

Happ Controls Engineering Designs Revolutionary Hand-Held Pendant Switch for Medical Equipment

Wins Praise from Medical Staff and Patients

Applications for Several Industries

The Situation:

- Manufacturer of medical apparatus requires a new hand held switch for beds/chairs to raise/lower patient.
- Switch must have low voltage requirement.



The Problem:

- Present device is bulky, heavy without a user-friendly appeal in a demanding hospital environment.

The Customer Request:

Design and manufacture an up/down switch with following specifications:

- Must be splash proof, 6-ft. drop test to concrete, crush resistant.
- Must have low voltage operation - control a TRIAC electrical motor control - under the lift.
- Must be small enough to fit in

patient's hand easily, with comfortable feel.

- Must be capable of activation by senior patents with limited coordination:
 - Patients with impaired muscular strength and those tending to over-power the device shall both be accommodated.
- Instructions must be intuitive.
- Must be soft to the touch with no sharp edges.
- Allow operation by both hand and foot rocking actions.
- Must be robust, with 15-year duty.
- Must be easily replaceable.

The Happ Controls Solution:

Happ engineers met customer's requirements with a novel design. TPR (thermoplastic rubber) was used to provide a soft, user-friendly feel. The switch was sealed against splashing from water and most chemicals. Redundant contact switches were used to ensure lifetime reliability. The unit was designed so that the switches were exposed just high enough to 'make' on contact with both hand and foot control.

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The unit was capable of low voltage AC and DC operation.

Review:

We want to solve your control problems. Our capabilities include:

- **Broad range of existing control device platforms** available to save development costs.
- **SolidWorks™** software used to make design decisions faster, easier.
- **Engineering, testing, and solid modeling departments** at Happ Controls consistently deliver a prototype within required deadline.

Happ Controls combines a cost-effective, high capacity manufacturing arm and a quick response engineering team to generate custom solutions.

Call us to find how Happ Controls can solve your control components and system requirements.