

# BARREL ALARM RA-5

## 1. GENERAL

- There is a video that will provide more detail on each of the following steps.
- [youtube.com/watch?v=L3XPtXBqFY&t=2s](https://www.youtube.com/watch?v=L3XPtXBqFY&t=2s)

## 2. OPERATION

- The magnet sweeps past the probe each rotation of the barrel to reset the timer. If the timer is not reset, an alarm sounds.
- To change the countdown time: power the unit on, then hold the UP, DOWN, and front green button (PB1) together. When the buzzer sounds, the timer is in “programming mode” and you can release the buttons. Set the new time by holding PB1 down, then either UP or DOWN until the desired time is displayed. Release all buttons for 8 seconds and then the timer will exit programming mode with the new time.

## 3. MOUNT PROXIMITY SWITCH

- The proximity switch must be mounted within 25-35mm of a metal surface to detect the barrel. (35mm is if the target is 2”x2” or larger, shorter if the target is smaller)
- Using the provided PVC angle, find a spot where the horn, or the metal structure of the rack comes close to the proximity switch. (note: the switch will sense through plastic without any reduction in range.)
- Plug in the electronics box to make sure the proximity switch is working. (digital display will turn on when the proximity detects the barrel)



PROXIMITY SWITCH WITH BRACKET

## 4. MOUNT MAGNETS

- You will need a magnet mounted on a barrel to position the probe in the next step.
- Therefore, drill a hole in the gear wheel for the self-tapping titanium screw with a 1/8” drill bit. Select a location that is towards the outside of the gear or end cap.
- Note: if there isn't sufficient clearance between the gear wheel and the hangar arm, then the magnet will have to be recessed by drilling a shallow hole with a Forstner bit. (20mm or 27/32”)
- Tip: each magnet must be the same distance from the axis of the barrel. (dimension “A” in Figure 1 below)



MAGNET MOUNTED

## 5. MOUNT PROBE

- Bolt the probe mounting bracket on the rim of the tank where the probe is within reach of the magnet. The probe depth should approximately equal dimension “D” in Figure 1 below.
- Tip: the probe should be located on the side of the barrel that moves away from the probe tip as in figure 1. (so the magnet cannot slam into the probe bottom)
- Set the distance in from the tank wall. Tip: if the solution is opaque so the magnet can't be seen, then the distance in from the front of the tank can conveniently be set with the barrel suspended.
- With the barrel rotating, adjust the angle of the probe so it detects the magnet. (the button LED on the electronics box will illuminate each time the magnet is detected)

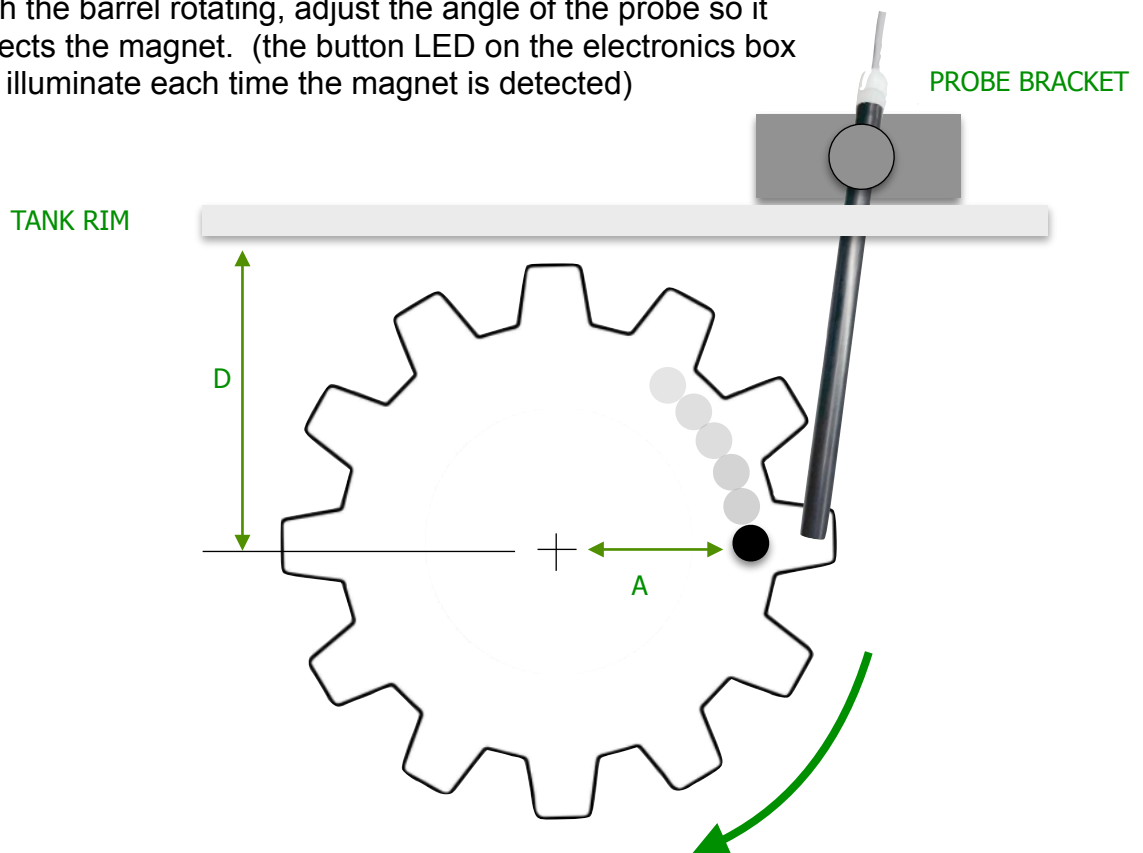
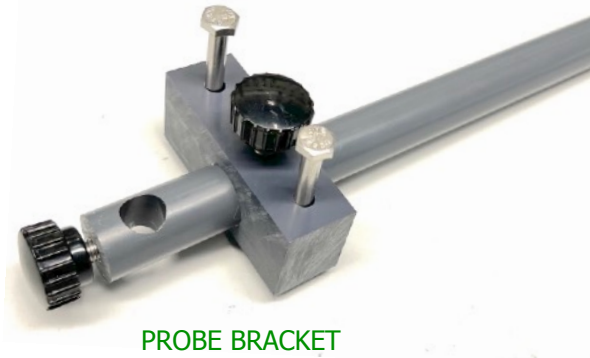


FIGURE 1

## 6. MOUNT ELECTRONICS ENCLOSURE

- Mount anywhere that is convenient. It is not necessary to protect it from splashes.