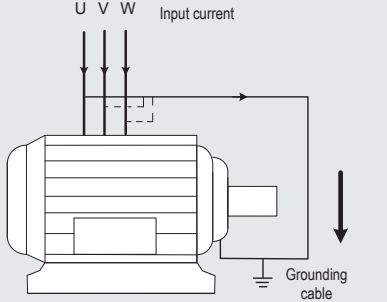
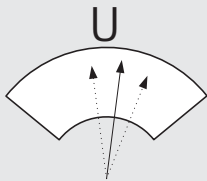
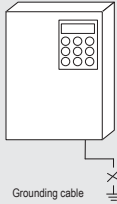
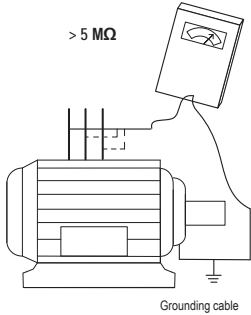
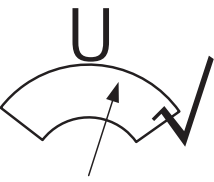
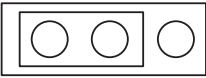

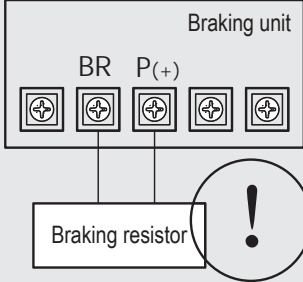
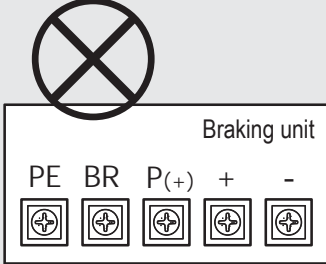

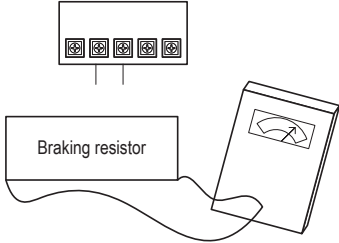
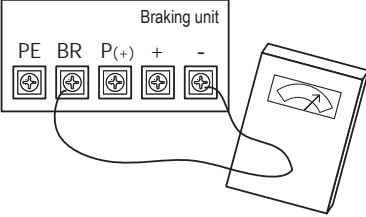
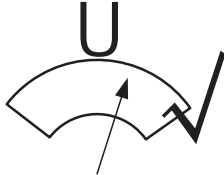
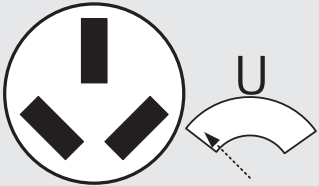
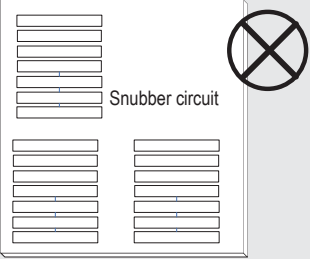
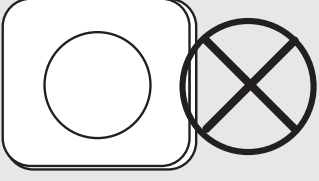
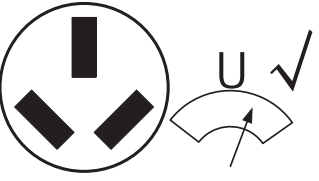
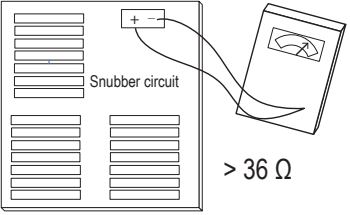
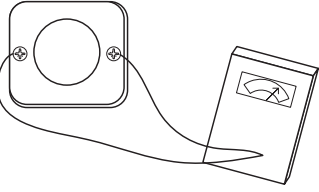

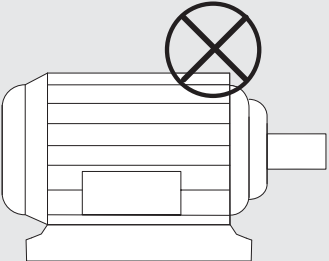
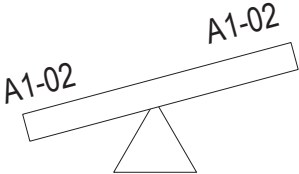
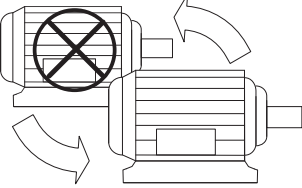
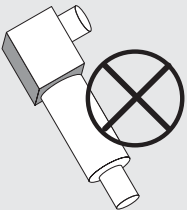
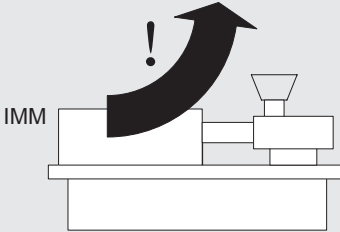
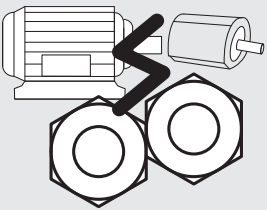
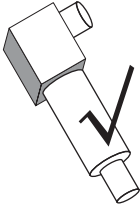
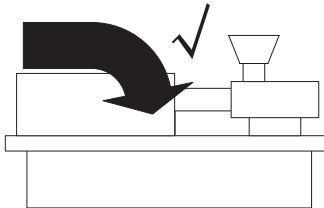
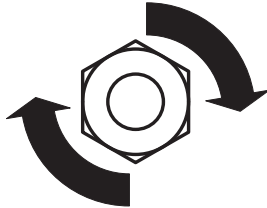


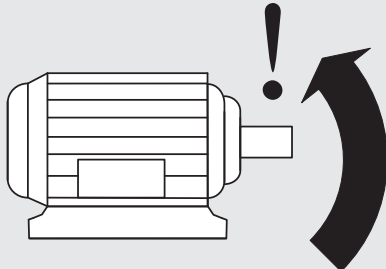
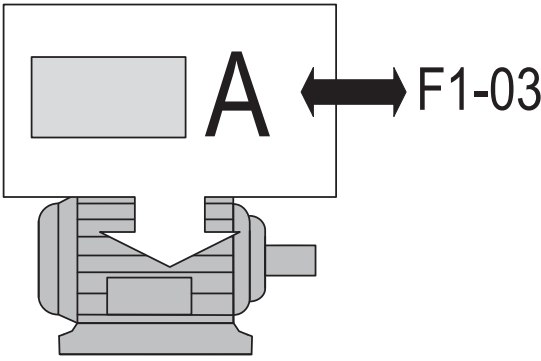
Fault Code	Fault Cause		
Err02 (Overcurrent during acceleration) Err03 (Overcurrent during deceleration) Err04 (Overcurrent at constant speed)	1. Motor short-circuit to ground 	2. Voltage unstable 	3. Servo drive not grounded well 
Fault Principle			
Overcurrent during running			
Fault Description	Solution		
<p>When the fault occurs, check the value of F9-22. If the value is 2 times of the rated current of the servo drive, overcurrent exists.</p>	 <ul style="list-style-type: none"> • Disconnect the cables from the motor, and measure the to-ground (housing of the motor) resistance of U, V, W phases by using the M mode in the ohm function of the multimeter. • On normal conditions, the motor to-ground resistance is above 5 MΩ. If the measured value is smaller than the value, it indicates that the motor is short-circuited to ground. In this case, you need to replace the motor 	 <ul style="list-style-type: none"> • Check whether the mains voltage drops greatly. If the voltage is lower than 85% of the rated voltage, overcurrent is likely to occur during running. • When the voltage is too low, stop the servo drive immediately and find the causes 	<p>J2 </p> <p>J3 </p> <ul style="list-style-type: none"> • Check whether the grounding cable exists and whether the servo drive is well grounded. If the servo drive is poorly grounded, adopt the wiring mode below. • If the drive is not grounded well, short-circuit J2 and J3 jumpers (GND and COM are not connected to any grounding capacitor).

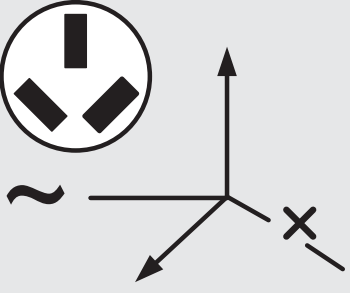
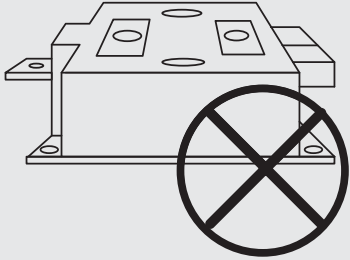
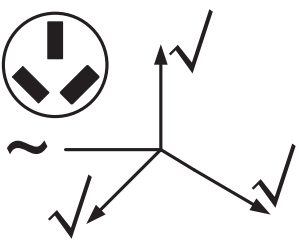
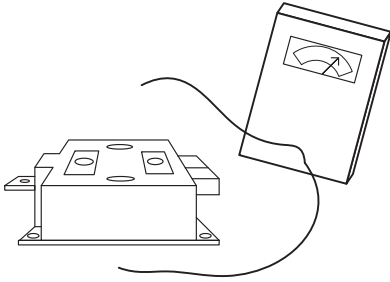
Fault Code	Fault Cause		
<p>Err05 (Overvoltage during acceleration) Err06 (Overvoltage during deceleration) Err07 (Overvoltage at constant speed)</p> <p>Fault Principle</p> <p>The voltage value exceeds the software overvoltage protection value. The protection value is 400 V for 2T, 790 V for T, and 890 V for 5T</p>	<p>1. Resistance of braking resistor too large</p> 	<p>2. Braking unit faulty</p> 	<p>3. Voltage too high</p> 
Fault Description	Solution		
<p>After the fault occurs, view the value of F9-23. If the value exceeds the software overvoltage protection value, it indicates that overvoltage occurs on the servo drive. The software overvoltage protection value is 400 V for 2T, 790 V for T, and 890 V for 5T.</p>	 <ul style="list-style-type: none"> • Disconnect the braking resistor from the braking unit, and measure the resistance of the braking resistor by using a multimeter. Compare the measured value with the recommended value in section 2.2 “Selection of Braking Unit and Braking Resistor”. • If there is a large difference between the two values, replace the braking resistor. If the resistance of the braking resistor is normal, check whether the braking unit is faulty. 	 <ul style="list-style-type: none"> • Disconnect cables between the +, - terminals of the braking unit and the servo drive, and measure the braking unit by using the diode function of the multimeter with the red probe connected to - and black probe connected to +. If a voltage drop of about 0.3 V is displayed, it indicates that the braking unit is normal; otherwise, the braking unit is damaged. • Note: When you connect the +, - terminals of the braking unit to the servo drive again, ensure correct wiring; if the wiring sequence is reversed, the servo drive will be damaged. 	 <ul style="list-style-type: none"> • Check whether the mains voltage changes greatly. If the mains voltage is 20% higher than the rated voltage, overvoltage is likely to occur during running • When overvoltage occurs, stop the servo drive immediately and find the causes.

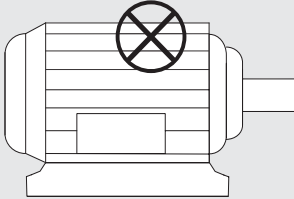
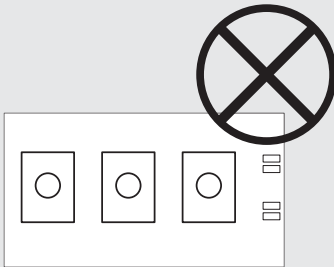
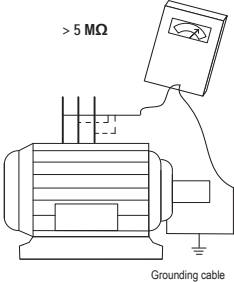
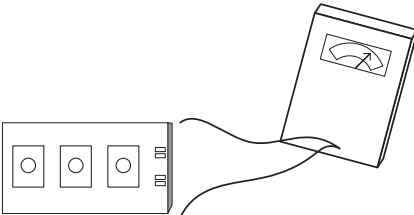
Fault Code	Fault Cause		
Err09	<p>1. Mains voltage lower than 85% of the rated voltage</p> 	<p>2. Snubber circuit board</p> 	<p>3. Contactor on the main circuit</p> 
Fault Principle	Solution		
<p>Mains voltage too low</p>	 <ul style="list-style-type: none"> • Measure the actual mains voltage by using a multimeter. If the measured voltage is lower than 85% of the rated voltage, start the servo drive only after the voltage restores to normal. • If the mains voltage is not too low but this alarm still exists, check whether the voltage fluctuates greatly. In this case, load change may cause even larger voltage fluctuation and drop. • Note: It is normal that the servo drive reports ERR09 at every power-off. It is considered as a fault only when ERR09 is reported at power-on. 	 <ul style="list-style-type: none"> • Disconnect the snubber circuit board from the bus and measure its resistance. • If the measured resistance is larger than 36 Ω, it indicates that the snubber circuit board is faulty. 	 <ul style="list-style-type: none"> • The contactor on the main circuit may be in poor contact or may not work. If the model of the servo drive is IS300T070-C or above, check the resistance value when the contactor closes. • If there is no measuring condition, or If the model of the servo drive is below IS300T070-C, contact the Inovance.

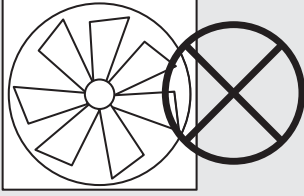
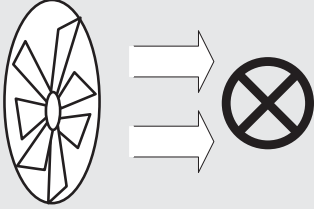
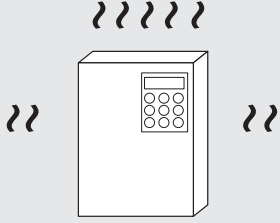
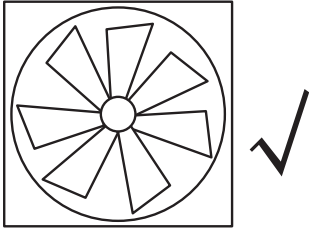
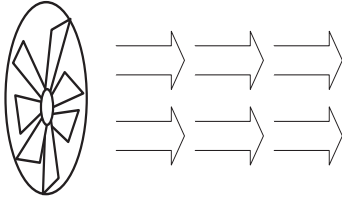
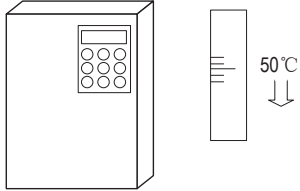
Fault Code	Fault Cause		
Err10	<p>1. Encoder installation angle changing</p> 	<p>2. Motor demagnetization</p> 	<p>3. Motor encoder fault</p>
Fault Principle			
Servo drive overload			
Fault Description	Solution		
<p>Perform a pressure holding action with the maximum pressure. View the current during this process and compare it with 1.5 times of the rated current of the servo drive. If the viewed current is larger than 1.5 times of the rated current, it indicates that the motor may demagnetize or the encoder installation angle changes.</p>	 <ul style="list-style-type: none"> • Perform motor auto-tuning twice and check whether the value of A1-02 (encoder installation angle) changes. If the value changes a lot, contact Inovance. • You can refer to section 3.4.3 “Setting and Auto-tuning of Motor Parameters” or the following procedure to perform the motor auto-tuning. <ol style="list-style-type: none"> 1. Check that the setting of F1-00 to F1-05 is correct. 2. Set A3-00 to 0 and F0-02 to 0, and then perform auto-tuning. 3. Set F1-16 to 1 and press to start auto-tuning. This moment "TUNE" is displayed on the operation panel. After auto-tuning is complete, "TUNE" disappears. 4. Restore the value of A3-00. 5. Start the servo drive again and check whether the alarm persists. If yes, go to the next step. 	<p>F1-15 < 270 V</p>  <ul style="list-style-type: none"> • Turn on the overflow valve and perform dynamic auto-tuning (same as the operation for the auto-tuning problem but set F1-16 to 2), • View the back EMF in F1-15. If the value is lower than 270 V, it indicates that motor demagnetization occurs. In this case, you need to replace the motor. 	<p>Please refer to Err43.</p>

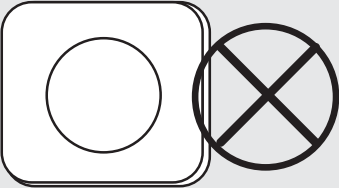
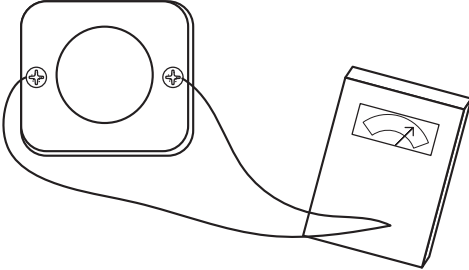
Fault Code	Fault Cause		
Err10	4. Problem of the pressure sensor	5. Heavy load of the IMM	6. Motor or hydraulic pump stuck
Fault Principle			
Servo drive overload			
Fault Description	Solution		
<p>Perform a pressure holding action with the maximum pressure. View the current during this process and compare it with 1.5 times of the rated current of the servo drive. If the viewed current is larger than 1.5 times of the rated current, it indicates that the motor may demagnetize or the encoder installation angle changes.</p>	 <ul style="list-style-type: none"> • Perform an action with pressure 10 kgf, and check the feedback pressure in U1-02. If the value of U1-02 remains 0, check wiring of the pressure sensor, or use a new pressure sensor and connect it correctly. • Perform the same action again. If the value of U1-02 is still 0, measure AI3-GND by using a multimeter; if the measured value is 0, replace the terminal block of the servo drive. 	 <ul style="list-style-type: none"> • If the motor is not demagnetized and the alarm is reported with a long time interval or periodically, it can be determined that the load of the IMM is too heavy. In this case, to protect the IMM, you need to reduce the load and properly increase the cooling time. • Or check the value U0-25. If the value keeps increasing after a period, it indicates that the load of the IMM is too heavy. In this case, reduce the load until the value becomes stable. Besides, you can consider increasing the cooling time. 	 <ul style="list-style-type: none"> • Perform any action on the IMM computer to check whether the motor and hydraulic pump rotate normally. • If they do not rotate, it indicates that they get stuck. In this case, contact the IMM manufacturer.

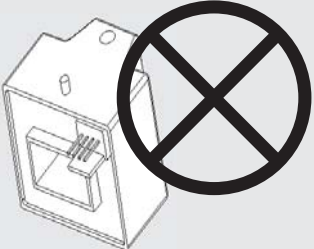
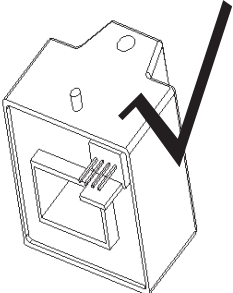
Fault Code	Fault Cause
Err11	<p data-bbox="450 280 598 302">Motor overload</p> 
Fault Principle	Solution
Motor overload	 <ul data-bbox="450 1041 1236 1153" style="list-style-type: none"> • View the rated motor current. View the value of F1-03 and make it consistent with the rated motor current on the motor nameplate. • If the fault persists, contact the IMM manufacturer. The motor parameters are F1-01 to F1-05 and F1-15, as listed in the function code table.

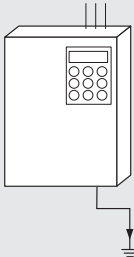
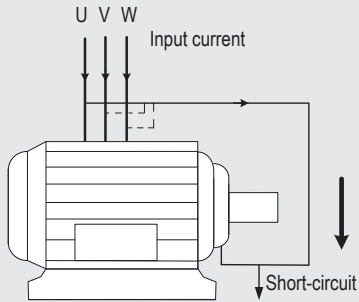
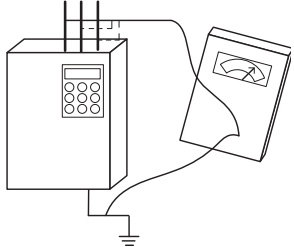
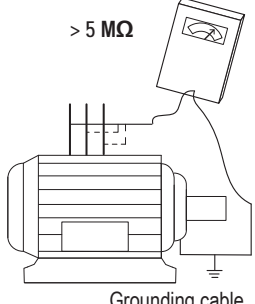
Fault Code	Fault Cause		
Err12	1.Power grid problem 	2.Rectifier bridge problem 	3.Drive board problem
Fault Description	Solution		
Phase loss on the input side	 <ul style="list-style-type: none"> • Peripheral device problem: Check whether the three phases of input voltage are balanced. If not, eliminate the problem. • Note: When the mains capacity is small and the servo drive is powered on or off frequently, mains fluctuation is large, causing unbalance of the input three phases. • Or it caused by input AC contactor faulty, please check whether there is phase loss in the contactor. 	 <ul style="list-style-type: none"> • Power off the servo drive, and measure the rectifier bridge using the diode function of the multimeter. Connect the red probe to the - terminal, and measure R, S, T in turn by using the black probe. Then, connect the black probe to the + terminal, and measure R, S, T in turn by using the red probe. • If the six measurement values are all about 0.3 V, it indicates that the rectifier bridge is normal. If the rectifier bridge is open-circuited, replace the rectifier bridge, power on the servo drive, and perform trial running again. 	If the fault persists after you perform the preceding operations, contact the IMM manufacturer.

Fault Code	Fault Cause		
Err13	1.Motor fault 	2.IGBT Module fault 	3.Internal component fault
Fault Principle	Solution		
Phase loss on the output side	 <ul style="list-style-type: none"> • Check whether the cables between the servo drive and the motor are short-circuited or in poor contact. Disconnect the servo drive from the motor, measure the inter-phase resistance of U, V, W phases of the motor by using the M mode in the ohm function of the motor, and check whether the resistance is the same and above 5 MΩ. • If the resistance is less than 5MΩ, the motor is short-circuited to ground. 	 <ul style="list-style-type: none"> • Power off the servo drive, and measure the IGBT by using the diode function of the multimeter. Connect the red probe to the - terminal, and measure R, S, T in turn by using the black probe. Then, connect the black probe to the + terminal, and measure R, S, T in turn by using the red probe. • If the six measurement values are all about 0.3 V, it indicates that the IGBT is normal. 	If the fault persists after you perform the preceding operations, contact the IMM manufacturer.

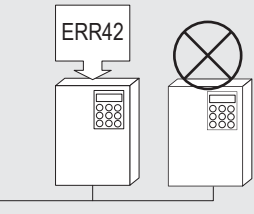
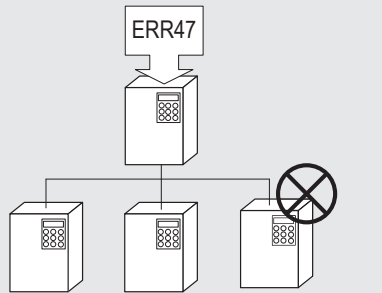
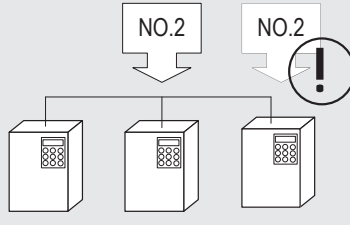
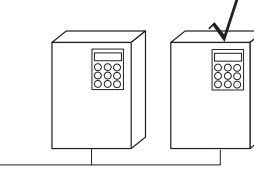
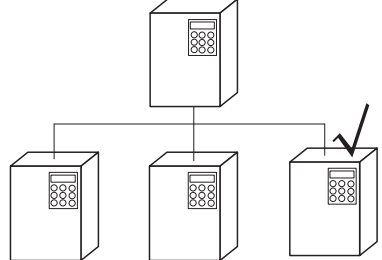
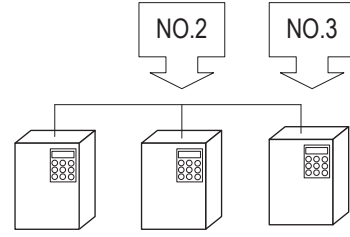
Fault Code	Fault Cause		
Err14	<p>1. Cooling fan problem</p> 	<p>2. Air filter problem</p> 	<p>3. Too high ambient temperature</p> 
Fault Principle	Solution		
<p>Module overheat</p>	 <ul style="list-style-type: none"> • Check whether the fan is damaged. • Measure the power supplied by the drive board to the fan, and see whether the measured value is 24 V. Eliminate the related problems and perform trial running again. 	 <p>Check whether the air filter is blocked. If yes, clean the air filter.</p>	 <p>If the temperature inside the cabinet exceeds 50 °C, enhance ventilation and heat dissipation of the cabinet.</p>

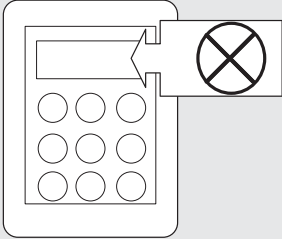
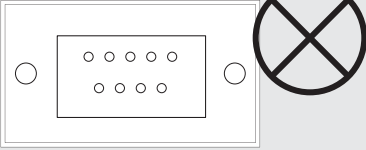
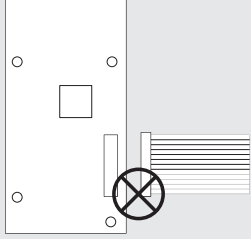
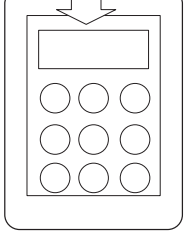
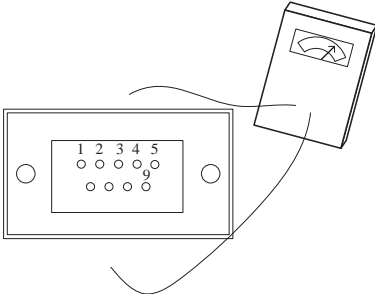
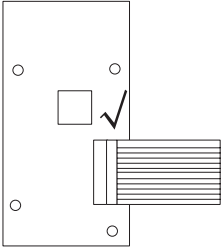
Fault Code	Fault Cause	
Err17	1. Relay problem 	2. Drive board problem
Fault Principle	Solution	
Contact fault	 <ul style="list-style-type: none"> • The AC drive of high power class uses DC contact. Coil is connected to 24 VDC power. On normal conditions, the resistance value of the coil is approximately 3–4 Ω. When the main contact closes, the resistance value at the two ends of the contactor is below 0.1 Ω. • Check the resistance value of the coil and the closing condition of the main contact when performing maintenance on site. 	

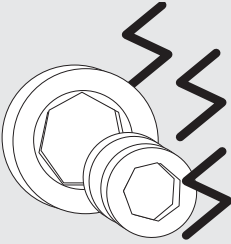
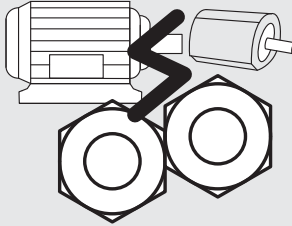
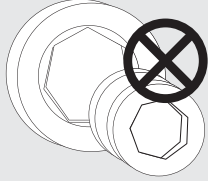
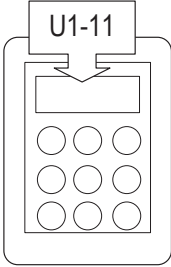
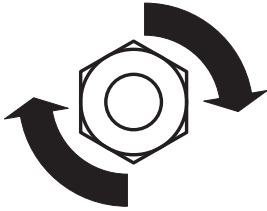
Fault Code	Fault Cause	
Err18	1. Hall problem 	2. Drive board problem
Fault Principle	Solution	
Current detection fault	 <ul style="list-style-type: none"> • Check whether hall wiring becomes loose. • If not, replace the hall component. 	If the fault persists after the hall problem is solved, contact the IMM manufacturer.

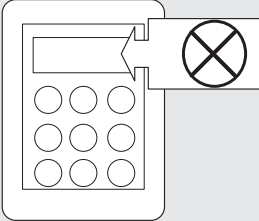
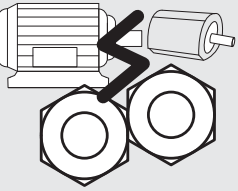
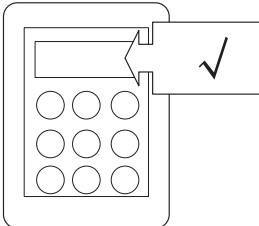
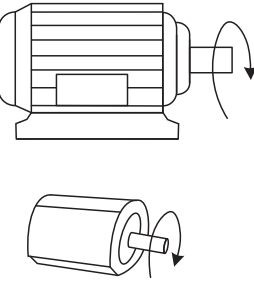
Fault Code	Fault Cause	
Err23	<p>1. Drive short-cut to ground</p> 	<p>2. Motor short-circuit</p> 
Fault Principle	Solution	
Output short-circuit	 <ul style="list-style-type: none"> • Measure whether U, V, W cables of the servo drive are in contact with the grounding cable by using the diode function of the multimeter. On normal conditions, they are disconnected. • If short-circuit occurs, contact Inovance for technical support. 	<p>> 5 MΩ</p>  <p>Grounding cable</p> <ul style="list-style-type: none"> • Check whether the cables between the servo drive and the motor are short-circuited or in poor contact. Disconnect the servo drive from the motor, measure the inter-phase resistance of U, V, W phases of the motor by using the M mode in the ohm function of the motor, and check whether the resistance is the same and above 5 MΩ. If yes, connect the servo drive and the motor and perform trial running again. • If the fault persists, contact the IMM manufacturer.

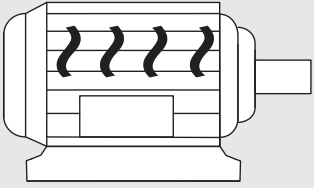
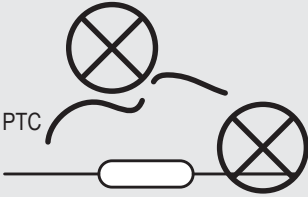
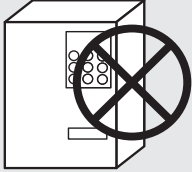
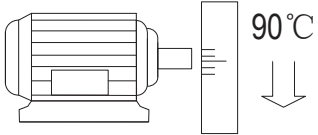
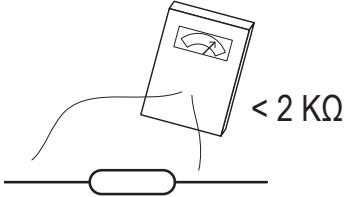
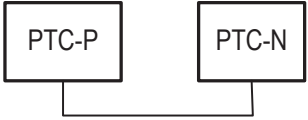
Fault Code	Fault Cause
Err27	Business running time reached
Fault Principle	Solution
Business running time reached	Contact the IMM manufacturer.

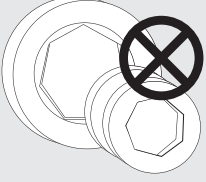
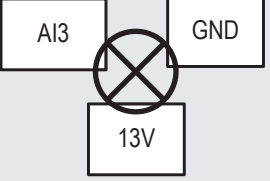
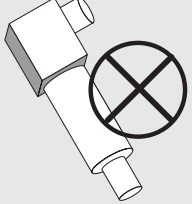
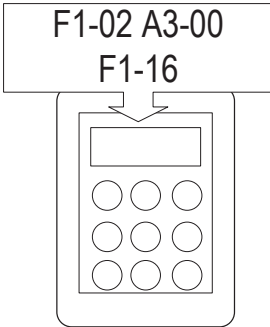
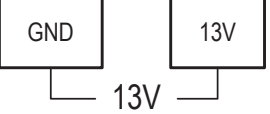
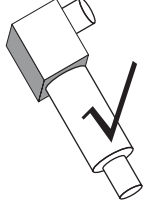
Fault Code	Fault Cause		
Err42 Err47 Err48	<p>1. Err42 CAN communication interrupted</p> 	<p>2. Err47 slave drive fault</p> 	<p>3. Err48 duplicated local addresses</p> 
Fault Principle	Solution		
Communication fault	 <p>After DI5-COM NC communication is enabled, this drive cannot communicate with other drive.</p>	 <ul style="list-style-type: none"> • This fault is reported by the master servo drive on normal conditions and is displayed as ERR47-*, in which * is a number, and indicates that the servo drive with local address (A2-01) of * reports the fault. • After the fault of the servo drive * is rectified and reset, this fault will be reset simultaneously. 	 <p>Modify the local address to avoid repetitive setting.</p>

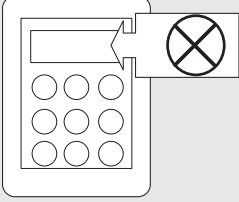
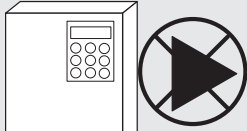
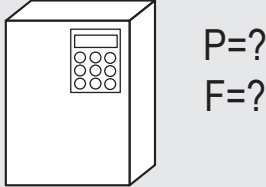
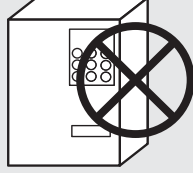
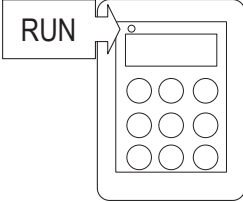
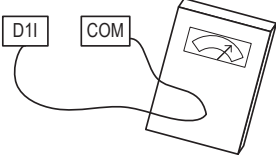
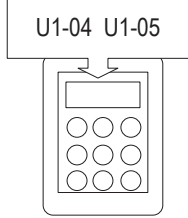
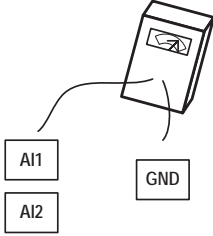
Fault Code	Fault Cause		
Err43	<p data-bbox="336 253 523 277">1. Auto-tuning fault</p> 	<p data-bbox="667 253 927 277">2. Encoder wiring problem</p> 	<p data-bbox="1093 253 1369 277">3. PG card contact problem</p> 
Fault Principle	Solution		
Encoder signal feedback abnormal or unavailable	<div data-bbox="347 680 619 770" style="border: 1px solid black; padding: 5px; text-align: center;"> <p data-bbox="384 689 582 719">F1-01 ~ F1-05</p> <p data-bbox="443 734 523 763">F1-16</p> </div>  <ul data-bbox="336 1039 635 1352" style="list-style-type: none"> • If the fault occurs after the first auto-tuning, check whether parameters from F1-01 to F1-05 are set correctly. If not, correct the setting. Then, perform auto-tuning again. • If the fault persists, change the auto-tuning mode by setting F1-16 to 3. If the fault still persists, go to the next step. 	 <ul data-bbox="667 1003 1061 1330" style="list-style-type: none"> • Check wiring of the encoder. Measure the BD9 connector of the encoder by using the ohm function of the multimeter. The resistance between pins 1 and 2, pins 3 and 4, and pins 5 and 9 is expected to be about 40 Ω or 63 Ω. • If the measured resistance is normal, check whether the wiring sequence between the encoder and the motor is correct and whether the wiring is secure. 	 <ul data-bbox="1093 958 1426 1308" style="list-style-type: none"> • When the encoder is in good contact and powered on, observe whether the red indicator on the PG card remains on. If yes, it indicates that the PG card is in poor contact or damaged. After power-off, re-connect the cable on the right side of the PG card to ensure good contact. • Perform auto-tuning again. If the fault persists, go to the next step.

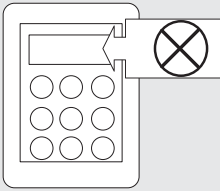
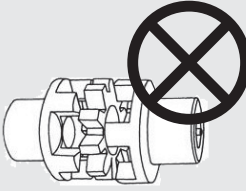
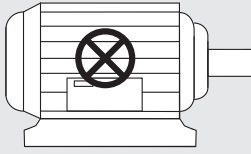

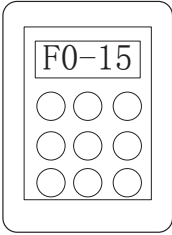
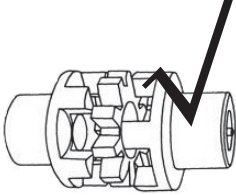
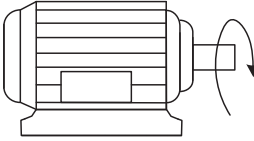
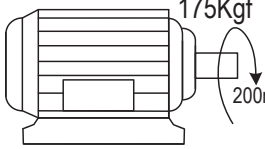
Fault Code	Fault Cause		
Err43	<p data-bbox="339 248 587 277">4.Peripheral interference</p> 	<p data-bbox="743 248 1070 277">5.Hydraulic pump or motor stuck</p> 	<p data-bbox="1137 248 1334 277">6.Encoder damage</p> 
Fault Principle	Solution		
Encoder signal feedback abnormal or unavailable	 <ul data-bbox="339 913 719 1240" style="list-style-type: none"> • View the value of U1-11. If the value is larger than 100, check again whether the encoder wiring is correct and in good contact. • If the value is 1000, the PG card or encoder may be damaged. In this case, replace the PG card, and view the value of U1-11 again. • If the fault persists after ensuring that the wiring and PG card are normal, it indicates that the encoder may be damaged. 	 <ul data-bbox="743 846 1106 1039" style="list-style-type: none"> • Try to rotate the shaft of the motor or hydraulic pump. • If the shaft cannot be rotated, check whether the motor or hydraulic pump is stuck. Eliminate the problem, and perform auto-tuning again. 	<p data-bbox="1137 629 1406 786">It is rather uncommon that the encoder is damaged. If the fault persists after you perform all the preceding operations, contact the IMM manufacturer.</p>

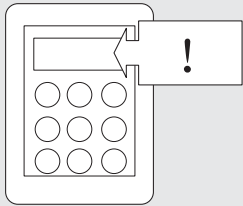
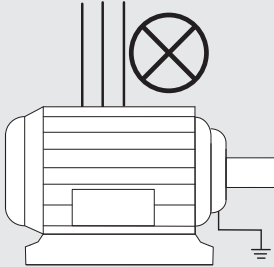
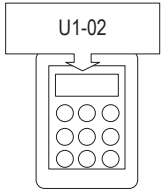
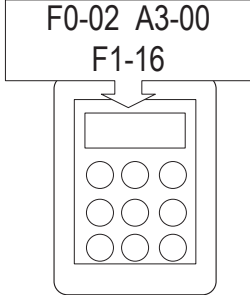
Fault Code	Fault Cause					
Err44	<p>1. Servo drive parameters set wrongly</p> 	<p>2. Encoder installation angle changing</p>	<p>3. Motor bearing damaged or stuck, hydraulic ump damaged or stuck</p> 	<p>4. Encoder wiring improper</p>	<p>5. External interference, encoder damaged</p>	<p>6. Motor demagnetized</p>
Fault Principle	Solution					
<p>Too large deviation between actual speed and reference speed</p>	 <ul style="list-style-type: none"> • Check whether the setting of F2-10 (Torque upper limit) is smaller than 150%. If yes, set F2-10 to 150%. • Check that the motor parameters F1-01 to F1-05 are correct and whether A3-01 (Max. rotational speed) is lower than F1-05 (Rated rotational speed). 	<p>Refer to the related solution in Err10.1</p>	 <ul style="list-style-type: none"> • Disconnect the hydraulic pump from the motor. • \Try to rotate the motor or hydraulic pump manually. Check whether there is resistance or noise during rotation. • \If yes, it indicates that the motor or hydraulic pump is faulty and needs to be repaired. 	<p>Refer to the related solution in ERR43.2</p>	<p>Refer to the related solution in Err43.4</p>	<p>Refer to the related solution in Err10.2</p>

Fault Code	Fault Cause		
Err45	1. Motor temperature too high 	2. PTC line disconnected or broken, or thermistor damaged 	3. I/O board of the servo drive damaged 
Fault Principle	Solution		
Motor overheat protection enabled	 <p>Check whether the surface of the servo motor is hot. If yes, it indicates that the temperature is too high. In this case, check the following items:</p> <ul style="list-style-type: none"> a. Whether the load is very heavy b. Whether motor heat dissipation is good c. Whether the cooling fan is damaged d. Whether the dusts block the air filter If the load is very heavy, reduce the load and then check whether the temperature declines. If the production requirement cannot be satisfied after you reduce the load, select the servo motor and servo drive of a higher power class. 	 <ul style="list-style-type: none"> Check the PTC line connection. Connect the PTC line if it is not connected. If the PTC line is broken, replace it. If the PTC line is connected properly, measure the resistance of the thermistor. The normal resistance value is below 2 K. If the measured value is infinite, it indicates that the thermistor is damaged. In this case, contact the motor manufacturer. 	 <ul style="list-style-type: none"> If the fault persists after you perform the preceding operations, short PTC-P and PTC-N and press to reset the servo drive. Then if this fault still exists, it indicates that the I/O board is damaged. In this case, contact the IMM manufacturer.

Fault Code	Fault Cause			
<p>ERR46 (except the servo drive used for hot melt adhesive)</p>	<p>1. Encoder faulty</p> 	<p>2. Terminals AI3, GND, 13V on I/O board damaged</p> 	<p>3. Pressure sensor faulty</p> 	<p>4. Hydraulic pump damaged or stuck</p>
Fault Principle	Solution			
<p>Output current very large but feedback pressure very small during detection time</p>	 <ul style="list-style-type: none"> • Set F0-02 to 0 and A3-00 to 0, open the overflow valve and set F1-16 to 2. Then perform static motor auto-tuning. • If the servo drive reports Err43, it indicates that the encoder is faulty. Eliminate the fault according to the solution in Err43. 	 <ul style="list-style-type: none"> • If the encoder is not faulty, measure the voltage between terminals GND and 13V. The normal voltage is about 13 VDC. • If the measured voltage is lower than 10 V, contact IMM manufacturer. 	 <ul style="list-style-type: none"> • Loosen the overflow valve (ensure approximately 50 kgf pressure). If the pressure sensor is faulty, the pressure will be out of control generally. • Set 10% pressure on the computer and start the hydraulic pump. At this moment, the actual pressure is higher than the set pressure, which can be directly seen from the pressure gauge. • If the feedback voltage of the pressure sensor (U1-06) does not vary with the pressure change, check the circuit and wiring of the pressure sensor. • If the circuit and wiring are normal, replace the pressure sensor. 	<p>Refer to the solution for Err44.3</p>

Fault Symptom	Fault Cause			
<p>The motor does not rotate.</p>	<p>1. Improper servo drive commissioning</p> 	<p>2. No servo drive enabled signal</p> 	<p>3. Servo drive not receiving the flow and pressure signals</p> 	<p>4. I/O board of servo drive damaged</p> 
Fault Principle	Solution			
<p>External causes</p>	 <ul style="list-style-type: none"> • Check whether the hydraulic control mode is set correctly, whether F0-02 is set to 1 and whether A3-00 is set to 2. If not, correct the setting. • Meanwhile, check whether the RUN indicator on the operation panel is ON. If yes, it indicates that the servo drive can receive signal and work. If not, go to the next step. 	 <p>In the state of hydraulic pump enabled, if the RUN indicator on the operation panel is OFF, check whether the servo drive enabled signal D11-COM is in the normally closed (NC) state by using the diode function of the multimeter. If not, find the cause in the circuits.</p>	 <ul style="list-style-type: none"> • View the value of U1-04 and U1-05 if there is signal input. If the displayed values are both 0, it indicates that no signal is received by the servo drive and you need to check the circuit. • Check the I/O board of the computer. Disconnect the cable and check whether there is signal on the output side of the computer by using the multimeter. If yes, re-connect the cable. • If there is no display, it indicates that the I/O board is abnormal. If the display is normal, it indicates that the component of the servo drive may be damaged. 	 <p>Measure the voltage of AI1-GND and AI2-GND by using the multimeter. If there is reading but the displayed value of U1-04 and U1-05 are 0, it indicates that the I/O board of the servo drive is damaged. In this case, contact the IMM manufacture.</p>

Fault Symptom	Fault Cause			
<p>The motor noise and vibration are large.</p>	<p>1. Carrier frequency set improperly</p> 	<p>2. Coupler connection improper</p> 	<p>3. Bearing damaged</p> 	<p>4. Hydraulic pump damaged</p> 
Fault Principle	Solution			
<p>Electrical control or mechanical connection problem</p>	 <p>Increase the value of F0-15 (Carrier frequency) but the setting must be within 5 kHz.</p>	 <p>Check whether the coupler connection becomes loose or whether the coupler is worn. If the coupler is damaged, replace it.</p>	 <ul style="list-style-type: none"> • Disconnect the hydraulic pump from the motor and separate the coupler. Rotate the motor manually. If there is uneven resistance or noise during rotation, it indicates that the motor bearing is damaged. • You can also increase the motor rotational speed to the rated rotational speed gradually and check whether there is abnormal noise. 	 <ul style="list-style-type: none"> • If the coupler is not damaged, check whether the hydraulic pump is damaged. • Set the holding pressure to 175 kgf and observe the motor rotational speed. If the rotational speed is over 200 RPM, it indicates that the hydraulic pump may be faulty. • Then disconnect the hydraulic pump from the motor, and check the motor first. If the motor is not damaged, you can judge that the hydraulic pump is faulty

Fault Symptom	Fault Cause	
<p>The motor rotates inversely.</p>	<p>1. Pressure feedback abnormal</p> 	<p>2. Motor connection wrong</p> 
Fault Principle	Solution	
<p>Output phase sequence wrong</p>	 <ul style="list-style-type: none"> • In the standby state, view U1-02. The value of U1-02 is 0 on normal conditions. If A3-10 (Min. pressure) is set to the default value, the value of U1-02 is below 0.5 and keeps changing. If the viewed value of U1-02 is abnormal, it indicates that the pressure feedback is abnormal. In this case, replace the pressure sensor. • Set F0-02 (Command source selection) to 2 (Operation panel) and press. Set A3-00 to 0 and A3-20 to 1. Then press to perform AI zero drift auto correction. After AI zero drift auto correction is complete, set A3-00 to 2. • If the fault persists, check whether the pressure sensor is faulty. If yes, follow solution 3 in Err46. If not, go to the next step. (Not recommend) 	 <ul style="list-style-type: none"> • Exchange any two of the output UVW cables of the servo drive. Set F0-02 (Command source selection) to 2 (Operation panel) and press. Then set A3-00 to 0 and F1-16 to 1, and press to start motor auto-tuning. • After the motor auto-tuning is complete, set A3-00 to 2.