



GT 3™ TIMER OPERATIONS MANUAL



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GT 3 TIMER SPECIFICATION

OFF TIME	3 secs > 2.5 hrs
MONITORED ON TIME	3 secs > 2.5 hrs
OUTPUT	Fused 16 amp +ve
SUPPLY VOLTAGE	13.8v to 28 volts
FRONT LED DISPLAYS	Green – Pump On Amber – Power On Red Flash – Alarm

DESCRIPTION

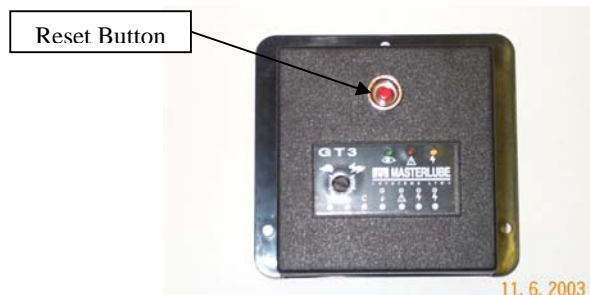
The **GT3™** is a combined cycle timer and system monitor device.

Adjustment to the frequency of operation cycles is achieved by adjustment to the 'off' cycle. In order to increase the amount of lubricant, cycles can be made to occur more frequently by reducing the 'off' time. This is done by adjustment of four time windows, which are built into the timer. The ones most suitable for your equipment will be pre-selected for you on installation.

At the end of the 'off' period a grease cycle will commence. If the cycle is completed satisfactorily the pump will automatically turned off by a micro switch which is located on the least feed secondary block.

If however the cycle does not complete, the pump will continue to operator until the end of the monitored greasing cycle and an alarm will sound, accompanied by a red flashing LED light. Pressing the RED 'Reset' button on the timer panel can reset this.

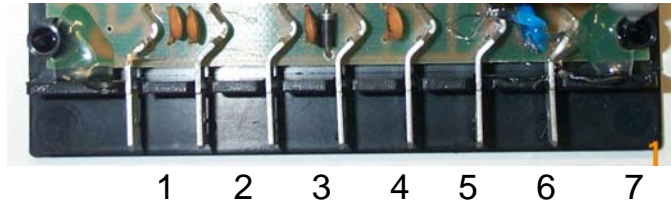
Occasional warnings may occur due to air pockets, tight bearings or very cold weather. If warnings are repeated regularly then the fault-finding procedures should be followed. (See Page 6)



SETTINGS

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



INITIAL SETTINGS

To set timer during installation;

Time the length of a full cycle from the release of the micro switch, through pump operation, back to release again.

Set the 'monitoring' time cycle with the internal trimmer. This controls the internal green light. The 'monitoring' time should be set to three times the cycle time.

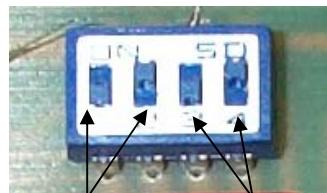
Set the 'off' time window with the internal RHS pair of switches and the external trimmer is then available to the user to vary grease quantity.

HARE; Shorter 'off' time (more grease)
TORTOISE; Longer 'off' time (less grease)

ADJUSTMENTS

The monitored cycle is controlled by an internal trimmer, and is usually set to three times the cycle time and its duration is indicated by an internal green light. Four windows of adjustment are provided, these are selected by altering two LHS switches

The 'off' cycle is controlled by an external trimmer. Four windows of adjustment are provided, these are selected by altering the two RHS switches



ON TIME
SWITCHES

OFF TIME
SWITCHES

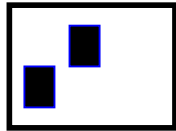
**THE ABOVE SETTINGS ARE PRESET ON INSTALLATION TO THE MACHINES
 GREASING NEEDS, ANY ALTERATION TO PRESET INTERNAL SETTINGS SHOULD
 ONLY BE DONE WITH GUIDANCE FROM BIGNALL LUBRITEC**

SETTINGS

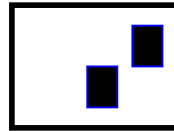
MONITORING PERIOD

OFF PERIOD

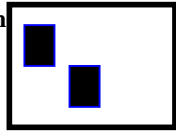
3 – 30 seconds



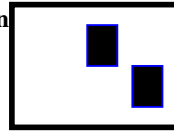
3 – 30 seconds



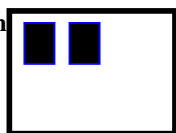
14 secs – 2.5 min



14 secs – 2.5 min



1.75min – 18min



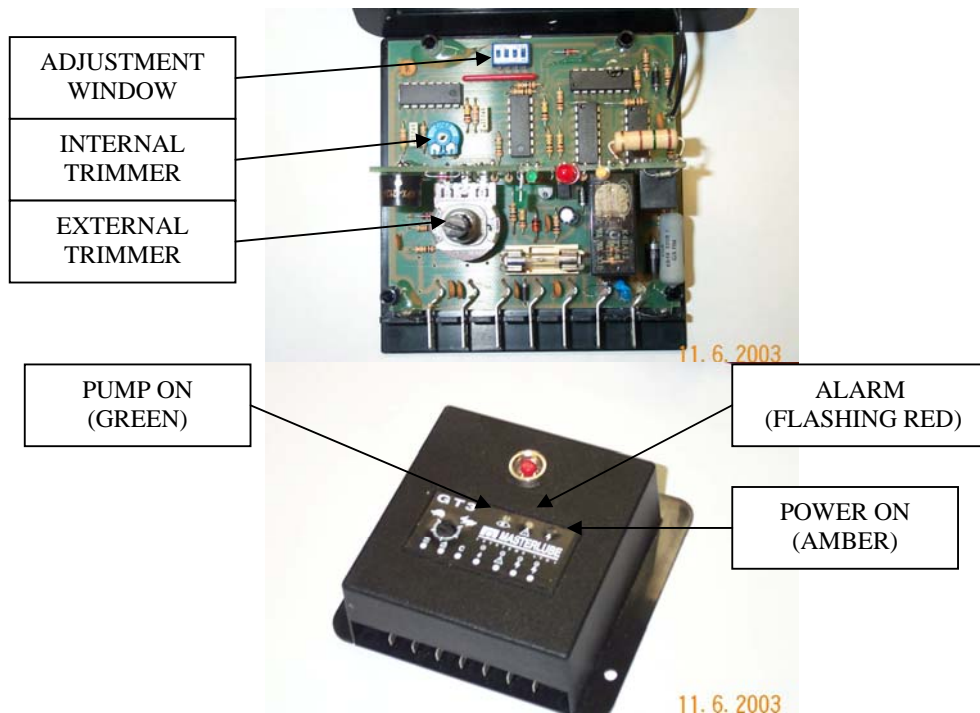
1.75min – 18min



15 min – 2.5 hrs



15 min – 2.5 hrs



MAINTENANCE

There are no serviceable parts within the GT3 Timer TM. 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 and 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 and external 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 green light monitor 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

TROUBLESHOOTING GUIDE

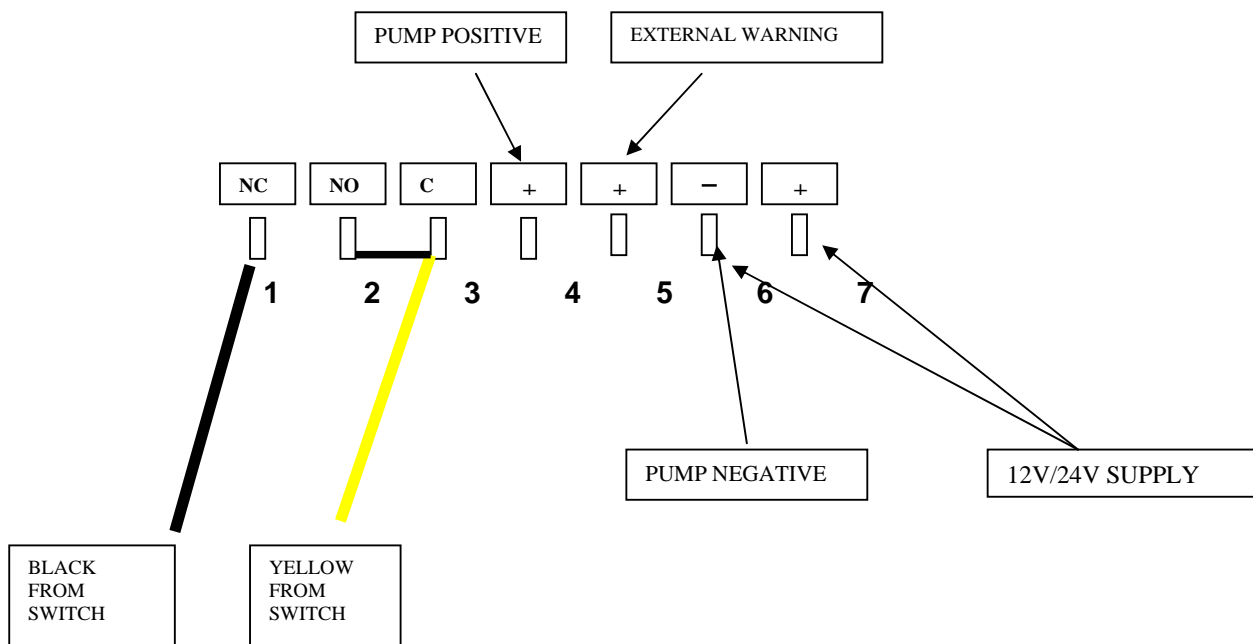
SYMPTOM	FAULT	RECTIFICATION
System Dry / Alarm Sounds	No Grease	Fill Pump (See Greasemaster Operations Manual For Instruction)
System Dry / Alarm Sounds	No Pump Pressure	Repair Or Replace Pump
System Dry / Alarm Sounds	Broken Feed Line/Pipe	Repair Or Replace Line/Pipe
System Dry / Alarm Sounds	System Stalled (Grease Leaking From Pressure Safety Valve)	Crack Off Secondary Lines Until System Starts And Indicates Seized Block. Remove Block And Identify Seized Wafer & Replace Or Replace Block.
System Dry / Alarm Sounds	System Stalled (Grease Leaking From Pressure Safety Valve)	If All Blocks Are Ok, Locate Pipe Or Fitting And Replace Or Disconnect Seized Bearing Until Freed Or Replace.
System Dry In Some Parts	Leaks Appearing From Block Seals	Replace Seals In Block Or Replace Block.
System Dry In Some Parts	Seized Bearing Or Outlet	Normally This Would Stall The System. If The System Includes Very Long Pipe Runs, Losses In The System Can Occasionally Allow A System To Continue To Run. It Is Good Practice To Install A Non-Return Valve In The Line To Prevent Pressure Loss.

MICROSWITCH

The micro switch is fitted to the Primary Master Block, two wires (One Yellow, One Black) are attached to the GT3 Timer. The Black is connected to position 1(NC) on the Timer (See Operations Manual For Timer). The Yellow is connected to position 3(C) on the Timer, then connect position 2 (NO) & 3 (C) on the Timer.



Wiring Diagram On Timer





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.

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