PROGRAMMING MANUAL

A. ABOUT STEPPER DRIVE

-► STREAMLINE CONTROLS make Stepper drive is suitable for any **UNIPOLAR** & **BIOPOLAR** Four phase 1.8 step stepper motor.

-► Microcontroller based technology in control area, MOSFET based technology in power area makes driver a reliable cost effective & effective solution for stepper motor.

-► Different Parameters like speed, length, acceleration deceleration hold are programmable via serial interface

-► It has EIGHT digital inputs for maximum minimum limit switch functions.

-► It has TWO output for operate any other functions.

-► Different LED indications makes trouble shooting very easy.

B Stepper Drive :

-► Input :

Power

Voltage	:	230 VAC 10 ¥
Frequency	:	40 - 63 Hz
Consumption:		2 VA max.(only control circuit)

Control

Digital I/P:		EIGHT No. (N/O Type +12 Vdc Operated)

Serial Interface with Logic Controller :

- Four wire RS 485 protocol

-► Output :

Suitable to drive 10- 20- 40- 60- 120 kg-cm DC Stepper Motor with following

-► specifications :

6 Vdc operated - 4 phase - pole Stepping Motor with 12 Ampere/phase driving current.

-► Environment :

Temperature	:	
Humidity	:	µ - 9µ RH Noncondensing

C. HOW TO IDENTIFY THE STEPPER MOTOR CONNECTIONS

This should be done before you connect stepper motor to drive.

-► We have four terminals two groups of two wires showing connections with each other.

-► Identify two groups by measuring continuity between four wires.

-► Measure resistance between any two leads of same group, note down the reading & repeat this procedure for other group.

E. TROUBLE SHOOTING GUIDE

Before you look for trouble shooting guide. Please refer the section Stepper drive in healthy condition.

► **Stepper drive is not running i.e no holding or any type of movement.**

1 Check supply voltage LED if not proper check LV & HV AC I/P from transformer

2 Check pin serial connector.

3 Confirm proper start command from master unit.

► **Stepper motor does not run properly or vibrates or run in any directions.**

1 Check Stepper motor connections Check LV HV AC input.

2 Confirm any of A1 A2 B1 B2 LED's are not glowing while no signal is given to the motor If any of LED's is glowing that particular switch short return to supplier.

3 Without start command any of four led glows on permanently. In this case please contact to supplier.

► **Stepper motor does not run at higher speed.**

1 Check for mechanical movement.

2 Observe output A1 A2 B1 B2 LED's they should be brighter in running condition Less brighter in holding condition if not return to supplier

3 Check stepper motor connection (For loose connections.)

► **Stepper motor gives hissing sound & becomes very hot while running at lower speed.**

1 Check output A1 A2 B1 B2 LED's they should brighter in running condition less brighter in holding condition if not return to supplier.

► **Input sensing is not responded.**

1 Check input connections.

2 There are LED's for each input if that LED glows & even then not responded The OPTO IC for that particular input fails return to supplier

► **Reverse motor direction.**

1 Interchanging A1 & A2 phase of motor.