NEW STYLE MK-1/MK-2

There are 2 versions of the new style Mk-1/Mk-2

Version A
delay seconds will not go below 3
there is a battery low indicator
the press-to-test runs for 5 seconds only (regardless of feed time settings)

Version B
delay seconds will go to 0
the battery low indicator has been removed
the press-to-test runs for the number of seconds set on feed time 1 or 3 seconds if feed time 1 is not set

Basic Check Out For New Style Mk-1/Mk-2 Control Unit
Check all of the connections and press the reset button on the back of the circuit assembly (right side of control unit, about 3" from bottom of frame, near white plug with 2 pins). This will clear all feed times, feed for about 1 second and return the clock to 12:00AM with the colon blinking. If the reset button does not work on the first press you will need to press it several times to clean the contacts inside of the switch. The display should blink each time you press the reset switch.

Once you have the control unit reset, press the 'Correct Time' button and see if you get the 'C' screen to set the time of day. Press the 'Correct Time' button again to return to the time of day screen.
Press the 'Feed Time' button and the control unit should display feed time 1. Press the 'Hour Set +/-', 'Minute Set +/-,' 'Motor Run/Seconds +/-' and the numbers on the display should respond to the buttons correctly. Press the 'counter to zero' button and the feed time should become "--:--." Press the 'Correct Time' button to return to the time of day.

Press the 'Delay/Seconds +/-,' then push the 'Press To Test' button. If the control unit spins when the delay/seconds reaches 0 and all of the buttons worked properly, the control unit is working fine. Press the reset button on the back of the assembly and set your times.

Time is Wrong or Clock Does Not Work (colon does not blink)
If the clock is always 15 or 20 minutes off (VersionA) or the clock will not tell time (VersionB) you may have left the Control Unit in the wrong mode. When you are finished with setting and testing your feeder the colon should be blinking between the hour and minute. If this is not the case press the 'Correct Time' button and the colon will blink which indicates that the clock is working.

If you cannot get the colon to blink press the reset button on the back of the circuit assembly (right side of control unit about 3" from bottom of frame, near white plug with 2 pins). This will clear all feed times, feed for about 1 second and return the clock to 12:00AM with the colon blinking. If the reset button does not work on the first press you will need to press it several times to clean the contacts inside of the switch. The display should blink each time you press the reset switch. Set times and test feeder again.

Does Not Spin Correctly
Check to see if the 'low battery' indicator is on all of the time (VersionA only) and push the 'Press To Test' button. If the motor runs on test, but does not run on a feed time; replace your circuit assembly (the low battery indicator circuit is bad).

If the motor did not run check all of the electrical connections. Unplug the white plug from the back of the assembly and make sure all of the pins in the connector are shiny. Also check the battery connections for a snug fit and battery posts to ensure they are not loose.

After plugging all connections back in, use a jumper wire and connect the negative battery (black wire) to negative motor (gray wire). If the motor runs; replace the assembly. If the motor does not run you have a battery or motor problem (the battery is most likely).

Cannot Set Time Of Day or Feed time
Press reset button on back of circuit assembly (right side of control unit, about 3" from bottom of frame, near white plug with 2 pins). This will clear all feed times, feed for about 1 second and return the clock to 12:00AM with the colon blinking. If the reset button does not work on the first press you will need to press it several times to clean the contacts inside of the switch. The display should blink each time you press the reset switch. Once you have the control unit reset, press the 'Correct Time' button and see if you get the 'C' screen to set the time of day. Press the 'Correct Time' button again to return to the time of day screen.

Press the 'Feeding Time' button and the control unit should display feed time 1. Press the 'Hour Set +/-,' 'Minute Set +/-,' 'Motor Run /Seconds +/-' and the numbers on the display should respond to the buttons correctly. Press the 'Counter To Zero' button and the feed time should become "--:--."
If the display doesn't respond to the buttons; replace the membrane switch. The membrane switch buttons usually go out a row or column at a time (i.e. 'Correct Time', 'Motor Run/Seconds -' and 'Hour Set -' buttons will not work).

Control Unit Spins All of The Time
Press reset button on back of circuit assembly (right side of control unit, about 3" from bottom of frame, near white plug with 2 pins). If the reset button does not work on the first press you will need to press it several times to clean the contacts inside of the switch. If the control unit still spins with the battery connected; replace the circuit assembly.

BATTERIES AND SOLAR PANELS

Battery Does Not Hold A Charge
The life span of a rechargeable battery is 3 to 5 years. If the control unit is not throwing strong at the beginning of the season and your battery is near the end of it's life cycle; replace the battery with a fresh one. You can use a volt meter to check the solar panel.

Checking at the battery wires with the battery disconnected you should get 7 to 9 volts on a sunny day. If you do not get any voltage at the battery wires disconnect the solar panel from the control unit and connect the meter to the solar panel plug. You should get 7 to 9 volts on a sunny day.

If you get a good volt reading at the solar panel plug, but not at the battery wires you can bypass the circuit and wire the solar panel directly to the battery. Unplug the solar harness from the back of the circuit board and cut off the red plug. Strip the wires and connect them to the battery terminals. For best results use new battery wire terminals.

If you do not get a good reading at the solar panel plug check the wire for breaks or flat spots. Cut and strip the wire and take another reading with the volt meter. If all of the wire appears to be bad all is not lost. There is about 4" of wire inside of the solar panel that you can access by removing the solar panel

bracket and opening the back of the solar panel. If you cannot get a good voltage reading inside of the solar panel; replace the panel.

Storage And Care of Rechargeable Batteries
Operating your control unit year round even if the barrel is empty will give you the best results for a rechargeable battery. If you do take it down for any reason try to store it some place where you can leave the solar panel plugged in and facing the southern sky. If you don't have a place for the solar panel, you will need to charge the battery about every 90 days with a plug in the wall type charger.

The rechargeable batteries are lead acid batteries. They have the same characteristics as a car battery. If you leave them on the shelf they will die. If you let the charge go to zero volts, there is a good possibility they will die.

If you have a battery that has been on the shelf for an unknown period of time, charge it for 24 hours then let it stand for 24 hours. Test the battery under some kind of load (i.e. the control unit motor). Rechargeable batteries may read 6 volts or more with a volt meter, but when you apply a load like a motor the voltage will drop. If the voltage drops below 5 volts replace the battery.