

Mercury 2 Lights Timer 5 Channel Timer Installation Guide



For Product: -

PR0710-TIM



Ensure that all power is switched off before installing or maintaining this product

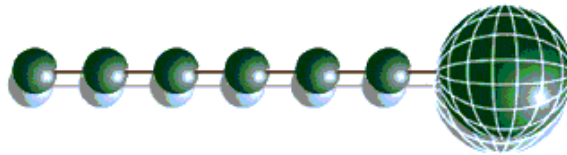


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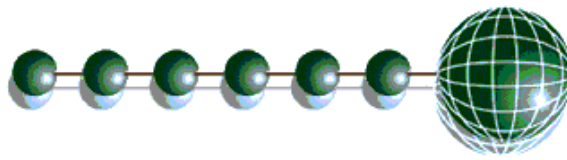
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The Mercury Range

From Resource Data Management

This documentation refers to the 5 Channel Timer

Description

The Mercury 2 Timer is a 5-channel timer module, each channel (relay output) has an independent time clock, which gives a single on/off per day. Each relay can be configured for local or remote operation. The remote option allows the unit to work from time channels running on a system front end such as the GP timer in the RDM Data Manager. Each channel has a local over-ride switch (with alarm) that will turn the channel relay on or off depending on its current state when the channel is operating in local mode. The over-ride feature can operate when the timer clock is in the on or off period. When a channel is set to remote operation the appropriate input has to be mapped, from the controller, to a GP timer to enable an over-ride operation. If the timer is being used in remote mode, and drops offline, it will use its local settings.

Configuration

The controller is delivered pre-configured for 5 channels using the local (internal) timer

Networks

The controllers are capable of connecting to either a TCP/IP local area network or a RS485 network or controlling in standalone mode with no network output.

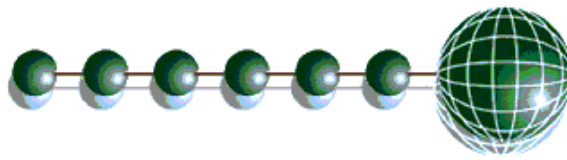
To connect to a network you must add the correct communications module.

- 485 Legacy module (Part No PR0026)
- IP Futura module (Part No PR0016)
- Mercury IP Hub (Part No PR0018)

Connecting to one of these communication modules will automatically be detected on power up and this will affect the set up screens made available to you.



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Front Panel Features

LED's: -

Valve LED

Not Used



Fans LED

Not Used



Lights LED

Not Used



Defrost LED

Not Used



On-Line

- Off No network attached
- Flashing Attempting to Log on to network
- Steady On-line



Service

Not Used



Alarm



HACCP

Not Used



Keys

Enter



Up



Down



Defrost



Note: Function keys illuminate when pressed, illumination is turned off 20 seconds after the key is used. Press and hold the defrost button to force a manual defrost

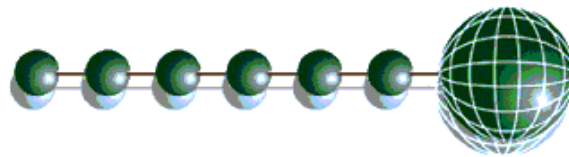
Main Display



4 character blue LED display, used to display time and status messages.

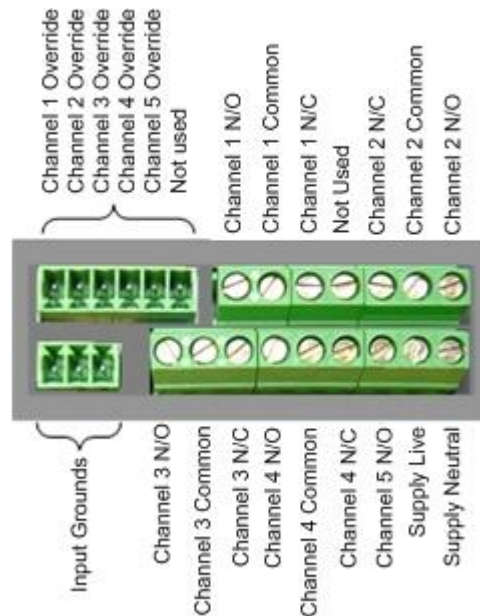


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Connections

All connections are made to the back of the controller. The diagram below shows the connection detail. Inputs and outputs are assigned according to the chosen configuration. See [Specification](#) for further details on connections.



Do not connect an earth.

Input/Output Allocation Tables

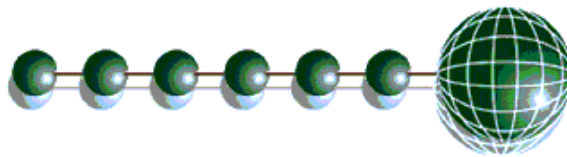
Monitor	Description	Alarm Action	Comments
Input 1	Over-ride channel 1	Yes	0 volt return
Input 2	Over-ride channel 2	Yes	0 volt return
Input 3	Over-ride channel 3	Yes	0 volt return
Input 4	Over-ride channel 4	Yes	0 volt return
Input 5	Over-ride channel 5	Yes	0 volt return
Input 6	GP Timer Channel Input	N/A	0 volt return
Relay 1	Time channel 1 output	N/A	N/O or N/C & Common
Relay 2	Time channel 2 output	N/A	N/O or N/C & Common
Relay 3	Time channel 3 output	N/A	N/O or N/C & Common
Relay 4	Time channel 4 output	N/A	N/O or N/C & Common
Relay 5	Time channel 5 output	N/A	N/O (uses the supply voltage)

* Wire to N/O relay contact unless Invert feature enabled.

It may be advantageous to use the Invert Feature in a lighting application and wire to the N/C Contacts so any failure of the controller will result in the lights relay de-energising and keeping lights on.



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Setting up the controller

Access to the controller can be achieved several ways

- Through the front mounted buttons
- Direct access by PC or palm top into the rear comms port. This requires a software package available on the RDM website
- Through legacy front end panels on 485 networks
- Through the RDM Data Director.

Set-up Mode

Set-up through front buttons



The Mercury 2 Timer normally displays the current time of day.

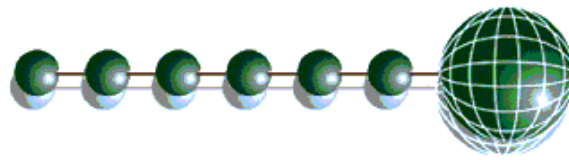
To enter set-up mode, hold the Enter and Down buttons together for approximately 3 seconds until the message “Ent” appears on the display. Now press the Enter button again to enter the function menu. IO will be displayed. Scroll up or down to go through the list.

Set-up Function Menu

Display	Option	Explained in Paragraph
IO	View Input/Output States	View Input/Output States
PArA	Set/view Parameters	Set/view parameters
rTc	Set/view Clock (rtc = Real Time Clock)	Real Time Clock
nEt	Set/view network configuration	Network Configuration
SoFt	View software version	
ESC	Escape back to normal operation	



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Recommended set-up method

If you are not connecting to a network and want to set up the controller through the buttons we recommend you use the following order from the function menu.

rtc. Real time clock (This will automatically synchronise on network systems)

- a. Use the up or down buttons to scroll through the display until the display reads “rtc”
- b. Press enter. The display will show “t-1”. Press enter again
- c. Scroll hours up or down (0 – 23) press enter
- d. Use up button to select “t-2”, press enter
- e. Scroll minutes up or down (0 – 59) press enter
- f. Repeat for t-3 (seconds 0 – 59)
- g. Repeat for t -4 (Days up to 31)
- h. Repeat for t -5 (months up to 12)
- i. Repeat for t -6 (Year up to 99)
- j. Use up button to display “ESC”, press enter to display “rtc”

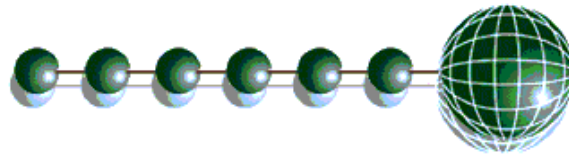
Time clock is now set

PArA. Set/view parameters (This can be achieved at the network front end)

- a. From the function menu scroll to select PArA
- b. Pressing Enter while PArA is displayed will enter the parameter menu. The first parameter option will be displayed as P-01. Pressing the Up or Down button will present the other parameter options P-02, P-03 etc. See the parameter list below to find what parameter number corresponds to which actual parameter. Pressing the Enter button will show the current value of the selected parameter. Press Up or Down to modify the value and press Enter again to save the value. The parameter list number will be displayed again. Two other options are present in the parameter menu – dFLt and ESC. Selecting ESC will exit setup mode. Selecting dFLt will reset all parameters back to the default values for the current type of controller.



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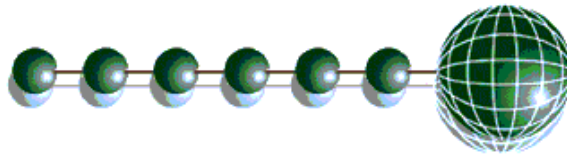


Parameter Table for Timer:

Number	Parameter	Range	Step	Units	Default
P-01	Relay 1 operation	0 = local, 1 = remote	N/A	N/A	Local
P-02	Ch 1 Invert output	0 = normal 1 = invert			Normal
P-11	Channel 1 Sun On	00:00 to 23:59	00:01	hh:mm	08:00
P-12	Channel 1 Sun Off	00:00 to 23:59	00:01	hh:mm	20:00
P-13	Channel 1 Mon On	00:00 to 23:59	00:01	hh:mm	08:00
P-14	Channel 1 Mon Off	00:00 to 23:59	00:01	hh:mm	20:00
P-15	Channel 1 Tue On	00:00 to 23:59	00:01	hh:mm	08:00
P-16	Channel 1 Tue Off	00:00 to 23:59	00:01	hh:mm	20:00
P-17	Channel 1 Wed On	00:00 to 23:59	00:01	hh:mm	08:00
P-18	Channel 1 Wed Off	00:00 to 23:59	00:01	hh:mm	20:00
P-19	Channel 1 Thur On	00:00 to 23:59	00:01	hh:mm	08:00
P-20	Channel 1 Thur Off	00:00 to 23:59	00:01	hh:mm	20:00
P-21	Channel 1 Fri On	00:00 to 23:59	00:01	hh:mm	08:00
P-22	Channel 1 Fri Off	00:00 to 23:59	00:01	hh:mm	20:00
P-23	Channel 1 Sat On	00:00 to 23:59	00:01	hh:mm	08:00
P-24	Channel 1 Sat Off	00:00 to 23:59	00:01	hh:mm	20:00
P-90	Relay 2 operation	0 = local, 1 = remote	N/A	N/A	Local
P-03	Ch 2 Invert output	0 = normal 1 = invert			normal
P-25	Channel 2 Sun On	00:00 to 23:59	00:01	hh:mm	08:00
P-26	Channel 2 Sun Off	00:00 to 23:59	00:01	hh:mm	20:00
P-27	Channel 2 Mon On	00:00 to 23:59	00:01	hh:mm	08:00
P-28	Channel 2 Mon Off	00:00 to 23:59	00:01	hh:mm	20:00
P-29	Channel 2 Tue On	00:00 to 23:59	00:01	hh:mm	08:00
P-30	Channel 2 Tue Off	00:00 to 23:59	00:01	hh:mm	20:00
P-31	Channel 2 Wed On	00:00 to 23:59	00:01	hh:mm	08:00
P-32	Channel 2 Wed Off	00:00 to 23:59	00:01	hh:mm	20:00
P-33	Channel 2 Thur On	00:00 to 23:59	00:01	hh:mm	08:00
P-34	Channel 2 Thur Off	00:00 to 23:59	00:01	hh:mm	20:00
P-35	Channel 2 Fri On	00:00 to 23:59	00:01	hh:mm	08:00
P-36	Channel 2 Fri Off	00:00 to 23:59	00:01	hh:mm	20:00
P-37	Channel 2 Sat On	00:00 to 23:59	00:01	hh:mm	08:00
P-38	Channel 2 Sat Off	00:00 to 23:59	00:01	hh:mm	20:00
P-91	Relay 3 operation	0 = local, 1 = remote	N/A	N/A	Local
P-04	Ch 3 Invert output	0 = normal 1 = invert			normal
P-39	Channel 3 Sun On	00:00 to 23:59	00:01	hh:mm	08:00
P-40	Channel 3 Sun Off	00:00 to 23:59	00:01	hh:mm	20:00
P-41	Channel 3 Mon On	00:00 to 23:59	00:01	hh:mm	08:00
P-42	Channel 3 Mon Off	00:00 to 23:59	00:01	hh:mm	20:00
P-43	Channel 3 Tue On	00:00 to 23:59	00:01	hh:mm	08:00
P-44	Channel 3 Tue Off	00:00 to 23:59	00:01	hh:mm	20:00
P-45	Channel 3 Wed On	00:00 to 23:59	00:01	hh:mm	08:00



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Parameter table continued...

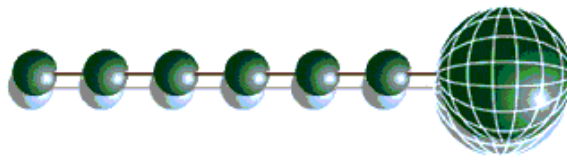
P-46	Channel 3 Wed Off	00:00 to 23:59	00:01	hh:mm	20:00
P-47	Channel 3 Thur On	00:00 to 23:59	00:01	hh:mm	08:00
P-48	Channel 3 Thur Off	00:00 to 23:59	00:01	hh:mm	20:00
P-49	Channel 3 Fri On	00:00 to 23:59	00:01	hh:mm	08:00
P-50	Channel 3 Fri Off	00:00 to 23:59	00:01	hh:mm	20:00
P-51	Channel 3 Sat On	00:00 to 23:59	00:01	hh:mm	08:00
P-52	Channel 3 Sat Off	00:00 to 23:59	00:01	hh:mm	20:00
P-92	Relay 4 operation	0 = local, 1 = remote	N/A	N/A	Local
P-05	Ch 4 Invert output	0 = normal 1 = invert			normal
P-53	Channel 4 Sun On	00:00 to 23:59	00:01	hh:mm	08:00
P-54	Channel 4 Sun Off	00:00 to 23:59	00:01	hh:mm	20:00
P-55	Channel 4 Mon On	00:00 to 23:59	00:01	hh:mm	08:00
P-56	Channel 4 Mon Off	00:00 to 23:59	00:01	hh:mm	20:00
P-57	Channel 4 Tue On	00:00 to 23:59	00:01	hh:mm	08:00
P-58	Channel 4 Tue Off	00:00 to 23:59	00:01	hh:mm	20:00
P-59	Channel 4 Wed On	00:00 to 23:59	00:01	hh:mm	08:00
P-60	Channel 4 Wed Off	00:00 to 23:59	00:01	hh:mm	20:00
P-61	Channel 4 Thur On	00:00 to 23:59	00:01	hh:mm	08:00
P-62	Channel 4 Thur Off	00:00 to 23:59	00:01	hh:mm	20:00
P-63	Channel 4 Fri On	00:00 to 23:59	00:01	hh:mm	08:00
P-64	Channel 4 Fri Off	00:00 to 23:59	00:01	hh:mm	20:00
P-65	Channel 4 Sat On	00:00 to 23:59	00:01	hh:mm	08:00
P-66	Channel 4 Sat Off	00:00 to 23:59	00:01	hh:mm	20:00
P-93	Relay 5 operation	0 = local, 1 = remote	N/A	N/A	Local
P-06	Ch 5 Invert output	0 = normal 1 = invert			normal
P-67	Channel 5 Sun On	00:00 to 23:59	00:01	hh:mm	08:00
P-68	Channel 5 Sun Off	00:00 to 23:59	00:01	hh:mm	20:00
P-69	Channel 5 Mon On	00:00 to 23:59	00:01	hh:mm	08:00
P-70	Channel 5 Mon Off	00:00 to 23:59	00:01	hh:mm	20:00
P-71	Channel 5 Tue On	00:00 to 23:59	00:01	hh:mm	08:00
P-72	Channel 5 Tue Off	00:00 to 23:59	00:01	hh:mm	20:00
P-73	Channel 5 Wed On	00:00 to 23:59	00:01	hh:mm	08:00
P-74	Channel 5 Wed Off	00:00 to 23:59	00:01	hh:mm	20:00
P-75	Channel 5 Thur On	00:00 to 23:59	00:01	hh:mm	08:00
P-76	Channel 5 Thur Off	00:00 to 23:59	00:01	hh:mm	20:00
P-77	Channel 5 Fri On	00:00 to 23:59	00:01	hh:mm	08:00
P-78	Channel 5 Fri Off	00:00 to 23:59	00:01	hh:mm	20:00
P-79	Channel 5 Sat On	00:00 to 23:59	00:01	hh:mm	08:00
P-80	Channel 5 Sat Off	00:00 to 23:59	00:01	hh:mm	20:00
dFLt	Factory Defaults				

Note: To set the channel off, set the “On” time to 23:59 and the “Off” time to 00:00

When running in remote mode, if the controller goes off-line the controller will switch to local mode. It may be prudent to set up the parameters for this eventuality.



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Network Configuration

The final section to set-up is the network address. In all instances, this must be done before the controller is plugged into the site network. The controllers have an auto-initialise function, which will automatically log the device onto the site network. If the wrong address has been entered onto the network, you will have to reset the controller address by setting the address to 00-0, and then re-enter the correct address. (You may have to deregister the wrong address from the home system as well).

To set the controller onto a network you must first connect the controller to a communications module. This is either a: -

- 485 Legacy, or
- IP Futura, or
- Mercury IP Hub

485 Legacy module

- This product supports Genus compatible network protocol

Connecting a 485 legacy module to the controller will determine which set up screens are made available. Note: °F values are not supported on a RS485 network system.

Display	Option
485t	485 Network Type
485A	485 Address/Name
gAdd	Show underlying network address assigned to controller
rLog	Re-log the controller back onto the network
CLrA	Clear the address/name from the controller
ESC	Exit network menu. N.B. this option must be selected to save any changes made in this menu

The 485A option shows a value representing either the name of the controller in a Genus compatible network.

If the controller is set for Genus compatible then the value shown is of the form 05-6. This means the controller would try to log onto a Genus compatible network using the name 'RC05-6'.

The following options are only available when the network type is set to Genus compatible.

The gAdd option displays (in hexadecimal format) the underlying network address assigned to the controller when it was logged onto the network.

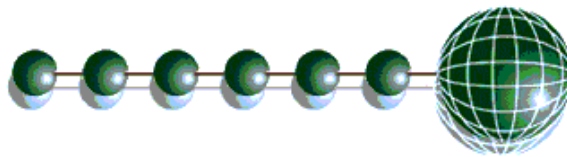
The rLog option allows the controller to be logged back onto the network with its current name. The 'rLog' message will flash for confirmation. Press the Enter button to execute the command, Up or Down buttons to cancel.

Fast Network Address Reset

Pressing the Enter button to select the CLrA option will cause the 'CLrA' message to flash for confirmation, if the network type is set to Genus compatible. Press the Enter button to execute the command, Up or Down buttons to cancel.



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IP Futura module

In an IP system there are two options

- IP-L
- IP-r

IP-L allows you to fix an IP address into the controller, which you would use when you are connecting the controllers onto a customer's local area network. This would allow the customer to view each controller using Internet Explorer.

IP-r allows you to give each controller on the system a unique ID. This number is then allocated a dynamic IP address by the system DHCP server (such as the RDM Data Director)

IP-L

To configure the communication module for IP-L, set all three rotary switches on the communication module (PR0016) to zero. The module should then be connected to the controller.

1. nEt. From the function menu you can now select nEt
 - Press enter and the display will show "IP-L", press enter
 - You can now set the address using the table below

Display	Option
IP-1	IP Address byte 1
IP-2	IP Address byte 2
IP-3	IP Address byte 3
IP-4	IP Address byte 4
nL	Network Mask Length
gt-1	Gateway Address byte 1
gt-2	Gateway Address byte 2
gt-3	Gateway Address byte 3
gt-4	Gateway Address byte 4
ESC	Exit network menu. N.B. this option must be selected to save any changes made in this menu

IP-r

To configure the communication module for IP-r, set the three rotary switches to give each controller a unique identifier. The module should then be connected to the controller and the network.

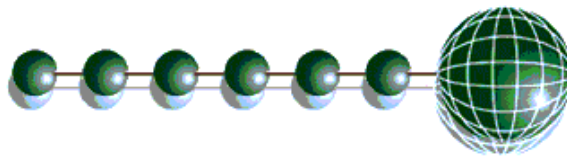
The green network LED on the controller will flash until it has been logged on to the network. The Green network LED will remain permanently on while it is on-line.

Mercury IP Hub

Please refer to the Mercury Hub user guide, which can be obtained from the RDM website, for information regarding connecting a controller to a network.



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Normal Operation

During normal operation, the controller will display the current time of day. If the Timer is on a network and on-line, the green network LED will be on. If an alarm occurs the red alarm LED will light until the alarm clears.



The Network green LED flashes if the controller goes off-line or loses its given address.

Viewing

Apart from setting up the controller, you can also view the status of the inputs and outputs.

1. IO. View Inputs / Outputs and States
 - a. From the function menu, select "IO", press enter
 - b. You can now scroll through the IO tables as set out below. The tables you view will depend on the controller type configuration.

Input/Output table for Timer

Number	IO	Range	Step	Units
I-01	Input 1	0 = open, 1 = 0V	N/A	N/A
I-02	Input 2	0 = open, 1 = 0V	N/A	N/A
I-03	Input 3	0 = open, 1 = 0V	N/A	N/A
I-04	Input 4	0 = open, 1 = 0V	N/A	N/A
I-05	Input 5	0 = open, 1 = 0V	N/A	N/A
I-06	Input 6	0 = open, 1 = 0V	N/A	N/A
O-01	Relay 1	0 = off, 1 = on	N/A	N/A
O-02	Relay 2	0 = off, 1 = on	N/A	N/A
O-03	Relay 3	0 = off, 1 = on	N/A	N/A
O-04	Relay 4	0 = off, 1 = on	N/A	N/A
O-05	Relay 5	0 = off, 1 = on	N/A	N/A

Display Messages

The following messages can appear on the Mercury display.

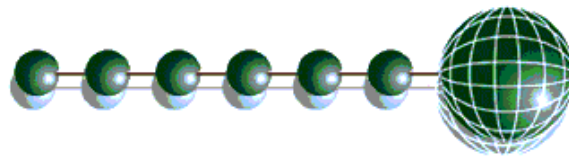
Display	System status
Time	Controller On

Network Alarms

Alarm	Type Number (Index)
Over-ride on	16 (All channels)



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Over-ride Operation

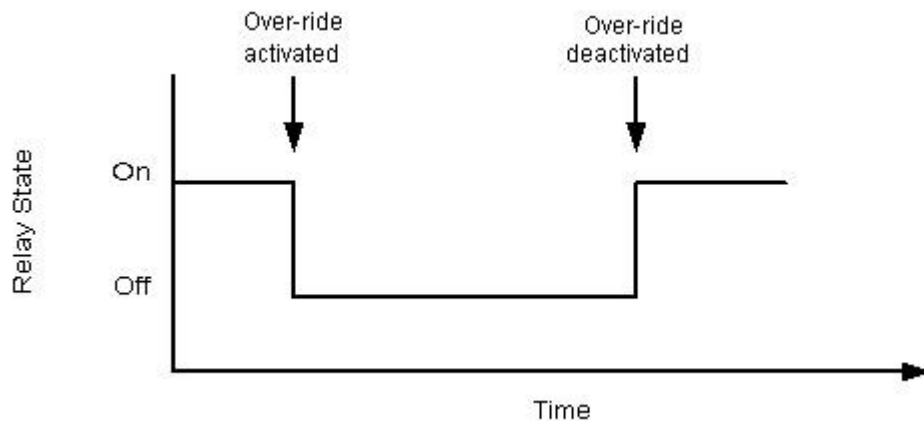
The timer can operate either from its internal channel time settings or from a network Data Manager GP timer channel. If a timer channel relay is set up for remote operation it reverts to local mode if network communications are lost for more than 5 minutes. The timer has a channel setting to invert the output, if this option is used, the output is off when the timer is on and the output is on when the timer is off.

Over-ride: -

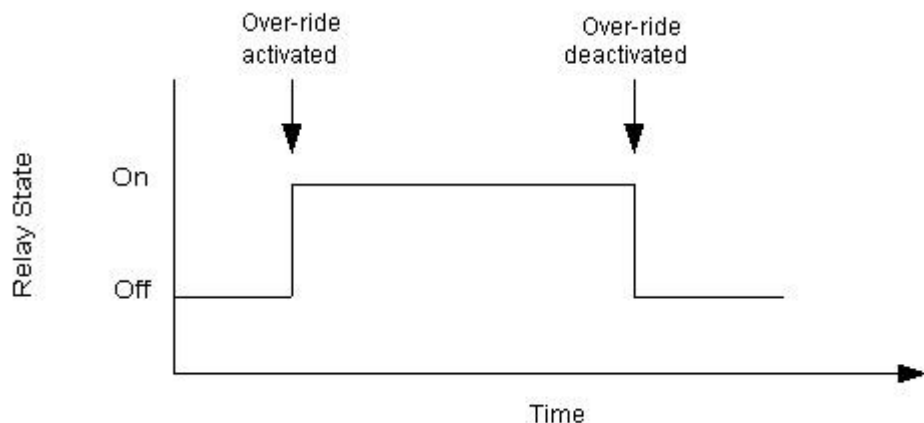
The physical process required to initiate an over-ride is the same whether the timer is set for remote or local operation i.e. the over-ride inputs require a 0V return signal to activate. However if a relay is set for remote operation the corresponding GP timer channel configured must have an "Input Type" defined to map the over-ride input to the relay output. When over-ride's are removed the relay returns too normal operation.

Local Operation

If the timer channel is set for local operation the following two actions can occur: -



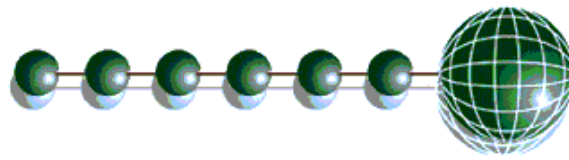
In the above example the timer is in the on state. When the over-ride switch is activated the output of the relay changes state and is off. When the over-ride switch is deactivated the output of the relay changes state and returns too normal operation.



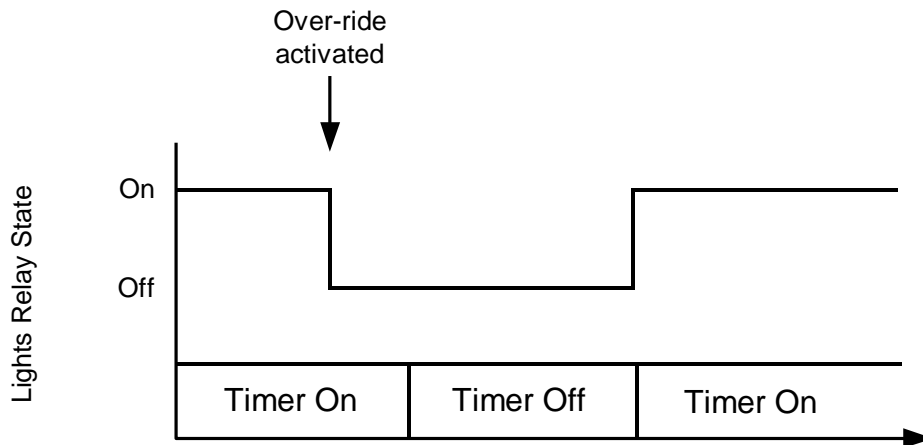
In this example the timer is in the off state. When the over-ride switch is activated the output of the relay changes state and is on. When the over-ride switch is deactivated the output of the relay changes state and returns too normal operation.



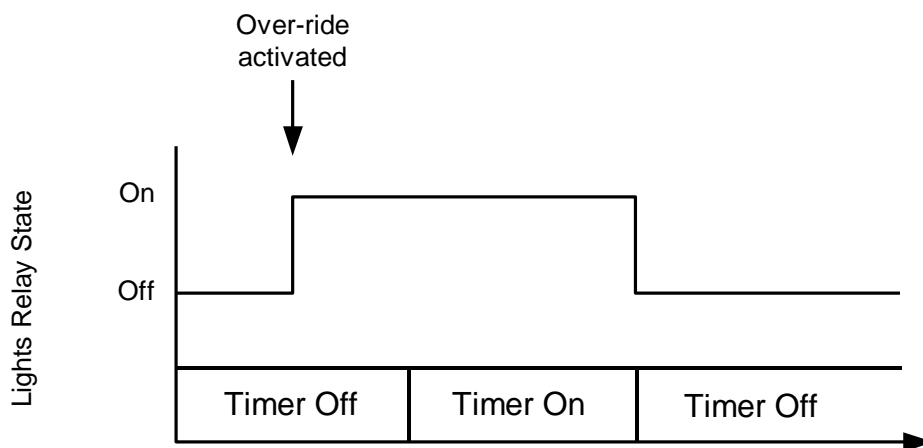
Ensure that all power is switched off before installing or maintaining this product



As shown the over-ride function's in both the on and off period of the timer. Two example situation's, outlining the interaction of the over-ride with the timing parameters, are outlined below.



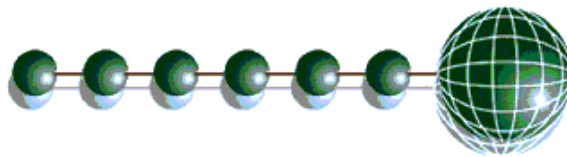
On viewing the example shown above a Mercury 2 6-5 timer is used to operate store lighting, with the controller set to local operation. The over-ride command can be used to switch the lights off when the timer is in the on period. The lights will remain off until the next scheduled on in the timer parameters or when the over-ride is removed.



As shown above the over-ride command will switch the lights on, when the timer is in the off period. The lights will remain on until the next scheduled off in the timer parameters or when the over-ride is removed. When the over-ride input is activated an alarm, with a fixed delay of 15 seconds, is generated by the controller to highlight the over-ride has been activated. Note when an over-ride is no longer required the over-ride signal should be removed from the appropriate input.



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Remote Operation

As mentioned previously when a channel is set to remote operation a GP timer must be configured with on/off times for the relay. If an over-ride is to be used with this channel then the GP timer must also have the input type fields configured to enable the over-ride. This process is outlined below. Please consult the Data Manager commissioning guide for full details regarding configuring a GP timer channel.

GP Timer Configuration

If the Timer is used with an RDM Data Director or a Data Manager, the channels can be configured using the GP timer function. This allows for a much greater flexibility of on/off times, as well as master/slave operation.

From the "Home" screen, follow the links to the GP timer function:



Select a GP timing channel to configure by clicking the mouse on the channel required: -

RDM Hillington Resource Data Management

Home Back Logout

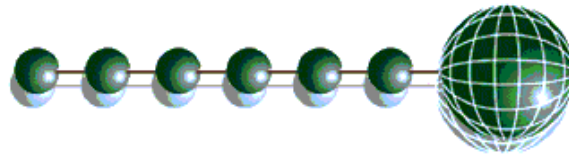
Data Director GP Timer Channels

Channel	Description	Status
1	Real test 1	On
2	Timer Channel for Relay 1	On
3	Jon Test Channel	Off
4	Jon office hours	On
5	MonCh5	On
6	GP Timer Channel 6	On
7	50 schedules	On
8	multiple times	Off
9	Slave for multiple times	Off
10	more multiple times	Off
11	slave 4 more mult times	Off
12	test rows	Off
13	test rows slave	Off
14	Timer for relay 2	On
15	Timer for relay 3	On
16	Timer for relay 4	On
17	Timer for relay 5 (slave to 2)	On
18	GP Timer Channel 18	Off

There are 32 GP timer channels to choose from and a further 8 Global GP timer channels. Once a channel has been selected, set the channel to master or slave and use the set-up wizard (by clicking on the "Add Schedule" button) to configure the required on/off times and days:



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Once the wizard has been completed, add the relevant information in the other fields:

- **Channel Name** - Enter a meaningful name; e.g. Store Lighting (RC01-5 Relay1).
- **Input Type** - If set to "Force On" it will force the relay from off to on, if the timer is in the off period and the output is not inverted, when the input is activated. Note the over-ride will remain on as long as the input is applied and the "Force On" will **not** be removed until the input is de-activated. See Data Manger guide for information regarding further Input types.
- **Input Controller** - Enter the controller name you wish to map the input from.
- **Input Channel** - Set this to the select the origin of the input. Note that this field starts at zero; so setting this to 0 will map Input 1 on the controller to the GP timer channel.
- **Output Type** - set this field to general.
- **Output Mask** - set this to the controller name you want the timer to act on; e.g. RC01-5.
- **Output Channel** - set this to the output number of the relay you want the timer to act on. Note that this field starts at zero; so setting this field to 0 will act on Relay 1 etc.

Channel Type: Master

Channel Name: Store Lighting (RC01-5 Relay1)

Input Type: Toggle | Input Controller: RC01-5 | Input Channel: 0

Output Type: General | Output Mask: RC01-5 | Output Channel: 0

Invert Output:

Remove All | Remove | Add Schedule

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Mon	Tues	Wed	Thurs	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Key:
Daily
Weekly
Yearly
Once

Period 1: 08:45 to 20:15

Period 2: 00:00 to 00:00

Set Channel

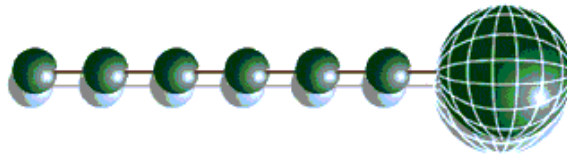
Click the "Set Channel" once all the field values are correct.

Other GP channels can be used to configure the remaining relays.

Note – When the channel is set to remote and an over-ride is activated there will be a short delay before the relay changes state. This is due to inherent delays in the network. Please allow sufficient time for the relay to change state before activating the over-ride again.



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Specification

Power requirements:

Supply Voltage Range:	100 - 240 Vac \pm 10%
Supply Frequency:	50 - 60 Hz
Maximum supply current:	5.2 Amps (when relay 5 is fully loaded)
Typical supply current:	<1 Amp
Operating temperature range:	+5°C to +50°C
Operating Humidity:	80% maximum
Storage temperature range:	-20°C to +65°C
Environmental:	Indoor use at altitudes up to 2000m, Pollution Degree 1, Installation Category II. Voltage fluctuations not to exceed \pm 10% of nominal voltage
Size:	78mm (W) x 36mm (H) x 110mm (D)
Approx Weight:	170 Grams
Safety:	EN61010
EMC:	EN61326; 1997 +Amdt. A1; 1998
Ventilation:	There is no requirement for forced cooling ventilation
Class 2 Insulation:	No protective Earth is required and none should be fitted.

The host equipment must provide a suitable external over-current protection device such as: -
 Fuse: 6.3A 240 Vac Antisurge (T) HRC conforming to IEC 60127
 Or MCB: 6A, 240 VAC Type C conforming to BS EN 60898

The host equipment must provide adequate protection against contact to hazardous live parts.

Relays

Max current relay 1:	6A (non inductive)
Max Voltage relay 1:	250Vac, 30V dc
Exclusive common	
Max current relay 2:	6A (non inductive)
Max Voltage relay 2:	250Vac , 30V dc
Exclusive common	
Max current relay 3:	6A (non inductive)
Max Voltage relay 3:	250Vac
Exclusive common	
Max current relay 4:	6A (non inductive)
Max Voltage relay 4:	250Vac
Exclusive common	
Max current relay 5:	3A (non inductive)
Max Voltage relay 5:	250Vac (Internal supply)
Common connected to Supply Live	

For compliance with the LVD, relays 3, 4 and 5 commons must be at the same potential as the supply voltage.

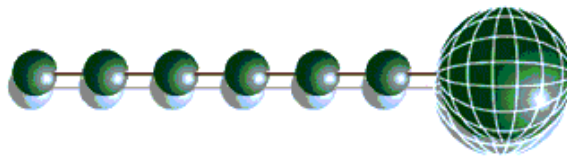


Warning:

Relay 5 output has hazardous voltages (Supply input voltage potential).



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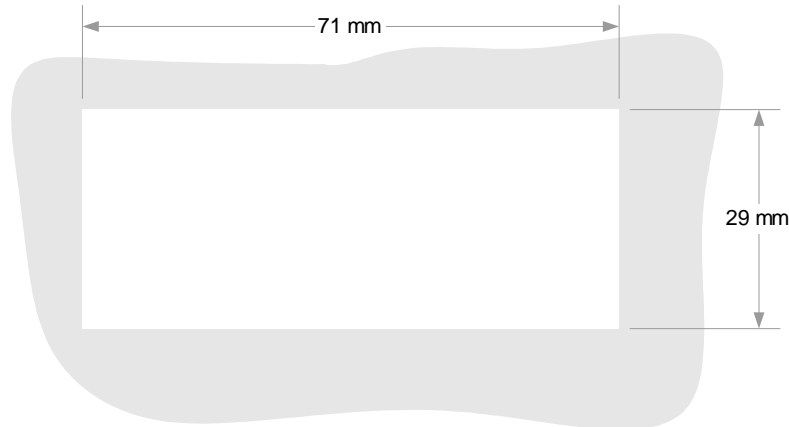


Comms:

RS232 with flow control

Installation:

Panel Cut-out:



The Mercury 2 fascia is 78mm x 36mm and is central around the cut-out.

Fixing:

The controller is fixed by sliding the 2 plastic retaining clips up to rear of the panel. These clips have a ratchet action and can be removed by holding in the clip sides and sliding back.

Clearances:

Space required behind the panel: 120mm + space for cable bends

Space required behind the panel on the right hand side (looking from the front): 30mm + bend radius for a Cat5 patch lead

Space required behind the panel on the left hand side (looking from the front): 20mm

There is no requirement for forced cooling ventilation

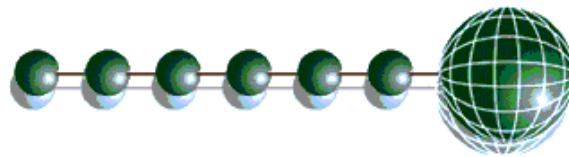
Cleaning:

Do not wet the controller when cleaning. Clean the front by wiping with slightly dampened lint free cloth.

Please note: The specifications of the product detailed on this set up guide may change without notice. RDM Ltd shall not be liable for errors or for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document.



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Mercury 2 Timer Installation guide

Revision History

Revision	Date	Changes
1.0	14/05/2007	First Issue
1.1	14/05/2007	Corrected panel cut-out and removed reference to Mercury 1
1.2	20/06/2007	Channel over-rides for Local and Remote operation changed. Specification changes made (had Mercury 1 settings)
1.3	20/05/2008	Relay connections corrected
1.4	16/09/2009	Technical specification amended
1.4A	29/12/2009	Technical specification amended
1.4B	10/08/2010	Input/Output allocation table amended



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