

ARCS PROCEDURE: Author: C. Cornwall	PIR LEVEL CHECK PERIODIC PROCEDURE	PRO(PIR)-001.002 June 24, 1998 Page 1 of 2
--	---------------------------------------	--

PIR Level Check Periodic Procedure

I. Purpose:

This document describes the methods used to check the Eppley PIR level at the Tropical Western Pacific Site.

II. Cautions and Hazards:

- Exercise caution: 12 VDC powers the PSP and PIR ventilators.
- The instrument and ventilator must always be bolted down, except during transportation or level adjustment.
- When removing the sunshield, as required when checking PIR level, be careful not to slip the screw driver off the shield screws. This may scratch the dome.
- The shield should fit tightly around the plastic housing to force the air over the domes rather than out the sides. If it does not, check and ensure that the instrument is seated properly in the ventilator.
- The ventilator fan is on during this procedure; never stick your fingers under the radiometer or into the fan.

III. Requirements:

- Check PIR level daily during first month of setup, then weekly thereafter.
- The leveling devices must be checked monthly to ensure that the PIR is level.
- Screw driver.
- Spare bolts (10-32).
- Spare screws for sunshield.
- Leveling screws on ventilator (1/4 20).
- Small tray or cup (for holding screws).

IV. Procedure:

Note: The instrument and ventilator must always be bolted down, except when it is transported or the level is adjusted.

A. Steps

1. Remove the 25 cm diameter shield; there are three screws to remove; use the small tray to hold the screws.

ARCS PROCEDURE:	PIR LEVEL CHECK PERIODIC PROCEDURE	PRO(PIR)-001.002
Author: C. Cornwall		June 24, 1998 Page 2 of 2

2. Before leveling the PSP/PIR, check inside the ventilator. Remove any debris or bugs from inside the ventilator. If ventilator motor needs replacing, follow PIR Fan Motor Replacement Procedure **PRO(PIR)-005**.
Note: Keep fingers away from fan underneath instrument.
3. Check leveling bubble on top side of PIR sensor. If bubble is centered, there is no need to adjust the bolts; simply replace ventilator lid and proceed to step **10**.
4. Loosen the three mounting screws 1 cm up from the base plate. These should only be loose enough so that the leveling screws can adjust the level of sensor and attached ventilator. See **Figure 1**, Eppley PIR with Ventilator.
5. Ensure that the data connector points to the equator. (North in the southern hemisphere).
6. Adjust the three leveling feet with the knurled knobs on the outside of the ventilator. Adjustment can be tricky. Be patient.
7. Level the instrument by adjusting the three leveling screws to center the leveling bubble on the instrument. See **Figure 2**, Eppley PIR Overhead View.
8. Tighten mounting bolts evenly after leveling; do not tighten excessively, as this may cause PIR assembly to move out of level.
9. Re-install the 25cm diameter shield.
10. Enter the date, start time and end time of the procedure and any comments in the Site Data Log.

V. References:

1. Conversations with Mike Rubes in Sandia (March, 1995)

VI. Attachments:

1. Figure 1. Eppley PIR with Ventilator.
2. Figure 2. Eppley PIR with Overhead View.