

ARCS PROCEDURE	RESETTING K&Z TRACKER AFTER POWER OUTAGE	PRO(TRK)-010.000
Author: R. Pearson		5 February 2004 Page 1 of 4

Resetting Kipp & Zonen Solar Tracker after Night Power Outage

I. Purpose:

This procedure describes how to reset the Kipp & Zonen (K&Z) Solar Tracker after a night power failure so that it will not stay locked in the “home” position.

II. Background

In the normal operating condition, the K&Z tracker drives to and stays in the “home” position facing east with its arm horizontal. At sunrise, the tracker starts moving (i.e., tracking the Sun).

Initial Startup after a Power Outage:

Upon powering up, the tracker will return to the home position facing east with its arm horizontal. This involves moving the azimuth and zenith drives in a plus/minus direction to check instrument position. Once the home position is checked, there is a short delay while the processor calculates the position required for correct tracking and shading of the instruments. The tracker then drives to that position and starts tracking.

Power Outages at Night:

If there is a power outage during the night, the tracker still checks the home position. However, the zenith drive is already at the home position and gets driven into the limits and stops. The tracker cannot recover from this, and operator intervention is required to reset the tracker. This requires the unit to be powered down and the cover removed. The operator then must wind the zenith gear drive so that the zenith arm moves up past horizontal and out of the range of the limit switch. The cover can then be replaced and the unit powered up. The tracker will then go into the initial startup after a power-outage routine.

III. Cautions and Hazards:

None.

IV. Requirements:

- Screw driver

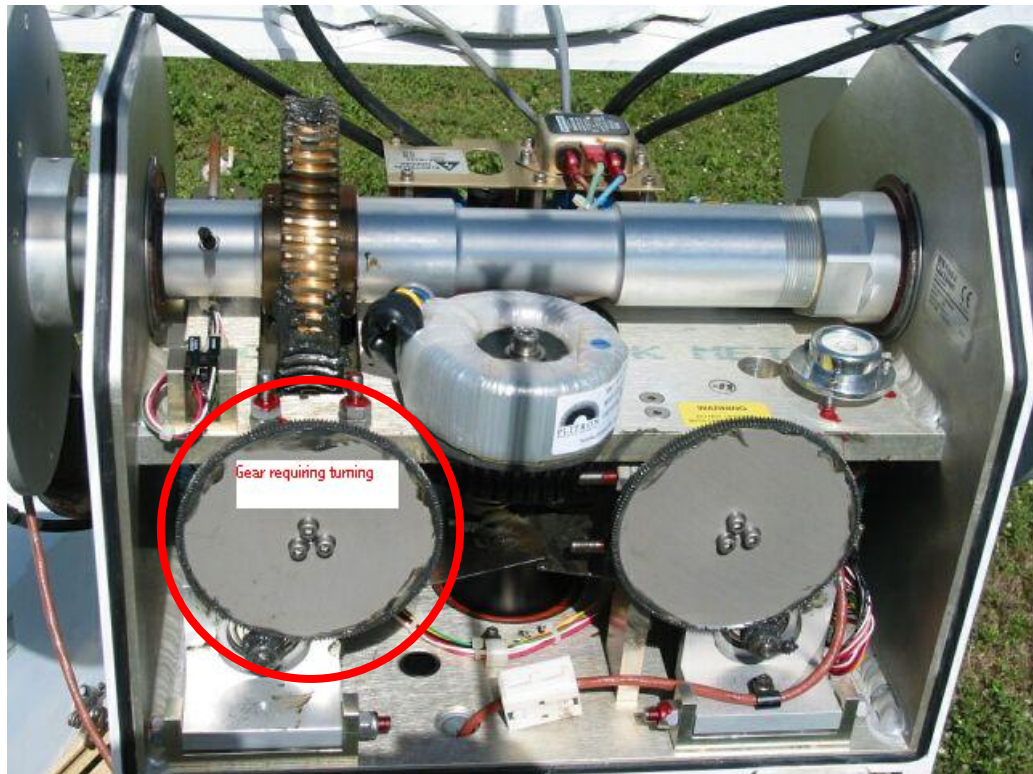
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V. Procedure:

A. Resetting K&Z Tracker after Night Power Failure

1. Turn off power to the tracker.
2. Remove the cover. Two gear assembly should be evident (see Figure 1 below). **Note: The LEFT gear is the one to be turned.**

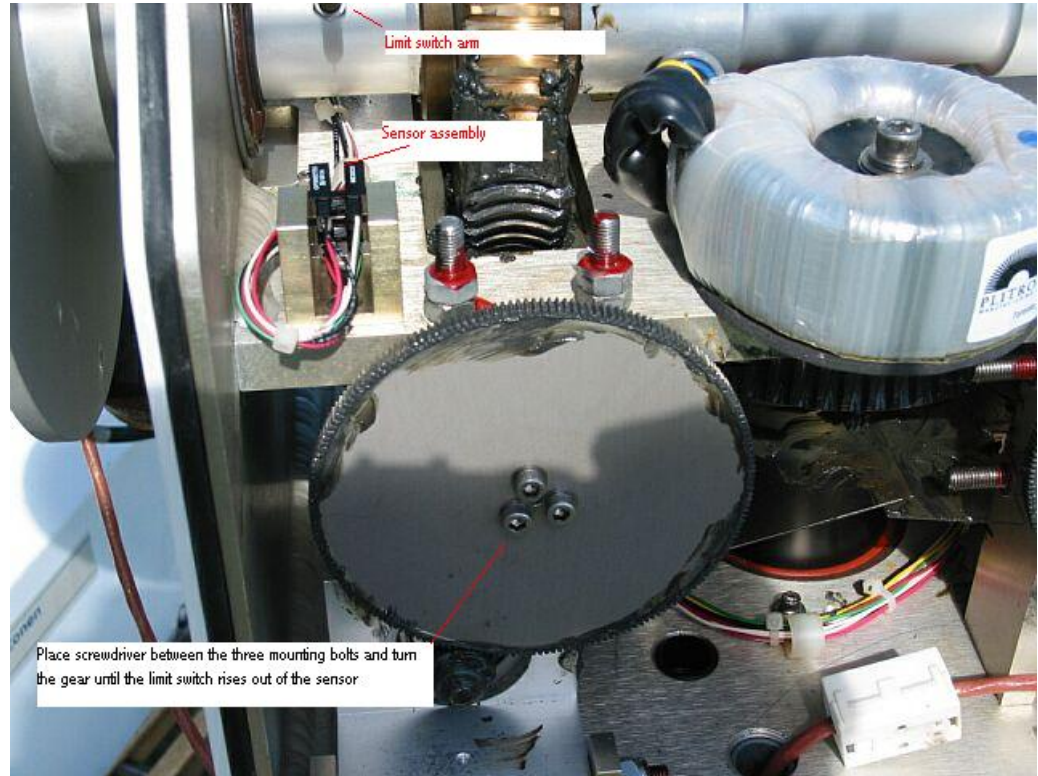
Figure 1



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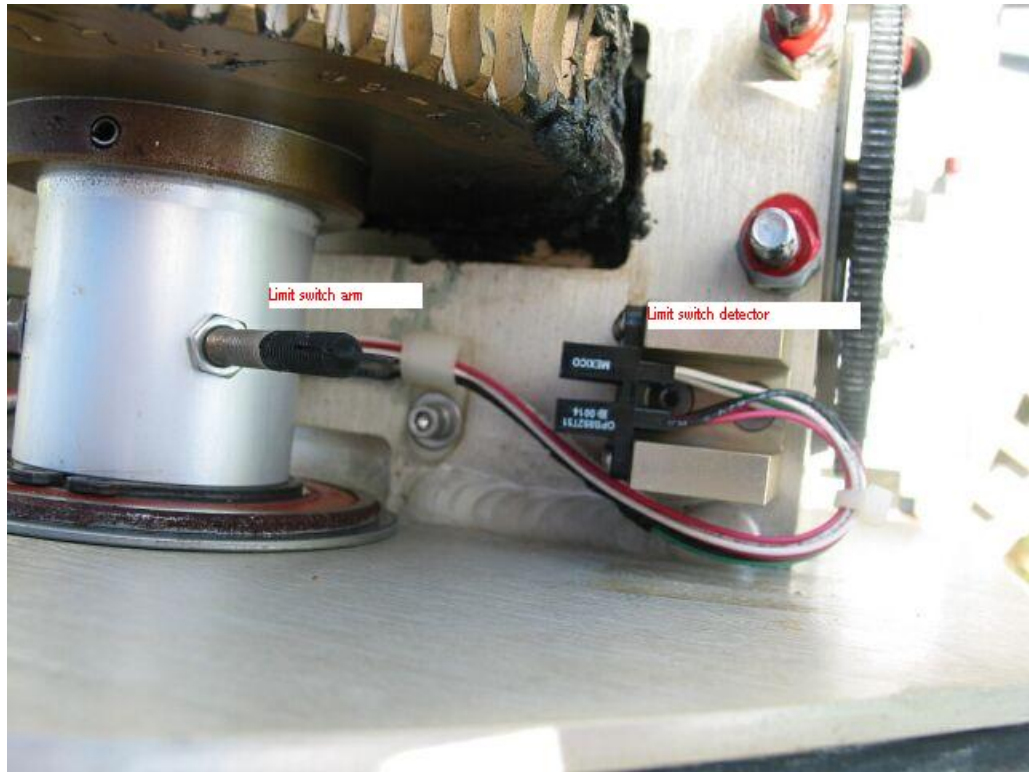
3. When the fault occurs (i.e., power failure), the limit switch arm will be inside the sensor assembly (see Figures 2 and 3).

Figure 2



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Figure 3



4. Turn the LEFT gear to move the limit switch upward, moving it out of the sensor assembly.
5. Place the cover back on the tracker.
6. Turn on power to the tracker.
7. The Tracker will now initialize and return to tracking.

VI. References:

1. Setting Up K&Z Tracker, PRO(TRK)-007.

VII. Attachments:

None.