

# R-Plus Doors w/ ICC-5 Operator External Devices Application Notes

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Device	Description / Usage	Device Specification	Connection to the Control Panel
Pull Cord Switch <sup>3</sup>	<p>The pull cord switch is the standard ICC-5 door actuator. Pull cords hang in the way of traffic, one on each side of the door. Pedestrians or forklift operators can pull on it to operate the door.</p> <p>Successive pulls on the cord cycle door operation between opening, stopping and closing.</p> <p><u>Note:</u> The pull cord signal is acknowledged when the cord is released.</p>	Momentary switch with normally open contact.	<p>The first pull-cord switch connects to Terminal Block (TB) #5 and a +24VDC<sup>1</sup> terminal block.</p> <p>The second pull-cord switch connects to Terminal Block (TB) #6 a +24VDC<sup>1</sup> terminal block.</p> <p>Other pull cord switches may be connected in parallel.</p>
Push-To-Operate switch	<p>The push-to-operate switch is a 2x4, a 4x4 tap switch or any other push button type switch. It can be located in either side or both sides of the door leaf. It can also be field installed in any other places.</p> <p>It operates the door like the pull cord switch does.</p>	Momentary switch with normally open contact.	<p>Push-to-operate switches mounted in the door leaf are pre-wired at the factory.</p> <p>Those mounted in the field connect between TB #5 or TB #6 and a +24VDC<sup>1</sup> terminal block.</p>
Push-To-Open switch	<p>The push-to-open switch is a 2x4, 4x4 tap switch or any other push button type switch. It can be located in either side or both sides of the door leaf. It can also be field installed in any other places.</p> <p>When actuated, the door opens<sup>2</sup>.</p> <p><u>Note:</u> The push-to-open switch is generally used in conjunction with the Auto-Close function. The door is opened by using the switch and the door closes automatically after a preset amount of time.</p>	Momentary switch with normally open contact.	<p>Push-to-open switches mounted in the door leaf are pre-wired at the factory.</p> <p>Those mounted in the field connect between TB #7 and a +24VDC<sup>1</sup> terminal block.</p>
3-Button Station (open/close/stop)	<p>The 3-button station includes an Open, a Close and a Stop button. It can be located in either side or both side of the door leaf. It can also be field installed in any other places.</p> <p>The Open button opens the door<sup>2</sup>. The Close button closes the door. The Stop button stops the door.</p>	<p>All switches in the 3-button station are momentary push switches. The Open and Close switches must have normally open contact.</p> <p>The Stop switch must have a normally close contact.</p>	<p>3-button stations mounted in the door leaf are pre-wired at the factory.</p> <p>Those mounted in the field must be connected as follow:</p> <ul style="list-style-type: none"> <li>-Open button connects to TB #7 and a +24VDC<sup>1</sup> terminal block. Other Open switches may be connected in parallel.</li> <li>-Close button connects to TB #8 and a +24VDC<sup>1</sup> terminal block. Other Close switches may be connected in parallel.</li> <li>-Stop button connects to TB #4 and a +24VDC<sup>1</sup> terminal block. If more than one field-installed Stop button is used, then they must be connected in series</li> </ul>

			with one another. Terminal Block jumper locating between TB #3 and TB #4 must be cut off or removed.
Stop/Emergency Stop button	<p>Stop buttons can be basic switches, be part of a 3-button station or be of the Emergency Stop type.</p> <p>Stop buttons stop the door immediately. Door will not operate as long as a stop button is actuated (open circuit).</p> <p><u>Note:</u> All Stop/Emergency Stop buttons connect in series.</p>	Switch with a normally close contact.	Stop button connects to TB #4 and a +24VDC <sup>1</sup> terminal block. If more than one field-installed Stop button is used, then they must be connected in series with one another. Terminal Block jumper locating between TB #3 and TB #4 must be cut off or removed.
Traffic Sensor	Traffic sensors detect pedestrian or vehicle presence or motion. When actuated, the door opens. The door will not close as long as a traffic sensor is ON.	Sensor with normally open contact. Contact must remain close as long as traffic is being detected (no impulse type sensor).	Traffic sensor connects between TB #23 and a +24VDC <sup>1</sup> terminal block. Traffic sensor may use its own power source. If using power from the ICC-5 Control Panel, sensor must be 24 VDC compatible and power input must be connected the -24VDC and +24VDC terminal blocks <sup>1</sup> .
Alarm	The alarm is an audio (siren), visual (flashing light, stroboscopic light) or an audiovisual device. The alarm is ON when the door is closing. When the Auto-Close function is enabled, the alarm turns ON 3 seconds before the door starts closing automatically.	Alarm must be 24VDC compatible.	Alarms connects between TB #18 and a +24VDC <sup>1</sup> terminal block. Alarm sensor may use its own power source. If using power from the ICC-5 Control Panel, sensor must be 24 VDC compatible and power input must be connected the -24VDC and +24VDC terminal blocks <sup>1</sup> .

**Notes:**

1. +24VDC signal is available at terminal blocks #9 through #14. -24VDC is available at terminal blocks #19 through #21.
2. When the Pedestrian Cycle function is enabled, pressing the OPEN button briefly opens the door for a short distance and pressing the OPEN button for more than half a second opens the door fully.
3. Do not mount the pull cord switch in the air flow of the coils. Air flow will move the cord and activate the switch. If the pull cord switch must be installed in front of the coils, provide an air baffle (by others) to prevent icing of the switch.
4. Per NEC 300-7, all raceways passing from different temperatures shall be sealed with putty or other method to stop the travel of moisture.



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