

DanX (controller)

User's guide

EN

No. 027703 • rev. 2.1 • 16.06.2006



Focus. Trust. Initiative.

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Instruction manual Excel 50

Overview

Introduction This section deals with the Excel 50 control of the DanX units and includes:

- Guide to menus
- Change of functions, programs etc.

Important! The display pictures shown in the following sections may differ from the displays on your control, as the names of the day programs are customer-defined.

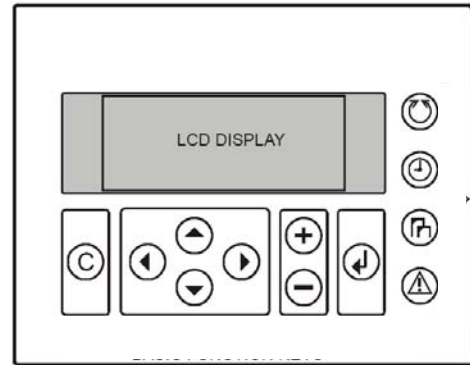
Contents This section includes the following items:

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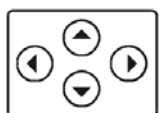






Survey of the display and the key functions

Introduction This section describes the display and the individual keys.

Illustrations Illustrations of the Excel 50:







Part/function The table below describes the individual keys/functions of the control.

Part	Type	Function
	Display	<ul style="list-style-type: none"> Shows the settings
	Cursor	<ul style="list-style-type: none"> Changes between menus in the display
	Cancel	<ul style="list-style-type: none"> Back to last display picture Deletes incorrect inputs Acknowledge alarm information
	Arrows	<ul style="list-style-type: none">  Moves the cursor one line up  Moves the cursor one line down  Moves the cursor one step forward or to the next page  Moves the cursor one step back or to the previous page
	Plus/minus	<ul style="list-style-type: none"> Increases the numerical value by one for each press Reduces the numerical value by one for each press Changes the status of a digital spot, e.g. on/off
	Enter	<ul style="list-style-type: none"> Goes to next picture Press BEFORE and AFTER changes for acceptance of changes

Continued overleaf

Survey of the display and the key functions, *continued*

Part/function, *continued*

Part	Type	Function
	Plant	<ul style="list-style-type: none"> Shows the current status of the timer programs In the following called "Current status"
	Time program	<ul style="list-style-type: none"> Shows system time (time, date, summer time) Shows week programs (7 daily programs) Shows annual programs (3 daily holiday programs)
	Data points/- parameters	<ul style="list-style-type: none"> Shows data points Shows parameters Shows system data and DDC Program cycle-times
	Alarms	<ul style="list-style-type: none"> Shows points currently in alarm condition

Functions

The following section deals with various user functions. Dantherm Air Handling A/S recommends that you do not change other functions than those described in this guide!

How to enter a password

Introduction

This section describes:

- Where a password is needed
- How a password is entered
- How a password is changed

Password



The password to use for change of control is **2 2 2 2**

Warning

We recommend that you DO NOT change your password. But in case you do, we suggest that you make a note of the password and keep it in a safe place.












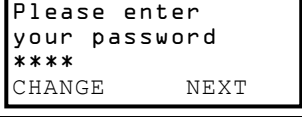

Functions that need password

A password is needed for the functions of the following two keys:

-  Data points/parameters
-  Time program

Procedure for entering of password

This is a description of how to enter a password to get access to functions that are protected by a password

Step	Action	Key	Result
1	Activate one of the password-protected functions	 / 	
2	Move (▶) to the position in front of the 4 stars		
3	Confirm that you will change the password		The cursor blinks on the first figure of the password
4	Enter the password (2 2 2 2)	 +  + 	
5	Confirm the change and you have access to the password-protected functions		
6	Reconfirm to go on to the chosen function of step 1 or press one of the other functions		The display will show the options of the chosen function

Continued overleaf

How to enter a password, *continued*

Procedure for change of password


This is a description of how to **change** the password:

Please note that you need a special code to change the password. Contact Dantherm Air Handling A/S or your dealer.

Step	Action	Key	Result
1	Repeat steps 1 to 5 of the above procedure		
2	Move the cursor (▶) to the left-hand side of the menu CHANGE and confirm	◀ + ↓	<div style="border: 1px solid black; padding: 5px;"> Please enter your password **** ▶CHANGE NEXT </div>
3	Move the cursor (▶) to the password to be changed and confirm	▶ + ↓	<div style="border: 1px solid black; padding: 5px;"> Change password Level 2 ▶**** Level 3 **** NEXT </div>
4	Enter the new password	+ - + ▶	
5	Confirm the change	↓	

How to read the current status

Function/key

 shows current status of the time programs.

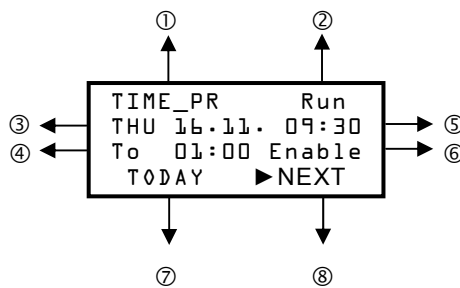
Please note that the day programs etc. mentioned in the display pictures are only examples!

Display

When no keys are pressed, the display will show the current status of the timer programs.

Illustration

Illustration of the current status (default screen):



Part/function

This table shows the various possibilities in the current status screen

Part	Function
① Time program/plant	Shows the name of the first program
② Status/function	Shows whether the control software is active
③ Day/date	Shows current day and date
④ Next connection/switch-on	Shows the next connection of the chosen time program
⑤ Time	Shows current time
⑥ Status of time program	Shows current status of the chosen time program
⑦ TODAY	Permits temporary changes to the running time program. Further information in section "How to overrule timer program TODAY", page 14
⑧ NEXT	By pressing ENTER you can shift between the programs

How to make a day program


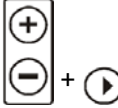

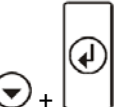

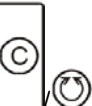
Introduction

This function is used to make a new day program.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure

This is a description of how to make a new day program:

Step	Action	Key	Result
1	Activate the "Time program" function		<pre>Please enter your password **** ▶NEXT</pre>
2	Enter the password (see also section "How to enter a password", page 6)		<pre>Please enter your password █*** NEXT</pre>
3	Confirm by ENTER (with the cursor pointing at NEXT)		<pre>▶System Time Daily Weekly Annual</pre>
4	Move the cursor to "Daily" and confirm by ENTER		<pre>TIME_PR Daily ▶MODIFY NEW DELETE COPY</pre>
5	Move the cursor to "NEW" and confirm by ENTER The new program is called "DP_" + consecutive figures. In the example the new program is called "DP_2". The next program will be called "DP_3"		<pre>TIME_PR ▶New daily prog. DP_2 MODIFY ▶BACK</pre> A new program has been made and can be connected to a day program. Further information in section "How to connect a day program to weekdays", page 17
6	Return to current status by pressing the plant key or return to the previous page by pressing "C"		Example: <pre>TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ▶NEXT</pre>

How to copy a day program


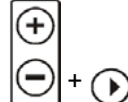


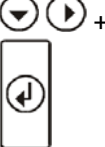
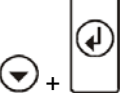

Introduction

This function is used to copy an existing day program.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure

This is a description of how to copy an existing day program:

Step	Action	Key	Result
1	Activate the "Time program" function		<pre>Please enter your password **** ▶NEXT</pre>
2	Enter the password (see also section "How to enter a password", page 6)		<pre>Please enter your password █*** NEXT</pre>
3	Confirm by ENTER (with the cursor pointing at NEXT)		<pre>▶System Time Daily Weekly Annual</pre>
4	Move the cursor to "Daily" and confirm by ENTER		<pre>TIME_PR Daily ▶MODIFY NEW DELETE COPY</pre>
5	Move the cursor to "COPY" and confirm by ENTER		<pre>TIME_PR Copy ▶1-MONDAY ↑ 2-TUESDAY ↓ 3-WEDNESDAY ↓</pre>
6	Move the cursor to the program to be copied and confirm by ENTER. The new program is called "DP_" + consecutive figures. In the example the new program is called "DP_2". The next program will be called "DP_3" Reconfirm by ENTER when the cursor is in front of "BACK"		<pre>TIME_PR DP_1 Copied to DP_2 ▶BACK</pre> <p>A new program has been copied and can be connected to a day program. Further information in section "How to connect a day program to weekdays", page 17</p>
7	Return to current status by pressing the plant key or return to the previous page by pressing "C"		<p>Example:</p> <pre>TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ▶NEXT</pre>

How to change a day program


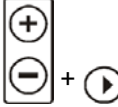

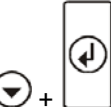



Introduction

This function is used to change an existing day program.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure



This is a description of how to change an existing day program:

Step	Action	Key	Result
1	Activate the "Time program" function		<pre>Please enter your password **** ▶NEXT</pre>
2	Enter the password (see also section "How to enter a password", page 6)		<pre>Please enter your password █*** NEXT</pre>
3	Confirm by ENTER (the cursor pointing at NEXT)		<pre>▶System Time Daily Weekly Annual</pre>
4	Move the cursor to "Daily" and confirm by ENTER		<pre>TIME_PR Daily ▶MODIFY NEW DELETE COPY</pre>
5	Confirm by ENTER – The cursor pointing at "MODIFY"		<pre>TIME_PR Modify ▶1-MONDAY ↑ 2-TUESDAY ↓ 3-WEDNESDAY ↓</pre>
6	Move the cursor to the program to be changed and confirm by ENTER		Example: <pre>TIME_PR ▶New 01:00 NIPU ↑ 07:00 NIPU ↓ 17:00 SCHEDULE ↓</pre>
7	Move the cursor to the element to be changed and confirm by ENTER In the example "07:00 NIPU" is to be changed		Example: <pre>DRIFTUR NIPU ▶07:00 Disable Opt: ***** DELETE</pre>
8	Make the necessary changes		Example: <pre>DRIFTUR NIPU ▶08:00 Disable Opt: ***** DELETE</pre>

Continued overleaf

How to change a day program, *continued*

Procedure,
continued

Step	Action	Key	Result
9	Return to current status by pressing the plant key or return to the previous page by pressing "C"	 	<p>Example:</p> <pre> TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ►NEXT </pre>

How to delete a day program


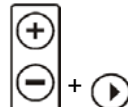


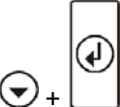



Introduction

This function is used to delete an existing day program.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure

This is a description of how to change an existing day program:

Step	Action	Key	Result
1	Activate the "Time program" function		<pre>Please enter your password **** ▶NEXT</pre>
2	Enter the password (see also section "How to enter a password", page 6)		<pre>Please enter your password █*** NEXT</pre>
3	Confirm by ENTER (with the cursor pointing at NEXT)		<pre>▶System Time Daily Weekly Annual</pre>
4	Move the cursor to "Daily" and confirm by ENTER		<pre>TIME_PR Daily ▶MODIFY NEW DELETE COPY</pre>
5	Move the cursor to "DELETE" and confirm by ENTER		<pre>DRIFTUR Delete ▶1-MONDAY ↑ 2-TUESDAY 1 3-WEDNESDAY ↓</pre>
6	Move the cursor to the program to be deleted and confirm by ENTER		<pre>TIMER_PR Really delete DP_2 ? ▶YES NO</pre>
7	Reconfirm		<pre>DRIFTUR Delete ▶1-MONDAY ↑ 2-TUESDAY 1 3-WEDNESDAY ↓</pre>
8	Return to current status by pressing the plant key or return to the previous page by pressing "C"		<p>Example:</p> <pre>TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ▶NEXT</pre>

How to overrule timer program TODAY



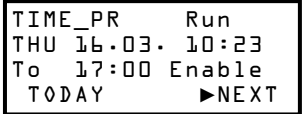





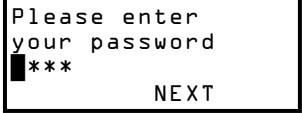

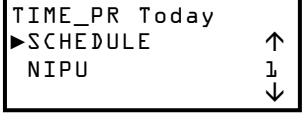






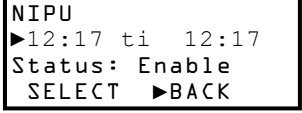










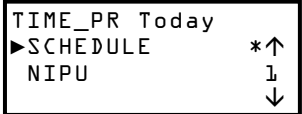


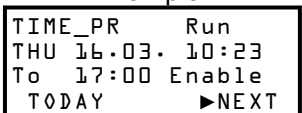
Introduction

This function is merely used to make temporary changes in an operating program.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure

This is a description of how to make temporary changes in the program in operation:

Step	Action	Key	Result
1	Make sure that the display shows current status (the current status of the time programs)	 	
2	Move the cursor to TODAY and confirm by ENTER		
3	Enter the password (see also section "How to enter a password", page 6)	  + 	
4	Confirm with ENTER (with the cursor pointing at NEXT)		
5	Move the cursor to the element to be changed and confirm by ENTER	     	
6	Read/make changes and confirm by ENTER	       + 	
7	Move the cursor to SELECT and confirm by ENTER	 + 	Example 
8	Return to current status by pressing the plant key or return to the previous page by pressing "C"	 	Example: 

How to set system/date/summer time


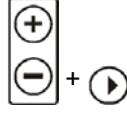



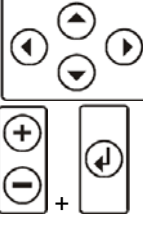
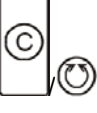
Introduction

This function is used to make changes in the system time, date/time and/or summer time.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure, system time/date

This is a description of how to read or change system time/date:


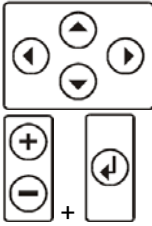


Step	Action	Key	Result
1	Activate the "Time program" function		<pre>Please enter your password **** ▶NEXT</pre>
2	Enter the password (see also section "How to enter a password", page 6)		<pre>Please enter your password █*** NEXT</pre>
3	Confirm by ENTER (the cursor pointing at NEXT)		<pre>▶System Time Daily Weekly Annual</pre>
4	Confirm by ENTER (the cursor pointing at "System Time")		<pre>System Time ▶ Date / Time Daylight Saving</pre>
5	Confirm by ENTER (the cursor pointing at "Date / Time")		<pre>System Time Date: 17.03.2005 Time: 10:26 ▶BACK</pre>
6	Read/change and confirm by ENTER		<pre>System Time ▶ Date / Time Daylight Saving</pre>
7	Return to current status by pressing the plant key or return to the previous page by pressing "C"		Example: <pre>TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ▶NEXT</pre>

Continued overleaf

How to set system/date/summer time, *continued*

Procedure, summer time

This is a description of how to read or change the summer time:

Step	Action	Key	Result
1	Repeat steps 1-3 of the previous procedure		<div style="border: 1px solid black; padding: 5px;"> ▶ System Time Daily Weekly Annual </div>
2	Confirm by ENTER (the cursor pointing at "Daylight Saving")		<div style="border: 1px solid black; padding: 5px;"> System Time Date / Time ▶ Daylight Saving </div>
3	Read or change		<div style="border: 1px solid black; padding: 5px;"> Daylight Saving Start: 00.00 End : 00.00 ▶ BACK </div>
4	Return to previous menu by conforming when the cursor points at "BACK"		<div style="border: 1px solid black; padding: 5px;"> Daylight Saving Start: 00.00 End : 00.00 ▶ BACK </div>
5	Return to current status by pressing the plant key or return to the previous page by pressing "C"		Example: <div style="border: 1px solid black; padding: 5px;"> TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ▶ NEXT </div>

How to connect a day program to weekdays

Introduction



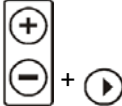


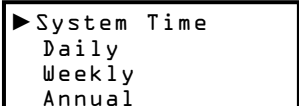
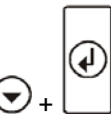
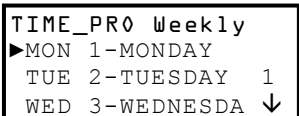
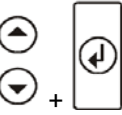

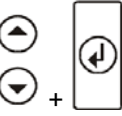
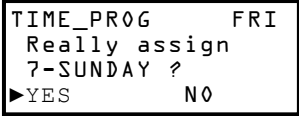

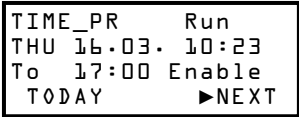
A day program is always connected to one or more weekdays.

This manual is used when you want to change the day program connections to weekdays.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure

This is a description of how to change the connection between day program(s) and weekday(s):

Step	Action	Key	Result
1	Activate the "Time program" function		
2	Enter the password (see also section "How to enter a password", page 6)		
3	Confirm by ENTER (the cursor pointing at NEXT)		
4	Move the cursor to "Weekly" and confirm by ENTER		 Now you have the possibility of choosing one of the weekdays
5	Choose the weekday to which the day program shall be connected		
6	Choose the program to be connected to the weekday chosen in point 5 and confirm by ENTER		
7	Return to current status by pressing the plant key or return to the previous page by pressing "C"		Example: 

How to make/change a year program (holiday)













Introduction

A year program indicates a period of time to which a separate day program is connected. The function is often used in holiday periods.

Please note that the day programs etc. mentioned in the display pictures are only examples!

Procedure

This is a description of how to change the time and the connection between the time and the day program:

Step	Action	Key	Result
1	Activate the "Time program" function		<pre>Please enter your password **** ►NEXT</pre>
2	Enter the password (see also section "How to enter a password", page 6)	 + 	<pre>Please enter your password ■*** NEXT</pre>
3	Confirm by ENTER (the cursor pointing at NEXT)		<pre>►System Time Daily Weekly Annual</pre>
4	Move the cursor to "Annual" and confirm by ENTER. The current date will always be shown here	 + 	<pre>TIME_PR Annual Display from 17.03.2005 ►NEXT</pre>
5	Confirm and go to next step		<pre>TIME_PR ***** THU 17.03.2005 THU 17.03.2005 CHANGE ►NEXT</pre>
6	Read more year programs by confirming on "MORE", return to current status or change/make a year program by confirming on "CHANGE"	 /  + 	
7	Return to current status by pressing the plant key or return to the previous page by pressing "C"	 / 	Example: <pre>TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ►NEXT</pre>

How to change the humidity and/or temperature set point

Introduction



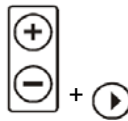

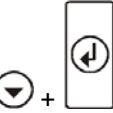

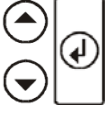
This function is used to change the humidity and/or the temperature setting requested. .
Please note that the day programs etc. mentioned in the display pictures are only examples!

Guide

In step 6 of the procedure below it is possible to change, make, delete, and copy a set point. It is not specified in this section, as the procedure is the same throughout the control and is described elsewhere in this manual.

Procedure


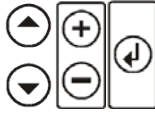
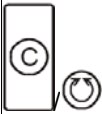
This is a description of how to set the requested humidity/temperature values:

Step	Action	Key	Result
1	Start from current status and press ENTER		<pre>▶SETPNT Run THU 17.03. 10:39 To >24h 21.0°C TODAY ▶NEXT</pre>
2	Activate the "Timer program" function		<pre>Please enter your password **** ▶NEXT</pre>
3	Enter the password (see also section "How to enter a password", page 6)		<pre>Please enter your password █*** NEXT</pre>
4	Confirm by ENTER (the cursor pointing at NEXT)		<pre>▶System Time Daily Weekly Annual</pre>
5	Move the cursor to "Daily" and confirm by ENTER		<pre>SETPNT Daily ▶MODIFY NEW DELETE COPY</pre>
6	Confirm by ENTER (the cursor pointing at MODIFY)		<pre>SETPNT Modify ▶EVERYDAY ↑ 1 ↓</pre> <p>NB: This is an example. Your display might be different!</p>
7	Choose the set point to be changed and confirm by ENTER		<p>Example:</p> <pre>SETPKT ▶New 00:00 -B30_1.C ↑ 00:00 MECH_COO 1 00:00 -B23 MIN ↓</pre>

Continued overleaf

How to change the humidity and/or temperature set point, *continued*

Procedure,
continued

Step	Action	Key	Result
8	Choose the specific set point and Confirm by ENTER		<p>Example</p> <pre> SETPKT MECH_C00 ▶00:00 Yes Opt. ***** DELETE </pre>
9	Use the arrows to move the cursor to the parameters to be changed and use +/- to make the changes. Confirm by ENTER		<pre> SETPKT MECH_C00 ▶00:00 No Opt. ***** DELETE </pre>
10	Return to current status by pressing the plant key or return to the previous page by pressing "C"		<p>Example:</p> <pre> TIME_PR Run THU 16.03. 10:23 To 17:00 Enable TODAY ▶NEXT </pre>

How to read alarms

Introduction

Activation of the alarm function  gives access to:

- Alarm Buffer
Here it is possible to read the latest 99 alarms
- Alarm points
Here it is possible to read current alarms
- Critical alarms
All relevant alarms have been programmed as "critical alarms"
Here it is possible to read critical alarms
- Non-critical alarms
Is not used

Please note that the day programs etc. mentioned in the display pictures are only examples!

Survey of alarms

Possible alarms are described below:

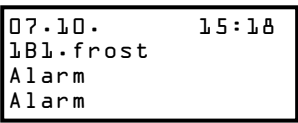

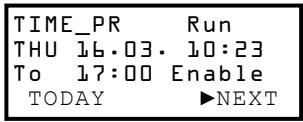
Alarm shortage	Description
1B1.1_frost	Frost danger heating coil
1B12/B13_fire	Fire temp switch in duct or from external fire alarm
1B14/B15_filter	Filter press switch (filter dirty)
1B16/17_flow_therm	Fan flow error or fan thermo relay overload
1B25_recup_frost	Recup frost press switch (flow error)
1B5.1_HP_control	High pressure control pre alarm
1B5.ABC_HP/LP	High/Low Pressure alarm
1Q4/5_safe_switch	Safety switches
1Thermo_comp	Thermo relays compressors

Fault finding

For some alarms it will be possible to locate the fault and correct it on the unit.
See section "Fault finding guide" in the service manual for further information about this.

Procedure for acknowledgement of current alarm

By alarm the display will show a window that is different from the usual window.

Step	Action	Key	Result
1	Acknowledge current alarm: 		

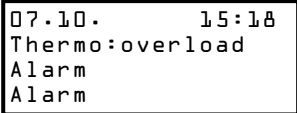

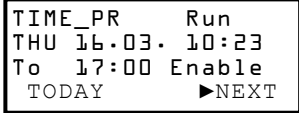
Continued overleaf

How to read alarms, *continued*

Procedure for acknowledgement of an alarm





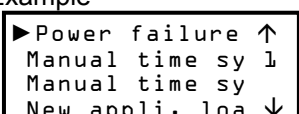


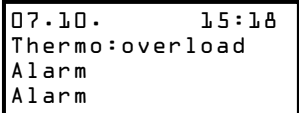


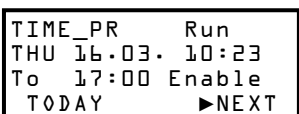
When an alarm is acknowledged, the display will show a window that is different from the usual window.

This is a description of how to acknowledge an alarm:

Step	Action	Key	Result
1	Acknowledge alarm reading: 		

Procedure for reading of alarms

This is a description of how to read alarms:

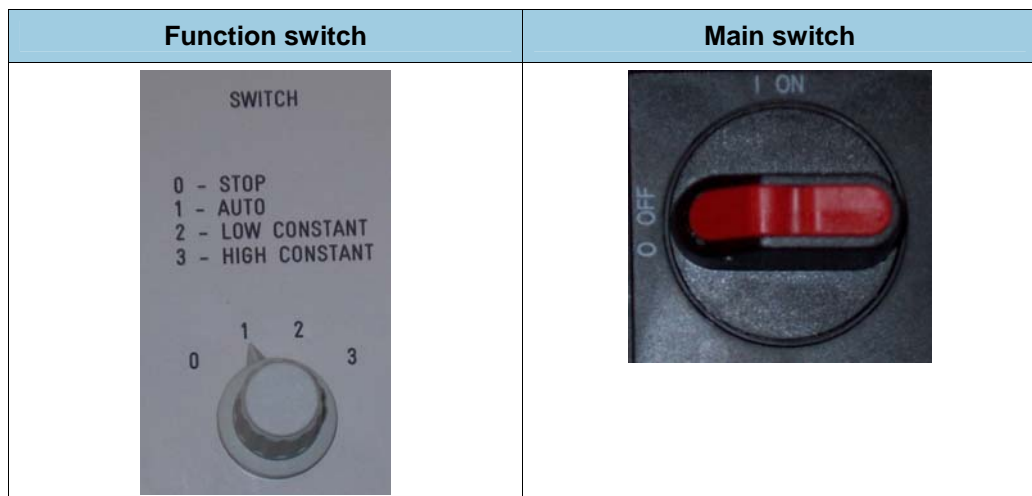
Step	Action	Key	Result
1	Activate the "Timer program" function		
2	Move the cursor to "Alarm Buffer" "Point in Alarm" or "Critical alarm" and confirm by ENTER	 + 	Example 
3	Choose the alarm you want to see. The display will show the same picture as when the alarm first appears. (See also "Acknowledge current alarm"). In case of many alarms you may go to the next page to see them all	 + 	Example 
4	Return to current status by pressing the plant key or return to the previous page by pressing "C"	 or 	Example: 

How to use the function switch and the main switch

Note! This section is only relevant for units that include control when delivered from Dantherm Air Handling A/S!

Introduction All DanX units that include control when delivered are equipped with a main switch and a 3 or 4-function switch for quick and simple change of function.
See the following for further information about these switches.

Illustrations Function switch and main switch:



Part/function The function switch is described in the first part of the table below and the main switch in the last part.

Part	Function
Function switch 0 - STOP	The unit stops, but the safety devices such as frost and fire thermostats are still active. The position is used when the unit is not working. The function is also used to acknowledge faults when these have been corrected. The position of the function switch is held for about 15 seconds, after which the requested position can be chosen
Function switch 1 - AUTO	In position AUTO overruling is not possible. The unit starts and stops according to the set points of the TIME_PROGRAM
Function switch 2 - LOW CONSTANT	The unit runs low speed according to what has been chosen in [MAN_CHOIS_L_H]. For change to AUTO the switch must be in position 0 - STOP for about 15 seconds
Function switch 3 - HIGH CONSTANT	The unit runs high speed according to what has been chosen in [MAN_CHOIS_L_H]. For change to AUTO the switch must be in position 0 - STOP for about 15 seconds

Continued overleaf

How to use the function switch and the main switch, *continued*

Part/function,
continued

Part	Function
Main switch	Disconnects all power to unit and control board. Also frost and fire thermostats are deactivated. If the unit is not switched off on the main switch and the function switch is turned to 0 – STOP, frost and fire thermostats will still be working

Abbreviations

List

The table below contains an alphabetic list of the abbreviations used in the Excel 50 display.

*1) Abbreviations followed by " *1)" are alarm abbreviations. See more about alarms in "How to read alarms", page 21.

*2) Abbreviations followed by " *2)" are set point abbreviations.

Abbreviation	Name
11/2_COMP_RUNNING	Internal XL50 flag
1ACT_TIME	Internal XL50 flag
1AP01_K-fact_M1	Initial. set point
1AP02_K-fact_M2	Initial. set point
1AP03_B24_REL	Initial. set point
1B1.1_frost ^{*1)}	Frost danger heating coil
1B12/B13_fire ^{*1)}	Fire temp switch in duct or from external fire alarm
1B14/B15_filter ^{*1)}	Filter press switch (filter dirty)
1B16/17_flow_therm ^{*1)}	Fan flow error or fan thermo relay overload
1B21_B24_KOMPENS	Internal XL50 flag
1B21_CALC_SETPNT	calc. setpnt.
1B21_CPA	
1B21_CPA_POS	Internal XL50 flag
1B21_return_air	Return air (room) sensor
1B23_CALC_SETPNT	calc. setpnt.
1B23_supply_air	Supply air sensor
1B24_ambient_sup	Ambient sensor duct
1B24<B21	Internal XL50 flag
1B25_recup_frost ^{*1)}	Recup frost press switch (flow error)
1B26_evap_return	Evap. sensor return air
1B26<5grdC_20min	Internal XL50 flag
1B28_pre_evap_ret	Pre. evap. sensor return air
1B30_outdoor	Ambient sensor outside
1B5.1_HP_control ^{*1)}	High pressure control pre alarm
1B5.ABC_HP/LP ^{*1)}	High/Low Pressure alarm
1COMP_NO=1	Internal XL50 flag
1COMP_NO=2	Internal XL50 flag
1COOL_DEMAND	Internal XL50 flag
1COOLDEMAND>1COMP	Internal XL50 flag
1COOLDEMAND>2COMP	Internal XL50 flag

Continued overleaf

Abbreviations, *continued*

List, *continued*

Abbreviation	Name
1Damper_mix_fresh	Damper mix
1DEHUM_DEMAND	Internal XL50 flag
1DEHUMDEMAND>1COMP	Internal XL50 flag
1DEHUMDEMAND>2COMP	Internal XL50 flag
1DP01_REL_Q9_REG	Initial. setpoint
1DP02_RECUP_TYPE	Initial. setpoint
1DP03_REL_B21_CPA	Initial. setpoint
1DP04_REL_Q9_CPA	Initial. setpoint
1DP05_COMP_NO	Initial. setpoint
1FLOW_ERROR	Flow error or thermo overload
1FLOW_RET	Act. flow
1FLOW_SUP	Act. flow
1HEAT_DEMAND	Internal XL50 flag
1HEATDEMAND>1COMP	Internal XL50 flag
1HEATDEMAND>2COMP	Internal XL50 flag
1M_COOL ^{*2)}	Initial. setpoint
1M1_high_speed	Return air fan
1M1_return_fan	Return air fan
1M10/M14_Dampers	Dampers on/off
1M2_high_speed	Supply air fan
1M2_supply_fan	Supply air fan
1M3/M4_FORCET_RUN	Internal XL50 flag
1M3_comp_A	Compressor heat/cool
1M3_DEHUMID_DEMAND	Internal XL50 flag
1M3_FREE_STARTNO	Internal XL50 flag
1M3_START_DEMAND	Internal XL50 flag
1M3_STARTNO<MAXNO	Internal XL50 flag
1M3_TEMP_DEMAND	Internal XL50 flag
1M3ANDM4_START_DEM	Internal XL50 flag
1M3ORM4_START_DEM	Internal XL50 flag
1M4/M3_MASTER	Internal XL50 flag
1M4_comp_B	Compressor heat/cool
1M4_DEHUMID_DEMAND	Internal XL50 flag
1M4_FREE_STARTNO	Internal XL50 flag
1M4_START_DEMAND	Internal XL50 flag

Continued overleaf

Abbreviations, *continued*

List, *continued*

Abbreviation	Name
1M4_STARTNO<MAXNO	Internal XL50 flag
1M4_TEMP_DEMAND	Internal XL50 flag
1M5_pump_heat_coil	Pump heat coil Wather
1M5_PUMP_PULSE	Internal XL50 flag
1NIPU ^{*2)}	Initial. Setpoint
1NIPU_1.START	Internal XL50 flag
1NIPU_DEMAND	Internal XL50 flag
1P1_press_return	Press transmitter
1P2_press_supply	Press transmitter
1Q4/5_safe_switch ^{*1)}	Safety switches
1Q9_B24_COMPENS	Internal XL50 flag
1Q9_CALC_SETPNT	calc. Setpnt.
1Q9_CPA	
1Q9_CPA_POS	Internal XL50 flag
1Q9_humidity	Humidity sensor
1Q9>SET	Internal XL50 flag
1Recup	Recup.
1REL_COMP_ALARMS	Internal XL50 flag
1REL_COMP2LOW	Initial. Setpoint
1REL_COMPRESSORS	Internal XL50 flag
1REL_VENT	Internal XL50 flag
1RESET_RTT_ONE_COM	Internal XL50 flag
1RTT_ONE_COMP	Internal XL50 flag
1SP_FR% ^{*2)}	setpnt.
1SP_MIN ^{*2)}	setpnt.
1SP_RH ^{*2)}	setpnt.
1SP_RM ^{*2)}	setpnt.
1STOP_COMP_DEHUMID	Internal XL50 flag
1Switch	Internal XL50 flag
1SWITCH_POS	Switch pos.
1Thermo_comp ^{*1)}	Thermo relays compressors
1TP_NIPU	Internal XL50 flag
1TP_STATUS	Time program
1TP01_HIGH_DEMAND	Internal XL50 flag
1UNIT_STATUS	Unit status

Continued overleaf

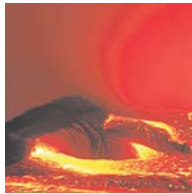
Abbreviations, *continued*

List, *continued*

Abbreviation	Name
1UNIT_STATUS=DAY	Internal XL50 flag
1W_RH ^{*2)}	Initial. setpoint
1W_TEMP ^{*2)}	Initial. setpoint
1WAKE_UP_DEMAND	Internal XL50 flag
1WCC	Wather chilled condensor
1Y1_4-way_valve	4 way valve heat/cool
1Y7.1_heating_coil	Heating coil valve
3POS	3 Position Output
AI_F	Analog Input Fast
AI_S	Analog Input Slow
AO	Analog Output
DI_NC	Digital Input
DI_NO	Digital Input (normally open)
DO_CO	Digital Output (C/O)
DO_F_DI	DO_Feedback_DI
DO_NO	Digital Output (NO)
EXECUTING_STOPPED	Internal XL50 flag
FA	Flag Analog
FD	Flag Digital
GA_I	Global Analog Input
GA_O	Global Analog Output
GD_I	Global Digital Input
GD_O	Global Digital Output
MGD_I	Multistage Global Digital Input
MGD_O	Multistage Global Digital Output
MS	Multistage
MVD	Multistage Pseudo Digital
P2	Pulse_2
SHUTDOWN	Internal XL50 flag
STARTUP	Internal XL50 flag
TOT_F	Fast Totalizer Point
TOT_S	Slow Totalizer Point
VA	Pseudo Analog
VD	Pseudo Digital
VT	Analog Input Fast



Comfortable surroundings in any climate



Since 1958 Dantherm Air Handling has developed and produced climate control and air handling solutions that ensure optimum conditions for people and sensitive equipment alike. No climate is too extreme for us to handle – from the bitter cold at the North and South Poles to the searing heat of the Sahara.

Our core business areas are dehumidification, heating, air conditioning, ventilation and electronics cooling. Innovative, durable and cost-efficient products have secured us a position as a leading global manufacturer of stationary and mobile climate control units. And we are forever pursuing new techniques that will improve our solutions and ultimately your projects.

Our Head Office is located in Denmark, and we have companies in Denmark, Norway, Sweden, the United Kingdom, the United States and China, with an extensive European dealer network.

Dantherm Air Handling is part of the Dantherm A/S group.

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