OPENSPEED SWING TABLE FUNCTIONAL CHECKS

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1-1 SWING TABLE ELEVATION FUNCTIONAL CHECKS

1-1-1 Tools required

- 24 Inch level (60 cm)
- Non-magnetic ruler (48 inches minimum) (120 cm)
- 12 inch (30 cm) straight edge

1-1-2 Swing Table Elevation Theory

The Swing Table moves up and down by depressing the foot pedals located on either side of the table. These foot pedals are located in the front of the Swing Table nearest to the magnet.
The purpose of this up and down travel is to provide the operator and patient convenience when loading the table.
The elevation motion itself is provided by a 38vdc screw-gear type drive mechanism that is assisted by two gas shocks. These gas shocks have more than enough power to drive the table to the uppermost position should the mechanical drive mechanism fail.
The Position of the table is critical for scan operation. If the table is not in the full up position, the scanner will pause and the error log will indicate that the table is not up. The signal that allows for the system to know the position of the table is controlled by a single adjustment of an optical sensor that is fed to the SRI (Scan Room Interface) and then back to the ISE (Integrates System Electronics). In addition, there are two other optical sensors that are used to setup the Mechanical limits of the table. The same type of adjustment is made to set the Mechanical UP and the Mechanical DOWN limit of the table.
The Elevation Adjustment should be checked periodically, to insure that the correct table height is maintained.

1-1-3 Table Level Check

Table leveling is achieved by proper placement of the correct amount of shims under the table Rail during the initial Swing Table Installation. There are no adjustments on the Swing Table wheels. Shimming the Swing Table Rail is the sole method used to adjust table level FRONT to BACK (ANTERIOR to POSTERIOR) and Left to right. If re-shimming the table is required to achieve proper level, it will be necessary to perform all of the Mechanical Table Installation procedure alignments before adjusting the Sensor Adjustment Assembly. Failure to do perform the Installation procedures and measurements will result in table misalignment and severe problems achieving proper image quality.

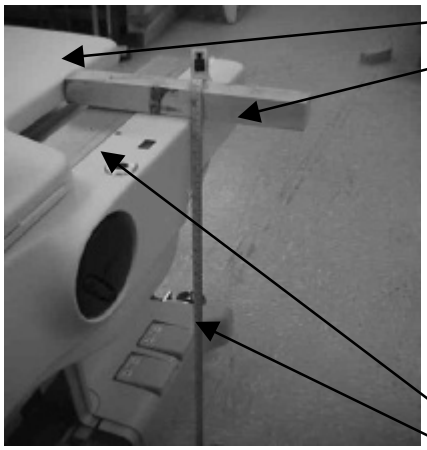
LEVELING THE TABLE FRONT TO BACK
ILLUSTRATION 2-1

1. Place at least a 24 inch (60cm) level on the side of the table. Insure that the table is level, front to back. If you find this out of adjustment you will need to re-shim the Swing Table Rail. It will be necessary to perform all of the Mechanical Table Installation procedure alignments. Refer to the Swing Table Installation procedure. (Refer to Illustration 1-5 for further clarification of expected result.)

2. Check the level of the table Left to right at the approximate center of the Swing Table.
3. Place Table level across the table/cradle.

If you find table level is out of adjustment you will need to re-shim the Swing Table Rail. it will be necessary to perform all of the Mechanical Table Installation procedure alignments. Refer to the Swing Table Installation procedure.

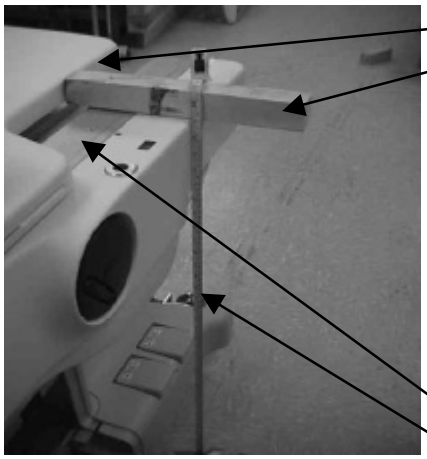
LEVELING THE TABLE LEFT TO RIGHT
ILLUSTRATION 1-2



1-1-4 Mechanical Lower Limit Check

Using the foot pedal, drive the table to it lowest position. Using a strait edge and a measuring tape, measure from the cradle roller rail to the Swing Table wear plate or finished floor. In the absolute down position, this dimension should be **23.5 inches (Spec +.5 to - 0 inches) (Approximately 598.0mm**). If this is not correct, adjust the Lower Limit sensor (See Section 1-3-4 Mechanical Lower Limit Calibration).

Table Lower Limit Check
Illustration 1-3



1-1-5 Mechanical Upper Limit Check

Using the foot pedal, drive the table to it highest position. Using a straight edge and a measuring tape, measure from the cradle roller rail to the Swing Table wear plate or finished floor. In the absolute up position, this dimension should be **32.75 inches (Spec +0 to - .5 inches) (835.0mm)** If this is not correct, Adjust the Upper Limit sensor (See Section 1-3-5 Mechanical Upper Limit Adjustment).

Table Upper Limit Check
ILLUSTRATION 1-4

1-1-4 Electronic Height (SRI Up Limit) Check

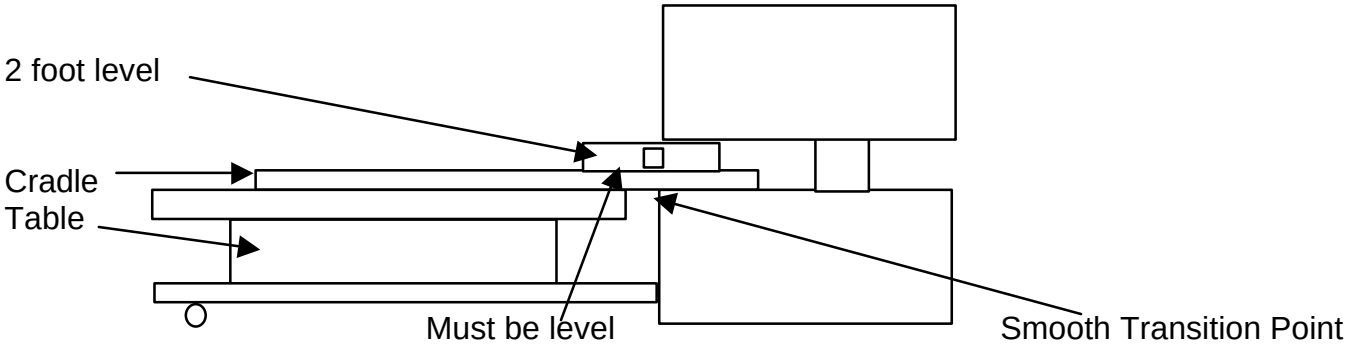
This check should be performed to insure that the system knows when the table is in the calibrated up position. The SRI is informed of the table Up Position by a separate SRI sensor. This signal is necessary to allow the cradle to move freely into the magnet. When this sensor is correctly set, the SRI informs the system that the cradle can be released and that scan can take place. The setting of this sensor should be slightly below the Mechanical Upper Limit to insure full travel of the elevation drive system.

This final adjustment is done to insure that the table and the magnet are at the same level, and slightly below the actual mechanical height limit of the elevation drive system.

If this functional check fails the cradle rollers will collide with the magnet rather than transition smoothly with the magnet surface.

1. Use the foot pedal and drive the table to the maximum up position.
2. Drive the cradle in and watch the cradle. It should transition between the table and the magnet enclosure smoothly and without bumping into the front of the enclosure.
3. Step on the Table-Down Pedal. The table should NOT go down.
4. Drive the cradle all the way back on to the table, to the Home Position. Step on the Table Down Pedal and drop the table .5 inches (Approximately 13mm).
5. Using the Cradle in fast and slow buttons, attempt to move the cradle in to the magnet enclosure. The cradle should NOT move.

If the cradle does not perform as described, refer to he table Setup and Calibration Procedures, (SRI Up Calibration) (See Section 1-3-6 Electronic Height Calibration. (SRI Up Limit).



CRADLE/MAGNET INTERFACE
ILLUSTRATION 1-5

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
A	Sept, 6 2000	D.Hofstetter	Initial version.