



shiratech



iCOMOX Demo Box User Manual



Document Revision History

Revision	Date	Author	Status and Description
2.1	31/07/2019	Ori Makover	Template compatible

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1. The Demo Case

- a. *Open the case (you need to press the button on each safety lock). The motor, the computer and the power cable are hidden within the stage.*



- b. *Take the power cable out and raise the motor by pulling up the cover of its righthand side.*



Attention: The USB cable connecting the computer and the iCOMOX should not be damaged or disconnected.






- c. Connect the power supply:
 1. Connect the power cable to the wall-outlet only when the stage is fully open 2.
 2. Use only in grounded and protected outlet.
 3. Do not enter hands underneath the stage in any case if power is connected.
- d. Switch the NUC computer on by pressing the button on its top.
- e. Turn on the iCOMOX by sliding the slide switch on the iCOMOX. The iCOMOX LED should be continuously active.
- f. Launch the iCOMOX Monitor.

Note: This may take up to 150 seconds.

- g. Select the desired communication method: USB - wired or SmartMesh - wireless.
You may need to select the COM port (USB) or the iCOMOX number (SmartMesh).



- h.* Upon pressing the *Connect* button, the Monitor establishes a communication with the iCOMOX. The indicator color is changed as described in the following table according to the selected communication method:

	USB	SmartMesh
	Disconnected	Disconnected
	Connected to the Dongle. Trying to establish wireless communication with the iCOMOX.	Connected to the Dongle. Trying to establish wireless communication with the iCOMOX.
	Wired communication established.	Wireless communication established.

- i.* 5-10 seconds after the communication indicator turns green, the signals from the sensors appear on the plots. The LED of the iCOMOX lights up green when data is transferred from the iCOMOX to the PC. When data is not transferred the LED of the iCOMOX turns off.
- j.* For more details, and for troubleshooting steps, follow the instructions on the iCOMOX Monitor User Manual.
- k.* Set the motor speed using the engine controller. The integral keyboard of the motor is described in section #2.

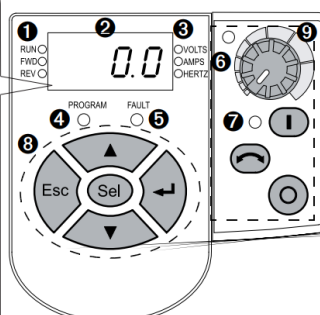











- l.* Mimic a fault by pressing the button at the bottom-left corner of the stage. This button disables one of the phases of the motor.



2. Motor Controller

Menu	Description
d	Display Group (View Only) Consists of commonly viewed drive operating conditions.
P	Basic Program Group Consists of most commonly used programmable functions.
t	Terminal Block Group Consists of programmable functions for control terminals.
C	Communications Group Consists of programmable functions for communications.
A	Advanced Program Group Consists of remaining programmable functions.
F	Fault Designator Consists of list of codes for specific fault conditions. Displayed only when fault is present.



No.	LED	LED State	Description
1	Run/Direction Status	Steady Red	Indicates drive is running and commanded motor direction.
		Flashing Red	Drive has been commanded to change direction. Indicates actual motor direction while decelerating to zero.
2	Alphanumeric Display	Steady Red	Indicates parameter number, parameter value, or fault code.
		Flashing Red	Single digit flashing indicates that digit can be edited. All digits flashing indicates a fault condition.
3	Displayed Units	Steady Red	Indicates the units of the parameter value being displayed.
4	Program Status	Steady Red	Indicates parameter value can be changed.
5	Fault Status	Flashing Red	Indicates drive is faulted.
6	Pot Status	Steady Green	Indicates potentiometer on Integral Keypad is active.
7	Start Key Status	Steady Green	Indicates Start key on Integral Keypad is active. The Reverse key is also active unless disabled by A434 [Reverse Disable].
8		Escape	Back one step in programming menu. Cancel a change to a parameter value and exit Program Mode.
		Select	Advance one step in programming menu. Select a digit when viewing parameter value.
		Up Arrow	Scroll through groups and parameters. Increase/decrease the value of a flashing digit.
		Down Arrow	
		Enter	Advance one step in programming menu. Save a change to a parameter value.
9		Speed Potentiometer	Used to control speed of drive. Default is active. Controlled by parameter P108 [Speed Reference].
		Start	Used to start the drive. Default is active. Controlled by parameter P106 [Start Source].
		Reverse	Used to reverse direction of the drive. Default is active. Controlled by parameters P106 [Start Source] and A434 [Reverse Disable].
		Stop	Used to stop the drive or clear a fault. This key is always active. Controlled by parameter P107 [Stop Mode].

3. Monitor

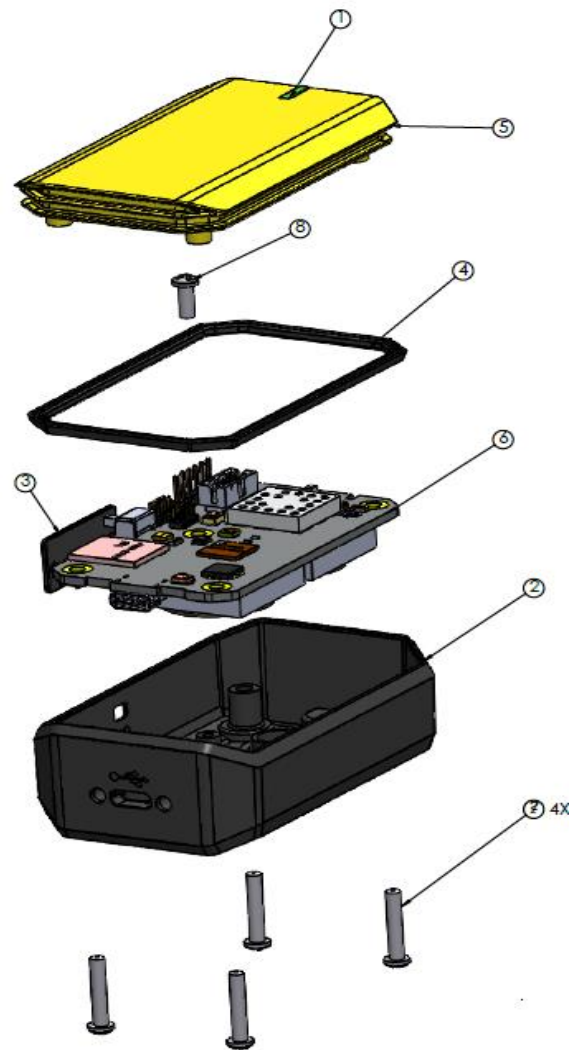
The iCOMOX Monitor displays the data acquired by the accelerometer, the temperature gauge and the magnetic field sensors, after going through a simple FFT analysis of the vibrations and the magnetic field. For more details regarding the Monitor, please refer to the iCOMOX Monitor User Manual.


4. Battery Replacement

- a. The iCOMOX may contain up to two CR2450N batteries (it may also be powered by the USB-C cable).
- b. Use an Allen wrench to disconnect the iCOMOX from the motor. Two different wrenches may be required.



- c. Disconnect the USB cable from the iCOMOX, remove the four screws (7) at the corners and open the yellow cover.
- d. Remove the screw at the middle of the card (8).
- e. Detach the electronic card from the cover.



Attention. Avoid detaching the black wires connected to the card. 

- f. Replace the two batteries with CR2450N. Assemble and reinstall the iCOMOX to the motor.



5. Troubleshooting

Problem	Possible reason	Solution
Monitor does not connect to the iCOMOX. The USB indication is red instead of green after pressing the "Connect" button.	iCOMOX is not operating.	Close the Monitor, turn on the iCOMOX. Verify that the LED is flashing. Re-launch the Monitor.
-"-	USB cable is not connected properly.	Verify that the USB is connected properly. Close the Monitor, turn on the iCOMOX. Verify that the LED is flashing. Re-launch the Monitor.
-"-	USB cable is damaged.	Replace the USB cable. Note: not all the USB cables are fit for the iCOMOX communication. Close the Monitor, then turn on the iCOMOX. Verify that the LED is flashing. Re-launch the Monitor.
The plots on the Monitor are not updated.	Communication is lost.	Close the Monitor, turn on the iCOMOX. Verify that the LED is flashing. Re-launch the Monitor.
Monitor does not appear on the screen.	The Monitor first launch consumes a significant share of the system's resources.	Wait. It may take up to 150 seconds for the Monitor to launch for the first time.

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