



Mercury
PR0710-TIM



Intuitive
PR0750-TIM

Mercury 2 & Intuitive Mercury 5 Channel Timer Installation & User Guide



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

The Mercury 2 & Intuitive Mercury 5 Channel Timer From Resource Data Management

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.

There is also a DIN rail mounted range, known as the Intuitive Mercury range, which is designed to be used in a control panel or electrical tray. This range has the same features as the Mercury Mk2 controller with additional benefits such as higher rated relays each protected by an integral fuse and fuse protection for the incoming power supply, all connections are plug and socket. There are multiple network interfaces to choose from including Ethernet.

Variants

Description	Part Number
Mercury Mk2, 5 Channel Timer	PR0710-TIM
Intuitive Mercury, 5 Channel Timer	PR0750-TIM

Configuration

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

Compatible Network Interfaces

Mercury and Intuitive Mercury controllers are capable of connecting to either a TCP/IP local area network, an RS485 Genus compatible network, an RDM wireless mesh network or they can be used in standalone mode with no network output. To connect to a network you must add the correct communications module. Connecting to any of these communication modules will automatically be detected on power up and will affect the set up screens available to you.

Description	Part Number
IP Futura (Single Mercury to IP Interface)	PR0016
RS485 Interface (Single Mercury to RS485 Interface)	PR0026
Mercury IP Switch (IP support for 10 controllers)	PR0018
Mercury IP Switch with Pressure/Humidity Inputs	PR0018-PHI
Wireless Mesh Interface (for single Mercury)	PR0730

The Intuitive Mercury Controller is supplied as standard with an internal RS232 network card, this allows connection to any of the above external network interfaces. Three alternative internal network cards are also available, these can be supplied factory fitted as an option or purchased separately as an interface kit.

Description	Part Number
Intuitive Internal IP Network Card Interface Kit	PR0770
Intuitive Internal RS485 Network Card Interface Kit	PR0771
Intuitive Internal Wireless Mesh Network Card Interface Kit	PR0772



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Front Display Features

LED's: -

Valve (Not Used) 


Fans (Not Used) 

Lights (Not Used) 

Defrost (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



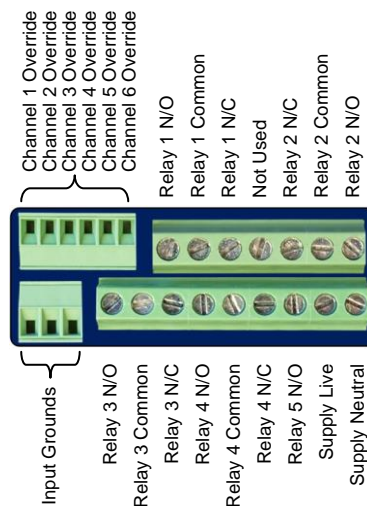
4 character LED display, used to display time and status messages.

Note the Intuitive Mercury display is Green in colour when lit.

Connections

Mercury Mk2

Input and Output connections are made to the back of the controller, the RS232 communication port is on the side. The diagram shows the connection detail. Inputs and outputs are assigned according to the chosen configuration. See [Input/Output](#) tables for further details on connections.

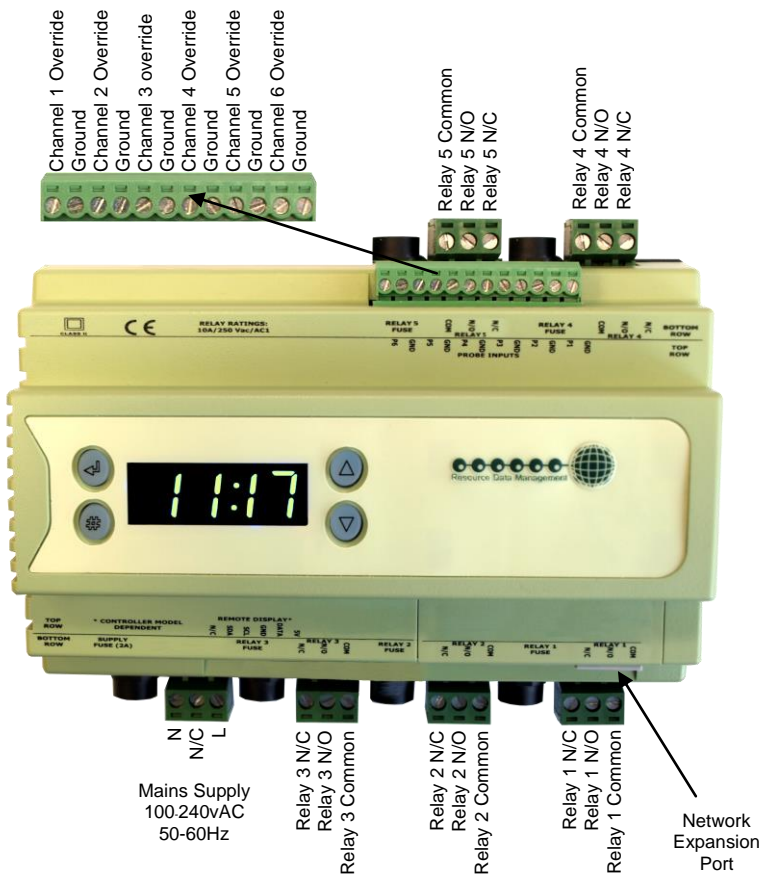


Do not connect an earth.



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Intuitive Mercury Controller



Intuitive Mercury Network Expansion Options

RS232 Network Card (Default)



The Intuitive Mercury is supplied with an RS232 Network Card fitted as standard. Some example optional network cards are shown below

IP Network Card (PR0770)



Rotary Address Switches, Network Collision LED, Network Activity LED

RS485 Network Card (PR0771)



Ground, B-, A+, Screen, Network Activity LED

PR0772 Wireless Mesh Option also available. The network interfaces work in the same way as there external counterparts.

All inputs and outputs are plug and socket. The supply voltage and relay outputs have individual fuse protection.

Input and Output Allocation Tables

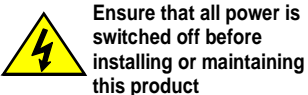
The following tables indicate; on a controller type basis, the functions of the inputs and outputs. Also shown are the defrost inputs that are derived by switching in a fixed value resistor across the input.

Input / Output allocation table

Pulse Reader	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	Yes	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)*

* Only on Mercury Mk2 platform, on Intuitive Mercury contacts are volt free.

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.



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 Manager.
- Across an IP network. (Current controller IP address required)

Setup through front buttons



To enter setup 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.

Setup Function Menu

Display	Option	Explained in Paragraph
IO	View Inputs / Outputs and States	Input / output table
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	Exit Setup mode	

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)

- Use the up or down buttons to scroll through the display until the display reads "rtc"
- Press enter. The display will show "t-1". press enter again
- Scroll hours up or down (0 – 23) press enter
- Use up button to select "t-2", press enter
- Scroll minutes up or down (0 – 59) press enter
- Repeat for t-3 (seconds 0 – 59)
- Repeat for t -4 (Days up to 31)
- Repeat for t -5 (months up to 12)
- Repeat for t -6 (Year up to 99)
- 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)

- From the function menu scroll to select PArA
- 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

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
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



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Number	Parameter	Range	Step	Units	Default
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.

Network Configuration

The final section to setup 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).

When logging a Mercury or Intuitive Mercury with an RS232 interface onto a network you must first connect the controller to a communications module, this is either a 485 Legacy, RDM Wireless Mesh system, IP Futura or Mercury Switch. When using an Intuitive Mercury controller, the controller has to have the correct network card fitted (see "compatible network interfaces"). For connection to a Mercury Switch (Hub) or an external network interface, the standard fitment RS232 network card is utilized.

RS485 Legacy module / Intuitive Internal RS485 Network card

Connecting an RS485 legacy Module or an Intuitive Internal RS485 network card to the controller will govern which set up screens are made available. Both modules support the "Genus" protocol only.

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 485t option shows a value representing the network type. The possible values are:

Value	Network Type
1	Genus compatible (all versions)
2	RDM Wireless Mesh System (Wireless Mesh)

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

Wireless Mesh Communication Module

RDM Wireless Mesh System, please refer to the RDM Wireless Mesh Communication Module user guide, which can be obtained from the RDM website, for information regarding connecting a controller to a Wireless Mesh network. The value shown in 485A is of the form 05-6. This means the controller would try to log onto a Genus compatible or RDM Wireless Mesh network using the name 'RC05-6'.

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.



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Fast Network Address Reset

The **CLrA** option will clear out the network address and name in the controller. The 'CLrA' message will flash for confirmation. Press the Enter button to execute the command, Up or Down buttons to cancel.

To enter this mode, hold the Enter, Up and Down buttons together for approximately 3 seconds until the message **CLrA** appears on the display. **CLrA** is the first option in the menu consisting of the following options:

Display	Option
CLrA	Clear the address/name from the controller
ESC	Exit Setup mode

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. If the network type is not set to Genus compatible then the **CLrA** message will not flash and the ESC option can be used to exit the menu.

IP Futura module / Intuitive Internal IP Network card

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 number. This number is then allocated a dynamic IP address by the system DHCP server (such as the RDM Data Manager or Data Director)

IP-L

To configure the communication module or network card for IP-L, set all three rotary switches to zero. The module should then be connected to the controller. In the case of an Intuitive Mercury controller where the network card is already fitted, the controller should be powered off, all three rotary switches set to zero and the controller powered on.

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. In the case of an Intuitive Mercury controller where the network card is already fitted, the three rotary switches must be set when the controller is powered off, the controller should then be powered on to connect to the network.

2. nEt. From the function menu you can now select nEt
 - Press enter and the display will show "IP-r", press enter
 - You can now view only the address given by the DHCP server

To ease setup, a single network mask length value is used. If the address has been specified with a network mask value in dotted IP format e.g. 255.255.255.0 then the table below gives the conversion:

Mask	Length	Mask	Length	Mask	Length
		255.255.254.0	23	255.254.0.0	15
255.255.255.252	30	255.255.252.0	22	255.252.0.0	14
255.255.255.248	29	255.255.248.0	21	255.248.0.0	13
255.255.255.240	28	255.255.240.0	20	255.240.0.0	12
255.255.255.224	27	255.255.224.0	19	255.224.0.0	11
255.255.255.192	26	255.255.192.0	18	255.192.0.0	10
255.255.255.128	25	255.255.128.0	17	255.128.0.0	09
255.255.255.0	24	255.255.0.0	16	255.0.0.0	08



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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

From the function menu, select "IO", press enter
 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 # (index)
Over-ride on	16 (All channels)



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Over-ride Operation

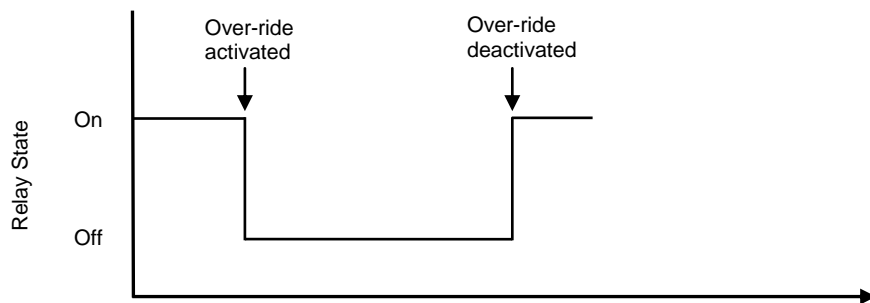
The timer can operate either from its internal channel time settings or from a network Data Manager GP timer channel. If a timer channel relay is set up for remote operation it reverts to local mode if network communications are lost for more than 5 minutes. The timer has a channel setting to invert 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: -

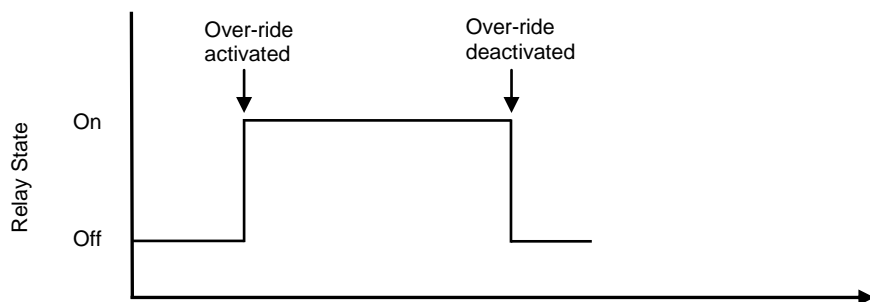
The physical process required to initiate an over-ride is the same whether the timer is set for remote or local operation i.e. the over-ride inputs require a 0V return signal to activate. However if a relay is set for remote operation the corresponding GP timer channel configured must have an "Input 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: -

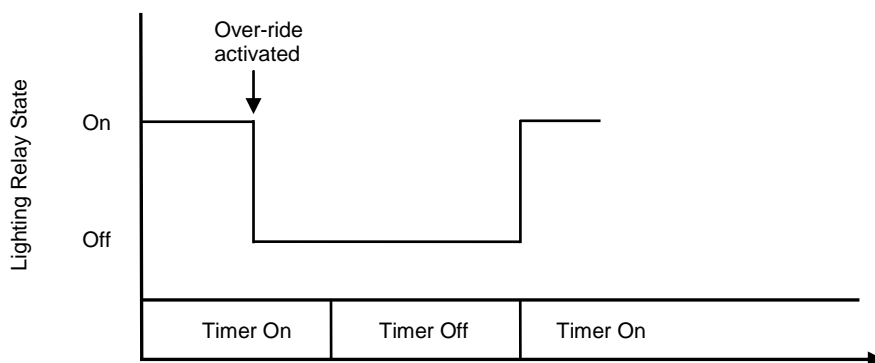


In the above example the timer is in the on state. When the over-ride switch is activated the output of the relay changes state and is off. When the over-ride switch is deactivated the output of the relay changes state and returns to normal operation.

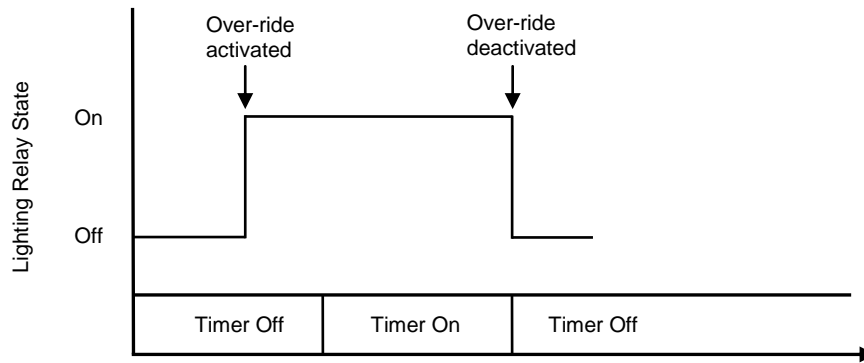


In this example the timer is in the off state. When the over-ride switch is activated the output of the relay changes state and is on. When the over-ride switch is deactivated the output of the relay changes state and returns to normal operation.

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



On viewing the example shown above, a Mercury 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.

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

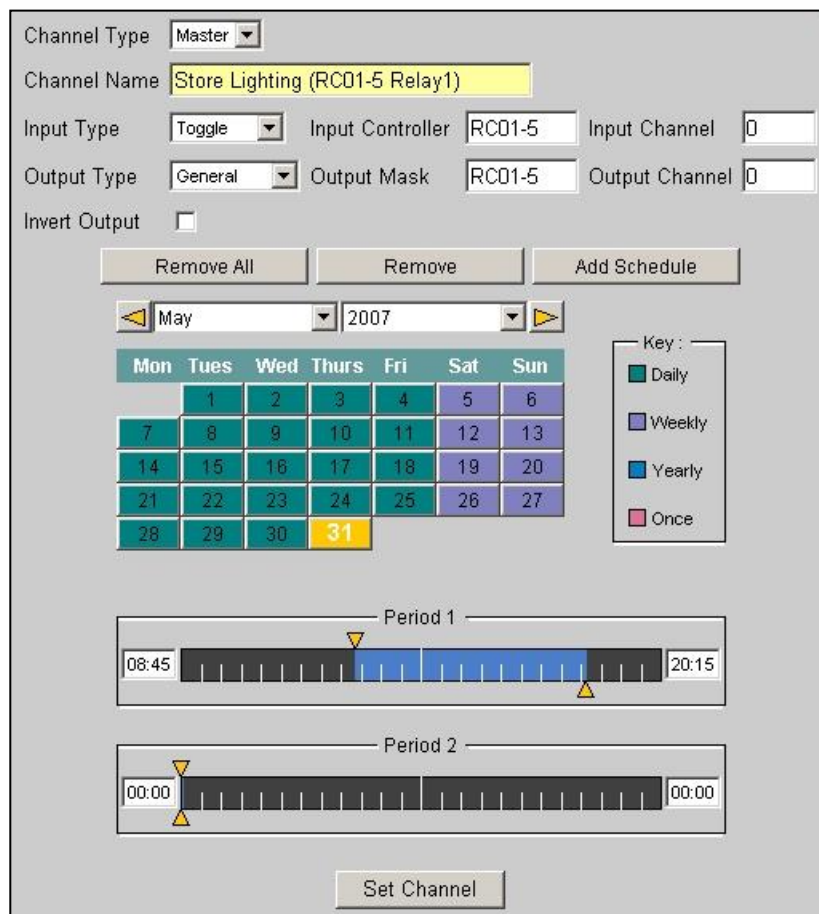
Data Manager GP Timer Channels Logout

Channel	Description	Status	Output Type	Mask
1	Peak trading Timer Cases	On	Case	
2	Case Lighting H5	On	Case	H5-???
3	HT Case Lighting HT3	On	Case	HT3-??
4	HT Case Lighting HT4	On	Case	HT4-??
5	HT Case Lighting HT5	On	Case	HT4-??
6	HT Case Lighting HT6	On	Case	HT6-??
7	HT Case Lighting HT 6	On	Case	HT6-??
8	HT Case Lighting HT 7	On	Case	HT7-??
9	HT Case Lighting HT 7	On	Case	HT7-8?
10	HT Case lights Slave HT5	On	Case	HT5-??
11	2/3 Salesfloor & Spot Lights	On	General	TIMER1
12	1/3 Salesfloor Lights	On	General	TIMER1
13	Case Lighting H6	On	Case	H6-???
14	Case Lighting INT	On	Case	INT-??
15	GP Timer Channel 15	Off	Case	
16	GP Timer Channel 16	Off	Case	
17	GP Timer Channel 17	Off	Case	
18	GP Timer Channel 18	Off	Case	
19	GP Timer Channel 19	Off	Case	
20	GP Timer Channel 20	Off	Case	
21	GP Timer Channel 21	Off	Case	

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:

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:

Buttons: Remove All, Remove, Add Schedule

Month: May | Year: 2007

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.



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

Specifications

	Mercury Mk2 Controller PR0710-TIM	Intuitive Mercury controller PR0750-TIM
Power requirements		
Supply Voltage Range	100 - 240 Vac \pm 10%	100 - 240 Vac \pm 10%
Supply Frequency	50 - 60 Hz	50 - 60 Hz
Maximum supply current	5.2 Amps (when relay 5 is fully loaded)	2 Amps
Typical supply current	<1 Amp	<1 Amp
General		
Operating temperature range	+5°C to +50°C	-10°C to +60°C
Storage temperature range	-20°C to +65°C	-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.	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)	157mm (W) x 67mm (H) x 120 (D)
Approx Weight	170 grams	500 grams
Safety	EN61010	EN61010
EMC	EN61326; 1997 +Amdt. A1; 1998	EN61326; 1997 +Amdt. A1; 1998
Ventilation	There is no requirement for forced cooling ventilation	There is no requirement for forced cooling ventilation
Class 2 Insulation	No protective Earth is required and none should be fitted	No protective Earth is required and none should be fitted
Supply Fuse	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	Built in fuse holder, fuse 2A 240Vac Antisurge (T) HRC conforming to IEC60127, 32 x 6.3mm
Or MCB	6A, 240 VAC Type C conforming to BS EN 60898	2A, 240 VAC Type C conforming to BS EN 60898 (Note: controller has integral 2A fuse)
Relay Fuse	Not Fitted	10A 240Vac Antisurge (T) HRC conforming to IEC60127, 32 x 6.3mm
Relay Specification		
Relays 1-4 Exclusive common		Relays 1-4 Exclusive common
Max current	6A Resistive (Cos ϕ = 1) 2A Inductive (Cos ϕ = 0.4)	10A Resistive (Cos ϕ = 1) 3A Inductive (Cos ϕ = 0.4)
Max voltage	250Vac, 30V dc	250Vac, 30V dc
Relay Fuse	N/A	10A 240Vac Antisurge (T) HRC conforming to IEC60127, 32 x 6.3mm
Relay 5 Common connected to supply live		Relay 5 Exclusive common
Max current	3A (non inductive), COS ϕ =0.4 2A (inductive load) 200,000 operations	10A Resistive (Cos ϕ = 1) 3A Inductive (Cos ϕ = 0.4)
Max voltage	250Vac (Internal supply)	250Vac, 30V dc (external supply)
	For compliance with the LVD, relays 3, 4 and 5 commons must be at the same potential as the supply voltage	All relays are independent and can operate at different potentials to the supply voltage.



Warning: Relay 5 output has hazardous voltages (Supply input voltage potential)
This does not apply to the Intuitive Mercury controller

Comms:

RS232 with flow control

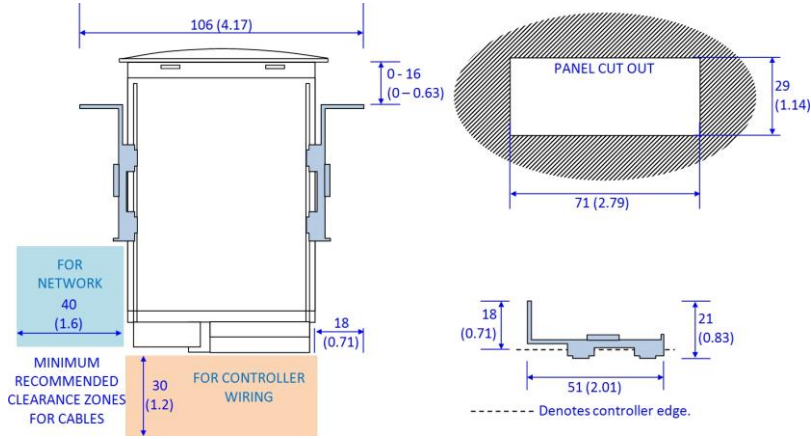


Ensure that all power is switched off before installing or maintaining this product

Installation

Panel Cut-out and Clearances

Mercury Mk2 (Flush mount controller)



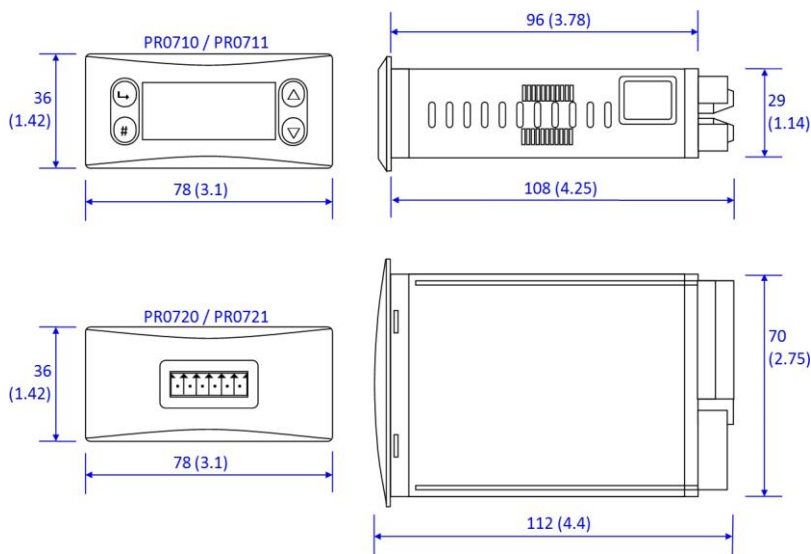
Fixing

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.

There is no requirement for forced cooling ventilation

Dimensions

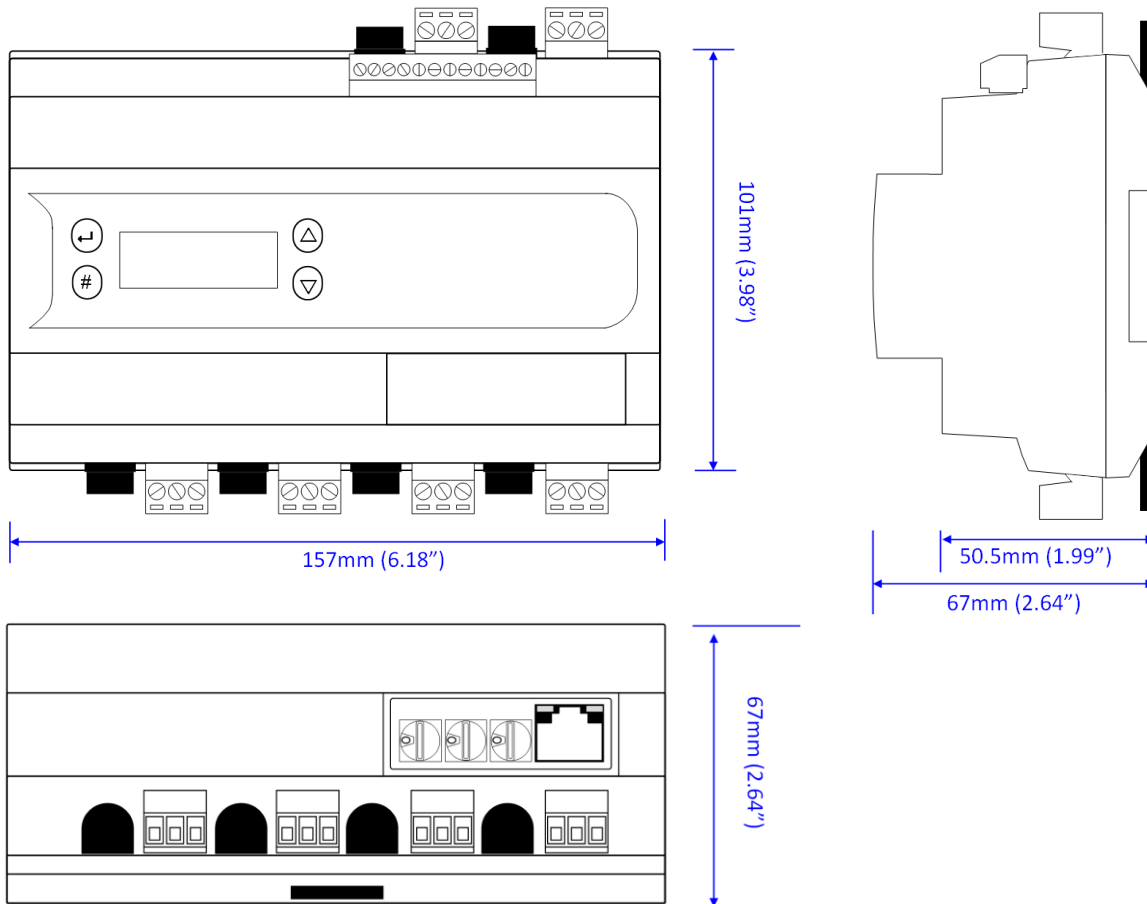
Mercury Mk2



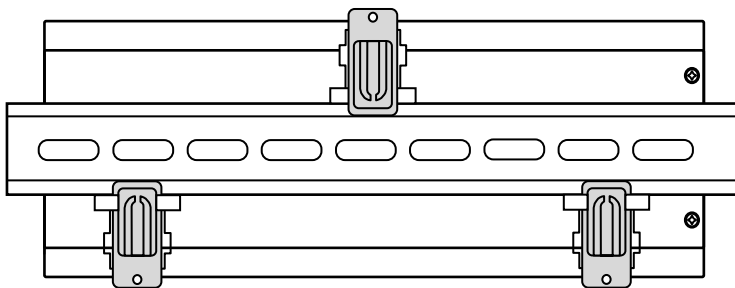
Ensure that all power is switched off before installing or maintaining this product

Dimensions

Intuitive Mercury controller



Intuitive Mercury Mounting Instructions



Three clips fix the Intuitive Mercury securely to DIN rail. Pull each clip until it “clicks” to remove the controller. Each clip has a mounting hole to provide an alternative fixing mechanism to DIN mounting.

Cleaning

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

Disclaimer

The specifications of the product detailed in this document may change without notice. RDM Ltd shall not be liable for errors or omissions, 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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Revision History

Revision	Date	Changes
1.0	02/05/2011	Introduction of Intuitive range
1.0a	06/01/2015	Operating temperature range adjusted.



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