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Danfoss TM
IK3.CAN
Remote
Control Virtual
Simulator

Danfoss TM IK3.CAN Remote Control Virtual Simulator User Manual

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Danfoss TM IK3.CAN Remote Control Virtual Simulator

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- Classified as: Business

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Frequently Asked Questions (FAQ):

- **Q: What should I do if I can't interact with the controller when USB is connected?**
  A: First check the USB connection and KVaser connector LED status. Ensure both LEDs are ON. If not, establish connection between transmitter and receiver by pressing Start button. Then reconnect USB and restart the application.
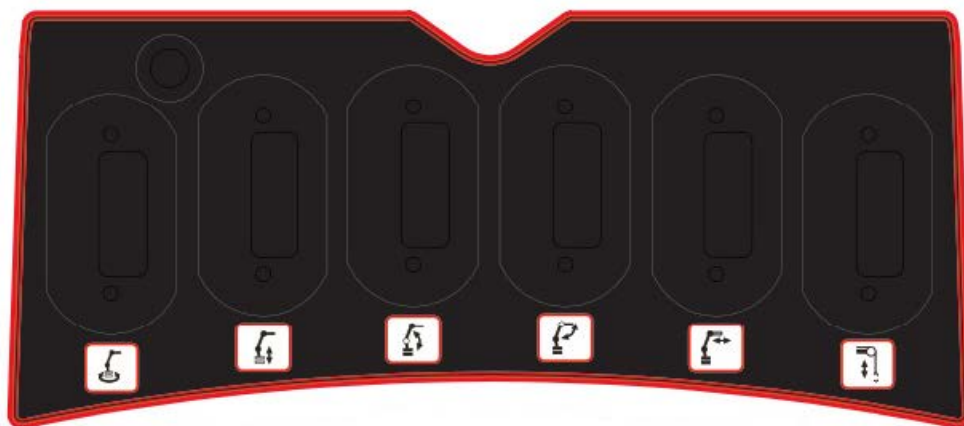
User
Manual Remote Control Virtual Simulator

**MODEL:** TM IK3. CAN

Commands definition

1. Front Levers

Lever	Keyboard	Controller	Function
A	A D Buttons		Crane rotation on the horizontal plane
B	-		Lifts the base of the crane
C	W S Buttons		Crane rotation on the vertical plane from the first joint
D	R T Buttons		Crane rotation on the vertical plane from the second joint
E	Shift + Mouse left Shift + Mouse Right		Crane extension
F	Q E Buttons		Hook UP/DOWN

2. Switches faceplate
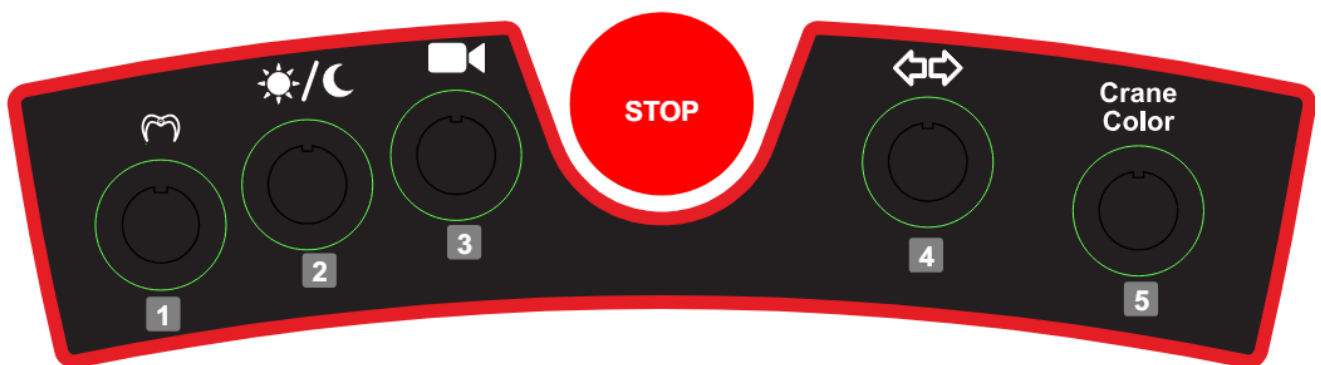
Switch	Keyboard	Function
1	C Button	Hook switch: let the hook grasp or release the object
2	H Button	Day/night switch: switches between day and night
3	J Button	Camera switch: switches between two fixed cameras (Top or Side camera) <u>Only with perspective and orthogonal camera</u>
4	K Button	Blinkers switch: turns on and off the turn signals on the truck
5	Y Button	Color switch: switches the color of the crane between red and white
Stop/Emergency	–	Switches on and off the controller (see **Connecting the controller**)

Side multikey
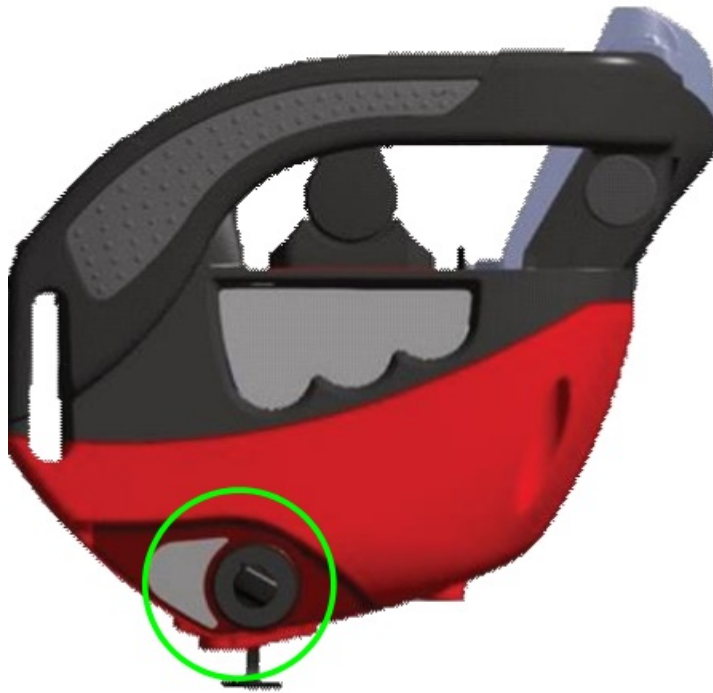
Switch	Keyboard	Function
Start/Horn	–	Honk the horn, connects the controller (see **Connecting the controller**) or start using the application

Using the simulator

1. Starting the application
   - Navigate to the folder where the application resides and find the file Danfoss.exe. The file should have the following icon:

   - Launch the application by double clicking on the executable file.
2. Connecting the remote control
   - Before you connect the USB, please tab in the link below and install the drivers.
     Downloads – Kvaser Drivers, Documentation, Software, more…
   - Connect the receiver to the host machine via USB.
   - Recommended CAN/USB interface (already tested and validated):
   - Kvaser Leaf v3 – Kvaser – Advanced CAN Solutions
     Start the transmitter by releasing the Stop button, then connect the transmitter to the receiver by pushing the Start button.
3. **Settings**
   - Once the application is started, a keyboard can be connected to the application to change different kind of settings.
   - Press simultaneously [ctrl] and a numeric keypad number to change the monitor where the application is

running. The number you press is the number with which Windows identifies the monitor.

- By pressing simultaneously [ctrl], [alt] and (s) a popup window appears on the screen. In this window you can:
- Choose the time limit in minutes for one single game.
- With 0 minutes, no time limit is set – Switch between high, medium, and low video quality
- Activate or deactivate sound effects.
- Pressing simultaneously (ctrl), [alt) and [r] to restart the game.

4. Moving objects and goals
    - We are on a construction worksite and we need to pick up some items and rearrange them in our truck in order to complete our task.
    - The goal is to lift four objects one by one and put them into the truck bed without having them falling apart in the less time possible.
      If the controller is not available, the keyboard also can be used. When one of the four objects is placed in the green area, a sign appear on the image on the to screen. The game ends when all objects are placed or a time limit was set and the timer drops to 0.
    - In both cases a vote will be shown:
    - 3 stamps if user placed all objects in less than 75% of time
    - 2 stamps If placed in less than 50% of time
    - 1 stamp otherwise

Hardware specifications

- Recommended:
    - I7 12th gen or AMD Ryzen 9 5900HX
    - 16GB RAM
    - HDD SSD
    - Dedicated Nvidia graphic card with at least 4GB of RAM. RTX 20 or 30 series.
- Other hardware could be supported by changing the graphic quality parameters in Settings.

Technical screen messages

- Inside the application a check of some CanBus errors is included.
- If one of those occurs, an icon will be shown in the bottom part of the screen. Those icons will disappear if a technician repairs the issue.

Icon	Meaning
	Issue on CanBus. Can be followed from one of the following specification signals.
	The transmitter and the receiver don't communicate.
	Battery charge is low and needs to be replaced.

Troubleshooting

- P. USB is connected but I'm not able to interact with the controller.
- S. First check the USB connection and the LED on the KVaser connector; both LED must be ON.
- If only one led is lit, connection between transmitter and receiver must be established by pushing the Start button. Then try to reconnect the USB and restart the application.

Classified as Business
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Documents / Resources

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TM IK3.CAN Remote Control Virtual Simulator, TM IK3.CAN, Remote Control Virtual Simulator, Control Virtual Simulator, Virtual Simulator, Simulator

References

- **User Manual**