DIGITAL CONTROL

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Introduction

The TC2100 Time Clock Controller has been designed for reliability and ease of use. The TC2100 is a microprocessor controlled system that provides up to 4 output channels that can be used to control audible or visible signalling devices such as school bells or shift start/end indicators.

An easy to use operator interface allows the user to set up to 100 events. Each programmed event can be filtered by time of day and day of the week, and specifies the output channels to activate, and the pulse duration. The pulse duration setting controls how long the output is activated (in seconds). Also, specific dates (such as holidays) can be excluded - disabling all output functions on those dates.

All outputs are isolated load rated relay contacts. Low voltage signalling devices may be driven directly from these contacts. All power and output connections are made by pluggable terminal strips for ease of installation.

All settings can be made by simple keypresses using the internal graphic LCD display. Easy to navigate menus provide access to event table and output settings. Settings are stored in internal Flash memory for high reliability and easy programming change. Access is password protected to avoid unauthorized access.

The crystal controlled clock is accurate to within +/- 30 sec per month (at 25 C) and remains accurate during any power outage or loss of power by internal lithium battery. Automatic synchronization of the internal clock with world time standards is also possible by connecting the TC2100 via its Ethernet port to the internet. The TC2100 clock also adjusts for daylight savings time automatically (if applicable).

The TC2100 may also be remotely accessed for control or programming via HTML pages over the Ethernet port using a simple web browser (ie. Internet Explorer). Settings may be viewed or changed on convenient HTML pages or may be uploaded and downloaded into a convenient spreadsheet (ie. Excel) format for editing or viewing using a spreadsheet program.

Manual control of any output channel(s) is possible via the front panel controls or by remote HTML access. Activate one or all of the output channels manually with only a few simple keystrokes.

The TC2100 is designed to be installed through the face of an existing or new enclosure - in cases where the retrofit of an existing clock is desirable. It requires only 12 - 30 V (AC or DC) for power

The TC2100 is designed to provide many years of trouble free operation and is backed by Entek's full warranty and service support.
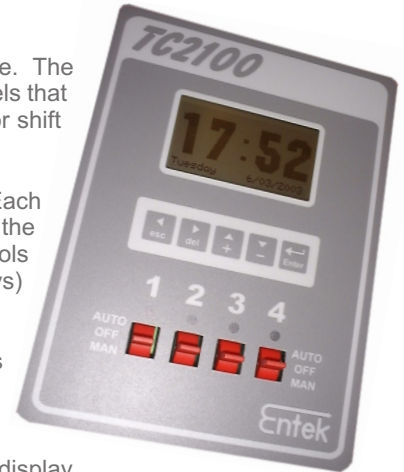
Specifications

- 4 Load Rated Relay Output Channels
- 12 - 30 V (AC or DC) power
- Ethernet (RJ-45) port for remote access
- Clock Accuracy +/- 30 sec/month (25C)
- Event Settings: 100 total
- Filters: Time of Day, Day of Week
- Pulse Duration: 1 - 120 sec
- Display: 128 x 64 Graphic LCD - Backlit
- Enclosure: 5.75 x 7.75 x 2 Panel Mount

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Features

- 3 methods of programming and configuration:
    - Integrated Keypad and Graphic Display with easy to navigate menus
    - Convenient HTML page(s) via remote Ethernet port access
    - Upload / Download of spreadsheet compatible file
- Automatic clock synchronization with world time standard
- Automatic clock adjustment for daylight savings
- 2 methods for Manual operation of outputs
    - Via front panel access
    - HTML page via remote Ethernet port access
- Accurate Quartz Crystal clock with battery back up
- Event settings by Time of Day and Day of Week
- Exclusion Date list for Holidays and Shutdown dates and periods
- Individual Output pulse duration setting for each event program
- Reliable Non Volatile memory for storage of all settings
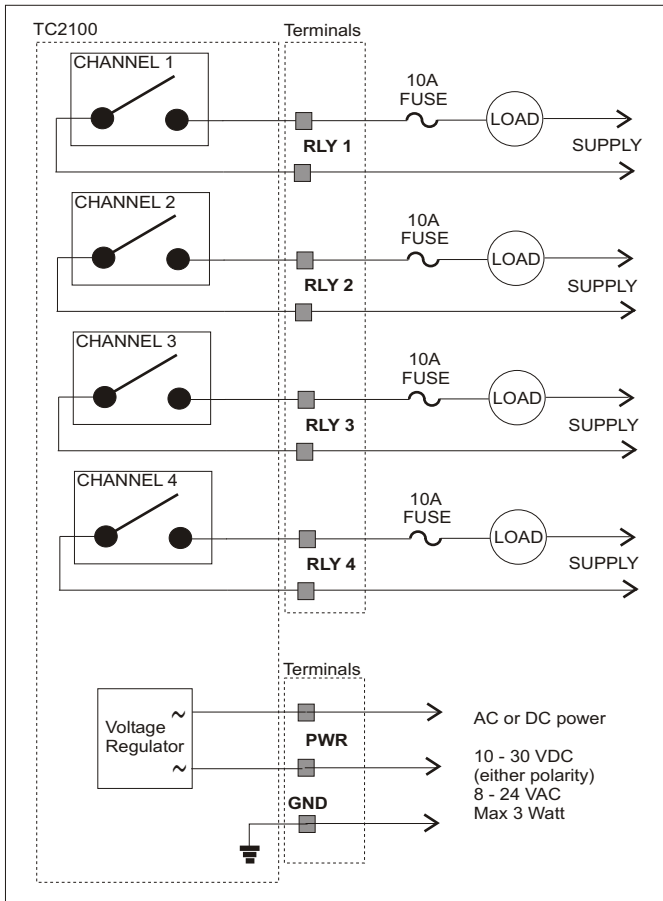- Pluggable terminal strip for quick and easy installation

Manufactured By

Entek

Entek Engineering Ltd.
7843 204 Street, Langley, BC V2Y 1X4
Tel: (604) 888-6112 Fax: (604) 888-6182

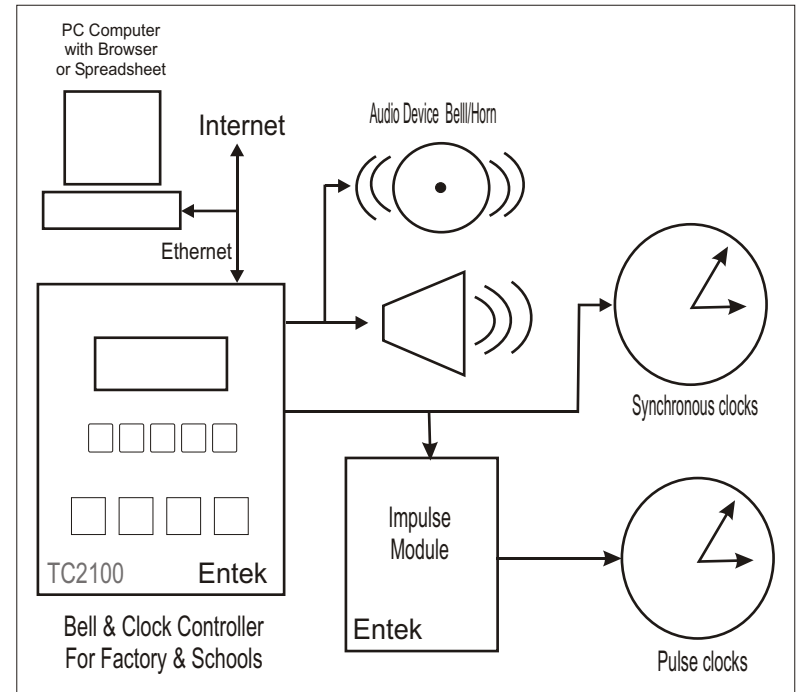## Authorized Representative

Simplified CONNECTION DIAGRAM

Sample of EVENT SETTING Web Page

Sample of ACTIVATE RELAYS Web Page

Typical Application

Sample of EVENTS SETTING Spread Sheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	--- TC2100 v3.0 Backup File - 18:49:19 02/19/2005 - ENTK_01 ---															
2	Dates must be in Month/Day/Year Format (MM/DD/YYYY)															
3																
4	[Events]	Time	Active	Deactive	CH1	CH2	CH3	CH4	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Length
5	Event	8:00:00	1/27/2005	1/1/2050	X							X				5
6	Event	12:00:00	1/1/2000	1/1/2050	X	X	X	X	X	X	X			X	X	5
7	Event	15:00:00	1/27/2000	1/1/2050		X							X			5
8	Event	18:00:00	1/27/2000	1/1/2050			X						X			5
9	Event	18:00:00	1/27/2000	1/1/2050				X					X			5
10																
11	[Exclusic	Start	End													
12	Exclusion	5/23/2005	5/24/2005													
13	Exclusion	6/24/2005	6/25/2005													
14																