



# GT 3x TIMER OPERATIONS MANUAL



**MASTERLUBE SYSTEMS LTD**  
**Unit 15, Dabble Duck Ind. Est.**  
**Shildon, Co. Durham**  
**DL4 2QN**

Tel +44 (0) 1388 772276 Fax +44 (0) 1388 778893

[www.bignall.co.uk](http://www.bignall.co.uk)

ISSUE 6 OCT 2007

## CONTENTS

CONTENTS.....	2
GT 3 TIMER SPECIFICATION .....	3
DESCRIPTION .....	3
CONNECTIONS .....	4
INSTALLATION .....	4
SETTINGS(Coarse).....	5
MAINTENANCE .....	6

## GT 3 TIMER SPECIFICATION

<b>OFF TIME</b>	<b>3 secs &gt; 2.5 hrs</b>
<b>MONITORED ON TIME</b>	<b>3 secs &gt; 2.5 hrs</b>
<b>OUTPUT</b>	<b>Fused 10 amp +ve</b>
<b>SUPPLY VOLTAGE</b>	<b>13.8v to 28 volts</b>
<b>FRONT LED DISPLAYS</b>	<b>Green – Pump On Amber – Power On Red Flash – Alarm</b>

### DESCRIPTION

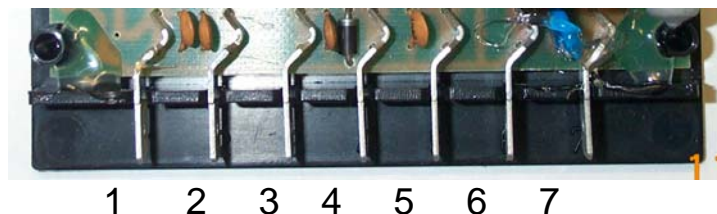
The **GT3x** is a dual timer which has independently adjustable ON and OFF cycles. Coarse adjustment is achieved by altering range switches, while fine adjustment is by potentiometer (see diagrams). A further facility allows the ON cycle to be cut short by an external switch. The purpose of this is to monitor the operation of the system. If the ON cycle runs its full length without a switch operation, an alarm will sound. This may be silenced by pressing the RED button. On power up, the timer will start with an OFF cycle, by pressing the BLACK button an ON cycle may be triggered for test purposes. There is also a facility for an external warning should the timer be fitted away from the operator.



## CONNECTIONS

Terminals are numbered left to right and connections are as follows

1. Micro switch normally closed
2. Micro switch normally opened
3. Micro switch common
4. Pump positive
5. External warning device (where fitted)
6. Negative/Earth
7. Ignition live



## INSTALLATION

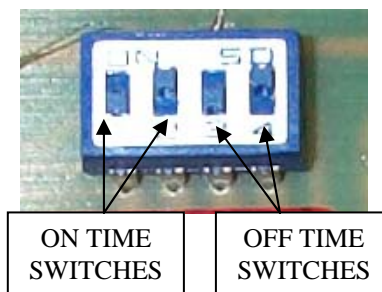
Select a suitable position for the timer unit. It is not waterproof and should be mounted out of the weather where the operator can see the lights and operate the buttons. The unit is suitable for use with C/NO,C/NC and NO/C/NC switches. When only two of the first three terminals are connected the terminal 3 (C) should be strapped to the unused terminal as well as the switch. The rest of the connections should be as above.

### *Setting the ON Cycle;*

First measure the length of a full lubrication cycle. This is done by locating the slowest cycling block and measuring the time for the pin to cycle through its fully in and fully out position and back to its original position. Next chose a time ON window and set the switches (coarse) to cover the required range. Final adjustment is made using the internal trimmer as shown in the diagram and the internal green light. This should be set to approximately three times the lubrication cycle. While setting each time the cycle is completed the warning will sound and the RED light will flash. This is normal and can be silenced by pressing the RED button. The ON cycle is now set.

### *Setting the OFF cycle;*

The length of this cycle is entirely at the discretion of the installer, it may be at the direction of the equipment manufacturer or the wish of the operator. Simply choose a time window which covers the requirement and adjust the switches accordingly leaving the final adjustment to the potentiometer as shown in the diagram. Any "in service" adjustment will be by adjusting the potentiometer.



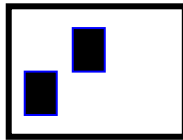
**THE ABOVE SETTINGS ARE PRESET ON INSTALLATION TO THE MACHINES GREASING NEEDS, ANY ALTERATION TO PRESET INTERNAL SETTINGS SHOULD ONLY BE DONE WITH GUIDANCE FROM THE INSTALLER**

**SETTINGS(Coarse)**

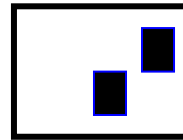
**ON PERIOD**

**OFF PERIOD**

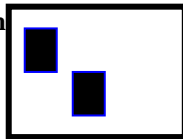
3 – 30 seconds



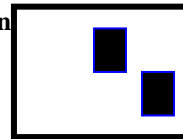
3 – 30 seconds



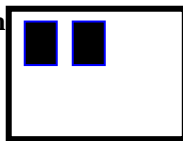
14 secs – 2.5 min



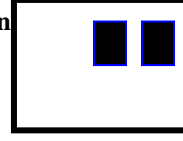
14 secs – 2.5 min



1.75min – 18min



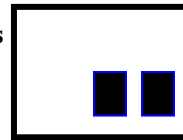
1.75min – 18min



15 min – 2.5 hrs



15 min – 2.5 hrs



## MAINTENANCE

There are no serviceable parts within the GT3x Timer <sup>TM</sup>. If the timer is at fault, then the Timer itself must be replaced. The following steps will help determine whether it is the Timer that is at fault.

First check the feed to the Timer with a voltmeter. When the power is on, the amber light should show and the full equipment voltage should be present at terminal 7.

Check that the lubrication equipment is operating when the timer is out of circuit, by disconnecting the feed (No. 7) and the pump (No. 4) and adjoining wires. The equipment should operate continuously.

**WARNING; DISCONNECTION AND RECONNECTION OF ANY TERMINALS FROM THE TIMER SHOULD ONLY BE CARRIED OUT WITH THE IGNITION IN THE OFF POSITION.**

Wait for the next cycle (indicated by the green light). If the equipment does not operate, check the voltage at terminal 4 while the light is on. If the voltage is zero and the light is on, check the fuse in the timer housing. Replace the Timer if the voltage is zero whilst the green light is on and the fuse is in good condition.

If the green light does not come on after the preset delay period check the settings. First reset the times to minimum (NB record their original settings). This is done by setting the switches to: DOWN/UP & DOWN/UP, and by setting both internal trimmers to maximum anti clockwise. The timer should now operate with the green light on for approximately 3 seconds and then off for the same period. During the 'off' period the warning buzzer will sound, accompanied by a red flashing light. By reference to setting procedure the correct adjustments should now be made. If the expected cycle timer cannot be calibrated or are unreliable the unit must be replaced.

To check the warning function, remove the connector from terminal 3. The pump should now function throughout the ON cycle, as the green light goes out the buzzer should sound and the red light should flash. Press the reset button to cancel warning. Reconnect



# Warranty

MASTERLUBE SYSTEMS LTD. (The Company) guarantees its products to conform to their specifications and to be free from defects therein due to faulty workmanship or materials for a period of twelve (12) months from the date of delivery to the purchaser or from the documented date of installation which shall in no event be more than six (6) calendar months from the date of delivery.

**There are no other warranties express or implied including but not limited to the warranties of merchantability and fitness for the particular purpose.**

Some states do not permit the limitations of warranties.

The Company shall not be liable for any damages resulting in whole or in part, directly or indirectly, as a result of any misuse, accident, negligence, or improper installation or adjustment.

The Company shall not be bound by or be liable for any affirmation of fact, promise, representation or inducement made by any agent, distributor, or reseller which is not embodied in this agreement.

**In no event shall the company be liable for damages, regardless of the form of action, or nature of the claim, exceeding the costs of the products. In no event shall the company be liable for loss of profit, indirect, incidental, special, consequential or other similar damages arising out of the use of the products, even if the company has been advised of special circumstances of the customer or the possibility of such damages.**

In any event the customer's sole and exclusive remedy shall be the repair or replacement of the product.

MASTERLUBE SYSTEMS LTD.  
UNIT 15, DABBLE DUCK IND. EST.  
SHILDON  
CO. DURHAM  
DL4 2QN

UK  
TEL:+44(0)1388 775584  
FAX:+44(0)1388778893  
WEB: [www.bignall.co.uk](http://www.bignall.co.uk)