
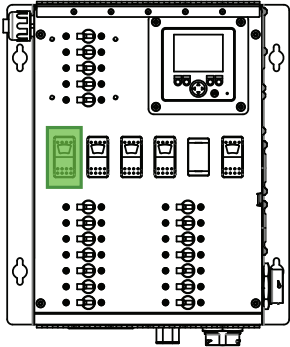
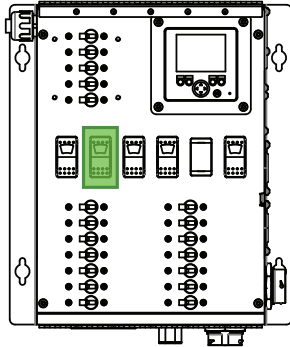
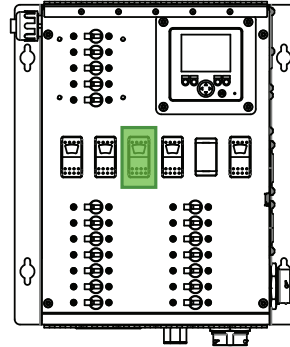
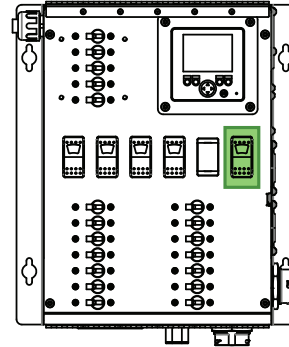




## ZeroRPM IMPAC Operator Quick-Start Guide

FUNCTION	EQUIPMENT ACTIVATION	AIR COMPRESSOR REQUEST	ENGINE START / STOP OVERRIDE	BOOST-START MRU/RAV	JUMP-START CUSTOMER VEHICLE
VISUAL					
OPERATION	<ol style="list-style-type: none"> <li>1. Ensure vehicle is in park.</li> <li>2. Start vehicle if engine is not running.</li> <li>3. Engage emergency brake.</li> <li>4. Push "EQUIPMENT ACTIVATION" button; hold until green light flashes.</li> <li>5. Remove key from ignition. Light will be solid when activated.</li> <li>6. Chassis doors may now be locked.</li> </ol>	<ol style="list-style-type: none"> <li>1. Press "AIR COMPRESSOR REQUEST" button for one second to enable air compressor.</li> <li>2. While air compressor is active, press "AIR COMPRESSOR REQUEST" button for one second to disable.</li> </ol> <p>NOTE: Air compressor is automatically deactivated if inverter is overloaded, key is inserted and turned to Run position (deactivating equipment), or jump-start is engaged.</p>	<ol style="list-style-type: none"> <li>1. Press top ("ON") position of "ENGINE START/STOP OVERRIDE" button to override automatic engine start/stop function. While active, engine will be started and continue to run.</li> <li>2. Press bottom ("OFF") position of button to allow automatic engine start/stop function to start and stop engine as needed to charge batteries.</li> </ol> <p>NOTE: LED will be solid any time engine is unable to automatically start or stop.</p>	<ol style="list-style-type: none"> <li>1. When MRU/RAV battery fails to start engine, press "BOOST-START MRU/RAV" button for one second. If MRU/RAV battery is above 4VDC, lithium batteries will be connected to engine-start battery for three minutes. Start MRU/RAV engine during three-minute boost cycle.</li> <li>2. Boost will automatically disengage after three minutes.</li> </ol> <p>NOTE: MRU/RAV engine will run to charge start battery for approximately three minutes any time it has been key-started. Equipment will not be active during this charge cycle, which normally occurs while driving.</p>	<ol style="list-style-type: none"> <li>1. Connect red jumper cable to positive post and black jumper cable to negative post on customer vehicle.</li> <li>2. Press "JUMP-START CUSTOMER VEHICLE" button for one second, then release.</li> <li>3. Wait while customer vehicle battery is charging.</li> <li>4. Start customer vehicle when LED on jump-start switch turns solid.</li> <li>5. Disconnect jumper cables.</li> </ol> <p>NOTE: See "Jump-Start Procedure" label for details.</p>
DIAGNOSTICS	<ul style="list-style-type: none"> <li>• Solid = Equipment active.</li> <li>• Flashing = Parking brake is not set or key has not been removed. If button has been pressed and key has not been removed within seven seconds, equipment activation sequence will time out.</li> </ul>	<ul style="list-style-type: none"> <li>• Solid = Air Compressor: Active</li> <li>• 2 Flashes = Air Compressor: Inverter Load Too High</li> <li>• 3 Flashes = Air Compressor: Stall Protection Active</li> <li>• 4 Flashes = Air Compressor: System Interlocks Not Met</li> <li>• 5 Flashes = Air Compressor: Case Too Cold</li> </ul>	<p>Solid = Engine start/stop will not change states automatically due to system being either overridden or not activated.</p>	<p>Solid = Lithium batteries and engine-start batteries are in parallel, allowing MRU/RAV to be started. LED will remain solid for three minutes.</p>	<ul style="list-style-type: none"> <li>• Solid = Jump-Start: Start Customer Vehicle</li> <li>• Rapid, Continuous Flashes = Jump-Start: Wait While Charging</li> <li>• 2 Flashes = Jump-Start: System Interlocks Not Met</li> <li>• 3 Flashes = Jump-Start: Battery Not Connected</li> <li>• 4 Flashes = Jump-Start: Alternator Ramp Incomplete</li> <li>• 5 Flashes = Jump-Start: Customer Battery Not Charging</li> <li>• 6 Flashes = Jump-Start: Battery Voltage Too Low</li> <li>• 7 Flashes = Jump-Start: Battery Voltage Too High</li> </ul>