CENTRIFUGE CONTROLLER

The aim of this program is to provide a 4–stage cycle centrifuge controller with the initial speed and the value of the speed increment adjustable by the User.

The initial speed is set from the remote speed potentiometer connected to AIN 2, and the speed increment is set in Screen M2.

The time period for each stage of the cycle is also user adjustable and is adjusted using a Remote Time Potentiometer connected into AIN 1. The maximum time attainable from the remote potentiometer is set in screen **T1**. As an example, if the value in Screen **T1** is set to **MAX TIME =5min**, then Full Scale on the remote potentiometer will be 5 minutes. The time period of each subsequent stage can be adjusted to be a percentage of the first stage time period. The times for the second, third and forth periods are adjusted in the Screens T2, T3 and T4. For all of the time periods to be of equal length, these values should be set to 100%. As an example, to set the 2nd period to be half that of the first period, set Screen T2 PERIOD 2= 50%. To set the 3rd period to be twice that of the first period, set Screen T3 PERIOD 3=200%.

On receipt of a Start command the first stage of the program provides the motor with the value of the speed reference set by the Remote Speed Potentiometer, for the preset time period. The program then adds the value of the Offset, set in Screen M2, to the present speed reference and inverts the speed reference for the second stage of the program. The program then again adds the value of the Offset to the present speed reference and inverts the speed reference once again for the third stage of the program. This is repeated for the fourth stage of the program at the end of which the motor is automatically given a Stop command.

If the value of the Offset is a negative value, then the speed reference will sequentially decrease throughout the cycle.