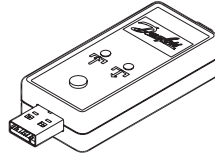# Programming tool
EKA 200
KoolKey

080R9324

080R9324

Principle

KoolKey is an interface and storage device used for connecting controllers to a PC tool and field parameter programming.
It can also be used in conjuction with the KoolDock
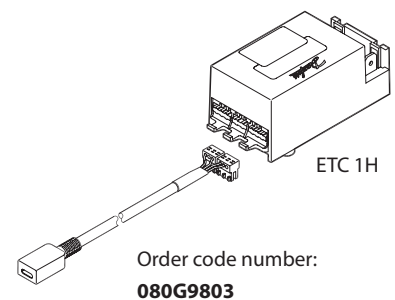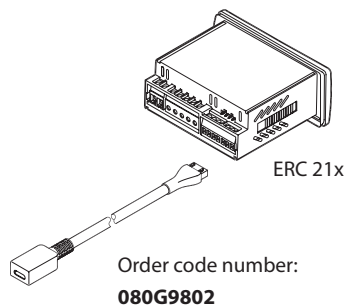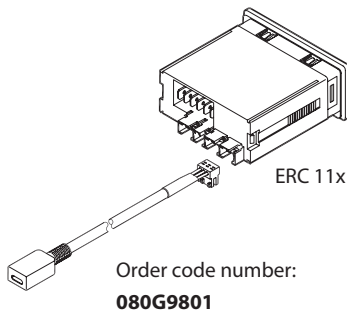to do mass programming of controllers.
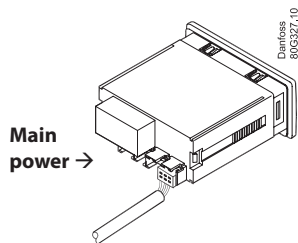Supported Controllers:
• ERC 11x
• ERC 21x
• ETC 1H

080R9324

RI8SA302

Connection cables

ERC 11x

Order code number:
080G9801

ERC 21x

Order code number:
080G9802

ETC 1H

Order code number:
080G9803

Cable connections to controller details

Danfoss
80G327.10

Danfoss
80G326.10

Danfoss
80G328.11

a*)

OR   b*)
Main power
↓
Danfoss
80G339.10

**Main
power →**

**Main
power →**

ERC 11x
• Connect the KoolKey using the cable to the DI port of the controller.
• If using the KoolKey as a communication device to the PC, no power is required, however, it is possible to use with the controller connected to AC power while using the PC.
• If using as a copy key make sure the controller is powered through AC Main before connecting the Koolkey to DI port as the power to the KoolKey will be supplied through controller.
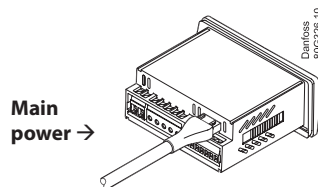
ERC 21x
• Connect the KoolKey using the cable to the TTL port of the controller.
• If using the KoolKey as a communication device to the PC, no power is required, however, it is possible to use with the controller connected to AC power while using the PC.
• If using as a copy key, make sure the controller is powered through AC Main before connecting the Koolkey to the TTL port as the power to the KoolKey will be supplied through the controller.
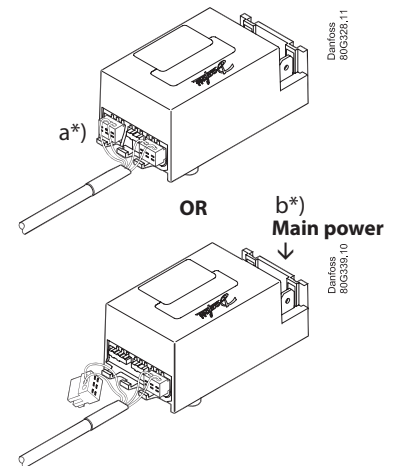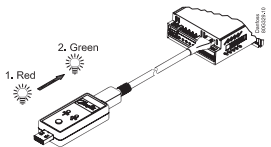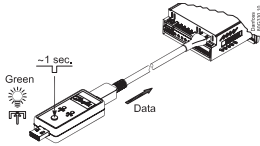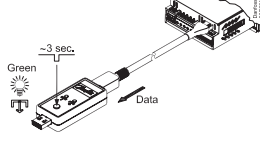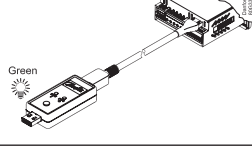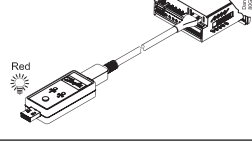
ETC 1H
a. *Controller Not Powered from AC Main:* Connect cable connector to "1.1" & "1.3" terminals
b. *Controller Powered from AC Main:* Connect cable connector only to "1.1" terminal

Note : ETC 1H does not support Copy Key mode.

Copy Key Function:
Copy Key mode is used for transferring the parameter file from copy key to controller and vice versa

Step	Action	Illustration	LED info
1	Connect KoolKey into the powered-up controller using interface cable		- The LED will flash red indicating KoolKey is powered up. - After few seconds LED would turn green indicating successful connection and data transfer readiness
2	a. Short press the button (1 sec) to transfer data from the KoolKey to the controller. Use to program controller with a pre-loaded parameter file.		Green LED flashes – Indicating parameter file upload
	b. Long press the button (3 sec) to transfer data from the controller to the KoolKey. Use to save parameter data from the controller.		Green LED flashes - Indicating parameter file download
3	Successful file transfers (This could take 20-30 sec depending upon type of controller.)		Constant green
	Unsuccessful file transfer (Check connection and compatible programing file)		Red flashes

Note: While downloading parameter file from ERC 21x controller in copy key mode, please ensure a ".erc" file of same controller part number is already saved in the KoolKey. You can create a file using KoolProg and save it in KoolKey before using it as a Copy key.

Do not leave the cable hanging when connected to live controller.

Gateway Function:

Gateway mode support following functions through KoolProg (PC Tool):
• Set Parameters - view and edit controller setting
• Copy to Controller – Parameter file programing
• Service and test – Monitor real time operations of the controllers

Gateway mode connections:
• Connect the koolKey to USB port of PC
• Connect the controller to KoolKey using KoolKey cable

(Refer KoolProg user manual for detailed instructions)

Do not leave the cable hanging when connected to live controller.
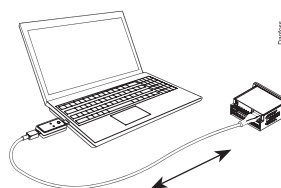
Mass Programing Function:

Programing parameters file to multiple controller using KoolDock.
Programing Steps:
• Power up KoolDock
• Insert koolKey with required parameter file.
• Program the controllers

(Refer KoolDock instruction sheet for detailed instructions)

Note: It is advised to not use KoolKey directly for mass programming of controllers. Always use Docking station for mass programming in the production.

Parameter File naming format and extension type:

Controller Type	File Naming Format	File extension type
ERC 11x	xxxx (order number low)	.erc
ERC 21x	xxxx (order number low)	.erc
ETC 1H	077Fxxxx (Full Product Code)	.dpf

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