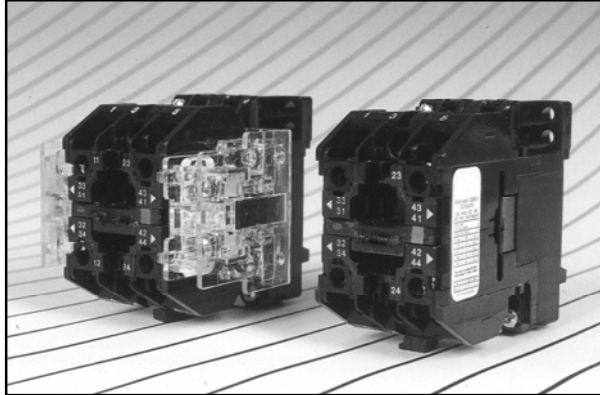


# UA0R Relay, UA11 Contactor & Accessories Installation & Servicing Instructions



UA11 Contactors

## IDENTIFICATION

In addition to the rating label, the main visible difference between the relay and contactor is the colour of the clip on the moving carrier.

UA0R Relay	Yellow
UA11 Contactor	Green

Each device has three main contacts and one or two auxiliary contacts. The latter will either be one normally open, two normally open, two normally closed or one normally open and one normally closed, as specified when ordering. Contact configuration is as shown on the circuit diagram below, Fig. 1.

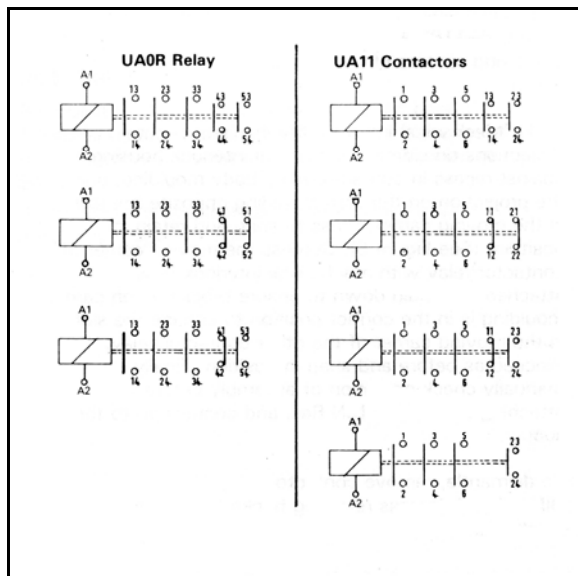


Fig. 1 Contact Arrangement

## INSTALLATION

If any accessories are to be attached to the contactors or relays, refer to relevant fitting instructions below.

Check that the control supply voltage and frequency is compatible with that marked on the operating coil and label, which is visible through aperture in bottom right hand corner of base moulding.

Mount the device on a flat surface using captive fixing screws (see drilling plans), or on 35mm DIN Rail. The unit will operate satisfactorily in any plane except when suspended upside down.

Maximum terminal capacity :

Mains: 2 x 4mm<sup>2</sup> solid or 1 x 6mm<sup>2</sup> stranded

Auxiliaries: 2 x 2.5mm<sup>2</sup>

## ACCESSORIES

### Auxiliary Contacts - Side mounting

One side adder (ordering code, U-4191159) can be fitted at each side of contactor/relay, each block containing one normally open and one normally closed contact.

The following limitations apply to the use of side adders :

1. Cannot be fitted when a top-adder is included.
2. When contactor/relay is d.c. operated, a single side adder only may be fitted on the opposite side of unit to the economy resistors.
3. When two contactor/relay units are mechanically interlocked, side adders may only be fitted to outer positions of units, i.e., one on each device.

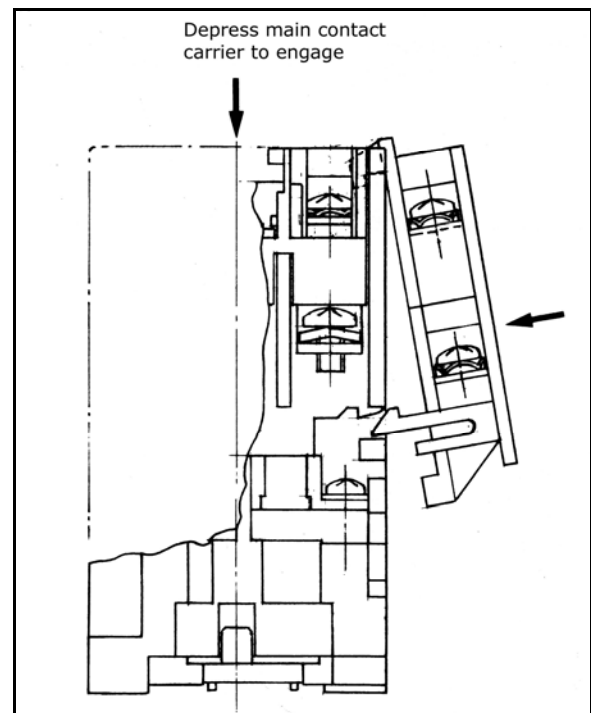


Fig. 2 Fitting of Side Mounted Auxiliary Contact Block

To fit side adder to contactor/relay, locate short projecting hooks of block moulding over terminal barrier on front side edge of contactor, see figure 2. Depress main contact carrier on contactor/relay and simultaneously press contact block into side of contactor/relay to lock into position.

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To remove side adder from contactor/relay, depress the two locating hooks near the bottom of the contact block and withdraw module.

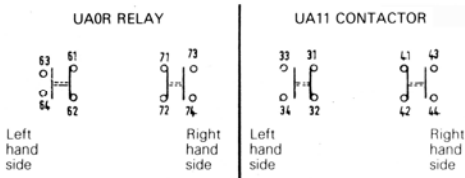


Fig. 3 Auxiliary Side Adder Contacts (1 N/O + 1 N/C)

## Auxiliary Contacts - Top mounting

Top adder (ordering code U-4195105) comprises two normally open and two normally closed contacts arranged as shown in figure 4.

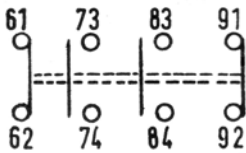


Fig. 4 Auxiliary Top Adder Contacts (2 N/O + 2 N/C)

To fit top adder, see figure 5, ensure that red coloured catch is withdrawn to its full extent. Offer top adder to front face of contactor/relay with terminal numbers upright. Slide block downwards to fully engage contact carrier coupling hook and block interlocking feet. Finally, lock into position by fully depressing red catch.

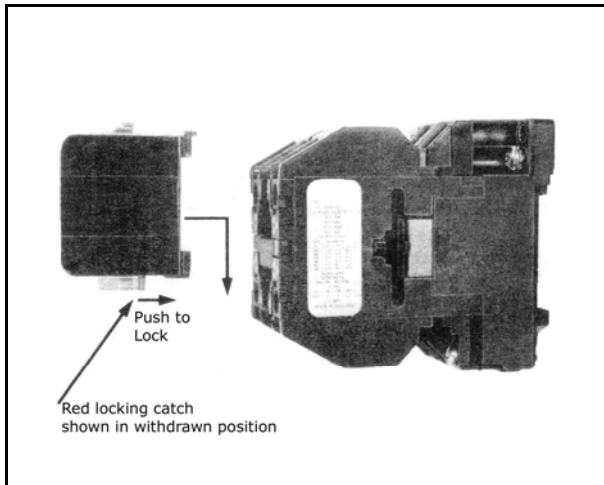


Fig. 5 Coupling of 4 Pole Auxiliary Top Adder

## Mechanical Interlock Assembly

Two contactor; relay units can be mechanically interlocked side by side, using mechanism, (order code U-4111828).

The fixing centres of units is 52mm (see drilling plans).

To Fit Mechanical Interlock Mechanism: Locate projections on side of mechanical interlock housing against recess in contactor/relay body moulding, and the projection on the cam moulding opposite the slot in the moving carrier. Press to snap and retain in position. (See Figure 6). Depress the moving carrier of contactor/relay with mechanical interlock now attached, and hold down to ensure projection on cam moulding is in the correct position to engage the slot in the moving carrier of the other contactor/relay. Proceed as before and snap in position. Finally, manually check operation of assembly before attaching to panel or DIN Rail, and connection to the supply.

To dismantle, remove contactor/relays from panel or DIN rail and depress retaining hooks to release mechanism.

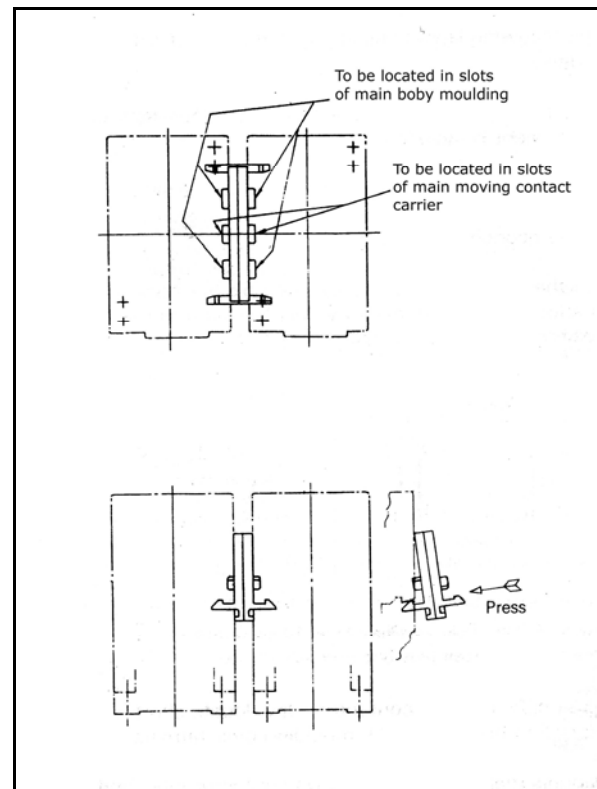


Fig. 6 Fitting Mechanical Interlock

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## Start Switch

A start switch (order code U-4191248) is available for connecting across the normally open auxiliary contact on the main body of the contactor/relay. To fit start switch: first remove terminal shrouds by inserting a small screwdriver in aperture adjacent to serrated section on centre pole and lever off. Remove terminal screws to fit start switch and replace terminal shrouds, ensuring that terminal markings are not inverted. See Figure 7.

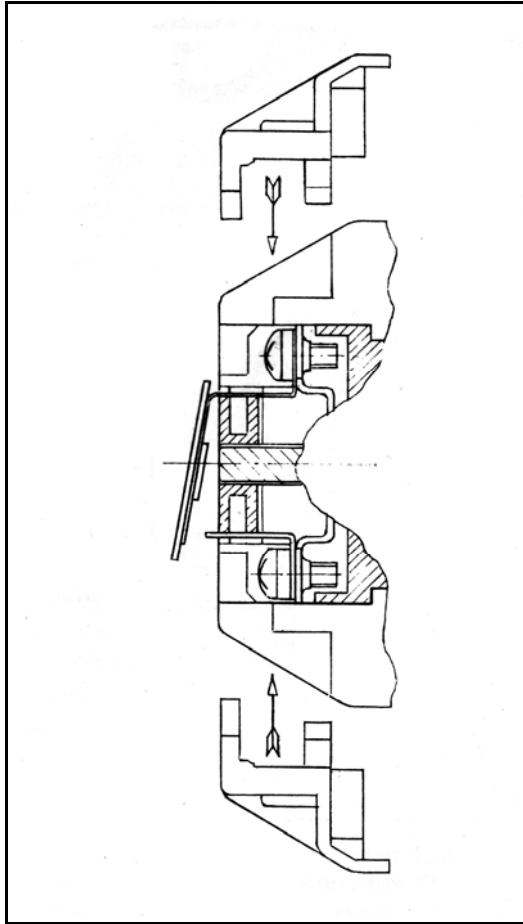


Fig. 7 Start Switch Contact Fitted Across Normally Open Inbuild Auxiliary

## D.I.N. Rail Mounting

To attach to 35mm rail, engage hooks on base moulding of the contactor/relay with the top edge of the rail and by pressing down and forward, snap in position.

To remove device, depress catch with a small screwdriver and lift clear.

## ULO Latch Attachment

Proceed as for auxiliary contacts - top mounting (see opposite), noting that reference to contact carrier coupling hook is not applicable for the ULO.

## MAINTENANCE

No routine maintenance is necessary on the above devices. Contactor/relay main and auxiliary contacts are designed to match the normal operating life expectancy of the unit, provided that the device is correctly selected for its operational duty.

## Operating Coil Replacement A.C. Operated

Disconnect relevant cabling connections to the contactor/relay. Unscrew body fixing screws situated top left and bottom right on device, and lift clear of the base moulding. The operating coil is now exposed and can be removed. Select correct replacement coil and assemble in the reverse order to above, ensuring that the cable clamp assemblies on the coil are square and parallel with the coil terminals. Re-connect cabling connections. See Figure 9 (over page).

NOTE: It is essential that a magnet yoke of a D.C. operated device is not interchanged with an A.C. operated magnet system.

A D.C. magnet yoke is marked with a black line along the rear face of the magnet for identification.

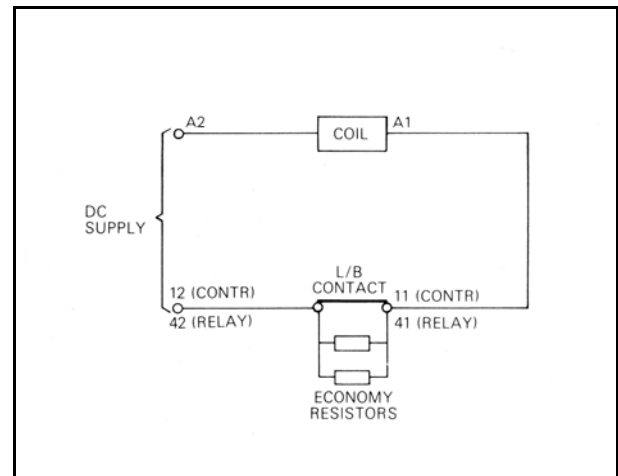


Fig. 8 Coil Connections for D.C. operating devices

**Note:** All wiring must be kept clear of economy resistors as these warm up in operation.

## OBSOLECENCE

Please note that the UA11 contactor can be used as a direct replacement for the now discontinued UA04, UA05 and UA07 Contactors.

The UA11 is the same physical size, with the same mounting and connection arrangements.

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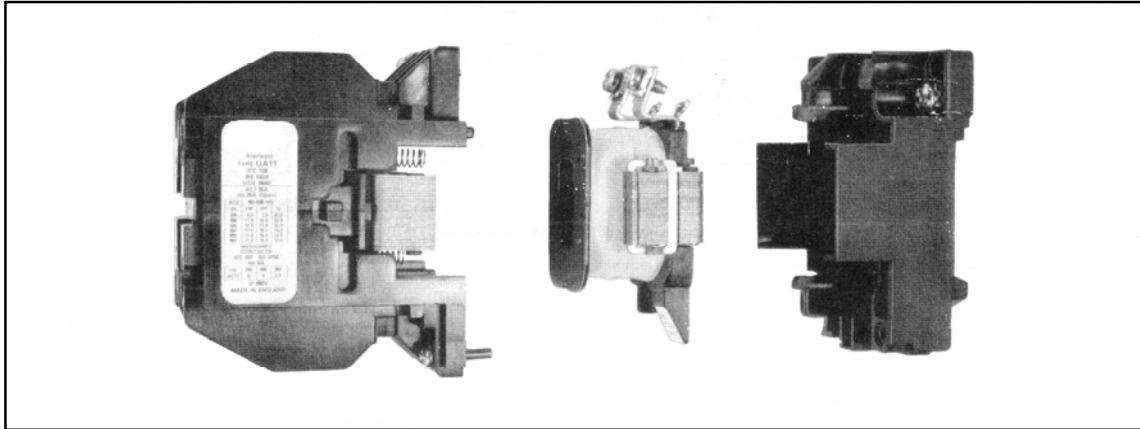
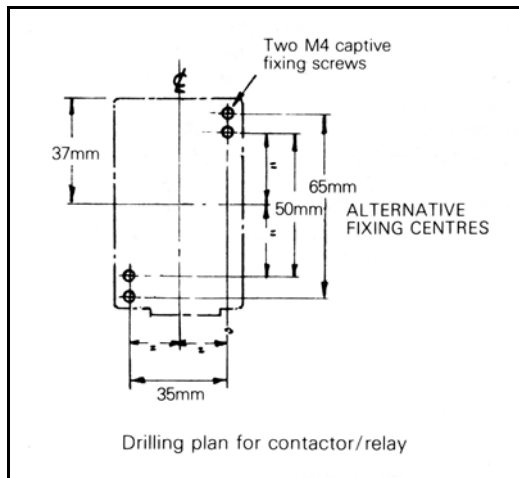
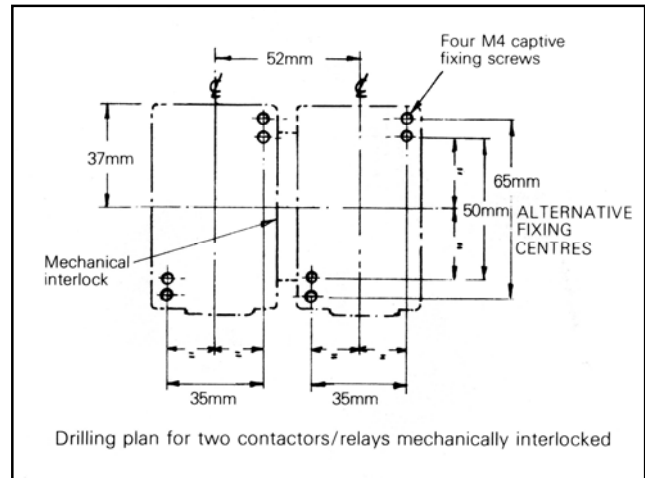


Fig. 9 Coil Replacement

## DRILLING PLANS



Drilling Plan 1



Drilling Plan 2

## HEALTH AND SAFETY AT WORK ETC, ACT 1974 STATEMENT TO PURCHASERS AND PROSPECTIVE PURCHASERS

Section 6 of this Act provides that manufacturers, designers, importers or suppliers of articles for use at work have a duty to ensure, so far as is reasonably practicable, that the articles will be safe and without risk to health when properly used. An article is not regarded as being 'properly used' if it is used without regard to any relevant information or advice relating to its use made available by the manufacturer, designer, importer or supplier.

Information on the design, construction and installation of our products to ensure that so far as is reasonably practicable they are safe and without risk to health when properly used may be found in:

- Relevant British Standards Specifications and Codes of Practice.
- Regulations for Electrical Installations (published by the Institution of Electrical Engineers),
- Catalogues and product leaflets of the Company.
- Or may be obtained by specific requests to the Company.

It is important that the products concerned should be installed, commissioned and maintained by, or under the supervision of, competent persons in accordance with good engineering practice and:

- IEE Regulations for Electrical Installations.
- Codes of Practice.
- Statutory requirements.
- Any instructions specifically advised by the Company and, where appropriate, with particular reference to information marked on the product.

In accordance with the provisions of the Act, you are therefore requested to take such steps as are necessary to ensure that any appropriate information relevant to our products is made available by you to anyone concerned.

**These notes assume throughout that the product is disconnected from the supply. It is essential that this is done before any work is carried out.**

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