

## NOTES :

### GENERAL

OUTPUT TO THE INSTRUMENT FROM THE PREAMP IS UNITY GAIN, INVERTED POLARITY.

WHEN A COMBINATION ELECTRODE IS USED, REFERENCE CONNECTION IS MADE THROUGH THE BNC CONNECTOR.

IF A SEPARATE REFERENCE CELL IS USED, CONNECT IT TO TERMINAL 5 OF THE PREAMP, AND LEAVE THE WIRE IN PLACE FROM 5 TO SC.

### TEMPERATURE COMPENSATION

NORMAL 7083 TC IS ACCOMPLISHED WITH A NEGATIVE COEFFICIENT THERMISTOR THAT READS 8.5KΩ AT 25°C, CONNECTED AS SHOWN.

THE V1 AMPLIFIER CAN PERFORM AUTOMATIC COMPENSATION USING A 3KΩ AT 25°C BALCO ELEMENT, WITH A SLOPE OF +13.5Ω/°C. HOWEVER, IT IS PREFERABLE TO USE THE 8.5KΩ ELEMENT TO ENABLE THE 7083'S FULL CONTROL CAPABILITIES, SO THE AMPLIFIER SHIPS WITH A 3.01KΩ RESISTOR BETWEEN TERMINALS 4 AND 5. IF YOU WISH TO USE A 3KΩ BALCO ELEMENT, THEN THE 3.01KΩ RESISTOR MUST BE REMOVED, AND THE BALCO CONNECTED IN ITS PLACE. THEN PLACE AN 8.5KΩ RESISTOR ACROSS SC AND TH TERMINALS IN THE 7083 INSTRUMENT CASE.

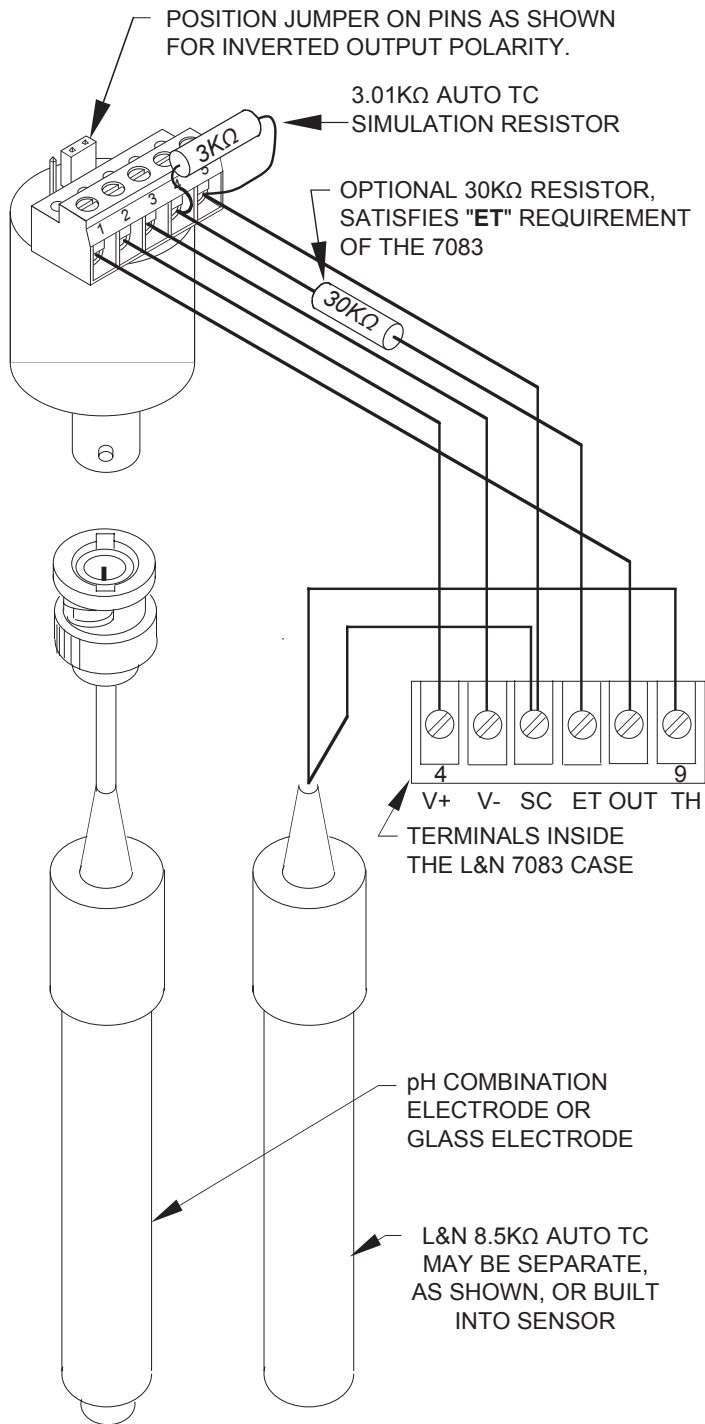
ONLY ONE AUTO TC CAN BE USED AT ONE TIME. REPLACE THE UNUSED ONE WITH A FIXED RESISTOR HAVING THE SAME VALUE AS THE UNUSED ELEMENT AT 25°C.

### ELECTRODE TEST FEATURE (ET)


THE 30KΩ RESISTOR SIMULATES THE "ELECTRODE TEST" FUNCTION OF THE INSTRUMENT. IT MAY BE NECESSARY TO ADJUST THIS VALUE SLIGHTLY. OR, YOU CAN DISABLE ET AT THE INSTRUMENT KEYPAD. SEE 7083 MANUAL FOR INSTRUCTIONS.

### SHIELDING

DON'T LET ANY OF THE LEADS, OR THE BNC CONNECTOR TOUCH METAL PIPING, CONDUIT, OR OTHER EARTH GROUNDS. THIS WILL CREATE A "GROUND LOOP" AND CAUSE VERY UNSTABLE READINGS.



NOTES UNLESS OTHERWISE SPECIFIED:

		11751 Markon Drive	
		Garden Grove, CA. 92841 USA	
DRAWN <b>BOB HUNT</b>		TITLE <b>V1 PREAMPLIFIER WIRING</b>	
CHECKED		<b>L&amp;N SERIES 7083</b>	
APPROVED	SCALE <b>NONE</b>	DRAWING NO.	REV.
	SHEET <b>1 OF 1</b>	<b>V1-7083</b>	<b>B</b>
		phone: 714-895-4344	fax: 714-894-4839