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Plastic with Sheet Metal Rack Ear

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Plastic with Sheet Metal Rack Ear

Abstract

Rack ears are used to mount electrical equipment in a rack. A rack ear is disclosed that combines sheet metal with plastic in order to improve design flexibility, reduce cost, and improve environmental friendliness.

Description

This disclosure relates to the field of rack mounted equipment.

Much electrical equipment, including for example server computers, are rack-mounted for operation. In many cases, rack ears attach to the piece of equipment and then are used to mount the equipment in the rack.

Traditionally, rack ears have been formed of painted sheet metal. However, painting the sheet metal adds cost to the fabrication process of the rack ear. In addition, some equipment vendors may wish to include a logo or product information on the rack ear. This results in a non-standard rack ear, adding more cost. In addition, it can be hard to design some of these features on a sheet metal part.

According to the present disclosure, and as understood with reference to the Figure, a front view 10A and a rear view 10B illustrate a rack ear which includes an unpainted sheet metal part 20 which slides into a plastic cover shell 30.

In one example, the sheet metal part 20 has an industrial standard rack mounting bracket 22 which attaches to the electrical equipment by screws. A screw or other fastener 24 attaches the equipment via the rack ear to the rack. This ensures that the equipment is not damaged or shaken when the system is operating.

The plastic cover shell 30 protects the shear edges of the sheet metal 20 from air and inhibits oxidation.

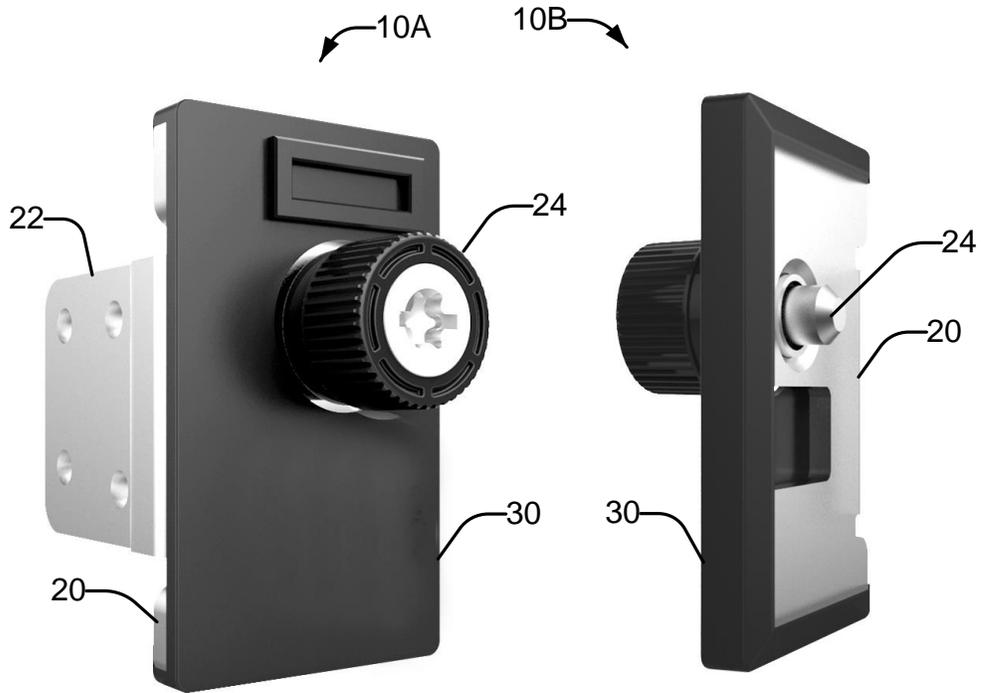
The plastic cover shell 30 can be readily customized with different logos or product information, while still using the same sheet metal part 20.

Features on the sheet metal part 20 and the plastic cover shell 30 automatically lock the parts 20, 30 together after the sheet metal part 30 is slid into the shell 30. There is no need to use adhesive or add another process step to lock the parts 20, 30.

A chamfer on the backside of the plastic cover shell 30 creates a sense of visual thinness of the assembled rack ear.

The disclosed rack ear is advantageously less costly than a painted sheet metal part. It is also more environment-friendly than painting, and the plastic shell 30 can be fabricated

using PLA (Polylactic Acid) or recycled plastics. It can easily be customized for the requirements of a particular vendor.



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