

TRIANCO
EuroStar
Oil Fired Boilers
PROGRAMMER

**FITTING and USER
INSTRUCTIONS**

Model 627

To be retained by householder

- Remove electrical supply to boiler.
- (b) Remove top and front casing panels.
 - (c) Remove screw from control box lid and hinge open.
 - (d) Remove control panel infill secured by two screws.
 - (e) Retain screws for fitting Programmer, infill panel may be discarded.
 - (f) Locate Programmer complete with mounting bracket in fascia aperture and secure with original screws.
 - (g) Remove link wire 'B' (see Fig. 1).
 - (h) If fitting to a fully pumped system remove link wire 'A' (see Fig. 1).
 - (i) Connect Programmer wire via strain relief in rear of control box to boiler terminal block (See Fig. 2).
 - (j) Close lid and replace screws.
 - (k) Replace top and front casing panels and complete all system wiring before switching on mains supply.

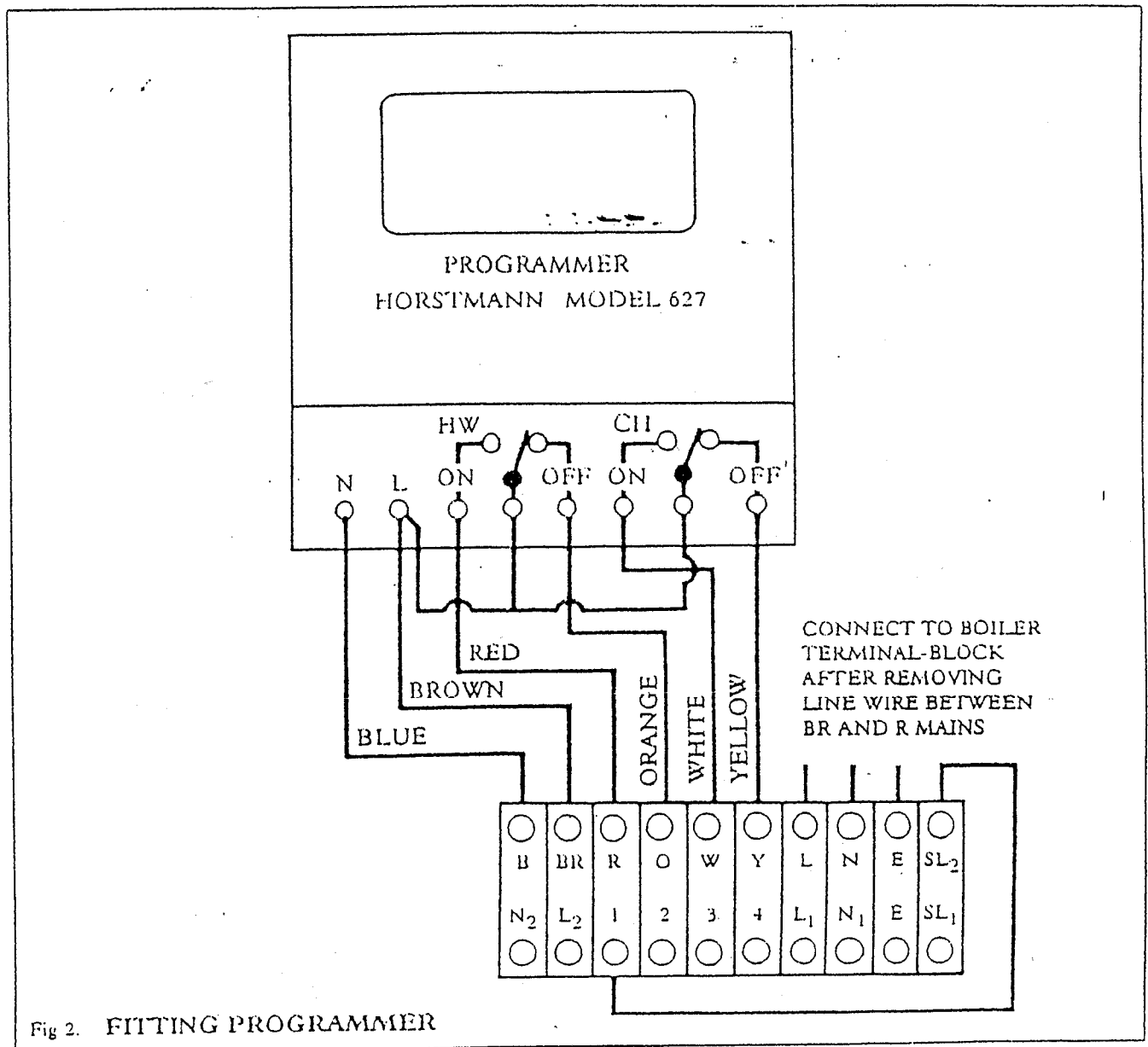
Two of the most commonly used heating systems are shown schematically in Fig. 15 and Fig. 16 using controls from Horstmann on request.

The 627 Programmer is capable of operating with many other types of system and further information is available from Horstmann on request:

Horstmann Timers and Controls Limited, Newbridge Works, Bath BA2 3EF. Tel: 01225 421141.

SWITCH SETTING

Programmer is despatched with switch set to 'P' for fully pumped systems. If gravity DHW is required, move switch to 'G'.



The Franco 627 Programmer is an electronic 7 day, central heating and hot water control. It is extremely reliable, easy to operate and, properly programmed, will help you reduce boiler running costs whilst creating a comfortable environment in your home.

The 627 Programmer has the following features:

- ★ 3 ON and 3 OFF periods every 24 hours with a choice of different programmes for each day of the week.
- ★ Programme options:
 - AUTO - full programme of switching times.
 - ALL DAY - On all day.
 - 24 HOURS - continuous operation.
 - OFF - no programme switching.
- ★ Choice of HOT WATER ONLY or CENTRAL HEATING and HOT WATER.
- ★ Central heating ADVANCE button allowing instant switching to the next ON or OFF TIME.
- ★ BOOST facility allowing an extra hour of hot water when required.
- ★ Time and Day display - 12 hour AM-PM clock with day of week indication.
- ★ Battery reserve - retains programmed settings in the event of a power failure.

2. BUTTONS, INDICATORS & SYMBOLS

Most of the control BUTTONS have a dual purpose function. They are used as SET buttons for the time of day and ON-OFF times etc. or as SELECT buttons for ADVANCE and BOOST facilities and also choosing override programme options.

Fig. 3 identifies the SET buttons, indicators and symbols referred to in Sections 3 and 4 of these instructions.

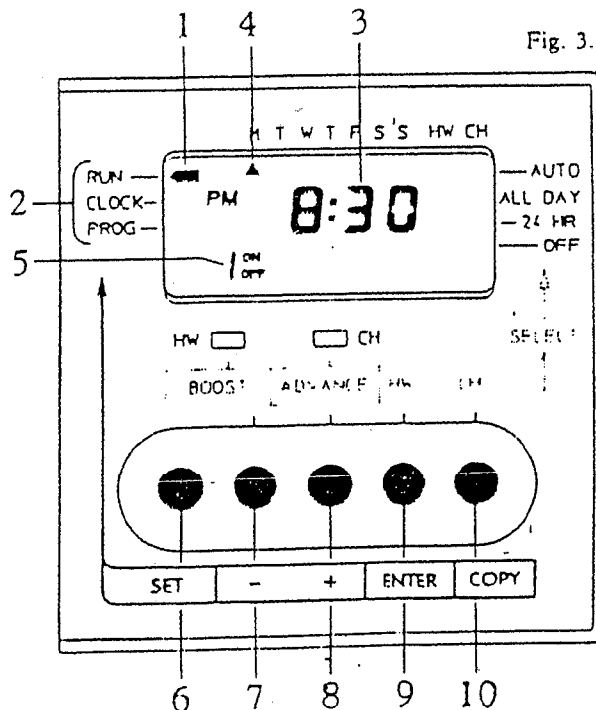


Fig. 3.

- | | |
|-------------------------------|---------------------------|
| 1 Set indicator | 6 SET button |
| 2 Set positions | 7 Minus (-) adjust button |
| 3 Time of day | 8 Plus (+) adjust button |
| 4 Day of week indicator | 9 ENTER button |
| 5 ON/OFF switch period symbol | 10 COPY button |

- (a) Press the SET button so that the INDICATOR points to the CLOCK position. The DAY INDICATOR will now flash (Fig. 4).

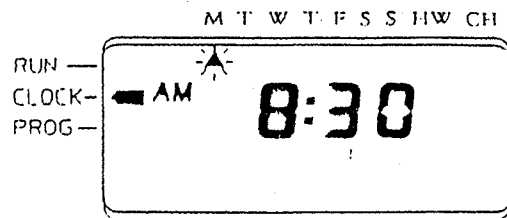


Fig. 4.

Using the PLUS (+) or MINUS (-) buttons, move the DAY INDICATOR to the current day of the week. Letters indicating the days are shown along the top of the display, i.e. M = Monday, T = Tuesday and so on.

- (b) Press the ENTER button and the TIME OF DAY will now flash (Fig. 5).

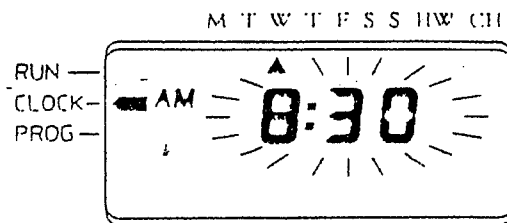


Fig. 5.

Using (+) or (-) BUTTONS, alter the display to the correct time, making sure the AM/PM SYMBOL is also correct. (Fig. 6).

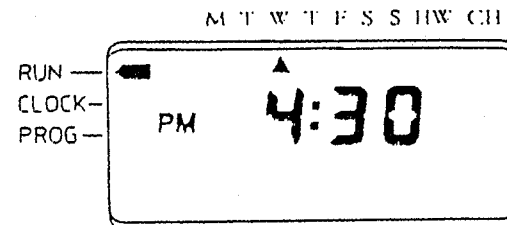


Fig. 6.

Press the ENTER button and then use the SET button to return the INDICATOR to the RUN position.

NOTE: The (+) and (-) buttons advance or retard the time in 1 minute steps.

If the button is kept depressed, the display will fast cycle and the time can be changed rapidly.

4. SETTING THE "ON" AND "OFF" TIMES

The Programmer is already factory pre-set with a programme of ON-OFF times in its memory. These are based on the most commonly used settings and are as follows:

Monday to Friday	
1st ON - 7.00am	1st OFF - 10.00am
2nd ON - 12.00pm	2nd OFF - 12.00pm
3rd ON - 5.00pm	3rd OFF - 11.00pm

Saturday and Sunday	
1st ON - 7.30am	1st OFF - 11.30am
2nd ON - 12.00pm	2nd OFF - 12.00pm
3rd ON - 5.00pm	3rd OFF - 11.00pm

If these settings do not meet your own requirements, they can be easily changed as follows:

- (a) Press the SET button so that the SET INDICATOR is in the PROG position. The display will indicate "day" and the DAY OF THE WEEK INDICATOR will now flash. (Fig. 7).

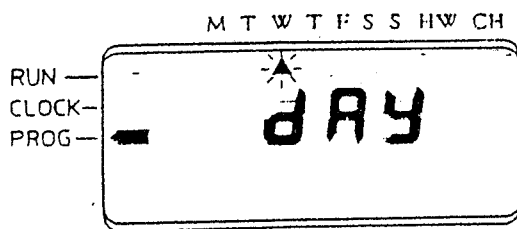


Fig. 7.

Use the (+) and (-) to move the indicator to the day of the week you wish to change the times for, then press ENTER.

- (b) The display will now show "1 ON" and the first ON time for that day will flash (Fig. 8).

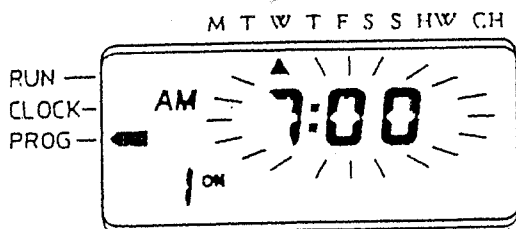


Fig. 8.

Alter the time to that required by using the (+) and (-) buttons then press ENTER.

- (c) The display will now show "1 OFF" and the first programmed OFF time for the day will flash (Fig. 9).

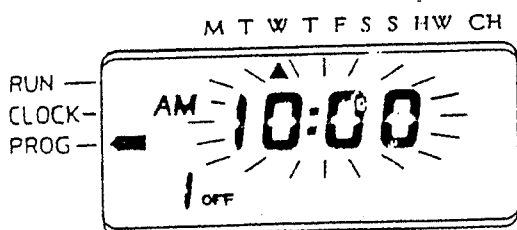


Fig. 9.

This can now be changed in the same way as above.

- (d) Follow the same procedure for the 2nd and 3rd ON-OFF times and remember to press ENTER after each change.

If you do not wish to change a particular time, then simply press ENTER and the display will move on to the next ON-OFF time, leaving the previous one unchanged.

- (e) When the 3rd OFF time has been entered, the Programmer will display the word COPY and the DAY OF THE WEEK INDICATOR will flash (Fig. 10).

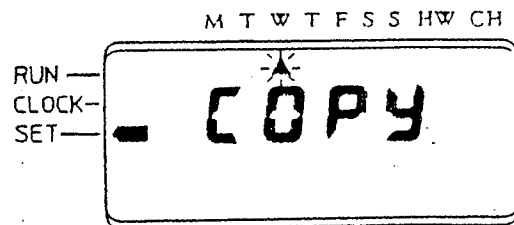


Fig. 10.

You can now copy the ON-OFF times onto any other day. This saves having to separately programme days with identical switching times.

Using the (+) and (-) BUTTONS to move the DAY OF THE WEEK INDICATOR to the next day you wish the times to apply and press COPY button, the display will indicate "IN".

Continue in this way until the programme has been copied to all the days required.

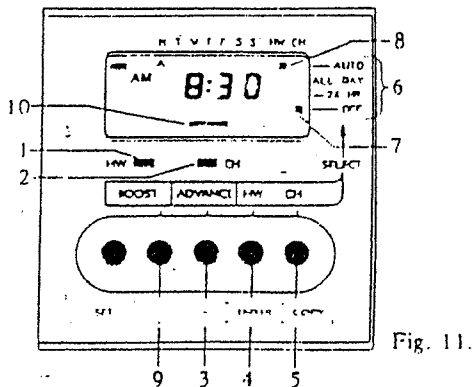
When you have finished copying, simply press ENTER. The word COPY will be replaced with "day" and the DAY OF THE WEEK INDICATOR will flash.

- (f) You can now programme those days that require different times by following the same procedure as described in paras. (a) to (d).

NOTE: Your Programmer allows up to three ON-OFF periods each day. If you do not wish to use all of these, a switch period can be cancelled by programming the ON time the same as OFF, e.g. 2nd ON at 12.00pm and 2nd OFF at 12.00pm.

5. SELECT BUTTONS, INDICATORS AND SYMBOLS

The diagram below (Fig. 11) shows the SELECT buttons and indicators referred to in Sections 5 to 7 of these instructions.



- 1 Hot water ON indicator light
- 2 Central heating ON indicator light
- 3 Advance button
- 4 Hot water Programme select button
- 5 Central heating Programme select button
- 6 Programme positions
- 7 Central heating Programme indicator
- 8 Hot water Programme indicator
- 9 Hot water boost button
- 10 Advance/boost indicator

6. PROGRAMME SELECTION

The following programmes can be selected for either HOT WATER alone or HOT WATER and CENTRAL HEATING together.

- AUTO** When AUTO is selected, the Programmer will switch ON and OFF according to the switching times held in the memory, i.e. up to three ON-OFF periods per day.
- ALL DAY** When ALL DAY is selected, the Programmer will switch the system on at the 1st ON time and OFF at 3rd OFF time.
- 24 HOUR** When 24 HOUR is selected, the system remains on continuously, ignoring all time settings.
- OFF** When OFF is selected, the Programmer clock continues to operate but the system remains off.

To select a programme for hot water, press the HW SELECT BUTTON until the HW PROGRAMME INDICATOR is pointing to the required programme, e.g. AUTO (Fig. 12).

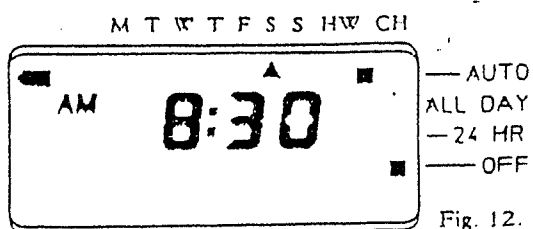


Fig. 12.

To select a central heating programme, follow the same procedure, using the CH SELECT BUTTON.

NOTE: When either HOT WATER or HEATING is switched ON, the relevant INDICATOR LIGHT will be illuminated.

7. USING THE ADVANCE

The ADVANCE facility allows you to bring forward the next ON or OFF period.

Press the ADVANCE BUTTON once and release. The word ADVANCE will appear in the Display (Fig. 13).

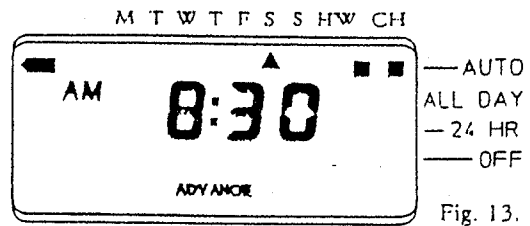


Fig. 13.

If the Programmer was originally ON, it will now switch OFF and stay off until the next programmed ON time.

The opposite will apply if the Programmer was originally OFF.

To cancel the advance, simply press the ADVANCE BUTTON again and the word ADVANCE will disappear from the display.

8. USING THE BOOST

Simply press the BOOST button and release. The word BOOST will appear on the display and the system will be switched ON for ONE HOUR then automatically switch off.

If the full hour is not required, the BOOST can be cancelled by pressing the BOOST button again.

NOTE: This facility can be used even when the unit is programmed OFF.

9. USING THE RESET BUTTONS

Electronic equipment can, in exceptional circumstances, be affected by electrical interference.

If your Programmer's display or switching programme becomes frozen or scrambled, or if you wish to revert to the factory pre-set programme, you can RESET your Programmer by pressing the MINUS (-) button and the ENTER/HW button together (Fig. 14).

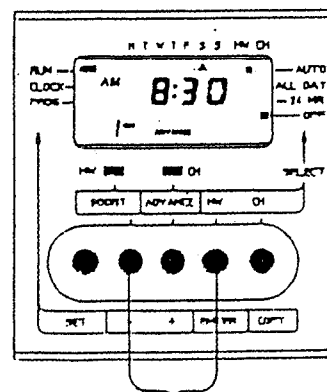


Fig. 14.

Press to RESET

After using the RESET procedure you will need to reprogramme any changes required to the factory pre-set programme.

10. BATTERY RESERVE

Your Programmer is fitted with a **NON-RECHARGEABLE LONG LIFE BATTERY** which will maintain the programmed **ON-OFF** settings for a period in excess of 2 years. This is more than sufficient to cover all the possible power interruptions during the working life of the unit.

NOTE: If a power interruption lasts more than 48 hours, it will be necessary to reset the **TIME OF DAY** once the power is restored.

11. SERVICE AND REPAIR

Your Programmer is **NOT** user serviceable. **DO NOT TRY TO DISMANTLE THE UNIT.**

In the unlikely event of it developing a fault, contact your local **HEATING ENGINEER** or a qualified **ELECTRICIAN**, but before doing so, try the **RESET** procedure described in Section 9.

12. INSTALLER NOTE

Before handing over the installation to the user, ensure the system responds correctly to all timed Programmes and that other electrically operated equipment in the system is properly adjusted.

Explain the operation of the Programmer to the user and hand over this Instruction booklet.

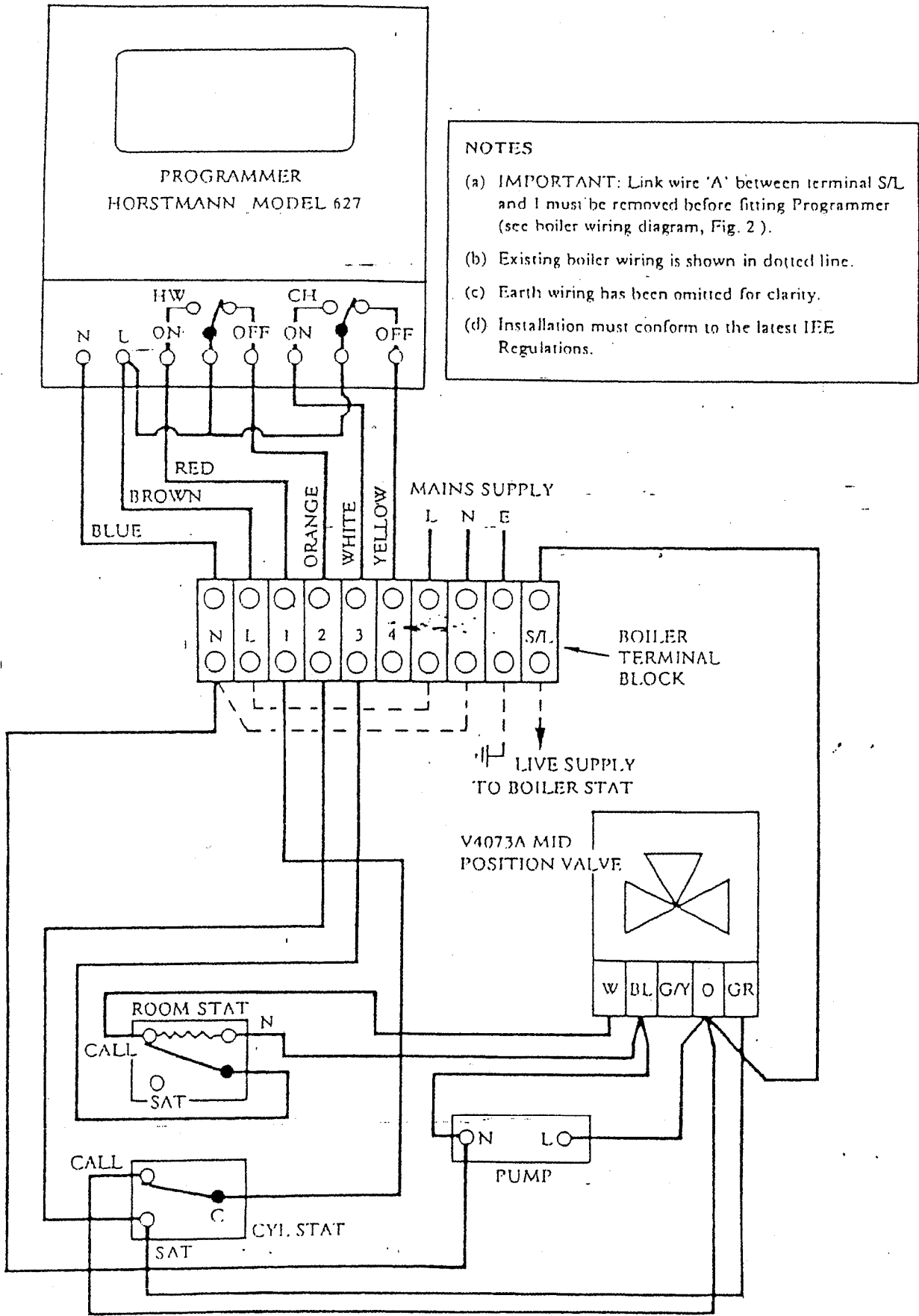
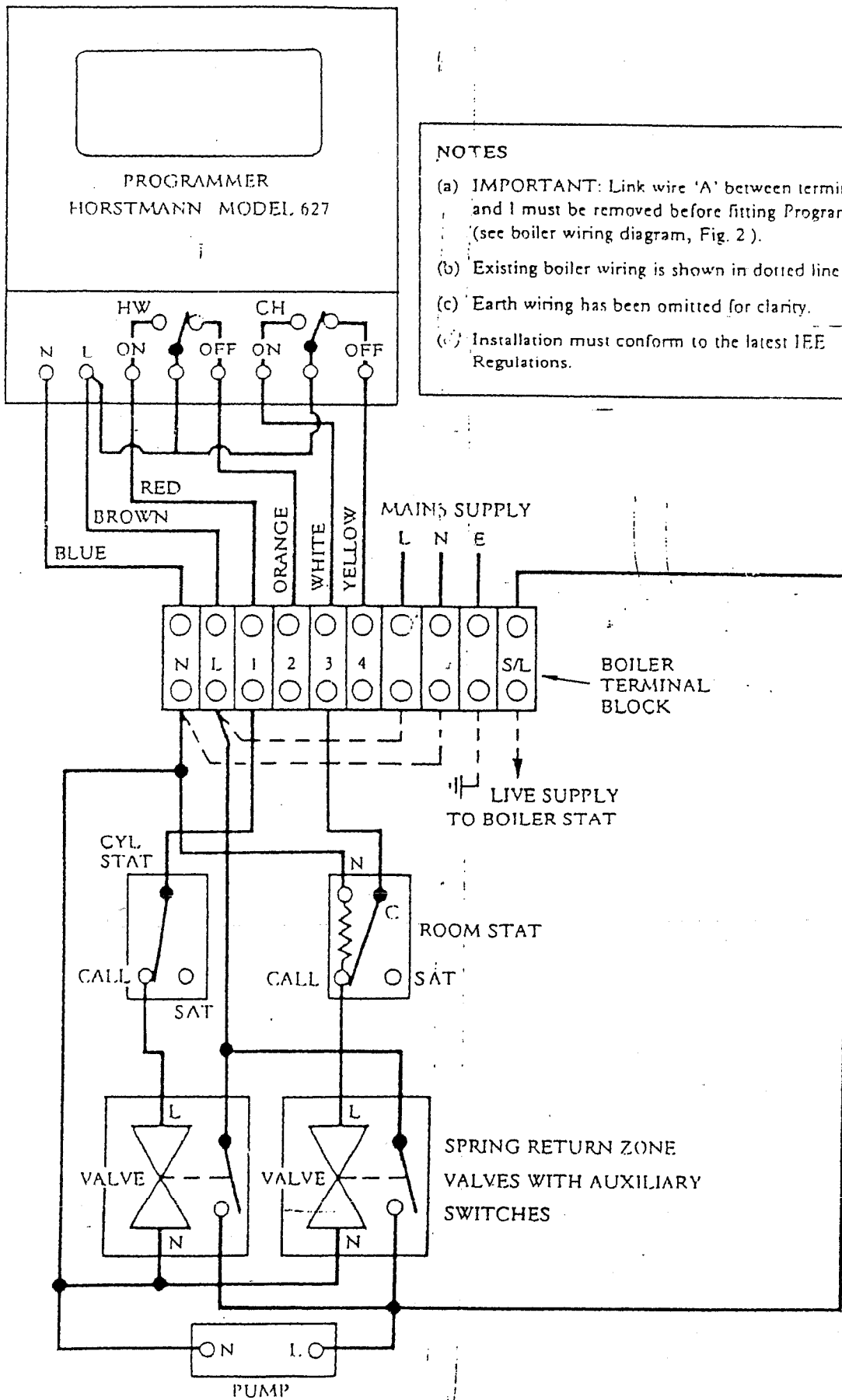


Fig. 15. WIRING DIAGRAM OF SYSTEM CONTROLS USING HONEYWELL SUNDIAL "Y" PLAN OR SIMILAR MID POSITION VALVE SYSTEM.



- NOTES**
- (a) **IMPORTANT:** Link wire 'A' between terminal S/L and I must be removed before fitting Programmer (see boiler wiring diagram, Fig. 2).
 - (b) Existing boiler wiring is shown in dotted line.
 - (c) Earth wiring has been omitted for clarity.
 - (d) Installation must conform to the latest IEE Regulations.

Fig 16. WIRING DIAGRAM OF SYSTEM CONTROLS USING TWO NORMALLY CLOSED SPRING RETURN VALVES WITH AUXILIARY SWITCHES



By appointment to H.M. Queen Elizabeth
The Queen Mother
Manufacturers of Domestic Solers



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