



The Sandvik mobile fire protection timer type 69-335-311 upgrade is contained in a small splash proof (to IP65) ABS box, mounted via 2 screw head capture mounting points and contains a nominal 6 second microprocessor controlled electronic lockout timer with a manual override key switch, also to IP65. It detects loss of fire system pressure as sensed by an external pressure switch and then operates an external ignition relay to shut the vehicle motor down after the nominal 6 second delay. A further set of contacts that go to ground are available for a Caterpillar type shutdown operation. The onset of this delay period causes an internal 90 dB at 1 metre piezoelectric alarm to sound to warn the operator. Again, the Piezoelectric Alarm is protected to IP65.





If it is desired, the operator can extend the lockout delay state via the red Push to Bypass waterproof panel switch by a further 20 second period. It is suitable for gloved operation. After the system finally times out, provision is made for a key operated switch to manually override the lockout state. This allows the machine to be moved for service while the key switch is operated. Once the key switch is released, the timeout period starts again, the alarm sounds and after 6 seconds the ignition relay is operated to shut the motor off. All these times are software controlled, adjustable easily by the factory and quartz crystal locked for precision.

Once a system discharge has occurred and the system has then subsequently been repaired, the protection timer can be reset from its locked out state by simultaneously pressing the Red reset button and operating the key switch for a moment.

As a further refinement, another pressure switch input is provided that monitors the agent container pressure. Should this pressure drop below the safety level, a different warning alarm sounds, an amber daylight visible LED lights, (LOW PRESS.) and a clean set of relay contacts shut that can be used to operate an external alarm for example.

- The DC input to the timer (Red) is reverse polarity protected, by passed for injected Radio Frequency Interference (RFI), protected against vehicle transients and is fully filtered against alternator noise. It can be supplied either from a 12 Volt or 24 Volt DC systems.
- The System Discharge pressure switch input (White) is similarly protected against RFI and transients, and is impedance protected as well. In normal operation this point is grounded. Opening the circuit causes the internal electronic timer to count down from 6 seconds. During this time the alarm sounds. At the end of this time the ignition turns off. The system state is shown by a green (CHARGED) and a red (DISCHARGED) Light emitting diode. The light emitting diodes are all daylight visible.
- The drive to the fuel solenoid is from an independent internal relay and is fused via the front panel. The three internal relays are all Matsushita quality parts, rated at 10 amps DC each.
- Input/output is via a Deutsch type locking waterproof connector. The mating connector and its tail are supplied.
- Mounting is by a screw head capture mounting slot .





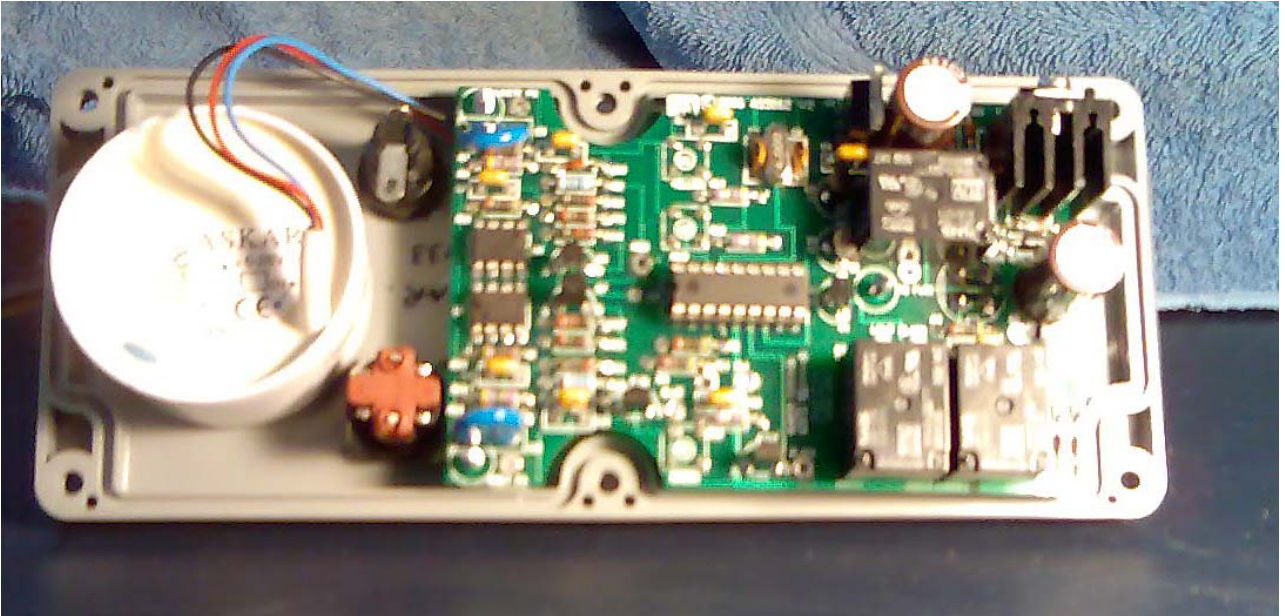
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