



AX030 / AX031

HIGH SPEED TURNTABLE OPERATING MANUAL



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1. INTRODUCTION AND WARRANTY

1.1 INTRODUCTION

Please carefully read and understand the information provided in this manual before installing, operating, or servicing this equipment. Failure to do so can result in equipment damage and/or serious personal injury. For any questions, please contact customer service at 217-423-6001.

1.1.1 IDENTIFICATION

Model Number: AX030-XXXX (Round Top)
AX031-XXXXXX (Rectangular Top)

Serial Number(s): XX-XXXXX-XX

When requesting information for ordering parts or service on this equipment, please refer to the model and serial number. The equipment is supplied with a nameplate that contains this information.



Figure 1: Nameplate

1.1.2 INITIAL INSPECTION

Upon receipt, inspect the equipment for possible damage that may have occurred during shipment or unpacking. Please contact Align Production Systems if there is any damage to the unit that may hinder the operation.

1.1.3 IMPORTANT PRECAUTIONS

Read the following safety precautions before operating or servicing your Align Production Systems Industrial equipment.

- **BEFORE any service or maintenance is performed to this equipment** follow correct lockout/tagout procedures.
- Prevent personnel from leaning on equipment and containers or placing their arms, hands, legs or any bodily member in pinch-point areas throughout the system.
- Instruct personnel on the proper placement of product on the equipment. **Failure to place containers or loads in the engineered locations may hinder the operation of the equipment and/or cause structural damage.**
- Place stop barriers at the fork truck loading area(s) to prevent damage to the equipment.
- Never operate the equipment without the provided covers and guards properly installed.
- Never walk or climb into or onto the equipment while it is in motion.
- Never restore power to the control system without first clearing the equipment of personnel, tools or other obstructions.
- Never alter the equipment in any way unless authorized by a qualified employee of Align Production Systems.

1.2 LIMITED WARRANTY



LIMITED WARRANTY

Align Production Systems (APS) warrants all of its products to be free of defects in material and workmanship for a period of one (1) year from date of shipment to the original purchaser or 2,000 operating hours, whichever comes first, provided purchaser gives APS prompt notice of the alleged defect(s) and, if requested by APS, returns the defective items, freight prepaid (F.O.B. APS's plant in Decatur, Illinois).

THE WARRANTIES SET FORTH HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, ALL OF WHICH ARE EXPRESSLY DISCLAIMED.

For any claim under warranty, APS may elect to repair or replace the defective component or components. All claims for warranty must be accompanied by a Return Goods Authorization number, which may be obtained from APS. This warranty does not cover, and APS is not responsible for, any labor or other expense for inspections, removal or reinstallation of components or products.

This warranty does not cover, among other things, damages resulting from foreign matter or water, negligence, accident, unreasonable use, abuse or misuse, alterations not authorized by APS, failure to provide reasonable and necessary maintenance or failure to follow operating instructions or load limits.

IN ADDITION, IN NO EVENT SHALL APS BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES, WHETHER OR NOT IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

APS makes no representation that the product complies with local, state or federal safety/product standards codes. If the product fails to comply in any way with those codes, it shall not be considered a defect in materials or workmanship, and APS shall not be liable for any damages resulting from noncompliance. This limited warranty is provided to the original purchaser (meaning the original end user) and is nontransferable. This limited warranty constitutes the complete and final agreement regarding APS warranty obligations for the product.

2. DESCRIPTION OF EQUIPMENT

2.1 DESCRIPTION OF EQUIPMENT

This equipment consists of a round or rectangular top rotating structure capable of rotating heavy loads of up to 10,000 lbs 180° in seven seconds or less. The turntables are designed for easy access to all major components for quick maintenance and repair. The tables are equipped with two [2] high powered gearmotors for high speed cycle times. The heavy duty hydraulic shock stops help stop the table while the shot pin holds the table in position with a $\pm 1/16''$ precision. The high speed turntables are designed to incorporate a wide variety of optional equipment to fulfill the customers' specific need.

2.2 EQUIPMENT SPECIFICATION

Top Diameter ⁴ (in)	Base Diameter (in)	Capacity Total / Per Side (lbs)	Cycle Time ¹ (sec)	Air Flow ² (SCFM)	Weight ³ (lbs)	Max. Rack Size Option #1 (in)	Max. Rack Size Option #2 (in)
108	72	10,000 / 5,000	6	60	5,300	96 x 28	44 x 36
120	84	10,000 / 5,000	6.5	60	5,600	108 x 40	56 x 48
132	96	10,000 / 5,000	6.5	75	6,000	120 x 52	68 x 60
144	108	10,000 / 5,000	7	75	6,500	132 x 64	80 x 72
156	120	10,000 / 5,000	7	75	7,000	144 x 76	92 x 84

1: Cycle time for 180° rotation. May vary depending on load size. Does not include deflation time.

2: Approximate air flow at 80 psi

3: Approximate weight, will vary based on tabletop size

4: Tabletop available in rectangular shape, contact Sales for more information

ADDITIONAL SPECIFICATIONS:

- **Table Top Height:** 9 in
- **Rotation:** 180°, Oscillating
- **Power:** 480V / 3 Phase / 60 Hz
- **Paint:** Align spec colors / air dry enamel paint



Figure 2: Drive Assembly

3. SETUP INSTRUCTIONS

WARNING

Prevent serious injury or death.

The table can weigh up to approximately 7,000 lbs.

Use properly rated lifting equipment to move and install the table.

3.1 POSITIONING THE TABLE

- a. Before lifting the table, ensure that the four [4] shipping bolts are in place and securely tightened. The shipping bolts secure the tabletop to the base
- b. The turntable is equipped with four [4] 3/4-10 UNC lifting locations on the tabletop surface. Use these lifting locations in conjunction with suitable swivel hoist rings and a four-point sling or chain arrangement.
 - 1) Locate/layout the desired location of the equipment.
NOTE: The floor must be flat and level within $\pm 1/8''$ over a 10' span. Floor undulations outside of this specification may impact the operation of the equipment. The floor must be a concrete or equivalent surface that is capable of supporting the load of the turntable plus the load of the product.
 - 2) Remove the four [4] shipping bolts located on the tabletop.
 - 3) Disconnect all the air lines and electrical cables located in the middle of the center divider.
 - 4) Lift the tabletop off of the base use the four [4] lifting locations in the tabletop.
NOTE: When lifting the tabletop, ensure the loose air lines and electrical cables do not get stuck on the tabletop and that they easily pull through the top.

STOP: Do not lag the turntable to the floor until testing to ensure the table rotates to the desired position(s)

- 5) Lag the turntable base to the floor using concrete anchors or similar fasteners.
- 6) Once the turntable base has been lagged to the floor, re-install the tabletop.
NOTE: Check to ensure the alignment arrow decals on the tabletop and base are aligned before installing the top.
NOTE: Make sure all air hoses and electrical cables are properly feed through the center of the tabletop.
- 7) Once the tabletop is properly installed on the base, reconnect all the air hoses and electrical cables and install all covers.

4. OPERATING INSTRUCTIONS

4.1 OPERATIONAL CONTROLS

The equipment is operated using the following controls...

- **Main Disconnect:** Main power supply disconnect.
- **Emergency Stop Button:** When activated, the equipment is powered down.
- **HMI (Human-Machine Interface):** If equipped, allows for a custom configuration of buttons, displays, etc. required for operation. Please see “High Speed Turntable Controls Operating Manual” for operating instructions.

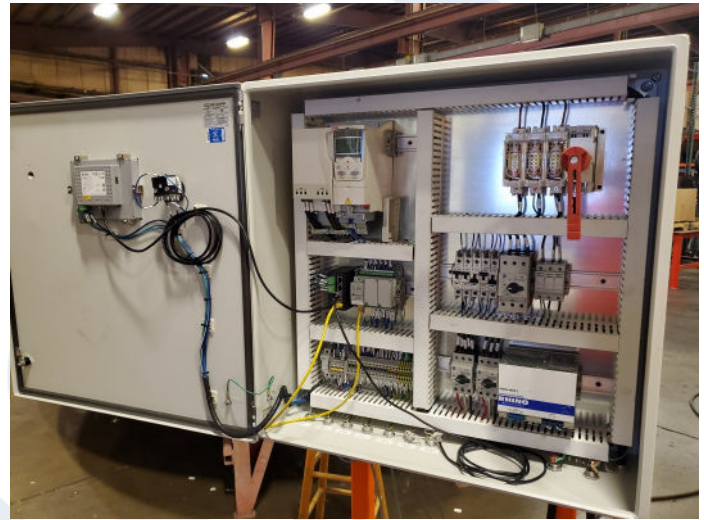


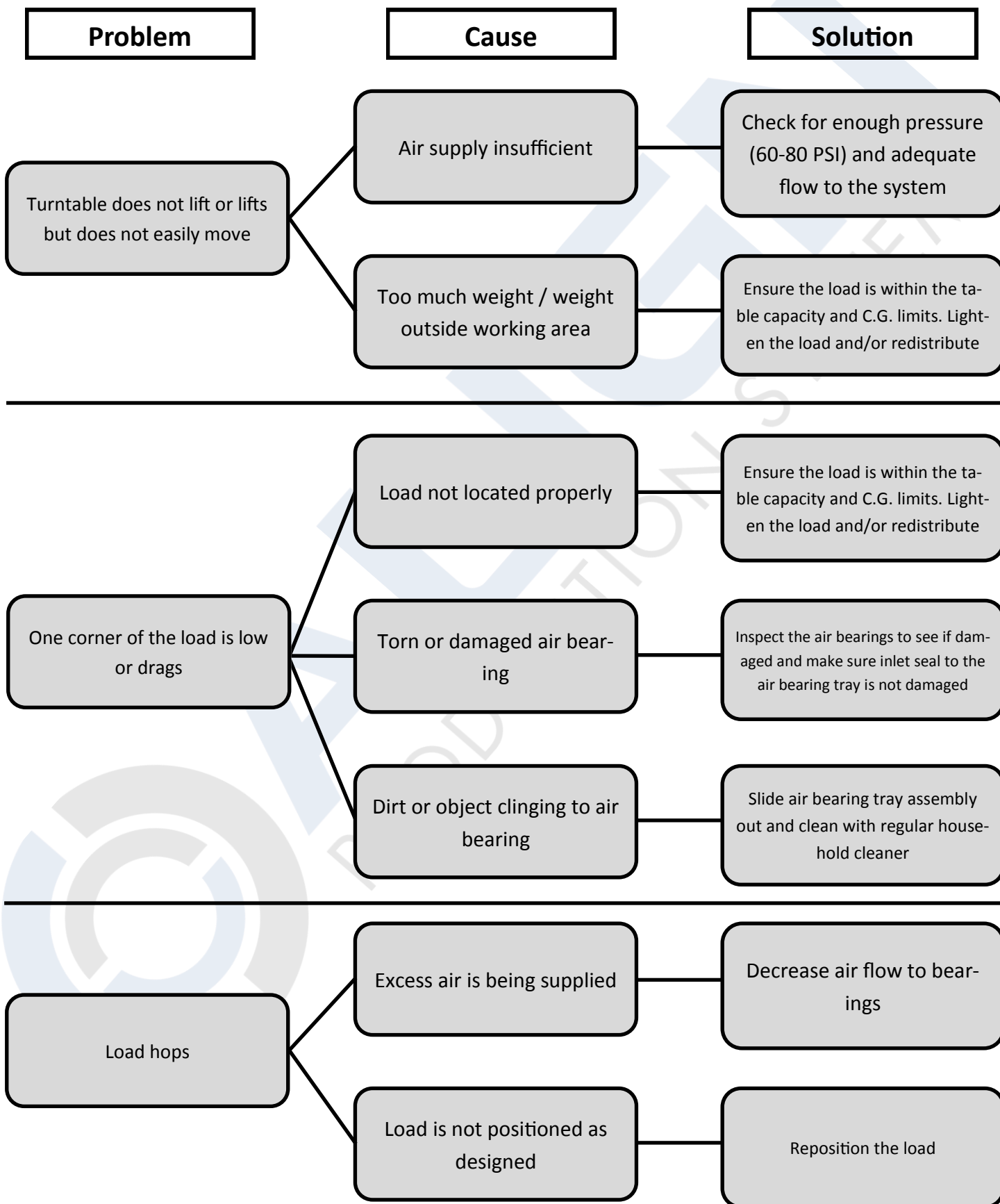
Figure 3: Electrical Cabinet

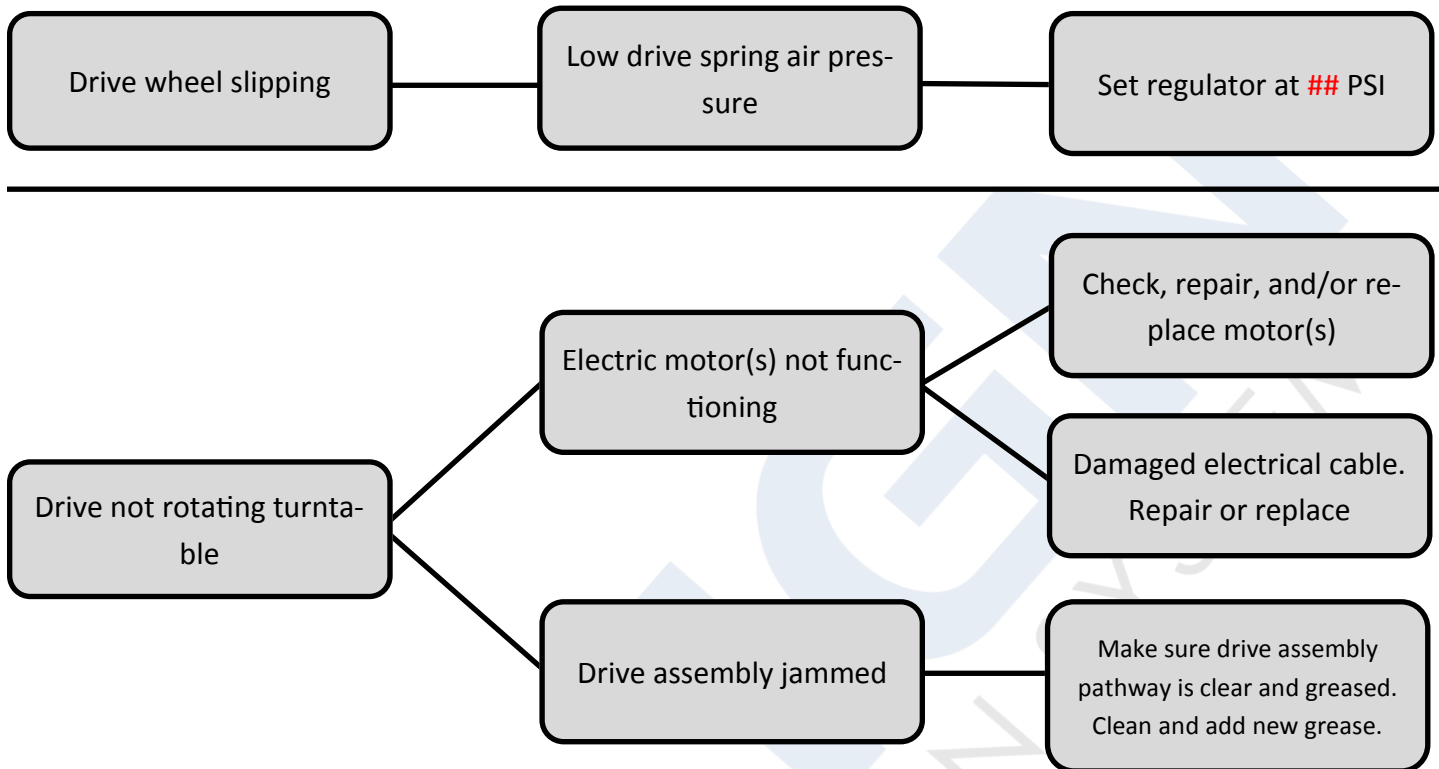
5. SERVICE AND MAINTENANCE

5.1 INSPECTION/MAINTENANCE SCHEDULE

Interval	Inspection	Corrective Action
1-3 Months	<p>Inspect the drive wheel for wear</p> <p>Inspect the shock stops and flag for wear and damage.</p>	<p>Replace the drive wheel if worn or to within 1/8" of steel</p> <p>Replace any damaged hydraulic shock stop cylinder. Ensure all hardware is properly tightened.</p>
3 Months	Periodically check the air bearings and inspect for tears or damaged areas	Replace any damaged air bearings
Yearly	Check the center pivot bearing. Ensure all bolts are tight.	Lube the center pivot bearing with a general purpose grease (Example: Dow Corning, Molykote BR-2 Plus)

6. TROUBLESHOOTING





7. SPARE PARTS

Part Number	Description	Quantity
WHL19022	DRIVE WHEEL	2
SRDNO0003	DRIVE GEARMOTOR	2
ASPF7598	DRIVE AIR SPRING	2
CLABM200030003	PNEUMATIC SHOT PIN CYLINDER	1
SHK0022	SHOCK STOP HYDRAULIC CYLINDER	4
BRFHB56001	CENTER PIVOT BEARING	1
BRG0176	DRIVE FLANGE BEARING	2
PTT-12899-ASY	12" SLIDE OUT AIR BEARING TRAY ASS'Y	6
PIN0397	SHOT PIN	1
VSD4005	SHOT PIN FLOW CONTROL	2
ESEN0035	SHOT PIN PROX SENSOR	2
EPRXEF0025	SHOCK STOP PROX SENSOR	2

To reorder a part, please call **1-800-888-0018** and ask for the Parts Department. If possible, please have your equipment serial number handy for reference.