

TOCCARE TROUBLESHOOTING

Possible faults on the panel:

- | | |
|--|--------------------------------------|
| 1. Loop fault | 9. Device conflict |
| 2. Expansion board missing/ not responding | 10. Device mismatch |
| 3. Onering card missing/not responding | 11. Device fault |
| 4. Onekbd missing/not responding | 12. Parameters of apollo devices |
| 5. Power missing | 13. Detector high drift/ dirty |
| 6. Batteries missing | 14. Onering line cut |
| 7. Batteries fault | 15. Noise problems |
| 8. Device missing/ lost communication | 16. Voltage not supplied on the loop |

1) Loop fault

This fault means that there is a cut on the wires or the RET on the board does not sense the signal. Can also be caused by a short circuit on the line.

How to solve it:

Remove the RET cable , and start to see where the devices starts to go missing, the cut is there, so reach said device and check for any interruption.

If this fault appears after, for example, an alarm it means that the signal/voltage of the loop has become too low (for example if there is too much current consumption on the cables).

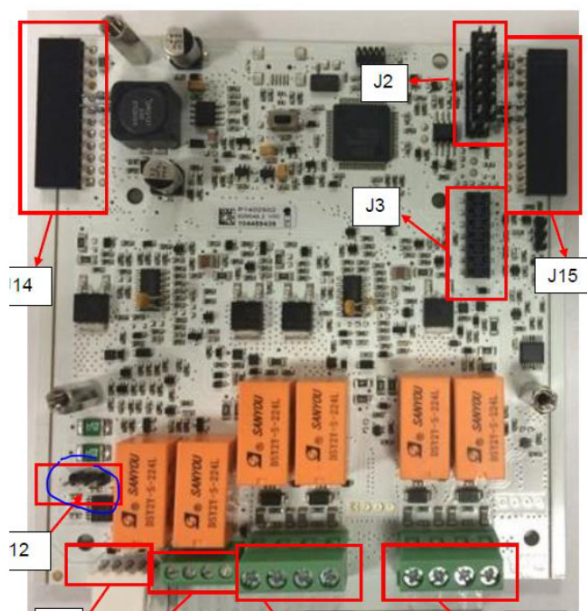
If the fault is caused by a high current consumption: lower it (set the loop powered sounders on a lower level) or consider to divide the loop (to avoid said problem it is suggested to use the loop calculator before designing the system).

Notice: a low loop voltage could also lead to devices missing or commands not functioning properly.

Should you have those issues consider that they could be caused by this kind of problem.

2) Expansion board missing

This means that the expansion board is not responding and is either missing, set incorrectly or broken.



This jumper J12 must be placed on the right side, otherwise the board will not work (as it will be stuck on FW update mode).

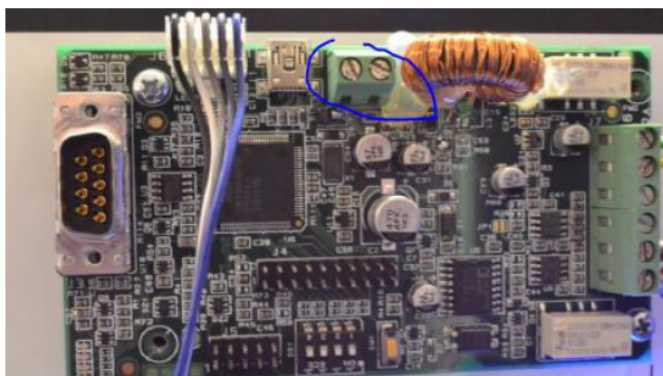
An expansion board can broke if connected when the panel is turned ON or if it get scratched while trying to fit it on the panel. Always connect boards when the system is OFF and be careful while placing it.

3) Onering card missing/ not responding

In this case the onering card is either not powered on, disconnected or broken.

Always check if the board is powered on (AUX – GND pins on the panel usually are used to power it) and if its flat cable are connected to the panel correctly.

The Toccare installation manual also contains info about how it should be installed.

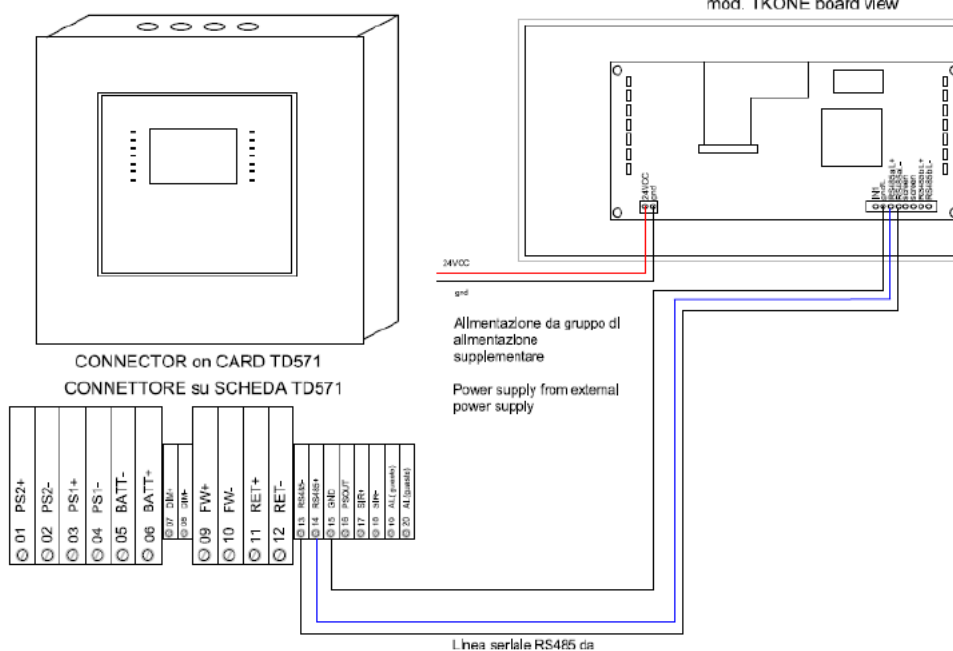
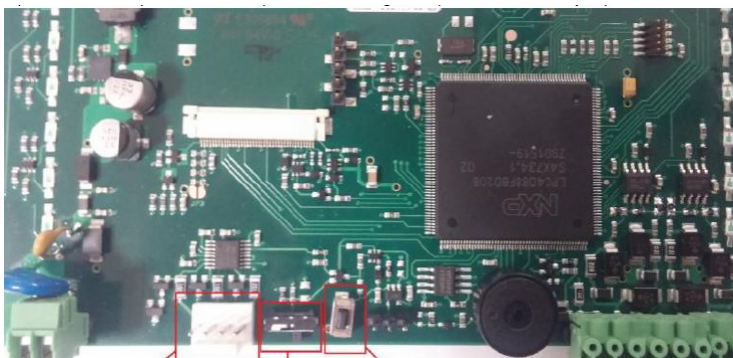


4) Onekbd missing/ not responding

Possible causes:

Power supply missing - dipswitch on board placed to the left (must be on the right side, toward the RS485 pins).

In case the Onekbd is powered externally
No common GND (right connection showed here).



5) Power missing

Problem on the main PSU:
blackout; burned fuse; PS on protection (maybe caused by a short circuit)

6) Batteries missing

Batteries are not seen by the board (check the connections)

7) Batteries faulty

This problem may be caused by a broken battery/batteries. Check their status and see if one the two is damaged.

A way to see if there is a problem would be the following:

- Disconnect the Power supply and leave the system runs for more than 15 minutes.
- After this time check with a tester the voltage on each battery.

Two healthy batteries would have their voltage even between them, but if one has a way higher value than the other, that means there's a damage and a substitution in in order.

You can have this fault also if the cables that connect the main board to the batteries are not tight enough, not allowing a good check of the items.

Additional Information

This battery check is made around every 15 minutes by the panel, that will read the internal resistance of the batteries to see their status.

8) Device missing

A device is missing when it does not respond to the panel.

Causes could be the followings:

- device disconnected
- device not addressed
- wrong protocol used on the panel

9) Device conflict

2 or more devices share the same address.

Their led will turn on so that the technician can find them easily and fix the problem.

10) Device mismatch

Device programmed wrong.

Ex. Opt/therm, detector programmed as just optical.

Simply adjust the settings or, if it is possible, erase it and auto program it again.

11) Device fault

If it is a detector or call point:

- device could be damaged

If it is a module:

- end of line resistance could be missing
- in case of a monitored output could also be caused by the missing external power

12) Apollo parameters

When a system will use Apollo devices is going to be designed, it is important to know which devices are going to be used.

In cases where the devices will be of the same protocol there will be no issues. However there is something to know in case both XP95 and Soteria devices will be used on the same loop:

Addresses
 XP95/Discovery devices MAX 126 addresses = 7 bits used
 Soteria devices MAX 254 addresses (240 on teledataOne) = 8 bits used

What happens when both XP95 and Soteria devices are on the same loop?

Let's say we have an XP95 device with address 1 and a Soteria device with address 129.
 The panel will call the devices using a sort of binary code, so:

0000001 = 1 xp95
 10000001 = 129 soteria

But here is the problem:

The XP95 device is capable of understanding only 7 bits , so when the Toccare calls the device 129 this will happen:
10000001 = 129

The XP95 device will understand the bits in yellow, but ignore the bit in red, thinking then that it is being "called", so you will have 2 devices answering at the same time, giving you a conflict fault.

This means that to avoid this situation, if 10 addresses XP95 are used you need to took out their respective "8 bits version".

Example:

Address 1 and 2 are being used by two XP95 detectors.

This means that we'll have to leave free/available the addresses 129 and 130:

Since 2 addresses are actually used by the detectors and 2 needs to be left free to avoid conflicts, this leave us with 236 addresses available for Soteria devices.

Here's a table with what address must be left untouched when using both XP95 and Soteria devices on the same system:

XP95 ADDRESS USED	NOT AVAILABLE
1	129
2	130
3	131
4	132
5	133
6	134
7	135
8	136
9	137
10	138
11	139
12	140

XP95 ADDRESS USED	NOT AVAILABLE
13	141
14	142
15	143
16	144
17	145
18	146
19	147
20	148
21	149
22	150
23	151
24	152

XP95 ADDRESS USED	NOT AVAILABLE
25	153
26	154
27	155
28	156
29	156
30	158
31	159
32	160
33	161
34	162
35	163
36	164
37	165
38	166
39	167
40	168
41	169
42	170
43	171
44	172
45	173
46	174
47	175
48	176
49	177
50	178
51	179
52	180
53	181
54	182
55	183
56	184
57	185
58	186
59	187
60	188
61	189
62	190

XP95 ADDRESS USED	NOT AVAILABLE
63	191
64	192
65	193
66	194
67	195
68	196
69	197
70	198
71	199
72	200
73	201
74	202
75	203
76	204
77	205
78	206
79	207
80	208
81	209
82	210
83	211
84	212
85	213
86	214
87	215
88	216
89	217
90	218
91	219
92	220
93	221
94	222
95	223
96	224
97	225
98	226
99	227
100	228

XP95 ADDRESS USED	NOT AVAILABLE
101	229
102	230
103	231
104	232
105	233
106	234
107	235
108	236
109	237
110	238
111	239
112	240
113	

XP95 ADDRESS USED	NOT AVAILABLE
114	
115	
116	
117	
118	
119	
120	
121	
122	
123	
124	
125	
126	

13) Detector height drift

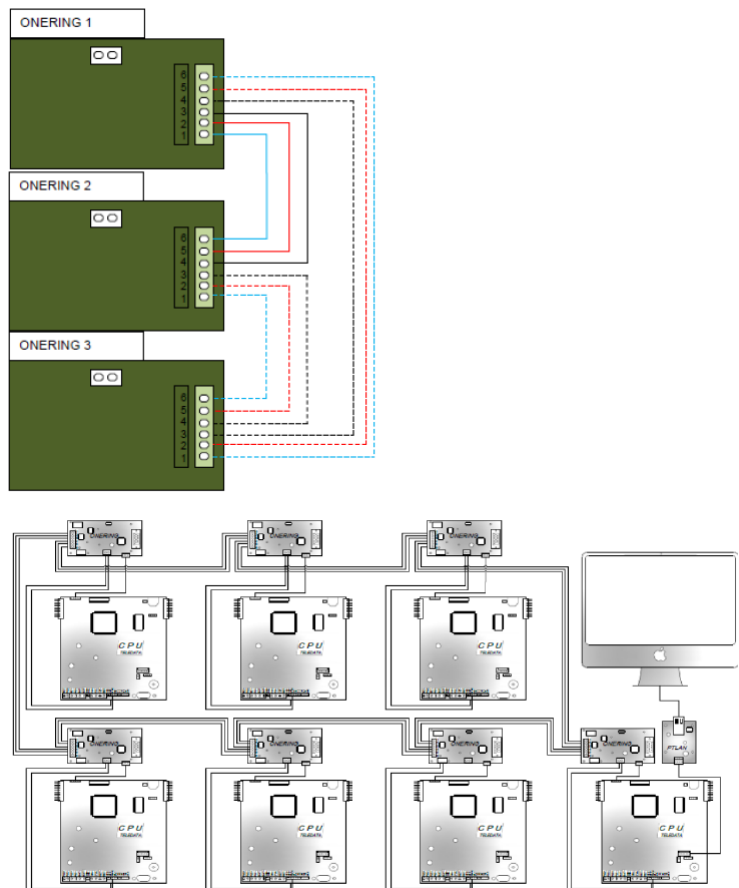
When an optical detector is too dirty it will signal it to the panel, and in the History log this fault will appear.

Clean the detector or change it altogether.

14) Onering line cut

Caused by a cut on the line of the onering connections between the boards, or if the wires are misplaced.

Here some examples of right connections:

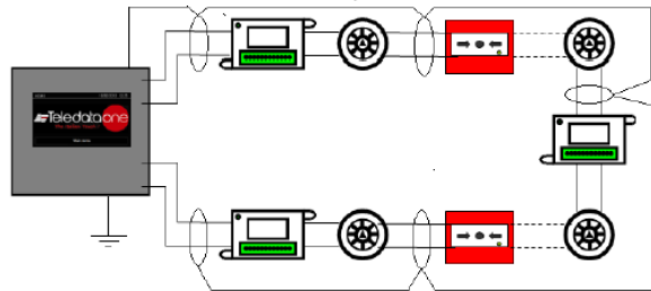


15) Noise problems

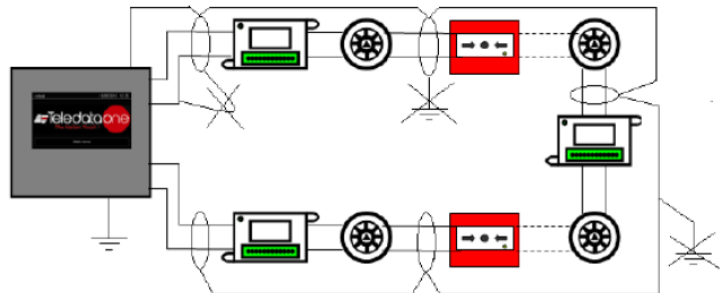
A noise is an external signal that has found its way in the loop, giving problems as mismatch, conflicts, missing devices, high drift or even false alarms.

How to solve it:

- with the shielding of the loops cables
- To guarantee the maximum protection to electromagnetic disturbance, a shielded cable with connection of the shield to ground is advised. Shield must be connected in one side of the metallic box of the panel, must be continuous on all cable, must be insulated from conductor and cannot be connected in other places to ground.



- With a loss of insulation or other connection on ground make the screen protection ineffective, indeed they can amplify the injection of the noise.



A noise could also be an external voltage connected too close to the loops; in those case, momentarily remove any external PSU and check if the problems persist or not.

A way to find where the noise is injected on the loops:

- erase your loop/configuration;
- physically connect just few devices at the time ;
- auto program them and wait, if after few minutes you do not have faults, connect the next few devices.

Proceed this way until you start to have problems. When you do, you will have found the place where the issue is. Investigate the area and solve the issue (could be for example a ground cable touching the loop).

16) No voltage on the loop

Probable causes:

Short circuit between first device and the board; in this case the panel was not protected by any insulator on the devices, so the short is directly on the pins of the board; to avoid sustaining damages, the mother board switched off the loop signal until the issue is resolved and the panel Reset.

Usually in those cases the signal “fault loop – short circuit” will appear.

Other observed causes:

Sometimes, when you modify the protocol of the loops and start right away, for example, the auto programming, the TeledataOne could remain “stuck” and not provide any signal.

To solve this issue you can either Reset from level 2 the panel or if this does not work proceed like this:

Program manually a fake/non existing device and wait for the “missing device” fault. This will signal you that the voltage is back on the loop and is possible to proceed with the auto programming.