

Adjusting an **ECU**® engine control with DIP switch

SW1	SW2	SW3	CYCLES
OFF	OFF	OFF	1
OFF	ON	OFF	2
ON	OFF	OFF	3
ON	ON	OFF	4
OFF	OFF	ON	5
OFF	ON	ON	6
ON	OFF	ON	7
ON	ON	ON	8

Adjusting Crank Cycles

Using a pen or small screwdriver and the table on the side of the engine control flip the switches in the pattern to adjust to your desired amount of cycles. Cycles is the amount of times the engine will turn on the starter to attempt engine cranking.



Adjusting Single or Multiple cranks

Using a pen or small screwdriver adjust switch 4 on for one single crank. This action causes all the multi cranks to add together to create one large crank. In affect it disables the rest cycles.

SW 4	Action
ON	Single Crank
OFF	Multiple Cranks







Using the overspeed verify switch

After engine starts and engine is at speed turn this switch on and if properly set the engine will shutdown in overspeed fault. Be sure switch 5 is turned off for proper normal operation.

SW 5	Action
ON	Makes control think engine is going approximately 13% faster than it really is
OFF	True engine speed



<h3>Adjusting Crank Disconnect</h3> <p><i>This adjusts when the starter disengages upon start</i></p> <p>Turn the Crank Disconnect adjustment 30 turns counter clockwise. Then turn it about 3 turns clock wise. Try to start the engine. It should crank and stop quickly. If your engine control has an engine started LED it will be lit. Now try turning the crank disconnect adjustment 1 turn clockwise and try restarting the engine. Keep turning the adjustment clockwise and attempting to start until the engine starts reliably. If the Overcrank and Overspeed LEDs light at the same time on your unit see the trouble shooting guide for more help.</p>	
<h3>Adjusting Overspeed</h3> <p><i>This adjusts overspeed safety trip</i></p> <p>Be sure you have adjusted the crank disconnect first. Turn the Over-speed adjustment 30 turns clockwise. Flip Switch 5 to the on position. Start the engine. It should crank and start. If your engine control has an engine started LED it will be lit. Now start turning the overspeed adjustment counterclockwise until the engine control shuts down the engine in an overspeed fault. Turn Sw 5 off. If the Overcrank and Overspeed LEDs light at the same time on your unit see the trouble shooting guide for more help.</p>	
<h3>Adjusting Fault Delay</h3> <p><i>This adjusts how long engine can run in fault mode</i></p> <p>Turn the Fault Delay adjustment 30 turns counter clockwise. This will allow for about 1 second of fault delay. Fault delay is begun after the engine has started. The purpose of the delay is to allow time for oil pressure to build adequately before the oil pressure monitor starts checking the oil pressure sender. High water temperature is also ignored during the fault delay time to allow engine coolant to circulate in the engine.</p>	
<h3>Adjusting Crank Time</h3> <p><i>This adjusts starter on time</i></p> <p>Turn the Crank Disconnect adjustment 30 turns counter clockwise. Then turn it about 3 turns clock wise. This will allow about 1 second or so of actual engine cranking (starting motor on) time. Each turn up adds about 1 second to the crank time. Adjusting the crank time automatically sets the rest time to the same value.</p>	

A close-up photograph of the crane control panel. It features two blue rectangular buttons with yellow knobs. The left button is labeled 'OVER SPEED' and the right button is labeled 'CRANE CYCLE'. Below these buttons are labels for 'LOW OH PRESSURE' and 'CRANE'. The panel is black with white text and symbols.

A close-up photograph of the crane control panel. It shows two blue rectangular buttons with yellow text. The left button is labeled 'OVER SPEED' and the right button is labeled 'CRANE CYCLE'. Below the buttons, there are labels for 'LOW GEAR', 'CRANE', and 'CRANE CYCLE'. The panel is black with white text and yellow labels.

A close-up photograph of the PLC control panel. It shows two blue indicator lights. The left light is labeled 'OVER SPEED' and the right light is labeled 'CRANK CYCLE'. Below the lights, there are labels for 'LOW OIL PRESSURE' and 'CRANK CYCLE'.