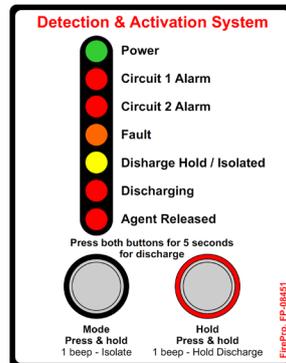


# Fire Detection and Activation System Operating Procedure

## KiwiRail EF Loco

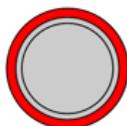


KiwiRail EF Locomotives are equipped with a FirePro Fire Suppression system. The suppression system is designed for automatic activation however does allow for operator override if required.

FirePro Fire Extinguishing Aerosol Generators use the latest generation FPC solid compound. Upon activation, the solid compound is transformed into a rapidly expanding, highly efficient gas, based on Potassium salts. It does not deplete oxygen levels, however does discharge as a cloud of white gas/smoke. Visibility within the protected area will be reduced. All personnel should evacuate protected areas prior to discharge when the siren/strobe alarms are operating.

### If a fire occurs, equipment operators should do the following:

1. Detection will initiate an alarm condition on the FirePro System. This will display as a solid RED light on the cabs control panel Circuit 1 Alarm. Installed Sirens/Strobes will be operating.
2. Evacuate all personnel from the risk area. Alert Fire Brigade.
3. Locomotive engineers will have 30 seconds in which to press the **RED** hold button on the control panel to **STOP/HOLD** automatic operation of the system.



**Hold**  
Press & hold  
1 beep - Hold Discharge

While in hold mode the fire suppression system can still be operated manually at any time. **The hold button should only be pressed if the automatic activation and system shutdown presents issues to health and safety.**

4. If system discharge is allowed to go ahead uninterrupted the suppression system will discharge after 30 seconds. System shutdown will occur just prior to suppression system discharge.
5. If hold mode is initiated during discharge the system can be operated manually as per point 7 or the Locomotive engineer can press and hold the **RED** hold button again until one beep is heard. At this point the system will restart its activation delay as per point 3.

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6. Where possible close all hatches and openings, and shutdown engines and any extraction fans or vents.
7. **Manual Activation:** Press and hold **BOTH** mode switches continuously for 5 seconds to activate the system.

Press both buttons for 5 seconds  
for discharge



8. **Automatic Activation:** The control panel will automatically begin the activation sequence when fire has been detected on **Circuit 1 Alarm**.
9. Keep the FirePro suppression gas within the risk until the fire is extinguished and not able to re-ignite.
10. Do not start engine or fans until the fire is extinguished. Operating the exhaust fans will enable the gas to escape the risk area and could allow the fire to re-ignite.
11. Do not enter the risk until it has been rendered safe.