

Option 36 has two counters. The first is a 6 digit Totalizing Counter that is incremented by an external input. The second is a Limit Enable Counter that controls the output of Limit Switch 16. Option 37 is identical to Option 36 except that 32 Programs are available.

A) TOTALIZING COUNTER

- A.1) The Totalizing Counter counts the number of negative [Logic 1 to 0] transitions on Input 2. The input is debounced for 100 mSecs. to eliminate the potential of false triggering by noise. Consequentially, any signal shorter than 100 mSecs. will be ignored. This means that the highest input frequency is 600 PPM.

A.2) LOGIC LEVEL INPUT VOLTAGES:

INPUT 2 is on Pin 1 of the J1 Connector.
INPUT 2 is also found on the Mech. Relay Board on pin 2 of TB8.
A Logic [1] is defined as a 3 to 15 Volts.
A Logic [0] is defined as a 0 to 1 Volts.
All voltage measurements are referenced to pin 16 of the J1 Connector, which is also pin 9 of TB8 on the Mech. Relay Board.

A.3) Viewing the Totalizing Counter:

- a) Pressing the [T/C] Key, [Function LED "on"] will change the display to "T.C. xxxxxx" where xxxxxx equals the number of counts in the Totalizing Counter.
- b) Pressing the [CLEAR] Key while displaying the Totalizing Counter will reset the Counter to zero.

A.4) Initialization of the Counter on Power Up:

- a) The value of the Totalizing Counter is stored in non-volatile EEPROM Memory on power down.
- b) On Power Up, the value of the Totalizing Counter is recalled from EEPROM Memory and is incremented from that value.

B) LIMIT ENABLE COUNTER

B.1) The Limit Enable Counter tracks the total number of internally activated dwells on Limit Switch 16 and enables the output of Limit Switch 16 for one dwell when a preset number of activated dwells is reached. The Counter will then reset to Zero and will begin counting the internally activated dwells again. If Limit Switch 16 has one dwell programmed into it, the Limit Enable Counter will function as a revolution counter, enabling the output of Limit Switch 16 after a programmed number of revolutions.

B.2) Programming the Preset Number:

The unit must be in PROGRAM MODE:
See Sections 12.1 or 12.3 of the manual.

- a) Pressing the [B] Key, [Function LED "on"], will change the display to "L.16/ON xx" where xx equals the present Preset Number.
- b) Use the [digit] keys to enter the required Preset Number. The range of numbers is 1 to 99.
- c) Press the [ENTER] Key. The cursor will disappear and the Preset Number will be entered into memory. If the Preset Number equals 1, the output of Limit Switch 16 will be activated on every dwell.

B.3) Viewing the Enable Counter:

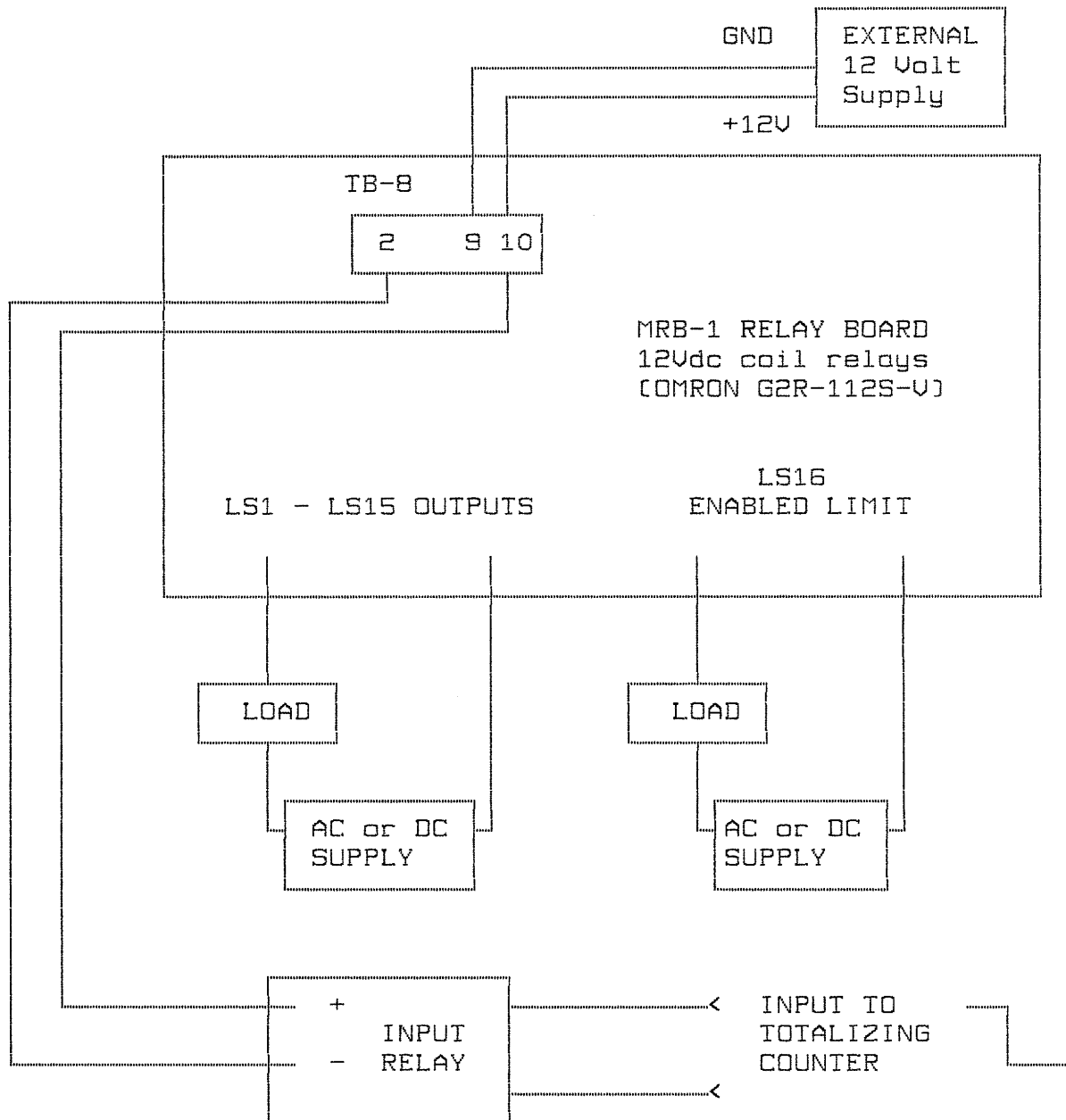
- a) Pressing the [A] Key, [Function LED "on"], will change the display to "L.16 CNT. xx" where xx equals the present Enable Count.
- b) Pressing the [CLEAR] Key, while displaying the Enable Counter, will reset the Enable Counter to Zero.

B.4) Initialization of Counter on Power Up:

- a) On Power Up, the Counter is reset to zero. If the Transducer position on power up is within a dwell on Limit Switch 16, then the Enable Counter will be incremented to 1.

10\18\89

TYPICAL MRB-1 RELAY BOARD CONNECTIONS



NOTE: The external power supply **must** be connected to **Pins 9 and 10 of TB8** to insure the proper operation of the relays. **Pin 9 of TB8 is Ground and Pin 10 of TB8 is +12 Vdc. These connections must not be reversed.** The Power Supply should have an earth ground lead in its power cord that is connected to the System Ground Bus.