

The JTL Systems range of electronic alarm, monitoring and control units can all be interrogated by a plug-in maintenance unit which displays data selected by the operator.

The maintenance unit is essential for commissioning the controllers and for making adjustments to the operating data stored in the controllers.

The data that can be displayed and adjusted varies with the type of controller and in so many cases with the software version of the controller. Each item of data is referred to by an item number which is in the range 0 to 999.

The unit has a 4 digit 7 segment display and a 16 key keypad which can be used for selecting the data to be displayed or data to be entered or modified.

Selecting an item for display

When the maintenance unit is plugged in, the unit type name or -- appears on the display.

For example, on controller type LAPN, to display item 21, the air on temperature, press    

The air on temperature is then displayed.

To display the next item, item 22, the air off temperature, press  

Similarly, the item numbers can be reduced by pressing  

If when selecting a new item number  is omitted, then after about 5 seconds the value of selected data is displayed anyway.

Bitswitches

All controllers have a bitswitch function for controlling default item data setting and item data range checking. On legacy products these bitswitches are physical. On current and recent production products the bitswitches are virtual and set by the maintenance unit.

The settings for bitswitches are shown as the unit item and user data sheets and product manuals.

The bitswitches must be set to the correct value before other changes to settings are made.

Physical bitswitches should be positioned with a small tool such as a small screwdriver. Virtual bitswitches are set by setting item 966 to the appropriate number.

Modifying the data in a selected item

If it is required to change an item of adjustable data, the item should be selected as above. The current value is then displayed. For example, on a type LAPN display cabinet controller, to set Item 30 temperature setpoint to -20.0, press

         

It should be noted that it is not necessary to enter the decimal point and that if  is omitted then, after 5 seconds, the value will revert to the original setting.

If, at any time before the setting procedure is completed, the  button is pressed, then the original value is restored on the selected item.

Automatic Data Range checking

When setting data into an item, the controller only allows the data to be adjusted within a set range. This range is defined in the controller by the position of the bitswitches mounted on the controller.

If the data are set outside the allowed range, then the nearest allowable value is flashed on the display.

Initial commissioning - Setting default data

On all controllers there is a special function which installs a set of default operating data into the controller during commissioning or when making a service replacement. This is item number 9 on the maintenance unit. The data that is entered depends on the bitswitch setting.

To set this function select item 9 and then press the sequence 

The display then displays SET.

When all the selected default data are set into the controller's parameter memory the display indicates CLr.

Other settable functions

There are generally some special settable functions available on the controllers which require an item to be set to 1 or 0. For example, on a display cabinet controller type LAPN, setting item 77 gives a forced defrost.

To set this function, select the item (77) and then press the key sequence 

The display then displays Fd . on.

To clear this function, select the item and press 

The display then shows OFF.

Displaying invalid or unsupported data

If the data to be displayed is invalid or corrupt, then the display shows Err

If the data to be displayed is unsupported by the current version of the software, or is dependent on other data being set to particular values, then the display shows —

Updating of non-volatile "backup" memory

Depending on the version of the software the controller will wait up to 2 minutes after the last parameter has been set before updating the non-volatile memory. This time delay can be temporarily ignored by entering item 9 with the sequence



The non-volatile memory is then updated immediately without the delay.

If parameters are altered while the non-volatile memory is being updated the display shows bUSY.