

# Service Quick Guide

Indesit Company, Service Department

FAULT	SUB CODE	CAUSE	SERVICE ACTIONS
F01	0x01	Motor driving triac short circuit	<ul> <li>Check for water leaks that may affect connectors J009 (commutator) or J9 (three-phase) causing the relative contacts to short;</li> <li>Check motor terminal board (any problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Renew PCB.</li> </ul>
	0x02	Motor driving triac in diode mode	<ul> <li>Check for water leaks that may affect connectors J009 (commuta- tor) or J9 (three-phase) causing the relative contacts to short;</li> <li>Check motor terminal board (any problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Renew PCB.</li> </ul>
	0x03	Motor feedback fault	<ul> <li>Check for water leaks that may affect connectors J009 (commuta- tor) or J9 (three-phase) causing the relative contacts to short;</li> <li>Check the motor terminal board (any problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Renew PCB.</li> </ul>
	0x04	Motor relay contacts sticking, 2 mo- tor relay contacts sticking (one open the other one closed), BP triac open	<ul> <li>Check for water leaks that may affect connectors J009 (commutator) or J9 (three-phase) causing the relative contacts to short;</li> <li>Check motor terminal board (possible problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Renew PCB.</li> </ul>
	0x12	Wash heating element feedback fault	<ul> <li>Check for water stains on the PCB and on connector J001 (commutator PCB) or J10 (three-phase PCB);</li> <li>Check connections on wash heating element;</li> <li>Renew PCB.</li> </ul>
	0x14	Wash heating element relay open/ diverter relay sticking on drain pump side / wash heating element feedback pin short circuit with Vdc	- Check continuity of wash heating element of connectors
	0x21	Drain pump feedback fault	<ul> <li>Check efficiency of contacts of connector J004 (commutator) or J11 (three-phase) on PCB;</li> <li>Check continuity of pump on connectors J004 (commutator) or J11 (three-phase), pins 4 and 5 (in case of classic door lock);</li> <li>check that impedance value is 170 Ohm +/- 10%;</li> <li>Check wiring of connectors J004 (commutator) or J11 (three- phase)/pump;</li> <li>Renew PCB.</li> </ul>
	0x23	Drain pump driving triac open	<ul> <li>Check efficiency of contacts of connector J004 (commutator) or J11 (three-phase) on PCB;</li> <li>Check continuity of pump on connector J004 (commutator) or J11 (three-phase), pins 4 and 5 (in case of traditional door lock); check that impedance value is 170 Ohm +/- 10%;</li> <li>Check wiring of connectors J004 (commutator) or J11 (three- phase)/pump;</li> <li>Renew PCB.</li> </ul>

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F01	0x24	Drain pump driving triac in diode mode	<ul> <li>Check efficiency of contacts of connector J004 (commutator) or J11 (three-phase) on PCB;</li> <li>Check continuity of pump on connectors J004 (commutator) or J11 (three-phase), pins 4 and 5 (in case of traditional door lock); check that impedance value is 170 Ohm +/- 10%;</li> <li>Check wiring of connector J004/pump;</li> <li>Renew PCB.</li> </ul>
	0x31	Pressure switch full value off range (status pressure switch only)	<ul> <li>Check for water leaks that may affect connectors J006 or J7 (three-phase) causing the relative contacts to short;</li> <li>Check pressure switch terminal board (possible problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Check wiring of connector J006 (commutator) or J7 (three- phase)/pressure switch;</li> <li>Renew PCB.</li> </ul>
	0x32	Overflow value out of range (status pressure switch only)	<ul> <li>Check for water leaks that may affect connectors J006 (commutator) or J7 (three-phase) causing the relative contacts to short;</li> <li>Check pressure switch terminal board (possible problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Check wiring of connector J006 (commutator) or J7 (three-phase)/pressure switch;</li> <li>Renew PCB.</li> </ul>
	0x33	Pressure switch empty and overflow signal present simultaneously (sta- tus pressure switch only)	<ul> <li>Check for water leaks that may affect connectors J006 or J7 (three-phase) causing the relative contacts to short;</li> <li>Check pressure switch terminal board (possible problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Check wiring of connector J006 (commutator) or J7 (three- phase)/pressure switch;</li> <li>Renew PCB.</li> </ul>
	0x41	Triac+dryer heating element relay open	<ul> <li>Disconnect appliance for 2 minutes. Check dryer heating element wiring and connectors;</li> <li>Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew PCB.</li> </ul>
	0x42	Dryer heating element feedback fault	<ul> <li>Disconnect appliance for 2 minutes. Check dryer heating element wiring and connectors;</li> <li>Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew PCB.</li> </ul>
	0x81	Hardware protection trip due to overcurrent (probably breakage of inverter branch)	<ul> <li>Check for water leaks that may affect connector J9 causing the relative contacts to short;</li> <li>Check connector also on motor side;</li> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew PCB.</li> </ul>
	0x82	Incorrect reading of offsets from inverter channel U	<ul> <li>Check for water leaks that may affect connector J9 causing the relative contacts to short;</li> <li>Check connector also on motor side;</li> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew PCB.</li> </ul>



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F01	0x83	Incorrect reading of offsets from inverter channel V	<ul> <li>Check for water leaks that may affect connector J9 causing the relative contacts to short;</li> <li>Check connector also on motor side;</li> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew PCB.</li> </ul>
	0x84	Incorrect reading of offsets from inverter channel W	<ul> <li>Check for water leaks that may affect connector J9 causing the relative contacts to short;</li> <li>Check connector also on motor side;</li> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew PCB.</li> </ul>
F02	0x01	Motor tripped / not wired, 1 or 2 motor relays sticking (both open or closed), motor tachogenerator open / short circuited	<ul> <li>Check whether motor is blocked mechanically;</li> <li>Check efficiency of contacts on connector J9 on PCB;</li> <li>Check the tachogenerator winding and check that there is an impedance value of between 115 and 170 Ohm on the wiring connector J9 between pins 1 and 2;</li> <li>In case of short circuit or open circuit check wiring between pins 1 and 2 of J9 relative to the tachogenerator;</li> <li>Renew motor;</li> <li>Renew PCB.</li> </ul>
	0x81	One motor phase disconnected dur- ing motor run	<ul> <li>Check that connector J9 is correctly inserted. Board side and motor side;</li> <li>Check motor windings by checking wiring connector J9 between pins: 3 and 4, 4 and 5, 3 and 5 for the presence of an impedance value below 100 Ohm;</li> <li>If open circuit detected renew motor.</li> </ul>
	0x82	Overcurrent on one phase	<ul> <li>Check for water leaks that may affect connector J9 causing the relative contacts to short;</li> <li>Check connector also on motor side;</li> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew PCB.</li> </ul>
	0x83	Current reading below threshold on two of the phases measured	<ul> <li>Check that connector J9 is correctly inserted. Board side and motor side;</li> <li>Check motor windings by testing wiring connector J9 between the following pins: 3 and 4, 4 and 5, 3 and 5; impedance value must be below 100 Ohm;</li> <li>If open circuit detected renew motor.</li> </ul>
	0x84	No switching at motor start	<ul> <li>Check to ensure motor rotor is not mechanically jammed or seized;</li> <li>Check tachogenerator winding and check that impedance value on wiring connector J009 between pins 1 and 2 is between 115 and 170 Ohm;</li> <li>In case of short circuit or open circuit check wiring between pins 1 and 2 of J009 relative to the tachogenerator;</li> <li>Renew motor;</li> </ul>
	0x85	No tachogenerator signal with speed value higher than that of distribution	<ul> <li>Check to ensure motor is not mechanically jammed or seized;</li> <li>Check tachogenerator winding and check that impedance value on wiring connector J9 between pins 1 and 2 is between 115 and 170 Ohm;</li> <li>In case of short circuit or open circuit check wiring between pins 1 and 2 of J9 relative to the tachogenerator;</li> <li>Renew motor;</li> <li>Renew PCB.</li> </ul>

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F02	0x86	One drum revolution not completed in 5s	<ul> <li>Check to ensure motor rotor is not mechanically jammed or seized;</li> <li>Check tachogenerator winding and check that impedance value on wiring connector JB between pins 1 and 2 is between 115 and 170 Ohm;</li> <li>In case of short circuit or open circuit check wiring between pins 1 and 2 of J9 relative to the tachogenerator;</li> <li>Renew motor;</li> <li>Renew PCB.</li> </ul>
	0x87	After 256 seconds motor stop not detected	<ul> <li>Check tachogenerator winding and check that impedance value on wining connector J9 between pins 1 and 2 is between 115 and 170 Ohm;</li> <li>In case of short circuit or open circuit check wiring between pins 1 and 2 of J9 relative to the tachogenerator;</li> <li>Renew motor;</li> <li>Renew PCB.</li> </ul>
	0x88	High frequency noise on signal	<ul> <li>Check tachogenerator winding and check that the impedance value on wiring connector J9 between pins 1 and 2 is between 115 and 170 Ohm;</li> <li>In case of short circuit or open circuit check wiring between pins 1 and 2 of J9 relative to the tachogenerator;</li> <li>Renew motor;</li> <li>Renew PCB.</li> </ul>
	0x89	Low frequency noise on signal	<ul> <li>Check tachogenerator winding and check that the impedance value on wiring connector J9 between pins 1 and 2 is between 115 and 170 Ohm;</li> <li>In case of short circuit or open circuit check wiring between pins 1 and 2 of J9 relative to the tachogenerator;</li> <li>Renew motor;</li> <li>Renew PCB.</li> </ul>
F03	0x01	NTC washing sensor short circuit	<ul> <li>Check efficiency of contacts of connector J005 (commutator) or J12(three-phase) on PCB;</li> <li>Check NTC ensuring that the impedance value at ambient temperature (20°C) on wiring connector J005 (commutator) or J12 (three-phase), pins 1 and 2; is approximately 20 KOhm:</li> <li>If measurement is incorrect check continuity of wiring J005 (commutator) or J12 (three-phase), pins 1 and 2/NTC;</li> <li>Check the same parameter directly on the NTC;</li> <li>Renew NTC;</li> </ul>
	0x02	NTC washing sensor open circuit	<ul> <li>Check efficiency of contacts of connector J005 (commutator) or J12 (three-phase) on PCB;</li> <li>Check NTC ensuring that the impedance value at ambient temperature (20°C) on wiring connector J005 (commutator) or J12 (three-phase), pins 1 and 2; is approximately 20 KOhm;</li> <li>If measurement is incorrect check continuity of wiring J005 (commutator) or J12 (three-phase), pins 1 and 2/NTC;</li> <li>Check the same parameter directly on the NTC;</li> <li>Renew NTC;</li> </ul>
F05	0x01	Pressure switch empty condition not reached (valid for linear and status pressure switch) or drain pump jammed (valid for linear and status pressure switch)	<ul> <li>If status type pressure switch, check component directly</li> <li>Check efficiency of contacts on PCB;</li> <li>Check pressure switch wiring</li> <li>Check continuity of pump on connector pins 4 and 5 (in case of classic door lock), ensuring that impedance value is 170 Ω +/-10%;</li> <li>Check the wiring of pins 4 and 5(/pump;</li> <li>Check the wiring of pins 4 and 5(/pump;</li> <li>Check the upmp filter, drain hose and wall drain outlet. Reset the appliance with the OFF button, also after Fault resetting with plug. Check the appliance pressure switches reaches full without Faults at the next cycle</li> <li>Replace the linear pressure switch;</li> <li>Replace the main PCB.</li> </ul>



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F05	0x02	off range (linear pressure switch only)	<ul> <li>Check efficiency of contacts of connector J006(collector) J7(three-phase) on PCB;</li> <li>Check wiring of J006(collector) J7(three-phase)/Pressure switch</li> <li>Check continuity of pump on connectors J004(collector) J11(three-phase) pins 4 and 5 (in case of classic door lock), ensuring that impedance value is 170 Ω +/- 10%;</li> <li>Check wiring of J004(collector) J11(three-phase) pins 4 and 5/ pump;</li> <li>Check pump filter and wall drain outlet;</li> <li>Empty the tank; reprogram the eeprom; re-run the autotest;</li> <li>If the problem persists, replace the pressure switch;</li> <li>If the problem persists, renew the PCB.</li> </ul>
	0x03	Absence or off high range on fre- quency reading (linear pressure switch only)	<ul> <li>Check pressure switch wiring connection on board side and component side;</li> <li>Empty tank; reprogram Eeprom; restart autotest routine;</li> <li>If problem persists renew pressure switch;</li> <li>If problem persists renew PCB.</li> </ul>
F06	0x01	Door lock fails to close, PTC door lock triac open, mains frequency signal fault, mains power signal fault	<ul> <li>Check for water leaks that may affect connectors J004 or J11 (three-phase) causing the relative contacts to short;</li> <li>Check the Door lock terminal board (possible problems due to aggression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Check J004/door lock wiring;</li> <li>Check door lock;</li> <li>Renew PCB.</li> </ul>
	0x02	Door lock fails to open / IMP door lock triac short circuit /open circuit	<ul> <li>Check for water leaks that may affect connectors J004 or J11 (three-phase) causing the relative contacts to short;</li> <li>Check Door lock terminal board (possible problems due to ag- gression caused by manufacturing chemical residues that may cause short circuits);</li> <li>Check J004/door lock wiring;</li> <li>Check door lock;</li> <li>Renew PCB.</li> </ul>
F07	0x01	Heating element not wired (heating timeout)	<ul> <li>Check efficiency of contacts on connector J001 (commutator) or J10 (three-phase) on PCB;</li> <li>Check for continuity of wash heating element on connectors J001 (Commutator) or J10 (Three-phase), pins 3 and 4. The 1700W 230V heating element impedance value is 30 Ohm +/- 10%. If value is different renew wash heating element;</li> <li>Renew PCB.</li> </ul>
F08	0x01	Wash heating element earth leak- age / wash heating element relay short circuit	<ul> <li>Check efficiency of contacts on connector J001 (commutator) or J10 (three-phase) on PCB;</li> <li>Check leakage between the two ends and ground, impedance should be at least 2 MOhm;</li> <li>Renew heating element;</li> <li>Renew PCB.</li> </ul>
F09	0x01	Setting File error detected by Main PCB	Disconnect appliance, wait for 2 minutes and reconnect to power supply, then start autotest routine; If the problem persistes proceed as follows:     Reprogram PCB;     Renew main PCB;     Renew display PCB.
	0x02	Setting File error detected by user interface PCB	<ul> <li>Disconnect appliance, wait for 2 minutes and reconnect to power supply, then start autotest routine;</li> <li>If the problem persists proceed as follows:</li> <li>Reprogram PCB;</li> <li>Renew main PCB;</li> <li>Renew display PCB.</li> </ul>

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F09	0x81	Three-phase area incorrect check- sum	<ul> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>Reprogram setting file;</li> <li>If fault reappears renew main PCB.</li> </ul>
	0x82	Incorrect number of three-phase parameters (mismatch in length of data setting file expected by DSP firmware)	<ul> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>Reprogram setting file;</li> <li>If fault reappears renew main PCB.</li> </ul>
	0x83	Failure of reading of the setting file for 5 times	<ul> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>Reprogram setting file;</li> <li>If fault reappears renew main PCB.</li> </ul>
F11	0x01	Pump not wired / pump driving triac short circuit /diverter relay sticking on washing heating element side/ drain pump feedback pin in short with Vdc	<ul> <li>Check efficiency of contacts of connector J004 (commutator) or J11 (three-phase) on PCB;</li> <li>Check on connector J004 (commutator) or J11(three phase) pins 4 and 5 (in case of conventional door lock):</li> <li>Check continuity of pump, ensuring that impedance value is 170 Ohm +/- 10%;</li> <li>Check wiring of connectors J004 (commutator) or J11 (three- phase)/pump;</li> <li>Renew pump;</li> <li>Renew PCB.</li> </ul>
F12	0x01	Communication error between power PCB and interface PCB	Check efficiency of contacts on connector J010 (Commutator) or J16 (Three-phase) on PCB;     Check efficiency of contacts on Display PCB;     Check continuity of J010 (Commutator) or J16 (Three-phase)/ Display PCB wiring;     Disconnect appliance, wait for 2 minutes and reconnect to power supply, then start autotest routine;     If problem persists proceed as follows:         Renew main PCB;         Renew display PCB.
F13	0x01	NTC dryer sensor open / short- circuiting. Fan Motor jammed. Condenser or blower clogged	<ul> <li>Check the condenser filter is not clogged;</li> <li>Check there is no fluff in the blower fan;</li> <li>If the components are clean or the problem persists despite cleaning, then:</li> <li>Check the efficiency of the connector contacts of the NTC on the main PCB;</li> <li>Check the impedance value of the NTC on the relevant connector (next to Main PCB) between pin 1 and pin 2. The impedance value at ambient temperature (20°C) must be approximately 20kS2;</li> <li>If measurement is incorrect, check NTC wiring;</li> <li>Check the same parameter (20kΩ) directly on the NTC.</li> <li>Replace the MTC;</li> <li>Replace the main PCB.</li> </ul>
	0x02	NTC dryer sensor open circuit	<ul> <li>Check the condenser filter is not clogged;</li> <li>Check there is no fluff in the blower fan;</li> <li>If the components are clean or the problem persists despite cleaning, then:</li> <li>Check the efficiency of the connector contacts of the NTC on the main PCB;</li> <li>Check the impedance value of the NTC on the relevant connector (next to Main PCB) between pin 1 and pin 2. The impedance value at ambient temperature (20°C) must be approximately 20kΩ;</li> <li>If measurement is incorrect, check NTC wiring;</li> <li>Check the same parameter (20kΩ) directly on the NTC.</li> <li>Replace the NTC;</li> <li>Replace the main PCB.</li> </ul>



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F15	0x01	Triac+dryer heating element short- circuit / dryer heating element leakage on thermofuse side / dryer heating element interrupted / diver- ter relay sticking on wash heating element side/ dryer heating element jn feedback in short-circuit with Vdc / Pump not wired / short-circuit of triac driving pump / diverter relay sticking on wash heating element side / drain pump pin feedback in short-circuit with Vdc / Prewash solenoid valve not wired.	<ul> <li>230V), ensuring between pins 1 and 2 that the impedance value is approximately 36 Ω;</li> <li>Check leakage between the two ends and ground, impedance should be at least 2 MΩ;</li> <li>Check efficiency of Drain Pump contacts on PCB;</li> <li>Check continuity of Drain Pump on connector (pins 4 and 5 in case of classic door lock), ensuring that impedance value is 170 Ω +/- 10%;</li> <li>Check the drain pump wiring;</li> <li>Check the Solenoid Valve connectors and wiring;</li> </ul>
	0x02	Diverter relay sticking on dryer heating element side/ dryer heating element ground fault on diverter relay side	<ul> <li>Check efficiency of contacts on connector J012 (commutator) or J13 (three-phase) on PCB;</li> <li>Check continuity of dryer heating element on pins 1 and 2 of connector J012 (commutator) or J13 (three-phase) ensuring that the impedance value for the 1500W 230V heating element is approximately 36 Ohm;</li> <li>Check leakage between the two ends and ground, impedance should be at least 2 MOhm;</li> <li>Renew dryer heating element;</li> </ul>
F16	0x01	Drum lock triac open, drum lock feedback fault	<ul> <li>Check for 220 V power at the lock;</li> <li>Check the connectors;</li> <li>Check continuity of wiring;</li> <li>Replace PCB.</li> </ul>
F18	0x01	No UART communication between DSP and Main PCB	<ul> <li>Disconnect appliance for 2 minutes. Check that correct operation has been restored by starting the Autotest routine;</li> <li>If fault reappears renew main PCB.</li> </ul>
F19	0x01	Fan motor not wired / Fan motor driving triac short circuit or Switch relay contacts sticking / Fan motor pin feedback in shot circuit with Vcc	<ul> <li>Check efficiency of connector and wiring continuity on the heating element of the blower;</li> </ul>