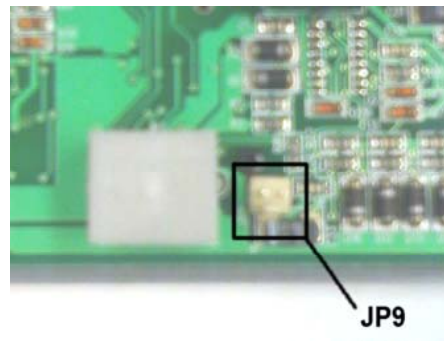


## ULTIMETER MODELS 2100 & 2000 EXTERNAL ALARM OUTPUT SPECIFICATIONS




### GENERAL

The *ULTIMETER* 2100 and *ULTIMETER* 2000 include an External Alarm Output connection, so that a weather data alarm (such as high wind speed, or low temperature) can be used as a control signal for an external device, such as a siren or emergency light. Connecting to the External Alarm Output requires the use of the *ULTIMETER* External Alarm Output Cable (p/n WSP-04017) or equivalent.

The External Alarm Output Connector is mounted on the circuit board of the *ULTIMETER* 2100 and *ULTIMETER* 2000 keyboard displays. It is a two-pin header designated “JP9” in white silk-screened letters, located on the right side of the large modular jack near the lower edge of the circuit board. To access JP9, the keyboard housing must be opened as follows: 1) remove the battery cover and 9v backup battery; 2) place your finger inside the battery compartment; 3) pull down on the corner of the housing back to release the corner latch, just enough to pull the housing back away from the housing front, and open the keyboard. Use care not to damage the wires from the battery contacts and piezo buzzer.



### DESCRIPTION OF OPERATION

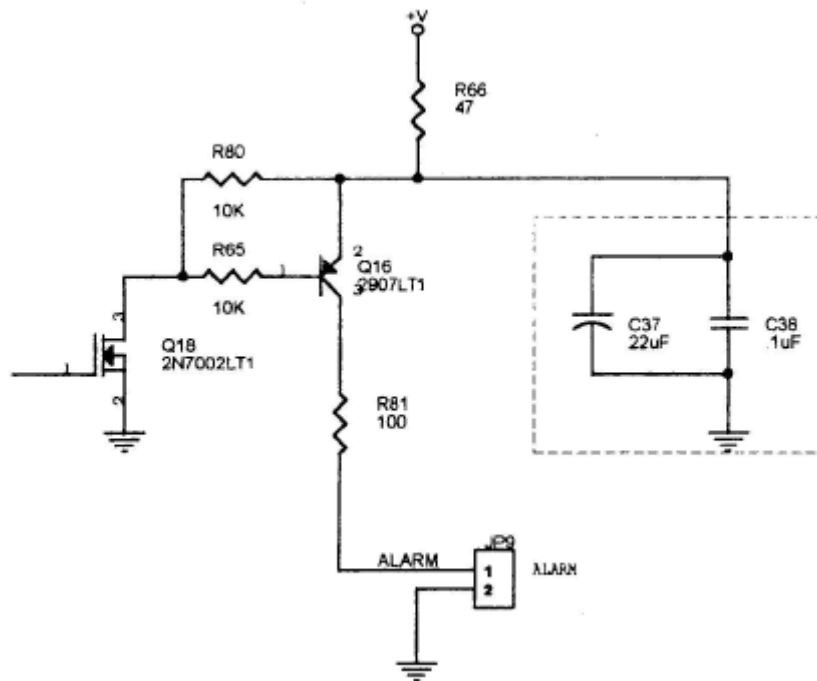
- The normal voltage across JP9 pins is 0v.
- When an alarm condition is reached (ref. Owner's Manual, ch XI. Alarms), the voltage across the pins of JP9 goes high (+9vdc), and remains high.
- The keyboard's audible alarm sounds for 30 seconds, and the LCD display flashes.
- When the clear key  is pressed and released, the current alarm is cancelled, the voltage across the pins of JP9 returns to 0vdc, but the alarm condition remains on the display until any other weather data button is pressed. The alarm remains set, so that alarm will sound if the alarm condition recurs.
- If the clear key  is pressed and held, the current alarm becomes disabled, and will not sound again unless activated (ref. Owner's Manual, ch XI. Alarms)
- NOTE: the voltage across JP9 will remain high after an alarm condition is reached, until the clear key  is pressed.

### EXTERNAL ALARM OUTPUT SPECIFICATIONS

- **JP9 Voltages:** No Alarm 0v Alarm Condition +9v
- **JP9 Current:** 60mA maximum
- **JP9 Dimensions:** 2-pin header, 0.1 inch pitch, .025"x.028"x.25" (.66x.68x6.25mm)

## TYPICAL APPLICATION

The **ULTIMETER** External Alarm Output is typically used as a control signal for a solid-state relay, which in turn supplies power to an additional alarm device circuit.



**Note: Q18 pin 1 is connected to the Alarms port of the MPU.**

Following is a schematic representation of a typical solid state relay. In this case, pins 3 and 4 of the SS Relay would be connected to pins 1 and 2 of JP9, respectively.

