



CUSTOM BUILT HAND CONTROLLERS

This datasheet covers custom built hand controllers and the design service used to produce them. Daco also manufactures a range of standard modular products which are described on separate datasheets.

Custom Built Hand Controller Design Service

Although Daco's modular products can be configured in hundreds of different ways, some applications require a product that cannot be assembled from standard components. In such cases customers can take advantage of Daco's design service to create a custom built hand controller.

The success of this service depends upon Daco and the customer forming a close working relationship. Ideally, direct contact between the Engineering Departments of both companies is established with Daco sales staff acting as liaison where necessary.

In the initial stages of each project a design specification is created which allows prices to be agreed. Occasionally a prototype is then produced to test new concepts and establish build standards. Finally production is started and deliveries made in accordance with the required schedule.



Usually individual design services are prohibitively expensive, particularly for small quantity orders, but Daco has managed to avoid this. In the majority of cases we can use one of our modular range products as a starting point, then make extra changes to create the new custom built hand controller. This reduces development risks and minimises design time, keeping engineering charges very low. The use of a high proportion of stock components also lowers costs and gives delivery times which are often shorter than customers expect.

Sometimes the requirement is for a custom built hand controller that cannot benefit from the existence of the modular range. Inevitably these require more engineering input and delivery times tend to be longer. However overall costs remain surprisingly competitive because Daco's 30 years experience has ensured that solutions to most problems already exist within the company. Some examples of custom built hand controllers follow. As with all Daco products they were manufactured under an ISO 9001 approved quality system and covered by a minimum 2 year warranty.



1

Military grade trackerball and fixed grip with integral miniature force joystick, mounted in an enclosure containing customer specific electrical interface.

Naval command and control system

2

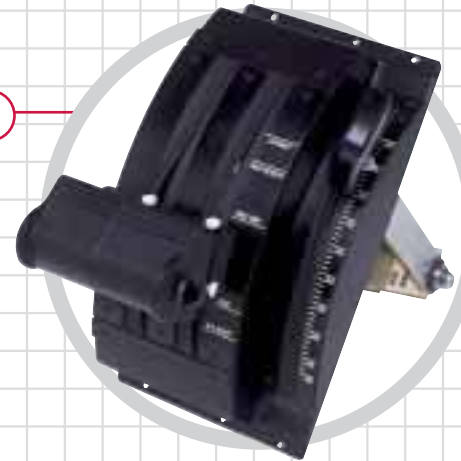
3 inch diameter military grade trackerball mounted in panel with 3 selection switches. The electrically screened housing contains a PS2 interface.

Naval command and control system

Fighter/bomber throttle box including wing sweep setting.

Military simulator

3



4

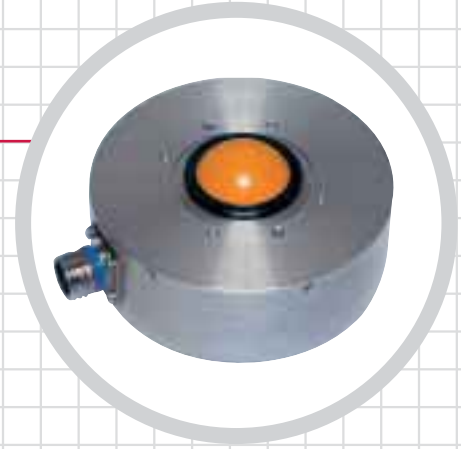
2 axis displacement joystick fitted with multi-function grip containing two push buttons, 4 way trim switch, trigger and additional "miniature" switch. Lower enclosure is demountable with integral reinforced mounting plate, transit lock and customer specific electrical interface.

Land based fire control

2 inch diameter military grade trackerball with press-to-switch action mounted in customer specific housing with integral RS232 interface.

Electronic warfare system

5



6

Flight approved, night vision goggle compatible hand controller for use in harsh environments. Single level of redundancy.

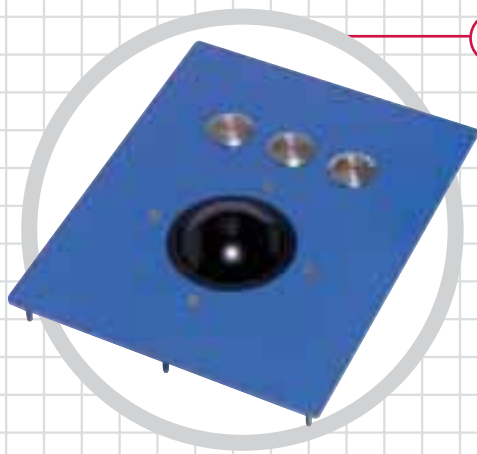
Helicopter winchman's hover controller

2 inch diameter military grade trackerball with press-to-release action, mounted in panel with 3 nominated switches. Housing contains Mouse Systems Mouse compatible electrical interface.

Helicopter mounted target acquisition system

7





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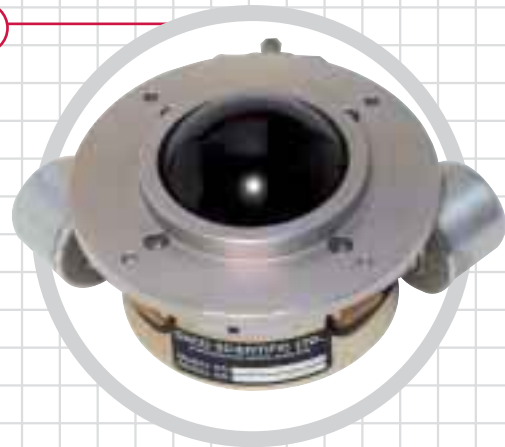
2 inch diameter commercial grade trackerball mounted in plate with vandal proof switches.

Commercial simulator

Military grade trackerball modified to provide enhanced electrical conductivity and reduced toxicity products of combustion

Air traffic control

9



10

2 inch diameter commercial grade trackerball with third axis control ring and clear ball.

Film and video colour correction system

(Back. Left to right. Miniature force joysticks), reduced diameter with press-to-switch function; reduced length with press-to-switch function; large deflection; bushing body with internal bellows; top mounting flange and environmental seal.

(Front) selection of knobs.

Various commercial and military applications

11



12

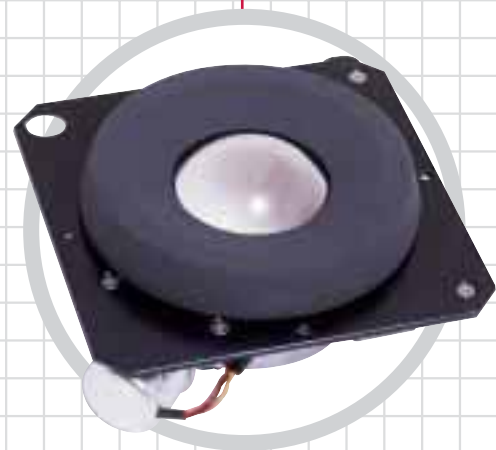
IP65 sealing "surface mounting" miniature force joystick for zero below panel space requirement.

Various commercial and military applications

Fully sealed control grips with integral miniature force joystick. Smooth external finish designed to prevent retention of nerve agents.

Land based missile control system

13



14



Flange mounted multi-function control grip with integral miniature force joystick and nulling circuit.

Fire control

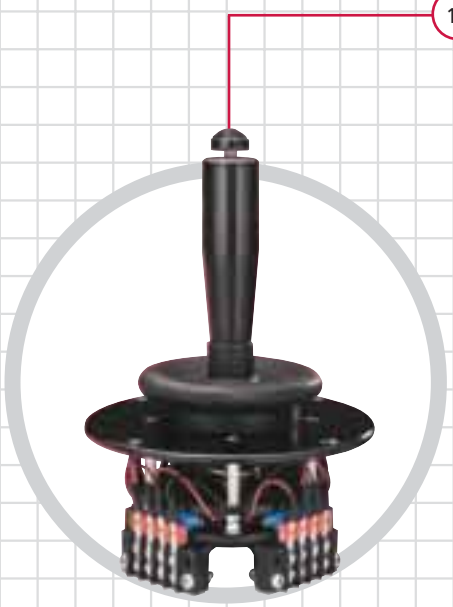
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Multi-function control grip with "protected button" side pod, mounted on force sensitive joystick base.

Fire control

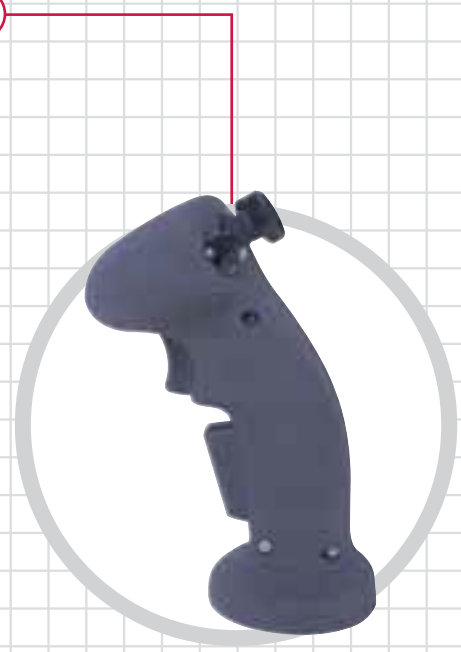
16



2 axis switching displacement joystick and simple handle with integral top mounted toggle switch.

Fire appliance ladder control

17



Control grip with integral push button, miniature force joystick, 3 position toggle switch, trigger and "deadmans" handle.

Target acquisition system

18



Matched pair of control grips.
Left grip - 3 position toggle switch, 2 push buttons, 1 side mounted push button, single action, double pole trigger, with trigger guard.
Right grip - 3 position toggle switch, miniature force joystick, push button, side mounted push button and single action trigger.

Armoured fighting vehicle fire control

DACO hand controllers

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