

 DC 9/80 OPERATIONS MANUAL	Fire Protection	I	
	Chapter 8 - 1/4	07/04/20	Rev 1

GENERAL

The fire protection system provides the means to detect and extinguish a fire in the engine nacelles and in the APU compartment.

In addition, aural and visual indications are provided to alert the flight crew that fire or overheat condition exists.

Fire detection and warning system test feature are also provided.

FIRE DETECTION SYSTEMS

Each engine and APU detection system consist of two sensing elements (fire detectors loop A and B) mounted parallel to each other.

FIRE WARNING SYSTEM

The engines fire warning consists of engine fire lights in the Fire Shutoff Handles, fire detector loop light and a bell sounds followed by the words "left (right) engine fire". The Fire Shutoff Handles light identifies which engine has a fire or overheat condition when the bell rings.

The APU fire warning consists of APU fire light, Master Warning light, fire detector loop light, cockpit aural warning consisting of an intermittent horn sound followed by the words "APU fire".

FIRE EXTINGUISHING SYSTEM

The engines and APU fire extinguishing system consists of two fire agent bottles, distribution lines, control circuits and fire agent low pressure lights.

ENGINES AND APU FIRE WARNINGS

FIRE DETECTOR LOOP Light:

ON: Illuminates when any A, B loop circuit is activated.

FIRE DETECTOR LOOP



ANNUNCIATOR PANEL

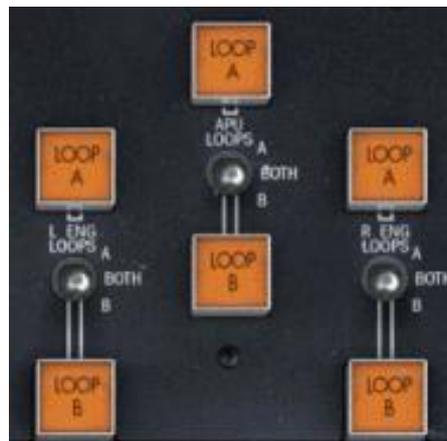
APU FIRE Light:

ON: Indicates a fire or overheating condition in the APU compartments.
Comes ON during the system test.

LOOPS Selector Switch:

A, B: Only the selected loop can activate the Fire Warnings.

BOTH: Both loops can activate the Fire Warnings.



AFT OVERHEAD PANEL

LOOP A, B Lights (Amber):

ON: If selected by the selector switch indicates a fire or overheat condition detected by the sensing element.

Comes ON during the system test.

ENGINE FIRE AND EXTINGUISHER CONTROLS

AGENT (1/2) LOW Lights:

ON: Indicates low pressure in the respective bottle.

LOOP A, B TEST

Button:

When a test button is pressed, a false warning signal is introduced into the respective loop.



**UPPER INSTRUMENT
PANEL**

FIRE BELL OFF

Button:

Click on the button to silence the fire alarm bell and aural warning. The handle light will remain ON until the fire condition is extinguished, and the fire loop deactivates.

ENG. FIRE HANDLE:

PULL: Arms the engine discharge circuit and:

- closes the fuel shutoff valve;
- cuts off the hydraulic system supply;
- closes the pneumatic crossfeed valve;
- trips the generator field relay;
- silences the fire alarm bell

ROTATE LEFT/RIGHT: When rotated (after being pulled) discharges the corresponding fire bottle into the engine compartment.

The fire test can be activated by positioning the cursor over the BELL OFF button and using the left, center and right mouse button respectively as the LOOP A, BELL OFF and LOOP B buttons.

APU FIRE AND EXTINGUISHER CONTROLS

APU FIRE AGENT 1, 2 Switches:

DISCH: Discharges the corresponding freon bottle in the APU compartment provided the APU FIRE CONT switch is in OFF & AGENT ARM.

OFF: the discharger circuit is deactivated.

APU FIRE CONT Switch:

NORM: deactivates the APU fire agent discharge circuits and completes the APU MASTER Switch circuits.

OFF & AGENT ARM: Shuts down the APU without waiting for the 60 seconds cool down period and arms the APU fire agent discharge circuit.



OVERHEAD PANEL