Technical Publication
SM-1103R3

Service Manual

General Purpose Rad Table

CE
0120

This product bears a CE marking in accordance with the provisions of the 93/42/EEC MDD dated June 14, 1993.

Este producto ostenta una marca CE de acuerdo con las disposiciones de la Directiva 93/42/CEE del 14 de Junio de 1993 sobre Productos Médicos.

Ce produit porte la marque CE de conformité aux réglements de la Directive 93/42/CEE du 14 juin 1993 relative aux Produits médicaux.

The information comprised in this manual applies to the following equipments La información contenida en este manual se aplica a los siguientes equipos L'information contenue dans ce manuel est appliquée aux équipements suivants
MULT-FWFTT Four-Ways Floating Top Table MULTIRAD

Manufactured by:
Fabricado por:
Fabriqué par:

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REVISION HISTORY

REVISION	DATE	REASON FOR CHANGE
0	MAY 23, 2011	First edition
1	AUG 09, 2013	Design changes
2	SEPT 09, 2013	General Update
3	NOV 05, 2013	Ammended distance of anchoring holes

This Document is the english original version, edited and supplied by the manufacturer.

The Revision state of this Document is indicated in the code number shown at the bottom of this page.

ADVISORY SYMBOLS

The following advisory symbols will be used throughout this manual. Their application and meaning are described below.

DANGERS ADVISE OF CONDITIONS OR SITUATIONS THAT IF NOT HEEDED OR AVOIDED WILL CAUSE SERIOUS PERSONAL INJURY OR DEATH.

ADVISE OF CONDITIONS OR SITUATIONS THAT IF NOT HEEDED OR AVOIDED COULD CAUSE SERIOUS PERSONAL INJURY, OR CATASTROPHIC DAMAGE OF EQUIPMENT OR DATA.

Advise of conditions or situations that if not heeded or avoided could cause personal injury or damage to equipment or data.

Note ☞

Alert readers to pertinent facts and conditions. Notes represent information that is important to know but which do not necessarily relate to possible injury or damage to equipment.

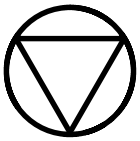
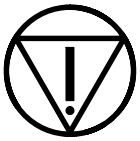
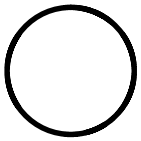
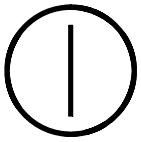
SAFETY SYMBOLS

The following safety symbols may appear in the equipment.

Their meaning are described below.

	**Caution. Consult accompanying documents.**
	**Safety Symbol. Follow instructions for use, especially those instructions identified with Advisory Symbols to avoid any risk for the Patient or Operator.** *(Only applies to IEC 60601-1 Standard - Third edition)*
	**General Mandatory action.**
	**Type B applied part.**
IPX0	**Protection against harmful ingress of water or particulate matter.** **IP Classification: Ordinary.**
	**Ionizing radiation.**
	**Non-ionizing electromagnetic radiation.**
	**Radiation of Laser apparatus.** Do not stare into beam. *(Only applicable to equipment with Laser Pointer)*
	**Dangerous voltage.**

	**General warning, caution, risk of danger.**
	**Warning: Ionizing radiation.**
	**Warning: Non-ionizing radiation.**
	**Warning: Laser beam.**
	**Warning: Dangerous voltage.**
	**Warning: Do not place fingers between mobile and fixed parts of the equipment, it may cause serious injuries to patient or operator.** **As well, make sure the patient extremities are correctly positioned into limit areas during operation, movement of parts may cause serious damages to patient.**
	**Electrostatic sensitive devices.**
	**No pushing.**
	**No sitting.**
	**No stepping on surface.**

	**Stop (of action).**
	**Emergency stop.**
	“ON” power.
	**“OFF” power.**
	**“ON”** / **“OFF” (push-push).** *Each position, “ON” or “OFF”, is a stable position.*
	**Alternating current.**
	**Three-phase alternating current.**
	**Three-phase alternating current with neutral conductor.**
	**Connection point for the neutral conductor on Permanently Installed equipment.**
	**Direct current.**

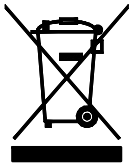
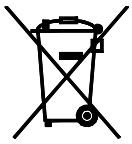
	**Both direct and alternating current.**
	**Protective Earth (Ground).**
	**Earth (Ground).**
	**This symbol according to the European Directive indicates that the Waste of Electrical and Electronic Equipment (WEEE) must not be disposed of as unsorted municipal waste and must be collected separately. Please contact an authorized representative of the manufacturer or an authorized waste management company for information concerning the decommissioning of your equipment.**
 **Li/Pb/Cd/Hg**	**This separate collection symbol is affixed to a battery or its packing, to advise that the battery must be recycled or disposed of in accordance with local or country laws. The letters below the symbol indicate whether certain elements (Li=Lithium, PB=Lead, CD=Cadmium, Hg=Mercury) are contained in the battery. All batteries removed from the equipment must be properly recycled or disposed. Please contact an authorized representative of the manufacturer or an authorized waste management company for information concerning the decommissioning of your equipment.**
	**Pollution Control.** *(Only applicable to People's Republic of China (PRC)).* **This symbol indicates the product contains hazardous materials in excess of the limits established by the Chinese Standards. It must not be disposed of as unsorted municipal waste and must be collected separately. Please contact an authorized representative of the manufacturer or an authorized waste management company for information concerning the decommissioning of your equipment.**

TABLE OF CONTENTS

SECTION 1 INTRODUCTION

1.1 OBJECTIVE AND SCOPE OF THIS MANUAL

This Service Manual is intended to describe the installation, adjustments, troubleshooting and periodic maintenance of the Radiographic Table.

OPERATOR AND SERVICE MANUALS SHOULD BE CAREFULLY READ AND UNDERSTOOD BY SERVICE PERSONNEL BEFORE USING AND SERVICING THE EQUIPMENT, ESPECIALLY THE INSTRUCTIONS CONCERNING SAFETY, REGULATORY, DOSAGE AND RADIATION PROTECTION. KEEP THE MANUALS WITH THE EQUIPMENT AT ALL TIMES AND PERIODICALLY REVIEW THE OPERATING AND SAFETY INSTRUCTIONS.

SERVICE PERSONNEL MUST HAVE SUFFICIENT KNOWLEDGE TO COMPETENTLY PERFORM THE SERVICE TASKS RELATED TO X-RAY DEVICES AND PARTICULARLY TO THE EQUIPMENT DESCRIBED IN THIS MANUAL. THIS KNOWLEDGE IS ACQUIRED THROUGH A VARIETY OF EDUCATIONAL METHODS FOR TECHNICIANS IN ACCORDANCE WITH LOCAL LAWS OR REGULATIONS, INCLUDING SPECIFIC TRAINING ON THIS EQUIPMENT.

1.2 TOOLS AND TEST EQUIPMENT

The following tools and test equipment are required for the installation:

- Standard service engineers tool kit.
- Standard and extended levels (1 meter for Column Base).
- Electric drill motor and assorted bits.

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SECTION 2 PRE-INSTALLATION

2.1 PRE-INSTALLATION CHECK

Prior to beginning installation, it is recommended to inspect the site and verify that the X-ray room complies with Pre-installation requirements, such as: incoming line, main switch(es), safety devices, conduits and space requirements.

Note ☞ *For more Pre-installation requirements, also refer to Pre-Installation Manual of the Generator.*

2.2 RESPONSIBILITIES OF THE PURCHASER

The purchaser is responsible for the completion of “Pre-Installation.” This includes the procurement and installation of all required materials and services to get the room ready for the installation of the product.

2.3 ROOM REQUIREMENTS

2.3.1 ENVIRONMENTAL REQUIREMENTS

Note ☞ *STORAGE values only refer to equipment that is still in shipping containers. If the equipment is partially or completely installed, refer to IN USE values.*

RELATIVE HUMIDITY (Non-Condensing)				TEMPERATURE				ATMOSPHERIC PRESSURE			
IN USE		STORAGE		IN USE		STORAGE		IN USE		STORAGE	
MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
30%	75%	10%	100%	10º C (50º F)	40º C (104 ºF)	-40º C (-40º F)	70ºC (158º F)	700 hPa	1060 hPa	500 hPa	1060 hPa

Note ☞ *These environmental conditions do not include the Digital Detector. Refer to the Digital Detector Documentation.*

2.3.2 FLOOR REQUIREMENTS

The method of installing the Table is anchor to floor with 4 x M10 bolts.

The Drill Templates of the anchoring holes are shown in the next illustrations.

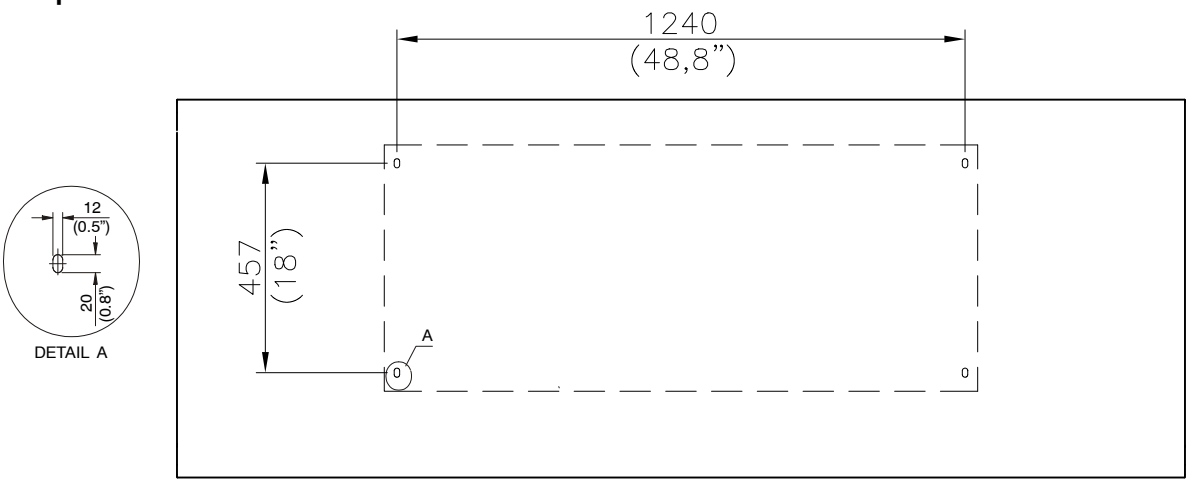
CAUTION

Potential for Injury and/or Equipment Damage: Floor anchors must be a minimum of 150 mm (6") from any concrete edge including ducts and cracks. In addition, the general condition of the concrete in the immediate mounting area should be inspected to ensure that anchors will be set in good quality concrete.

The floor bearing must be concrete and the thickness to be determined by a Structural Engineer to properly support the equipment loads. The anchors require a minimum embedment of 57.2 mm (2 $^{1}/_{4}$") into the concrete. If the floor thickness is less than 101.6 mm (4"), it is recommended that the unit be secured using a through-bolt method with a reinforcement plate on the back side.

Note ☞ *The maximum tolerance for the Floor levelling should be ± 1.5 mm per meter (0.02" per feet).*

Illustration 2-1
Drill Template



2.3.3 TECHNICAL SPECIFICATIONS

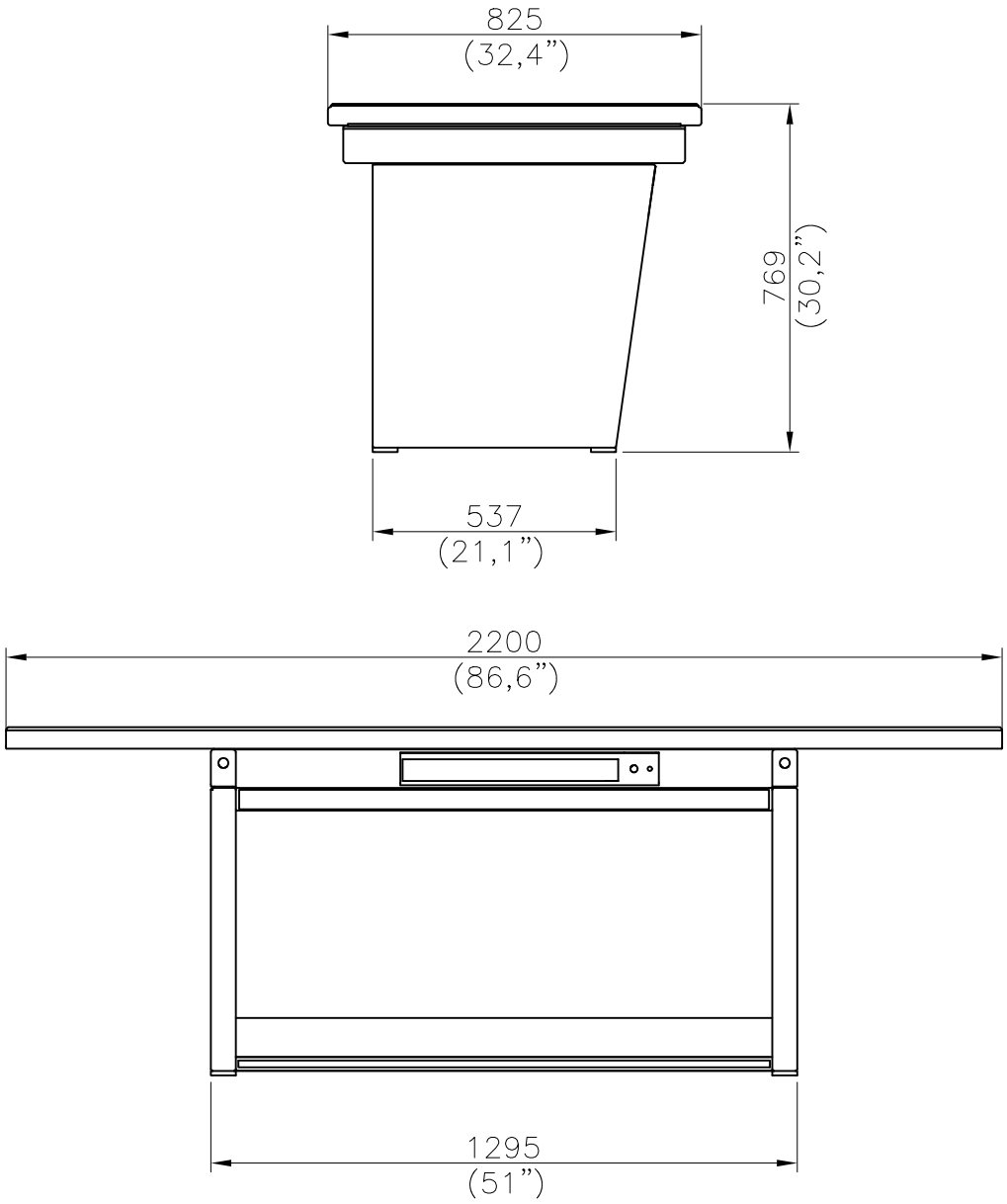
POWER LINE REQUIREMENTS

Input Voltage	24 VDC
Input Power	50 VA

DIMENSIONS AND WEIGHT

Height	770 mm (30.3”)
Length	2200 mm (86.6”)
Width	825 mm (32.4”)
Weight	150 kg (330.7lb)
Dimensions of Floating Table-Top	2200 x 825 mm (86.6” x 32.4”)
Table-Top / Receptor distance	102 mm (±4) (4”, ±0.15”)
Table-Top Attenuation	<1.0 mm Al eq.
Longitudinal travel of Table-Top	900mm (35”)
Transverse travel of Table-Top	230 mm (9”)
Longitudinal travel of Receptor	518 mm (20.3”)
Grid (standard)	40 lines/cm - 12:1
Cassettes / Detector sizes	from 18 to 43 cm (from 7” to 17”)

Illustration 2-2
Dimensions



SECTION 3 UNPACKING

The system is shipped in different crates to facilitate transport and installation. Upon receipt of components and parts of the equipment, inspect all shipping crates for signs of damage. If damage is found, immediately notify the agent or carrier.

1. Place crates close to the location in the room where the system is intended to be placed and remove each wood-packed part. Do not discard any packing material (envelopes, boxes, bags) until all parts are identified as listed in the packing list.

AT LEAST TWO PEOPLE ARE REQUIRED TO REMOVE ALL HEAVY COMPONENTS FROM THE SHIPPING PALLET.

2. When the equipment is unpacked, check the part and serial number of each component's identification label. Inspect all pieces for visible damages. If any damaged part is found, repair it or order a replacement to prevent unnecessary delay in installation.
3. Verify that all items on the customer order are present.
4. Leave a free working area around the equipment until installation is complete.

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SECTION 4 INSTALLATION

Note ☞ *Follow Installation sequence process as described. At least two or three people are required for the following tasks.*

1. Remove the transport screws that secure the Radiographic Table to the pallet and move away the Table.
2. Remove the front cover screws of the Table in order to access inside the Table.
3. Power ON the Collimator Lamp and align perfectly the Receptor axes with the Collimator light beam. During alignment, place the Tube-Collimator Assembly and the Receptor Carriage at different positions to check that it is correctly aligned.
4. Mark on the floor the four anchoring holes of the Table Base.

5. Move away the Table Base and prepare its anchors.
6. Position the Table Base at its final place and anchor the Table Base to the floor. Check that it is properly leveled placing levels in different points of the Upper Frame. Use leveling plates to level the Base, before attaching/ fixing/ installing definitively the Table.

Note ☞ *Use an extended level (1 meter) or several standard levels placed in different points for leveling the Table Base.*

7. Connect the Power Supply cable for the Table Locks from the Table TS1 to TB7 of the Lock Board in the Generator, and connect the GND cable from the Table Base to the GND Stud in the Generator (*refer to schematics IM-341 and 54303079*).

Note ☞ *This Table can be also power supplied by a 24 VDC External Power Supply instead of a Generator.*

8. If applicable, connect the Table Receptor Cable directly to the Terminal Block 3TS1 in the Generator, and the Table Ion Chamber Cable to the Generator as indicated in schematic IM-341.

Note ☞ *Refer to the Generator Service Manual for further information.*

9. Route the cables through the rear cables outlet of the Table Base along the room for their later connection.

10. Re-install the Front Cover of the Table Base.

11. Remove the two rubber stops of the same end of the Table-Top.

12. Install the Table-Top from one of the Table sides (right or left) inserting the Bearings inside their Rails. **At least two people are required for this operation.**

CAUTION

Be sure that the Table-Top slides over the bearings and the Longitudinal Lock Pin does not block its way.

13. Remove the wire tie-wrap of the Longitudinal Lock Pin.

14. Re-install the rubber stops of the Table-Top end.

4.1 UNDERTABLE INSTALLATION OF THE GENERATOR (OPTION)

Follow the steps below to install the Generator underneath the Table.

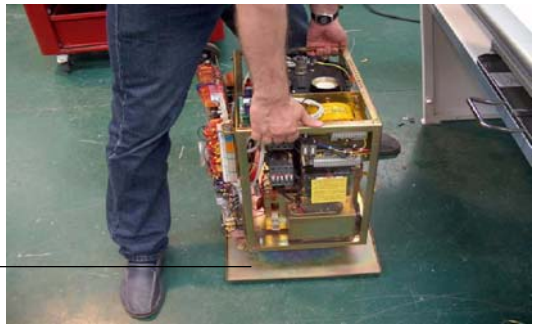
1. Remove the Front Cover after unscrewing the four (4) screws.

2. Disconnect the ground cable and dismount the front cover.

3. Disconnect the three faston terminals of microswitch SW1 located inside the Table Base.

4. Remove the four (4) allen screws of the pedal assembly at both sides of the Table Base (a pair on each side) and pull out the pedal assembly.

5. Place the Generator Cabinet (without covers) on its carriage in front of the Table. This component is freestanding below the Table. Seismic areas and other conditions require the Generator Cabinet to be secured to the floor through the mounting holes on the bottom.



Note ☞ *Do not slide the Generator under the Table until Configuration and Calibration procedures are completed. Refer to the Generator Service Manual for further information.*

6. Once configured and calibrated, push the Generator inside the Table.

7. Reassemble all of the components, parts and connections; then replace the Front Cover of the Table.

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SECTION 5 ADJUSTMENTS

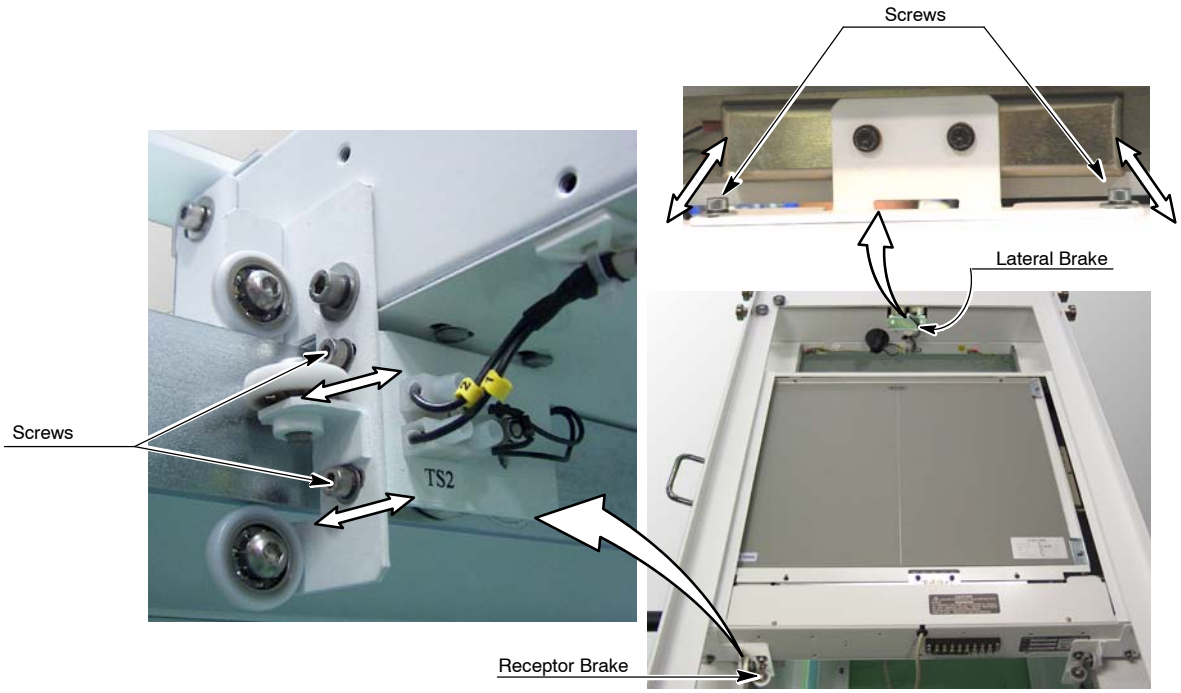
5.1 BRAKE ADJUSTMENT

Note ☞ *As brakes come factory-adjusted, field adjustment should only be necessary when replacing Brakes.*

All brakes must have a space between the brake surface and the contact surface of less than or equal to one (1) millimeter (≤1mm). If the space is too close, the equipment may drag, or movements may be difficult. If the space is too large, the brakes may not be strong enough to block movement.

To raise, lower or level the Brake Assembly, loosen the screws indicated in the following illustration and move the Brake Assembly to the desired position.

Illustration 5-1
Lateral and Receptor Brakes



5.2 PEDAL MICROSWITCH REPLACING AND ADJUSTMENT

1. Remove the Table Front Cover.

2. Disconnect Microswitch cables (check previously the cable identification to connect the cables to the new switch in the same position).

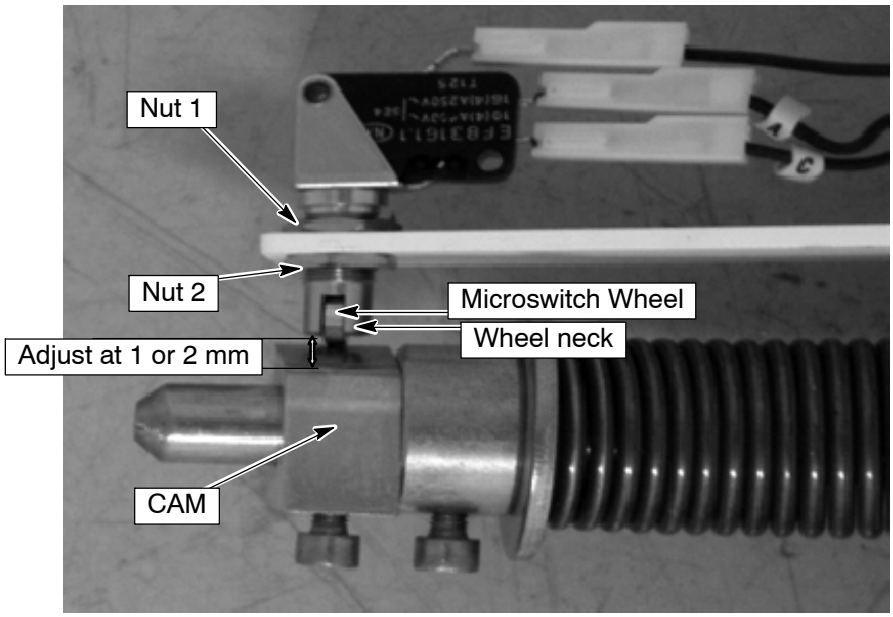
3. Remover nut 2, for that hold nut 1 with a 14 mm. open wrench and loose nut 2 with another 14 mm. Remove nut 2.

4. Remove defective Microswitch.

5. Install the new Microswitch.

6. Adjust the Microswitch at 1 or 2 mm. from the cam to the wheel neck with the Table Pedal fully pressed.

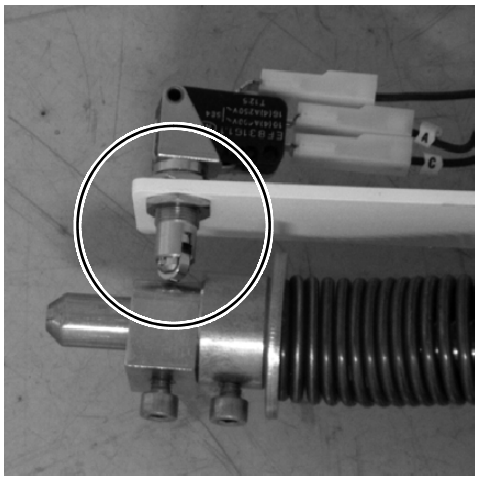
Illustration 5-2
Microswitch Replacement



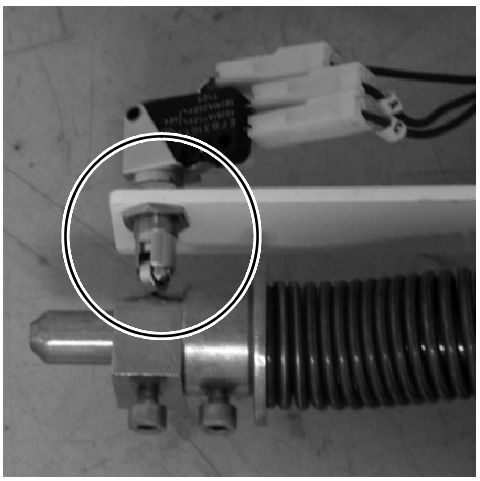
7. Check that the rolling wheel is perfectly aligned with the cam movement to ensure proper activation of the wheel.

8. Avoid wrong assembling of Microswitch as shown in illustrations below:

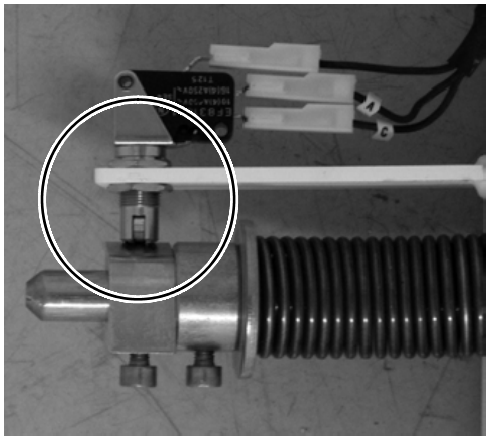
Illustration 5-3
Wrong Installation of Microswitch



Rolling wheel not aligned



Rolling wheel not aligned



Rolling wheel too close to cam, microswitch breaks

9. Re-install the Table Front Cover.

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SECTION 6 PERIODIC MAINTENANCE

The maintenance service has to be performed every twelve (12) months after the installation.

6.1 MAINTENANCE ACTIVITIES DESCRIPTION

Electrical cables and connections: Visually check for electrical cables proper isolation and proper connection inside and outside the unit.

Functional Check: Perform a functional check of the equipment, motion of Table-top, locks, brakes and detents. Adjust or replace as needed.

Adjustments: Perform adjustments as explained in the Adjustments Section of this manual.

Lubrication: Lubricate mobile components such as guides, bearings, etc.

Cleaning: Clean from dust or moist inner components as grids, bearings and rails.

6.2 CHECKING OF RADIOGRAPHIC TABLE

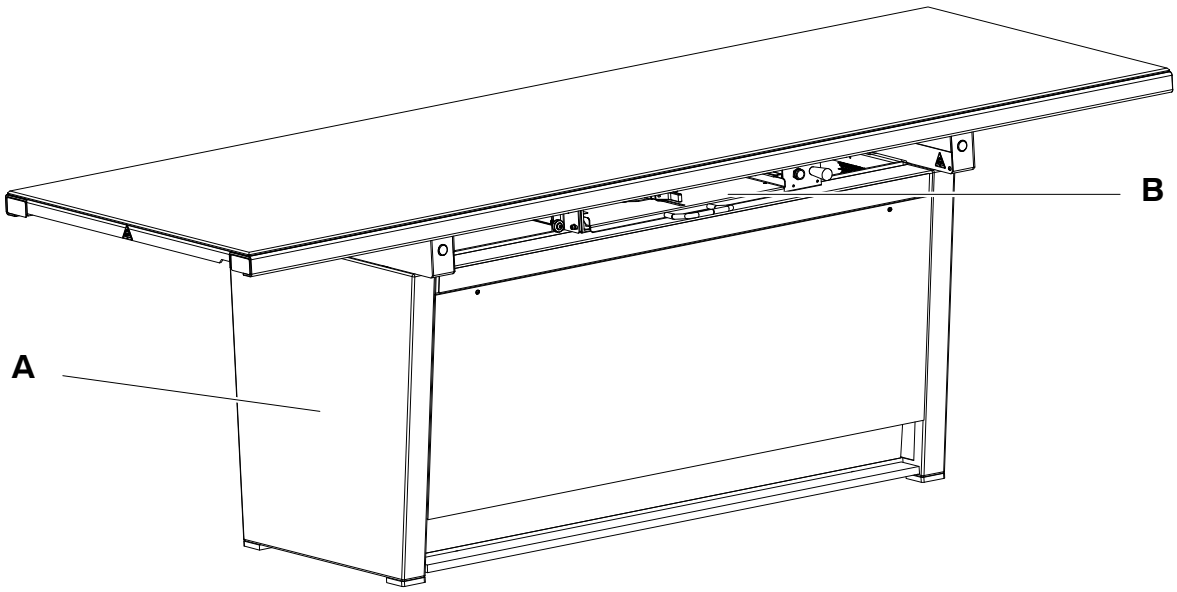
1. Turn OFF the system and mains. Check that there is not voltage at Table.
2. Disassemble Front Table cover.
3. Check anchoring screws of the Table, they should be strongly tighten.
4. Turn On the system and press the mushroom shaped switch. Verify that table is disconnected and the Table travels are blocked.
5. Release the mushroom shaped switch.
6. Connect Table power and check Table-Top brakes and correct motion by pressing the Table Pedal.
7. Assemble the Front Table cover.
8. Release the horizontal Receptor brakes and check correct traveling.
9. Take out the Cassette film tray and check correct functioning.

6.3 CHECK OFF MAINTENANCE REVISION TABLE

Hospital name:	**Date:**
System Name:	System Number ID:
Customer:	Field Engineer Name:

Radiographic Table		
Maintenance activity		**Comments**
Electrical cables and connections	❑	
Brakes, locks and detents	❑	
Functional Check	❑	
Adjustment	❑	
Replacement	❑	
Lubrication	❑	
Cleaning	❑	

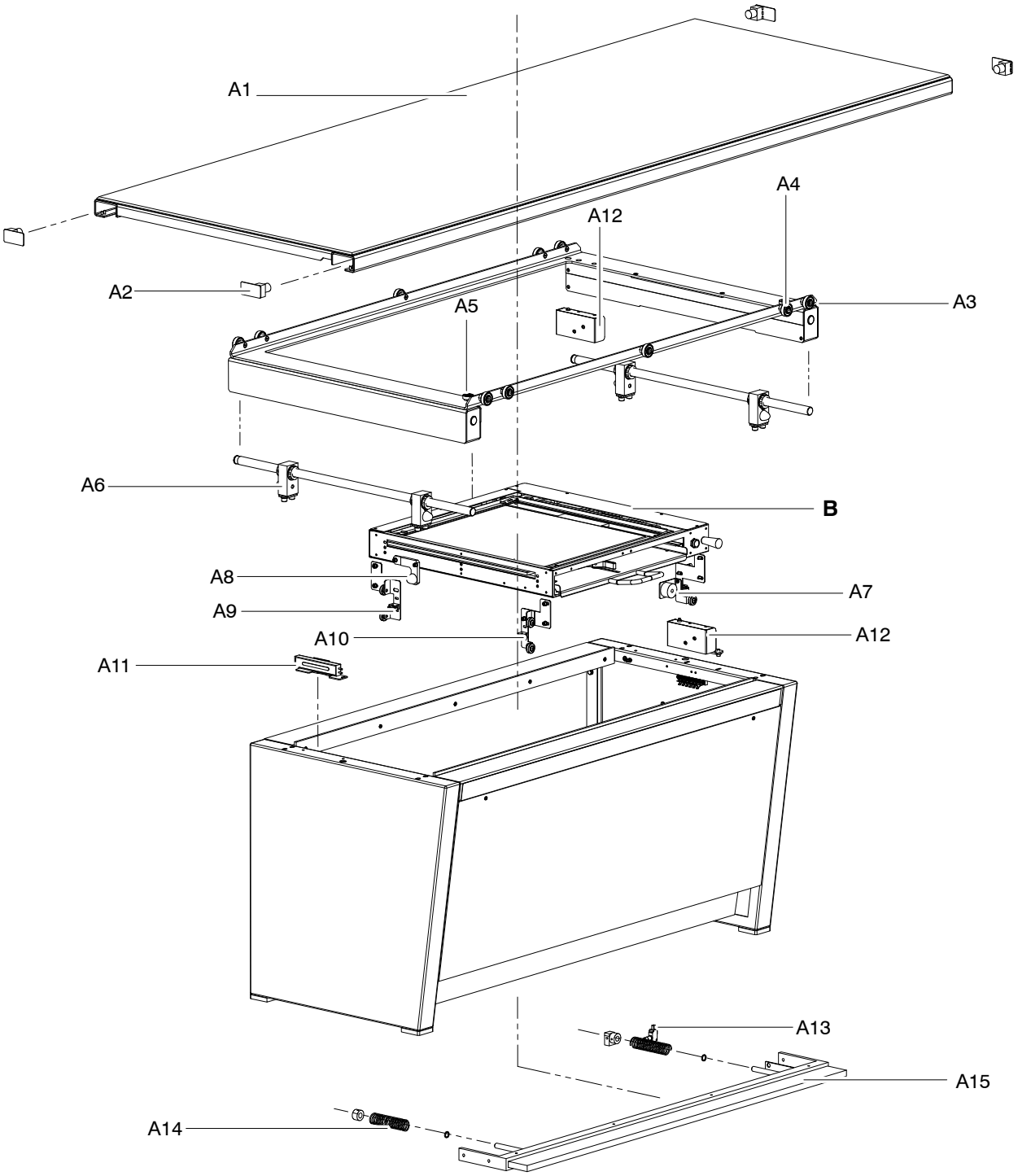
SECTION 7 RENEWAL PARTS



A – RADIOGRAPHIC TABLE

B – RECEPTOR ASSEMBLY

ITEM	DESCRIPTION	QTY	REFERENCE	REMARKS
A	**RADIOGRAPHIC TABLE**			
A1	Tabletop Kit	1	SAT-A11008-01	
A2	Tabletop Bumper	1	SAT-31617-01	Includes 4 units
A3	Eccentric Alignment Bearing Kit	4	SAT-A9874-01	
A4	Concentric Alignment Bearing Kit	6	SAT-A9873-01	
A5	Axial Bearing Kit	4	SAT-A9872-01	
A6	Tabletop Lineal Bearing Kit	4	SAT-A9842-01	
A7	Receptor Brake Kit	1	SAT-A9871-01	
A8	Receptor Bumper	1	SAT-51865P04	Includes 2 units
A9	Receptor Carriage Bearing Left Kit	2	SAT-A9869-XX	XX= 01 Bucky standard XX= 02 BDC and BDG
A10	Receptor Carriage Bearing Right Kit	2	SAT-A9870-XX	XX= 01 Bucky standard XX= 02 BDC and BDG
A11	Tabletop Brake	1	SAT-S0025036	
A12	Lock Pin	2	SAT-A11007-01	
A13	Microswitch	1	SAT-50605015	
A14	Spring	2	SAT-11330-01	
A15	Overlay Pedal	1	SAT-55801403	


A1
A2
A3
A4
A5
A6
A7
A8
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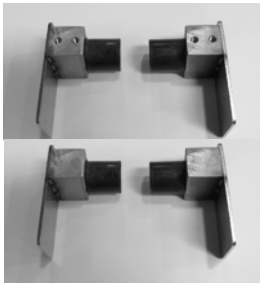
A14
A15
B

A2



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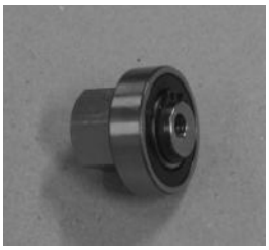

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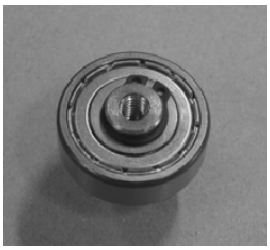

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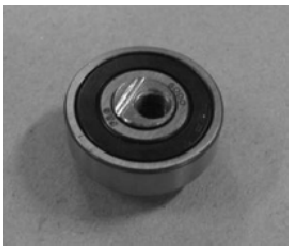

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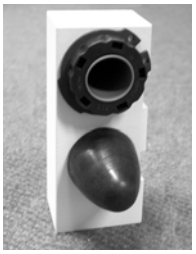

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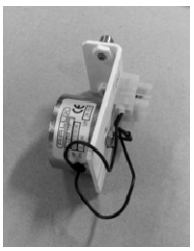

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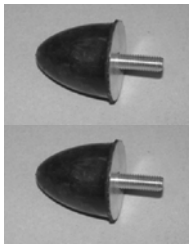

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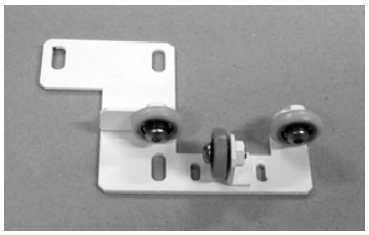

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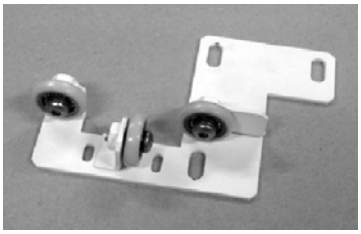

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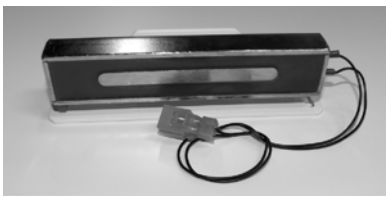

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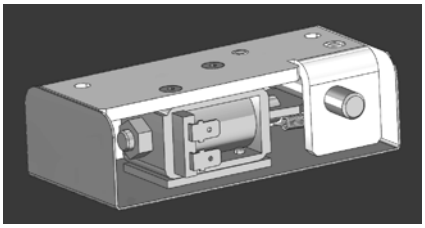

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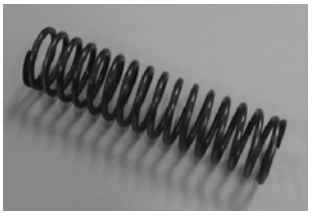
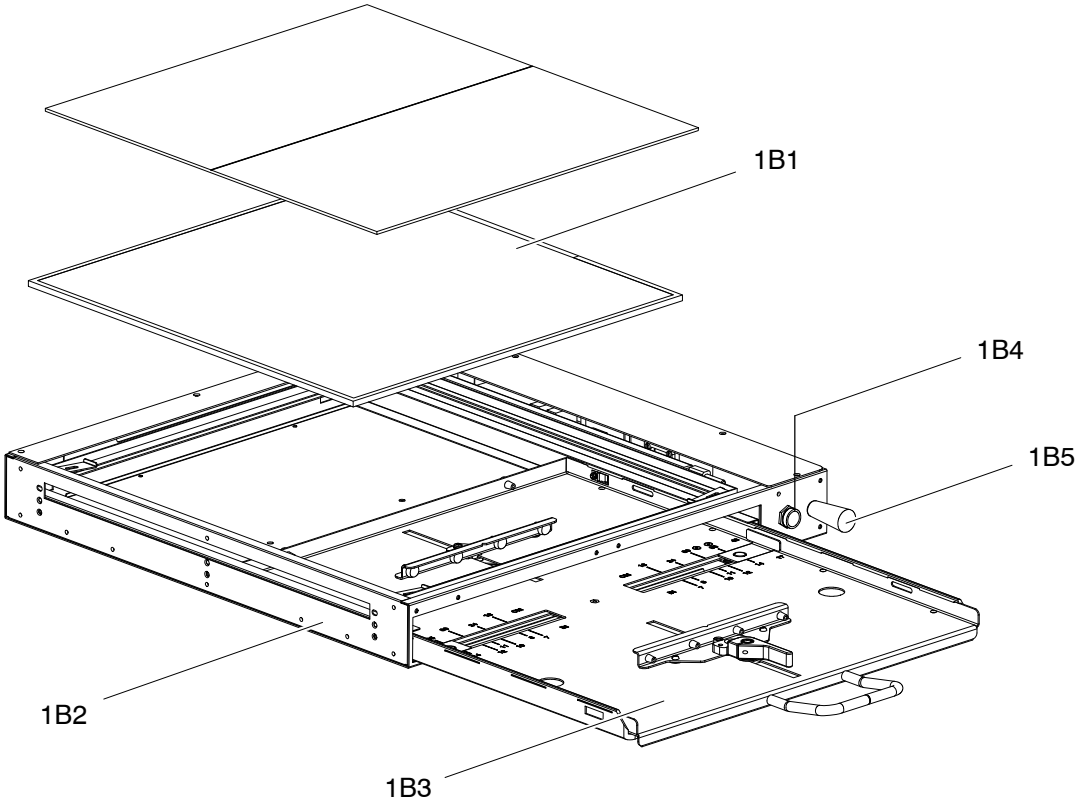
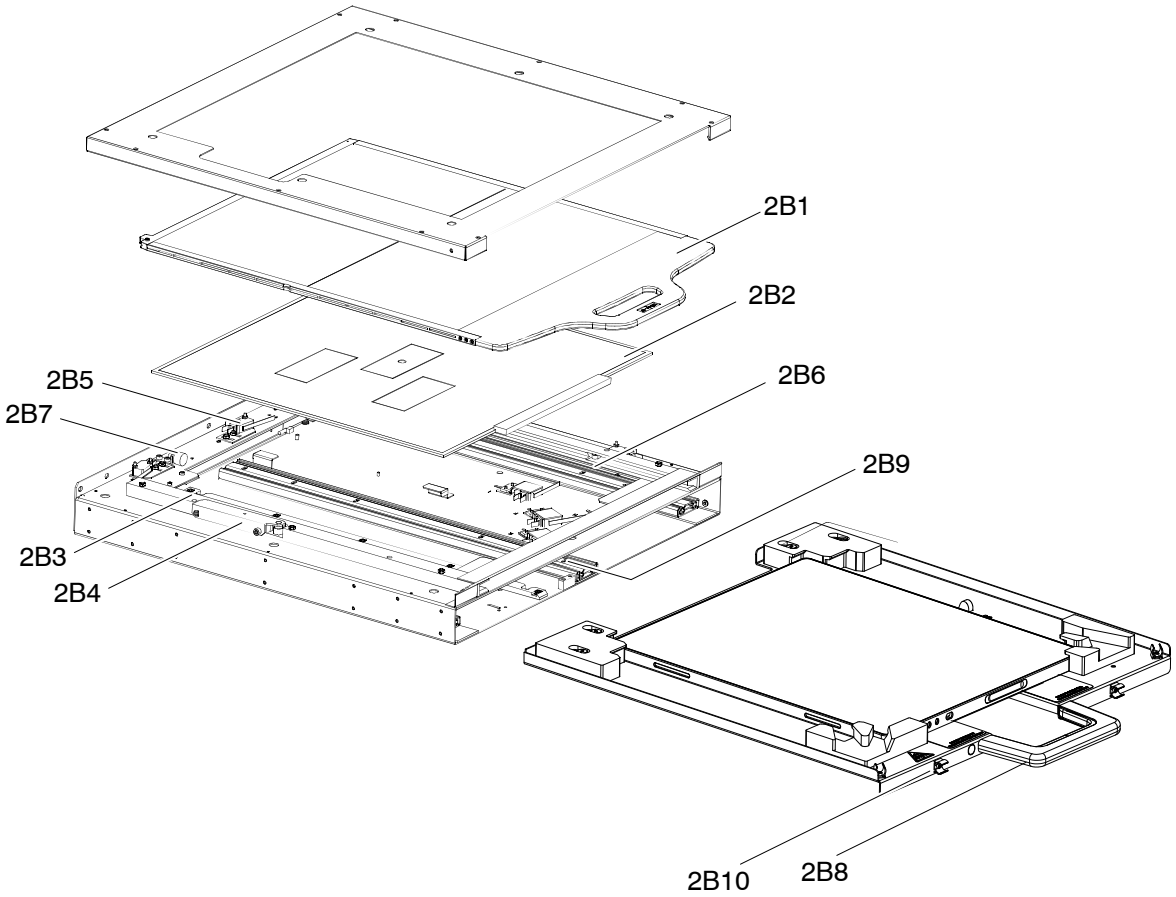


A15

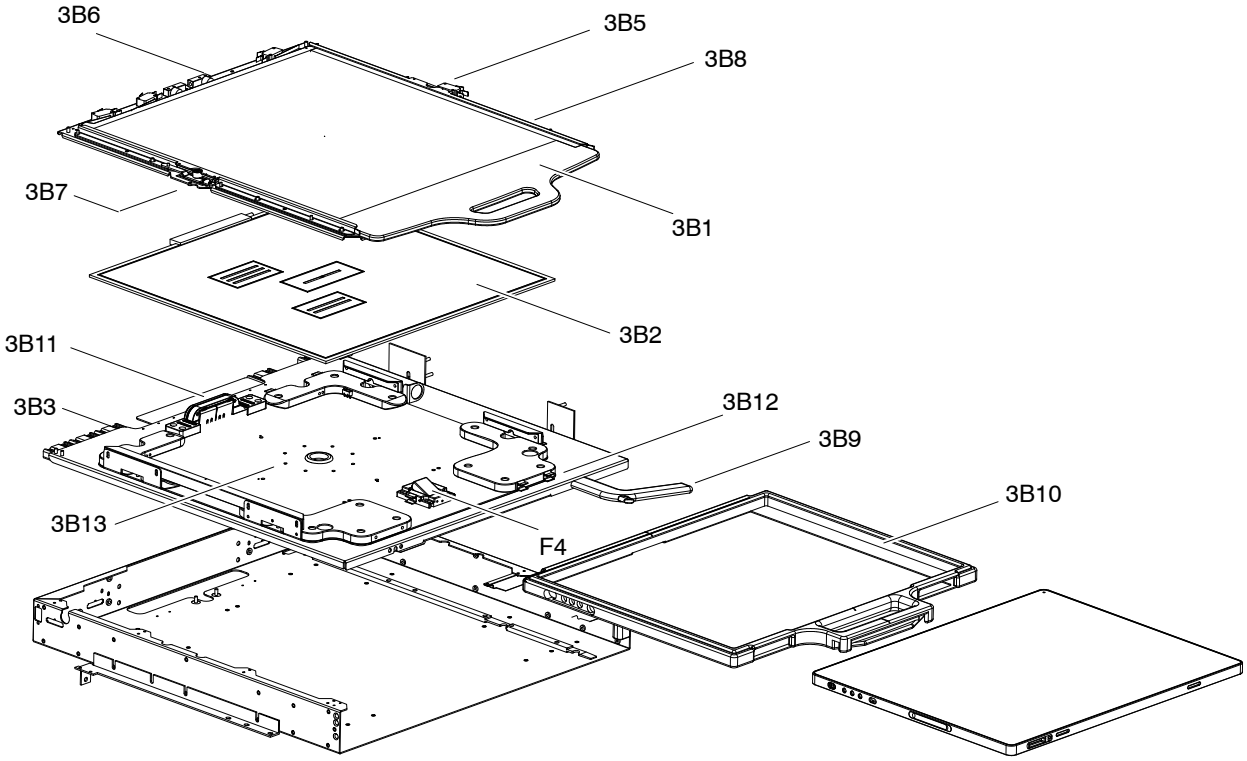
ITEM	DESCRIPTION	QTY	REFERENCE	REMARKS
1B	**BUCKY ASSEMBLY**			
1B1	Vacutec Ion Chamber	1	6695-21	
	AID Ion Chamber	1	6695-11	
	Medys Ion Chamber	1	6695-66	
	Claymount Ion Chamber	1	6695-56	
1B2	Bucky USX-Ray	1	SAT-6685-11	
1B3	Sensing Tray	1	SAT-6694-05	
	Manual Tray	1	SAT-A8894-01	
1B4	Push button	1	SAT-50613014	
1B5	Handle	1	SAT-54402014	



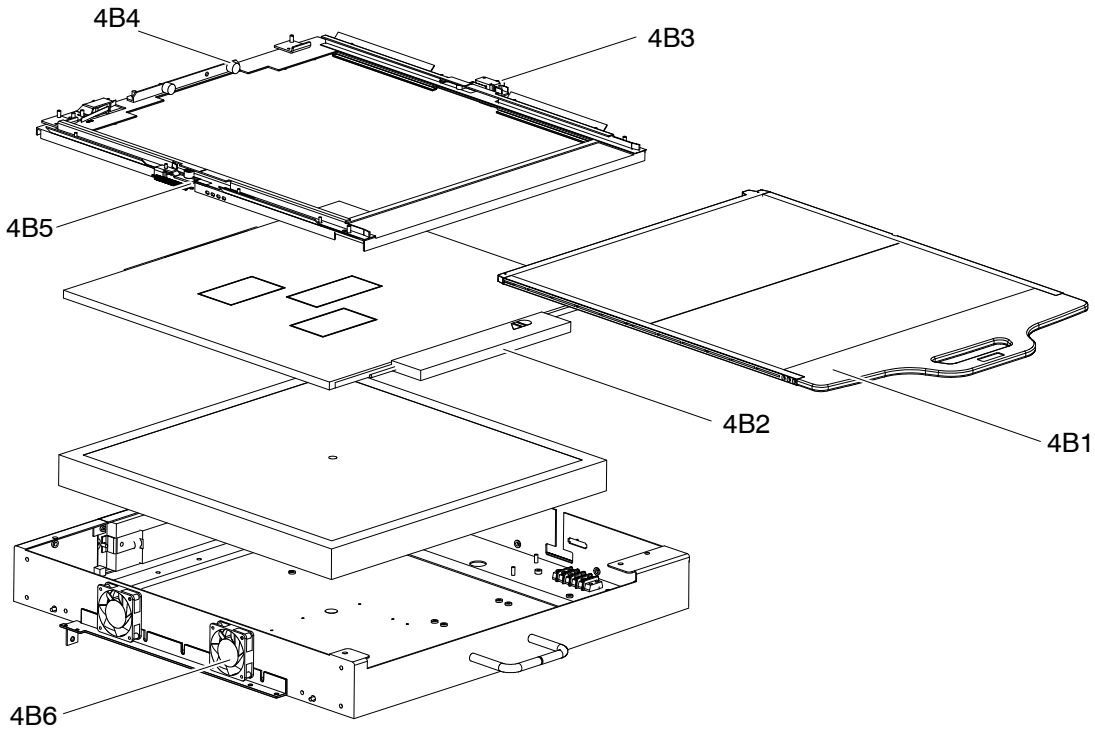
ITEM	DESCRIPTION	QTY	REFERENCE	REMARKS
2B	**DETECTOR CABINET WITH NON ROTATING TRAY**			
2B1	Frame 1.5mm for Grid 1m	1	SAT-A10521-01	
	Frame 1.5mm for Grid 1.3m	1	SAT-A9657-02	
	Frame 1.5mm for Grid 1.4m	1	SAT-A10523-01	
	Frame 1.5mm for Grid 1.5m	1	SAT-A9656-02	
	Frame 1.5mm for Grid 1.8m	1	SAT-A10522-01	
	Frame 2mm for Grid 1m	1	SAT-A10667-01	
	Frame 2mm for Grid 1.3m	1	SAT-A10666-01	
	Frame 2mm for Grid 1.4m	1	SAT-A10665-01	
	Frame 2mm for Grid 1.5m	1	SAT-A10664-01	
	Frame 2mm for Grid 1.8m	1	SAT-A10663-01	
	Frame 3mm for Grid 1m	1	SAT-A10667-02	
	Frame 3mm for Grid 1.3m	1	SAT-A10666-02	
	Frame 3mm for Grid 1.4m	1	SAT-A10665-02	
	Frame 3mm for Grid 1.5m	1	SAT-A10664-02	
	Frame 3mm for Grid 1.8m	1	SAT-A10663-02	
2B2	Vacutec Ion Chamber	1	6695-21	
	AID Ion Chamber	1	6695-11	
	Medys Ion Chamber	1	6695-66	
	Claymount Ion Chamber	1	6695-56	
		1	6695-57	
2B3	Tray Blockage	1	SAT-28213-01	
2B4	Grid Blockage	1	A525510-01	
2B5	Switch Kit BDC	1	A520491-01	
2B6	Grid Guides BDC Kit	1	A520492-01	Includes ITEM 2B4
2B7	Rubber Bumper	1	SAT-6533-01	*This reference comprises 5 units*
2B8	Handle Kit	1	SAT-A10634-02	
2B9	Ball Bearing Slide	3	SAT-54505012	
2B10	Cable Support	1	SAT-53530150	Includes 10 Units


2B1
2B2
2B5
2B6
2B7
2B9
2B3
2B4
2B10
2B8

ITEM	DESCRIPTION	QTY	REFERENCE	REMARKS
3B	**DETECTOR CABINET WITH ROTATING TRAY**			
3B1	Frame 1.5mm for Grid 1m	1	SAT-A10521-01	
	Frame 1.5mm for Grid 1.3m	1	SAT-A9657-02	
	Frame 1.5mm for Grid 1.4m	1	SAT-A10523-01	
	Frame 1.5mm for Grid 1.5m	1	SAT-A9656-02	
	Frame 1.5mm for Grid 1.8m	1	SAT-A10522-01	
	Frame 2mm for Grid 1m	1	SAT-A10667-01	
	Frame 2mm for Grid 1.3m	1	SAT-A10666-01	
	Frame 2mm for Grid 1.4m	1	SAT-A10665-01	
	Frame 2mm for Grid 1.5m	1	SAT-A10664-01	
	Frame 2mm for Grid 1.8m	1	SAT-A10663-01	
	Frame 3mm for Grid 1m	1	SAT-A10667-02	
	Frame 3mm for Grid 1.3m	1	SAT-A10666-02	
	Frame 3mm for Grid 1.4m	1	SAT-A10665-02	
	Frame 3mm for Grid 1.5m	1	SAT-A10664-02	
	Frame 3mm for Grid 1.8m	1	SAT-A10663-02	
3B2	Vacutec Ion Chamber	1	6695-21	
	AID Ion Chamber	1	6695-11	
	Medys Ion Chamber	1	6695-66	
	Claymount Ion Chamber	1	6695-56	
		1	6695-57	
3B3	Rear bumper Kit	1	SAT-A10676-02	
3B4	Detector Detent Kit	1	SAT-A10677-01	
3B5	Switch Kit BCG	1	A520490-01	
3B6	Bumper Rubber	1	SAT-6533-01	*This reference comprises 5 units*
3B7	Grid Blockage	1	A520476-01	
3B8	Grid Guides BDG Kit	1	A520493-01	Includes ITEM 3B7
3B9	Handle Kit	1	SAT-A10634-11	
3B10	Holder for Detector	1	SAT-A10904-01	Only for detector without handle
3B11	Ball Bearing Slide	5	SAT-54505012	
3B12	Cable Support	1	SAT-53530150	Includes 10 Units
3B13	Turning Kit	1	SAT-A10654-01	


3B6
3B5
3B8
3B7
3B1
3B2
3B11
3B3
3B12
3B9
3B10
3B13
F4

ITEM	DESCRIPTION	QTY	REFERENCE	REMARKS
4B	**DETECTOR CABINET FIXED DETECTOR AND REMOVABLE GRID**			
4B1	Frame 1.5mm for Grid 1m	1	SAT-A10521-01	
	Frame 1.5mm for Grid 1.3m	1	SAT-A9657-02	
	Frame 1.5mm for Grid 1.4m	1	SAT-A10523-01	
	Frame 1.5mm for Grid 1.5m	1	SAT-A9656-02	
	Frame 1.5mm for Grid 1.8m	1	SAT-A10522-01	
	Frame 2mm for Grid 1m	1	SAT-A10667-01	
	Frame 2mm for Grid 1.3m	1	SAT-A10666-01	
	Frame 2mm for Grid 1.4m	1	SAT-A10665-01	
	Frame 2mm for Grid 1.5m	1	SAT-A10664-01	
	Frame 2mm for Grid 1.8m	1	SAT-A10663-01	
	Frame 3mm for Grid 1m	1	SAT-A10667-02	
	Frame 3mm for Grid 1.3m	1	SAT-A10666-02	
	Frame 3mm for Grid 1.4m	1	SAT-A10665-02	
	Frame 3mm for Grid 1.5m	1	SAT-A10664-02	
	Frame 3mm for Grid 1.8m	1	SAT-A10663-02	
4B2	Vacutec Ion Chamber	1	6695-21	
	AID Ion Chamber	1	6695-11	
	Medys Ion Chamber	1	6695-66	
	Claymount Ion Chamber	1	6695-56	
		1	6695-57	
4B3	Switch Kit BDC	1	A520491-01	
4B4	Bumper Rubber	1	SAT-6533-01	*This reference comprises 5 units*
4B5	Grid Blockage	1	A520476-01	
4B6	Fans Kit	2	SAT-A9721-01	


4B4
4B3
4B5
4B2
4B1
4B6

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SECTION 8 SYSTEM INTERCONNECTION MAPS

Refer to the following maps for details of the wire connections.

SYSTEM INTERCONNECTION

- General Purpose Rad System Interconnection IM–341
- Radiographic Table Interconnections 54303079

Note ☞ *For System Interconnection Maps I/F-001, I/F-003, I/F-045, IM-015 refer to Generator Service Manual – Installation Chapter.*

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ROT MOBILE COLUMN

See schematic 54301085 for interconnections

X-RAY TUBE
- C
- A

COLLIMATOR

Chassis GND

TS1

Note 2.- Cable code:
A3052-XX for only Low Speed
A7014-XX for Low/High Speed

TUBE STATOR CABLE (See Note 2)
CATHODE CABLE
ANODE CABLE
GND CABLE (A6383-XX)
COLLIMATOR CABLE (A3111-XX)
SUPPLY CABLE (A6736-XX)

GENERATOR CABINET

TS2

HV TANK
- C
- A

Chassis GND

LOCKS BOARD
- TB7
- TB7

AC LINE

Note 1.- Cable code:
A8410-01 for Compact Generator - single phase
A8411-01 for Compact Generator - three phase
A8412-01 for Battery Generator
A8413-01 for Capacitor Generator

GENERATOR SUPPLY CABLE (See Note 1)

VAC SUPPLY

RAD TABLE

See schematic 54302065 for interconnections

TS1

SUPPLY CABLE (A7235-XX)
GND CABLE (A6383-XX)

Chassis GND

BUCKY
See schematic I/F-001

TABLE BUCKY CABLE (A3091-XX)

ION CHAMBER (Preamplifier)
(See Note 3)

AEC CABLE (A3253-XX)
(See Note 3)

TS1

Chassis GND

AEC ADAPTATION BOARD (A3263-03)
See schematic IM-015

J1,J2,J3

TB1

J4 (See Note 3)

POWER I/F CABLE (A3252-03) (See Note 3)

J2 POWER CABLE (A7021-XX)

J3 COMMUNICATION CABLE (A7022-XX)

TS1/TS3 INTERFACE CABLE (A7069-XX)

GND CABLE (A6383-XX)

Chassis GND

Note 3:
AEC CABLE, AEC INTERFACE CABLE AND AEC ADAPTATION BOARD NOT USED FOR RAD ROOM STANDARD (without ION CHAMBER)

AEC INTERFACE CABLE (A3251-XX)
(See Note 3)

GENERATOR CONSOLE

ATP CONSOLE BOARD
- J5
- J1
- J3
- J2

Chassis GND

VERTICAL BUCKY

ION CHAMBER (Preamplifier)
(See Note 3)

AEC CABLE (A3253-XX)
(See Note 3)

BUCKY
See schematic I/F-002

WALL BUCKY CABLE (A6703-XX)
GND CABLE (A6383-XX)

Chassis GND

TS1

Chassis GND

THIS SHEET ONLY APPLIES with CONVENTIONAL CONSOLE

REV	DESCRIPTION	ISSUED BY	DATE
B	new interface	F. García	10/10/05
A	new interface	F. García	30/11/04

	NAME	DATE
DRAWING	F.GARCIA	05/05/04
REVISED	A.DIAZ	02/06/04

SHEET / OF: 1/2

SEDECAL

IM - 341

B A ← REV

RAD ROOM STANDARD & with AEC SYSTEM

ROT MOBILE COLUMN

See schematic 54301085 for interconnections

X-RAY TUBE
C
A

COLLIMATOR

Chassis GND

TS1

Note 2.- Cable code:
A3052-XX for only Low Speed
A7014-XX for Low/High Speed

TUBE STATOR CABLE (See Note 2)
CATHODE CABLE
ANODE CABLE
GND CABLE (A6383-XX)
COLLIMATOR CABLE (A3111-XX)
SUPPLY CABLE (A6736-XX)

GENERATOR CABINET

TS2

HV TANK
C
A

Chassis GND

LOCKS BOARD
TB7
TB7

AC LINE

Note 1.- Cable code:
A8410-01 for Compact Generator - single phase
A8411-01 for Compact Generator - three phase
A8412-01 for Battery Generator
A8413-01 for Capacitor Generator

GENERATOR SUPPLY CABLE (See Note 1)

VAC SUPPLY

RAD TABLE

See schematic 54302065 for interconnections

TS1

Chassis GND

BUCKY
See schematic I/F-001

ION CHAMBER (Preamplifier)
(See Note 3)

SUPPLY CABLE (A7235-XX)
GND CABLE (A6383-XX)
TABLE BUCKY CABLE (A3091-XX)
AEC CABLE (A3253-XX)
(See Note 3)

Chassis GND

TS1

ATP CONSOLE BOARD
J5

AEC INTERFACE CABLE (A3251-02)
(See Note 3)

AEC ADAPTATION BOARD (A3263-03)
See schematic IM-015
J4
J1,J2,J3
(See Note 3)
TB1

POWER I/F CABLE (A3252-03)
(See Note 3)

Note 3:
AEC CABLE, AEC INTERFACE CABLE AND AEC ADAPTATION BOARD NOT USED FOR RAD ROOM STANDARD (without ION CHAMBER)

VERTICAL BUCKY

ION CHAMBER (Preamplifier)
(See Note 3)

BUCKY
See schematic I/F-002

AEC CABLE (A3253-XX)
(See Note 3)
WALL BUCKY CABLE (A6703-XX)
GND CABLE (A6383-XX)

Chassis GND

TS1

Chassis GND

J5
TS1
Chassis GND

INTERFACE BOX CABLE (A7067-XX)
TPC SUPPLY CABLE (A7059-XX)
GND CABLE (A7023-XX)

GENERATOR CONSOLE (TOUCH SCREEN)

GENERATOR
AC-SUPPLY
Chassis GND

THIS SHEET ONLY APPLIES with TPC/SERIAL CONSOLE

REV	DESCRIPTION	ISSUED BY	DATE
B	new interface	F. García	10/10/05
A	new interface	F. García	30/11/04

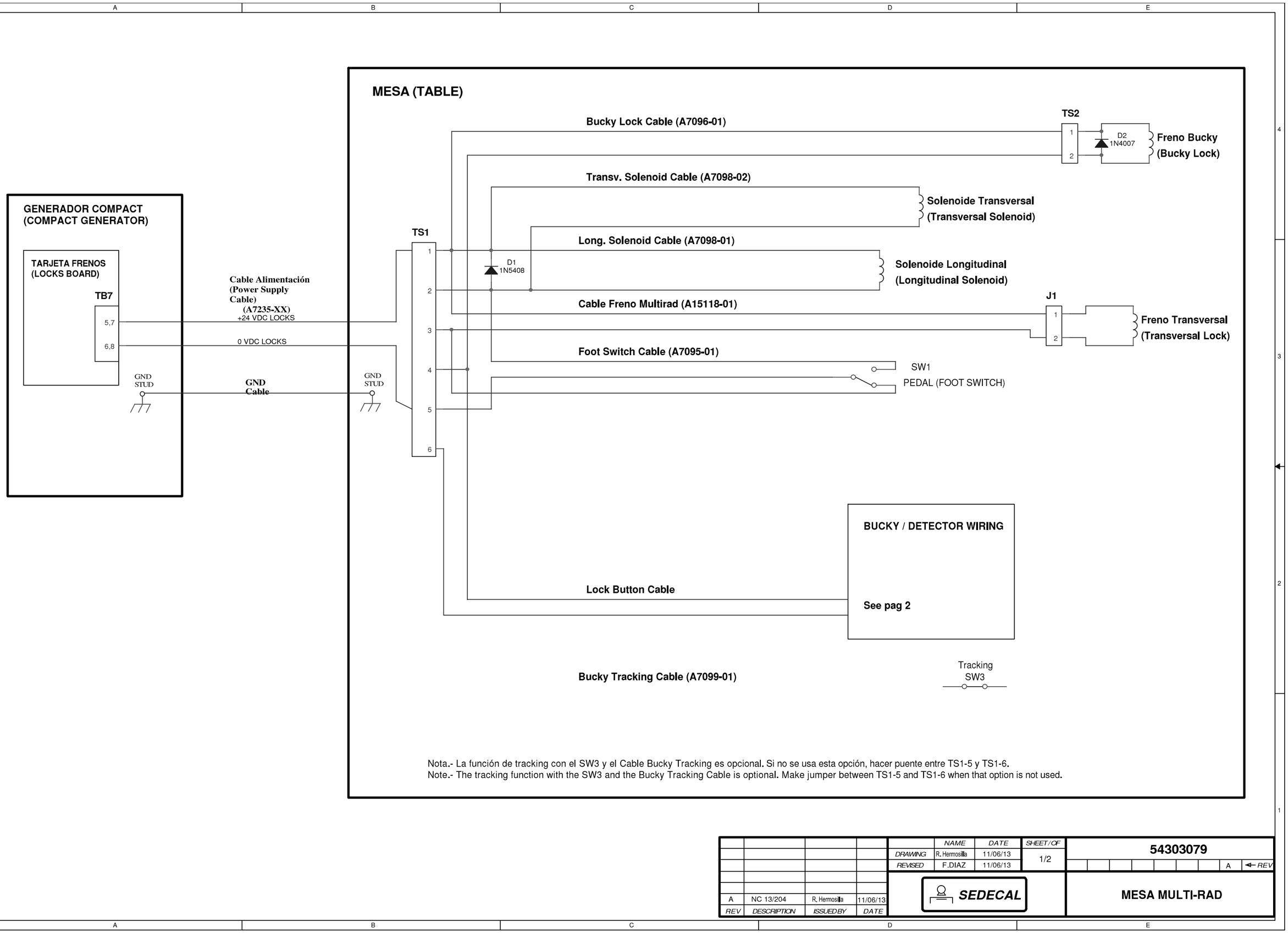
	NAME	DATE	SHEET / OF
DRAWING	F.GARCIA	05/05/04	2/2
REVISED	A.DIAZ	02/06/04	

SEDECAL

IM - 341

B A ← REV

RAD ROOM STANDARD & with AEC SYSTEM



REV	DESCRIPTION	ISSUED BY	DATE
A	NC 13/204	R. Hermosilla	11/06/13

	NAME	DATE	SHEET/OF
DRAWING	R. Hermosilla	11/06/13	1/2
REVISED	F.DIAZ	11/06/13	

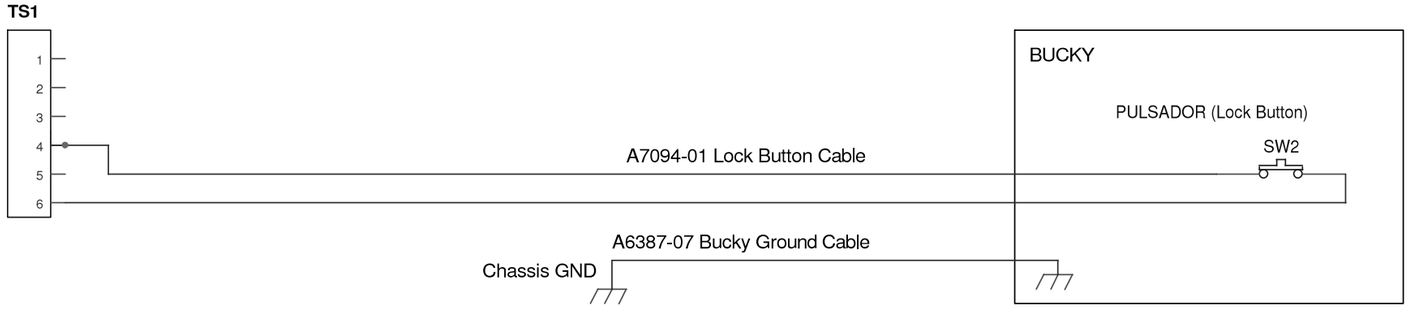
SEDECAL

54303079

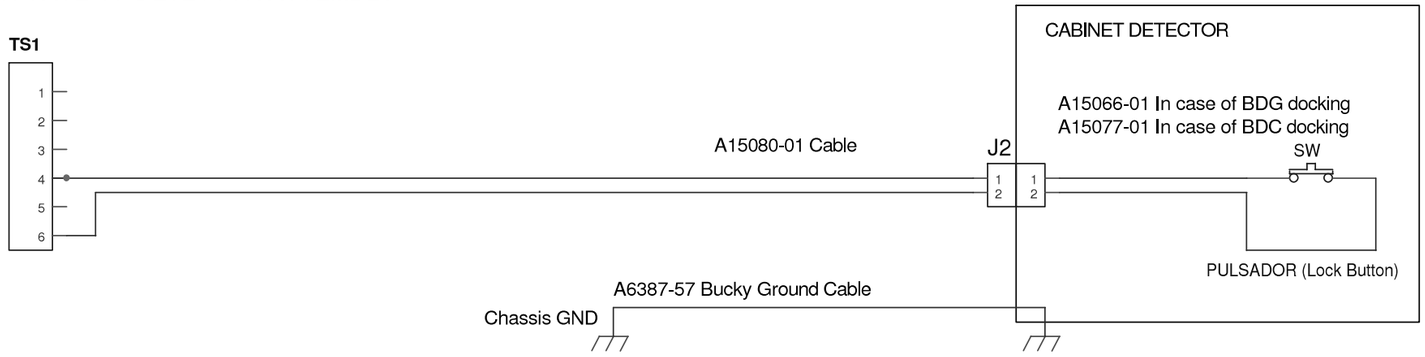
A ← REV

MESA MULTI-RAD

IN CASE OF BUCKY ASSEMBLY



IN CASE OF DETECTOR ASSEMBLY



REV	DESCRIPTION	ISSUED BY	DATE
A	NC 13/204	R. Hermosilla	11/06/13

	NAME	DATE	SHEET / OF
DRAWING	R. Hermosilla	11/06/13	2/2
REVISED	F.DIAZ	11/06/13	

SEDECAL

54303079

A ← REV

MESA MULTI-RAD