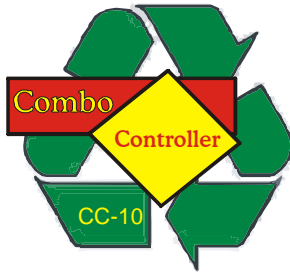




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CybaSMART ComboController – Model CC10

(for COMBO Units with their own separate hydraulic power pack ONLY..)

Specifications:

Power Supply	24Vac derived from main controller
Supply Protection	Fused on PCB
Motor	415Vac 3phase 0.5kW
Motor Protection	Fused on PCB
Hydraulic valves	2 x poppet types – 24Vdc 14.6W coils
Front Panel	1 x operate button & 1 x Emerg. Stop
Indicators	1 x Power LED & 1 x Full Bale LED
Inputs	1 x Travel Switch & 1 x Door Switch
Door Protection	AS4024.1 Category I

Function:

The controller is designed to draw 24Vac power from the main CybaSMART controller. This saves on the cost of a separate power supply and key switch.

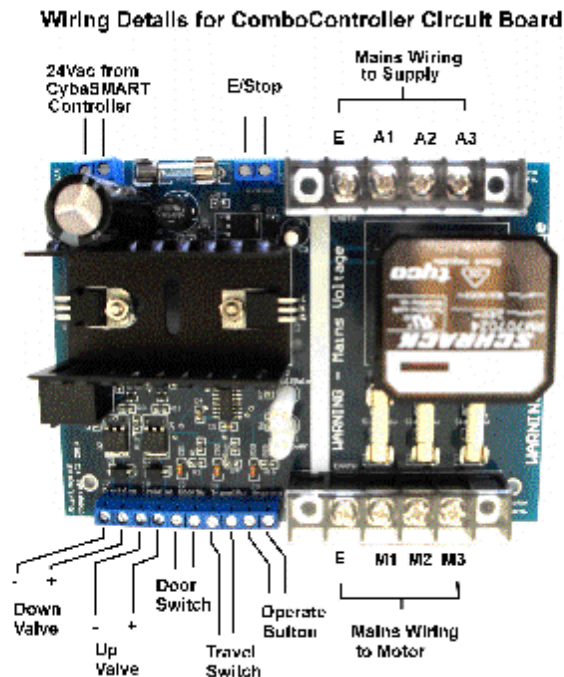
A door switch is monitored and the motor and hydraulic valves are de-energised when the door is opened.

The pressing plate is stopped at either end of its travel when a travel limit switch is made. The travel switch will be ignored for the first two seconds after a hydraulic valve is enegised to allow one switch to be used to sense both ends of the travel. Further a timer will be started at the beginning of the down stroke and if the travel switch is not made in a given time then the down stroke is terminated and the full bale LED is switched on.

Also the retract stroke is timed, and if the travel switch does not operate within a given time the controller will stop. This protects the hydraulic systems from continually bypassing if the travel switch fails and the machine is unattended.

Operation

- 1) When power is initially switched on the power LED should illuminate. Ensure the baler doors are shut.
- 2) After power on pressing the Operate button will cause the machine to retract and stop in the retracted position.
- 3) Pressing the Operate button again will cause the baler to cycle down to the bottom of its stoke, then cycle back up to the retracted position.
- 4) When the baler cycles down and the bale is full it will stop in the down position and the Full LED will illuminate. When the Operate button is pressed the baler will retract



Hydraulic Valve Coils

The ComboController is only designed to drive low power solenoid coils. 24Vdc units with a power rating of less than 16W maximum should be used.

Door Switch

The door switch must have its contacts open when the door is open. The door switch system is a category I safety system as described by AS4024.1.

Travel Switch

The travel switch must have its contacts shut at the ends of the cylinder stroke. The Combo controller does not monitor the travel switch for the first two seconds after a valve coil is energized. This allows one switch to be used to monitor both ends of the cylinder stroke.

Fuses

There are three 8amp slow blow high rupture ceramic fuses protecting the electric motor. There is no overload relay, so a motor fault will blow these fuses. It is recommended that they only be replaced with genuine parts from the manufacturer.

There is also a 1amp fast blow fuse protecting the 24Vac circuit. Always replace with a correctly rated fuse for continued protection.

CAUTION !

The right hand end of the printed circuit board (PCB), as viewed above, is at 415Vac mains potential. Contact could be lethal. Always ensure mains is isolated before touching the PCB.

Some Known Fault Symptoms

- 1) A travel switch malfunctioning can have two possible symptoms:
 - a) If the switch is jammed closed then the controller will drive the hydraulic solenoids for only two seconds in either direction.
 - b) If the switch is permanently open then on the down stroke the unit will always show full bale. However it is probable that the down stroke is not possible. The likely outcome is the unit going into retract for about 20 seconds then stopping. When the Operate button is again pressed the controller will still retract, run for 20 seconds then stop. It will not be possible to get the machine to cycle. This happens because the safety time out occurs when no travel switch signal is detected and forces the controller into its power on mode. The next function when the Operate button is pressed is retract, and it is not possible to get past this condition because the controller keeps getting forced back to the power on mode.
- 2) A faulty door switch can either allow the unit to cycle with the door open, or not allow the unit to cycle at all.
- 3) No power could be caused by:
 - a) A blown 1 amp fuse
 - b) The main CybaSMART controller not being powered
 - c) A failed contact block on the ComboController Emergency Stop
 - d) A short in the solenoid valve wiring. Also check if the Hirshmann plug on the solenoid has diodes fitted and ensure the correct voltage polarity is applied.
 - e) The options plug on the bottom of the CybaSMART controller is disconnected or the wiring is broken
 - f) A failed ComboController PCB. ALWAYS check and eliminate all of the above before replacing the Combo PCB.
- 4) Motor wont start but all other functions of the ComboController seem OK. This is possibly caused by FS2, FS3 and FS4 fuses being blown. These are the 8amp slow blow high rupture fuses that protect the motor. Identify and clear the fault before replacing the fuses. You can check if the motor relay is closing by observing the small window on

top of the relay and noting if the red indicator is visible in the window when the motor should be running. This red indicator means the relay has closed.

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WARRANTY

Your StarLogixs ComboController is guaranteed against faulty workmanship or components for a period of twelve months after the purchase date. For warranty contact your local sales agent with proof of purchase date.

This warranty does not cover damage or failure cause by or attributable to Acts of God, abuse, misuse, improper maintenance, lightning or other incidence of excessive voltage or any repairs other than those provided by an authorised StarLogixs service facility, or transportation costs.

StarLogixs is not responsible or liable for indirect, special, or consequential damages arising out of or in connection with the use or performance of the Controller or other damages with respect to any economic loss, loss of property, loss of revenues or profit, or cost of removal, installation or reinstallation.

There will be charges rendered for repairs to the product made after the expiration of the aforesaid twelve month warranty period.

- This warranty gives you specific legal rights and you may have other rights which vary from state to state.