# **Technical Description of Unit**

#### **DESCRIPTION:**

The Farm Alert's function is to provide the farmer with a wireless lighting system for use on agricultural implements. The Farm Alert system consists of two separate units, the keypad unit, and the taillight unit. The keypad unit sends RF signals to the taillight unit and the taillight unit in turn sends a signal back as a confirmation that the signal was received. Pressing a selected button on the keypad unit will activate each signal. Lights on the keypad unit will indicate that a function has been sent and received. The signal lights on the taillight unit will continue to operate until the function is canceled by selecting the same corresponding button. The keypad unit can operate up to 100 feet away from the taillight unit.

The Farm Alert system is powered by 4 standard "D" size and one 9V batteries that are easily obtained at any convenience store. The battery life is approximately 200 hours of normal operation at 25° C with alkaline batteries. There are two low battery warning light's located on the keypad unit that will indicate a low battery condition for both the keypad unit and the taillight unit. Each unit is designed to withstand a temperature range between -20° C and +50° C. The keypad unit and the taillight units are both designed to withstand impact and vibration loading and to protect the electronic components from wind, water and dust.

#### **MECHANICAL SPECIFICATIONS:**

The mechanical system is made up of 2 assembled parts. One part is a hand held keypad unit that can be mounted in the cab of the vehicle. The second is a taillight unit that can be mounted on the rear of the implement under tow. Both units are designed to withstand impact and vibration loading and will protect the electronic components from the elements.

#### Keypad unit:

**Temperature range:**  $-20^{\circ}$  to  $+50^{\circ}$ 

**Height: 3.1"** 

Width: 7.3"

Weight: 250g

#### Taillight unit:

**Temperature range:**  $-20^{\circ}$  to  $+50^{\circ}$ 

**Height: 4.3"** 

Width: 72"

Weight: 1950g

## **ELECTRICAL SPECIFICATIONS:**

## Keypad unit:

**RF Range:** 100 Ft

**Battery type:** One 9 volt

**Battery life:** Approximately 200 hours of normal operation at 25° C with alkaline

(under use) batteries.

### Taillight unit:

**RF Range:** 100 Ft

**Battery type:** Four D cell's

**Battery life:** Approximately 200 hours of normal operation at 25° C with alkaline

(under use) batteries.

A low-battery detector is built into the keypad/taillight system. There are lights on the keypad unit to indicate a low battery condition for both the keypad unit and the taillight unit. Each unit is designed to withstand a temperature range between  $-20^{\circ}$  C and  $+50^{\circ}$  C. Both the keypad unit and the taillight unit are also designed to withstand impact, vibration and to protect the electronic components from the elements such as wind, water and dust.