

# Warrick<sup>®</sup> WK1 & WK2 Kits

## Installation and Operation Bulletin

<u>Important</u>: Completely read and thoroughly understand these instructions before proceeding to install and wire the control.

Mount Nema enclosure on wall or other solid structure. The maximum distance between the enclosure and the location of the electrodes is 2,200 ft. Two enclosure conduit hubs are provided: one for the 120 vac. power supply and the other to make the electrode connections.

A terminal strip is provided for all high voltage connections *(as shown on electrial installation drawing)*.

## 120 vac. Power Supply/Load Connection:

Wire SUPPLY power leads to terminals "C" and "1" and the LOAD connections to terminals "T2" and "TC".

#### 240 vac. Power Supply /Load Connection:

Wire SUPPLY power leads to terminals "C" and "2" and the LOAD connections to terminals "T1" and "TC".

To install low voltage wire electrode leads, a pack of three 3/16 in. spade terminal connectors, three 3W electrodes and 50ft of 3Z1A suspension wire are provided with this control box . Assemble electrodes per instructions supplied with electrode (Form 207). With the 3/16 in. spade terminals securely crimped to electrode wire leads, connect as shown on electrical installation drawing. Additional wire can be ordered from your local distributor. **(Order using part number 3Z1A.)** 

Wiring must be provided to the electrodes as shown on electrical installation drawing. The wiring for electrodes should be 14-16 AWG insulated wire installed in a separate dry metallic conduit. Suspension wire provided (50 ft) is used for suspending electrodes in the well. The



ground reference electrode is to be wired to terminal "G" of the level control spade terminal or must be grounded to the vessel, *if metallic.* If the electrode fitting used has a metallic body and is supported directly upon a metallic vessel, the ground connection is facilitated by securing that end of the ground conductor beneath the head of one of the screws which fasten the terminal housing to the body of the fitting. When the vessel is non-metallic, terminal "G" must be connected to an additional electrode of length equal to, or longer than, the longest electrode.

The Low electrode is to be wired to spade terminal "L" of the level control. The High electrode is to be wired to spade terminal "H" of the level control. **Primary branch circuit protection is provided by others.** Please refer to Articles 240 and 430 of the National Electric Code before installing. **Note**: All wiring shall be in accordance with the National Electrical Code.

#### Parts List

**Tools Required** 





Screwdriver

**Crimping Pliers** 

#### **Electrical Installation**

## **Operating Instructions**

### Series WK-1 (Fill Mode)

The 19MRDO level control is an **"INVERSE"** mode control. When supply power is applied to this control, the control will energize, associated powered load contacts will be energized and the LED will be on. When the level rises to electrode "H"(high electrode), the level control will de-energize (load contacts de-energized) and the LED will be off. The LOAD contacts will remain de-energized until the level recedes below the low electrode "L", at which time the control will energize and the led will be on until the level rises to the "H" electrode.

#### Series WK-2 (Empty Mode)

The 19MRBO level control is a **"DIRECT"** mode control. When supply power is applied to this control, the control will not energize and associated powered load contacts will be de-energized and the LED will be off. When the level rises to electrode "H"(high electrode), the level control will energize (load contacts energized) and the LED will be on. The LOAD contacts will remain energized until the level recedes below the low electrode "L", at which time the control will de-energize and the led will be off.





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