MAKING MODERN LIVING POSSIBLE

BD Controller 101N08xx Series 12-24 V DC

with Tool4Cool® LabEdition software and Danfoss Bluetooth® gateway

TOOL4COOL®
Flexible settings control

Quick Start Guide

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1. Checklist

Check that you have the following:

BD Controller 101N08xx Series 12-24 V DC (modules and cables) Image shows compressor/application modules 101N08xx-series in twin compressor configuration with communication cable asembly	
Tool4Cool® LabEdition software installation CD	
Product key for BD compressor controller	DH3TT6RBAD1GW8G68ZM1N8G62ZMCOO916IER6GH2YZEIR
DC line cords	
NTC temperature sensor (alternative: mechanical thermostat)	
Danfoss Bluetooth® gateway	
USB power supply	
Bluetooth® communication cable	

Ordering: See section *7.0*

2. Connect cables

Legend for 2.1 & 2.2

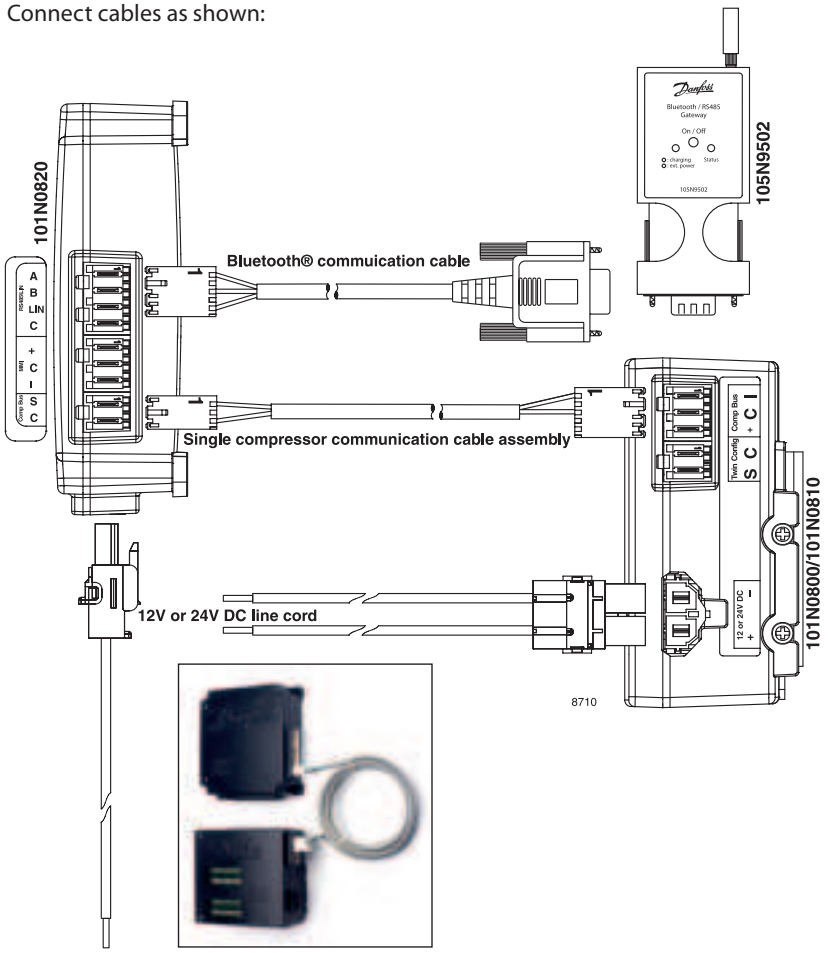
A) Application module 101N0820
B) Compressor module 101N0800, 12 V DC / compressor module 101N0810, 24 V DC
C) Line cords
D) Single or twin compressor communication cable assembly

1) Mounting screws
2) Battery
3) Fuse
4) Main switch
5) Evaporator fan
6) Condenser fan
7) Mechanical thermostat
8) NTC temperature sensor (electrical thermostat), alternative: mechanical thermostat
9) NTC auxiliary temperature sensor
10) Compressor(s)
11) Danfoss One Wire/LIN gateway communication interface
12) Modbus-compatible device
13) Danfoss Bluetooth® gateway communication interface

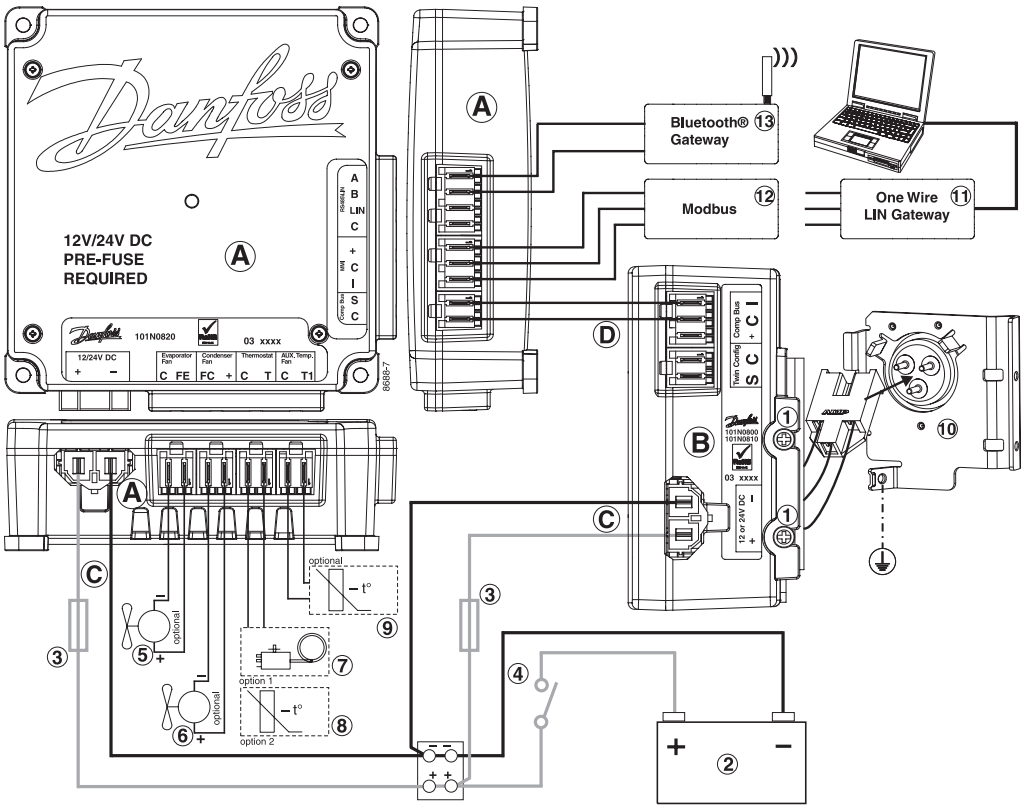
See Intructions *DEHC.EI.100.V.* for details.

2.1 Single compressor configuration, 12 V DC or 24 V DC

Connect cables as shown:

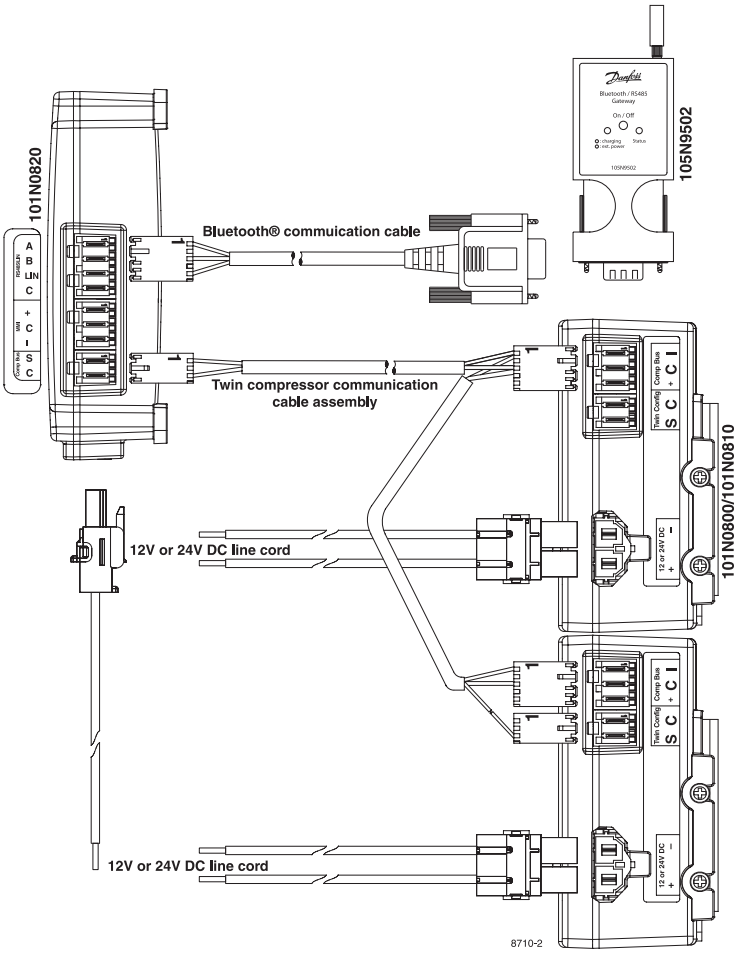


Wiring diagram

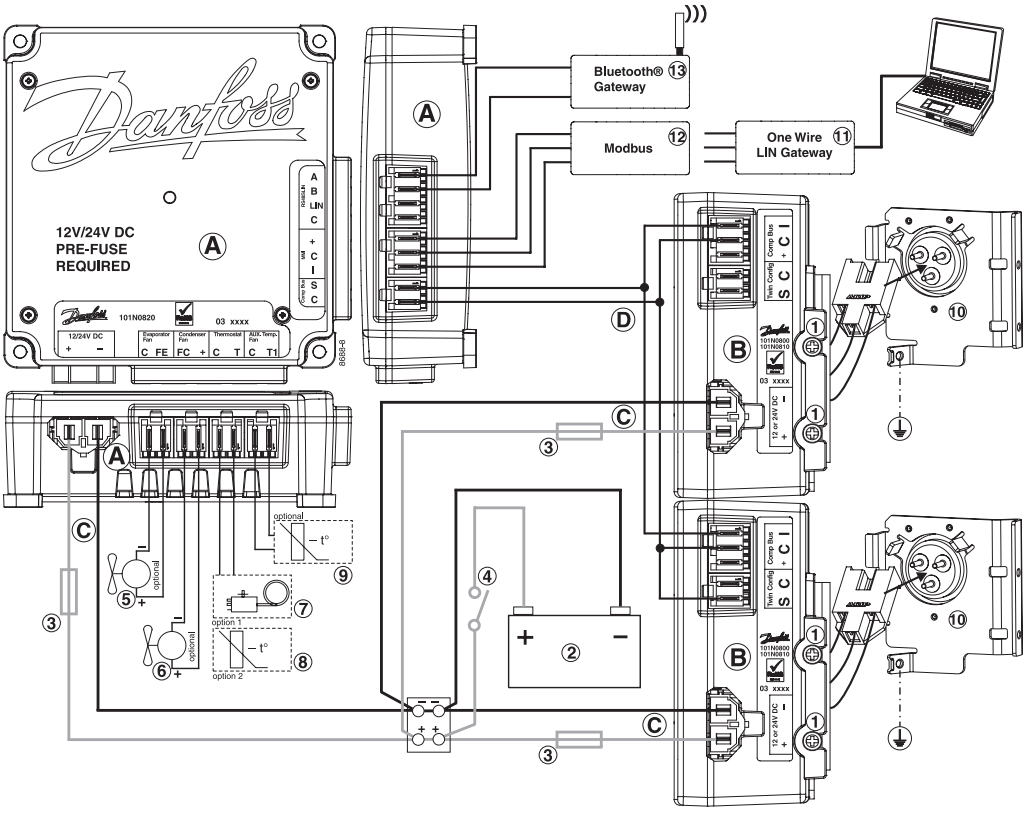


2.2 Twin compressor configuration, 12 V DC or 24 V DC

Connect cables as shown:



Wiring diagram



3. Pairing the gateway

In order to communicate, Bluetooth® devices must first be paired. Pairing is performed before using the device for the first time. Pairing does not need to be repeated for subsequent use.

Please choose the operative system installed on your computer.

3.1 Windows XP

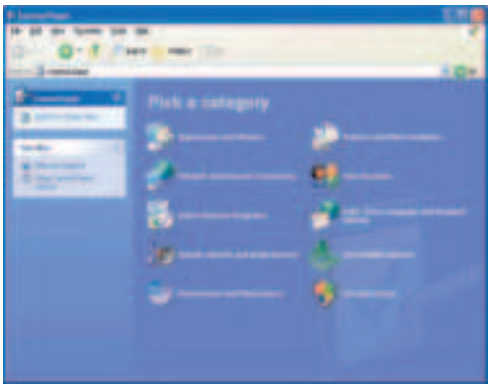
1. Attach or turn on the Bluetooth® radio adapter (transceiver) for your Windows XP computer.

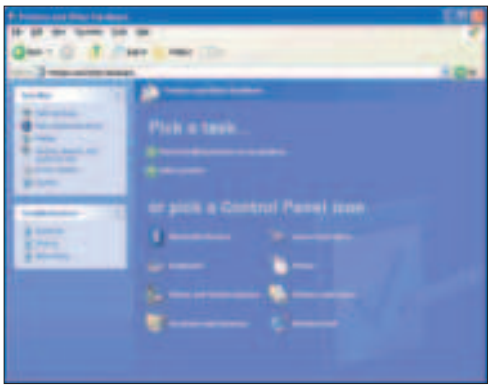
2. Turn on the Danfoss Bluetooth® gateway by pressing briefly on the push button.
   The LED will blink green.

Please note!:
The gateway runs for 30 seconds before shutting down automatically.
At each step of the pairing process, check that the LED is still blinking.
If one stage of the pairing fails, turn the gateway on again, and try again.

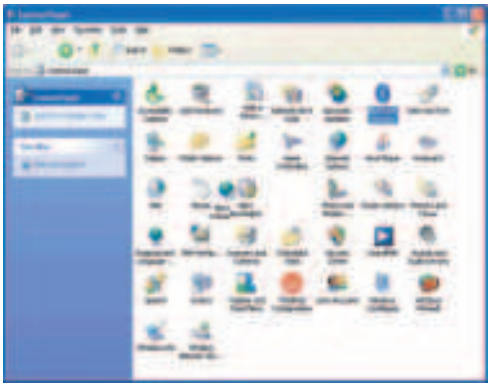
3. Open Bluetooth® Devices in Control Panel/Printers and Other Hardware (Category view) or Control Panel (Classic view).

Control Panel Category View:

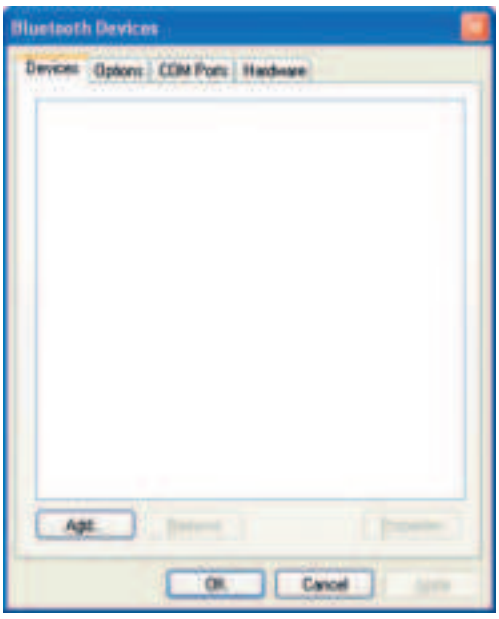




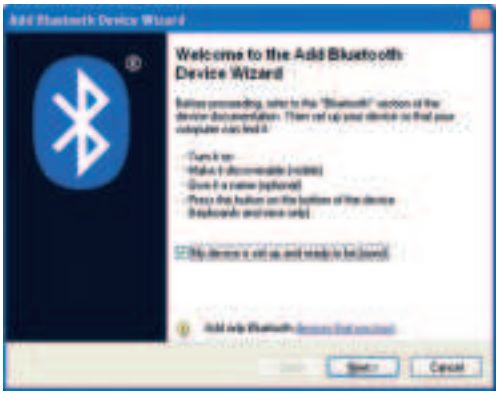
Control Panel Classic View:



4. On the *Devices* tab, click *Add*.



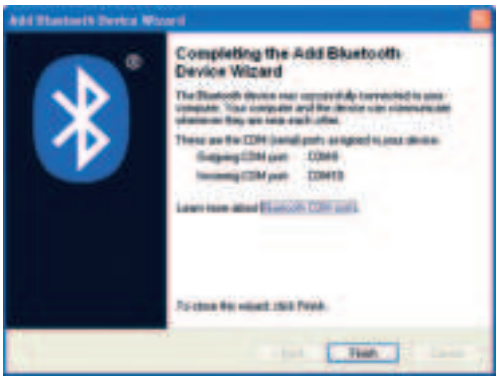
5. Select the *My device is set up and ready to be found* check box, and then click *Next*.



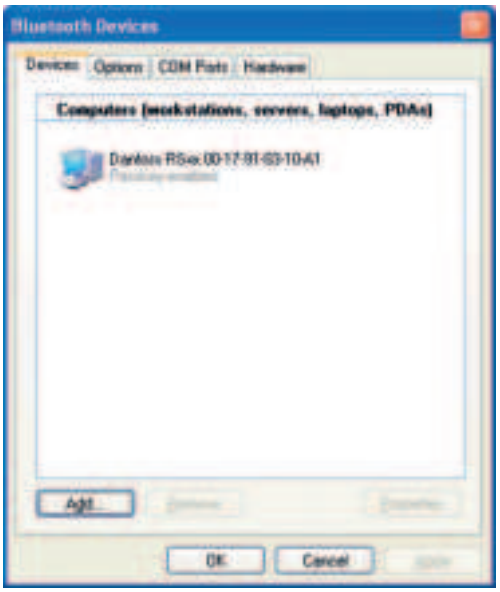
6. Click on the Danfoss Bluetooth® gateway shown in the dialog, and then click *Next*.

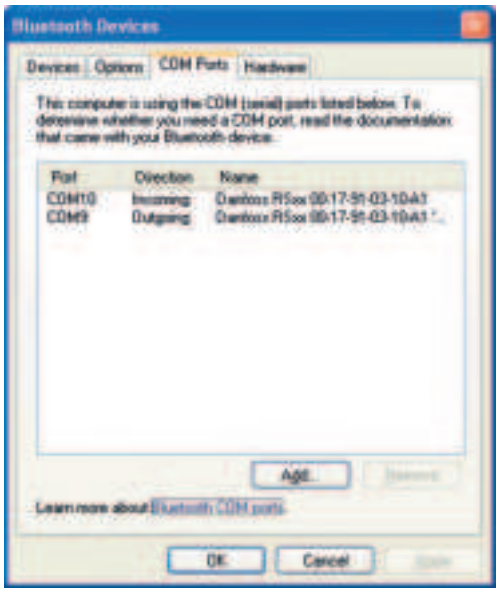
7. Click *Use the passkey found in the documentation*, and then type the passkey: 1234.

8. Note the outgoing COM port, in this example COM 9. Then click Finish to complete pairing.



9. The COM port can also be viewed in the COM ports tab of the Bluetooth® devices dialog. Make a note of the Outgoing COM port (in this example, COM9):





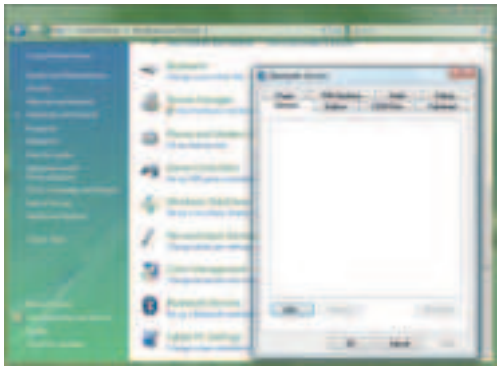
3.2 Windows Vista

1. Attach or turn on the Bluetooth® radio adapter (transceiver) for your Windows Vista computer.

2. Turn the Danfoss Bluetooth® gateway on by pressing briefly on the push button.
   The LED will blink green.

Please note!:
The gateway runs for 30 seconds before shutting down automatically.
At each step of the pairing process, check that the LED is still blinking .
If one stage of the pairing fails, turn the gateway on again, and try again.

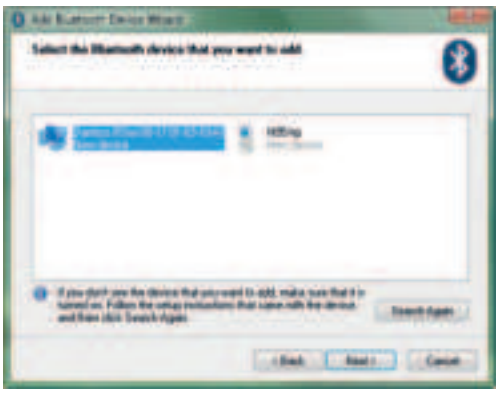
3. Open Bluetooth® Devices in Control Panel/Hardware and Sound.



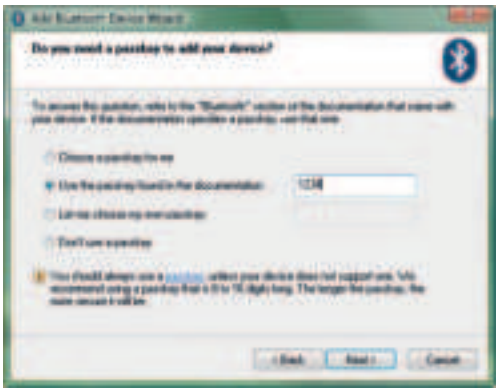
4. Select *Add* then *OK*.
   The wizard will open:

5. Check the Bluetooth® gateway is turned on.
   Click the box *My device is set up and ready to be found*.
   Select *Next*.
   The wizard will search…

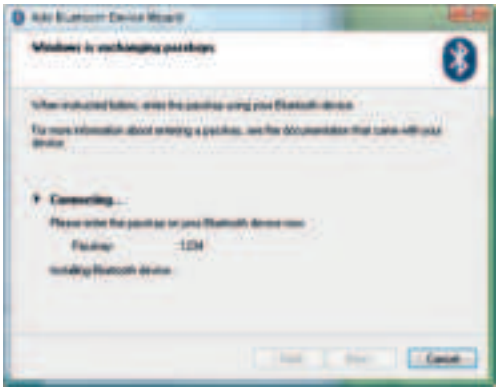
…and then display nearby Bluetooth® devices:

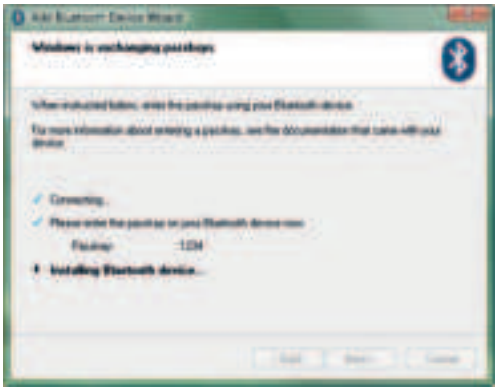


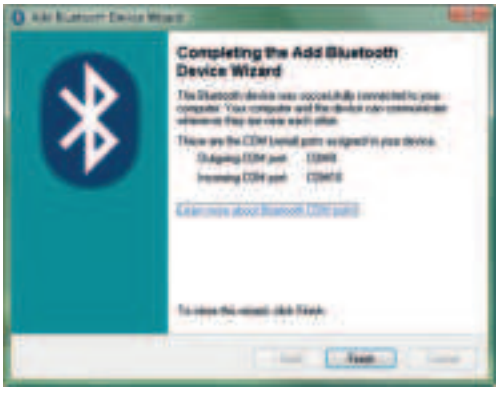
6. Select the *Danfoss device*, then select *Next*.



7. Enter the passkey *1234* as shown, then select *Next*.
   The wizard will perform these steps:

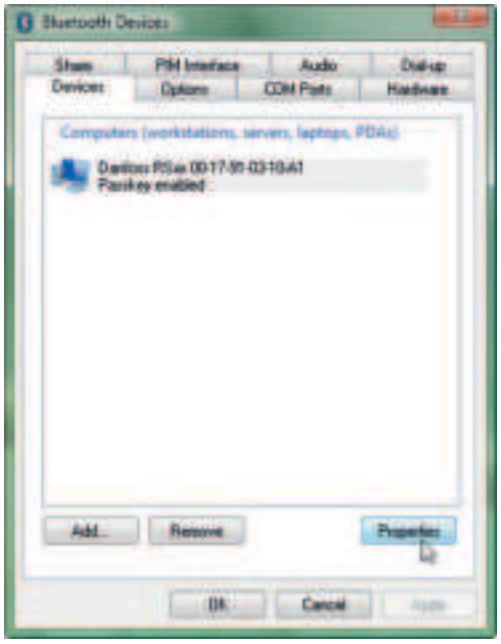




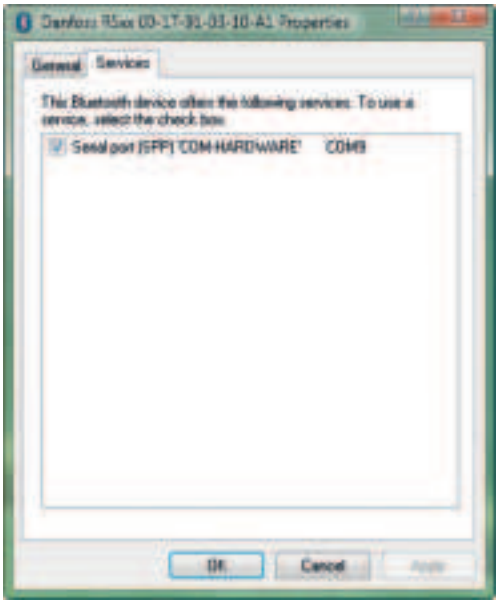


8. Select *Finish* to complete pairing.
   Now look at the Control Panel again, to confirm the Danfoss device is visible:

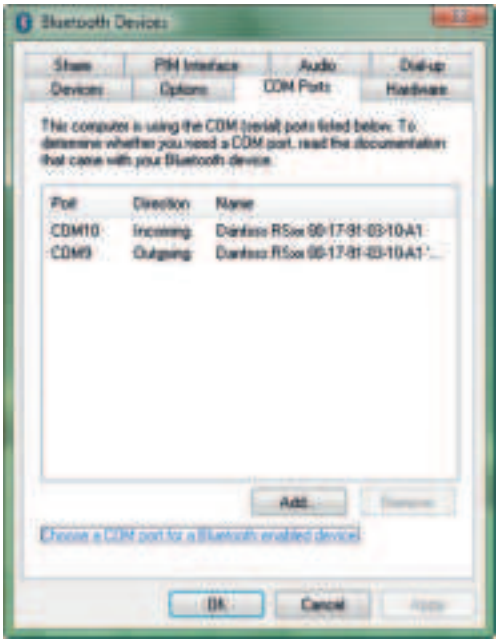
9. Select the *Danfoss device*, then select *Properties* as shown here:



10. Under the *Services* tab, make a note of the COM port to which the gateway is paired.
    In this example it is COM9:



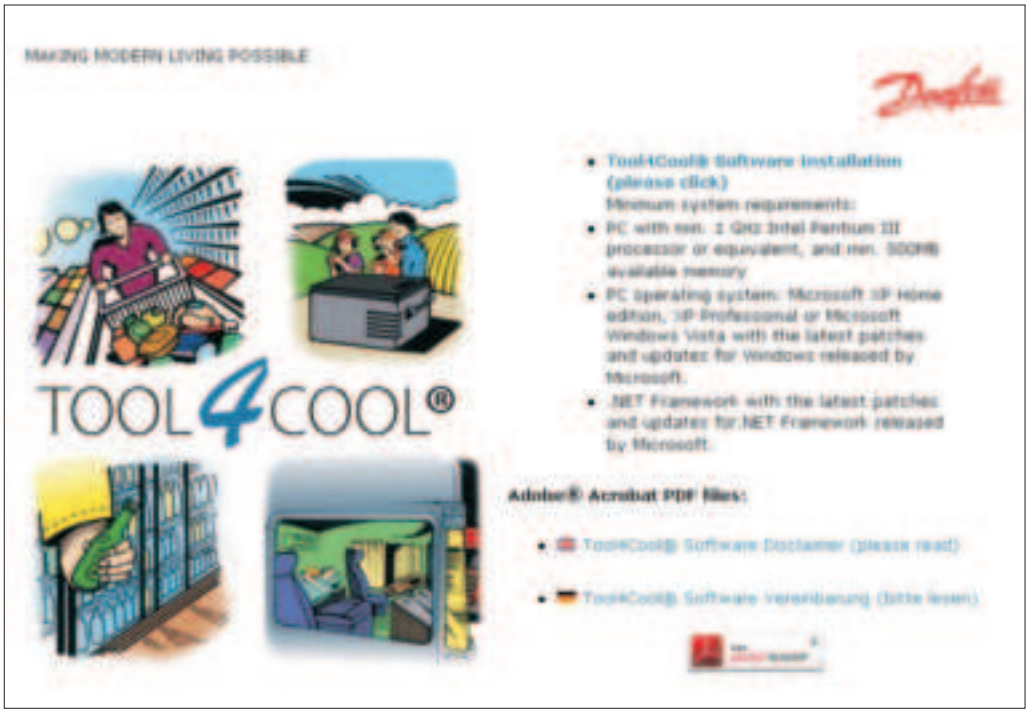
Alternatively, the COM port can be viewed in the COM ports tab of the Bluetooth® devices dialog. Make a note of the Outgoing COM port:



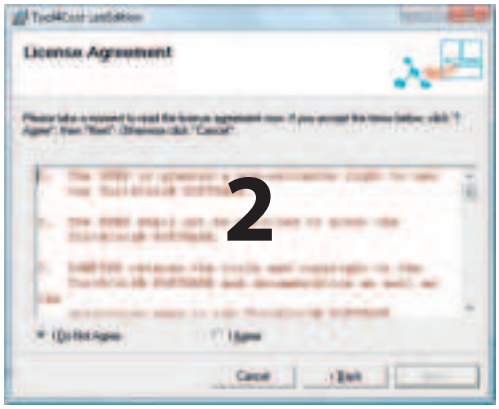
4. Install software

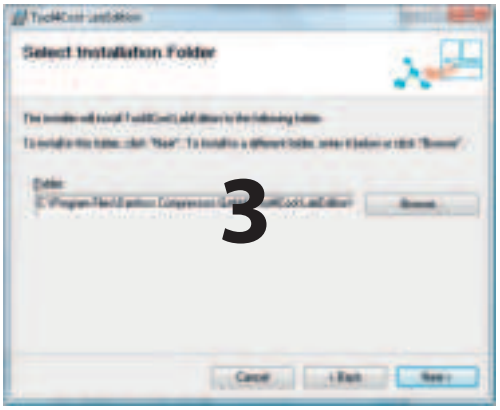
1. Check that you have the latest update of .NET Framework from www.windowsupdate.com.

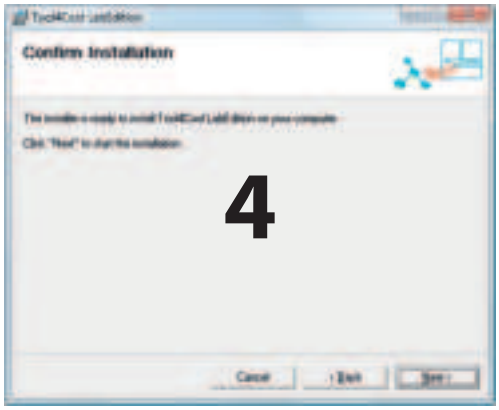
2. Insert the Tool4Cool® installation CD.
   This view will appear:

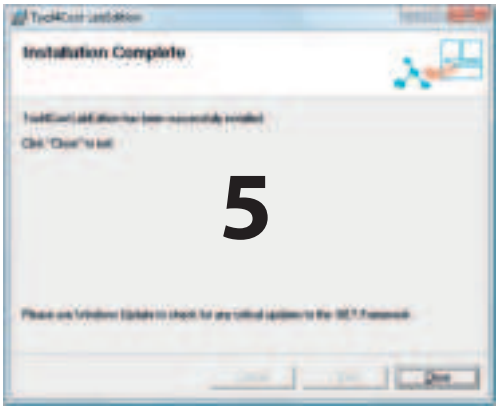


3. Double-click on *Tool4Cool® Software Installation*. Run the file setup.exe. Then follow the instructions in the *Setup* Wizard.







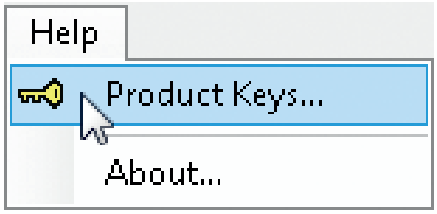


5. Install Product Key

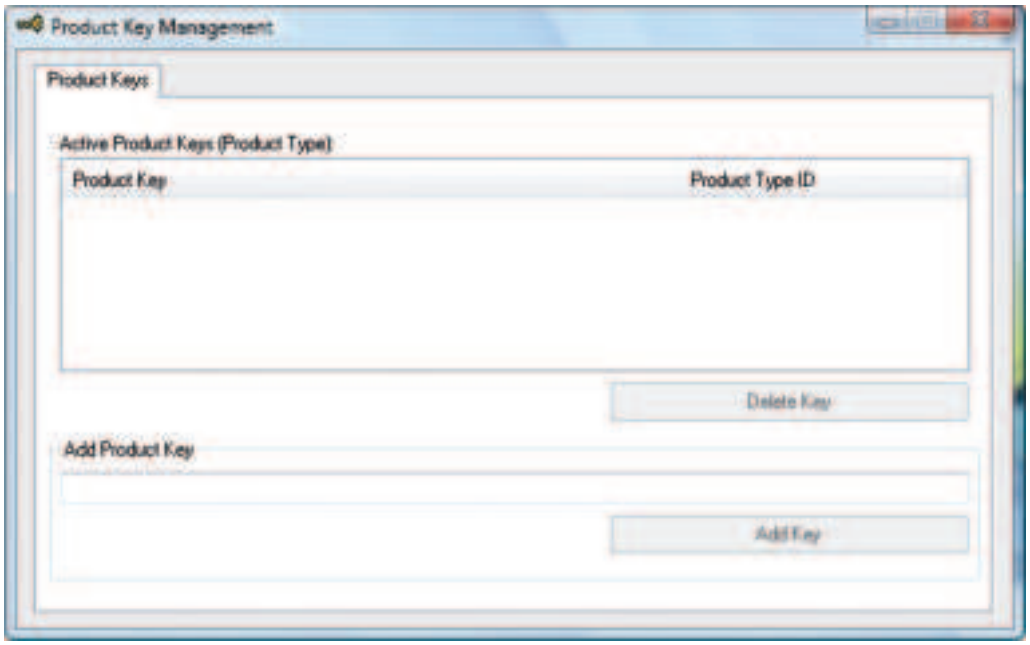
1. Start Tool4Cool® LabEditon by double clicking on the icon on the desktop:

2. Select Help in the menu bar.

3. Select Product Keys from the drop-down menu:



4. This dialog box will open:

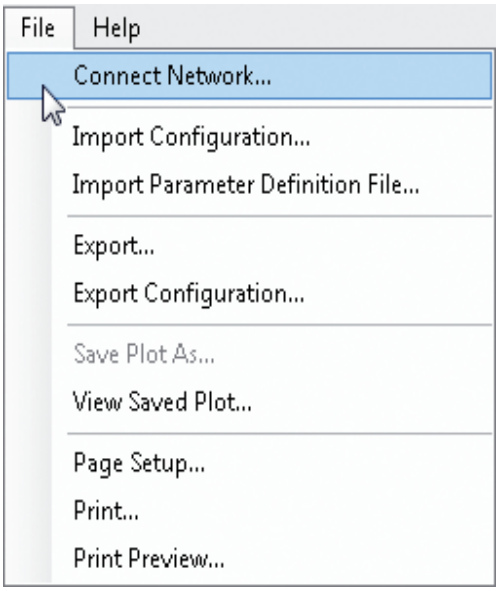


In the Add Product Key field, type the Product Key shown in *Section 1: Checklist*.
Click on the Add Key button. The Product Key is now active.

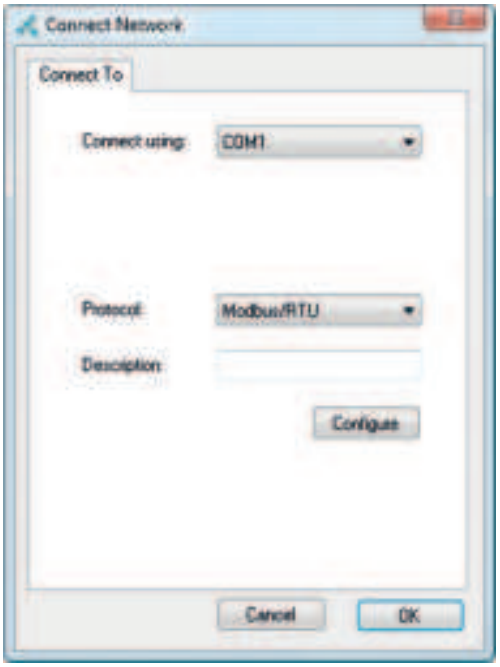
6. Connect network

1. Select File in the menu bar.

2. Select Connect Network in the drop-down menu:

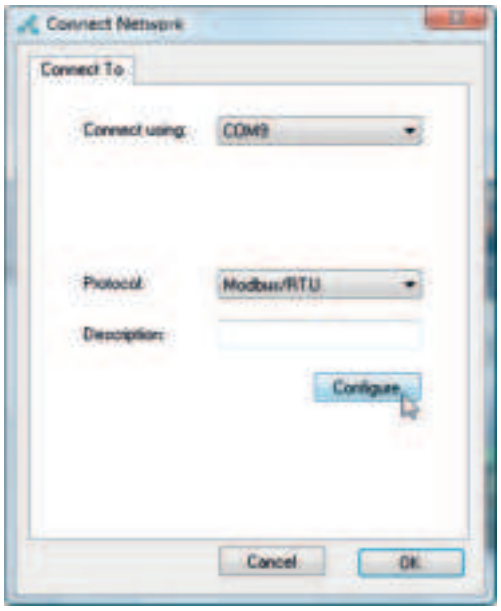


3. This dialog box will open:



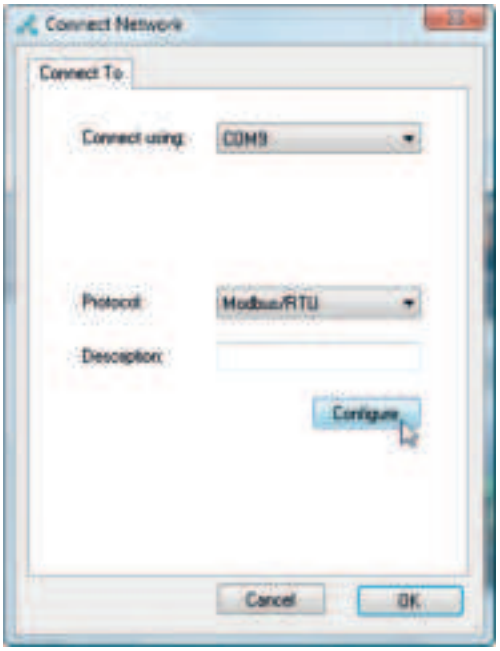
In the *Connect using field*, select the COM port to which the gateway is connected.
Note!: This is the COM port you noted down in section 3 *Pairing the gateway.*
Fill in *Description* (optional).

4. Click on the Configure button:



5. The *Configure Network* dialog box will appear. Set the Last Network Node to 1. Set the Refresh Rate to 15:

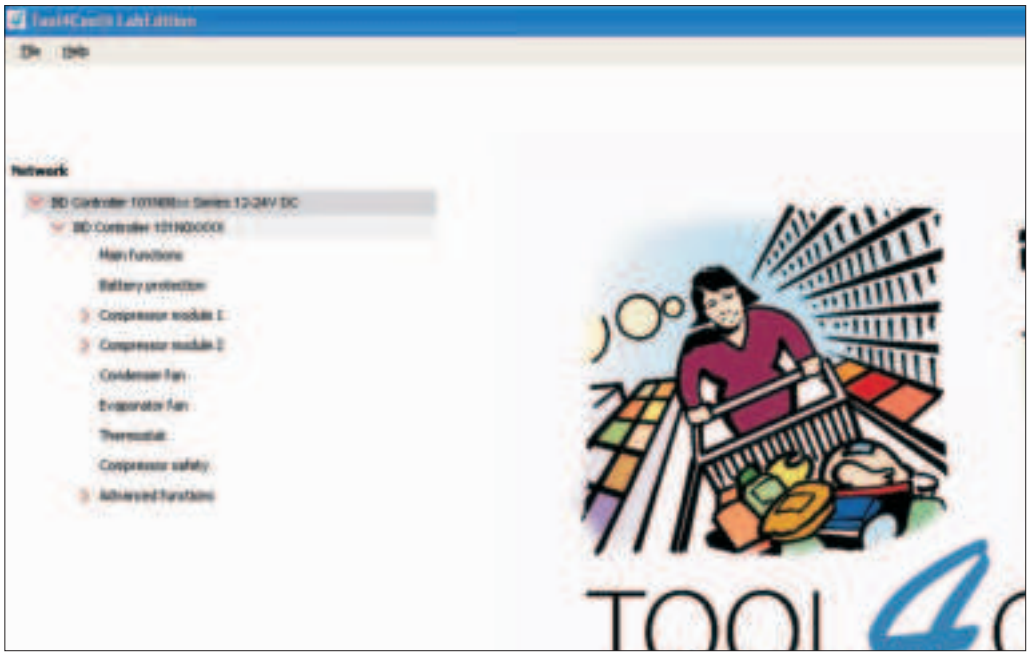
Then press *OK* to return to the *Connect Network* dialog.



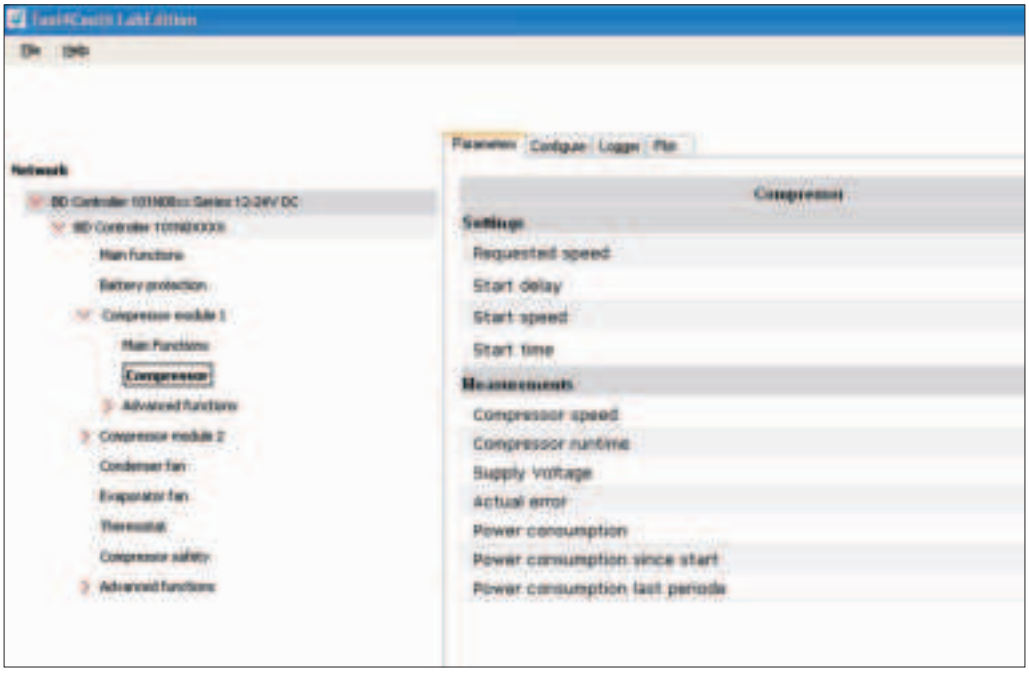
6. Check the gateway is turned on.
   In the Connect Network dialog, press *OK*.
   Wait a short time. A red arrow will appear in front of the description (COM/USB network).
   The controller is now accessible via Tool4Cool®.

7. Ready to operate

Click on the red arrows to view the controller and its parameter groups:



Click on a parameter group name to view details to the right of the screen:



8. Ordering

	Model	Code no	Description
Compressors	BD350GH 12 V DC supply	102Z3015	
	BD350/350GH 12 V DC supply - twin compressor	102Z3018	
	BD350GH 24 V DC supply	102Z3016	
	BD350/350GH 24 V DC supply - twin compressor	102Z3017	
	BD220CL 12 V DC supply	102Z3020	
Single-Pack	Compressor module 12 V DC	101N0800	used together w. 101N0820
	Compressor module 24 V DC	101N0810	used together w. 101N0820
	Application module 12 & 24 V DC	101N0820	used together w. 101N800/810
	24 V DC line cord, 900 mm, 6mm^2	105N9542	accessories
	24 V DC line cord, 2000 mm, 6 mm^2	105N9540	accessories
	24 V DC line cord, 5000 mm, 6 mm^2	105N9538	accessories
	Temperature sensor, 470 mm, spade connectors	105N9612	accessories
	Temperature sensor, 1000 mm, spade connectors	105N9614	accessories
	Temperature sensor, 1500 mm, spade connectors	105N9616	accessories
	Danfoss One Wire/LIN gateway with cables & driver	105N9501	accessories
	One Wire/LIN gateway communication cable	105N9524	accessories (101N8xxx series)
	Danfoss Bluetooth® gateway with power supply	105N9502	accessories
	Bluetooth® gateway communication cable	105N9525	accessories
Industrial-Pack (I-Pack)	Compressor module 12 V DC	101N0801	30 pcs.
	Compressor module 24 V DC	101N0811	30 pcs.
	Application module 12 & 24 V DC	101N0821	24 pcs.
	Compressor communication cable assembly 1500 mm	105N9553	80 pcs.
	Compressor communication cable assembly 3000 mm	105N9554	45 pcs.
	Twin compressor communication cable assembly 800 mm	105N9561	65 pcs.
	Twin compressor communication cable assembly 1500 mm	105N9555	65 pcs.
	Twin compressor communication cable assembly 3000 mm	105N9556	40 pcs.
	12 V DC line cord, 900 mm, 8 mm^2	105N9560	40 pcs.
	12 V DC line cord, 2000 mm, 8 mm^2	105N9559	20 pcs.
	24 V DC line cord, 5000 mm, 6 mm^2	105N9539	36 pcs.
	24 V DC line cord, 900 mm, 6mm^2	105N9543	36 pcs.
	24 V DC line cord, 2000 mm, 6 mm^2	105N9541	36 pcs.
	Temperature sensor, 470 mm, spade connectors	105N9613	200 pcs.
	Temperature sensor, 1000 mm, spade connectors	105N9615	100 pcs.
	Temperature sensor, 1500 mm, spade connectors	105N9617	100 pcs.
	Display cable assembly without fuse 1500 mm	105N9557	65 pcs.
	Display cable assembly without fuse 3000 mm	105N9558	35 pcs.
Software Package	Tool4Cool® LabEdition, 1 license	105N9300	PC software, 1 licence version
	Tool4Cool® LabEdition, 2 license	105N9301	PC software, 2 licence version
	Tool4Cool® LabEdition, 5 license	105N9302	PC software, 5 licence version

9. Further information

For detailed installation and operation instructions, please refer to other literature, currently availabe from Danfoss:

Title	Danfoss Literature Number
Tool4Cool® LabEdition *Operating Instructions* Tool4Cool® LabEdition *Bedienungsanleitung* (German)	DEHC.PI.300.B__.02 DEHC.PI.300.B__.03
BD Controller 101N08xx Series 12-24 V DC with Tool4Cool® LabEdition software *Operation Instructions*	DEHC.PS.100.M__.02
BD Controller 101N08xx Series 12-24 V DC with Tool4Cool® LabEdition software and Danfoss One Wire/LIN gateway *Quick Start Guide*	DEHC.PS.100.N__.02
BD Controller 101N08xx Series 12-24 V DC with Tool4Cool® LabEdition software and Danfoss Bluetooth® gateway *Quick Start Guide*	DEHC.PS.100.P__.02
Danfoss Bluetooth® Gateway with Tool4Cool®LabEdition *Operation Instructions*	DEHC.PS.300.D__.02
Danfoss One Wire/LIN Gateway 105N9501 *Instructions*	DEHC.PI.100.K__.02
Compressor Module 101N0800, 12V DC Compressor Module 101N0810, 24V DC Application Module 101N0820, 12/24V DC *Instructions*	DEHC.EI.100.V__.02
12V & 24V DC Line Cords for Application Module 101N0820 & Compressor Modules 101N0800/0810 *Instructions*	DEHC.EI.100.E__.02
Display Cable without Fuse for Application Module 101N0820 Cord Sets for 101N0820 & 101N0800/0810 *Instructions*	DEHC.PI.100.L__.02
Single Compressor Communication Cable Assembly for 101N0800/101N0810 & 101N0820 Cord Sets for 101N0820 & 101N0800/0810 *Instructions*	DEHC.PI.100.M__.02
Twin Compressor Communication Cable Assembly for 101N0800/101N0810 & 101N0820 Cord Sets for 101N0820 & 101N0800/0810 *Instructions*	DEHC.PI.100.O__.02
Temperature Sensors for BD350GH Electronic Unit *Instructions*	DEHC.PI.100.G__.02

"__" = version number (changes)

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