



KNIGHT
GLOBAL



**Lift and Rotate / SGV
Handshake Table
Operational/Troubleshooting
Guide**

Introduction

This guide provides important information for all personnel involved in the operation and maintenance of the Knight Global Lift and Rotate / SGV Handshake Table.

It is the responsibility of the end user to exercise common sense and judgment when performing tasks described in this guide.

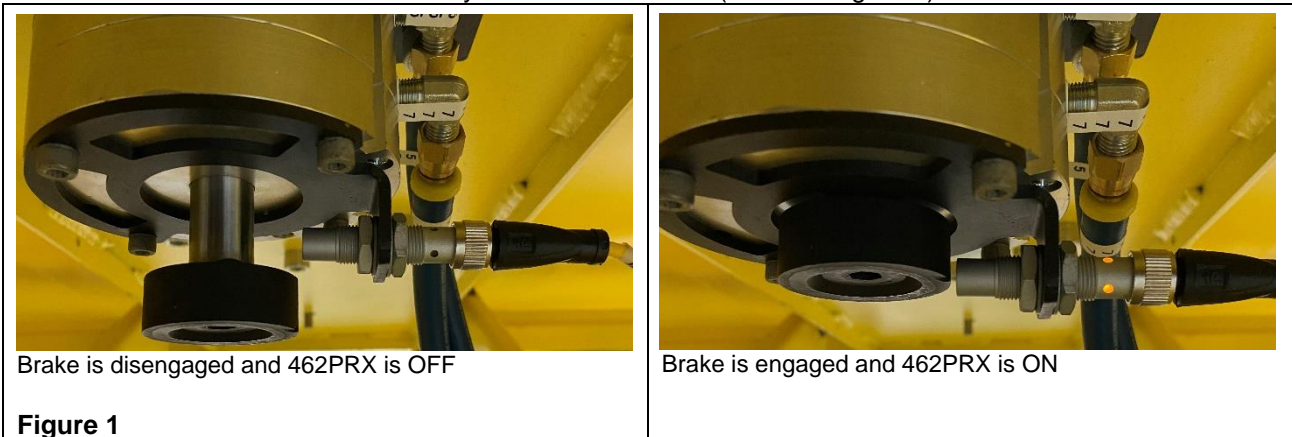
Sequence of Operation

- 1) Operator preforms and finishes tasks.
- 2) Operator rotates table to one of two home positions and hits rotate hard stop.
- 3) Operator engages the brake/shop-in.
- 4) Operator lowers the table to full down position.
- 5) SGV arrives at preprogramed location in front of the table.
- 6) SGV detects that table's height and rotation sensors are made and its thru-beam transmitter turns ON signaling SGV to advance to preprogramed drop off/pick up location.
 Note: Once table/SGV "Handshake" has occurred, all table control functions are disabled.
- 7) SGV completes its operation.
- 8) SGV leaves the table station and ends its communication with the table.
- 9) Table controls are enabled, allowing the table to be raised and rotated.
- 10) Sequence completed.

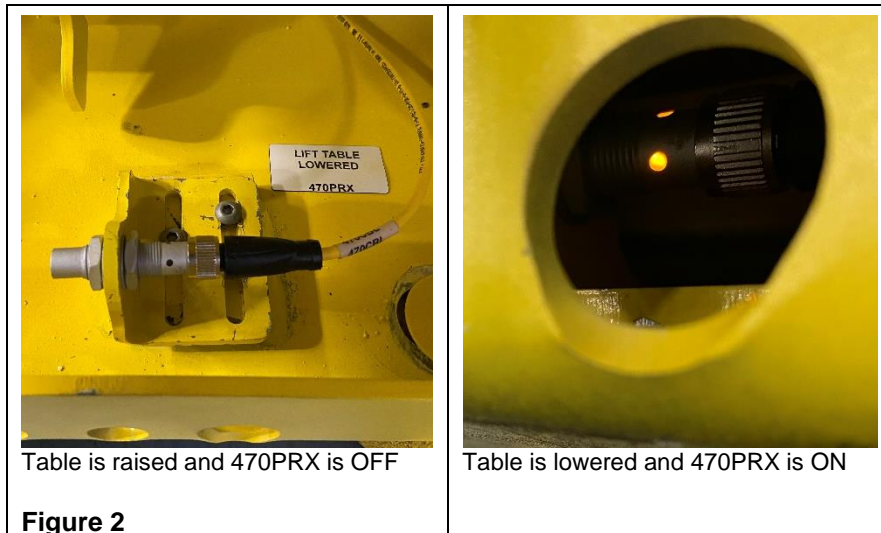
Table's Sensing Devices

The table uses four sensing devices to monitor the table's position and communicate with the SGV.

- 1) Two inductive proximity sensors are used monitor the tables vertical position and shot-pin/brake engagement.
 - a. 462PRX monitors the brake/shot-pin engagement and switches ON when the brake is engaged. The sensor will illuminate yellow when it is ON. (Refer to Figure 1)



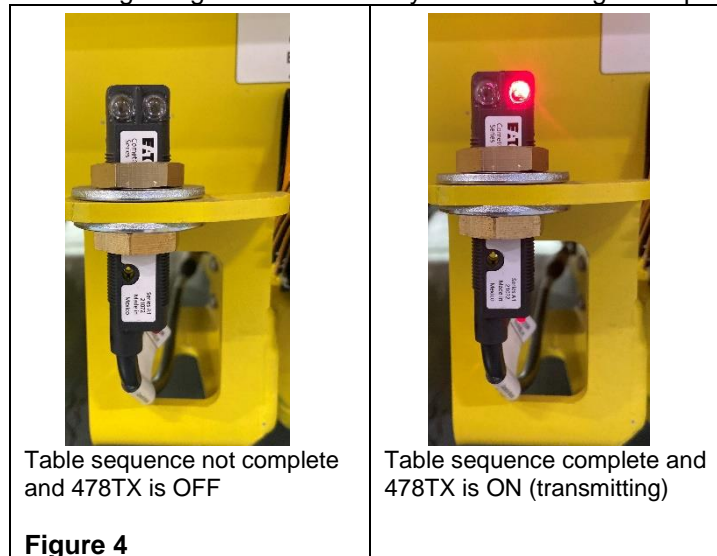
- b. 470PRX monitors the tables vertical position and switches ON when table is at its full down position. The sensor will illuminate yellow when it is ON. (Refer to Figure 2)



- 2) Two thru-beam photoelectric sensors are used to communicate with the SGV.
- a. 452RX detects that the SGV is at the table station and switches ON. The detector's red LED at the base of the sensor will illuminate when it is ON. (Refer to Figure 3)



- b. 478TX signals to the SGV that the table is lowered and brake is engaged. The transmitter's red light will illuminate signaling that table is ready for SGV to begin its operation. (Refer to Figure 4)



Troubleshooting Chart

The Table's operation may be affected by various factors. If your table is not performing as well as expected, follow the chart below to diagnose common problems. If unable to resolve the issue or an issue arises that is not specified below, contact the Knight Global Service Department at 248-375-7962 or via e-mail at service@knightglobal.com.

Problem	Cause	Solution
Sensing device is not switching ON	Power loss	Check if power is supplied and inspect cabling for any brakes or damages.
	Sequence of operation	Verify that system is at the right point of the sequence for the device to turn ON.
	Device not in sensing range	Adjust the device's mounting position.
	Debris in sensing area	Clear device's sensing area of any debris.
Sensing device is not switching OFF	Sequence of operation	Verify that system is at the right point of the sequence for the device to turn OFF.
	Debris in sensing area	Clear device's sensing area of any debris.
SGV arrives at the table station but remains idle	452RX is not detecting the SGV	Check the functionality of the 452RX detector.
	478TX is not transmitting to SGV to start its operation.	Check the functionality of the 478TX transmitter.
Table will not enable	SGV has not left the table station	Wait for the SGV to complete its operation and leave the table station.
Table will not rotate	Brake/shot-pin is engaged	Disengage the brake/shot-pin.
Brake/shot-pin will not engage	Sequence of operation	Verify that system is at the right point of the sequence for the brake to be engaged.
	Loss of air or low air pressure	Check if air is supplied and inspect air lines for any damage, leaks, or kinks.
	Table top is not in the correct orientation	Rotate the table top to align with the brake/shot-pin.
Brake/shot-pin will not disengage	Sequence of operation	Verify that system is at the right point of the sequence for the brake to be disengaged.
	Loss of air or low air pressure	Check if air is supplied and inspect air lines for any damage, leaks, or kinks.
Table will not lower	Sequence of operation	Verify that system is at the right point of the sequence for the table to be lowered.
Table will not raise	Sequence of operation	Verify that system is at the right point of the sequence for the table to be raised.
	Loss of air or low air pressure	Check if air is supplied and inspect air lines for any damage, leaks, or kinks.



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