

# Sequencer Timer Instruction Manual

Date:	_____	13/12/05
Options:	_____	
	_____	
	_____	
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## *Technology in Control*

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## WIRING INSTRUCTIONS FOR WT1015CE & WT1006CE

1. SELECT INPUT VOLTAGE
 

A.C. -	24,48,110,230V	(LHS OF TRANSFORMER)
D.C. -	12,24V	(NEAR HEATSINK)
  
2. SELECT OUTPUT VOLTAGE
 

A.C. -	24,48,110,230V	(LHS OF TRANSFORMER)
D.C. -	12,24,48V (AC/DC BOARDS )	(RHS OF TRANSFORMER)
-	SAME AS INPUT VOLTAGE (DC/DC BOARDS)	
  
3. CONNECT SOLENOIDS TO OUTPUT TERMINALS.  
 (-VE SIDE OF SOLENOIDS CAN BE COMMONED TOGETHER AND ONE WIRE BROUGHT BACK TO BOARD AND CONNECTED TO ANY ONE OF THE OUTPUT -VE TERMINALS. )  
 PLEASE NOTE, -VE OUTPUT IS LIVE FOR AC O/P BOARDS.
  
4. SELECT No. OF OUTPUTS TO BE FIRED  
 USING OUTPUT SWITCHES (ONLY ONE TO BE SELECTED AT A TIME).  
 (1-8 WT1015CE , 1—16 WT1006CE)
  
5. SELECT OPTIONS REQUIRED (OPTIONS SWITCH).
  1. MANUAL RUNNING (BOARD RUNS REGARDLESS OF PRESSURE SWITCH OR CYCLE TIMER).
  2. MASTER SLAVE OPERATION.
  3. CYCLE TIMER ENABLE (USE CYCLE TRIMMER).
  4. OFF - BOARD STOPS MID CYCLE.  
 ON - BOARD STOPS AT END OF CYCLE.
  
6. CONNECT PRESSURE SWITCH (IF USED) AND SET JUMPPER ADJACENT TO TERMINALS TO THE PRESSURE SWITCH S NORMAL STATE. EG. PSNO -PRESSURE SWITCH NORMALLY OPEN.  
 PSNC -PRESSURE SWITCH NORMALLY CLOSED.
  
7. CONNECT SUPPLY TO TERMINALS MARKED
 

E,L,N	( A.C. INPUT )
E,-,+	( D.C. INPUT )
  
8. ONCE UNIT IS OPERATIONAL , ADJUST THE SMALL TRIMMERS MARKED “DURATION” AND “INTERVAL” TO OBTAIN THE REQUIRED PULSING OF THE UNIT.

## Emc SEQUENCER CONTROLLERS

### THE PHILOSOPHY OF THE NEW ELECTRONICS

In order to meet the EMC regulations we have had to adopt a new approach in that we are now using a microcontroller chip. This means that the approach to altering any of the parameters is quite different. In programming the chip it retains the memory of all the settings and only consults this memory at the beginning of each cycle of events. Therefore, this means that any settings which need to be changed will only become effective on the next pulse.

### BASIC INSTRUCTIONS FOR “emc” SEQUENCERS

The sequential board will control up to 8 outputs, or 16 outputs dependent on type of board and number of solenoids. the load must be no greater than the equivalent of two pilot valves on each output. We can fire 2 standard pilot valves with each output.

#### AC INPUT/OUTPUT

The AC supply voltage is connected to the terminals L and N (lower left hand corner). Care must be taken to amend the link in the upper terminal block (upper left hand corner) to match the input voltage.

The output voltage required (lower left hand terminal block) is selected by a link to match the pilot valve voltage.

#### DC INPUT/OUTPUT

For the DC board a different set of voltage selectors are used with the L and N terminals.

Shown + and - and the output is changed by the fixed selector.

**Warning L = - and N +**

#### TIMER ADJUSTMENTS

The group of 3 potentiometers are marked Duration, (Length of Pulse), Interval, (Time between pulses) and Cycle, (Time between single/each cycle). The range is as follows

Duration	-	15 milli-seconds to 300 milli-seconds
Interval	-	1 second to 33 seconds
Cycle	-	33 seconds to 143 minutes

The cycle timer has been designed to cause a single pulse of all valves selected in sequence. An occasional clean will avoid any build up of dust when used with the delta “P” units and if required can operate on a low frequency instead of continuous cleaning in the case of light dust loads.

## Revised Specifications for WT1006-CE 5.11.96

### WT1006-CE Drawing Ref WT3130

Configuration is as follows 16 way, AC Input, AC output

Input voltage AC 24, 48, 110, and 230

Output voltage AC 24, 48, 110, and 230

Input fuse 1A A/S (Anti surge) 5x20 mm

Output fuse 1A A/S (Anti surge) 5x20 mm

Mains Impedance 1 M Ohm,

Frequency 50-60 Hz

VA of WT1006-CE board 26 VA

VA of solenoid valve 20 VA

VA of board firing one valve only 46 VA

Note above VA calculations based on continuous operation of the solenoid valve not pulsed.

Temperature range of board -10,+60 C

Number of outputs Selected by a DIL switch from 1 to 16.  
Overflow option available for greater number of outputs

Terminals Are all screw type, max cable size 1.5 mm

Low voltage terminals Are the pressure terminals, and the overflow terminals. Max voltage 5V dc

Option switch (see drawing WT3130) Selected by a 4 way DIL switch, the following options are available  
1 Manual  
2 Overflow  
3 Cycle timer  
4 Run to, end/ Stop mid cycle

Adjustment controls Interval 0-33 S  
Duration 7-300 mS  
Cycle 33 S-143 Min

Note the above time periods are only valid for the plug in microprocessor chip identified as version V3.1. Other time periods are available by replacing this chip.

Pressure Switch Operation Is configurable by a 3-way jumper which allows the WT1006-CE to operate by either a normally open contact (N/O) or a

normally closed contact (N/C)

## Revised Specifications for WT1015-CE

WT1015-CE Drawing Ref WT3131A

Configuration is as follows 8-way, AC Input, AC output

Input voltage AC 24, 48, 110, and 230

Output voltage AC 24, 48, 110, and 230

Input fuse 1A A/S (Anti surge) 5x20 mm

Output fuse 1A A/S (Anti surge) 5x20 mm

Mains Impedance 1 M Ohm,

Frequency 50-60 Hz

VA of WT1015-CE board 21 VA

VA of solenoid valve 20 VA

VA of board firing one valve only 41 VA

Note above VA calculations based on continuous operation of the solenoid valve not pulsed.

Temperature range of board -10,+60 C

Number of outputs Selected by a DIL switch from 1 to 8.  
Overflow option available for greater number of outputs

Terminals Are all screw type, max cable size 1.5 mm

Low voltage terminals Are the pressure terminals, and the overflow terminals. Max voltage 5V dc

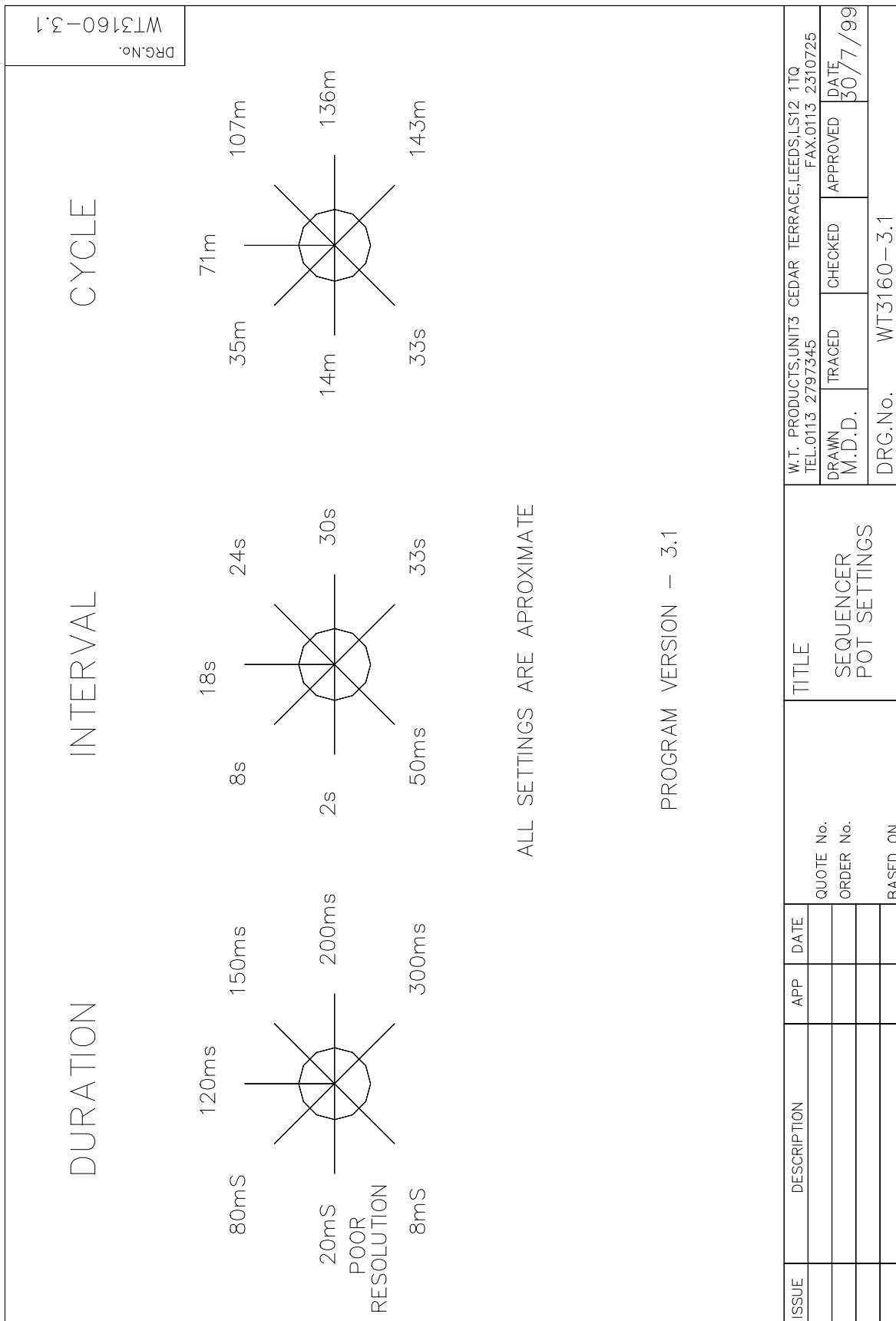
Option switch (see drawing WT3131A) Selected by a 4-way DIL switch, the following options are available  
1 Manual  
2 Overflow  
3 Cycle timer  
4 Run to, end/ Stop mid cycle

Adjustment controls Interval 0-33 S  
Duration 7-300 mS  
Cycle 33 S-143 Min

Note the above time periods are only valid for the plug in microprocessor chip identified as version V3.1. Other time periods are available by replacing this chip.

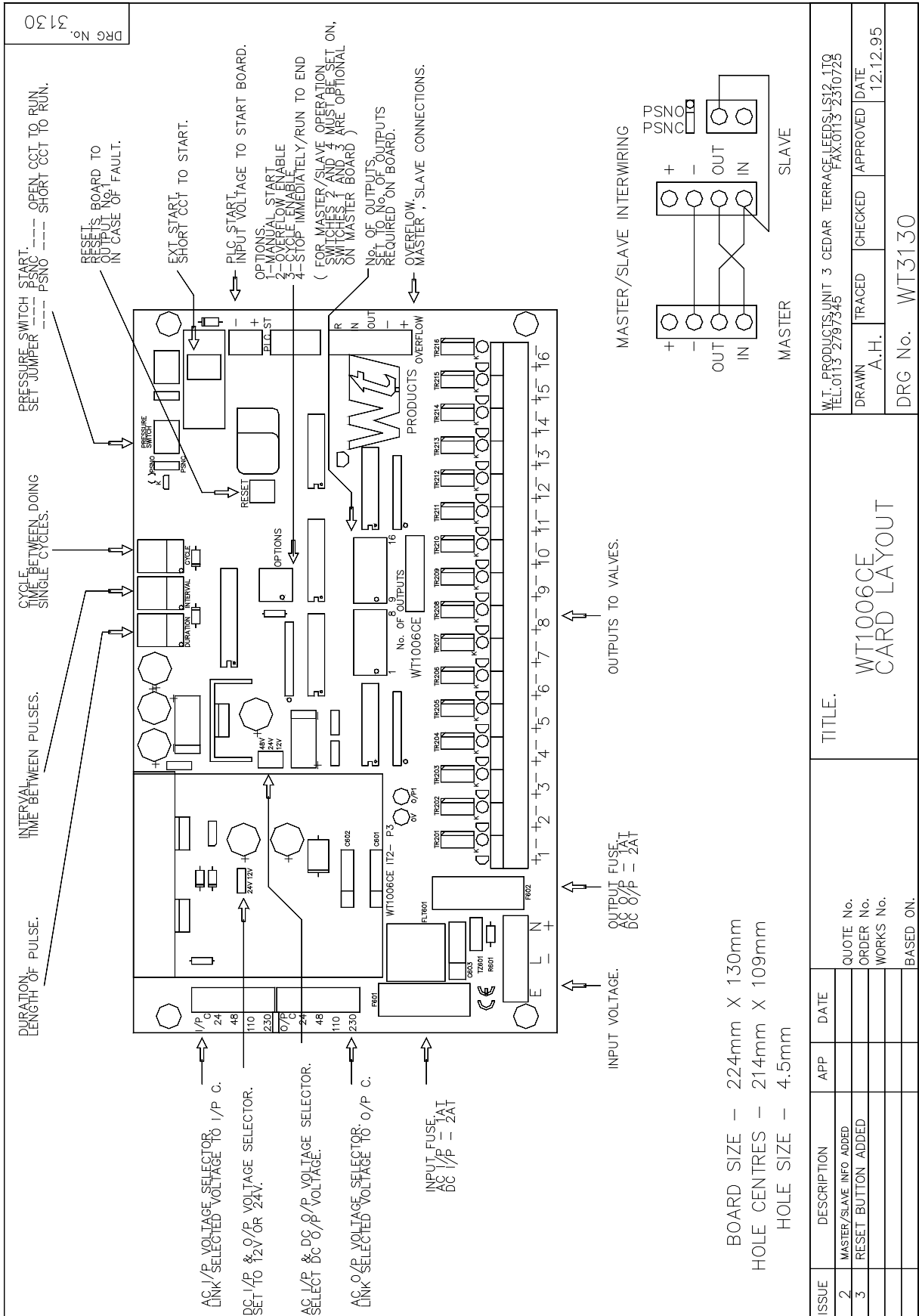
Pressure Switch Operation Is configurable by a 3-way jumper which allows the WT1015-CE to operate by either a normally open contact (N/O) or a

normally closed contact (N/C)



ISSUE	DESCRIPTION	APP	DATE	TITLE								
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				DRG.No. WT3160-3.1								





ISSUE	DESCRIPTION	APP	DATE
2	MASTER/SLAVE INFO ADDED		
3	RESET BUTTON ADDED		

TITLE.			
WT1006CE CARD LAYOUT			
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DRAWN	TRACED	CHECKED	APPROVED
A.H.			
			DATE
			12.12.95
DRG No. WT3130			

