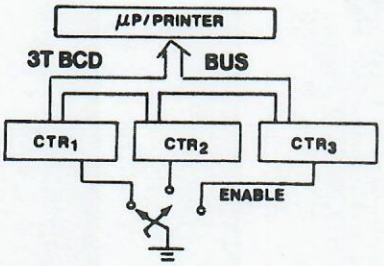
MODELS 807 & 809

UP/DOWN CLOCKS CONTROLLERS

With Preset and Limit

FEATURES

- 59:59.99 (60 Minute) 807
- 99:59:59 (100 Hour) 809
- 6 Digit 1/2" (13mm) Display
- Latchable Preset
- Latchable Limit
- Latchable Overflow
- 3T BCD, TTL or CMOS
- Schmitt Trigger/Debouncer
- Relay Outputs
- Splash Proof Cover
- 1/4" DIN Aluminum Case



DESCRIPTION

The 807 and 809 combine the Main Frame of the 800, the time base of the 805, special format display and a custom masking on the main LSI Chip. The flexibility of the 800 Main Frame and the accuracy of the 805 time base are used to build a reliable process clock controller. Please refer to the Model 800 on pages 1 to 3 for detailed information. The Counter Preset Switches give added flexibility to the 807 and 809 for fast time setting. The Limit Switches, as the Counter Preset, give a constant visual indication of the two major parameters on a clock.

Automatic Start, Stop, Slow Down, Reverse, Reset is easily accomplished by means of external jumpers on rear edge connector. Logic, Relays and "3T" BCD Output interface the 807 and 809 to the real world for controlling purposes.

CONNECTIONS

The same basic connections described on the 800 (see pages 1 to 3) apply to the 807 and 809 except that five internal time bases are generated. Depending on the model used, external connection to the counter input (18A) must be made from either 16B (1Hz) for Model 807 or from 17B (100 Hz) for Model 809 or from any external souce CMOS compatible. Of course, the 807 and 809 can be used as down clocks by simply grounding Pin 19A (Up/Down).

ORDERING INFORMATION

MODEL XXX X X X

MODEL FORMAT
807 (59:59.99 Minutes)
809 (99:59:59 Hours)

BCD
0 . . . . No BCD
1 . . . . TTL BCD
1 . . . . CMOS BCD

0 . . . . Standard

POWER SUPPLY/RELAYS
0. . . . No. Power Supply (12 Vdc only)
1. . . . 12 Vdc and Relays
2. . . . A.C. Power Only (115/230 Vac)
3. . . . A.C. Power and Relays
4. . . . 12 Vdc and Triacs
5. . . . A.C. Power and Triacs
X. . . . Special (Specify)

SPECIFICATIONS

- Input Frequency ..... dc to 5MHz
- Input Level ..... CMOS Logic < 3V, Logic "1" => 6V
- Count Pulse Width ..... 400µs Min.
- Hold Pulse Width ..... 3µs Min.
- Reset Pulse Width ..... 3µs Min.
- Up/Down Setup Time ..... 1µs Min.
- Limit & Preset Load Time ..... 500µs Minimum
- Inputs Source Current ..... 250µA Nominal
- Equal Pulse Width ..... 5µs Min.
- Zero Pulse Width ..... 5µs Min.
- Carry Pulse Width ..... 5µs Min.
- Power Requirements ..... 12Vdc ± 10% @ 150mA
- Operating Temperature ..... 0 to +60°C
- Storage Temperature ..... −20 to +80°C
- Time Base 100 KHz Crystal Oscillator
- Time Base Accuracy ..... ±0.005%
- Time Base Stability ..... ±0.001%/°C

INPUT DEBOUNCER

Input Source Current 750µA
Input Capacitance 5pF
Input-Output Delay ..... 4 Clock Pulses after Last Bounce
Clock Frequency Vs Cx (internal) ..... f=A/Cx.
A = 1/3 Vcc. Cx in pF, Ex 50000 pF = 40 mS Delay

LATCHED OUTPUTS

Output Logic Level ..... "0"<3V; "1" >6V
Propagation Delay 1µs
Latch Reset Pulse ..... >1µs
Latch Reset Source current 250µA

POWER SUPPLY

Input ..... 115/230 VAC ± 15% 50-60 Hz
Output ..... 12Vdc ± 10% @ 200mA

RELAYS/TRIACS

Make Time 3.0mS/.1mS
Break Time 1.0mS/.1mS
Maximum Load ..... 1A Resistive

TRISTATE BCD

Output (CMOS) ..... CMOS Compatible
Output (TTL) ..... LPTTL 10 Loads
Output Format ..... 8 Bit (2 Digits) or 24 Bit (6 Digits)
Input Disable ..... All Six Digits (memory)
Output Disable ..... 3, Grouped in 2 Digits