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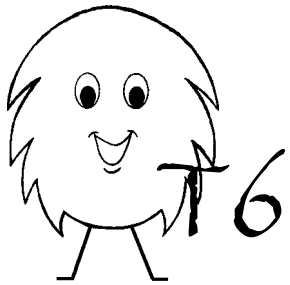
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Expanded I/O Section



Installation booklet for part numbers:

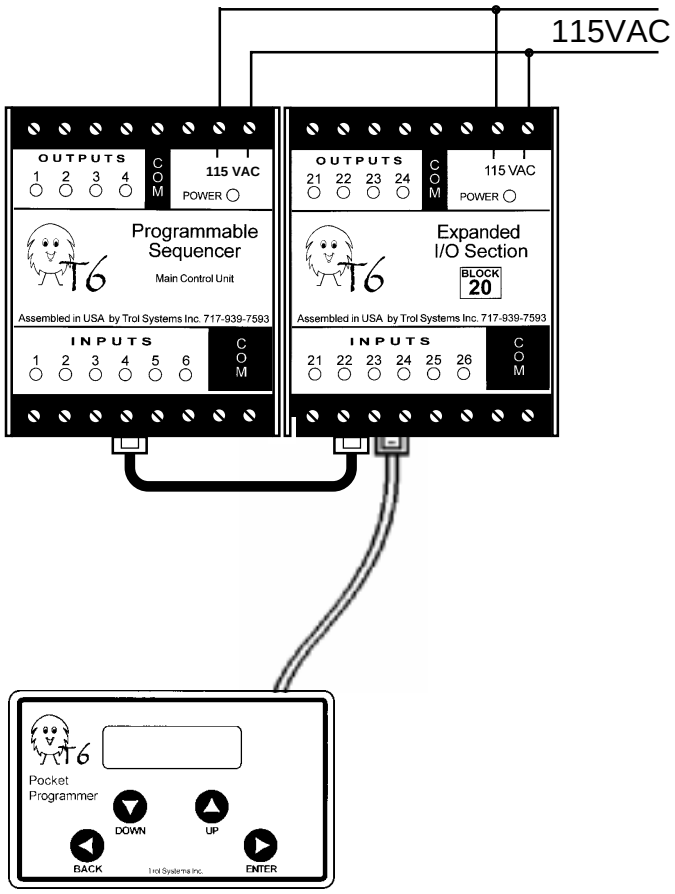
6/4-20-115
6/4-30-115
6/4-40-115
6/4-50-115
6/4-60-115
6/4-70-115

6/04 115 MAN -1

Installation

Expansion sections can be either DIN rail mounted or panel mounted using two #6 screws. They should be mounted beside the T6 MCU as shown below. If more than one expansion section is being added; install them in block number order from left to right.

Connect the supplied cable to the data port of MCU and to the left data port of the I/O unit. Be sure that all cable plugs are fully inserted and have locked into position. The programmer can be connected to the right data port.



Specifications

Part No: 6/4-20-115, 6/4-30-115, 6/4-40-115, 6/4-50-115

Power Requirements

115VAC @ .02A, 50/60Hz w/1000v magnetic isolation

Outputs

4 normally open relay contacts unprotected, no leakage current
5Amps @ 230VAC (resistive load)

Inputs

6 self powered, 12-14 VDC @ 10ma. w/1000v optical isolation
User selectable speed (0 to 255ms) using Setup Menu

Physical

Size	2.9” (75mm) x 2.2” (55mm) x 4.3” (110 mm)
Mounting	DIN rail or panel (with two #6 screws)
Weight	10 oz. (284 grams)
Temp	20 - 140° F, 90% r. humidity (non cond.)

Origin

Designed and assembled in the USA.

Performance

Timing	Output timing ± 1ms repeatability
Communication	Input and output data is sent to/from the MCU within 850us (typ) / line
Data Port	Dual IIc bus @100khz, ports are in parallel

Removal of I/O Programming Procedure

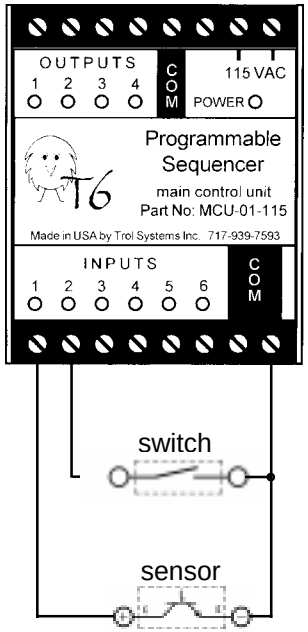
This procedure is used only when: 1) The pocket programmer needs to be used on a differently configured system. 2) The system is being dismantled. This is done using the Setup menu as described below.

Note: Adding and removing I/O using the Setup menu procedure does not change the program within the T6 MCU. The program of a MCU must not contain any line that depends on expanded I/O if it is not connected to the system.

BEGIN A NEW PROGRAM?	Power up the programmer (by MCU or optional power pack) and enter the Main menu.
▼	
SETUP T6 OPTIONS?	At the Main menu choose “setup T6 options”, then press the Enter key.
▶	
SETUP MENU ERASE PROGRAM?	
▼	
SETUP MENU REMOVE I/O?	In the Setup menu choose “remove I/O”, then press the Enter key.
▶	
REMOVE I/O WHICH ONE? 20	Select the Block number of the I/O section you want to remove. The Block number is printed in a box on top of the unit and is also in the middle of the part number. Once the proper block number is displayed, press the Enter key.
▶	
SETUP MENU ERASE PROGRAM?	Press the Back key to return to the Main menu. The I/O selections of this block are now removed from Program menu.
◀	

Wiring the Inputs

The inputs of the T6 are self-powered and optically isolated to offer high noise immunity. The input voltage is +12vdc, which allows the inputs to interface to a wide variety of switches and sensors. The device wired to the input must be able to carry a minimum current of 10 milliampere. Input devices are wired between the input and the two common terminals as illustrated below.



Electromechanical devices such as magnetic reed switches, limit switches, push button switches and pressure switches are wired with no regard to polarity (positive/negative).

Electronic devices such as magnetic hall effect transistors, photo-transistors, and DC proximity sensors must meet the following criteria:

It must be of an open collector NPN (like symbol in illustration). This is often referred to as being in a sinking configuration.

It cannot have an off current (leakage) greater than .5ma.

Note on three-wire sensors: An additional DC power supply is required for these sensors to operate (see Optional Equipment). The negative of the supply is connected to the negative of the sensor and to the “COM” terminal of the inputs. The positive of the supply is connected to the positive of the sensor. The output of the sensor (must be of sinking type) is connected to the numbered terminal of the input.

Warning! The inputs are self-powered. An input can be damaged instantly if connected to an outside power source! Use a converter block if the input device is not of a dry contact or of a sinking configuration as required (see Optional Equipment).

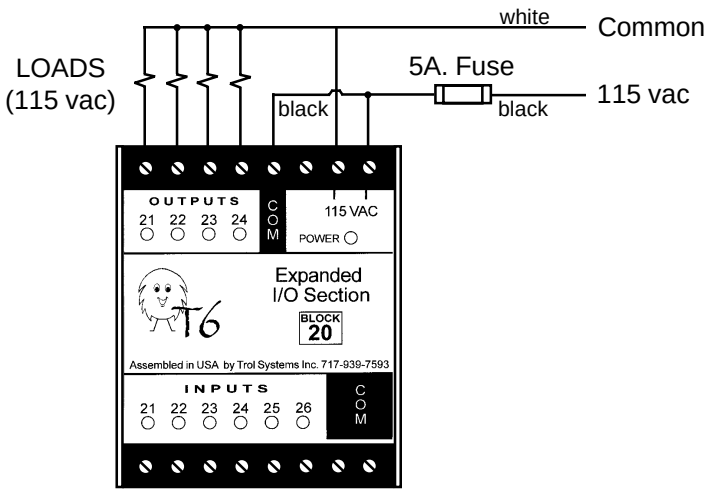
Wiring the supply

I/O sections with part numbers ending in “115” require a 115VAC supply. It is good practice to fuse the supply. Connect the supply to the first two terminals marked “115VAC” as shown below. The third terminal is not used.

Wiring the outputs

Each output consists of a normally open relay contact that can switch up to 5 amps at 230VAC. These contacts share a common terminal marked “COM”. If the loads are the same voltage as the supply, install a jumper as shown below. If the loads are of a different voltage than the supply, connect the common terminal of the outputs to a power supply suitable for the load devices.

Noise transients, caused when an inductive load is de-energized, may cause erratic behavior of electronic equipment as well as greatly shorten the life of relay contacts. The use of a load suppressor, part number 30165, is highly recommended. (See the optional equipment catalog). Here is a typical load configuration:



Installation Programming Procedure

Once the I/O unit is installed, the pocket programmer must be informed that the system has been expanded. This is done using the Setup menu as described below. Note: If you added more than one I/O unit choose the block with the lowest number, then repeat the setup procedure for the next block.

BEGIN A NEW PROGRAM?	Power up the programmer (by MCU or optional power pack) and enter the Main menu.
▼	
SETUP T6 OPTIONS?	At the Main menu choose “setup T6 options”, then press the Enter key.
▶	
SETUP MENU ERASE PROGRAM?	
▼	
SETUP MENU ADD I/O?	In the Setup menu choose “add I/O”, then press the Enter key.
▶	
ADD I/O WHICH ONE? 20	Select the Block number of the I/O section you have added. The Block number is printed in a box on top of the unit and is also in the middle of the part number. Once the proper block number is displayed, press the Enter key.
▶	
BLOCK: x # OF INPUTS? 6	Select the number of inputs that the I/O unit has (6), then press the Enter key.
▶	
BLOCK: x # OF OUTPUTS? 4	Select the number of outputs that the I/O unit has (4), then press the Enter key.
▶	
SETUP MENU ERASE PROGRAM?	Press the Back key to return to the Main menu. The input and output selections of this block will now appear in the Program menu.
◀	

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