Quick-Guide for BioCompact Ver. 3.0

Revision 001 – 9th August 2016 – Build on Systemvars 94.102

Gram Commercial A/S
Aage Grams Vej
6500 Vojens, Danmark
Tel: +45 73 20 13 00
Fax: +45 73 20 12 01
www.gram-bioline.com

Biostorage you can depend on

Biostorage you can depend on

Quick guide for BioCompact software Ver. 3.0

Cabinet On/OFF

Press the Q-key to switch on the cabinet. Press and hold it for 6 sec. the cabinet will switch off (Stand-by). During the start-up the program variant and SW version will be presented shortly. Revision number can be presented under ”Display test”.

Other short cuts

Using the key-pad functions is accessed or activated.

Key combination:	Time:	Function:
P+Q	> 3 sec.	Start or stop a defrosting cycle manually.
Q+1	> 6 sec.	Key pad lock on/off. With a lock key it’s not possible to access any menu or make any changes.
P+1	> 6 sec.	Access to **User menu and alarm settings**. See more in the tables below.
P+2	> 6 sec.	Access to the **Test Program**. See more in the tables below.
P+3	> 6 sec.	Access to the **Control of the Sensors**. See more in the tables below.

Changes in product setup

If changes are needed in the controllers settings, then enter the menus as according to above. The values is changed using the + and - keys. The new setting is saved by pressing the P-key. Leave the menus with Q-key.

User menu and alarm settings

The alarm system is separated into two. One alarm system triggers alarms only locally, which means the error only is displayed. The second alarm system triggers locally and external. Error codes in the display, but also alarm activates also the potential-free alarm output. Each alarm system is working independently.

Menu access P+1 ⇥	↴	⇥		
Internal Alarm Setting	LAL	dA	On/off	Activation of door alarm [1=on / 0=off]. At alarm the display is showing: [**A1**].
		dAd	[min.]	Time delay for door alarm.
		BU	On/off	Activation of buzzer [1=on / 0=off]. The buzzer sounds at alarms [**A1**].
Internal Alarm Setting	EAL	dA	On/off	Activation of door alarm [1=on / 0=off]. At alarm the display is showing: [**A1**].
		dAd	[min.]	Time delay for door alarm.
		BU	On/off	Activation of buzzer [1=on / 0=off]. The buzzer sounds at alarms [**A1**].
Sensor calibration	cAL	cA	[° K]	Offset adjustment on A-sensor. Cabinet sensor.
		cF	[° K]	Offset adjustment on F-sensor. Sensor for frost protection.
Frost protection	FP	Act	On/off	Activation on frost protection.
		tES	On	Test the frost protection. Switch off compressor after time = C4.
		SEt	[° C]	Adjustment of cut-out for compressor.
		PrE	[…]	Presentation of F-sensor.
	ALL		Activation of escorting alarm limits. [FAS] = locked borders / [ESC] = following set point.	
	dEF		Numbers of defrosting pr. day.	
	dPS		Selection of sensor displaying in the display. Choose between: A or F.	

The alarms:	Text in display and description:	
Alarm messages from above.	A1	Door alarm is triggered either by the LAL or EAL alarm systems.
	A6	Frost protection has stopped compressor and ensured that the room temperature is not too cold.

Test program

Individually control of relay outputs and connected external components. Select the menu item and press the P-key. The relay switches and power is connected to external component. The display shows [on]. Stop the test with Q-key.

Menu access P+2 ⇥	↴	P-key ⇥ [on] / Q-key [off]
Compressor	tC	Control of compressor and condenser fan.
Evaporator fan	tF	Control of evaporator fan.
Defr. heating element	td	Control of defrosting heating element. Warning: The heating element becomes very hot. **Danger**!
Light	tL	Control of light.
Alarm output	tA	Control of the potential free relay out-put.
Display test	tdP	All LED’s in the display will lights up for 1 sec. followed by the software revision number.

Control of sensor and display

With this menu it’s possible to have instantaneous sensor read-outs.

Menu access P+3 ⇥	↴	P-key ⇥ [° C]	Message in display and cause	
Cabinet sensor	P-A	The current cabinet/room sensor measuring is displayed.	F1	Error on cabinet sensor
Evaporator sensor	P-b	The current evaporator sensor measuring is displayed.	F2	Error on evaporator sensor
Condenser sensor 1	P-C	The current condenser 1 sensor measuring is displayed.	F3	Error on condenser sensor 1
Sensor for frost protect.	P-F	The current measuring with frost protection is displayed.	F6	Error on sensor for frost protection
Overheated condenser caused by a clogged grease filter. Triggered by C sensor			F7	Overheated condenser.
When the door opens the symbol lights up. A too long open door this will trigger the alarm **[A1]**.			-0-	Symbol for open door

GRAM

Biostorage you can depend on

Default factory settings

Below are all BioLine program variants shown. In the columns under each program variant, the factory settings is presented. Should any questions occur, then please take contact to BioLine Tech Support.

			Køl							Udvidet		Frys					Heat	trem lav temperatur områ		
			K2+	K4+	K5+	K6+	K8+	K9+	K70	M4+	M5+	F5+	F6+	F51	F61	F70	V1+	E1+	E3+	E4+
Systemvars Versionsnummer			94.102	94.102	94.102	94.102	94.102	94.102	94.98	94.80	94.102	94.80	94.80	94.80	94.80	94.98	94.80	94.80	94.80	94.80
Set punkt (celcius)			5	5	5	5	5	5	5	4	5	-20	-20	-20	-20	-20	5	-35	-80	-40
Temperatur område (celcius)			+20/+2	+20/+2	+20/+2	+20/+2	+20/+2	+20/+2	+15/+2	+6/+2	+20/-2	-5/-25	-5/-25	-5/-25	-5/-25	-5/-25	+45/0	-5/-38	-60/-95	-5/-45
Bruger: P+1	↴																			
Tørkøl on=H0/off=HI	dC		-	-	-	-	-	-	-	HI	HI	-	-	-	-		-	-	-	-
Optøning on/off	UF		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
Local Alarm Limits	LAL	↴																		
Øvre lokale alarm grænse (celcius)		LHL	25	-	-	25	25	25	25	6	25	25	-	25	-	0	50	25	25	25
Nedre lokale alarm grænse (celcius)		LLL	0	-	-	0	0	0	0	2	-5	-35	-	-35	-	-35	-5	-45	-99	-60
Tidsforsinkelse for øvre lokale alarm (min.)		LHd	0	-	-	0	0	0	0	0	0	0	-	0	-	0	0	0	60	0
Tidsforsinkelse for nedre lokale alarm (min.)		LLd	0	-	-	0	0	0	0	0	0	0	-	0	-	0	0	0	60	0
Dør alarm on=1/off=0		dA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tidsforsinkelse for åben dør (min.)		dAd	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Buzzer for lokal alarm on=1/off=0		bU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
External Alarm Limits	EAL	↴																		
Øvre eksterne alarm grænse (celcius)		EHL	25	-	-	25	25	25	-	25	25	25	-	25	-	-	50	25	25	25
Nedre eksterne alarm grænse (celcius)		ELL	0	-	-	0	0	0	-	0	-5	-35	-	-35	-	-	-5	-45	-99	-60
Tidsforsinkelse for øvre ekstern alarm (min.)		EHd	0	-	-	0	0	0	-	60	0	60	-	60	-	-	60	60	60	60
Tidsforsinkelse for nedre ekstern alarm (min.)		ELd	0	-	-	0	0	0	-	60	0	60	-	60	-	-	60	60	60	60
Dør alarm on=1/off=0		dA	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0
Tidsforsinkelse for åben dør (min.)		dAd	5	5	5	5	5	5	-	5	5	5	5	5	5	-	5	5	5	5
Buzzer for lokal alarm on=1/off=0		bU	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0
Calibration of sensor	CAL	↴																		
Offset justering på føler A (kelvin)		CA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset justering på føler E (kelvin)		CE	0	-	-	0	0	0	-	0	0	0	-	0	-	-	0	0	0	0
Offset justering på føler F (kelvin)		CF	0	0	0	0	0	0	-	0	0	-	-	-	-	-	0	-	-	-
Frost Protection	FP	↴																		
Aktivering af frost sikring. On=1/Off=0		Act	0	0	0	0	0	0	-	0	0	-	-	-	-	-	0	-	-	-
Test af frost sikring		tES	0	0	0	0	0	0	-	0	0	-	-	-	-	-	0	-	-	-
Indstilling af setpunkt for frost sikring (celcius)		SEt	2	2	2	2	2	2	-	2	2	-	-	-	-	-	2	-	-	-
Aktuel visning af følerens temperatur (celcius)		PrE	...	...	...	...	...	...	-	...	...	-	-	-	-	-	...	...	-	-
Faste- eller eskorterende alarmgrænser (FAS - ESC)	ALL		FAS	FAS	FAS	FAS	FAS	FAS	-	FAS	FAS	FAS	FAS	FAS	FAS	-	FAS	FAS	FAS	FAS
Skånsom nedkøling (soft-chill)	SCL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hård nedkøling (hard-chill)	HCL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tidsstyret nedkøling (timed-chill)	PCL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antal afrimninger pr. dag	dEF		4	4	4	4	4	4	-	4	4	4	4	4	4	-	4	4	1	4
Valgt føler vist i display	dPS		E	A	A	E	E	E	-	E	E	E	-	E	-	-	E	E	E	E
Mulige valg af følere til visning i display			A,E,F	A,F	A,F	A,E,F	A,E,F	A,E,F	-	A,E,F	A,E,F	A,E	-	A,E	-	-	A,E,F	A,E	A,E	A,E
Alarm & præsentation	↴																			
Alarm indstillinger	A	↴																		
Kondensator overvågning alarm tænd (celcius)		A1	65	65	65	65	65	65	-	65	65	65	65	65	65	-	65	65	65	65
Kondensator overvågning alarm sluk (celcius)		A2	40	40	40	40	40	40	-	40	40	40	40	40	40	-	40	40	40	40
Genindtrædelses tiden for akustisk alarm (min.)		A3	5	5	5	5	5	5	-	5	5	5	5	5	5	-	5	5	5	5
Alarm historik on=1/off=0		A4	1	-	-	1	1	1	-	1	1	1	-	1	-	-	1	1	1	1
Valg af føler til alarmsystemet		A5	E	A	A	E	E	E	-	E	E	E	-	E	-	-	E	E	E	E
Mulige valg af følere til alarm system			A,E,F	A,F	A,F	A,E,F	A,E,F	A,E,F	-	A,E,F	A,E,F	A,E	-	A,E	-	-	A,E,F	A,E	A,E	A,E
Præsentation af temperatur	P	↴																		
Frysning af temperatur visning efter afrimning		P1	0	30	30	0	0	0	-	0	0	0	30	0	30	-	0	0	0	0
Frysning af temperatur visning under normal drift		P2	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0
Opdateringsfrekvens i displayet (sek.)		P3	10	10	10	10	10	10	-	10	10	10	10	10	10	-	10	10	10	10
Temperatur angivelse i Celsius eller Fahrenheit		P4	C	C	C	C	C	C	-	C	C	C	C	C	C	-	C	C	C	C
System opsætning	↴																			
Kompressor indstillinger	C	↴																		
Differentiale for kompressor start og stop (kelvin)		C1	1	2	2	1	2	2	-	1	1	4	4	4	4	-	2	4	3*	4
Maks tilladte indstillelige setpunkt (celcius)		C2	20	20	20	20	20	20	-	6	20	-5	-5	-5	-5	-	45	-5	-60	-5
Minimum tilladte indstillelige setpunkt (celcius)		C3	2	2	2	2	2	2	-	2	-2	-25	-25	-25	-25	-	0	-38	-90	-45
Tvungen kompressor pause tid (min.)		C4	1	1	1	1	1	1	-	1	1	3	3	3	3	-	1	3	3	3
Antal følere til kondensator overvågning		C5	1	1	1	1	1	1	-	1	1	1	1	1	1	-	1	1	1	1
Tid døren står åben før kompressoren stopper (min.)		C6	1	1	1	1	1	1	-	1	1	1	1	1	1	-	1	1	-	1
Soft differentiale for cool/heat cut-out (kelvin)		C7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
Setpunkt for kondensatorventilator		C8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-
Cut-out differentiale for kondensatorventilator (kelvin)		C9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-
Fordamper ventilator indstillinger	F	↴																		
Start af ford. vent. efter afrimning og ved tørkøl. (celcius)		F1 (L1)	-	-	-	-	-	-	-	-1	-1	-1	-1	-1	-1	-	-1	-35	-35	-35
Ford. vent. pausetid ved kompressor stop (min.)		F2	0	0	0	0	0	0	-	0	0	0	0	5	5	-	3	0	-	0
Ford. vent. køretid ved kompressor stop (sek.)		F3	60	60	60	60	60	60	-	60	60	60	60	60	60	-	60	60	-	60
Stop temp. af LT komp. i kaskade ford. - Normal (celcius)		F4 (L4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-20	-
Stop temp. af LT komp. i kaskade ford. - Stor afvigelse (celcius)		F5 (L5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-5	-
Temp. afvigelse fra setpunkt for valg af "normal" eller Unormal" drift		F6 (L6)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-
Driftsmetode for LT-kompressor (slave eller selvstændig)		(L7)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Indstillinger for afrimning	d	↴																		
Antal afrimning pr. dag		d1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1	4
Stop temperatur i fordamper under afrimning (celcius)		d2	4	4	4	4	4	4	4	2	2	2	2	2	2	6	4	2	2	2
Afrimning on/off = (0/1) ved pow er up 1. gang.		d3	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0
Maks tilladte afrimningstid (min.)		d4	30	30	30	30	30	30	-	30	30	30	30	30	30	-	30	30	10	30
Afrimningsmetode (1=automatisk, 2=luft, 3=elektrisk)		d5	2	2	2	2	2	2	-	1	1	3	3	3	3	-	1	3	-	3
Dryptid efter endt afrimning (min.)		d6	0	0	0	0	0	0	-	0	0	1	1	1	1	-	0	1	-	1
Grænseværdi for automatisk afrimningsmetode (celcius)		d7	2	2	2	2	2	2	-	4	4	4	4	4	4	-	4	4	-	4
Fordamperovervågning (celcius)		d8	-35	-35	-35	-35	-35	-35	-	-35	-35	-35	-35	-35	-35	-	-35	-50	-	-52
Afrimning efter endt nedkøling		d9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Afrimningsvindue (min.)		d10	-	-	-	-	-	-	-	-	-	2	2	2	2	-	-	2	-	2
Tid for tvungen afrimning ved 100 % kompressor kørsel (timer)		d11	-	-	-	-	-	-	-	-	-	3	3	3	3	-	-	3	-	3