

# Operating Your Solar Feeder

Congratulations on your new purchase! Your Solar Feeder is simple to operate and will last many years with proper maintenance. It's designed to reduce the labor involved with feeding your livestock. A few key points before we get started...

## The 12-Volt Battery System

Solar Feeders are powered by a 12 volt battery system that is trickle charged by an exterior solar panel. Your feeder will only require one day of sunlight for every three to four weeks of feeder use. This battery powers a sealed motor/spinner plate that is located just below the feed hopper outlet. A vibrating motor, to ensure even feed flow, is also powered by this same battery. Always check to ensure the solar panel is getting plenty of sunlight. Keep it away from heavy shade and clear of dust, dirt, snow, and other debris.



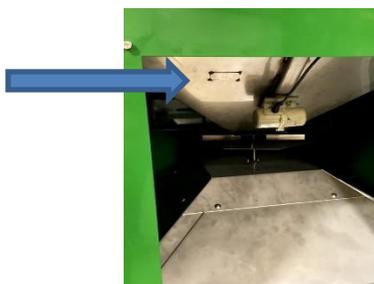
## Feed types

Solar Feeders are designed to handle a wide variety of feeds from dried distillers grains to pellets and cubes up to 3 1/2" in length. The hopper is made with smooth stainless steel that provides good feed flow onto the spinner plate and the vibrating motor will ensure good flow even with high moisture and sticky feeds.



## ID plate/serial number

A plate is located under the upper trough to the left of the side opening. Have this ready if you ever call us for technical support.



## Operating instructions

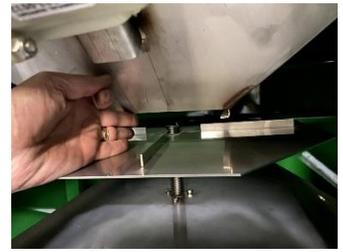
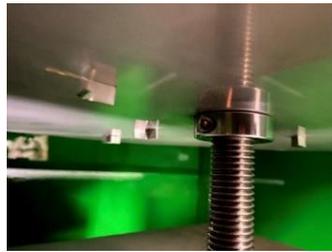
### **BEFORE you fill the hopper with feed**

#### **Step 1 – Adjust the spinner plate for your type of feed**

Your Solar Feeder utilizes a spinner plate to distribute the feed to the troughs at feeding time. This plate is designed to be adjusted up or down depending on the texture of your feed.

Open the side panel of your feeder and you will see the spinner plate sitting at the top of the lower trough. Locate the set screw (3/16" allen) that secures it to the motor shaft. To adjust the spinner, loosen this screw until the spinner turns freely. **DO NOT FORCE THE SPINNER TO TURN OR YOU CAN DAMAGE THE MOTOR!**

We recommend that you adjust the gap between the spinner surface and the bottom of the hopper to be about the same distance as the longest feed you will use. For instance, if you use DDGS or ground corn adjust the spinner all the way up to about a 1/2 inch below the hopper. If you are using large pellets (up to 3 1/2") adjust the spinner down until you can stand a pellet up on the spinner and it just clears the hopper.



#### **Step 2 – Calibrate the timer for the desired amount of feed per feeding**

Your Solar Feeder is equipped with a simple to operate timer. This timer is programmable for up to 6 feedings per day and operating instructions can be found on the back of the timer and in this manual. The timer is powered by 2 – AA batteries that should be replaced at least once per year. A 15 amp 125 v (1/4" x 1 1/4") fuse is also found in the battery compartment.



When the spinner plate is set properly it will distribute roughly 10-15 lbs. of feed per second.

To get a more accurate calibration you can either use a **timed** or **weighed** method:

1. Close the feed shut off gate
2. Pour either 100 lbs. (2 bags) of feed in the hopper for timed or bulk fill the hopper for weighed
3. Open the feed shut off gate
4. Make sure the toggle switch is set to "ON"
5. **For the timed method** (100 lbs.) press the "Test" button and use a stopwatch to determine how many seconds it takes to empty the hopper. The "Test" button turns the spinner for 5 seconds so you might have to press it more than once to empty all 100 lbs. Then simply divide 100 lbs. by the number of seconds it took to empty the hopper to find # lbs./second.

**For the weighed method** press the "Test" button for 2 cycles (10 seconds of spinner time) and then collect and weight how much feed was distributed. Divide total lbs. by 10 seconds to find # lbs./second.

Example:

20 head of cows

Goal is 4 lbs./head/day split into 2 feedings

Calibration (timed or weighed) equaled 10 lbs./second

20 head x 4 lbs. = 80 lbs. total/day ÷ 10 lbs./second = 8 seconds

8 seconds ÷ 2 feedings = Set timer for 4 seconds Run Time per feeding



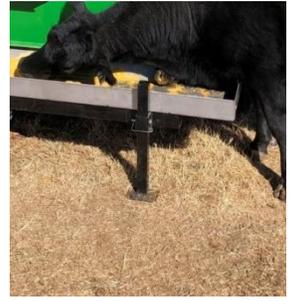
### Step 3 – Fill your feeder

1. Close the feed shut off gate
2. Make sure the toggle switch is "Off" Fill your feeder



**Step 4 – Tow to feeding area and position on a level surface, securing the four stabilizing legs (one in each corner)**

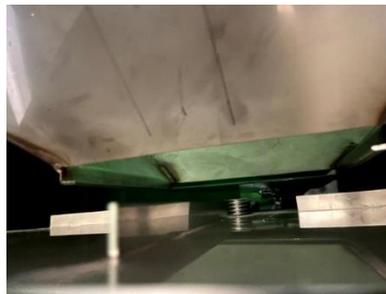
Customers recommend using two magnetic levelers to make sure you are level front to back and side to side (you can store them in the timer box). This will ensure even feed distribution to all four troughs.



**Step 5 - Unhook and stow the removable tongue in the storage box located under the feeder**



**Step 6 - Open the feed shut off gate by pulling the handle all the way out and down to secure**



**Step 7 – Program the timer**

Set the time clock, feeding times, and run time based on your calibration test (see timer instructions below)

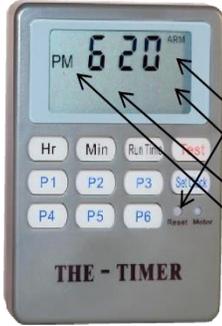
1. Push "Reset" to clear all settings
2. Set the clock (Hr & Min)
3. Set feeing times (P1 – P6) for up to 6 times per day
4. Set run time (Run Time) per feeding based on your calibration test
5. Set the toggle switch to "On"
6. Press "Test" to make sure you have good feed flow and everything is working properly

**ALL SET - TIME TO PUT YOUR SOLAR FEEDER TO WORK!**

# THE-TIMER

## Operators Manual

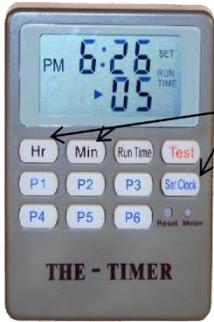
### To Reset:



Push **Reset** button to clear all settings  
Display will show all indicators including:

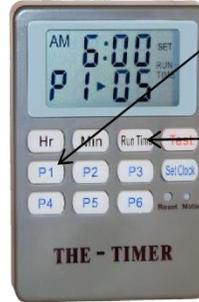
- Blown fuse indicator
- Battery level indicator
- 12V/6V indicator
- AM/PM indicator

### To Set Clock:



Push **Set Clock**  
Push **Hr** & **Min** buttons to the correct time of day  
Display shows 6:26 PM and run time of 5 seconds

### To Set Feed Time:

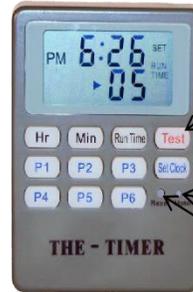


Push **P1** (for feeding period 1)  
Push **Hr** & **Min** buttons to the desired time you want your feeder to go off  
Push **Run Time** button to the desired length of run time

Repeat for **P2** through **P6** feeding periods

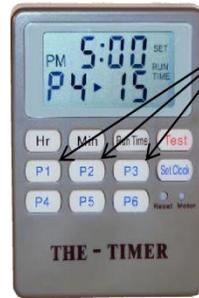
Display shows feeding period 1 (**P1**) set to feed for a run time of 5 seconds at 6:00 AM

### To Test:



Push **Test**  
Display shows count down from 5 seconds then the timer will run for 5 seconds  
Red indicator light will glow during run time  
Reset button (recessed) to clear all settings

### To Check Feeding Periods:



Push **P1**, **P2**, **P3**, etc. to check each feeding period  
Display shows feeding period 4 (**P4**) set to feed for a run time of 15 seconds at 5:00 PM  
Run time can be up to 30 seconds  
To feed less than 6 times a day, simply set run time for a feeding period to 0