AVX550 CNC Automatic Vision System
Unpacking Read Me First Instructions

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January 2021
8855 Revision A

1. About These Instructions

SKE metrology systems are normally installed by factory-trained technicians who also provide operator training. The following information covers basic uncrating and movement of the system. Refer to the ***AVX550 CNC Automatic Vision System User Guide (PN 1000 0074)*** for additional information on installing and setting up the system. Contact SKE Technical Services at www.ske-service.com for installation, calibration, and training services.

These instructions provide the following information for the AVX550 system:

- Planning the placement of the AVX system
- Uncrating the AVX550
- Moving the System
- Removing the stage locks from the system

2. Planning the Placement of the AVX System

AVX systems are normally placed directly on a concrete floor in a work area. Following are recommendations for planning the placement of the AVX system:

- Allow enough clearance around the system. Adequate clearance is especially important when servicing the system. If adequate clearance is not available for service, a pallet jack is required to move the system. Allow at least 600 millimeters (24 inches) to the rear for access, and 600 millimeters (24 inches) or more to the sides. The width required for maximum Y-axis stage travel is 400 millimeters (16 inches). Consider the longest parts to be measured or inspected, since large parts may overhang beyond right or left sides of the stage. Also allow room for the staging of incoming and outgoing parts.
- Ensure you have allocated enough space for the optional workstation.
- Ensure a clean operating environment to minimize the accumulation of dirt on the optics and on precision mechanical parts, such as lead screws and encoder scales.
- Ensure the planned installation location has the proper electrical requirements.
- Select an installation location where the temperature can be controlled to within 20°C ± 0.5°C (68°F ± 2°F), which is the calibration temperature of the system.

Refer to the ***AVX550 User Guide*** for detailed information on electrical, environmental, and workstation specifications.

3. Uncrating and Moving the AVX System

WARNING

The shipping weight of the AVX system is 1850 pounds (839 kilograms). The system must be removed from the shipping crate with a forklift.

AVX systems are shipped in a single wooden crate. The shipping weight of the AVX system is 1850 pounds (839 kilograms) and must be moved with the appropriate equipment. To move and uncrate the AVX system, the following equipment is required:

- Forklift
- Pallet jack
- Battery powered drill with Phillips bit
- Hex wrench
- Phillips and flat head screwdrivers

- Industrial level

To uncrate and move the AVX system, refer to the following figures and perform the following steps:

1. Locate the front side of the crate. A label is adhered to the front panel indicating the front side.
2. Use a reversing battery powered drill with a Phillips bit, remove the screws that secure the front panel of the crate.

Figure 1. AVX Crate Front Panel

3. Repeat the previous step to remove the rear panel and top panel of the crate. You do not need to remove the side panels at this point in the process.

   Once the crate is open, you will see four beams that secure the system to the crate. Two beams that go across the crate and two beams that are resting on the granite base. These beams are secured with screws on the right and left crate panels. Refer to the following figures.

4. Use a reversing battery powered drill with a Phillips bit, remove the screws that secure the cross beams to the crate.

Figure 2. AVX Crate with Cross Beams

5. Locate the base brackets on the bottom of the crate. Refer to the following figure.
6. Use a reversing battery powered drill with a Phillips bit, remove the screws that secure the base brackets.

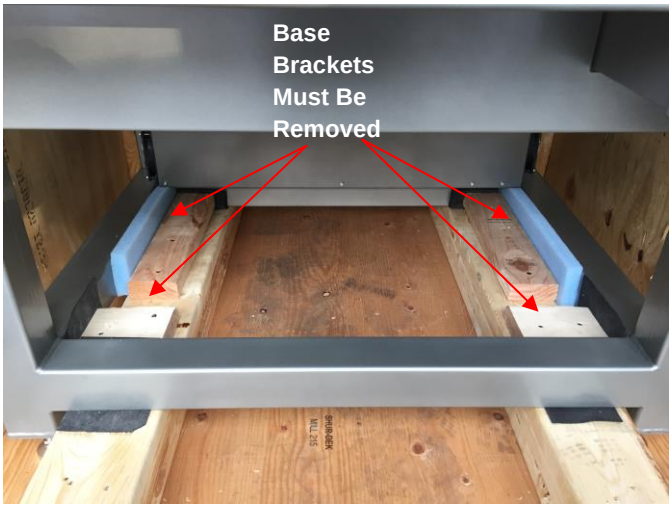

Figure 3. AVX Crate with Base Brackets

7. Once all cross beams and the base brackets are removed, remove the accessories from the crate and verify the contents. Refer to the following information.
   - Additional lenses that have been ordered
   - Additional light options that have been ordered

- Video monitor (including power cable and HDMI cable)
- Wireless keyboard and mouse
- Rotary stage (if ordered)
- Joystick (including cable)
- Power cable
- AVX User Guide

8. After removing the accessories, use a forklift to move the system to the selected location.
9. If required for your environment, use a pallet jack to move the system to the final location.

4. Removing the Stage Locks

The AVX system is shipped with X, Y, Z, and bottom light locks to prevent movement during shipment. Anodized red for easy identification, these are intended to be removed once the equipment has been placed in its final position. The following figure illustrates X, Y, and bottom light stages locks.

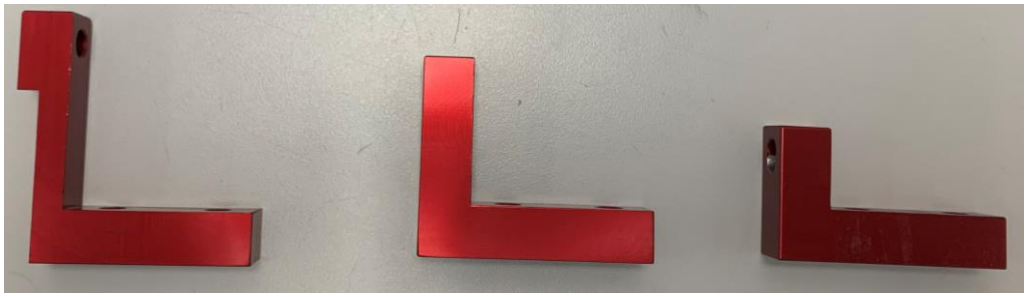

Figure 4. AVX Stage Locks (From Left to Right: Bottom Light, Y-Axis, and X-Axis)

To remove the stage locks, refer to the following figures and perform the following steps:

1. Locate the Y stage locks that are secured toward the rear of the Y stage on both the left and right side of the Z column. Refer to the following figures.
2. Using a metric hex wrench, remove the two M5 socket head cap screws that secure the tab to the granite base.
3. Using a metric hex wrench, remove the M6 socket head cap screw that secures the tab to the Y stage.
4. Repeat steps two and three for the second tab.

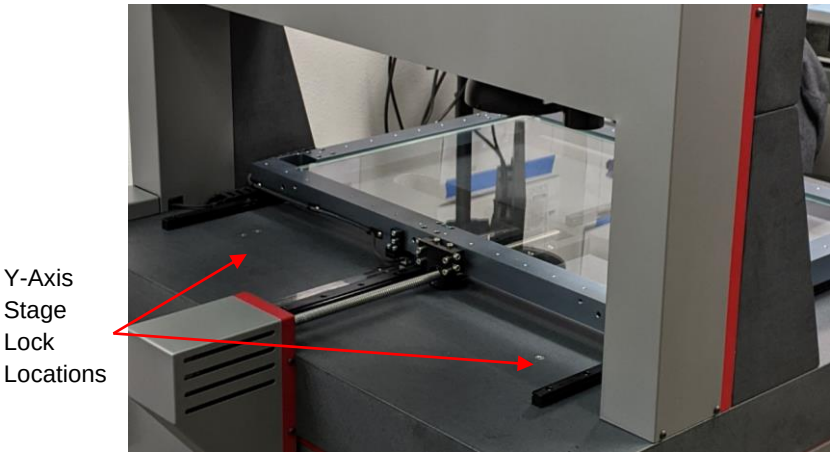

Figure 5. Y-Axis Stage Lock Location (Rear View of AVX System)

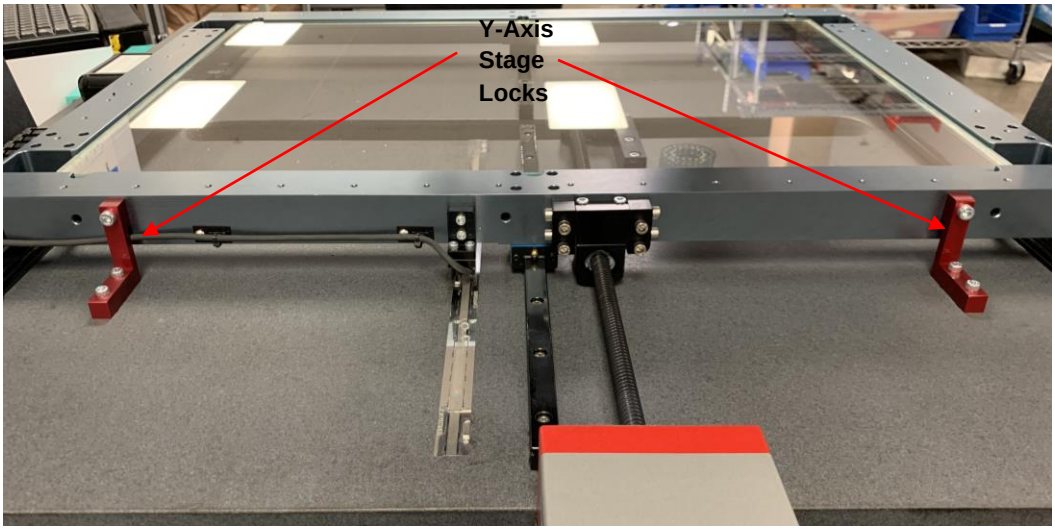

Figure 6. Y-Axis Stage Locks (Rear View of AVX System)

5. Locate the X-axis stage locks that are secured on the left side of the Z column. Refer to the following figure.
6. Using a metric hex wrench, remove the four M5 socket head cap screws that secure the lock. Repeat this step for the second lock.

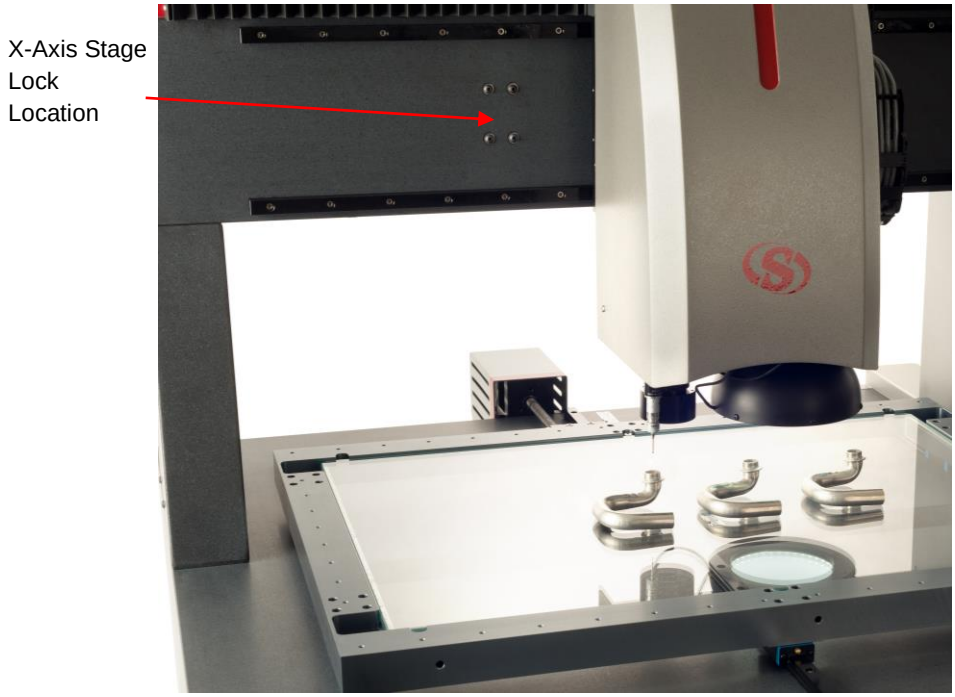

Figure 7. X-Axis Stage Lock Location

Figure 8. X-Axis Stage Locks Installed

7. Remove the Z column cover by removing the four screws (two on each side) that secure the cover. This action exposes the Z stage lock that is marked with a red tag. Refer to the following figure.
8. Using a metric hex wrench, remove the screw that is marked with the tag and replace the cover.

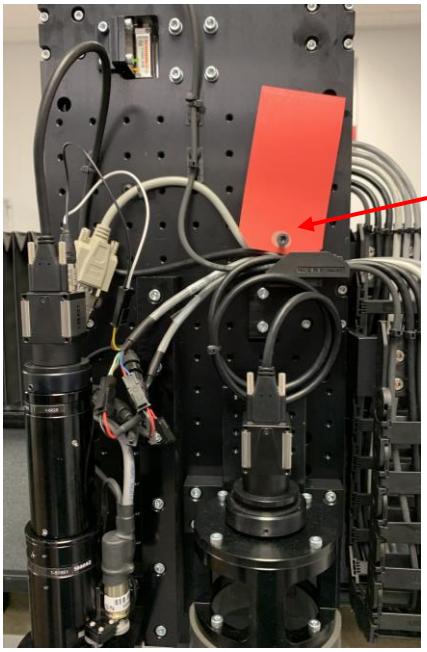

Figure 9. Z Column Lock (Z Column Cover Removed)

9. Locate the bottom light locks that are secured beneath the stage. Refer to the following figure.
10. Using a metric hex wrench, remove the three M5 socket head cap screws that secure the lock.
11. Store all locks and their mounting screws for a possible later movement of the equipment.

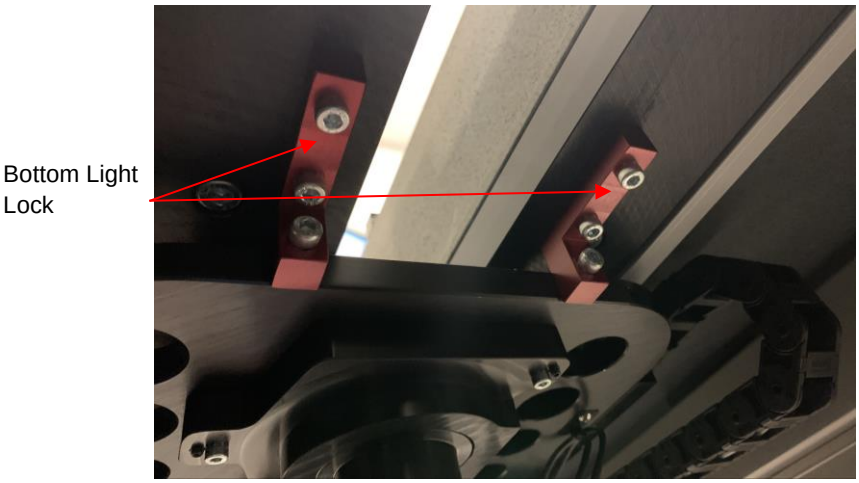

Figure 10. Bottom Light Stage Lock

5. Setting Up the System

To set up the system, refer to the ***AVX550 CNC Automatic Vision System User Guide*** for detailed information.