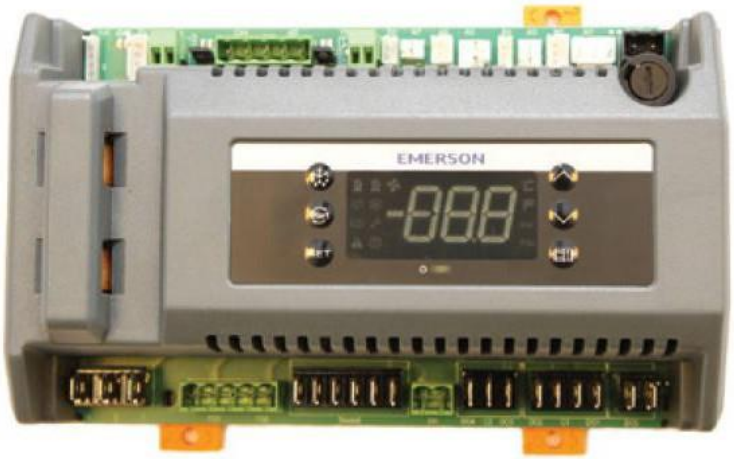
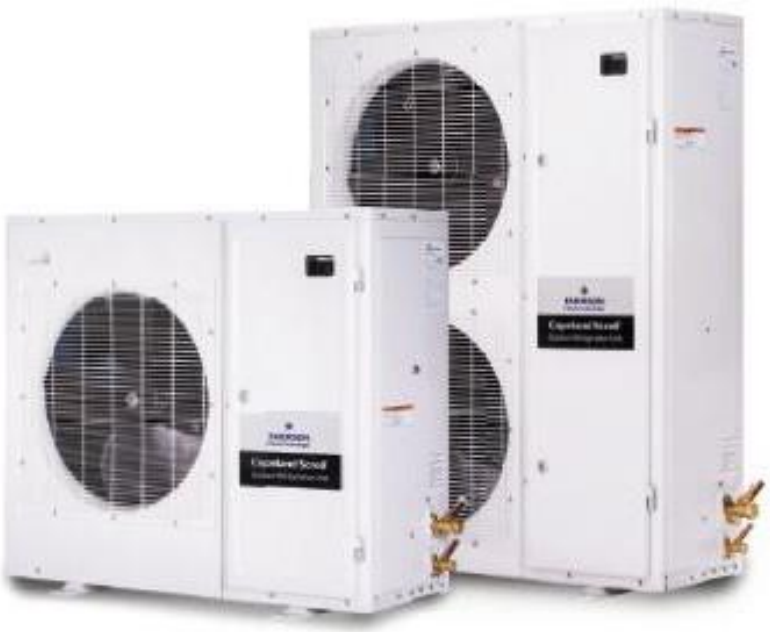
Controller Replacement Guidelines

PART 2





V2 12_21 Note: 462 and 463 indicates the actual BOM model number e.g. ***ZX020BE-TFD-462***. If the unit model number ends with different numbers, please consult application engineers.

This technical information describes the required working steps to replace XCM-25D on ZX/ZXL/ZXD-462 (and 463) condensing units.

Controller Initialization Message

When the unit is initially powered on, the controller will display.

Step	Action	Phenomenon and Description
1	Power on controller	All LEDs will light up for 3 seconds.
2		Firmware version will be displayed for 3 seconds.
3		Parameter setting file (bin file number) identifier will be displayed for 3 seconds.
4		Normal display (actual suction temperature will be displayed on ZXD unit, condensing temperature will be displayed on ZX/ZXL/ZXB unit)

Bin Files Number Range

Bin Number Range	Family
1 to 200	ZX
201 to 300	ZXB
301 to 500	ZXL
501 to 600	ZXD
800 to 806	Service Part

After installation of new controller XCM-25D and initial power on it is critical to double check and modify the parameters below

RTC (Real Time Clock) Setting

Step	Action	Phenomenon and Description
1	Press "SET" + "▽"	Enter menu to select "PAr" (parameter) or "rtC"
2	Press "△" or "▽"	Select "rtC"
3	Press "SET"	"n01", minute "n02", hour "n03", day "n04", month "n05", year (last two digits)
4	Press "SET"	Display actual value
5	Press "△" or "▽"	Modify the value
6	Press "SET"	Press"SET" : the value will flash for 3 second, then move to the next value
7	Press "SET" + "△"	Exit to "rtC"
8	Press "SET" + "△"	Exit to main menu (or wait for 120 seconds and exit atomically)

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Parameters to be modified after installing new controller (part 1)

Here below are the ***default*** setting values for R404A, actual commissioning setpoints may vary depending on the application and refrigerant used.

Par	Description	ZX-462 (and 463)	ZXL-462	ZXD-462 (and 463)	Min	Max	Level
C07	Refrigerant selection for regulation	0-R404A			0	9	Lev 1
C01	Compressor cut in pressure set point	5.5 (bar)	2.3 (bar)	/	3	15	Lev 1
C02	Compressor cut out pressure set point	3.0 (bar)	1.0 (bar)	/	0	5.5	Lev 1
C16	Digital compressor set point	/	/	-10 (°C)	-15.0	15	Lev 1
D29	Low pressure alarm value	2.0(bar)	0.5(bar)	2.0(bar)	0	15	Lev 2
T01	Serial address	1			1	247	Lev 1
B03	Remote display visualization	0-P1 (see table here below)			0	8	Lev 1
T18	Enter into PR2 level	Password = 321			0	999	Lev 1
E39	Condenser fan control set point	30 (°C)			-40	110	Lev 2
R02	Digital compressor set point	1-CL			-15	15	Lev 2

Setting for B03	Value shown on the display	Comments
0	**P1 value = Suction pressure**	
1	P2 value = Mid-coil temperature (condenser)	
2	P3 value = Discharge line temperature	
3	P4 value = Vapour inlet EVI	Only for ZXLE
4	P5 value = Vapour outlet EVI	Only for ZXLE
5	P6 value = Ambient temperature	
6	P7 value = Not used in factory setting	
7	PEr value = Probe error	
8	Aou value = Analog output	

How to modify Parameter settings at level 1 (Pr1)

Step	Action	Description
1	Press for 3 sec "SET" + ▽	Enter menu to select "PAr" (parameter) or "rtC"
2	Press "△" or "▽"	Select"PAr (parameter)"
3	Press "SET"	Confirm, select and browse Pr1 parameters
4	Press "△" or "▽"	Browse Pr1 parameters
5	Press "SET"	View the actual number of the Pr1 parameters
6	Press "△" or "▽"	Modify the actual number of the Pr1 parameters
7	Press "SET"	Press "SET": The number will flash for 3 seconds and confirm the modification; it will go to the next Pr1 parameter
8	Press "SET" + △	Exit (or exit automatically after waiting for 120 seconds)

How to modify Parameter settings at level 2 (Pr2)

Step	Action	Description
1	Press for 3 sec "SET" + ▽	Enter menu to select "PAr" (parameter) or "rtC"
2	Press "△" or "▽"	Select"PAr (parameter)"
3	Press "SET"	Press the SET button to enter the program level. First parameter C01 appears.
4	Press "△" or "▽"	Browse t18 parameter
5	Press "SET"	View the actual t18 value
6	Press "△" or "▽"	Insert the password [321] using the arrows to modify the value.
7	Press "SET"	Press "SET" to confirm password
8	Press "△" or "▽"	Select the parameter using the arrows
9	Press "SET"	View the actual number of the Pr2 parameters
10	Press "△" or "▽"	Modify the actual number of the Pr2 parameters
11	Press "SET"	Press "SET": The number will flash for 3 seconds and confirm the modification; it will go to the next Pr2 parameter
12	Press "SET" + △	Exit (or exit automatically after waiting for 120 seconds)

More parameters to be modified -> see next page

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Parameters to be modified after installing new controller (part 2)

Modify the below parameters (level 2, Pr2) according to the unit model

Par	Description	ZX020BE-PFJ-462 (and 463)	ZX030BE-PFJ-462 (and 463)	ZX040BE-PFJ-462 (and 463)	ZX020BE-TFD-462 (and 463)	ZX030BE-TFD-462 (and 463)	ZX040BE-TFD-462 (and 463)	ZX050BE-TFD-462 (and 463)	ZX060BE-TFD-462 (and 463)	ZX076BE-TFD-462 (and 463)
H07	Compressor MCC	18.5	23	28	7	8.5	10.5	13.5	14.2	16.5
H09	Compressor protection value	18.5	23	28	6.3	7.7	10.3	12.8	13.1	14.85
H13	Minimum voltage	187	187	187	323	323	323	323	323	323
H14	Maximum voltage	276	276	276	483	483	483	483	483	483
H25	Three phase enable or not, 1 means enable, 0 means disable	0	0	0	1	1	1	1	1	1

Par	Description	ZXL020BE-PFJ-462 (and 463)	ZXL030BE-PFJ-462 (and 463)	ZXL020BE-TFD-462 (and 463)	ZXL030BE-TFD-462 (and 463)	ZXL040BE-TFD-462 (and 463)	ZXL050BE-TFD-462 (and 463)	ZXL060BE-TFD-462 (and 463)	ZXL075BE-TFD-462 (and 463)
H07	Compressor MCC	23	26	7.9	8.4	12.6	14	15.6	20.5
H09	Compressor protection value	23	26	7.1	7.6	11.3	12.6	14.0	18.5
H13	Minimum voltage	187	187	323	323	323	323	323	323
H14	Maximum voltage	276	276	483	483	483	483	483	483
H25	Three phase enable or not, 1 means enable, 0 means disable	0	0	1	1	1	1	1	1

Par	Description	ZXD030BE-TFD-462 (and 463)	ZXD040BE-TFD-462 (and 463)	ZXD050BE-TFD-462 (and 463)	ZXD060BE-TFD-462 (and 463)	ZXD076BE-TFD-462 (and 463)
H07	Compressor MCC	10.3	10.8	14.5	13.5	17.3
H09	Compressor protection value	9.3	9.7	13.1	12.2	15.6
H13	Minimum voltage	323	323	323	323	323
H14	Maximum voltage	483	483	483	483	483
H25	Three phase enable or not, 1 means enable, 0 means disable	1	1	1	1	1

V2 12_21 Note: 462 and 463 indicates the actual BOM model number e.g. ***ZX020BE-TFD-462***. If the unit model number ends with different numbers, please consult application engineers.