FB10000 Error Messages Troubleshooting

Error ID: 66018: IDS - Overflow in yellow main tank.

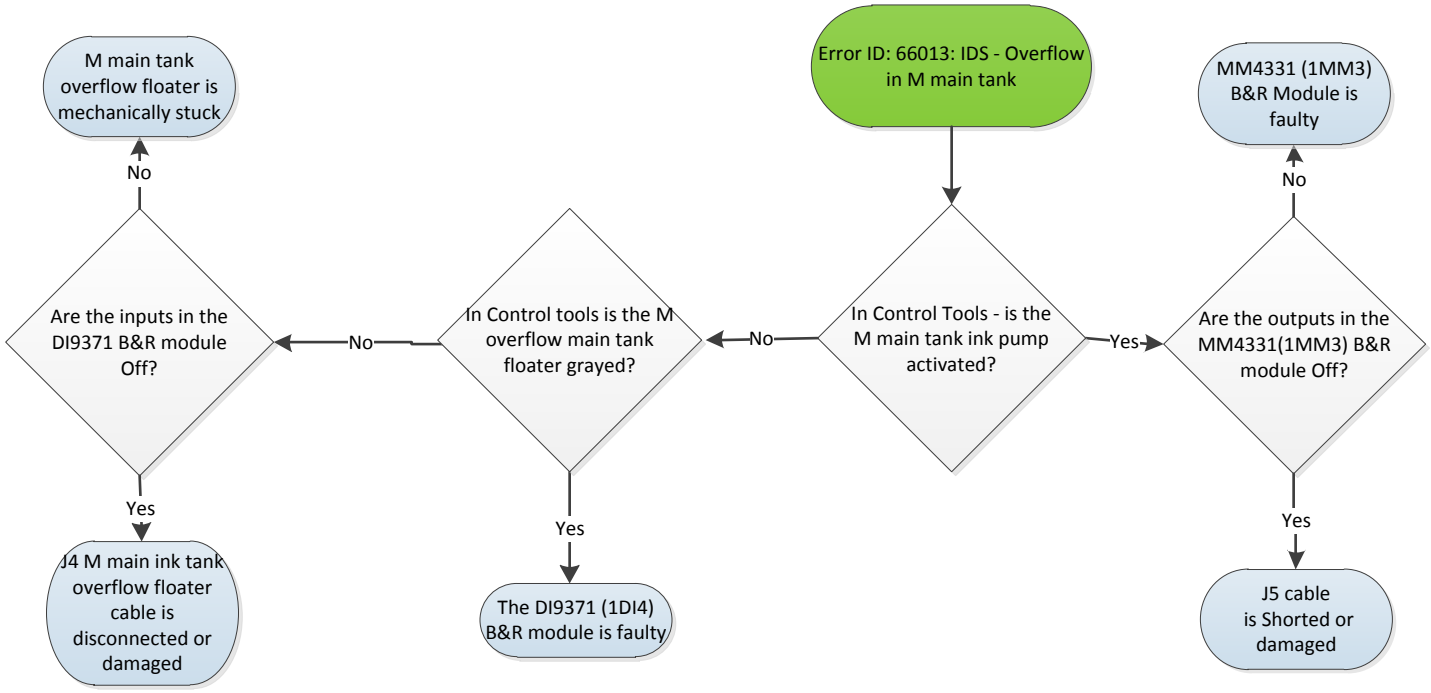
Error Severity: Critical

Possible Causes

[Real overflow event in main ink tank - drain main ink tank]
[No real ink overflow – wrong reading due to main tank floater sensor problem]
[Real overflow due to main ink pump stuck on continuous pumping]
[No real ink overflow – wrong reading due to faulty MM4331 (1MM3) B&R control module]
[No real ink overflow – wrong reading due to faulty DI9371 (1DI4) B&R module]
[No real ink Overflow – wrong reading due to wiring disconnection]

Troubleshooting Flowchart

Troubleshooting Flowchart

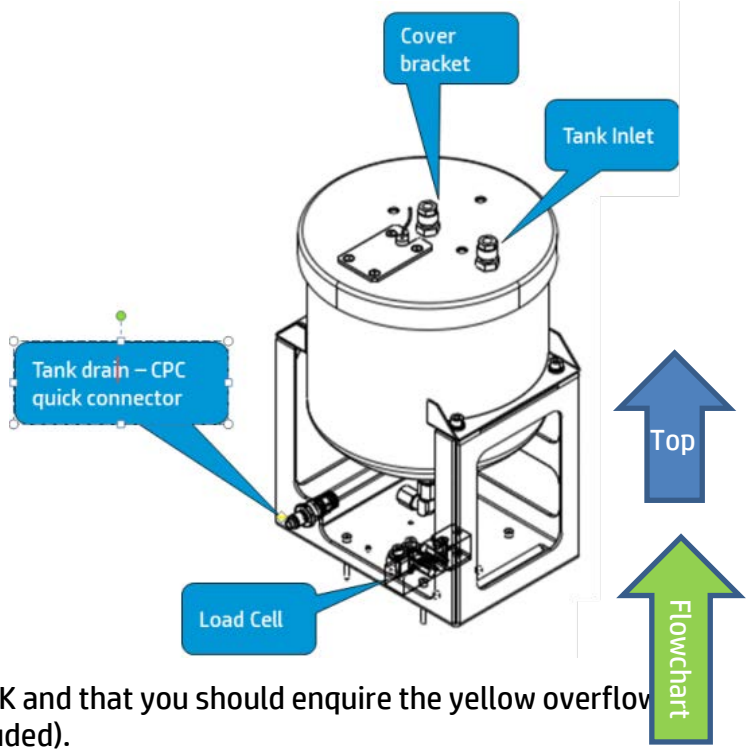


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Flowchart

Recommended Actions

Real Overflow event - drain yellow main ink tank

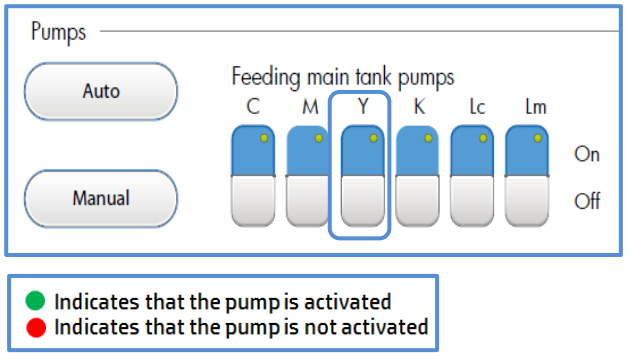
1. Attach a female CPC quick connector (PN CX145-06740) to a 40cm x0.8 cm diam. ink tube.
2. Connect the CPC connector to the male connector at the bottom of the main tank and direct the other end of the pipe into an appropriate collecting ink container.
3. Let the ink flow freely until the ink level in the main tank reaches the correct level.
4. If the error persists, move to the next step.



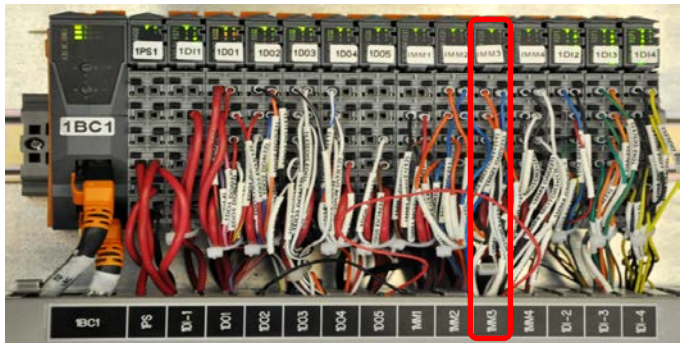
Check the yellow main tank ink pump and its wiring path

The yellow main tank ink pump will work continuously when shorted, or when the B&R module to which it is connected constantly triggers the pump activation and therefore is faulty.

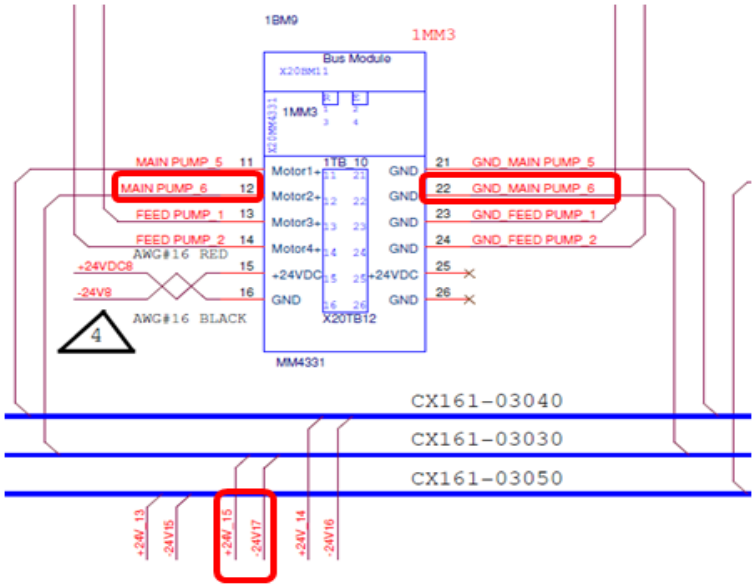
1. In **Control Tools**, activate and deactivate the yellow main tank pump.
2. If the pump reacts to your commands, this means that the pump and its wiring path are OK and that you should enquire the yellow overflow floater sensor and its wiring path down to the MM4331 B&R [1MM3] control module (included).
3. If the Yellow pump does not respond to your commands and continues working continuously, check the pump and its wiring path down to the B&R module as described below.
4. If the wiring path is OK then check the MM4331 [1MM3] B&R control module itself.
5. If the B&R module does not respond to your Control Tools commands and continuously activates the pump, this indicates that the B&R module is faulty and [should be replaced].

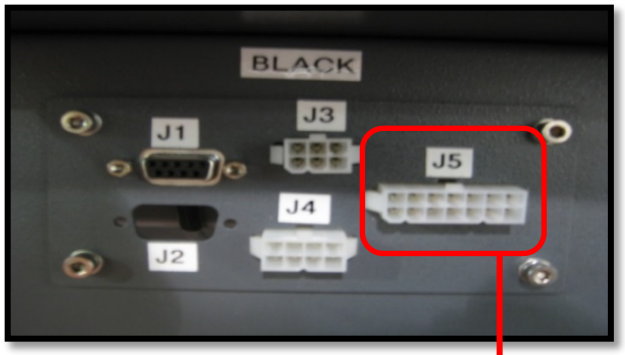


1BC1	1DI1	1DO1	1DO2	1DO3	1DO4	1DO5	1MM1	1MM2	1MM3	1MM4	1DI2	1DI3	1DI4
1BB1	1BM1	1BM2	1BM3	1BM4	1BM5	1BM6	1BM7	1BM8	1BM9	1BM10	1BM11	1BM12	1BM13
Bus Controller X20BC0083	DI9371	DO8332	DO8332	DO8332	DO8332	DO8332	MM4331	MM4331	MM4331	MM4331	DI9371	DI9371	DI9371



Wiring path from main ink pump to MM4331 [1MM3] B&R module through cable CX161-03030 is disconnected





Top

Flowchart



J5-Black panel

B&R CONTROLLER

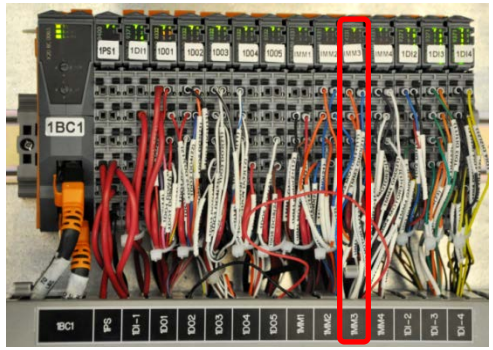
1	FEED PUMP 6	BLACK	1MM4 / 4+(14)
2	GENDER FEED PUMP 6	WHITE	1MM4 (24)
3	SPARE	RED	SPARE
4	SPARE	GREEN	SPARE
5	MAIN PUMP 6	ORANGE	1MM3/ 2+(12)
6	GND MAIN PUMP 6	BLUE	1MM3 (22)
7	CIRCULATION VLV 6	WHITE/BLACK	1DO3/ 4(22)
8	-24V17	RED/BLACK	1TB4.17 (3)
9	SPARE	GREEN/BLACK	SPARE
10	+24V_15	ORANGE/BLACK	1TB4.8 (2)
11	SPARE	BLUE/BLACK	SPARE
12	SPARE	BLACK/WHITE	SPARE
13	SPARE	RED/WHITE	SPARE
14	SPARE	GREEN/WHITE	SPARE

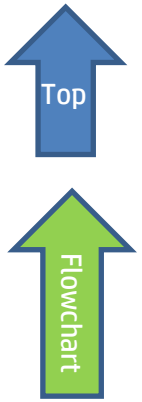
The MM4331 B&R module [1MM3] is faulty – replace module

Each B&R control module comprises three components: Base, Bus Unit (BU), and Terminal block (12 PINS) as shown below.
When we say replacing a B&R module, we mean replacing its Bus Unit which is the "heart" of the module.

1. Go to the LEC and locate the MM4331 B&R module labeled MM3.

1BC1	1DI1	1DO1	1DO2	1DO3	1DO4	1DO5	1MM1	1MM2	1MM3	1MM4	1DI2	1DI3	1DI4
1BB1	1BM1	1BM2	1BM3	1BM4	1BM5	1BM6	1BM7	1BM8	1BM9	1BM10	1BM11	1BM12	1BM13
Bus Controller X20BC0083	DI9371	DO8332	DO8332	DO8332	DO8332	DO8332	MM4331	MM4331	MM4331	MM4331	DI9371	DI9371	DI9371





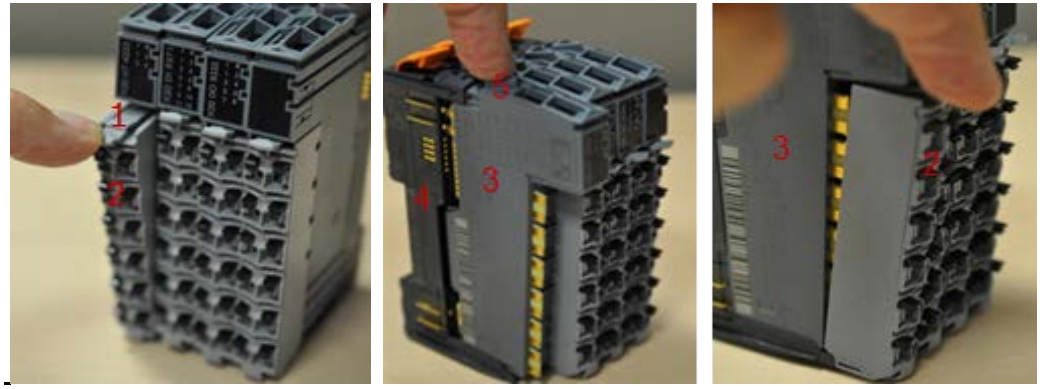
2. Before replacing a module BU, turn the machine power OFF.
3. Release the module terminal block with its wires, as shown below.
4. Pull the module Bus Unit of its base and replace it by a new one.
5. Plug back the terminal block into the Bus Unit until you hear a click.
   Upon turning the machine on, the R/E led will blink green once, signaling that it has detected the new BU.

Step 1: Press the latch (1) on top of the TB (2) and unplug the TB from the BU to which it is attached.

Step 2: Press the latch (5) on top of the BU (3) and unplug it from its base (4).

Step 3: Plug the new BU (3) into its base (4).

Step 4: Plug back the TB (2) into the new Bus Unit (3) until you hear a click.

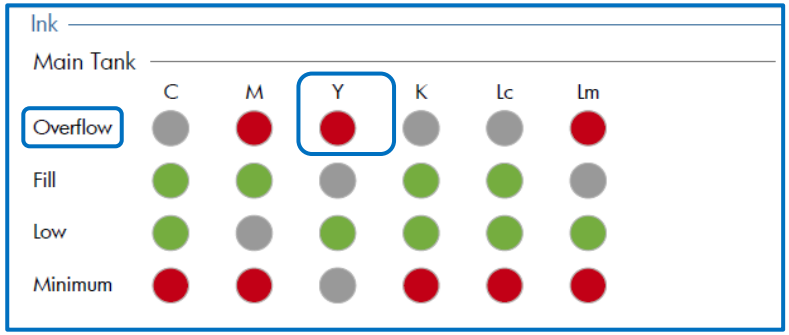


6. Turn the machine on and let the B&R control PLC automatically configure the new Bus Unit.

Note: This procedure takes up to two minutes. However, when the PLC encounters internal errors, it runs a full system scan and resets the entire system. This procedure takes between 40 to 60 minutes. If the PLC LED continues blinking orange once every 5 seconds this indicates that it failed to configure the new module.

7. If none of the above steps solved the problem, contact your HP service specialist.

The yellow main tank overflow floater sensor is faulty

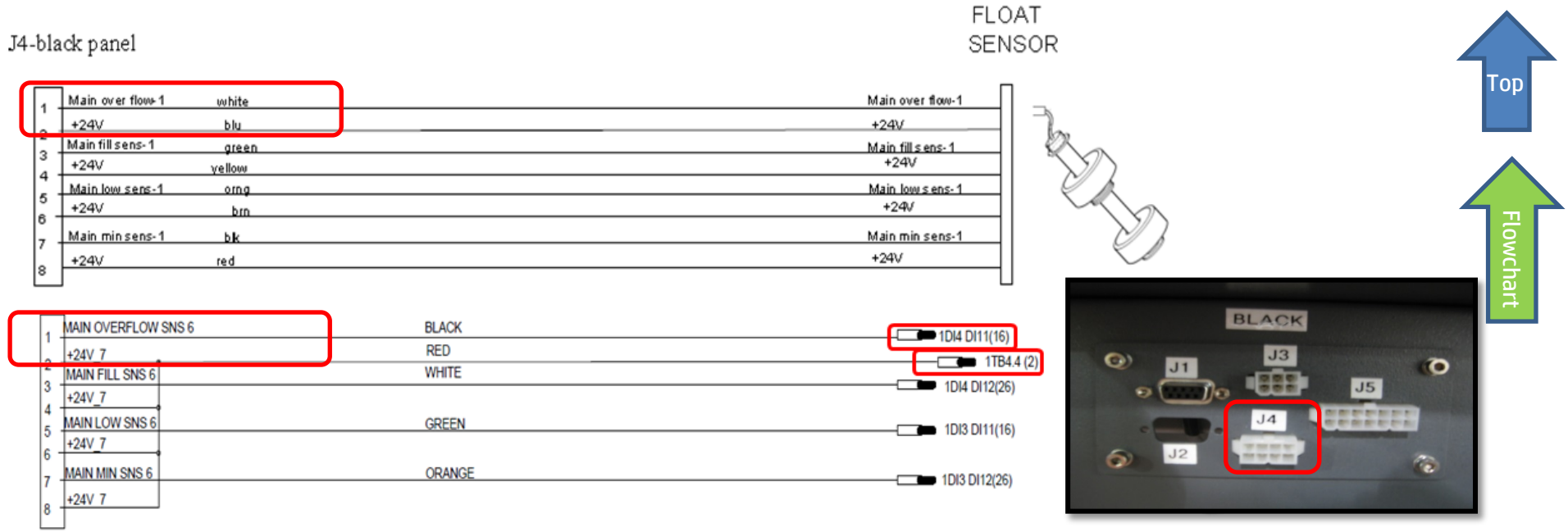


Assuming that you checked the yellow main tank ink pump and its wiring and to the B&R module (included the module) are all OK, then the problem is probably related to the yellow overflow floater sensor, to its wiring path or to the B&R control module to which it is connected.

1. In Control Tools check the yellow overflow floater sensor status:
   - Red light indicates real ink overflow
   - Gray light indicates that no overflow was detected.

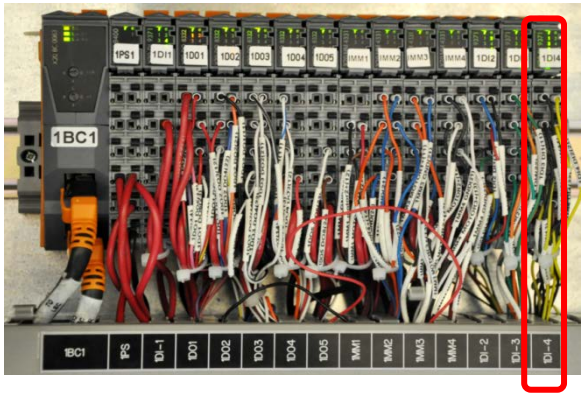
   The indication turns red also when the sensor is mechanically stuck or if there is a problem in its wiring path due to the fact that its circuit is set as NC.
2. Verify that the floater is not mechanical stuck.
3. Check continuity along the floater wiring path to the B&R module as described below.
4. If all components down to the B&R module are OK. Check the DI9371 B&R module labeled 1DI4 and replace it if required.

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Flowchart

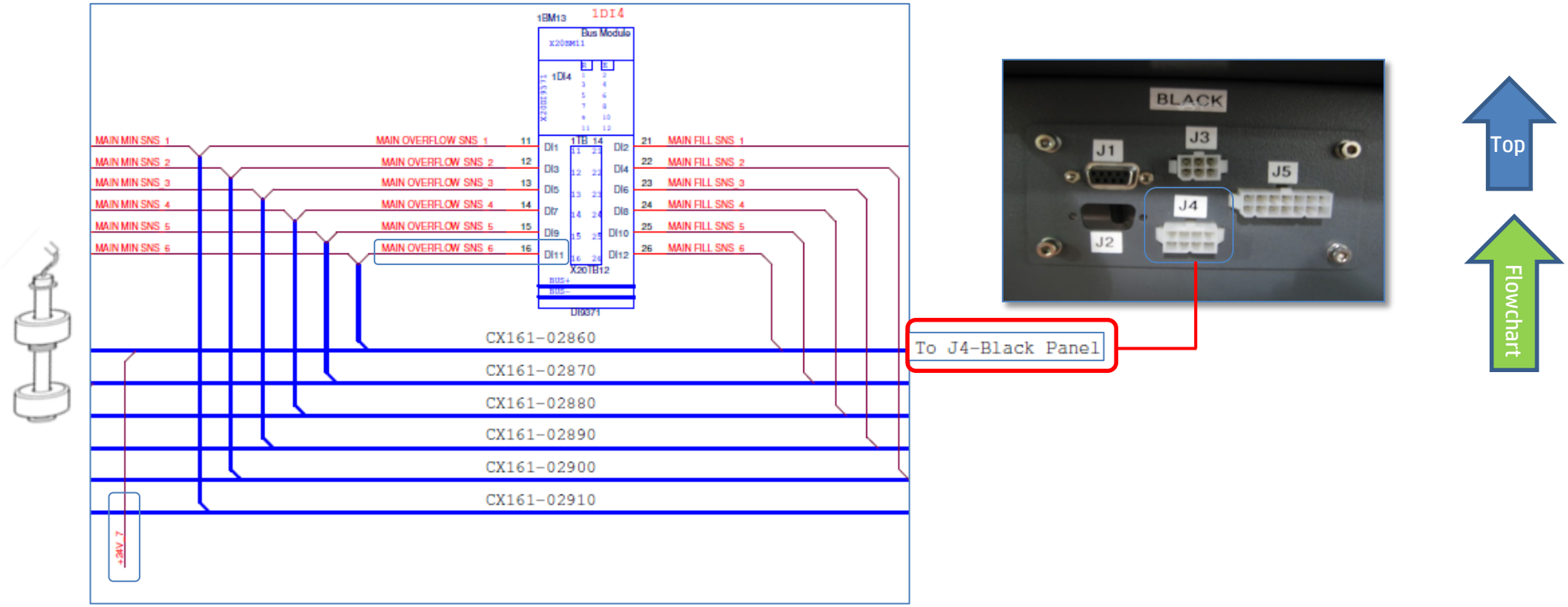


5. Check wiring path continuity from floater to B&R control module along cable CX161-02860 (from J4 yellow panel to DI9371 [1DI4].

1BC1	1DI1	1DO1	1DO2	1DO3	1DO4	1DO5	1MM1	1MM2	1MM3	1MM4	1DI2	1DI3	1DI4
1BB1	1BM1	1BM2	1BM3	1BM4	1BM5	1BM6	1BM7	1BM8	1BM9	1BM10	1BM11	1BM12	1BM13
Bus Controller X20BC0083	DI9371	DO8332	DO8332	DO8332	DO8332	DO8332	MM4331	MM4331	MM4331	MM4331	DI9371	DI937.	DI9371



DI9371 B&R module [1DI4] to which yellow main tank overflow sensor is connected through cable CX161-02860

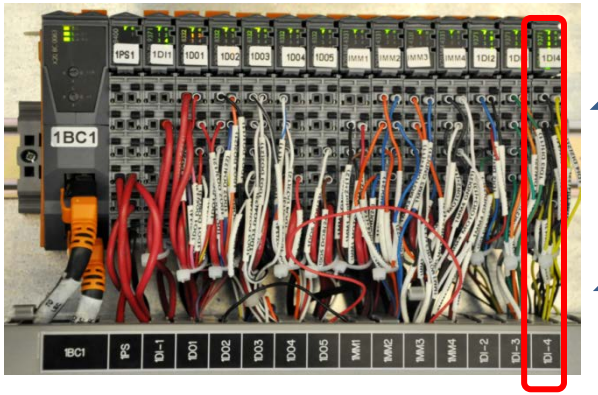


The DI9371 [1DI4] B&R module is faulty – replace module

Each B&R control module comprises three components: Base [4], Bus Unit (BU)[3], and Terminal block (12 PINS) [2]as shown below. When we say replacing a B&R module, we mean replacing only its Bus Unit which is the "configurable heart" of the module.

1. Go to the LEC and locate the DI9371 B&R control module labeled 1DI4

1BC1	1DI1	1DO1	1DO2	1DO3	1DO4	1DO5	1MM1	1MM2	1MM3	1MM4	1DI2	1DI3	1DI4
1BB1	1BM1	1BM2	1BM3	1BM4	1BM5	1BM6	1BM7	1BM8	1BM9	1BM10	1BM11	1BM12	1BM13
Bus Controller X20BC0083	DI9371	DO8332	DO8332	DO8332	DO8332	DO8332	MM4331	MM4331	MM4331	MM4331	DI9371	DI937[illegible]	DI9371



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Flowchart

2. Before replacing a module BU, turn the machine power OFF.
3. Release the module terminal block with its wires, as shown below.
4. Pull the module Bus Unit of its base and replace it by a new one.
5. Plug back the terminal block into the Bus Unit until you hear a click.
   Upon turning the machine on, the R/E led will blink green once, signaling that it has detected the new BU.

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6. Turn the machine on and let the B&R control PLC automatically configure the new Bus Unit.

Note: This procedure takes up to two minutes. However, when the PLC encounters internal errors, it runs a full system scan and resets the entire system. This procedure takes between 40 to 60 minutes. If the PLC LED continues blinking orange once every 5 seconds this indicates that it failed to configure the new module.

If none of the above steps solved the problem, contact your HP service specialist.