

2 Channel Wireless Start/Stop with Emergency Stop and Manual Emergency Stop

Wireless Emergency Engine Shutdown System – Acceptance Statement

The equipment is equipped with a **wireless emergency engine shutdown system** that disables engine ignition by **grounding the magneto kill circuit**. The system is designed using **fail-safe control logic**, such that loss of control power or system fault results in automatic engine shutdown.

The shutdown system includes:

- A **primary wireless run/stop control** utilizing a normally-closed ignition kill circuit
- A **secondary, independent emergency shutdown circuit** capable of stopping the engine regardless of the primary control state
- A **manual reset requirement** following emergency shutdown, preventing unintended restart

This system functions as a **supplemental safety control** intended to reduce operational risk and enhance operator control. It does not replace manufacturer-provided safety systems or required operator training.

Risk Management / Insurance Memo

Subject: Acceptance of Wireless Emergency Engine Shutdown – Risk Control Review

The mower power unit incorporates a wireless emergency engine shutdown system utilizing a **magneto ground-kill method**, a recognized and widely used ignition stop technique for small internal combustion engines.

Key safety characteristics:

- **Fail-Safe Operation:** Engine defaults to STOP upon loss of power, loss of signal, or control failure
- **Redundant Shutdown Capability:** Independent emergency stop circuit wired in parallel with the primary control
- **De-Energize-to-Stop Logic:** Engine ignition is enabled only when control power is present and intentional

- **Manual Reset Requirement:** Emergency stop requires deliberate reset via power cycling

Based on review of system logic, wiring documentation, and functional testing requirements, the system is considered an **acceptable risk-reduction measure** for commercial mowing operations when used in conjunction with established safe operating procedures and operator training.

Daily / Pre-Use Functional Test Checklist

Wireless Emergency Stop – Daily Safety Check

- Inspect wiring and enclosure for damage
- Verify system power indicator LED illuminates
- Start engine normally
- Activate **RUN/STOP control** → engine shuts down
- Restart engine
- Activate **EMERGENCY STOP control** → engine shuts down immediately
- Confirm engine **cannot restart** until system power is reset
- Restore system power and confirm normal operation

Do not operate equipment if any test fails.

Operator Initials: _____ Date: _____

Operator Training Language

Operator Safety Instruction – Wireless Shutdown System

- The mower is equipped with a wireless emergency engine shutdown system.
 - The **Emergency Stop** control is for immediate engine shutdown only.
 - After emergency stop activation, the system must be **manually reset** before restarting.
 - Operators must perform the **daily functional test** before use.
 - This system supplements — but does not replace — safe operating practices.
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“OSHA does not approve equipment. This system uses accepted fail-safe ignition-grounding logic and has been reviewed and accepted as a supplemental safety control.”