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AS-AP I2C bus errors

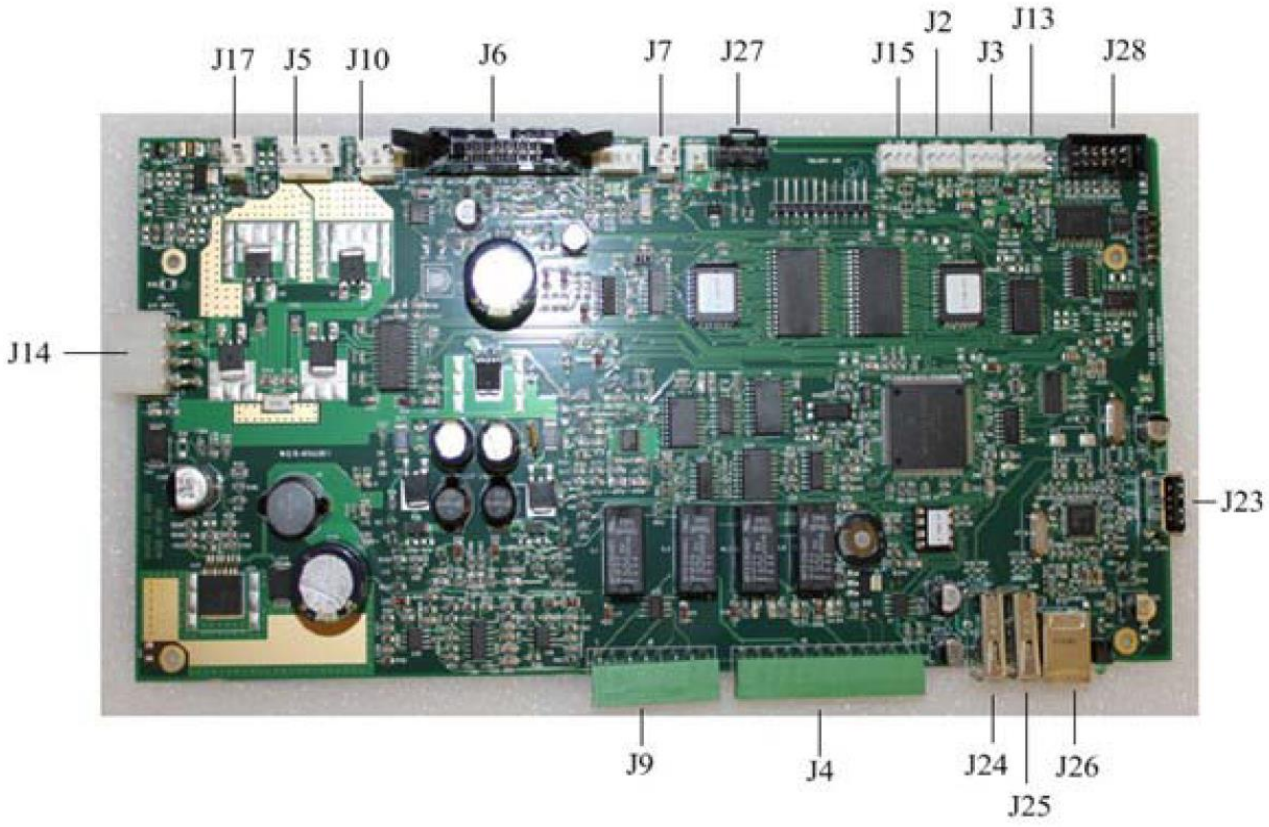
For all actions Chromeleon must be set to service mode

I2C Bus

The following are connected to the I2C bus –

- 2 Temperature sensors
- Injection valves, **Optional**
- EEPROM

Main Board PCB PN AAA-069800



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J2 – Carousel temperature sensor

J3 – Not used

J4 – Relay

J5 – Peltier carousel

J6 – Motor controller (syringe / XZ arm / carousel)

J7 – Circulation pump

J9 – TTL Input

J10 – Optional injection / diverter valve

J13 – TEC temperature sensor

J14 – Switching power supply

J15 – I2C Optional injection / diverter valve

J17 – Condensation fan

J23 – Internal USB connector A

J24 – USB A

J25 – USB A

J26 – USB B

J27 – Leak sensor

J28 – Front panel

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I2C bus error messages

- I/O process was aborted due to thread end or application request
- Temperature difference too large error, can be caused by 2 sensors
- DVC error timeout error
- EEPROM write error

Troubleshooting the I2C bus

As something on the I2C bus maybe drawing down the power and causing the issue the remedial troubleshooting steps are as follows –

1. Power off the autosampler and remove all the connections related to the I2C bus. **Make sure the power switch at the back of the autosampler is turn off then on for all powering down functions.**

2. EEPROM error should disappear, but multiple others will appear of course due to the disconnection of everything.

3. Power back on the autosampler and see what errors occur. Add first one sensor at time to CPU board and see which error messages disappear, which remain and appears in the audit trail in Service Mode (AS-AP Normal Self-Test Video - Thermo Fisher Scientific)

Steps XZ arm moves to reposition to itself then left / carousel rotates / syringe draws slightly down they back up / XZ arm moves right stops in carousel needle down then back up / XZ arm moves right to needle seat and goes down / syringe pulls down ¾ of the way / LED lights turn on / needle moves up from needle seat and moves to wash port and goes down / syringe moves up and empties the volume into the wash port / needle then moves up from wash port and right over the needle seat but not down on it optional / diverter valve rotates

Whatever is shown to be the error from these remedial steps will be the part to replace.

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