

# 1. VACON 20 X - SIMPLE OPERATOR PANEL

## 1.1 MOUNTING INSTRUCTIONS

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### 1.1.1 QDSH SIMPLE OPERATOR PANEL KIT

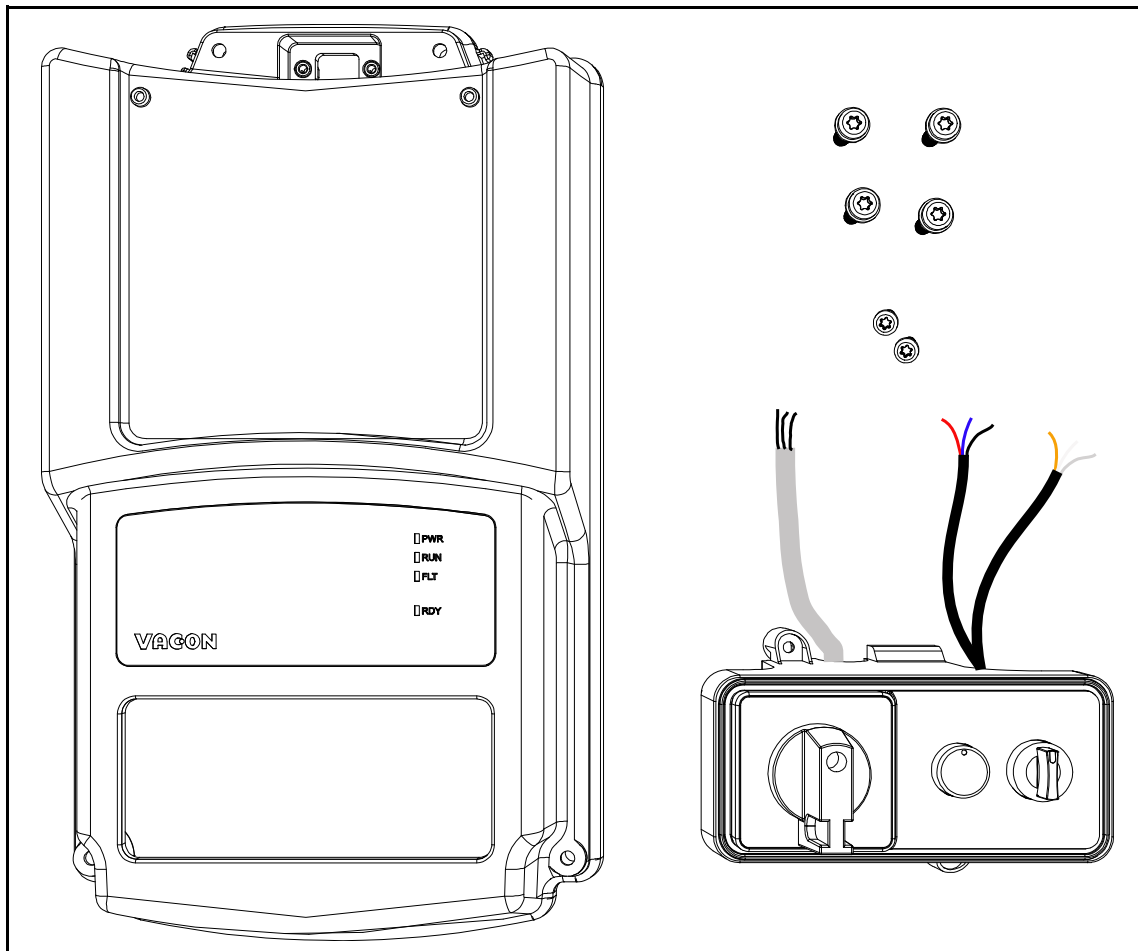


Figure 1. The Simple operator panel option spare kit (MU2 example) .

Frame size	Description and type code	Item	Quantity
MU2	MU2 QDSH option spare kit 60S01208	Main switch 40A NLT40 and operator panel assembly	1
		MU2 cover for main switch	1
		M4x14 screw	2
		M5x23 screws	4
MU3	MU3 QDSH option spare kit 60S01209	Main switch 40A NLT40 and operator panel assembly	1
		MU3 cover for main switch	1
		M4x14 screw	2
		M5x23 screws	6

Table 1. Simple operator panel kit content.

1.1.2 INSTALLATION

<b>1</b>	<ul style="list-style-type: none"> <li>Remove the cover from the drive. See the Figure 2.</li> </ul>
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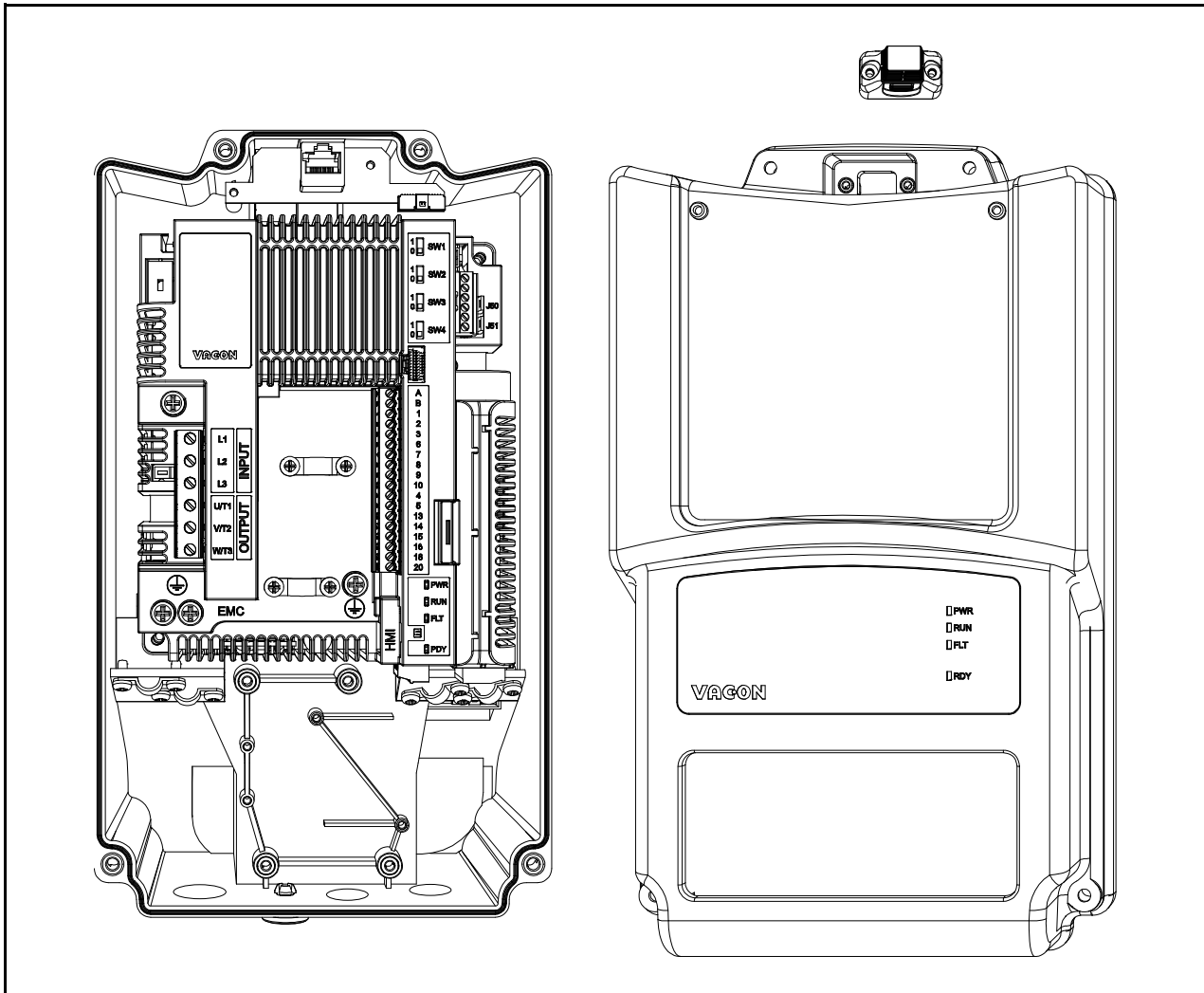


Figure 2. Cover open.

<b>2</b>	<ul style="list-style-type: none"> <li>Open only the inlet holes where you need to run the cables. Cables pass through this inlet hole.</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>Connect the supply cable to the Mains switch passing through the cable gland from the bottom side (use the cable gland for sealing the cable to the drive) and then through the terminal box as shown in the figure below.</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>Place the Simple Operator panel assembly with the cables inside the drive and fix it with its screws.</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>Connect the cables from the Mains switch to the line terminals. The cables have to be connected to the terminals L1, L2 and L3.</li> </ul>
<b>6</b>	<ul style="list-style-type: none"> <li>Fix the cables with the cable clamp.</li> </ul>

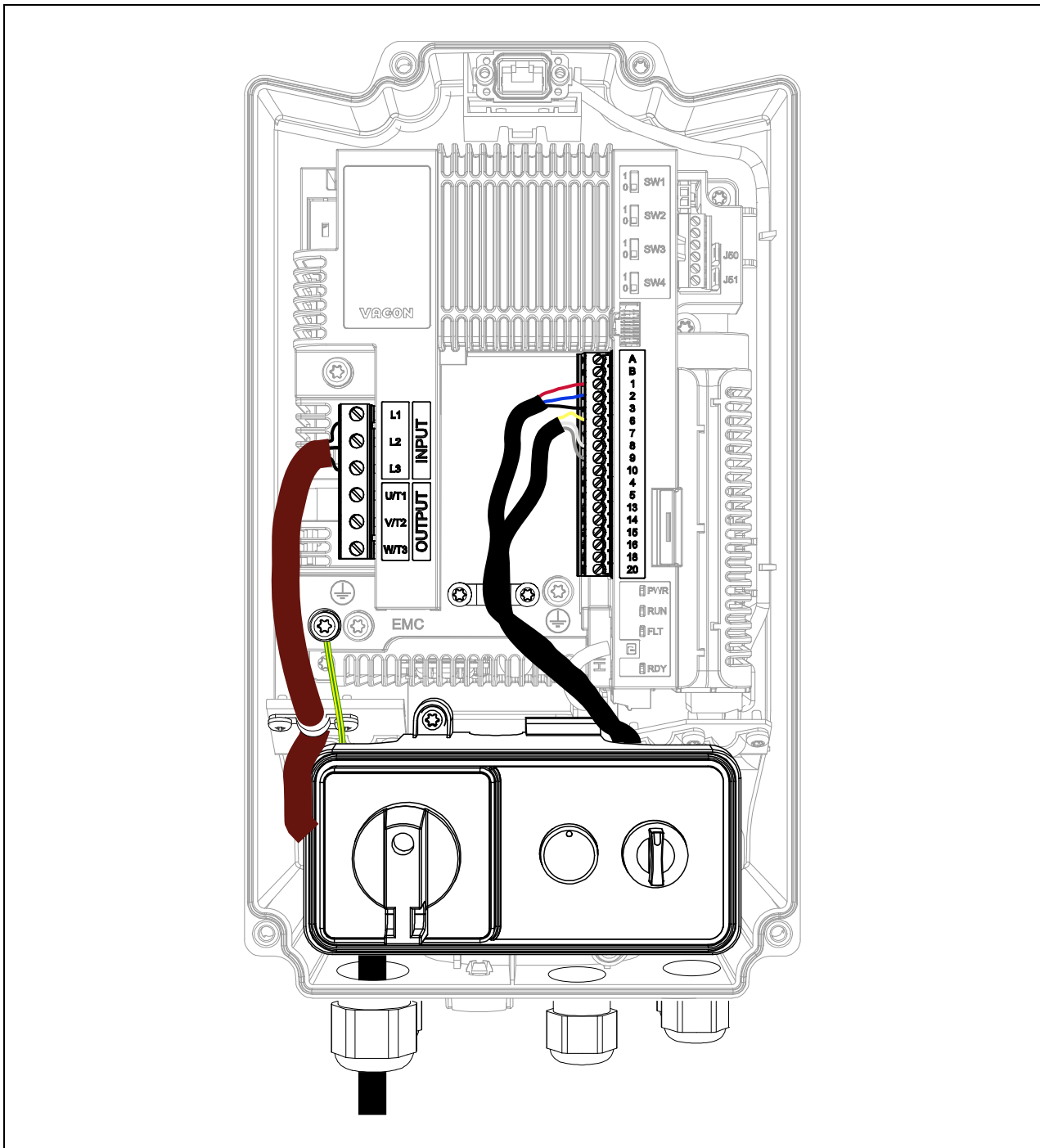
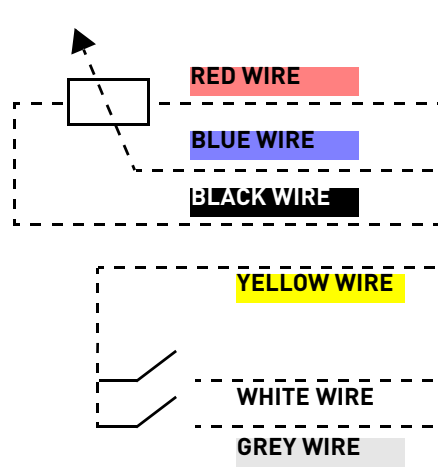


Figure 3. Simple operator panel connected.

<b>7</b>	<ul style="list-style-type: none"> <li>• Connect the GROUND wire to the proper terminal (see the yellow-green cable on Figure 3).</li> </ul>
<b>8</b>	<ul style="list-style-type: none"> <li>• Connect the cables from the potentiometer and from the selector to the I/O control terminals. The cables have to be connected to the I/O terminals as shown in the Figure 3 and in the Table 2.</li> </ul>
<b>9</b>	<ul style="list-style-type: none"> <li>• RED, BLUE and BLACK wires are signals from the potentiometer.</li> </ul>
<b>10</b>	<ul style="list-style-type: none"> <li>• YELLOW, WHITE and GREY wires are signal from the selector switch.</li> </ul>

Table 2. Control I/O terminal signal connections to the simple operator panel.



Standard I/O terminals		
Terminal		Signal
A	RS485_A	Serial bus, negative
B	RS485_B	Serial bus, positive
1	+10 Vref	Reference output
2	AI1+	Analogue input, voltage or current
3	GND	I/O signal ground
6	24Vout	24V aux. voltage
7	DIN COM	Digital inputs common
8	DI1	Digital input 1
9	DI2	Digital input 2
10	DI3	Digital input 3
4	AI2+	Analogue input, voltage or current
5	GND	I/O signal ground
13	DO1-	Digital output 1 common
14	DI4	Digital input 4
15	DI5	Digital input 5
16	DI6	Digital input 6
18	AO1+	Analogue signal (+output)
20	DO1+	Digital output 1

Function	Description	Wire colors	Terminal
Potentiometer	10V reference output	RED wire	1
	AI1+	BLUE wire	2
	AI1-	BLACK wire	3
Switch selector	24V auxiliary voltage	YELLOW wire	6
	digital input DI1	WHITE wire	8
	digital input DI2	GREY wire	9

Table 3. Simple operator panel connection description.

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|-----------|--|
| <b>11</b> | <ul style="list-style-type: none"> <li>Mount the plastic cover onto the drive with its screws and the HMI cap: the installation process has been completed.</li> </ul> |
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