

MAG X² First Installation Guide & Troubleshooting



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1 SENSOR IRRIGATION

Before first installation irrigate the sensor for 24 hours.

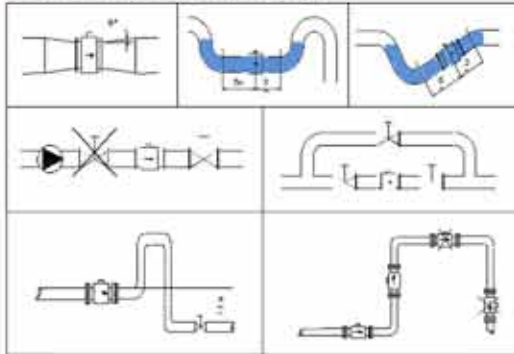


Soak the sensor liner before installation

Irrigation of the sensor under operational conditions with a wetted full pipe

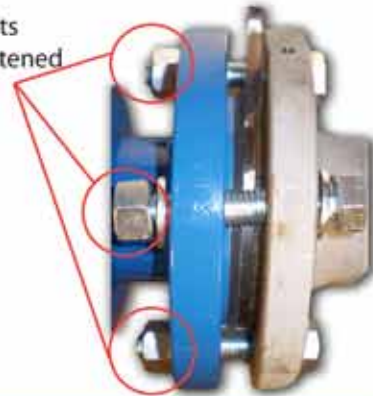


2 SENSOR INSTALATION



Installation methods

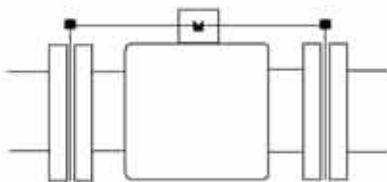
Nuts and bolts must be tightened correctly



3 GROUNDING

a) PLASTIC PIPE (Grounding with earthing rings)

Ensure continuity of earth between sensor, ring, pipe and liquid



Washers must be used for earthing ring installations
You must use a conductor with a minimum cross-section of 1,5 mm of Copper wire for all grounding.

Nuts and bolts must be tightened using a spanner. Finger tight has no effect

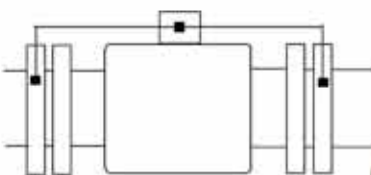


Earthing rings must be used for plastic pipe installation



Remember to connect the main grounding cable to the sensor neck

b) CONDUCTIVE PIPE (Grounding without earthing rings)



Contact point must be properly cleaned from rust, paint, etc.



See also the installation/operational manual.

4 CABLE CONNECTION

a) Connection of power supply



1 Unscrew blue cable gland



2 Pass the cable through screw female part of the cable gland



3 a) you must use a cable with a round cross-section
b) you must use a cable with 3 conductors (twin and earth)



4 Pull the cable through the cable gland by the insulation.



5 The overall insulation of the cable must be inside the housing to guarantee proper sealing of cable gland



6 Screw the female part to cable gland.



7 The female part must be properly tightened with a spanner or similar



8 All three power supply conductors must be properly tightened.



9 Warning: connection between the power supply module and the motherboard is protected with a lock.

b) Connection of sensor



Compact version



Connection to motherboard
Plug the connectors into the transmitter

Remote version

SENSOR PART

Preparing connections



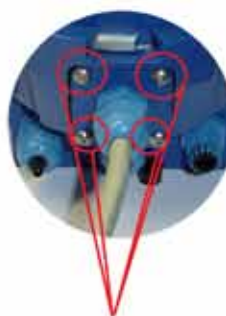
Connecting cables

Close the terminal box



Screw up the terminal box

TRANSMITTER PART



All connection must be properly tightened



Connection to motherboard

5 INSTALLATION OF MODULES



Each module has its own slot in motherboard

Installation of Current Loop

Each module has visual lock



Correct module installation



Cable connection

Setup in user menu-current loop and confirm
go to settings signal and confirm
go to fixed to make verification (10mA), and confirm



Cable connection to the module



If Current Loop module is connected correctly, you can measure 10mA on Output

6 CABLE CONNECTION AND ANTENNA INSTALLATION

Connection to PC by cable

Unscrew the left blind port

Connect the cable to transmitter



Connection to PC via RS232 module



Connect cable to PC to serial RS 232 communication port

Connection to PC via USB module



Connect transmitter to PC with standard USB cable

Connection of antenna (for Bluetooth, GPRS, GSM-SMS modules)



Unscrew the blind port



Screw the antenna and connect antenna to module

7 FIRST POWER OF THE FLOWMETER



After switching on the transmitter the display should appear like this

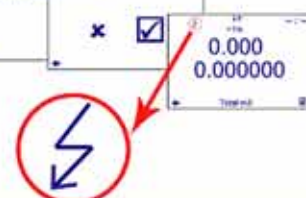


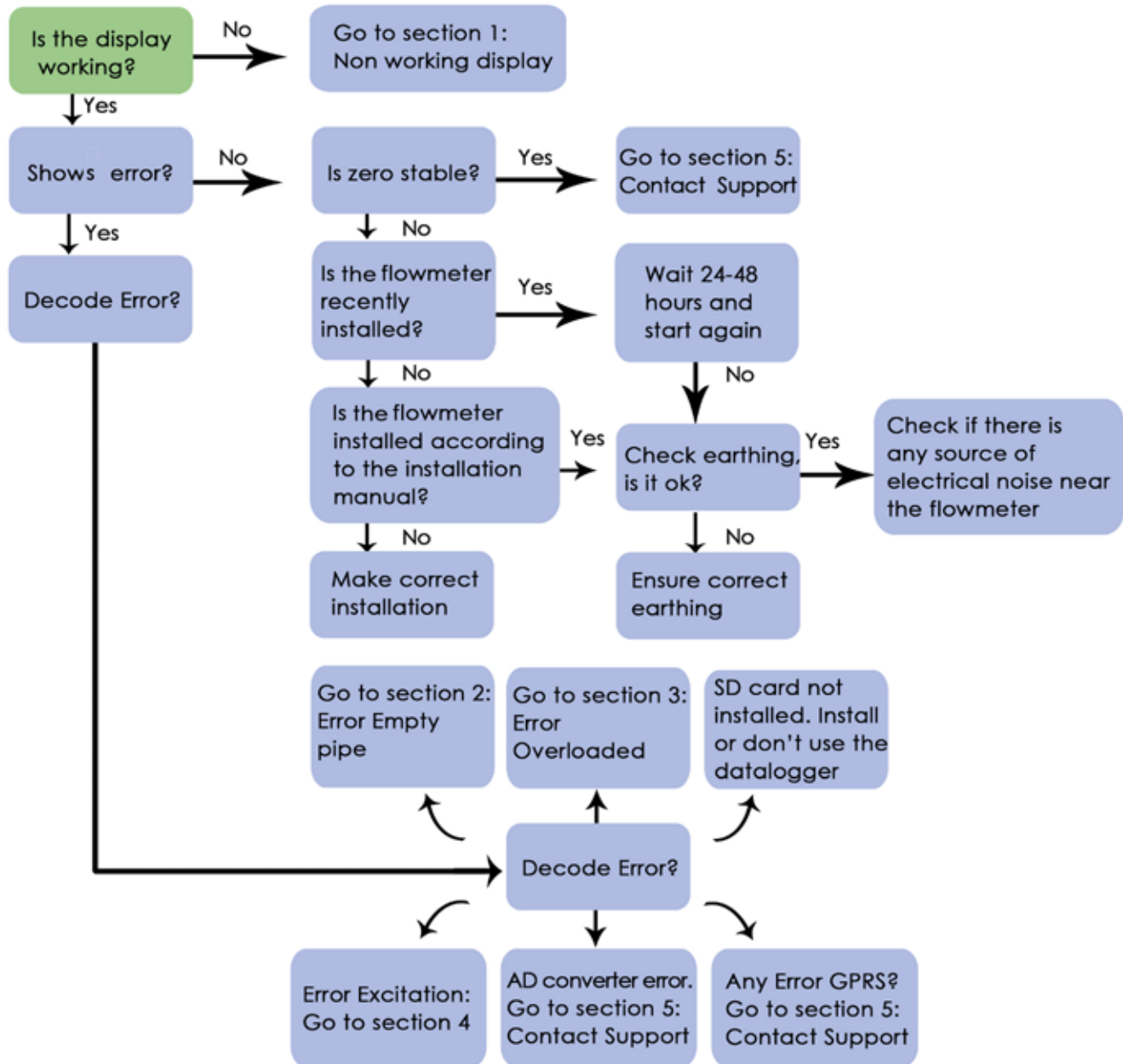
After switching on, run automatic electrode cleaning for about 5 minutes



Wait

Setup in user menu-electrode cleaning and confirm
go to clean time and confirm
set up 300s and confirm
go to start now and confirm
set up confirmation and confirm
than go back to main display.

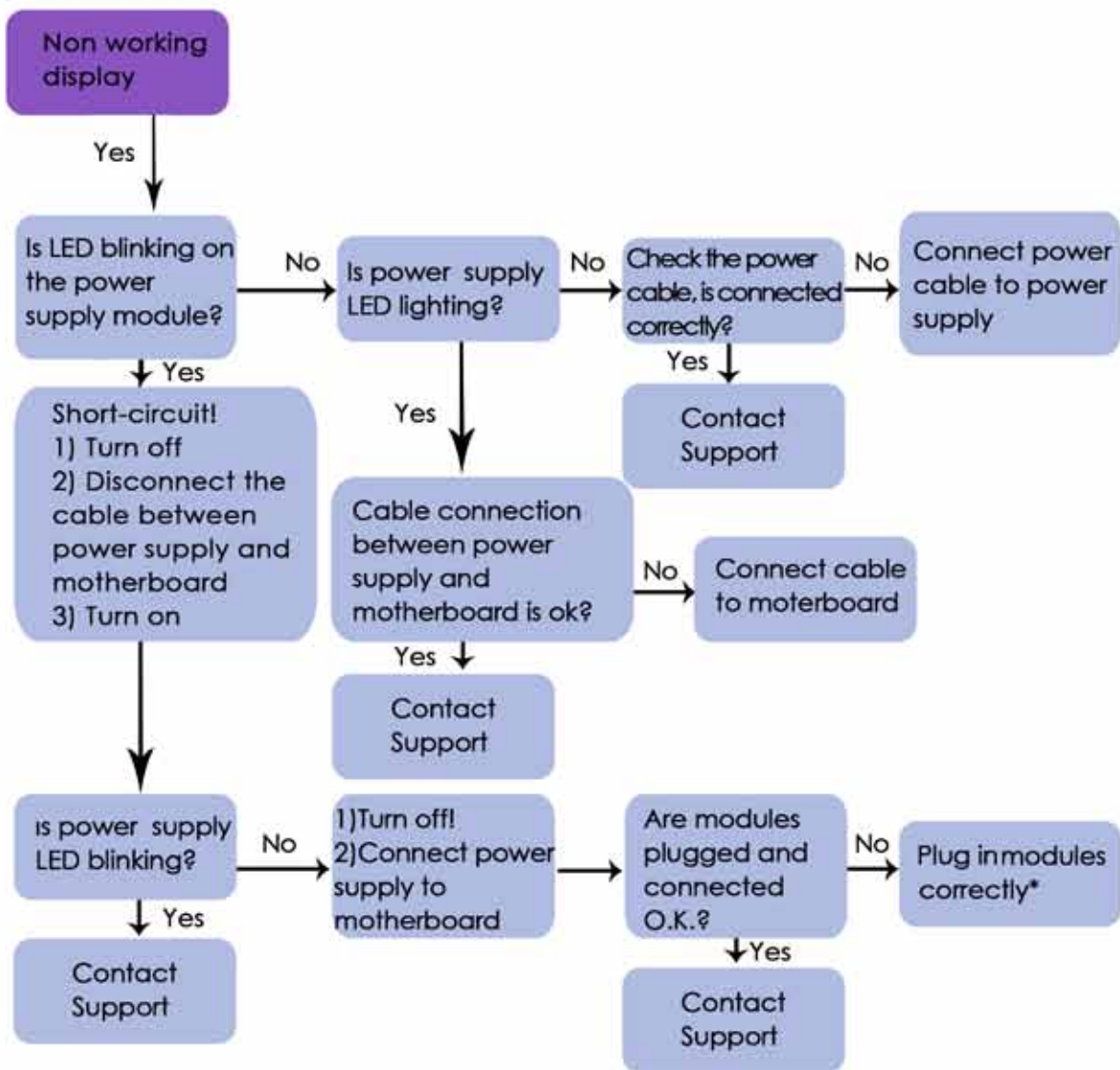




ERROR POSITION	ERROR DESCRIPTION
0	Empty Pipe (Air Detect)
1	Overload
2	Excitation
3	Sensor not responding
4	SD open file
5	SD card not inserted
6	Write Flash
7	ADC
8	GSM SMS Module Timeout
9	GSM SMS Module Low Signal
10	GSM SMS Module Simcard error
11	GSM SMS Module send SMS error
12	GSM SMS Module error
13	Very low or high temperature of the sensor

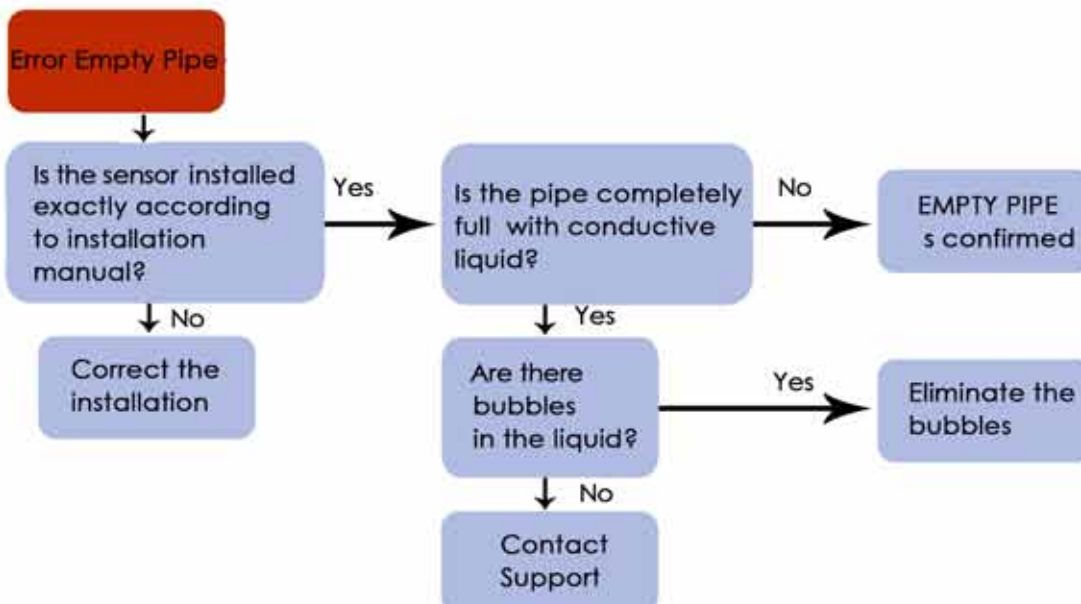
ERROR POSITION	ERROR DESCRIPTION
14	GPRS Communication
15	GPRS CHECK
16	GPRS TIME OUT
17	GPRS RESET
18	GPRS ECHO
19	GPRS SIM PIN
20	GPRS SIGNAL
21	GPRS CALL
22	GPRS IP
23	GPRS ONLINE
24	OVERLOAD 2
25-31	RESERVED (non-use)

Section 1: Non working display

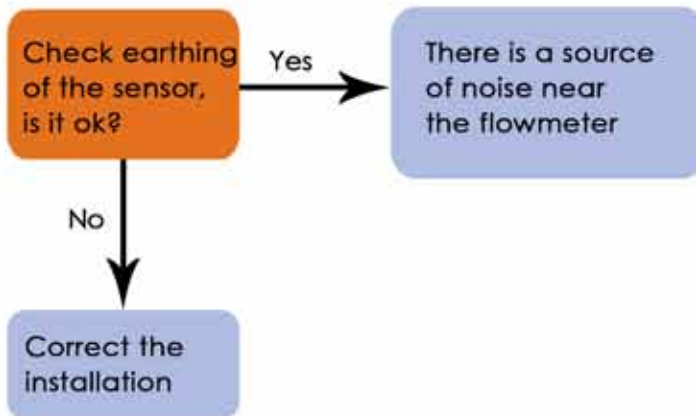


*Turn the power to the flowmeter off, before installation/removal of modules or damage will occur.

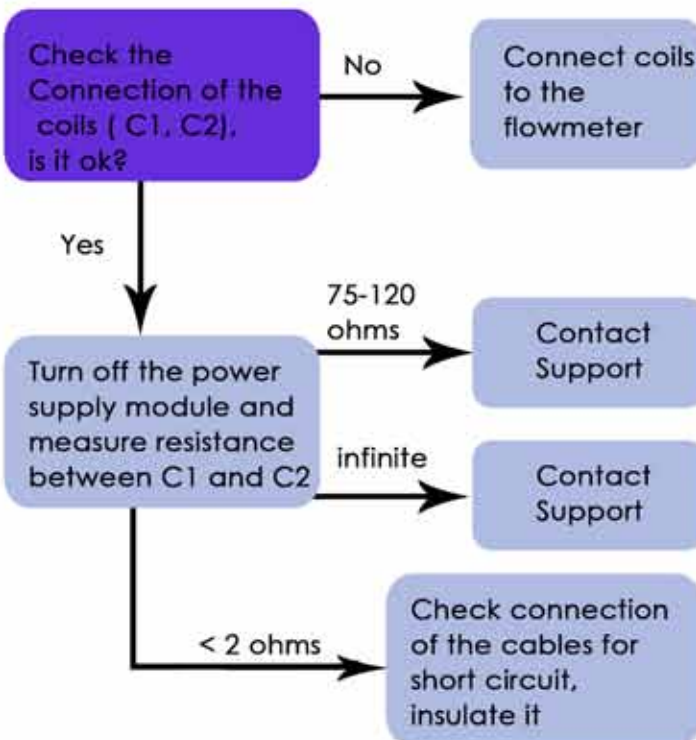
Section 2: Empty pipe



Section 3: Error overloaded



Section 4: Error excitation



Section 5: Contact Support

Information required:

Serial number of the flowmeter, FW version, SW version, Fault description, Photos of installation (if applicable)

Technical support: support@arkon.co.uk

Windows life messenger: support@arkon.co.uk

Phone: +420 543 214 822

