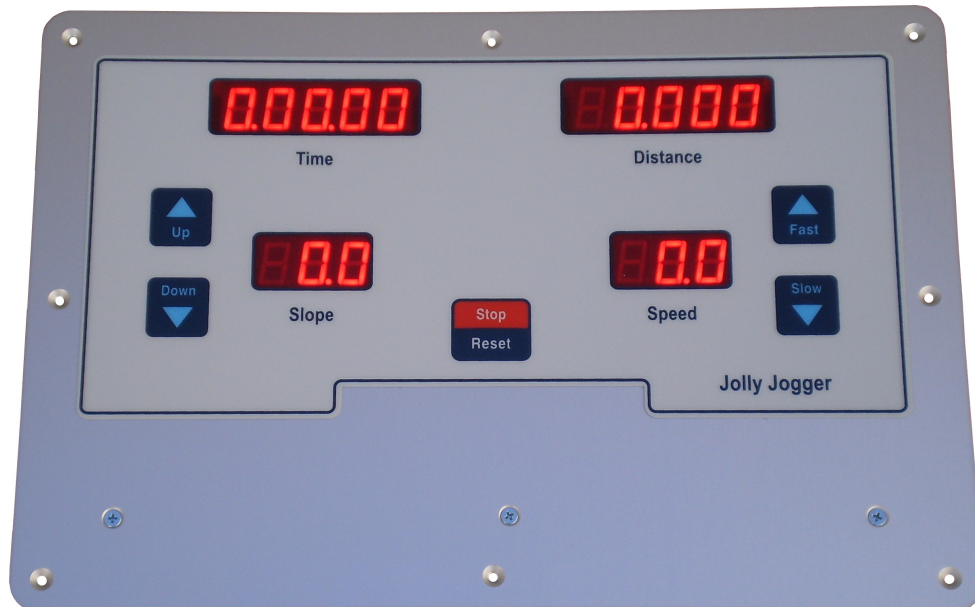## Jolly Jogger Treadmill Controller

Our Jolly Jogger control offers a simple, versatile and comprehensive solution in treadmill applications and is an effective, efficient and popular choice for retrofits. The only external item required to realize a functioning treadmill is the variable speed AC or DC drive with the Jolly Jogger monitoring and controlling all treadmill activity in a safe and vitalizing experience.


Jolly Jogger Treadmill Controller

The Jolly Jogger integrates all the functions expected in a treadmill application:

- Drives the treadmill variable speed AC or DC motor drive,
- Directly controls the slope motor rise and lower movements,
- Estimates or uses the available encoder feedback in measuring treadmill speed and travelled distance,
- Estimates or uses the available slope encoder/potentiometer feedback in measuring slope angle,
- Incorporates all user safety and operational safeguard procedures, and
- Features a simple, "clean" and attractive user interface with large LED displays and tactile switches.

All aspects of Jolly Jogger operation are set and controlled by configuration parameters kept in non-volatile memory. The parameters are accessible/set via the front panel display and switches or the board's serial port with the provided monitoring/setup software.

The controller is designed for 50-60 Hz supply lines of 115 and 230 VAC and with the following characterizing features:

Jolly Jogger Feature Summary	
Standard drive interface	The speed controller (typically an AC inverter or DC drive) is driven with a 0-10 VDC control signal and an enabling or direction setting optotransistor output which can be connected to both, PNP (active-high, current source) and NPN (active-low, current sink) inputs. Practically any inverter/drive can be used.
Universal slope control	The raising or lowering mechanism is controlled by independent 8 A, dual contact relays and, as such, can be driven with any, DC or AC, voltage in single or dual winding connection. Terminal/limit switches can be internal or external and position feedback can come from an encoder or a potentiometer.
24 VDC I/O	The available I/O interface signals are the up/down terminal switch inputs, the speed/slope encoder inputs and the drive enable output. They are all standard 24 VDC types and optoisolated from the internal logic.
Safety switch interface	In the usual case where some of the inputs (typically the limit switch inputs) are not used, the uncommitted inputs can double as general enables by connecting them to one or more safety switches.
Dimensions	The anodized alluminium front panel is 2 mm thick and sized 30 x 20 cm (11.8 x 7.9 in). The controller PCB is fixed at its back and with its 249 x 152 mm (9.8 x 6 in) dimensions allows for the assembly to "drop" into a suitably sized hole and be fastened with countersunk screws at the front.
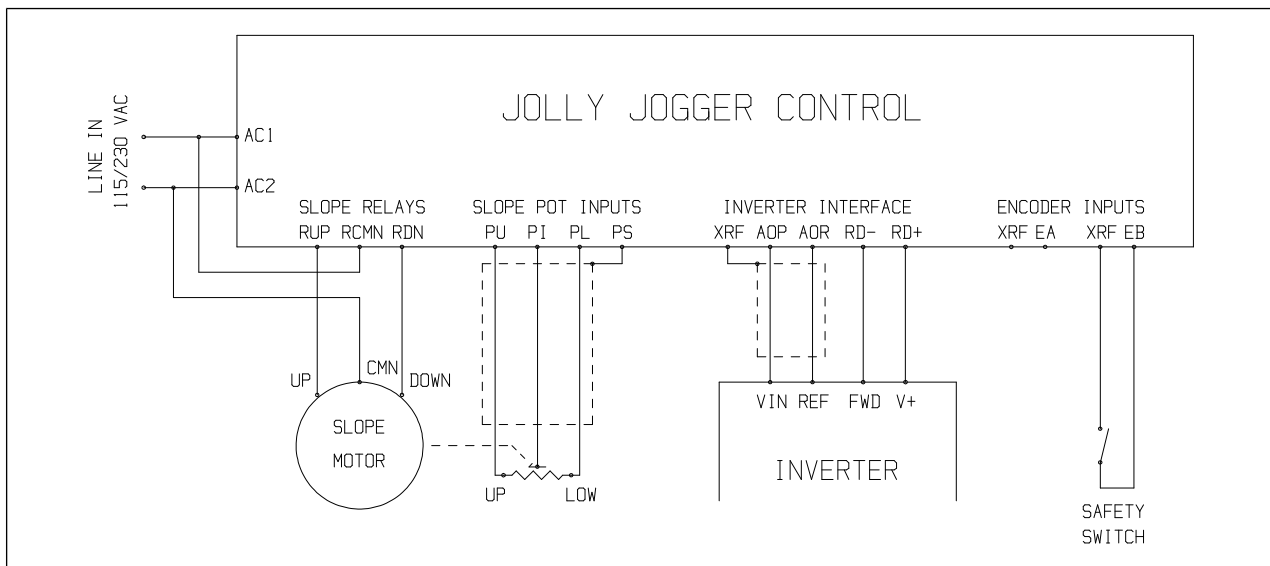
Typical Jolly Jogger connection diagram. The unit is supplied by the line and activates the up/down windings of the slope motor with potentiometer feedback. The inverter is driven with the analog signal and direction bit while one of the encoder inputs is used under its alternative role as a general enable command.

Ordering information	
Model	**Description**
JJ_115	Jolly Jogger control, 115 VAC supply
JJ_230	Jolly Jogger control, 230 VAC supply

Supplied by