



Safety Bulletin – WGSB20100817

Severity: 4 – Life Threatening

Issue: PR2 AC Inlet and Power Cord Overheating

Summary:

Plugging or un-plugging the PR2 Power Cord from the PR2 AC Inlet (see Figure 1) while the Power Cord is plugged into the Mains (AC wall outlet) could cause damage to the Power Cord and AC Inlet leading to overheating of the power cord and the AC Inlet.



Figure 1: AC Inlet location on PR2 Rear Panel.

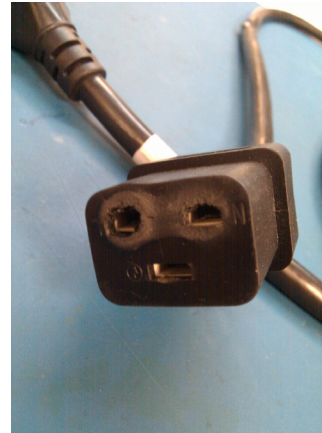


Figure 2: Overheated AC power cord.

Willow Garage has seen one PR2, in house, where the AC Inlet and Power Cord overheated (see Figure 2). The robot was immediately taken out of service. The AC Inlet and Power Cord were both replaced before putting the PR2 back into service. Damaged AC Inlets are not readily visually identified. Replacing the Power Cord alone did not resolve the issue. New Power Cords will be damaged if the AC Inlet is not replaced. Power Cords at Willow Garage are inspected every week for any signs of wear, damage, or overheating. In addition, to prevent damage to the AC inlet or Power Cord the procedure below is used when plugging in or unplugging the robot from the mains.

Willow Garage is investigating this issue further and will provide an update as more information becomes available.

Consequence:

Overheated AC inlets or Power Cords could lead to both electrocution and/or fire hazards.

Remedy:

Users should immediately inspect all power cords for wear, damage, or overheating (deterioration in plastic, discoloration, etc). If there are any signs of overheating, stop using the PR2. Submit a ticket at <http://wgsupport.willowgarage.com>. Do not resume using the PR2.

If there are no signs of wear, damage, or overheating at this time:

- Inspect the Power Cord every time the Power Cord is plugged into the PR2.
- Inspect the Power Cord on a weekly basis for signs of wear, damage, or overheating (deterioration in plastic, discoloration, etc).

To prevent damage to the AC Inlet or Power Cord the following procedure must be used when plugging in or unplugging the robot from the mains:

Plugging in:

1. Plug in the Power Cord to the AC Inlet on the PR2. Make sure the Power Cord is fully and squarely seated into the AC Inlet before plugging into the Mains (AC outlet).
2. Then plug the Power Cord into the Mains (AC outlet).

Unplugging:

1. Unplug the Power Cord from the Main (AC outlet) first.
2. Then unplug Power Cord from the AC Inlet on the PR2.

Notes:

See <http://pr2support.willowgarage.com/wiki/Safety/PR2%20Hazards> for a list of potential hazards.

See <http://pr2support.willowgarage.com/wiki/Safety> for the latest Safety and Usage Guildelines.

For any safety issues or concerns please contact: safety@willowgarage.com

Report Date: August 17, 2010

Model Affected: PR2 (68-02967)

Model Serial Numbers Affected:

68-02967-01000, 68-02967-1006 to 68-02967-1015

Component: 68-06167 - 15 FT Robot Power Cord, AC Inet (68-06014)