DIP SWITCH SETTINGS

Time for each dollar	1	2	3	4	5	6	7	8
1 MIN	OFF	OFF	OFF	OFF	OFF			
2 MIN	ON	OFF	OFF	OFF	OFF			
3 MIN	OFF	ON	OFF	OFF	OFF			
4 MIN	ON	ON	OFF	OFF	OFF			
5 MIN	OFF	OFF	ON	OFF	OFF			
6 MIN	ON	OFF	ON	OFF	OFF			
7 MIN	OFF	ON	ON	OFF	OFF			
8 MIN	ON	ON	ON	OFF	OFF			
9 MIN	OFF	OFF	OFF	ON	OFF			
10 MIN	ON	OFF	OFF	ON	OFF			
11 MIN	OFF	ON	OFF	ON	OFF			
12 MIN	ON	ON	OFF	ON	OFF			
13 MIN	OFF	OFF	ON	ON	OFF			
14 MIN	ON	OFF	ON	ON	OFF			
15 MIN	OFF	ON	ON	ON	OFF			
16 MIN	ON	ON	ON	ON	OFF			
17 MIN	OFF	OFF	OFF	OFF	ON			
18 MIN	ON	OFF	OFF	OFF	ON			
19 MIN	OFF	ON	OFF	OFF	ON			
20 MIN	ON	ON	OFF	OFF	ON			
21 MIN	OFF	OFF	ON	OFF	ON			
22 MIN	ON	OFF	ON	OFF	ON			
23 MIN	OFF	ON	ON	OFF	ON			
24 MIN	ON	ON	ON	OFF	ON			
25 MIN	OFF	OFF	OFF	ON	ON			
26 MIN	ON	OFF	OFF	ON	ON			
27 MIN	OFF	ON	OFF	ON	ON			
28 MIN	ON	ON	OFF	ON	ON			
29 MIN	OFF	OFF	ON	ON	ON			
30 MIN	ON	OFF	ON	ON	ON			

Equiv. value of token	1	2	3	4	5	6	7	8
$1.00						OFF	OFF	
$2.00						ON	OFF	
$3.00						OFF	ON	
$4.00						ON	ON	

Bonus at $5	1	2	3	4	5	6	7	8
Disabled								OFF
Enabled								ON

DESCRIPTION OF OPERATION

- **Minimum price to start timer is $1.00, made up of any combination of $2, $1, 50c, 20c, or 10c coins.**
- **Coins are registered in 10c increments on the Coin Meter.**
- **The timer starts 5 seconds after inserting the last coin. The maximum time is 10 hours.**
- **The optional 4 digit LED display shows the money inserted and the time remaining. The time display switches automatically from min:sec to hr:min.**
- **A piezo beeper or LED light may be connected. It will pulsate for the last 20 seconds of running time.**
- **If the bonus feature is enabled, a bonus dollar value will be added for every fifth paid dollar, until the timer runs to 0.**
- **Coins inserted while the timer is running add to the time.**
- **Tokens are be converted to an equivalent money value as set by the DIP switch. Tokens are registered in token unit increments on the Token Meter. Tokens are not included in the calculation for a bonus.**
- **Coin pulses can be applied via the 22 pin edge connector or via the L COIN ribbon cable socket. The R COIN socket is not used.**
- **Security. Coin or token pulse widths greater than 250mS will be rejected and cause a lock-out of 10 seconds.**
- **Master Reset input. If the PC hangs, instead of turning the main power off and on, a momentary switch from this pin to GND can be used to force the timer board and the PC to reset.**
- **Boot timer enable. This feature is enabled by wiring the pin to GND. At power-up, the timer output will be turned on for 2 minutes, to allow the PC to boot up with the keyboard and mouse connected. If the coin lockout connection is made between pin 15 and 16, a coin coin mech connected via the 10 pin header will reject coins while the boot timer is active.**
- **Time over reset enable. This feature is enabled by wiring the pin to GND. If the timer is idle 60 seconds after the end of a paid time period, a Master Reset is generated.**
- **Timer outputs, transistor and relay. The open collector transistor output switches to ground while the timer is running. The relay has isolated SPDT contacts and is turned on while the timer is running.**

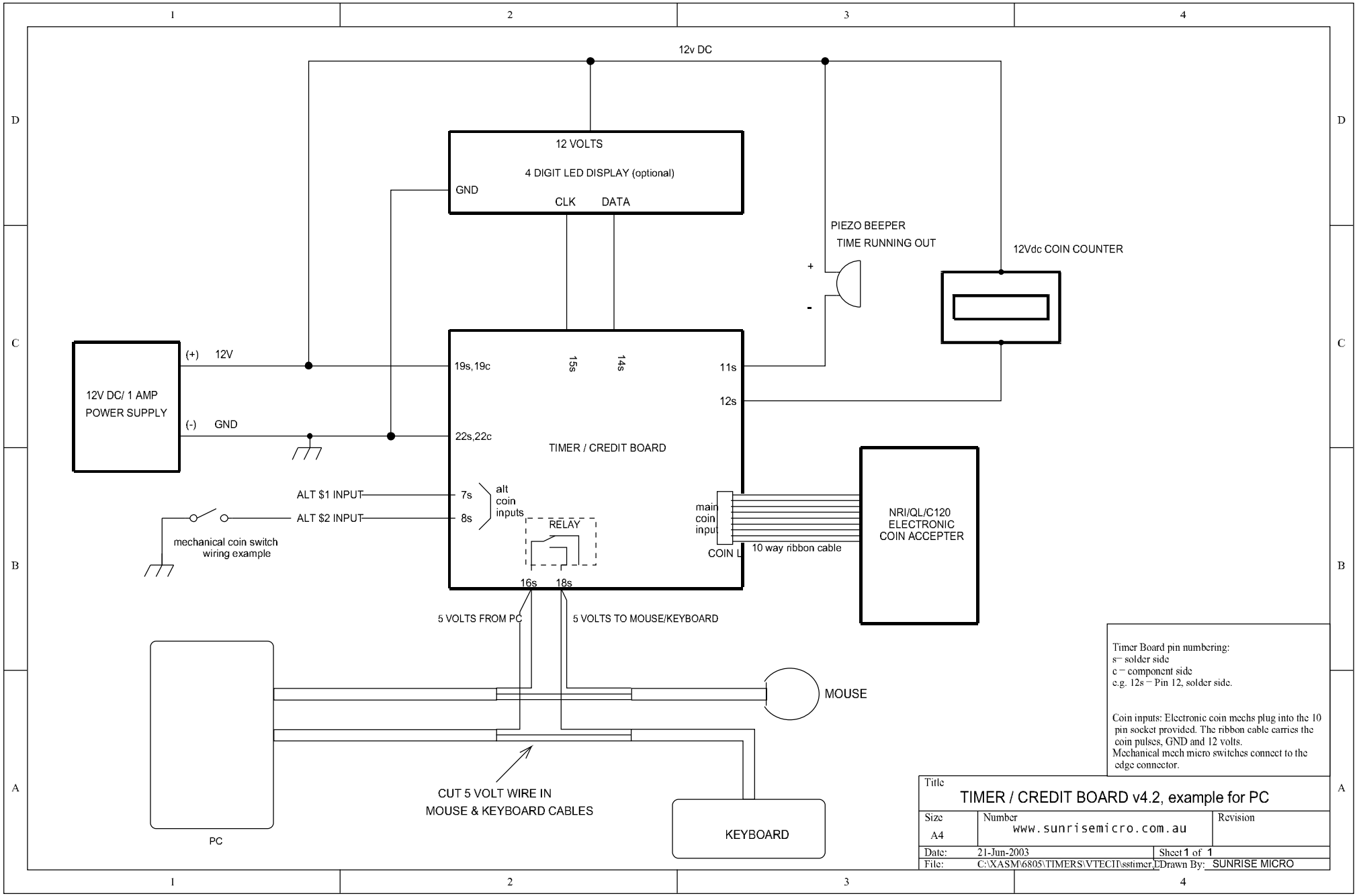
Output drive capabilities. The beeper, meter and reset outputs are rated at 300mA and 12v max. The devices normally connect between 12 volt and the output pin. The relay contacts are rated at 3A. The lockout and timer transistor outputs are rated at 50mA, 15V, 300mW (total) maximum.

EDGE CONNECTOR PINOUT

COMPONENT SIDE		SOLDER SIDE
/Reset All input	1.	-
/Time over reset enable	2.	/Boot timer enable
-	3.	/Token switch input
-	4.	/10c coin switch input
-	5.	/20c coin switch input
-	6.	/50c coin switch input
-	7.	/$1 coin switch input
-	8.	/$2 coin switch input
/Token meter output	9.	-
-	10.	-
To PC /reset input	11.	/Piezo beeper or LED indicator
-	12.	/Coin meter
-	13.	Timer output (transistor).
-	14.	LED display serial data
coin lockout output	15.	LED display clock
coin lockout input	16.	Timer output (Relay, COM)
-	17.	Timer output (Relay, NC)
-	18.	Timer output (Relay, NO)
-	19.	+12v DC power input
-	20.	+12v DC power input
-	21.	GND
-	22.	GND

10 PIN COIN MECH HEADER

1. GND
2. +12v DC output
3. /$2 input
4. /Token Input
5. -
6. coin lock out.
7. /50c input.
8. /10c input.
9. /20c input.
10 /$1 input


12v DC
12 VOLTS
4 DIGIT LED DISPLAY (optional)
GND
CLK
DATA
PIEZO BEEPER
TIME RUNNING OUT
+
-
12Vdc COIN COUNTER
12V DC/ 1 AMP
POWER SUPPLY
(+) 12V
(-) GND
19s,19c
15s
14s
11s
12s
22s,22c
TIMER / CREDIT BOARD
ALT $1 INPUT
ALT $2 INPUT
7s
8s
alt
coin
inputs
RELAY
mechanical coin switch
wiring example
main
coin
input
COIN I
10 way ribbon cable
NRI/QL/C120
ELECTRONIC
COIN ACCEPTER
16s
18s
5 VOLTS FROM PC
5 VOLTS TO MOUSE/KEYBOARD
MOUSE
CUT 5 VOLT WIRE IN
MOUSE & KEYBOARD CABLES
KEYBOARD
PC
Timer Board pin numbering:
s – solder side
c – component side
e.g. 12s – Pin 12, solder side.
Coin inputs: Electronic coin mechs plug into the 10 pin socket provided. The ribbon cable carries the coin pulses, GND and 12 volts.
Mechanical mech micro switches connect to the edge connector.
Title
TIMER / CREDIT BOARD v4.2, example for PC
Size
A4
Number
www.sunrisemicro.com.au
Revision
Date: 21-Jun-2003
Sheet 1 of 1
File: C:\XASM\6805\TIMERS\VTECII\sstimer_I
Drawn By: SUNRISE MICRO