/filter ball SC1  Air in heat transfer system/heating system  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board, 230 V missing on terminal 01 (51, N)	instructions in manual, top up with water in heating system. Check sensor TC3 with relevant sensor table/replace sensor TC3 Check for 230 V on terminal 01 (51, N) on I/O board Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%. Check for 230 V on terminal 01 (51, N) on I/O board Replace I/O board Replace i/O board Replace i/C board Replace i/C board Replace i/C board Check for 230 V on terminal 01 (51, N) on I/O board Check dijuster valves/radiator thermostats Clean system filter/filter ball SC1 Vent the heating system as per instructions in manual, top up with water in heating system in heating system in the control of the contr	

Customa 2327 Westing Part party 2 Trained antiques of the Control to enchange of the Control to enchan					1	lo				
Control 2002   Part holy programs of the control based on the control ba				Warning if TR24 < 25°C or pressure sensor PH1 < 30°C after 800 seconds in defrosting.	Too low temperature in heating system					
And in face parting of control control control and section of the control of the	Customer	5380	Warning Heat pump Z2 failed defrosting	Warning after 3 times in 3 hours, or if conditions are active for 30 minutes heat pump	Sensor TL2 defective	sensor table and actual temperature. In event of deviation				
Construct  Solid  Alam had pump 21 internal discrepance of the Part of the Special Construct  Provide for the Special Construct  Annual pump 21 internal discrepance  Construct  Solid  Annual pump 21 internal discrepance  Construct  Construct  Construct  Annual pump 21 internal discrepance  Construct  Annual pump 21 internal discrepance  Construct  Co					Poor heat transfer to cooling coil					
About the state of	Customer	5387				Replace inverter				
Castoning   Subject   Warning heat prop 21 included compressed   Subject   Warning heat prop 22 included compressed   Subject   Subjec					mverter					
Intention    Part   Par	Customor	5290	Alarm heat pump Z2 compressor driver is		Poor heat transfer to cooling coil	Check screw union to cooling coil				
Parent   P	Customer	3369	too hot			Replace inverter				
Marine from pump 2 in femonic comproses of femonic					Failure/short circuit in cabling between					
All man bear promy 7.1 Interest compressed to the Control of State 2 and the S	Installer	5394		DC to compressor >20 microseconds. Warning		Measure resistance between windings and earth. With resistance < 10kOhm replace				
Marriage					Inverter not working	Replace inverter				
Writing heat pump 21 lettinate compressed from Fall State Compressed from F	Customer	5395			See possible causes for cause code 5394					
Marring heat pump 21 air incide season TL3 fallow				Manufactification and the second seco						
Alors the part of	Installer	5396		DC to compressor >20 microseconds heat pump 2. Warning resets after 4 minutes if	Electrical fault in compressor	Measure resistance between windings and earth. With resistance < 10kOhm replace compressor				
Bostalier 548 Warning heet pump 21 air inche sensor TL2 fellure warning heet pump 21 fillure in heating mode sensor TL3 fellure warning heet pump 21 fillure in heating mode sensor TL3 fellure warning heet pump 21 fillure in heating mode sensor TL3 fellure warning heet pump 21 fillure in heating mode sensor TL3 fillure warning heeat pump 22 fillure in in heating mode sensor TL3 fillure warning			Alarm heat pump Z2 Internal compressor	Alarm after 3 warnings in 3 hours, or if warning						
Installer   S400   Warning heat pump 21 air intale temperature across T12 feature   Warning after 3 feature   Warning af	Customer	5397			See possible causes for cause code 5396					
Installer    Set			Warning heat nump 74 air inteke	Warning after 2 faults (~170 kOhm) in 2 hours	Air intake sensor TL2/signal cable failure.	ohm value with sensor table and actual temperature disconnected				
Installer	Installer	5408				Check screw terminal				
Installer  S410  Warning heat pump 21 air intake temperature sensor TL2 short circuited temperature sensor TL2 short circuited sensor TL3 short circuited se										
Installer  Set 20  Warning heet pump 21 air intabe sensor TL2 flagral cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagral cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagral cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagral cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable sensor flagrand cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable sensor flagrand cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable sensor flagrand cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable sensor flagrand cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 22 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 21 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 21 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 21 air intabe sensor TL2 flagran cable short circuited.  Warning heet pump 21 flad line in heating mode sensor TL3 flagran cable short circuited.  Warning flagran pump 21 flad line in heating mode sensor TL3 flagran circuit circuited.  Warning flagran pump 21 flad line in heating mode sensor TL3 flagran circuited circuited on sensor TL3.  Warning had pump 21 flad line in heating mode sensor TL3 flagran pump 21 flad line in heating mode sensor TL3 flagran pump 21 flad line in heating mode sensor TL3 flagran circuited circuited.  Warning had pump 22 flad line in heat										
Numing less gorng 71 st) intake sensor TL2 signal cable and control replace gorng 71 st) intake sensor TL2 signal cable and control replace gorng 71 st) intake sensor TL2 signal cable and so that sensor TL2 signal cable and so actual responsibility of the sensor TL2 signal cable and so actual responsibility of the sensor TL2 signal cable and so actual responsibility of the sensor TL2 signal cable and so actual responsibility of the sensor TL2 signal cable and so actual responsibility of the sensor TL2 short circuited.    Solid Count of the sensor TL2 short circuited   Solid rist o					Source not morking	-				
emperature sensor TL2 ahort circuited  sensor TL2 after 3 fautts in 2 hours.  Signal cable to air intake sensor TC3 ahort circuited sensor intake sensor TC2 ahort circuited sensor intake sensor TC2 ahort circuited sensor intake sensor TC2 fauthr  Warning heat pump 21 air intake sensor TL2 heat pump 2 fautin intake sensor TL3 heat pu						ohm value with sensor table and actual temperature disconnected from I/O board terminal				
Costomer 5410 Alarm heat pump 21 air intake temperature sensor TL2 featily  Werning heat pump 22 air intake temperature sensor TL2 featily  Warning heat pump 21 air intake temperature sensor TL2 featily  Warning heat pump 21 air intake temperature sensor TL2 featily  Warning heat pump 21 air intake temperature sensor TL2 featily  Warning heat pump 21 air intake temperature sensor TL2 featily  Warning heat pump 21 air intake sensor TL2 heat pump 2 after 3 featils (-179 ADmin) in 2 hours air intake sensor TL2 featily temperature sensor TL2 featily temperature sensor TL2 heat pump 2 after 3 featils (-179 ADmin) in 2 hours air intake sensor TL2 featily temperature sensor TL2 sensor TL2 heat pump 2 after 3 featils (-179 ADmin) in 2 hours air intake sensor TL2 featily temperature sensor TL2 featily temperature sensor TL2 featily temperature sensor TL2 sensor TL2 heat pump 2 after 3 featils (-179 ADmin) on a sensor TL2 featily temperature sensor TL2 s	Installer	5409	5409	5409	5409	5409			Air intake sensor TC3 short circuited	sensor table and actual temperature/replace air intake
Alarm heat pump 21 air imake temperature sensor TL2 featury  Installer  Installer  Set12  Alarm heat pump 22 air imake temperature sensor TL2 feature  Warning heat pump 22 air imake temperature sensor TL2 feature  Warning heat pump 22 air imake temperature sensor TL2 feature  Warning heat pump 22 air imake temperature sensor TL2 feature  Warning heat pump 22 air imake temperature sensor TL2 feature  Warning short circuit (-500 Ohm) on air imake temperature sensor TL2 short circuited  Warning heat pump 22 air imake temperature sensor TL2 feature  Warning short circuit (-500 Ohm) on air imake sensor TL2 shippal cable failure.  Warning short circuit (-500 Ohm) on air imake sensor TL2 shippal cable failure.  Warning short circuit (-500 Ohm) on air imake sensor TL2 short circuited temperature sensor TL2 short circuited sensor TL2 heat pump 2 after 3 faults in 2 hours, or 15 minutes  Set14  Marm heat pump 21 air imake temperature sensor TL2 short circuited sensor TL2 short circuited.  National sensor TL2 featury  Warning heat pump 21 fluid line in heating mode sensor TR3 failure  Sensor TL2 featury  Warning short circuit (-500 Ohm) on sensor TR3 short circuited sensor TR3 short circuited sensor sensor TL2 short circuited sensor TR3 short circuited s				<u> </u>	TL2 short circuited					
Installer  S411  Warning heat pump 22 air intake temperature sensor TL2 failure  Warning heat pump 22 air intake temperature sensor TL2 failure  Warning heat pump 21 air intake sensor TL2 heat pump 2 failure  air intake sensor TL2 heat pump 2 failure  Air intake sensor TL2 failure  Warning heat pump 21 air intake temperature sensor TL2 failure  Warning heat pump 21 air intake temperature sensor TL2 heat pump 2 failure  Warning heat pump 21 air intake temperature sensor TL2 short circuited  Warning heat pump 21 air intake temperature sensor TL2 short circuited  Warning heat pump 21 air intake temperature sensor TL2 short circuited  Warning heat pump 21 air intake temperature sensor TL2 short circuited  Warning heat pump 21 air intake temperature sensor TL2 short circuited  Warning heat pump 21 air intake temperature sensor TL2 short circuited  Warning heat pump 21 air intake temperature sensor TL2 short circuited  Air intake sensor TL2/signal cable short circuited.  Air in	Customer	5410			See possible causes for cause code 5408,	See possible action for action				
Installer    Secretarinal procession						Check sensor TL2/signal cable ohm value with sensor table and actual temperature disconnected				
Installer  S412  Warning heat pump Z1 air intake temperature sensor TL2 short circuited.  Warning heat pump Z1 air intake temperature sensor TL2 short circuited.  Warning heat pump Z1 air intake temperature sensor TL2 short circuited.  Alarm heat pump Z1 air intake temperature sensor TL2 short circuited.  Alarm heat pump Z1 air intake temperature sensor TL2 short circuited.  Alarm heat pump Z1 air intake temperature sensor TL2 short circuited.  Alarm heat pump Z1 air intake temperature sensor TL2 short circuited sensor TL2 short	Installer	5411				Check screw terminal				
Installer  S412  Warning heat pump 21 sir intake temperature sensor TL2 short circuited.  Warning heat pump 21 sir intake temperature sensor TL2 short circuited.  Warning heat pump 21 sir intake temperature sensor TL2 short circuited.  Warning heat pump 21 sir intake temperature sensor TL2 short circuited.  Warning heat pump 21 sir intake temperature sensor TL2 short circuited.  Alarm sheat pump 2 sir intake temperature sensor TL2 short circuited.  Alarm sheat pump 2 sir intake temperature sensor TL2 short circuited sensor TL2 short circuited sensor TL2 short circuited.  Signal cable to air intake sensor TL2 short circuited sensor TL2										
Installer 5412 Warning heat pump Z1 air intake temperature sensor TL2 heat pump 2 after 3 faults in 2 hours.  Warning heat pump Z1 air intake temperature sensor TL2 heat pump 2 after 3 faults in 2 hours.  Customer 5413 Alarm heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 short circuited  Warning heat pump Z1 fluid line in heating mode sensor TR3 short circuited  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning failure (>179 kOhm) on sensor TR3.  Warning short circuite (>390 Ohm) on sensor TR3.  Warning failure (>179 kOhm) on sensor TR3.  Warning short circuite (>390 Ohm) on sensor TR3.  W						cable sensor TL2				
Marning heat pump Z1 air intake temperature sensor TL2 short circuited temperature sensor table and actual table sensor TR3 short circuited.  Sensor TR3/signal cable failure.  Wa					I/O board not working	Replace I/O board				
Installer 5412 warming near the temperature sensor TL2 short circuited bours.  Sensor TL2 the at pump 2 if ir intake temperature sensor TL2 short circuited bours.  Alarm heat pump 21 air intake temperature Alarm after 3 faults in 2 hours, or 15 minutes Sensor TL3 working.  Warming heat pump 21 fluid line in heating mode sensor TR3 fallure  Sensor TR3 faults in 2 hours.  Warming heat pump 21 fluid line in heating mode sensor TR3 fallure  Sensor TR3/signal cable failure.  Warming heat pump 21 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Warning heat pump 22 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line in heating mode sensor TR3 failure  Sensor TR3 fluid line line line line li						ohm value with sensor table and actual temperature disconnected from I/O board terminal				
Customer 5413 Alarm heat pump Z1 air intake temperature sensor T12 (Doard not working)  Alarm heat pump Z1 air intake temperature sensor T12 (Doard not working)  Alarm heat pump Z1 air intake temperature sensor T12 (Doard not working)  Alarm heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z1 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Alarm heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Alarm heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Alarm heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in h	Installer	5412		sensor TL2 heat pump 2 after 3 faults in 2	Air intake sensor TL2 short circuited	sensor table and actual temperature/replace air intake				
Customer 5413 Alarm heat pump Z1 alir intake temperature sensor TL2 faulty  Alarm heat pump Z1 alir intake temperature sensor TC0.  Alarm heat pump Z1 fluid line in heating mode sensor TR3 failure  Binstaller 5415 Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning short circuit (<390 Ohm) on sensor TR3 sensor TR3/signal cable failure.  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure (>1798 Ohm) on sensor TR3/signal cable failure.  Warning short circuit (<390 Ohm) on sensor TR3 sensor TR3/signal cable failure.  Warning short circuited  Warning short circuit (<390 Ohm) on sensor TR3 sensor TR3 short circuited  Warning short circuited  W						Repair/replace signal cable/sensor				
Alarm heat pump Z1 fluid line in heating mode sensor TR3 failure    S414   Warning heat pump Z1 fluid line in heating mode sensor TR3 failure										
Installer  5414  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Alarm after 3 faults in 2 hours.  Warning heat pump Z1 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuite  Warning	Customer	5413			See possible causes for cause code 5411,	See possible action for action				
Installer						Check sensor TR3/signal cable ohm value with sensor table with inner part disconnected from I/O				
Installer    Sample	Installer	5414								
Installer					Sensor TR3/signal cable failure.	Replace sensor TR3				
Installer										
Customer 5416 Alarm heat pump Z1 fluid line in heating mode sensor TR3 faulty    Separate   Signal cable/sensor TR3 short circuited   Replace sensor TR3   Signal cable/sensor TR3 short circuited   Replace sensor TR3   Replace sensor TR3   Replace sensor TR3   See possible causes for cause code 5414, 5415   See possible action for action code 5414, 5415   Sensor TR3/signal cable failure.    Separate   Sep	Installer	5415			cable short circuited.	ohm value with sensor table with inner part disconnected from I/O board terminal				
Customer 5416 Alarm heat pump Z1 fluid line in heating mode sensor TR3 faulty    See possible causes for cause code 5414, 5415				The arter o radies in 2 nours.		sensor table/replace sensor TR3				
Customer 5416 Alarm heat pump Z1 fluid line in heating mode sensor TR3 faulty  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning heat pump Z2 fluid line in heating mode sensor TR3 failure  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Screw terminal on I/O board to sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Screw terminal on I/O board to sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3 signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3 signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3 signal cable failure.  Warning failure (>179 kOhm) on sensor TR3 for tightened Sensor TR3/signal cable failure.  Screw terminal on I/O board to sensor TR3  Heat transfer fluid in sensor TR3/signal cable failure.  Warning failure (>179 kOhm) on sensor TR3  Heat pump 22 fluid line in heating for tightened Sensor TR3 short circuited.  Warning failure (>179 kOhm) on sensor TR3  Not tightened Sensor TR3					I/O board not working	Replace I/O board				
Installer    Sample	Customer	5416			See possible causes for cause code 5414,					
Installer  Installer  Installer  Alarm heat pump 2 after 3 faults in 2 hours  heat pump 2 after 3 faults in 2 hours  heat pump 2 after 3 faults in 2 hours  Screw terminal on I/O board to sensor TR3 Check screw terminal on I/O board  Sensor TR3/signal cable failure.  Replace I/O board Check sensor TR3/signal cable failure.  Check sensor TR3  Check screw terminal on I/O board to working  Check sensor TR3  Check screw terminal on I/O board  Check screw terminal on I/O board  TR3 sensor TR3/signal cable failure.  Check sensor TR3  Check screw terminal on I/O board  Check screw terminal on I/O board  TR3 sensor TR3/signal cable failure.  Check sensor TR3  Check screw terminal on I/O board  TR3 sensor TR3/signal cable failure.  Check sensor TR3  Check screw terminal on I/O board  TR3 sensor TR3/signal cable failure.  Check sensor TR3  Sensor TR3 short circuited.  Sensor TR3 short circuited  Sensor TR3 short circuited sensor TR3  Sensor TR3 short circuited sensor TR3  Replace I/O board not working  Replace I/O board  Alarm after 3 faults in 2 hours, or 15 minutes  See possible causes for cause code 5417, Sepossible action for action for action	Installer	E447				Check sensor TR3/signal cable ohm value with sensor table with inner part disconnected from I/O				
Installer	mstailer	341/				Check screw terminal on I/O board				
Check sensor TR3/signal cable   Warning heat pump Z2 fluid line in heating mode sensor TR3 short circuited   Warning short circuit (<390 Ohm) on sensor TR3 short circuited.   Warning short circuit (<390 Ohm) on sensor TR3 short circuited.   Sensor TR3 short circuited   Check ohm value with sensor table with inner part disconnected from I/O board terminal   Check ohm value with relevant sensor table/replace sensor TR3   Signal cable/sensor TR3 short circuited   Sensor TR3 short circuited   Sensor TR3 short circuited   Sensor TR3 short circuited   Replace sensor TR3   Sensor TR					Sensor TR3/signal cable failure.					
Installer    S418										
Sensor IR3 short circuited sensor TR3 sensor table/replace sensor TR3 Signal cable/sensor TR3 sensor table/replace sensor TR3 Signal cable/sensor TR3 short circuited Replace sensor TR3	Installer	5418			cable short circuited.	ohm value with sensor table with inner part disconnected from I/O board terminal				
					Signal cable/sensor TR3 short circuited I/O board not working	sensor table/replace sensor TR3 Replace sensor TR3 Replace I/O board				
	Customer	5419	Alarm heat pump Z2 fluid line in heating mode sensor TR3 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	See possible causes for cause code 5417, 5418	See possible action for action code 5417, 5418				

			Warning heat pump Z1 fluid line in cooling	Warning after 3 faults (>170 kOhm) in 2 hours	Sensor TR4/signal cable failure.	Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5420		mode sensor TR4 failure	sensor TR4 failure	Screw terminal on I/O board to sensor TR4	Check screw terminal on I/O board
					not tightened  Air intake sensor TR4/signal cable failure.	Replace sensor/signal cable
					I/O board not working	sensor TR4 Replace I/O board
					Sensor TR4/signal cable short circuited.	Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5421		Warning heat pump Z1 fluid line in cooling mode sensor TR4 short circuited	Warning short circuit (<900 Ohm) on sensor TR4 after 3 faults in 2 hours.	Sensor TR4 short circuited	Check ohm value with relevant sensor table and actual temperature/replace sensor TR4
					Signal cable/sensor TR4 short circuited	Replace signal cable/sensor to sensor TR4
Customer	5422		Alarm heat pump Z1 fluid line in cooling	Alarm after 3 faults in 2 hours, or 15 minutes	I/O board not working See possible causes for cause code 5421,	Replace I/O board See possible action for action
	-		mode sensor TR4 faulty  Warning heat pump Z2 fluid line in cooling	failure/short circuit on sensor TR4.  Warning after 3 faults (>170 kOhm) in 2 hours	5421 Sensor TR4/signal cable failure.	code 5420, 5421  Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5423		mode sensor TR4 failure	sensor TR4 heat pump 2 failure	Screw terminal on I/O board to sensor TR4 not tightened	Check screw terminal on I/O boar
					Air intake sensor TR4/signal cable failure.	Replace sensor/signal cable sensor TR4
			Warning heat pump Z2 fluid line in cooling	Warning short circuit (<900 Ohm) on air intake	I/O board not working  Sensor TR4/signal cable short circuited.	Replace I/O board  Check sensor TR4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	5424		mode sensor TR4 short circuited	sensor TL2 heat pump 2 after 3 faults in 2 hours.	Sensor TR4 short circuited	Check ohm value with relevant sensor table and actual temperature/replace sensor TR4
					Signal cable/sensor TR4 short circuited	Replace signal cable/sensor to sensor TR4
				Alarm after 3 faults in 2 hours, or 15 minutes	I/O board not working	Replace I/O board
Customer	5425		Alarm heat pump Z2 fluid line in cooling mode sensor TR4 faulty	failure/short circuit on sensor TR4 heat pump 2.	See possible causes for cause code 5421, 5421	See possible action for action code 5420, 5421
Installer	5426		Warning heat pump Z1 suction gas sensor TR5 failure	Warning failure (>179 kOhm) on sensor TR5 after 3 faults in 2 hours	Sensor TR5/signal cable failure.	Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal
				Screw terminal on I/O board to sensor TR5 not tightened	Check screw terminal on I/O board	
					Sensor TR5/signal cable failure. I/O board not working	Replace sensor TR5 Replace I/O board
						Check sensor TR5/signal cable ohm value with sensor table and
Installer	5427		Warning heat pump Z1 suction gas sensor	Warning short circuit (<390 Ohm) on sensor	Sensor TR5/signal cable short circuited.	actual temperature disconnected from I/O board terminal
Installer	5427		Warning heat pump Z1 suction gas sensor TR5 short circuited	Warning short circuit (<390 Ohm) on sensor TR5 after 3 faults in 2 hours.	Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited	from I/O board terminal Check ohm value with relevant
Installer	5427				Sensor TR5 short circuited Signal cable/sensor TR5 short circuited	from I/O board terminal  Check ohm value with relevant sensor table/replace sensor TR5  Replace sensor TR5
			TR5 short circuited  Alarm heat pump Z1 suction gas sensor		Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426,	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Replace I/O board See possible action for action
Installer  Customer	5427 5428		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty	TR5 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Replace I/O board See possible action for action code 5426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected
			TR5 short circuited  Alarm heat pump Z1 suction gas sensor	TR5 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited  I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Replace I/O board See possible action for action code 5426, 5427 Check sensor TR5/signal cable ohm value with sensor table with
Customer	5428		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor	TR5 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited  I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure.	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Replace I/O board See possible action for action code 5426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace sensor TR5
Customer	5428 5429		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor	TR5 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor	Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427 Sensor TR5/signal cable failure. Screw terminal on I/O board to sensor TR5 not tightened	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Replace I/O board See possible action for action code 5426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board
Customer	5428		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure	TR5 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours	Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427 Sensor TR5/signal cable failure. Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board See possible action for action code 5426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace sensor TR5 Replace I/O board Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board Check of the TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant
Customer	5428 5429		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor	TR5 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Check sensor TR5/Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace sensor TR5 Replace Sensor TR5/Signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check check of TR5/Signal cable ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Replace sensor TR5 Replace sensor TR5
Customer	5428 5429		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor	Alarm after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited  I/O board not working  See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure.  I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited  I/O board not working	from I/O board terminal Check ohm value with relevant sensor table/freplace sensor TR5 Replace Sensor TR5/ Seplace Sensor TR5/ Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5 Replace Sensor TR5 Replace Sensor TR5/ Replace Sensor TR5
Customer	5428 5429 5430		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited	TR5 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Seplace Sensor TR5 Seplace Sensor TR5/Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O boar Replace Sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace S
Customer	5428 5429 5430		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 short circuited	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited  I/O board not working  See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure.  I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board See possible action for action code \$426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Check cabling and terminal connections 17, 19 on IO board Check that terminal 17 with pressure
Customer	5428 5429 5430		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor	Alarm after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5/Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5
Customer Installer Customer	5428 5429 5430 5431		TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 faulty  Warning heat pump Z1 pressure sensor low	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited  I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure.  I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board  IO board defective  Pressure sensor JR0 defective	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board See possible action for action code 5426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Replace sensor TR5 Replace sensor TR5 Check ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Check cabling and terminal Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage «0.5V, replace IO board Check that terminal 19 gives 5V
Customer  Installer  Installer  Customer	5428 5429 5430		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 short circuited  Warning heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z1 pressure sensor low pressure JR0 failure	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working Sensor TR5 short circuited J/O board not working Sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5/Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5/Signal cable ohm value with sensor table and check screw terminal on I/O board Replace Sensor TR5 Replace I/O board Check sensor TR5/Signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board Check challer/enlace sensor TR5 Replace Sensor TR5 Replace I/O board Check challing and terminal connections 17, 19 on I/O board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage -0.5V, replace I/O board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage -0.5V, replace I/O board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage -15V, replace I/O poard Sepossible action for action code 5432
Customer Installer Customer	5428 5429 5430 5431		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 short circuited  Warning heat pump Z1 pressure sensor low pressure JR0 failure  Alarm heat pump Z1 pressure sensor low pressure JR0 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited  I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure.  I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board  IO board defective  Pressure sensor JR0 defective	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Seplace Sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5 Replace Sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Check cabling and terminal connections 17, 19 on IO board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage solv replace pressure sensor See possible action for action code 5429 Check cabling and terminal connections 17, 19 on IO board Check that terminal 19 gives SV Check cabling and terminal connections 17, 19 on IO board Check that terminal 19 gives SV Check cabling and terminal connections 17, 19 on IO board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage connections 17, 19 on IO board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage switch disconnected, if voltage switch disconnected, if voltage
Customer  Installer  Customer  Installer	5428 5429 5430 5431 5432		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 failure  Alarm heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z1 pressure sensor low pressure JR0 failure  Alarm heat pump Z1 pressure sensor low pressure JR0 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board  Alarm after 3 faults in 2 hours, or 15 minutes constant failure	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432 Gap in cabling/terminal 17,19 on IO board	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board See possible action for action code \$426, \$427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace sensor TR5 Replace I/O board Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board See possible action for action code \$429, \$430 Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V_replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V_replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V_replace I/O board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage col.5V_replace I/O board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V_replace I/O board Check that terminal 17 with pressure switch disconnected, if voltage = 5V_replace I/O board Check that terminal 17 with pressure switch disconnected, if voltage = 5V_replace I/O board Check that terminal 17 with pressure switch disconnected, if voltage = 5V_replace I/O board Check that terminal 17 with pressure
Customer  Installer  Customer  Installer	5428 5429 5430 5431 5432		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 failure  Alarm heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 faulty  Warning heat pump Z1 pressure sensor low pressure JR0 failure  Alarm heat pump Z1 pressure sensor low pressure JR0 failure  Warning heat pump Z2 pressure sensor low pressure JR0 failure	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board  Alarm after 3 faults in 2 hours, or 15 minutes constant failure  Warning if voltage < 0.5V on terminal 17 on IO board heat pump 2	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432 Gap in cabling/terminal 17,19 on IO board IO board defective	from I/O board terminal Check ohm value with relevant sensor table/freplace sensor TR5 Replace I/O board See possible action for action code 5426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Replace WO board Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board Check that terminal 19 gives 5V DC to terminal 17, 19 on IO board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace IO board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace nessure sensor See possible action for action code 5432 Check cabling and terminal connections 17, 19 on IO board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace possible action for action code 5432 Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace IO board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace IO board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace IO board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace Do board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V, replace Do board Check that terminal 19 gives 5V DC to terminal 17 with pressure
Customer  Installer  Customer  Installer  Customer	5428 5429 5430 5431 5432 5434		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 faulty  Warning heat pump Z1 pressure sensor low pressure JR0 failure  Alarm heat pump Z1 pressure sensor low pressure JR0 failure  Warning heat pump Z2 pressure sensor low pressure JR0 failure	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board  Alarm after 3 faults in 2 hours, or 15 minutes constant failure  Warning if voltage < 0.5V on terminal 17 on IO board heat pump 2	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited 1/0 board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432 Gap in cabling/terminal 17,19 on IO board IO board defective	from I/O board terminal Check ohm value with relevant sensor table/freplace sensor TR5 Replace Sensor TR5 Replace I/O board See possible action for action code \$426, 5427 Check sensor TR5/signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace sensor TR5 Replace Sensor TR5 Replace Sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Replace I/O board Check tabling and terminal connections 17, 19 on I/O board Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$435 Check chalt terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$435 Check cabling and terminal Check that terminal 19 gives 5V Check cabling and terminal Check chalt grant 19 gives 5V Check cabling and terminal Check that terminal 19 gives 5V Check cabling and terminal Check that terminal 19 gives 5V Check cabling and terminal Check that terminal 19 gives 5V Check cabling and terminal Check that terminal 19 gives 5V Check cabling and terminal Check that terminal 19 gives 5V Check cabling and terminal
Customer  Installer  Customer  Installer  Customer	5428 5429 5430 5431 5432 5434		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 failure  Alarm heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 faulty  Warning heat pump Z1 pressure sensor low pressure JR0 failure  Alarm heat pump Z1 pressure sensor low pressure JR0 failure  Warning heat pump Z2 pressure sensor low pressure JR0 failure	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board  Alarm after 3 faults in 2 hours, or 15 minutes constant failure  Warning if voltage < 0.5V on terminal 17 on IO board heat pump 2	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432 Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432 Gap in cabling/terminal 17,19 on IO board IO board defective	from I/O board terminal Check ohm value with relevant sensor table/freplace sensor TR5 Replace sensor TR5 Replace Sty Doard See possible action for action code 5426, 5427 Check sensor TR5/Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5 Replace I/O board Check screw terminal on I/O board actual temperature disconnected from I/O board terminal Check sensor TR5/Signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 40.5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 40.5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 40.5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 40.5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage - 5V, replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure
Customer  Installer  Customer  Installer  Customer  Customer	5428  5429  5430  5431  5432  5434  5435  5437		Alarm heat pump Z1 suction gas sensor TR5 faulty  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 failure  Warning heat pump Z2 suction gas sensor TR5 short circuited  Alarm heat pump Z2 suction gas sensor TR5 faulty  Warning heat pump Z1 pressure sensor low pressure JR0 failure  Alarm heat pump Z1 pressure sensor low pressure JR0 faulty  Warning heat pump Z2 pressure sensor low pressure JR0 failure  Alarm heat pump Z2 pressure sensor low pressure JR0 failure  Warning heat pump Z2 pressure sensor low pressure JR0 failure	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board  Alarm after 3 faults in 2 hours, or 15 minutes constant failure  Warning if voltage < 0.5V on terminal 17 on IO board heat pump 2  Alarm after 3 faults in 2 hours, or 15 minutes constant failure  Warning if voltage < 0.5V on terminal 16 on IO board	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited.  Sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432 Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432 Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  Pressure sensor JR0 defective  Pressure sensor JR0 defective  Pressure sensor JR0 defective	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace sensor TR5 Replace sensor TR5 Replace Sto board See possible action for action code \$426.5427 Check sensor TR5/Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5 Replace Sensor TR5 Replace Sensor TR5/Signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check sensor TR5/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Replace Sensor TR5 Replace I/O board Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage = 5.V. replace pressure sensor See possible action for action code \$432 Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage = 0.5V. replace pressure sensor See possible action for action code \$435 Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage = 0.5V. replace pressure sensor See possible action for action code \$435 Check that terminal 19 gives SV DC to terminal 17 with pressure switch disconnected, if voltage = 0.5V. replace pressure sensor
Customer  Installer  Customer  Installer  Customer  Customer	5428 5429 5430 5431 5432 5434 5435		Alarm heat pump 21 suction gas sensor TR5 faulty  Warning heat pump 22 suction gas sensor TR5 failure  Warning heat pump 22 suction gas sensor TR5 failure  Alarm heat pump 22 suction gas sensor TR5 short circuited  Alarm heat pump 21 pressure sensor low pressure JR0 failure  Alarm heat pump 21 pressure sensor low pressure JR0 faulty  Warning heat pump 22 pressure sensor low pressure JR0 failure  Alarm heat pump 22 pressure sensor low pressure JR0 failure  Alarm heat pump 24 pressure sensor low pressure JR0 failure  Alarm heat pump 25 pressure sensor low pressure JR0 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning failure (>179 kOhm) on sensor TR5 heat pump 2 after 3 faults in 2 hours  Warning short circuit (<390 Ohm) on sensor TR5 heat pump 2 after 3 faults in 2 hours.  Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR3.  Warning if voltage < 0.5V on terminal 17 on IO board  Alarm after 3 faults in 2 hours, or 15 minutes constant failure  Warning if voltage < 0.5V on terminal 17 on IO board heat pump 2  Alarm after 3 faults in 2 hours, or 15 minutes constant failure	Sensor TR5 short circuited  Signal cable/sensor TR5 short circuited 1/0 board not working See possible causes for cause code 5426, 5427  Sensor TR5/signal cable failure.  Screw terminal on I/O board to sensor TR5 not tightened Sensor TR5/signal cable failure. I/O board not working  Sensor TR5/signal cable short circuited.  Sensor TR5/signal cable short circuited Signal cable/sensor TR5 short circuited Signal cable/sensor TR5 short circuited I/O board not working See possible causes for cause code 5429, 5430  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5432  Gap in cabling/terminal 17,19 on IO board IO board defective  Pressure sensor JR0 defective  See possible causes for cause code 5435  Gap in cabling/terminal 16.18 on IO board IO board defective	from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sensor TR5 Seplace Sensor TR5/Signal cable ohm value with sensor table with actual temperature disconnected from I/O board terminal Check screw terminal on I/O board Replace Sensor TR5 Replace I/O board Check sensor TR5/Signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal Check ohm value with relevant sensor table/replace sensor TR5 Replace Sen

Installer	5441		Warning heat pump Z2 pressure sensor high pressure JR1 failure	Warning if voltage < 0.5V on terminal 16 on IO board heat pump 2	IO board defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage <0.5V. replace IO board
					Pressure sensor JR1 defective	Check that terminal 19 gives 5V DC to terminal 17 with pressure switch disconnected, if voltage = 5V. replace pressure sensor
Customer	5443		Alarm heat pump Z2 pressure sensor high pressure JR1 faulty	Alarm after 3 faults in 2 hours, or 15 minutes constant failure	See possible causes for cause code 5441	See possible action for action code 5441
					Fan blocked	Check that fan is not physically
					Check fan as per test outdoor unit I/O board defective	Activate test outdoor unit Check there is 230V on input PL3
						SSM terminal 34 (75, N) If there is no voltage as above,
Customer	5445		Alarm heat pump Z1 Buzzer alarm fan	Alarm if 230 V lost on terminal 34 (74, 75) IO board	I/O board defective	replace I/O board Check there is 230V on output PL3
					Fan without 230V	terminal 32 (78, N)
					Fan without 0-10V signal	Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit
					Fan defective	If there is voltage as above, replace fan
bostelles	5440		Hoses between inner part and heat pump	Alarm if TC3 < 1°C from TC0, and PH1 > 7°C >	Hoses (riser/return) between heat pump and inner part switched	Fit hoses to correct connections
Installer	5446		Z1 are switched	TC3 longer than 30 seconds	Defective sensor TC3, TC0	Check position of sensor, check sensor as per relevant sensor table and actual temperature, in event of deviation replace sensor
Installer	5448		Refrigerant shortage heat pump Z1	Alarm after 20 minutes if expansion valve VR0 is open > 20% of calculated value.	Not enough refrigerant in heat pump	Check amount of refrigerant, activate "Evacuate/fill" function when emptying/filling refrigerant
		-			Leak on cooling circuit	Check/rectify leak
					Condensation drain in heat pump blocked	Check/clear drain
Cuetamar	5450		Condensation drain blocked in heat pump	T26 does not increase as per specifications	Heating cable in condensation drain defective, drain frozen	Check/replace heating cable
Customer	5450		Z1 · ·	after defrosting	No voltage to heating cable	Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable
					Too low temperature in heating system	Open more thermostats on heating system
			Flow too low through heat pump Z1 when defrosting		Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1
					Air in heating system	Vent the heating system as per instructions in manual, top up with water in heating system.
Customer	5451	5451 Floor		Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds	ö	Check adjuster valves/radiator
				during defrosting	Defective I/O board, no PWM signal to circulation pump	thermostats Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%
					Defective I/O board, 230 V missing on	Check for 230 V on terminal 01 (51,
					terminal 01 (51, N)	N) on I/O board
					Defective I/O board	Replace I/O board
			Internal facilities investor to a commence in		Defective circulation pump	Replace I/O board Replace circulation pump
Customer	5452		Internal fault on inverter to compressor in heat pump Z1	Buzzer alarm internal fault in inverter	Defective violation pump Defective inverter	Replace circulation pump  Replace inverter
Customer	5452 5453			Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if	Defective circulation pump	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses
			heat pump Z1	Warning if input AC voltage to inverter < 165V	Defective circulation pump Defective inverter	Replace circulation pump  Replace inverter  Check main fuses for poor
			heat pump Z1	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if	Defective circulation pump Defective inverter  Low/no voltage to heat pump Low input mains voltage  Condensation drain in heat pump blocked	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier
			heat pump Z1  No voltage to heat pump Z1	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if	Defective circulation pump Defective inverter  Low/no voltage to heat pump Low input mains voltage  Condensation drain in heat pump blocked	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds	Defective circulation pump Defective inverter  Low/no voltage to heat pump Low input mains voltage  Condensation drain in heat pump blocked Heating cable in condensation drain defective, drain frozen No voltage to heating cable  Too low temperature in heating system Dirt in system filter/filter ball SC1	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain  defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer  system/heating system  Defective I/O board, no PWM signal to circulation pump	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity suppiler  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%  Check for 230 V on terminal 01 (51, N) on I/O board
Customer	5453		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/creplace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%.  Check for 230 V on terminal 01 (51, N) on I/O board
Customer  Customer  Customer	5453 5454 5455 5456		No voltage to heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting  Internal fault on inverter to compressor in heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat pump 2	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain  defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board Defective I/O board	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/creplace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%.  Check for 230 V on terminal 01 (51, N) on I/O board  Replace inverter  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O
Customer	5453 5454 5455		heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective i/O board  Defective i/Condensed befailure.  Hot water sensor TW1/signal cable failure.  Screw terminal on I/O board to hot water	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system  Check adjuster valves/radiator thermostats  Check for 230 V on terminal 01 (51, N) on I/O board, replace I/O board  Replace inverter  Check sensor TW1/signal cable ohm value with sensor table with
Customer  Customer  Customer	5453 5454 5455 5456		No voltage to heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting  Internal fault on inverter to compressor in heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat pump 2  Warning failure (>179 kOhm) on sensor TW1	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective inverter  Hot water sensor TW1/signal cable failure.  Screw terminal on I/O board to hot water sensor TW1 not tightened	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/creplace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%  Check for 230 V on terminal 01 (51, N) on I/O board  Replace i/O board  Replace i/O board  Replace circulation pump  Replace inverter  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check screw terminal
Customer  Customer  Customer	5453 5454 5455 5456		No voltage to heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting  Internal fault on inverter to compressor in heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat pump 2  Warning failure (>179 kOhm) on sensor TW1	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective i/O board  Defective i/Condensed befailure.  Hot water sensor TW1/signal cable failure.  Screw terminal on I/O board to hot water	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity suppiler  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator therminal 36,37 on I/O board, circulation pump should increase in 100%  Check for 230 V on terminal 01 (51, N) on I/O board  Replace inverter  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board red male with sensor table with inner part disconnected from I/O board
Customer  Customer  Customer	5453 5454 5455 5456		No voltage to heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting  Internal fault on inverter to compressor in heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat pump 2  Warning failure (>179 kOhm) on sensor TW1	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain  defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer  system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (151, N)  Defective I/O board  Defective iro board  Defe	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/creplace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%.  Check for 230 V on terminal 01 (51, N) on I/O board  Replace I/O board  Replace I/O board  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check screw terminal  Replace flow sensor TW1  Replace I/O board  Check sensor TW1/signal cable ohm value with sensor TW1  Replace I/O board  Check sensor TW1/signal cable ohm value with sensor TW1  Replace I/O board  Check sensor TW1/signal cable ohm value with sensor TW1  Replace I/O board  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O in I/
Customer  Customer  Customer	5453 5454 5455 5456		No voltage to heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting  Internal fault on inverter to compressor in heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat pump 2  Warning failure (>179 kOhm) on sensor TW1	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective circulation pump  Defective inverter  Hot water sensor TW1/signal cable failure.  Screw terminal on I/O board to hot water sensor TW1 not tightened  Hot water sensor TW1/signal cable failure.  I/O board not working  Hot water sensor TW1/signal cable short	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%  Check for 230 V on terminal 01 (51, N) on I/O board  Replace I/O board  Replace irculation pump  Replace inverter  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check screw terminal  Replace I/O board  Replace I/O board  Replace I/O board  Replace I/O board  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check on walue with sensor table with inner part disconnected from I/O board terminal  Check ohn value with relevant sensor table/replace heat transfer
Customer  Customer  Customer  Installer	5453 5454 5455 5455		No voltage to heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting  Internal fault on inverter to compressor in heat pump Z2  Warning Z2 hot water sensor TW1 failure	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat pump 2  Warning failure (>179 kOhm) on sensor TW1 heat pump 2 after 3 faults in 2 hours.	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked Heating cable in condensation drain defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective I/O board  Defective I/O board  Hot water sensor TW1/signal cable failure.  Screw terminal on I/O board to hot water sensor TW1 not tightened  Hot water sensor TW1/signal cable failure.  I/O board not working  Hot water sensor TW1/signal cable short circuited.  Heat transfer fluid in sensor TW1 short circuited  Signal cable to heat transfer fluid out sensor Sensor TW1 short circuited	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/replace heating cable  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%.  Check for 230 V on terminal 01 (51, N) on I/O board  Replace I/O board  Replace inverter  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check on value with relevant sensor table replace heat transfer fluid in sensor TW1  Repair/replace signal cable to heat transfer fluid in sensor TW1  Repair/replace signal cable to heat transfer of sensor TW1 sensor TW1  Repair/replace signal cable to heat transfer of sensor TW1 sensor TW1  Repair/replace signal cable to heat transfer of sensor TW1 sensor TW1
Customer  Customer  Customer  Installer	5453 5454 5455 5455		No voltage to heat pump Z1  No voltage to heat pump Z1  Condensation drain blocked in heat pump Z2  Flow too low through heat pump Z2 when defrosting  Internal fault on inverter to compressor in heat pump Z2  Warning Z2 hot water sensor TW1 failure	Warning if input AC voltage to inverter < 165V for 10 sec. Warning reset after 2 minutes if input AC voltage > 190 V  Alarm if temperature difference between TC0 and TC3 > 5°C is longer than 60 seconds during defrosting heat pump 2  Buzzer alarm internal fault in inverter heat pump 2  Warning failure (>179 kOhm) on sensor TW1 heat pump 2 after 3 faults in 2 hours.	Defective circulation pump  Defective inverter  Low/no voltage to heat pump  Low input mains voltage  Condensation drain in heat pump blocked  Heating cable in condensation drain  defective, drain frozen  No voltage to heating cable  Too low temperature in heating system  Dirt in system filter/filter ball SC1  Air in heating system  Poor circulation in heat transfer  system/heating system  Defective I/O board, no PWM signal to circulation pump  Defective I/O board, 230 V missing on terminal 01 (51, N)  Defective I/O board  Defective I/O board  Defective inverter  Hot water sensor TW1/signal cable failure.  Screw terminal on I/O board to hot water sensor TW1 not tightened  Hot water sensor TW1/signal cable failure.  I/O board not working  Hot water sensor TW1/signal cable short circuited.  Heat transfer fluid in sensor TW1 short circuited.  Signal cable to heat transfer fluid out	Replace circulation pump  Replace inverter  Check main fuses for poor contact/tripped fuses  In event of repeated warnings contact electricity supplier  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check/clear drip pan/drain  Check there is 230V on output EA1 terminal 26 (79, N) on manual operation of heating cable  Open more thermostats on heating system  Clean system filter/filter ball SC1  Vent the heating system as per instructions in manual, top up with water in heating system.  Check adjuster valves/radiator thermostats  Disconnect PWM signal on terminal 36,37 on I/O board, circulation pump should increase to 100%  Check for 230 V on terminal 01 (51, N) on I/O board  Replace irculation pump  Check sensor TW1/signal cable ohm value with sensor table with inner part disconnected from I/O board terminal  Check screw terminal  Replace I/O board  Replace I/O board  Check sensor TW1/signal cable ohm value with sensor TW1  Replace I/O board  Check ohm value with relevant sensor table/replace heat transfer fluid in sensor TW1  Repalir/eplace signal cable to heat

						Check resistance in magnetic coil		
					Coil to 4-way valve not working	on 4-way valve (1.3-1.5 kOhm), if not replace coil		
			Alarm heat pump Z2. Fault on 4-way valve,	Alarm if TR3>TR4 and TC3>TC0 after 5 minutes	Check function of 4-way valve	Activate test outdoor unit, see separate document		
Customer	5461		cannot switch to cooling	in cooling mode heat pump 2	230 V lost on terminal VR4 (81, N)	Replace I/O board Check sensor is in correct		
					Fault on sensor (TR3, TR4, TC3, TC0)	position, check sensor value with relevant sensor table and temperature		
					4-way valve jams/not working	Replace 4-way valve Activate test outdoor unit, see		
					Check function of 4-way valve	separate document		
Customer	5462		Alarm heat pump Z2. Fault on 4-way valve, cannot switch to heating	Alarm if TR4>TR3 and TC0>TC3 after 5 minutes in heating mode heat pump 2	Fault on sensor (TR4, TR3, TC0, TC3)	Check sensor is in correct position, check sensor value with relevant sensor table and		
					230 V on terminal VR4 during cooling	temperature Replace I/O board		
					mode/defrosting 4-way valve jams/not working	Replace 4-way valve		
					Evaporator blocked with ice	Melt ice carefully with hot water		
Customer	5463		Alarm heat pump Z1 defrost Clean heat pump outdoor part	Alarm if timer for defrosting exceeds 800 seconds 3 times, or if 3 defrostings needed in minimum time for heat production	Too low temperature in heating system	Open more thermostats on heating system		
					Dirt in system filter/filter ball SC1	Clean system filter/filter ball SC1		
Customer	5465		No voltage to heat pump Z2	Warning if input AC voltage to inverter < 165V for 10 sec heat pump 2 Warning resets after 2	Low/no voltage to heat pump	Check main fuses for poor contact/break		
				minutes if input AC voltage > 190 V	Low input mains voltage	In event of repeated warnings		
Customer	5500		Floor heating thermostat on external input	Alarm on closing of external input 1-3 on I/O	Safety thermostat for floor heating has	contact electricity supplier Reset thermostat, adjust heat		
Castonie	3300		tripped	board, depending on selection.	tripped	curve if necessary		
					Blocked/low air flow to air heat exchanger on heat pump	Ensure adequate air flow over air heat exchanger.		
					Check fan as per test outdoor unit	Activate test outdoor unit Check there is 230V on output PL3		
				<b>°</b> C	Fan without 230V	terminal 32 (78, N)		
Customer	EEO.		IDO Alarm Clean heat 70	Alarm when JR0 < -27 in heating mode heat	Fan without 0-10V signal	Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as		
Customer	5501	01 JR0 Alarm Clean heat pump Z2	pump 2	Fan defective	per test outdoor unit If there is voltage as above,			
				I/O board not working	replace fan If there is no voltage as above,			
				Electric heater in drip pan not working	replace I/O board  Measure resistance of electric heater, 75W~720 Ohm, 50W~1070 Ohm, in event of failure replace			
					Sensor TA4 not working	electric heater  Check sensor position and sensor value with relevant sensor table		
Customer	5502		Electric heater in drip pan in heat pump Z2	Sensor TA4 does not exceed 5°C during		and actual temperature  Check there is 230V on output EA0		
			-		not working		I/O board not working I/O board not working	terminal 27 (80, N) on manual operation of drip pan heater  If there is no voltage as above,
						replace I/O board		
					Incorrect cabling/connections  Bad contact in CAN bus connections on Installer board tower and load monitor	Check cabling/connections Check CAN bus connections on Installer board tower and load monitor		
Installer	5503		Warning Problem with connection to load monitor	Communication between Installer board and load monitor lost for 30 seconds	Failure on CAN bus cable between Installer board tower and load monitor	Replace CAN bus cable between Installer board tower and load monitor		
					Wrong type of CAN bus cable Can bus cable placed together with power	Replace to correct type of cable Separate Can bus and power cable		
			Alarm Connection to load monitor	Alarm after 3 warnings in 3 hours, or if warning	supply to heat pump	by at least 100 mm See possible action for action		
Customer	5504		disconnected	is active for 30 minutes	See possible causes for cause code 5432	code 5432 Measure resistance of electric		
				<b>°</b> C	Electric heater in drip pan not working	heater, 75W~720 Ohm, 50W~1070 Ohm, in event of failure replace electric heater Check sensor value with relevant		
Customer	5505		Electric heater in drip pan in heat pump Z1	Sensor TA4 does not exceed -2 during	Sensor TA4 not working	sensor table and actual temperature		
			not working	defrosting	I/O board not working	Check there is 230V on output EA0 terminal 27 (80, N) on manual operation of drip pan heater		
			_		I/O board not working	If there is no voltage as above, replace I/O board		
Installer	5506		Compressor does not start	Alarm if compressor has not started in 2	Temporary malfunction inverter	Replace and switch on voltage to heat pump		
				minutes after start signal sent	Internal fault in inverter	Replace inverter  Broken circuit <43bar = replace		
					Pressure switch not working	pressure switch		
					Failure/poor connection in cabling between MR1 and inverter	Check cabling/connections between MR1 and inverter		
Installer	5507		MR1 high pressure alarm B in heat pump Z1	Warning if HP switch MR1 cuts out (44 bar)	Failure/poor connection in cabling between MR1 and inverter	Check that high pressure switch is closed		
Customer	5508		MR1 high pressure alarm A in heat pump Z1	Alarm if HP switch MR1 2 warnings in 3 hours	See warning 5507 above	See action for warning 5507 above		
						Measure/total Ohms pressure		
					Failure in cable /pressure switch MR1	switch at first Molex connector, closed = ok		
Installer	5509		MR1 high proceure alarm P in heat prome 72	Warning if HP switch MP4 cuts out (44 hor)	Pressure switch not working	Broken circuit <43bar = replace pressure switch		
mstailer	3309		MR1 high pressure alarm B in heat pump Z2	Warning if HP switch MR1 cuts out (44 bar)	Failure/poor connection in cabling between MR1 and inverter	Check cabling/connections between MR1 and inverter		
					Failure/poor connection in cabling between	Strap input MR1 in inverter,		
					MR1 and inverter	warning should disappear if not replace inverter		
				Alarm if UD quite t ND4 0	Pressure switch not working	Broken circuit <43bar = replace pressure switch		
Customer	5510		MR1 high pressure alarm A in heat pump Z2	Alarm if HP switch MR1 2 warning in 3 hours heat pump 2	Failure/poor connection in cabling between MR1 and inverter	Check cabling/connections between MR1 and inverter		
					Failure/poor connection in cabling between MR1 and inverter	Check that high pressure switch is closed		
			•					

			Condensing temperature outside envisions	Warning if temperature on PH1 > highest	Evanoration temperature too low in relation	Outdoor temperature probably too	
Installer	5512		Condensing temperature outside envelope in heat pump Z1	permitted actual envelope longer than 30 seconds	Evaporation temperature too low in relation to condensing temperature	low. See diagram chapter 4 in installation manual	
Customer	5513		Condensation too high in heat pump Z1	Alarm after 3 warnings in 3 hours, or if warning	Evaporation temperature too low in relation to condensing temperature	Outdoor temperature probably too low. See diagram chapter 4 in installation manual	
ouotomo.	00.0		Contained to mg. III nout pump 2	is active for 30 minutes	Flow too high/low delta in heating system	Adjust temperature/flow	
					Blocked/low air flow to air heat exchanger on heat pump	Ensure adequate air flow over air heat exchanger.	
	Installer 5514				Fan not working	Activate test outdoor unit	
					Fan without 230V	Check there is 230V on output PL3 terminal 32 (78, N)	
Installer		Low pressure warning JR0 in heat pump Z1	Warning if PL1 < lowest permitted actual envelope (-27°C) longer than 30 seconds	Fan without 0-10V signal	Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as per test outdoor unit		
					Fan defective	If there is voltage as above, replace fan	
					I/O board not working	If there is no voltage as above,	
Customer	5515		Alarm low evaporation JR0 in heat pump Z1	Alarm after 3 warnings in 3 hours, or if warning	See possible causes for cause code 5514	replace I/O board  See possible action for action	
Oustomer	00.0		Alaim low evaporation one in near pump 21	is active for 30 minutes	Wrong combination of inverter / I/O board	code 5514 Check adjustment with relevant	
					installed in heat pump 2	wiring diagram	
Installer	5517		Wrong compressor driver installed in heat pump Z2	Setting of rotary encoder on I/O board does not match installed inverter	On replacement of inverter, wrong model of inverter	Check inverter model	
					On replacement of I/O board, wrong setting of rotary encoder on new I/O board	Check setting of rotary encoder with replaced I/O board	
Installer	5518		Condensing temperature outside envelope in heat pump Z2	Warning if temperature on PH1 > highest permitted actual envelope longer than 30 seconds heat pump 2	Evaporation temperature too low in relation to condensing temperature	Outdoor temperature probably too low. See diagram chapter 4 in installation manual	
					Evaporation temperature too low in relation to condensing temperature	Outdoor temperature probably too low. See diagram chapter 4 in	
Customer	5519		Condensation too high in heat pump Z2	is active for 30 minutes heat pump 2		installation manual Adjust temperature/flow	
					Flow too high/low delta in heating system  Blocked/low air flow to air heat exchanger	Ensure adequate air flow over air	
					on heat pump Check fan as per test outdoor unit	heat exchanger.  Activate test outdoor unit	
					Fan without 230V	Check there is 230V on output PL3	
Installer	5520		Low pressure warning JR0 in heat pump Z2	Warning if PL1 < lowest permitted actual envelope (-27°C) longer than 30 seconds heat pump 2	Fan without 0-10V signal	terminal 32 (78, N) Check there is 0-10V on output PL3 PWM terminal 20 (20, 26) as	
					Fan defective	per test outdoor unit If there is voltage as above,	
			 	I/O board not working	replace fan If there is no voltage as above,		
Customer	5521		Alarm low evaporation JR0 in heat pump Z2	Alarm after 3 warnings in 3 hours, or if warning	See possible causes for cause code 5520	replace I/O board See possible action for action	
Customer	3321		Alai ii low evaporation 300 iii fleat pullip 22	is active for 30 minutes heat pump 2	Wrong combination of heat pump / inner	code 5520	
			Wrong combination of heat pump and inner	Setting of rotary aneador on Installar heard	part  On replacement of I/O board, wrong setting	Check combination	
Customer	5522		part part	does not match installed heat pump	of rotary encoder on new I/O board	Check setting of rotary encoder with replaced I/O board	
						On replacement of Installer board, wrong setting of rotary encoder on new Installer board	Check setting of rotary encoder with replaced Installer board
Installer	5523		Warning heat pump Z1 PFC overcurrent on compressor driver	Warning if input AC current > 31A 6 times. Resets after 4 minutes if fault does not remain	Internal fault in inverter	Replace inverter	
Customer	5524		Alarm heat pump Z1 PFC overcurrent on compressor driver	Alarm after 3 warnings in 3 hours, or if warning is active for 30 minutes	See possible causes for cause code 5523	See possible action for action code 5523	
Customer	5526		Alarm heat pump Z2 defrost Clean heat pump outdoor part	Alarm if timer for defrosting exceeds 800 seconds 3 times, or if 3 defrostings needed in minimum time for heat production heat pump 2	Evaporator blocked with ice	Melt ice carefully with hot water	
Installer	5527		Alarm heat pump Z1 too much refrigerant in heat pump	Alarm if PH1 > 5°C than TC3 and undercooling  > than set point, both conditions filled longer	Heat pump overfilled	Empty heat pump and fill with amount as per type plate	
				than 5 minutes during hot water production	Screw terminal on I/O board to compressor	Check screw terminal	
					sensor TR1 not tightened compressor sensor TR1/signal cable		
Installer	5528		Warning heat pump Z2 compressor sensor		failure. I/O board not working	Replace compressor sensor TR1  Replace I/O board	
			TR1 failure	after 3 faults in 2 hours heat pump 2	compressor sensor TR1/signal cable short circuited.	Check sensor TR1/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal	
					Compressor sensor TR1/short circuited	Check ohm value with relevant sensor table and actual temperature/replace compressor	
Installer	5529		Warning heat pump Z2 compressor sensor TR1 short circuit	Warning short circuit (>350 kOhm) on sensor	Signal cable to compressor sensor TR1	sensor TR1 Repair/replace signal cable to	
			TKT SHOTT CITCUIT	TR1 after 3 faults in 2 hours heat pump 2	short circuited I/O board not working	compressor sensor TR1 Replace I/O board	
					See possible causes for cause code 5314, 5315	See possible action for cause code 5314, 5315	
Customer	5530		Alarm heat pump Z2 compressor sensor TR1 faulty		Compressor sensor TR1/signal cable failure.	Check sensor TR1/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal	
					Screw terminal on I/O board to compressor sensor TR1 not tightened	Check screw terminal	
Installer	5531		Warning heat pump Z1 compressor sensor TR1 failure	Warning failure (>364 kOhm) on sensor TR1 after 3 faults in 2 hours.	compressor sensor TR1/signal cable failure.	Replace compressor sensor TR1	
			TIXT Idildie	anto, o tauno in E 110015.	I/O board not working	Replace I/O board	
					Compressor sensor TR1/signal cable short circuited.	Check sensor TR1/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal	
Installer	5532		Warning heat pump Z1 compressor sensor TR1 short circuited	Warning short circuit (>350 kOhm) on sensor TR1 after 3 faults in 2 hours	Compressor sensor TR1/short circuited	Check ohm value with relevant sensor table and actual temperature/replace compressor sensor TR1	
					Signal cable to compressor sensor TR1 short circuited	Repair/replace signal cable to compressor sensor TR1	
Customer	5533		Alarm heat pump Z1 compressor sensor	Alarm after 3 faults in 3 hours, or 15 minutes	I/O board not working See possible causes for cause code 5531,	Replace I/O board See possible action for cause	
Customer	3333		TR1 faulty	failure/short circuit on sensor TR1	5532 Screw terminal on I/O board to drip pan	code 5531, 5532	
		1		İ	sensor TA4 not tightened	Check screw terminal on I/O board	

1		Warning heat pump Z2 temperature sensor	Warning after 3 faults (>170 kOhm) in 2 hours	Screw terminal on I/O board to drip pan	Check screw terminal on I/O board
Installer	5534	TA4 failure	sensor TA4 failure heat pump 2	sensor TA4 not tightened	
			Concor IVW ramare near pamp 2	Drip pan sensor TA4/signal cable failure.	Replace sensor/signal cable sensor TA4
				I/O board not working	Replace I/O board
		70	West and a least to the control of t	Drip pan sensor TA4/signal cable short circuited.	Check sensor TA4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Installer	nstaller 5535	Warning heat pump Z2 temperature sensor TA4 short circuited	Warning short circuit (>900 kOhm) on sensor TA4 after 3 faults in 2 hours heat pump 2	Sensor TA4 short circuited	Check ohm value with relevant sensor table and actual temperature/replace sensor TA4
				Signal cable/sensor TA4 short circuited	Replace signal cable/sensor to sensor TA4
				I/O board not working	Replace I/O board
Customer	5536	Alarm heat pump Z2 temperature sensor TA4 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR4 heat pump	See possible causes for cause code 5534, 5535	See possible action for action code 5534, 5535
			-	Hoses (riser/return) between heat pump and inner part switched	Check the hose connections
Installer	5537	Hoses between inner part and heat pump Z2 are switched	Alarm if TC3 < 1°C from TC0, and PH1 > 7°C > TC3 longer than 30 seconds	Defective sensor TC3, TC0	Check sensor as per relevant sensor table and actual temperature, in event of deviation replace sensor
		Warning heat pump Z1 temperature sensor	Warning after 3 faults (>170 kOhm) in 2 hours	Screw terminal on I/O board to drip pan sensor TA4 not tightened	Check screw terminal on I/O board
Customer	5538	TA4 failure	sensor TA4 failure	Drip pan sensor TA4/signal cable failure.	Replace sensor/signal cable sensor TA4
				I/O board not working	Replace I/O board
		Warning heat pump Z1 temperature sensor	Warning short circuit (<900 Ohm) on sensor	Drip pan sensor TA4/signal cable short circuited.	Check sensor TA4/signal cable ohm value with sensor table and actual temperature disconnected from I/O board terminal
Customer	5539	TA4 short circuited	TA4 after 3 faults in 2 hours	Sensor TA4 short circuited	Check ohm value with relevant sensor table and actual temperature/replace sensor TA4
				Signal cable/sensor TA4 short circuited	Replace signal cable/sensor to sensor TA4
				I/O board not working	Replace I/O board
Installer	5540	Alarm heat pump Z1 temperature sensor TA4 faulty	Alarm after 3 faults in 2 hours, or 15 minutes failure/short circuit on sensor TR4	See possible causes for cause code 5538, 5539	See possible action for action code 5538, 5539
				Bad contact in CAN bus connections on Installer board tower and pool board	Check CAN bus connections on Installer board tower and pool board
Customer	5541	Communication with pool board failed	Communication between Installer board and pool board lost for 90 seconds	board tower and pool board	Replace CAN bus cable between Installer board tower and pool board
				Wrong type of CAN bus cable	Replace to correct type of cable
				Can bus cable placed together with power	Separate Can bus and power cable
				supply to heat pump	by at least 100 mm Remove/connect cable shield
				Incorrect earthing of CAN bus cable	to/from earth