# O A C I S

**O**pen **A**rchitecture **C**ontrol **I**ntegrated **S**ystem

## Maintenance Instruction

**Version 02.04**
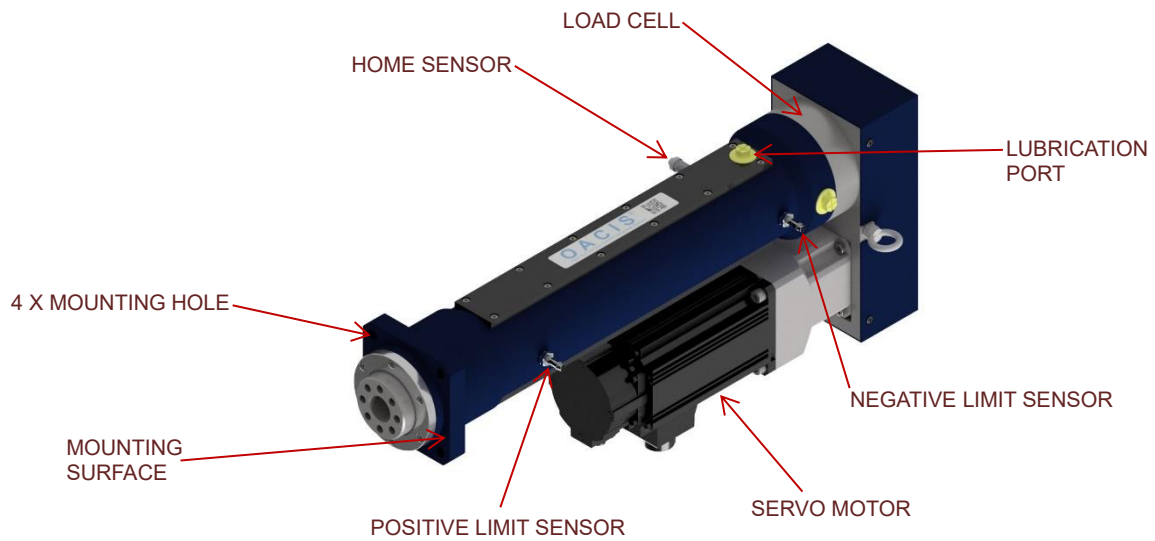
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## WARRANTY

**ATA's exclusive warranty is one year from date of sale by ATA.**

**ATA shall not be responsible for warranty, repair or other claims regarding the products that are not properly handled, stored, installed, operated and maintained per ATA's instructions.**
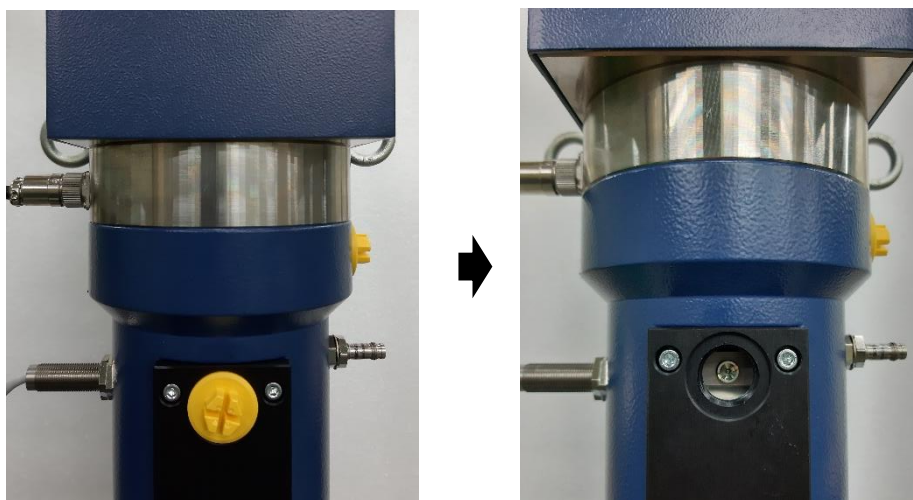
**I.   OACIS-P (SERVO PRESS)**

    **A.   Overview**



    **B.   Installation**

- You can find each model's dimensional drawings at the below link.
  - http://atainc.com/en/Support/Download03.html

    **C.   Lubrication**

- It is generally necessary to replenish grease on a regular basis.
- Lubrication Management
  - Grease Type: NLGI(National Lubricating Grease Institute) 2
  - Injection Volume: Max 1cc per month
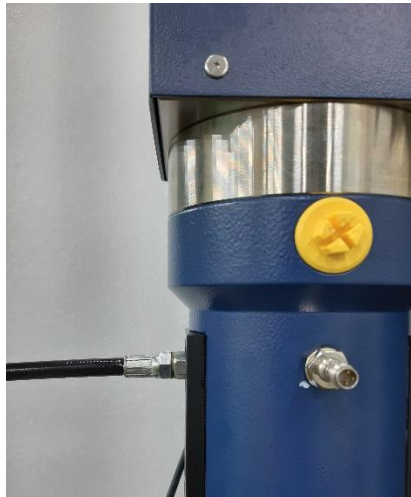
**Lubrication Port #1**

- Lack of lubrication will shorten the life of the system, increase tolerance and etc.
- Contaminated lubrication is as bad as no lubrication.
- It is strongly recommended to cycle the system regularly even there is no production to keep lubrication in the system.

**D. Operating Environment**
- Operating the System outside of the following ranges may result in malfunction of the Servomotor.
  - Ambient operating temperature: 0 to 40℃ (the temperature at a point 5cm from the Servomotor)
  - Ambient operating humidity: 85% RH max. (with no condensation)
  - Atmosphere: No corrosive gases.

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⚠️ **WARNING**

1. **Do not apply commercial power directly to the Servomotor. It may result in fire.**
2. **Do not dismantle or repair the product. It may result in electric shock or injury.**
3. **Do not assemble the sensors into a servopress with OACIS power on.**

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INSTALLATION AND MAINTENANCE INSTRUCTION

## II. OACIS-T (NUT RUNNER)

### A. Overview



4 X MOUNTING HOLE

MOUNTING SURFACE

OUTPUT SHAFT

### B. Installation

- You can find each model's dimensional drawings at the below link.
  - ➤ http://atainc.com/en/Support/Download03.html
- **Four Mounting Bolts need to be tightened equally with proper torque.**
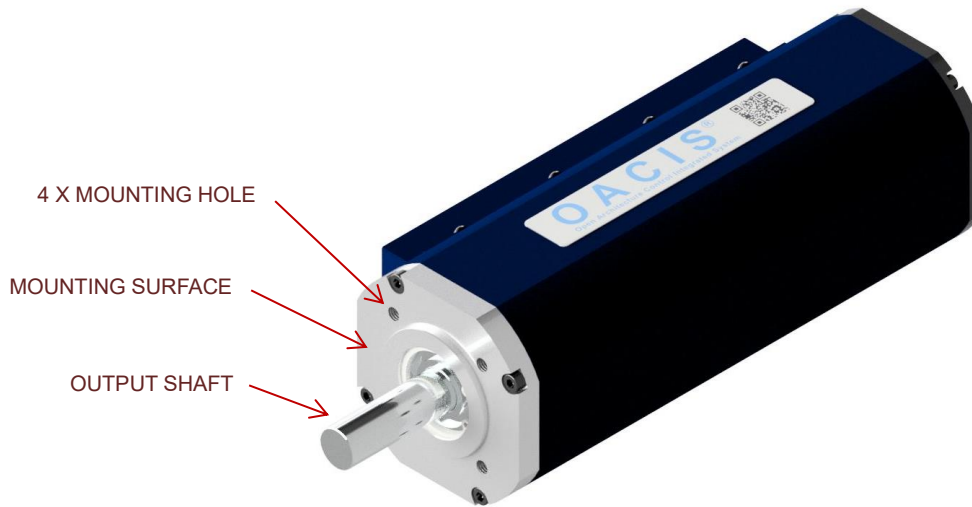
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## APPENDIX #1 / ERROR CODE DESCRIPTION & TROUBLE SHOOTING

| Error Code # | Description | Cause | Solution |
|---|---|---|---|
| 000 | Fail to initialize OACIS | No Program in OACIS | Reset -> Download a Program |
| 300 | Flash Memory Full | OACIS Flash Memory is full | OACIScom -> VIEW -> Data -> Erase Data of OACIS (you may need to backup first) |
| 310 | Flash Memory Error | Flash Memory Error | Consult ATA |
| 401 | E-Stop Error (PC-Command) | | Reset by PC Command |
| 402 | Incorrect Program Start Signal Off | Program Start Signal turned off while Running | Verify wiring and External Device (like PLC) logic |
| 410 | E-Stop Input Error | E-Stop Input Error | Reset E-Stop |
| 411 | Fail to initialize for Homing | | Reset |
| 421 | Fail to be ready | | Reset |
| 422 | Incorrect Program Set In with Strobe on | | Verify Program Set In Signals |
| 423 | Program Start Input without Home Ok condition | Ready On with "Home Ok" and "Program Home Ok" Off | Reset -> Homing |
| 424 | Program Start Input without Ready condition | | Reset -> Homing |
| 425 | E-Stop during PC Jog Command | Double Commands (PC Command and Remote Command) come into OACIS | Reset -> Homing |
| 426 | Program Start Input during PC State is Error | | Reset |
| 427 | Program Start Input during DI Jog Control | | Reset -> Homing |
| 430 | E-Stop while Program Running | | Eliminate Root Cause of E-Stop -> Reset -> Homing |
| 435 | PC Command while OACIS running | | Reset -> Homing |
| 440 | E-Stop to the OACIS with Error | | Eliminate Root Cause of E-Stop -> Reset -> Homing |
| 480 | Fail to initialize OACIS due to Incorrect Program Name Length | | Re-Download Program with Proper Program Name |
| 500 | Fail to call the selected Program from Flash Memory | | Re-Download Program or Use Different Program Number |
| 501 | Fail to read proper Program Step in Run Time | | Re-Download Program or Use Different Program Number |
| 505 | Fail to update Program (GV Name) | | Re-Download Program or Use Different Program Number |
| 506 | Fail to read Program (Step) | | Re-Download Program or Use Different Program Number |
| 511 | Wait to DI Time Over | | Input Longer Waiting Time |

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| Code | Description | Cause | Trouble Shooting |
|------|-------------|-------|------------------|
| 520 | Fail to update Program (Incorrect Program Number 000) | | Download a Program |
| 600 | Axis #1 Servo Drive Alarm | | 1. See the Servo Drive Manual<br>2. Consult ATA |
| 601 | Axis #1 Position Control Limit | Out of Position Control Limit | 1. Set Position Control Limit (in Admin Window)<br>2. Reduce Speed and Acc<br>3. Consult ATA |
| 602 | Axis #1 Positive Limit | Positive Limit Sensor On | Verify Positive Limit Sensor |
| 603 | Axis #1 Negative Limit | Negative Limit Sensor On | Verify Negative Limit Sensor |
| 604 | Axis #1 Homing Load Limit | Over Loaded while Homing | 1. Eliminate Cause that makes abnormal Load while Homing<br>2. Increase "Move to Home Load Limit" in System Configuration (Keep in mind that the number should be safe enough) |
| 605 | Axis #1 Position Min Limit | | Verify Negative Position Limit in System Configuration |
| 606 | Axis #1 Position Max Limit | | Verify Positive Position Limit in System Configuration |
| 607 | Axis #1 Load Min Limit | | 1. Eliminate Cause that makes abnormal Load<br>2. Verify "Negative Load Limit" in System Configuration |
| 608 | Axis #1 Load Max Limit | | 1. Eliminate Cause that makes abnormal Load<br>2. Verify "Positive Load Limit" in System Configuration |
| 609 | Axis #1 Position Min Limit in Move Cycle | | Verify "Min Position Limit" in the Step |
| 610 | Axis #1 Position Max Limit in Move Cycle | | Verify "Max Position Limit" in the Step |
| 611 | Axis #1 Load Min Limit in Move Cycle | | Verify "Min Load Limit" in the Step |
| 612 | Axis #1 Load Max Limit in Move Cycle | | Verify "Max Load Limit" in the Step |
| 700 | Axis #2 Servo Drive Alarm | | 1. See the Servo Drive Manual<br>2. Contact ATA |
| 701 | Axis #2 Position Control Limit | | 1. Set Position Control Limit (in Admin Window)<br>2. Reduce Speed and Acc<br>3. Contact ATA |
| 702 | Axis #2 Positive Limit | | Verify Positive Limit Sensor |
| 703 | Axis #2 Negative Limit | | Verify Negative Limit Sensor |
| 704 | Axis #2 Homing Load Limit | | 1. Eliminate Cause that makes abnormal Load while Homing<br>2. Increase "Move to Home Load Limit" in System Configuration (Keep in mind that the number should be safe enough) |

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|---|---|---|
| 705 | Axis #2 Position Min Limit | Verify Negative Position Limit in System Configuration |
| 706 | Axis #2 Position Max Limit | Verify Positive Position Limit in System Configuration |
| 707 | Axis #2 Load Min Limit | 1. Eliminate Cause that makes abnormal Load<br>2. Verify "Negative Load Limit" in System Configuration |
| 708 | Axis #2 Load Max Limit | 1. Eliminate Cause that makes abnormal Load<br>2. Verify "Positive Load Limit" in System Configuration |
| 709 | Axis #2 Position Min Limit in Move Cycle | Verify "Min Position Limit" in the Step |
| 710 | Axis #2 Position Max Limit in Move Cycle | Verify "Max Position Limit" in the Step |
| 711 | Axis #2 Load Min Limit in Move Cycle | Verify "Min Load Limit" in the Step |
| 712 | Axis #2 Load Max Limit in Move Cycle | Verify "Max Load Limit" in the Step |

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## REVISION

**v01.00: Engineering Released**

**v01.10: IX.B.2 was +Vcc (24V)**

**v01.20: Appendix #1 Added**

**v01.31: Detailed Comments for wiring Added**

**v01.32: Updated OACIS Exterior Dimensions**

**v01.33: Correct VIII.A.4**

**v01.35: OACIS-P(ServoPress) Warning 3. Added**

**v01.36: Document Format Updated**

**v01.37: Correct IX.B**

**v01.38: Correct IX.C**

**v01.39: A few items Updated**

**v01.40: Document Format Updated**

**v01.41: "Headers & Footers" Format Updated**

**v01.42: Image Size & Resolution Updated**

**v01.43: Tips on Servo Wiring Added**

**v01.44: Image on Servo Connections Added**

**v02.00: Installation and Maintenance Manuals Separated.**

**v02.01: Injection Volume in I.C Modified.**

**v02.02: All Contents Downsized.**

**v02.03: Page format Updated**

**v02.04:**

      **-. Images in I & II Updated**

      **-. One lubrication port in I Removed**

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