IDEAL AEROSMITH
Earned Expertise

Datasheet

CONTROLLER REPLACEMENT - TABLE REFURBISHMENT

Ideal Aerosmith will service, refurbish and upgrade our own line of motion tables as well as motion simulators, air bearing tables, positioning tables and rate tables manufactured by companies such as Carco, Contraves® and others. Some models include the Contraves® Model 800, 57CD or 53M Test Tables or the Carco S-450, S-458 or S-660 flight motion tables.

We can provide replacements for all existing controllers by implementing the AERO 4000 Control System. Our AERO 4000 Controller is built upon commercial-off-the-shelf (COTS) hardware and software platforms to minimize cost and delivery schedules, as well as to provide Ideal's customers with a product that does not lock them into proprietary technology and single-source part vendors. It is designed to be a universal controller that can replace all older table controllers from various manufacturers.

Many of the existing tables have mechanical systems with an operational life of 20+ years. However, due to the life cycle of various electrical components, the controllers usually have a service life of approximately 10 years. The field proven AERO 4000 Controller is expected to have a service life of 20+ years and incorporates a number of COTS components to provide a migration path for future upgrades.

We have the following options / services available for Contraves, Carco, Genisco, Goerz tables, centrifuges and other motion systems built by a variety of manufacturers.

Before….

After….

Controller Replacement:

- AERO 4000 Digital Motion Controller – Replaces obsolete controllers
- New console / cabinets
- New servo amplifier chassis'
- Optional computer interfaces – IEEE-488, VMIC and SCRAMNet
- Host computer systems
- Temperature controllers for systems with temperature chambers
- Programming protocols compatible with commands from existing host computers; consult Ideal Aerosmith for information

Motion Table Refurbishment:

- Clean and re-grease bearings
- Clean armature / replace motor brushes
- Replace existing axis transducers
- Replace sliprings (original or new wiring design)
- Replace existing motors or install new motors
- Rebuild/replace hydraulic actuators
- Replace hydraulic power supplies
- Servo valve repair and/or replacement
- Replace o-ring seals
- Replace hydraulic hoses

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Obsolescence has become a major issue facing the military and commercial avionics test system users as they try to keep their test systems operational for the life cycle of the test products. The cause of the problem is obsolete components, vanishing vendors, and the loss of system design knowledge. Particularly challenging is the limited life computer components and instrumentation, which quickly depletes their availability in the used equipment market.

Test system users are faced with decreasing test capacity and increasing operational costs. Often the decision about this problem is neglected until a crisis occurs and time becomes a critical factor. Once time becomes a driving concern, the user's options are often limited and typically costly.

Ideal Aerosmith has developed the expertise to manage aging test systems using a variety of approaches. We have the ability to modernize/update the existing test system, develop a replacement test system, and/or port the Test Program Sets to a different test system. If necessary, Ideal Aerosmith can reverse engineer the legacy test system to develop specifications required for these activities.

To sustain operation of legacy test systems after a control system replacement and/or refurbishment, Ideal Aerosmith offers the following product services and support:

Service and Support:

- Systems moved, reinstalled, leveled and calibrated
- Annual calibrations in compliance with NIST standards
- North alignments, axis intersections, orthogonality and wobble corrections
- Extended warranties
- Maintenance and service contracts

Inertial Test Tables and Centrifuges:

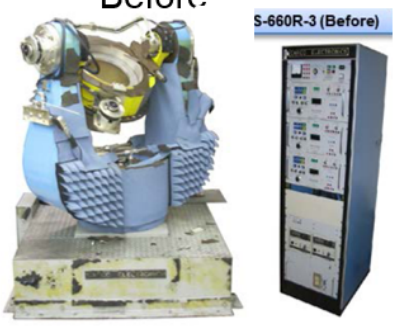
After

Before

Contraves Model 53M-1

Flight Motion Simulators:

Before



After

Carco Model S-660R-3

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