6 Parameters

There are two types of parameters

- Variable parameters, denoted by **Prxx**
- Bit parameters denoted by **bxx**

Variable parameters allow numerical values to be entered. Bit parameters allow digital settings to be made.

Both types of parameter can be as follows:

- Read–write (R–W)
- Read-only (RO)

Read–write parameters are programmable by the user, and the values can be read on the display (or remotely using a serial communications link). Read-only parameters are for information purposes; they cannot be programmed.

Default values

The read–write parameters are programmed during manufacture with default values which are generally valid for the size of Drive and motor.

The default values cannot be erased or changed by the user.

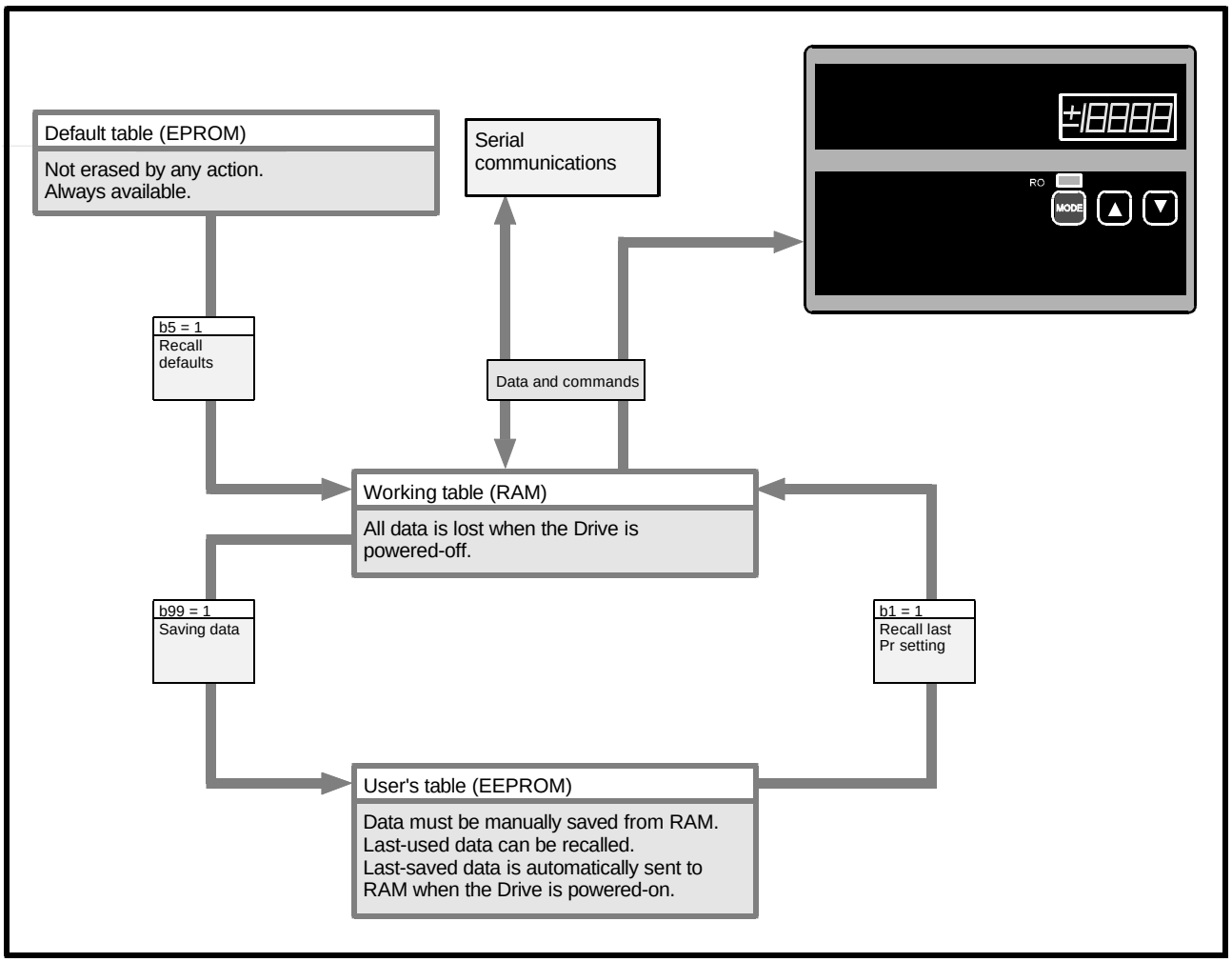

Figure 6–1 How parameter values are stored and changed

Memory Tables

Parameters are held in three Memory Tables (see Figure 6–1). A **Default Table** contains the permanent default settings for the parameters, a **Working Table** holds values that are in use while the Drive is operating, and a **User's Table** holds values set and saved by the user.

Default parameters are all recalled to the Working Table by setting bit parameter **b5** at 1).

The Default Table is held in PROM in the Drive. The Working Table is held in RAM in the Drive and the User's Table is held in EEPROM in the Control Keypad. This arrangement ensures that a Drive is always equipped with its default values, and the user-defined parameter values remain unchanged when the Control Keypad is removed from the Drive.

Note

Setting parameters to their default values includes the value of the security code parameter Pr25. The default value is zero, which allows any parameter to be changed; ie. security is lost when default values are recalled.

At the time AC power is applied, the contents of the User's Table are read into the Working Table. If the Drive has not been programmed by the user, the User's Table contains the default values.

When a parameter value is changed, the new value is held in the Working Table until AC power is removed. The original value is stored in the User's Table and can be recalled by setting bit parameter **b1** at 1. This is useful when experimenting with different values for a parameter when setting up a Drive.

Saving parameter values held in the Working Table stores them in the User's Table. Saving is carried out by setting **b99** at **1**. The contents of the Working Table are lost when AC power is removed.

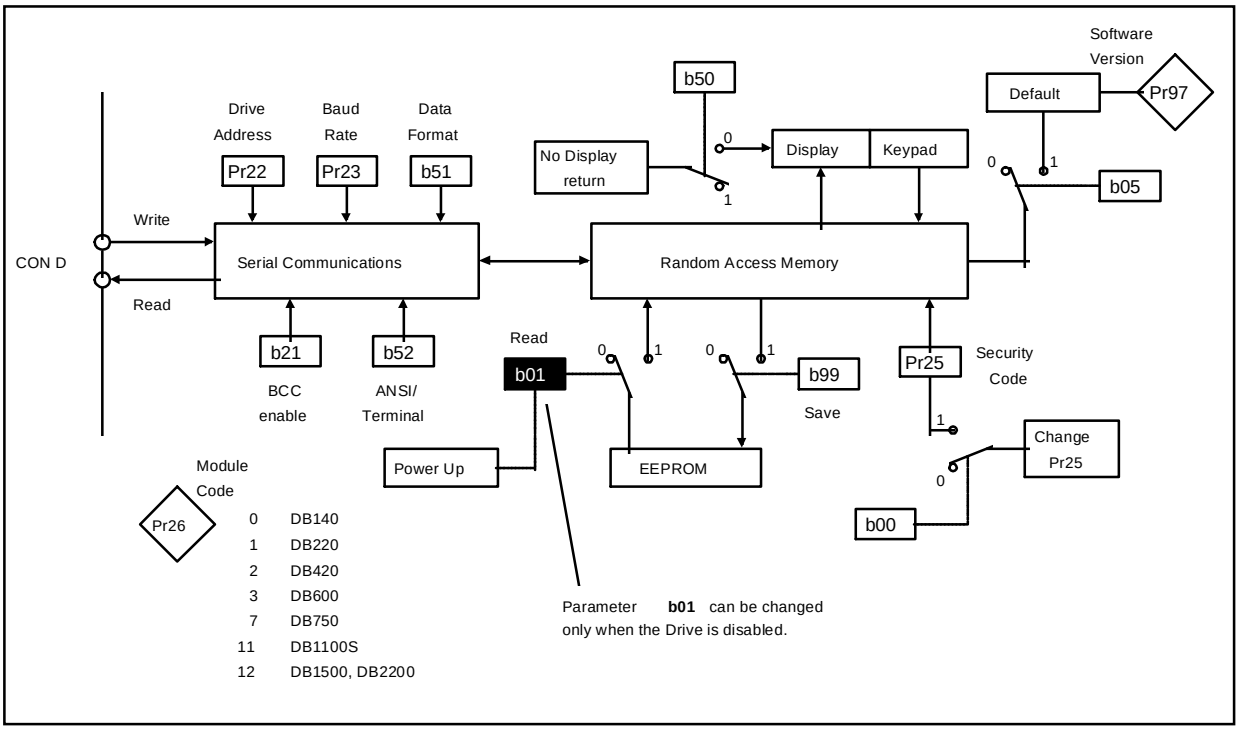

Figure 6–2 Logic diagram showing how parameter values are changed using serial communications