



Contents	Page
A Introduction	2
B Safety Instructions	2
C Product Features	3
D Product Specification	4
E Compliance with LVD and EC Directives	4
F Installation	5
G Insulation testing	7
H Timer Module Programming	8
I Guarantee	14

Please leave this leaflet with the end user for future reference

44650PL Ed.2

F. INSTALLATION

In addition to the instructions below, please refer to the Masterseal leaflet provided with this product.

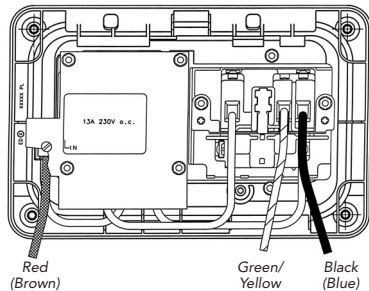


Figure 1

A. INTRODUCTION

List Nos. 56485 GRY and 56485 WHI are products belonging to the IP56 protected MK Masterseal range, based on a single socket outlet to BS1363-2, which is switched via a single pole relay controlled by a Timer module. The maximum rated current for the socket outlet is 13A.

B. SAFETY INSTRUCTIONS

- This product must be installed by a competent person in accordance with the current editions of the IEE Wiring Regulations (BS7671) and Buildings Regulations. If in any doubt, consult a qualified electrician.
- To prevent electrocution, do not work on any appliance live. Turn off the mains supply before commencing work.
- To prevent fire hazard do not exceed the rated load specified for the product.
- Product and packaging should be disposed of via standard refuse facilities at the end of their life.

If in doubt and for further information, consult Technical Sales Services Department (see last page of this leaflet).

Please refer to figure 1 for terminal layout and wiring arrangement.

- Strip back the outer sheath and trim wires to approximate length with some slack to allow cable ends to reach the terminals.
- Carefully strip back the inner insulation to expose 13mm of conductor.
- Slide a length of green/yellow sleeving onto the bare earth conductor(s).
- The conductors should now be connected to the respective terminals as described and shown in figure 1. Take care to select the cable with the appropriate sleeve colour code for each terminal.
- Please note, in addition to the Earth terminal provided at the back of the socket outlet, an earth terminal is provided in the back box for looping the earth conductor.
- Please note: the colour codes used in the UK prior to April 2004 are as follows:-

RED = terminal marked 'L'
 BLACK = terminal marked 'N'
 GREEN/YELLOW = terminal marked '⊕'

For all other areas of the EU, as well as new build installations in the UK after 2004 the colour codes used are:-

C. PRODUCT FEATURES

- Single 13A socket outlet, switched via a single pole relay housed in the timer module
- Multi-function LCD display
- Weekly electronic timer
- 24 hour clock
- Up to 6 ON/OFF programmes per day
- Individual day selection as well as 4 block selections as follows:
 - Monday to Friday
 - Saturday and Sunday
 - Monday to Saturday
 - Monday to Sunday
- Manual Override button to switch the output to the socket ON or OFF, bypassing switching controlled by any of timer programmes
- Internal back up battery keeps the clock operational and the programmed information stored during mains failure conditions, for up to 100 hours.
- Crystal controlled digital clock provides time accuracy better than ± 1 second per day
- Operating ambient temperature range of -5°C to +40°C (BS 1363-2:1995), the average value over 24 h not exceeding 25°C.

BROWN = terminal marked 'L'
 BLUE = terminal marked 'N'
 GREEN/YELLOW = terminal marked '⊕'

The first colour indicated in the following illustration (figure 1) will be that used prior to April 2004. The second colour, shown in brackets, is the colour used after April 2004.

- Carefully push the wired socket back into the back box, ensuring the cables are not trapped or pinched.
- Using the fixing screws provided in the front moulding, mount the socket onto the back box. To prevent damage or distortion to the front plate Do not over tighten the screws.

G. INSULATION RESISTANCE TESTING

The Masterseal timer socket should be disconnected from the supply while carrying out insulation resistance tests on the installation, to avoid spurious readings and to prevent damage to the electronic circuit of the timer module.

D. PRODUCT SPECIFICATION

Mains System Supply Voltage	- 230V ± 10% a.c., 50 Hz ± 5%
Ambient Temperature Range	- -5°C to +40°C (BS 1363-2:1995), the average value over 24 h not exceeding 25°C
Load Rating of the socket outlet	- 13A Resistive
IP Rating	- IP 56, suitable for mounting on internal or external walls

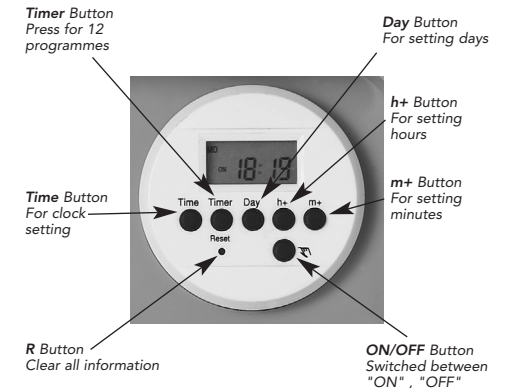
E. LVD AND CE COMPLIANCE WITH EC DIRECTIVES

The product complies with the requirement of the following standards:-

For LVD	
Socket Outlet	BS 1363-2:1995
Automatic Electrical Controls	EN 60730-1:1998,
Timers and Time Switches	EN 60730-2:1997
For EMC	
R.F. Emissions and Click Disturbances	EN55014-1:2000
Emissions – class B	EN55022:1996
Harmonic Current Emissions	EN61000-3-2:1995
Electrostatic Discharge Immunity	EN61000-4-2:1995
Electrical Fast Transient Immunity	EN61000-4-4:1995
Surge Transient Immunity	EN61000-4-5:1995
Conducted R.F. Disturbances Immunity	EN61000-4-6:1996
Voltage Variations, Dips and Interruptions Immunity	EN61000-4-11:1994

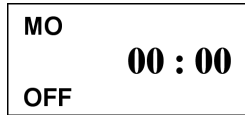
H. TIMER MODULE PROGRAMMING

PRODUCT DIAGRAM AND BUTTON IDENTIFICATION



OPERATING INSTRUCTIONS**INSTALL SET UP**

- Switch on the mains supply to the timer socket and wait for two minutes for the built-in battery to charge up.
- If the information in the display is other than that shown below, press and release the Reset Button with the tip of a ballpoint pen or similar, to ensure the program memory is completely clear. Display now flashing shows:



- Press and release the Time Button to start the program in clock mode (display stops flashing now).

SETTING THE PRESENT DAY AND TIME

- Press and hold down the Time Button.
- Press the Day Button until the correct day is displayed.
- Press the h+ and m+ Buttons until the correct time is displayed on the 24 hour clock.

9

AMENDING THE PROGRAM

- Previously set times can be changed as required.
- Press the Timer Button to advance through the program until the time to be changed is reached.
- Use Day/h+/m+ Buttons to make the desired change.
- Take care to ensure that any changes made do not result in an overlap with other unaltered times.
- Press the Time Button when the changes have been completed.
- To cancel the entire program, press the RESET Button and follow operating instructions from setting present day and time.

MANUAL ON/OFF OPERATION

- At any time, the output to the socket can be turned on or off by pressing the ON/OFF button.

BATTERY BACKUP

- This programmable timer socket contains an internal rechargeable battery which provides up to 100 hours memory retention should a mains failure occur. If power to the timer socket is not restored within 100 hours, the timer may have to be re-programmed. Please refer back to the operating instructions to set the the day and time information, again. All the switching programmes will have to be re-programmed, as well.

13

- Continued pressure on buttons Day, h+ or m+ will advance the display rapidly.
- Release the Time Button. The clock will now run in correct time.

SETTING A PROGRAM SEQUENCE

- There are a maximum of 6 ON and 6 OFF times available. Each ON/OFF time sequence can be used individually on any day(s) through the week or can be set to repeat on any one of the combinations below:
 - Monday ~ Friday.
 - Saturday and Sunday.
 - Monday ~ Saturday.
 - Monday ~ Sunday.
 Once a single day or one of these multi-day-combinations is programmed, the information will be stored in the memory and the programmed switching order will be carried out on each of these week-days at the selected time(s).
- As the programming options are numerous it is advisable to plan your required ON/OFF times over the course of a complete week. This will help in avoiding mistakes and overlapping times. NOTE: If you wish to have the output to the socket outlet switched on (to switch on a light, for instance) during programming, press the ON/OFF Button before commencing programming as the switch becomes inoperable during programming.

10

I. GUARANTEE

The company undertakes to replace or repair at its discretion products that become defective within 20 years in the case of electromechanical Wiring Device products and 10 years in the case of mains related electronic Wiring Device products and all Circuit Protection and Cable Management products solely as a result of faulty materials and or workmanship. Understandably if the product has not been installed or maintained in accordance with the company's instructions, has not been used appropriately or if any attempt has been made to rectify, dismantle or alter the product in any way the guarantee will be invalidated.

This guarantee states the company's entire liability. It does not extend to cover consequential loss or damage or installation costs arising from the defective product. This guarantee does not restrict or infringe the normal statutory or other rights of the customer.

REPAIR OF GOODS AFTER THE GUARANTEE PERIOD

If the product fails under normal use after expiry of the guarantee period, contact your local dealer or stockist

14

SETTING THE PROGRAM

- Press the Timer Button and release. The display will then be as shown.

MO TU WE TH FR SA SU

TIMER --- : ---
ON

- Press the Day Button until the required day or combination of days on the display.
- Using the h+ and m+ buttons set the time required for the load to turn ON. Zero hours or minutes must be set as any remaining dashes will make the program invalid.
- Press the Timer button again. The display will now allow for first OFF setting to be entered.
- Press the Day Button until the required day or combination of days appear on the display. This should be the same combination as step 2.
- Using the h+ and m+ buttons set the time required for the load(s) to turn OFF. Zero hours or minutes must be set as any remaining dashes will make the program invalid.

11

Novar ED&S Limited wishes to make it clear that it owns all the original designs of the products that it manufactures (whether or not listed in this leaflet) and that it will take all necessary action in any part of the world against any party found to be manufacturing, distributing, selling or otherwise dealing with any article which infringes the Company's intellectual property in its own products, or any other right of the company therein.

Registered Design Nos. Patents Pending
2025117 9215373
2025118 9300338
9221622
Design Right Novar ED&S Limited.
Masterseal is a trade mark of MK

12

- Press the Timer Button again. The display will now allow for the second ON setting be entered.
- Repeat step 2-7 for each ON or OFF timer as required. There are a maximum 6 ON and 6 OFF times available however you do not have to use them all.
- When programming is complete press the Time Button and the display will return back to clock display.

NOTE: The display will automatically revert back to the clock display if no program has been entered during a two minute period.

REVIEWING THE PROGRAM

Press the Timer Button and the first ON time will be displayed. Further presses of the Timer Button will advance the display to show each ON and OFF sequence. Any unused ON/OFF times will be displayed by dashes in place of hours and minutes. To return to the clock display at any time press the Time Button.



MK Electric
Novar ED&S Ltd

The Arnold Centre, Paycocke Road, Basildon,
Essex SS14 3EA. U.K.

Tel: +44 (0) 1268 563000

Fax: 01268 563405 (UK Sales)

Fax: +44 (0) 1268 563360 (International)

email: technical@novar.com

web site: www.mkelectric.co.uk

Technical queries should be made to:
MK Electric, Technical Sales and Services Department
The Arnold Centre, Paycocke Road, Basildon, Essex SS14 3EA
Tel: +44 (0)1268 563720 Fax: +44 (0)1268 563064

All marks in this document identified with a R or TM symbol adjacent to the mark are Trade Marks of Novar ED&S Limited.

15