

810 Overview

The 6890 GC displays numerous warning and error messages. It monitors the state of its detectors, pneumatics, oven, PC boards and other components. If a problem exists, the 6890 GC displays a message, beeps or activates an LED, and puts itself in a “safe state,” as determined by the nature of the error.

The 6890 GC has six types of error messages. All are described below. The following sections of this chapter contain details for most of the error types.

The 6890 GC also displays messages from equipment controlled by it, such as an automatic sampler. If a message is not in these lists, see the manuals for the attached equipment.

Error message types

Not ready

Not Ready means that some component of the 6890 GC has not yet reached its setpoint and the instrument is not ready to begin a run. When the 6890 GC is in a not ready state, the Not Ready LED lights up but a message does not appear on the display. You can press the [STATUS] button to view a message that explains why the 6890 GC is not ready to begin the run. Not ready messages are recorded in the run log.

Method mismatch

Method Mismatch occurs when you load a method containing parameters that do not match the 6890 GC current configuration. One of two things occur:

- If the parameter that does not match is set from the keyboard, the method overwrites the current parameter and a message tells you that the current parameter has been replaced. For example, if the gas type currently configured differs from the one in the method, the current gas type is overwritten with that of the method.
- If the parameter that does not match depends on hardware, the method is ignored and the current setpoints remain; a message tells you that the method parameter is being ignored. For example, if the method says the front detector is an NPD but you have replaced it with an FID, the method NPD information is ignored and the current FID parameters remain.

Warnings

A Warning means that a problem exists but that the problem will not prevent the instrument from making a run. The 6890 GC emits one beep and a Warning message appears. The 6890 GC can still start the run and the warning disappears when it does. The warning is not recorded in the run log.

Shutdowns

A shutdown occurs when there is a hardware problem that could compromise the safety of the user or damage the instrument. When this occurs, the GC emits a series of warning beeps. After two minutes elapse, the component with the problem shuts down, the 6890 GC emits one beep and a warning message appears. The GC will still be in a ready state. No additional information appears under the [STATUS] key, and the error is not recorded in the run log.

Faults

A Fault message indicates a hardware problem that requires user intervention. Depending on the type of error, the GC will emit no beep or a single beep. The Not Ready LED will light because the GC will not be able to begin the run and an error message will appear. Press the [STATUS] button for more information about the error. The error is also recorded in the run log.

Two special fault messages exist for the following circumstances:

- A pneumatics problem exists for a component configured for hydrogen gas.
- A “thermal runaway” condition exists for the GC oven.

These faults cause the 6890 GC to shut down and beep continuously until you press [Clear].

Bad mainboard and fatal errors

These messages almost always indicate that the mainboard is malfunctioning and must be replaced. These messages are not numbered and usually appear when the instrument is first turned on.