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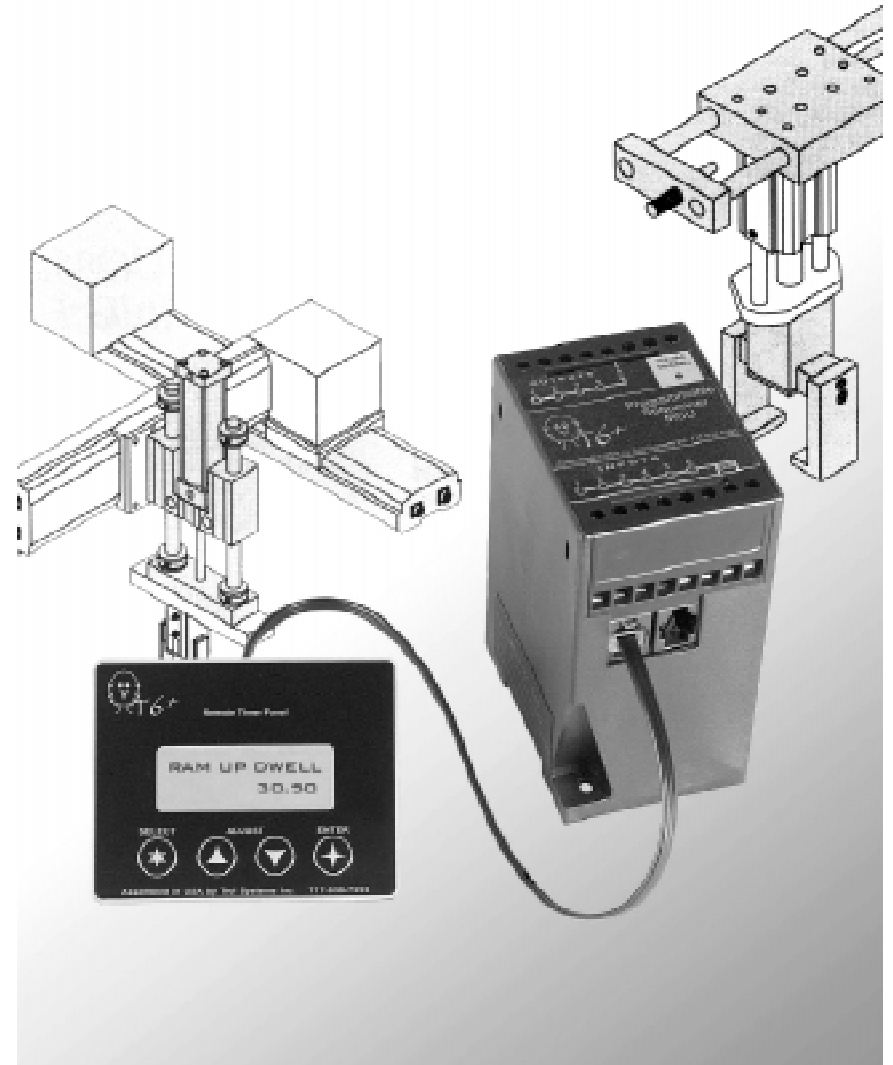
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# Optional Equipment for the T6 control system



## About T6 Optional Equipment

The T6 main control unit (MCU) is a stand-alone programmable sequencer, hence it can operate completely by itself. However, the MCU can also control other T6 devices that allow it to adapt to a wide variety of machine applications. This booklet will describe the optional T6 devices currently available. For an update of this booklet and prices, visit our web site at: [www.trolsystems.com](http://www.trolsystems.com)

### Main Control Unit (MCU)

One MCU is required for each T6 system. Buy one as a spare or use it on the next machine control project. The MCU has 6 optically isolated inputs and 4 relay outputs. It also has a 100ma. DC power supply to support 3-wire sensors. MCU-04 can be used as a direct replacement for MCU-01 and up.



- MCU-04-115 uses 115vac supply
- MCU-04-230 uses 230vac supply
- MCU-04-1224 uses 12-24vdc supply

### Load Suppressors

Load suppressors are used to extend the life of the output contacts and reduce the amount of radiated electrical noise (EMI) caused by inductive loads. Easy two wire connection across load. 1" square plastic housing with two mounting flanges.



- 30160 120VAC (max)
- 30169 100VDC (max inverse), R/C w/diode

### Converter Block

A converter block is used to allow the T6 inputs (sinking configuration), to interface with devices that send out 115vac power. Units are 1" square plastic housing with two mounting flanges.

30143



## Analog I/O Sections

Analog inputs are used to read devices such as linear position sensors that change in resistance instead of simply turning on or off. Analog outputs can control load devices such a proportional valves that are turned on and off, or at any value in between.



The I/O sections have the same physical appearance as the MCU and communicate via a short phone cable (supplied). Following a quick set up procedure, the extra I/O selections will automatically appear in the Program menu. Additional prompts regarding voltage and duty cycle will appear when you select an analog input or output.

All expanded I/O are labeled as a "Block" within the system (ie. Block 80 contains inputs and outputs 81, 82, 83, etc.). Only one Block of the same type may be added to the system. For example; if you need to add 12 more analog inputs, you'd purchase a Block 80 and a Block 90.

Analog I/O sections have 5 analog inputs capable of reading a 0-10vdc signal in .02volt resolution. The 4 analog outputs are capable of sinking up to 500ma @30vdc. The outputs can be programmed from 0% (totally off) to 100% (totally on) duty cycles in 1% resolution. Analog I/O sections also have a precision 10v @ 100ma. power supply used for input sensors.

Block	115vac	230vac	12 to 24vdc
80	5/4-80A-115	5/4-80A-230	5/4-80A-1224
90	5/4-90A-115	5/4-90A-230	5/4-90A-1224

### Analog Amplifier

AMP-02

Used to boost the 500ma rating of an analog output to 12 amps. The amplifier is a single channel device that connects to one output of the analog section. It has a high slew rate capable of reproducing the PWM signal of an analog section. May be used with a maximum output supply of 50 volts. Same height as I/O sections and is DIN rail mounted. Size is 2.9" (75mm) x .88" (22mm) x 4.3" (110 mm).



## Computer Interface Module

Allows a personal computer to interface with a T6 MCU (any model). Use your computer to: write, edit, save, and printout your program. You can even add notation to your program for easier understanding. Future software upgrades will be available from our website free of charge. CIM-03 contains the interface module, cables, installation booklet and software on mini a CD.

CIM-03 can also be used to interface with a T6 pocket programmer or remote time/counter panel. (Note: this will require power pack part no. 30101.)

System requirements: IBM PC (or compatible), with an operating system of Windows '95 or higher, a CD rom drive and an unused serial port (RS-232).

CIM-03



## DC Power Supplies

A DC power supply is used to power input devices such as three wire proximity sensors and output devices such as air valves. These units are linear regulated (non-switching), with thermal overload protection. They are the same size as the MCU and can be mounted on a DIN rail or directly to the panel.



PS-12-115	12V @ 1 amp, uses a 115VAC supply
PS-24-115	24V @ 1/2 amp, uses a 115VAC supply
PS-12-230	12V @ 1 amp, uses a 230VAC supply
PS-24-230	24V @ 1/2 amp, uses a 230VAC supply

## Pocket Programmer

A pocket programmer allows you to write and edit a program- right there at the machine! Simply plug its 12" cable into a port on the MCU to send and receive programs. A full backup copy of the program is stored in the pocket programmer. The pocket programmer also serves as a guide while test running the machine. Size 3.65" x 2.25".

PGM-02



## Programmer Power Pack

Used to power the pocket programmer at a remote location, away from the T6 MCU. This allows you to program in a quiet office. The power pack also allows the pocket programmer to support the optional Computer Interface Module. Unit plugs into a 115vac wall socket and has a 3 foot cord.

30101



## DIN RAIL SECTIONS

Pre-cut aluminum DIN rail sections allow easy mounting of the T6 system. Use end blocks to prevent units from "walking" due to vibration, especially when rails are mounted vertically.



DIN-4	4" long section
DIN-6	6" long section
DIN-8	8" long section
DIN-12	12" long section
DIN-EB	pair of end blocks

## Power Distribution Block

PDB-8

Used to tie the "cold side" of loads to the neutral line. The block has 8 terminals and will accommodate a 22 to 14 gauge wire. It can snap onto a DIN rail, using only 1 inch of rail space. The shorting clip (included) electrically ties all 8 terminals together.



## Remote Timer Panel

Allows the machine operator to adjust timers while the T6 is running your machine. Adjusting a timer couldn't be easier- just select the name of the timer, then adjust its time up or down. You can set the range of adjustment for each of the 8 timers and even assign them custom names.

In addition to timers, you can also program it to display up to 15 messages (each consisting of 24 characters). The panel receives power from the MCU. Size is 3.25" wide x 2.5" high x 1.3" deep. A 30" cable is included.

RTP-02



## Remote Counter Panel

Similar to the timer panel described above. A Remote Counter Panel allows an operator to monitor and adjust counters while the T6 is running your machine. Adjusting a counter couldn't be easier- just select the name of the counter, then adjust its count up or down. You can set the range of adjustment for each of the 8 counters and even assign them custom names.

The panel has the ability to remember what the status of each count was before power was turned off. In addition to the counters, you can also program it to display up to 15 messages (each consisting of 24 characters). The panel receives power from the MCU. Size is 3.25" wide x 2.5" high x 1.3" deep. A 30" cable is included.

Note: Only one of each panel (1 timer or 1 counter) may be installed. However, a Timer panel can be used along with a Counter panel.

The method of writing messages is similar to that of a cell-phone. The optional computer interface module (CIM-03) can be used to speed up writing messages.

RCP-02



## Expanded I/O Sections (standard)

Additional inputs and outputs (I/O) can be added to the MCU as your machine requirements grow. The I/O sections have the same physical appearance as the MCU and communicate via a short cable (supplied). Following a quick setup procedure, the extra I/O selections will automatically appear in the Program menu.



All expanded I/O are labeled as a "Block" within the system (ie. Block 20 contains inputs and outputs 21, 22, 23, etc.).

NOTE: Only one Block of the same type may be added to the system. For example; if you need 12 more inputs, purchase a Block 20 and a Block 30.

I/O sections listed below have 6 inputs / 4 outputs with the same electrical ratings and configuration as the MCU.

Block #	115vac	230vac	12 to 24vdc
20	6/4-20-115	6/4-20-230	6/4-20-1224
30	6/4-30-115	6/4-30-230	6/4-30-1224
40	6/4-40-115	6/4-40-230	6/4-40-1224
50	6/4-50-115	6/4-50-230	6/4-50-1224
60	6/4-60-115	6/4-60-230	6/4-60-1224
70	6/4-70-115	6/4-70-230	6/4-70-1224

Output sections listed below have 0 inputs / 8 outputs. Each output has a normally open contact that can switch up to 5 amps @ 230vac. Two of the outputs are of form C (having an additional normally closed contact). The outputs are configured as three separate banks for maximum versatility.

Block #	115vac	230vac	12 to 24vdc
20	0/8-20-115	0/8-20-230	0/8-20-1224
30	0/8-30-115	0/8-30-230	0/8-30-1224
40	0/8-40-115	0/8-40-230	0/8-40-1224
50	0/8-50-115	0/8-50-230	0/8-50-1224
60	0/8-60-115	0/8-60-230	0/8-60-1224
70	0/8-70-115	0/8-70-230	0/8-70-1224