



GE Medical Systems

Technical Publications

2185378–100

Revision 1

RS–85 Tube stand Add–on ssm System Service Manual

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ATTENTION

LES APPAREILS À RAYONS X SONT DANGEREUX À LA FOIS POUR LE PATIENT ET POUR LE MANIPULATEUR SI LES MESURES DE PROTECTION NE SONT PAS STRICTEMENT APPLIQUEES

Bien que cet appareil soit construit selon les normes de sécurité les plus sévères, la source de rayonnement X représente un danger lorsque le manipulateur est non qualifié ou non averti. Une exposition excessive au rayonnement X entraîne des dommages à l'organisme.

Par conséquent, toutes les précautions doivent être prises pour éviter que les personnes non autorisées ou non qualifiées utilisent cet appareil créant ainsi un danger pour les autres et pour elles-mêmes.

Avant chaque manipulation, les personnes qualifiées et autorisées à se servir de cet appareil doivent se renseigner sur les mesures de protection établies par la Commission Internationale de la Protection Radiologique, Annales 26 : Recommandations de la Commission Internationale sur la Protection Radiologique et les normes nationales en vigueur.

WARNING

X-RAY EQUIPMENT IS DANGEROUS TO BOTH PATIENT AND OPERATOR UNLESS MEASURES OF PROTECTION ARE STRICTLY OBSERVED

Though this equipment is built to the highest standards of electrical and mechanical safety, the useful x-ray beam becomes a source of danger in the hands of the unauthorized or unqualified operator. Excessive exposure to x-radiation causes damage to human tissue.

Therefore, adequate precautions must be taken to prevent unauthorized or unqualified persons from operating this equipment or exposing themselves or others to its radiation.

Before operation, persons qualified and authorized to operate this equipment should be familiar with the Recommendations of the International Commission on Radiological Protection, contained in Annals Number 26 of the ICRP, and with applicable national standards.

ATENCIÓN

LOS APARATOS DE RAYOS X SON PELIGROSOS PARA EL PACIENTE Y EL MANIPULADOR CUANDO LAS NORMAS DE PROTECCION NO ESTAN OBSERVADAS

Aunque este aparato está construido según las normas de seguridad más estrictas, la radiación X constituye un peligro al ser manipulado por personas no autorizadas o incompetentes. Una exposición excesiva a la radiación X puede causar daños al organismo.

Por consiguiente, se deberán tomar todas las precauciones necesarias para evitar que las personas incompetentes o no autorizadas utilicen este aparato, lo que sería un peligro para los demás y para sí mismas.

Antes de efectuar las manipulaciones, las personas habilitadas y competentes en el uso de este aparato, deberán informarse sobre las normas de protección fijadas por la Comisión Internacional de la Protección Radiológica, Anales No 26: Recomendaciones de la Comisión Internacional sobre la Protección Radiológica y normas nacionales.

ACHTUNG

RÖNTGENAPPARATE SIND EINE GEFAHR FÜR PATIENTEN SOWIE BEDienungSPERSONAL, WENN DIE GELTENDEN SICHERHEITSVORKEHRUNGEN NICHT GENAU BEACHTET WERDEN

Dieser Apparat entspricht in seiner Bauweise strengsten elektrischen und mechanischen Sicherheitsnormen, doch in den Händen unbefugter oder unqualifizierter Personen wird er zu einer Gefahrenquelle. Übermäßige Röntgenbestrahlung ist für den menschlichen Organismus schädlich.

Deswegen sind hinreichende Vorsichtsmaßnahmen erforderlich, um zu verhindern, daß unbefugte oder unqualifizierte Personen solche Geräte bedienen oder sich selbst und andere Personen deren Bestrahlung aussetzen können.

Vor Inbetriebnahme dieses Apparats sollte sich das qualifizierte und befugte Bedienungspersonal mit den geltenden Kriterien für den gefahrlosen Strahleneinsatz durch sorgfältiges Studium des Hefts Nr. 26 der Internationalen Kommission für Strahlenschutz (ICRP) vertraut machen: Empfehlungen der Internationalen Kommission für Strahlenschutz und anderer nationaler Normenbehörden.

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WARNING



**DO NOT ATTEMPT TO SERVICE THE EQUIPMENT UNLESS
THIS SERVICE MANUAL HAS BEEN CONSULTED AND IS UNDERSTOOD**

If a customer's service provider requires a language other than English, it is the customer's responsibility to provide translation services.

This Service Manual is available in English only.

Failure to heed this warning may result in injury to the service provider, operator or patient from electric shock, mechanical or other hazards.

ATTENTION



**NE PAS TENTER D'INTERVENTION SUR LES ÉQUIPEMENTS
TANT QUE LE MANUEL SERVICE N'A PAS ÉTÉ CONSULTÉ ET COMPRIS**

Ce Manuel de maintenance n'est disponible qu'en anglais.

Si le technicien du client a besoin de ce manuel dans une autre langue que l'anglais, c'est au client qu'il incombe de le faire traduire.

Le non-respect de cet avertissement peut entraîner chez le technicien, l'opérateur ou le patient des blessures dues à des dangers électriques, mécaniques ou autres.

ATENCION



**NO SE DEBERÁ DAR SERVICIO TÉCNICO AL EQUIPO,
SIN HABER CONSULTADO Y COMPRENDIDO ESTE MANUAL DE SERVICIO.**

Este Manual de Servicio sólo existe en inglés.

Si algún proveedor de servicios ajeno a GEMS solicita un idioma que no sea el inglés, es responsabilidad del cliente ofrecer un servicio de traducción.

La no observancia del presente aviso puede dar lugar a que el proveedor de servicios, el operador o el paciente sufran lesiones provocadas por causas eléctricas, mecánicas o de otra naturaleza.

WARNUNG



**ERSUCHEN SIE NICHT DIESE ANLAGE ZU WARTEN,
OHNE DIESE SERVICEANLEITUNG GELESEN UND VERSTANDEN ZU HABEN.**

Diese Serviceanleitung existiert nur in englischer Sprache.

Falls ein fremder Kundendienst eine andere Sprache benötigt, ist es Aufgabe des Kunden für eine entsprechende Übersetzung zu sorgen.

Wird diese Warnung nicht beachtet, so kann es zu Verletzungen des Kundendiensttechnikers, des Bedieners oder des Patienten durch Stromschläge, mechanische oder sonstige Gefahren kommen.

ATENÇÃO



**NÃO TENTE REPARAR O EQUIPAMENTO SEM TER CONSULTADO E
COMPRENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA**

Este Manual de Assistência Técnica só se encontra disponível em Inglês.

Se qualquer outro serviço de assistência técnica, que não a GEMS, solicitar estes manuais noutra idioma, é da responsabilidade do cliente fornecer os serviços de tradução.

O não cumprimento deste aviso pode por em perigo a segurança do técnico, operador ou paciente devido a choques elétricos, mecânicos ou outros.

AVVERTENZA



SI PROCEDA ALLA MANUTENZIONE DELL'APPARECCHIATURA SOLO DOPO AVER CONSULTATO IL PRESENTE MANUALE ED AVERNE COMPRESO IL CONTENUTO

Il presente manuale di manutenzione è disponibile soltanto in inglese.

Se un addetto alla manutenzione esterno alla GEMS richiede il manuale in una lingua diversa, il cliente è tenuto a provvedere direttamente alla traduzione.

Non tenere conto della presente avvertenza potrebbe far compiere operazioni da cui derivino lesioni all'addetto alla manutenzione, all'utilizzatore ed al paziente per folgorazione elettrica, per urti meccanici od altri rischi.

警告



- ・このサービスマニュアルには英語版しかありません。
- ・GEMS以外でサービスを担当される業者が英語以外の言語を要求される場合、翻訳作業はその業者の責任で行うものとさせていただきます。
- ・このサービスマニュアルを熟読し理解せずに、装置のサービスを行わないで下さい。
- ・この警告に従わない場合、サービスを担当される方、操作員あるいは患者さんが、感電や機械的又はその他の危険により負傷する可能性があります。

注意:



- 本维修手册仅存有英文本。
- 非 GEMS 公司的维修员要求非英文本的维修手册时，客户需自行负责翻译。
- 未详细阅读和完全了解本手册之前，不得进行维修。
- 忽略本注意事项会对维修员，操作员或病人造成触电，机械伤害或其他伤害。

CHAPTER 1 – PRELIMINARIES

1 SAFETY

WARNING ALL MAINTENANCE SERVICE OR REPLACEMENT OF SPARE ON THE EQUIPMENT MUST BE CARRIED OUT BY THE COMPETENT GENERAL ELECTRIC CGR PERSONNEL ONLY. THE RECOMMENDATIONS BELOW MUST BE SCRUPULOUSLY FOLLOWED.

1-1 Protection Against Ionizing Radiation

- It is mandatory to wear the **film badge**.
- As little work as possible should be done in the presence of x-ray.
- When working with x-ray present, it is mandatory to wear a leaded apron.
- The kV and mA values be as low as possible.
- The x-ray field must also be as low as possible (a beam limiter must be used).
- The operator must stand **as far as possible** from the **x-ray beam**.

1-2 Protection Against Electric Shock

- Do not open the electrical cabinets under power.
- Do not disconnect a group wire.
- Before disconnecting HV cables, discharge them with a voltage divider.
- Be careful with capacitors which may remain charged (especially those of HV units).

1-3 Protection Against Accidents Caused by Moving Elements

When adjusting mechanical sub-assemblies, be careful with:

- Movements starting up.
- Transmission parts (chain, gears, ...).

1-4 Equipment Protection

To avoid accidental damage to the equipment, it is mandatory to cut the electric power supply before:

- Connecting or disconnecting a board or connector.
- Connecting or disconnecting a test probe.

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CHAPTER 2 – INSTALLATION

1 INTRODUCTION

This manual describes possible interfaces of RS-85 CE marking and its Ultramet SM collimator with:

<u>Generators</u>	<u>Tables</u>	<u>Housing X-ray tube</u>
Abaque	Compax 30	MAX100/18
Dynamix (Pulsatrix)	Compax 40	Statorix 240SV
Exponent 100st, 801st, 850st	Compax 40E	Statorix 240B, C or D
Maximans 50, 70, 80s, 100s, 125st	Compax 40E CE	
MPX 80	Polygen 2	
MPG 50		
MPG 65, 80, 100		
MPH 50, 65, 80		
MVP micro		<u>Anode Rotor Controller</u>
Phasix 60, 65, 80		KS 3000t 1 tube, 2 tubes
PowerPax		Tripleur G (TUG)
Process		TIRC
Telemax 530, 850, 850hf, 1050		RARC
Titanos P		
Triplunix		

Note:

- Maxiray 100 housing is compatible with RARC and TIRC
- Statorix 240SV is compatible with TUG and TIRC
- Statorix 240B (C, D) is compatible with KS 3000t, TUG, TIRC, and RARC equipped with adaptation kit for CGR X-ray tube.

Note:

- RS-85 Tube stand Add-on (RS-85 Tube stand + RS-85 Power supply + Interface package) is CE marking on condition that all components are those definite in the technical file.

1-1 Equipment to Install

- RS-85 CE Column **Ref: 2163735**
- RS-85 Power Supply **Ref: 45435005**
- Ultramet SM Collimator for RS-85 **Ref: 45296951**
- Basic interface **Ref: 2184779**
- Set of cables according the order



Note: Collimator Ultranet SM is delivered without accessory rails.



IT IS STRICTLY FORBIDDEN TO MOUNT ACCESSORY RAILS. THE TUBE STAND COUNTERWEIGHT IS NOT ADAPTED TO THE USE OF ACCESSORY CONES AND A HAZARDOUS IMBALANCE COULD RESULT.

Note: The tube stand arm cannot support weight upper than 45 Kg.

1-2 Available Documentation

PIM – RS-85 Pre Installation Manual 2172805.

SSM – RS-85 Tube stand Add-on System Service Manual 2185378-100.

RS-85 Mounting instruction manual and RS-85 Operator Manual are supplied by PAUSCH.

1-3 Special Tools Required

- Standard F.E. tool case.
- Non metric (imperial) Allen key.
- Dynamometric wrench 50 Nm.
- Percussion drill, 10 mm and 12 mm bores.
- Machinist's water level.
- Terminal setting pliers.
- Collimator Alignment Tool: **831237p015**.

1-4 Interface Package

- **Basic interface: Reference 2184779**

<u>content</u>	<u>Ref</u>
1 – Fuse box	2184780
1 – Cable "Insulated Plug/24 V Power Supply"	2183715
1 – Cable "24v Power Supply/RS-85 (X3)"	2183714
1 – Ground cable "RS-85/generator" (22 m)	2140362-3
1 – Ground cable "RS-85/Tube housing"	2183955
1 – Cable "Anode starter adaptation"	2184781
1 – Installation stationery kit	2184782
which consist of:	
• Cable terminal to connect the rotor cable and the Ground cable,	
• Pins – Washers – Wood screws – Plastic clamp to install the 24 V Power supply,	
• Metal clamps to connect the rotor cable shield to the ground	
• Tie-raps	
1 – Documentation RS-85 Tube stand Add-on System Service Manual	2185378-100

- **Complement for COMPAX 40E:**
 - 1 – Cable (RS-85/ Compax 40E CE marking) (18 m) 2165550-2
 - or
 - 1 – Cable (RS-85/ Compax 40E NO CE marking) (18 m) 2189162
- **Shielded Rotor cable:**
 - for Statorix 240B (16 m) 2154651
 - for Statorix 240B (22 m) 2154652
 - for Maxiray or ST240SV (18 m) 2145653-2
 - for Maxiray or ST240SV (24 m) 2145653-3
- **Mechanical adaptation for Statorix 240B** **2163880**
- **HV Cables**
 - 18 m 36002081
 - 20 m 36002082
 - 22 m 36002083
 - 24 m 36002084

The customer could keep his previous HV Cables if there are not external insulation cut or shield cut.

2 MECHANICAL ASSEMBLY

2-1 RS-85 Installation

Be sure to locate the tube stand in the appropriate place with regard to the table and wall bucky. Refer to room layout drawing, RS-85 PIM 2172805 and template.

For installation, refer to document 0327 7223 supplied by PAUSCH with the column.

WARNING

DO NOT TAKE OFF THE VERTICAL CARRIAGE BLOCKING ROD BEFORE MOUNTING (OR DURING REPLACEMENT) THE X-RAY TUBE, THE COUNTER WEIGHT AND THE COLLIMATOR.

2-2 X-ray Tube Installation

- **Maxiray 100**
 - The compensating plate (item 160, Chapter 4, Illustration 3, Dir. 0327 7223) must be mounted as a spacer plate between the X-ray tube unit and RS-85 Tube support arm.
 - Level the X-ray tube and tighten the four 1/4 x 1 1/16 inch screws to secure the X-ray tube to the tube stand arm.
- **Statorix 240B**
 - Please, follow attached procedure (Kit 2163880).
- **Statorix 240SV**
 - The compensating plate (item 160, Chapter 4, Illustration 3, Dir. 0327 7223) must be mounted as a spacer plate between the X-ray tube unit and RS 85 Tube support arm.
 - Level the X-ray tube and tighten the four screws to secure the X-ray tube to the tube stand arm.

2-3 Collimator Installation

- Turn the X-ray tube output window upwards.
- Position the intermediate fixing plate (delivered with the Ultramet SM). **Do not tighten** the screws. These screws are tightened when the fixing plate is centered with the special tool CAT (Chapter 5, para. 2).
- Tighten **temporarily** the collimator on the fixing plate.

2-4 Release the Carriage

Adjust the balance until the carriage blocking rod can be taken off **easily**.

Final balance adjustment is done when cable routing is ended.

2

3 CONNECTIONS

Recommendation for EMC (Electronic Magnetic Compliance)

During Installation, any disassembly/reassembly or Preventive Maintenance, ensure that each System Cable shield is properly secured in its clamp.

Consult the appropriate MIS MAP in Chapter 3, page 17.

Cables are connected according to the appropriate MIS CHART in Chapter 4.

3-1 Supply

- Choose in the room the best place to position the power module 45435005 (near the generator would be the best to simplify the cable routing). Fasten it by means of pins and screws supplied, for instance on the bottom of wall, above the floor to protect the module from cleaning products.
- The power module 45435005 is supplied from the generator cabinet. Because all generators do not have fuses to protect the 220 V, a fuse box is delivered and can be stuck inside the generator cabinet. This box is hanged by means of tie-raps (provided) through its bottom holes. See MIS Chart 27307 to connect the "fuse box". Test the value of this 230 V supplied by the generator before connect the "fuse box".
- Connect the cable number 2183715 from "Fuse box" to "24 V Power Supply". Replace the "24 V Power Supply" plastic fixing cable with those furnished to improve the cable mechanical fixing.
- Connect the cable number 2183714 from "RS-85-X3" to "24 V Power Supply". The terminals 3, 2 and 5 must be connected together on X3.
- Connect the ground cable green/yellow number 214036-3 from the ground screw on the top of the column (near X3 terminal) to the generator ground terminal. The right length of the ground cable may be adapted with provided cable terminal.

3-2 Ultramet SM

Connect the cable supplied by PAUSCH from X3 terminal (top of the column) to plug P2 of the collimator (see MIS Chart 27303).

3-3 X-ray Tube

- Connect the anode rotation cable (see cable number according to housing type in the Chapter 1, para. 1-4, page 7) from the X-ray Tube housing to the anode starter. Use MIS Chart 27312 for Satorix 240B, MIS Chart 27310 for Maxiray 100 or MIS Chart 27311 for Satorix 240 SV. The anode rotation cable shield has to be connected to the X-ray tube housing with the special supplied clamp.
- The anode rotation cable is connected to the starter with adaptation part 2184781. This adaptation part is not used with the MPH Generator. The anode rotation cable shield is secured on the starter framework (clamp).
- Connect the ground cable 2183955 between the housing ground point and the column ground point (top of the column).
- Do not install the covers now. Covers are put on when thermal safety (70 Celsius) is tested Chapter 4, para. 2, page 20.
- Check the connection of the 70 Celsius thermal safety between the starter and the generator. **If this link does not exist, it must be done.**

3-4 Compax 40E

- For Compax 40E CE Marking, connect the cable 2165550 following Mis Chart 27292,
- For Compax 40E No CE Marking, connect the cable 2189162 following Mis Chart 27315.

4 CONTROLS

4-1 Ground Connections

For safety reasons, it is necessary to check the ground circuitry and follow the procedure: Service Manual "Ground measuring" 2164012-100.

4-2 "70° Celsius Safety" Control

- On the Satorix housing, unplug one of the isolated faston terminal. Check that the generator is inhibited. Plug back the terminal and put the covers on.
- On Maxiray housing, disconnect and isolate the wire connected to terminal 1. Check that the generator is inhibited. Plug back the terminal and put the covers on.

4-3 Brake Control

Check separately each brake from the control situated on the ULTRANET SM collimator.

- Vertical carriage.
- Column carriage.
- Tube rotation.
- Vertical detente carriage.

Sensitive handle: When the handle is squeezed, the vertical movement of the tube arm and longitudinal movement of the column are free, provided that **VERT** and **LONG** controls are enabled.

5 ADJUSTMENTS

5-1 X-ray Tube

Although these adjustments are not part of RS-85 installation, some points must be checked:

- Starter control (Voltage on anode rotation motor, starting time, tube type programming).
- Generator and X-ray tube adjustments (rating chart, mA, kV).

Use appropriate Service Manual.

5-2 Collimator

- Place the X-ray tube window upwards, in such a position that the window can be easily seen.
- Secure the tube support arm with a strap (fastened to the table) and remove the collimator.
- Put the CAT in place of the collimator. Although the CAT is leaded, care must be taken in case of X-ray emission.
- Make several 70 kV exposures with minimum mA and time long enough to see the focus on the output screen of the CAT. This must be done on both focus.
- Position the intermediate part until the focus are centered on the cross and tighten the 4 eccentric screws.
- Install back the collimator, tighten it and secure permanently the collimator with the 3 safety screws.

5-3 Collimator Lamp Voltage Checks

- Measure voltage at the bulb base; this voltage must be between 21.5 V and 23.0 V for **Philips type lamp** and greater than 23 V for **GE type lamp**.
- If not, check voltage configuration on the Power module (24 VAC).

5-4 Vertical and Horizontal SID Scales/Indicators

Vertical SID tracking

Vertical SID tracking is a functionality delivered to the system by a height potentiometer installed in the RS 85 as well as in the table. In addition, the table constantly performs the subtraction of those two heights and displays the current result which is the vertical SID.

Note: Refer to Compax 40E Service Manual (chapter 3) to adjust the RS 85 height sensing potentiometer and set the 40 inch (101 cm) Vertical SID Detent.

Vertical SID Scale

- Position the 40E Patient Support at the "Intermediate height (720 mm)" detent point.
- Accurately set tube unit at 40 inches (100 cm) using tape measure on collimator. Hold tape measure perpendicular to film plane and note that the film plane is 0.2 inches (5 mm) beyond surface of the film cassette.
- Make a pencil mark on the front left side of the column corresponding to the bottom edge of the vertical carriage.
- Strip backing off SID scale and affix to column left side with 40 inch (100 cm) indicator at the pencil mark you made on the column.

Horizontal SID

Within layout limitations, the Customer should decide on the SID positions.

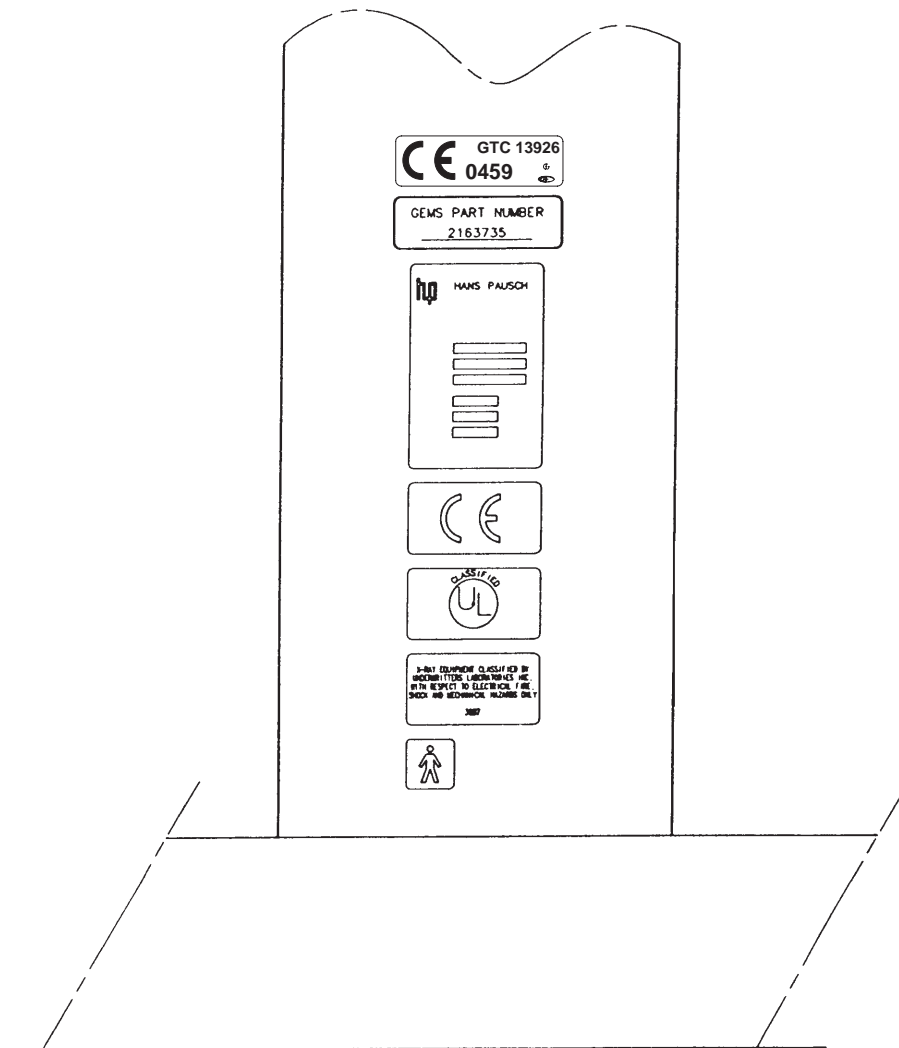
Normally these distances are those on the Collimator field size Selector, namely 40, 44, 48, 60 or 72 inches (100, 110, 102, 150, 180 cm) or appropriate ones for standard X-Ray techniques and grid focal.

6 STICKING LABEL

6-1 Tube Stand

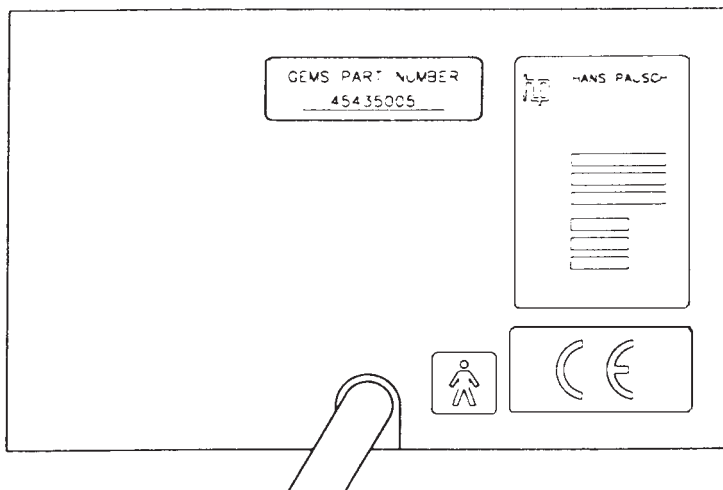
- Stick the GEMS part number 2163735 (label 2179074) on the column bottom, see next Illustration below.
- Affix the **CE 0459** * marking label on the column bottom, see Illustration below.
 - * Council Directive 93/42/EEC concerning medical devices when it bears the following CE marking of conformity **CE 0459** .

General Electric Medical Systems Europe is ISO 9001 certified.



6-2 Power Supply

Stick the GEMS part number 45435005 (label 2186616) on the Power Supply cover, see next illustration:

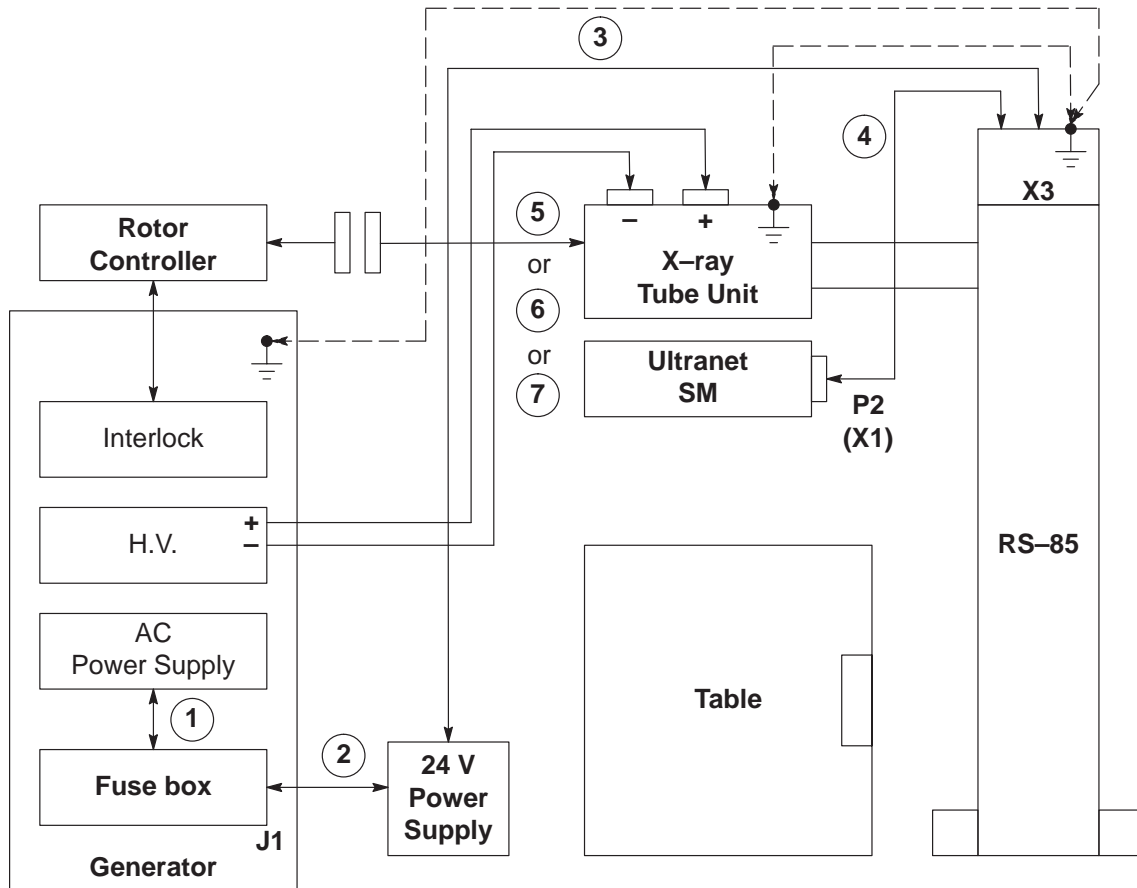


2

CHAPTER 3 – MIS MAPS

1 MINIMUM CONFIGURATION

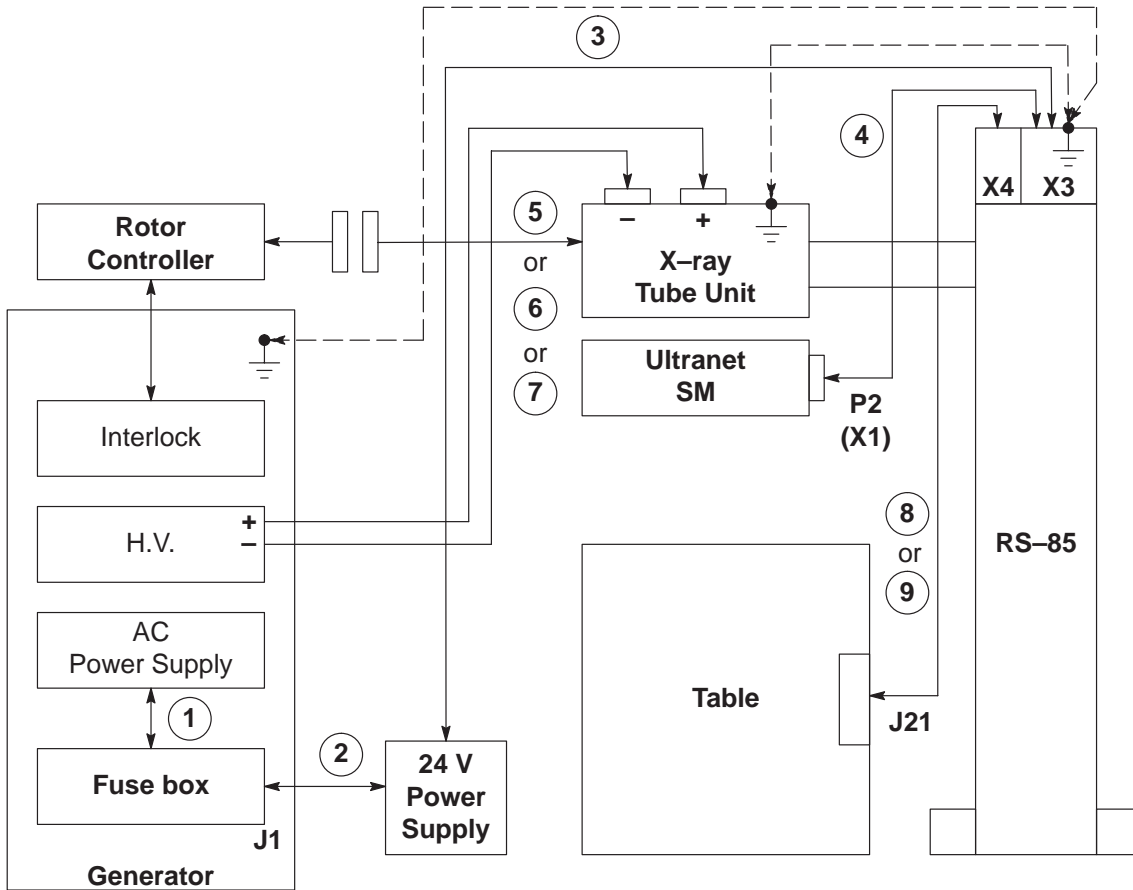
Illustration 1 –



3

2 COMPAX 40E CE CONFIGURATION

Illustration 2 –

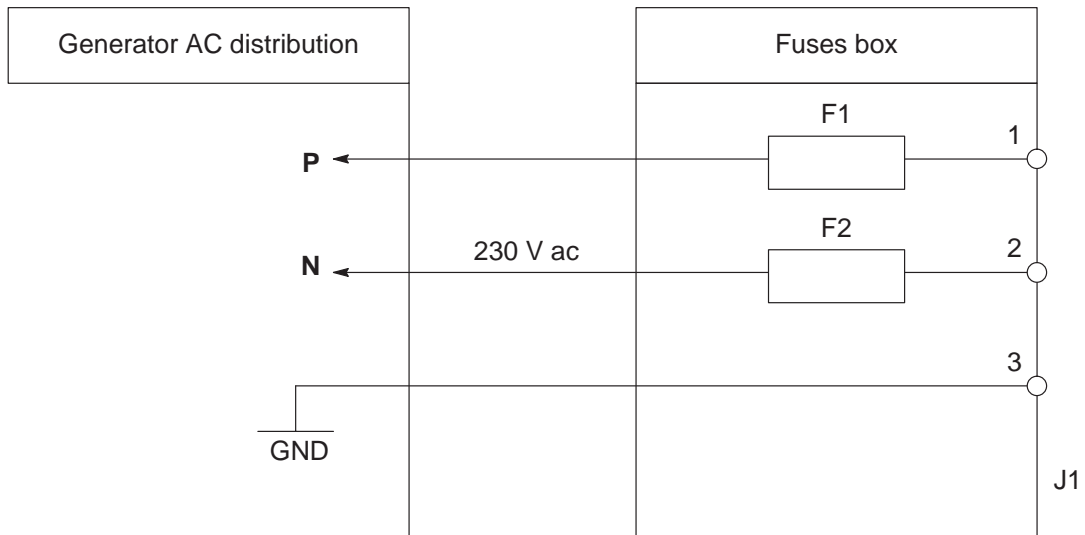


3

CHAPTER 4 – MIS CHARTS

1 MIS CHART 27307 "GENERATOR" — "FUSE BOX"

Illustration 1 –



Fuse box 2184780

** Test the value of the 230 V supplied by the generator before connect the "fuse box".

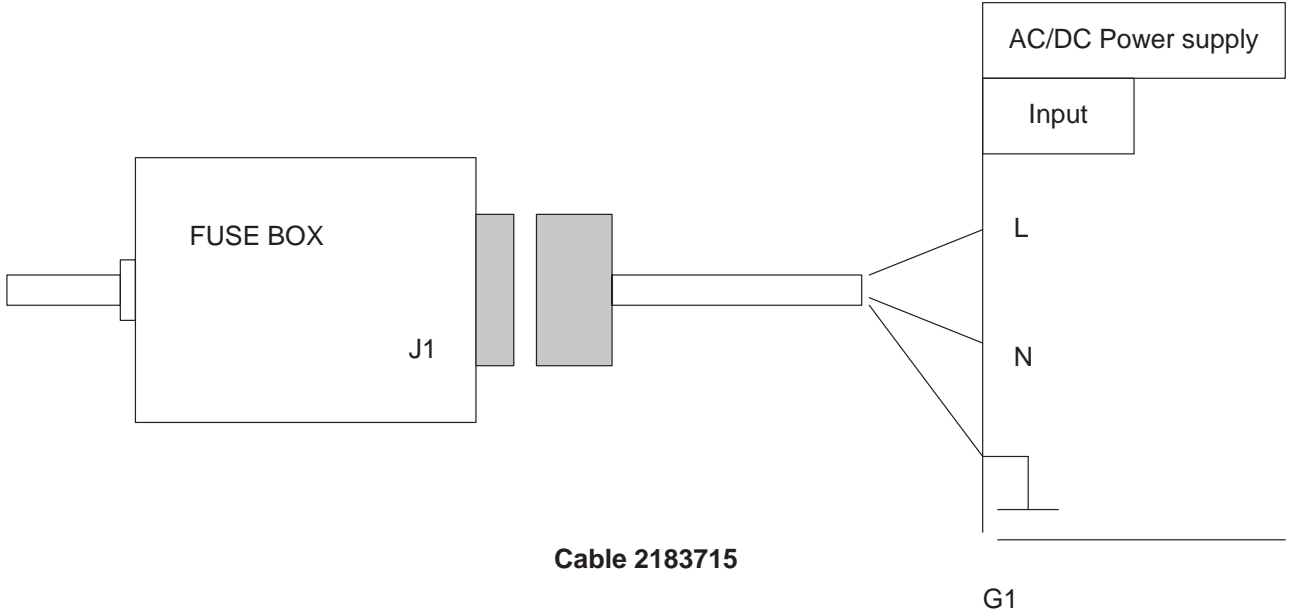
Generator	Phasix	MPG 50	MPH	MPX 80	TMX 530	TMX 850	TMX 1050
N	38 E 13	BA201-5	A1-F14	PM1A3-TS2-2	12T1-00	24T2-00	24T2-00
P	38 E 12	BA201-6	A1-F15	PM1A3-TS2-3	12T1-306	24T2-304	24T2-304

Generator	Abaque	Dynamix	Exponent	Maximans	MPG 65	MVP Micro	Process
N	02	BA102-3	IKM	78/4	BA801-16	MS2A3-A1	IKM
P	03	BA102-13	IKO	78/3	DJ802-B	MS2A3-A3	IKO

Generator	Pulsatrix	Titanos P	Triplunix
N	BA102-3	34/4	01
P	BA102-13	34/5	02

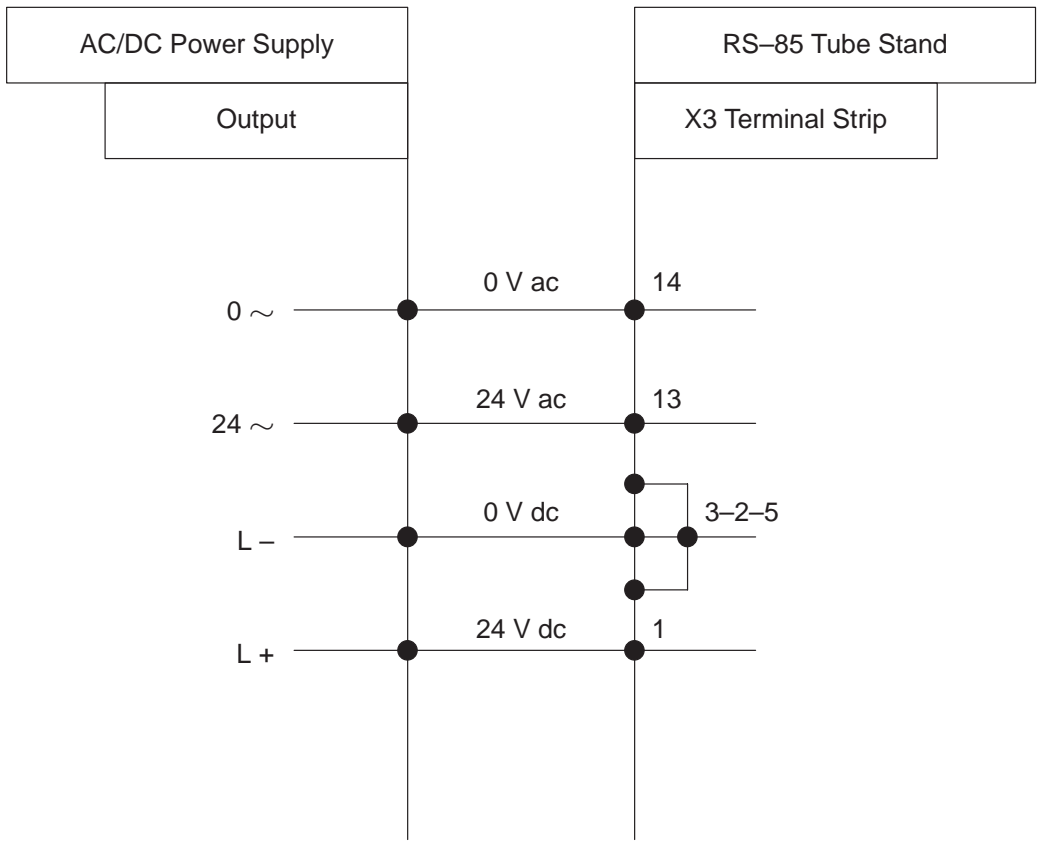
2 MIS CHART 27308 "FUSE BOX" — "AC/DC POWER SUPPLY"

Illustration 2 –



3 MIS CHART 27309 "AC/DC POWER SUPPLY" — "RS-85 TUBE STAND"

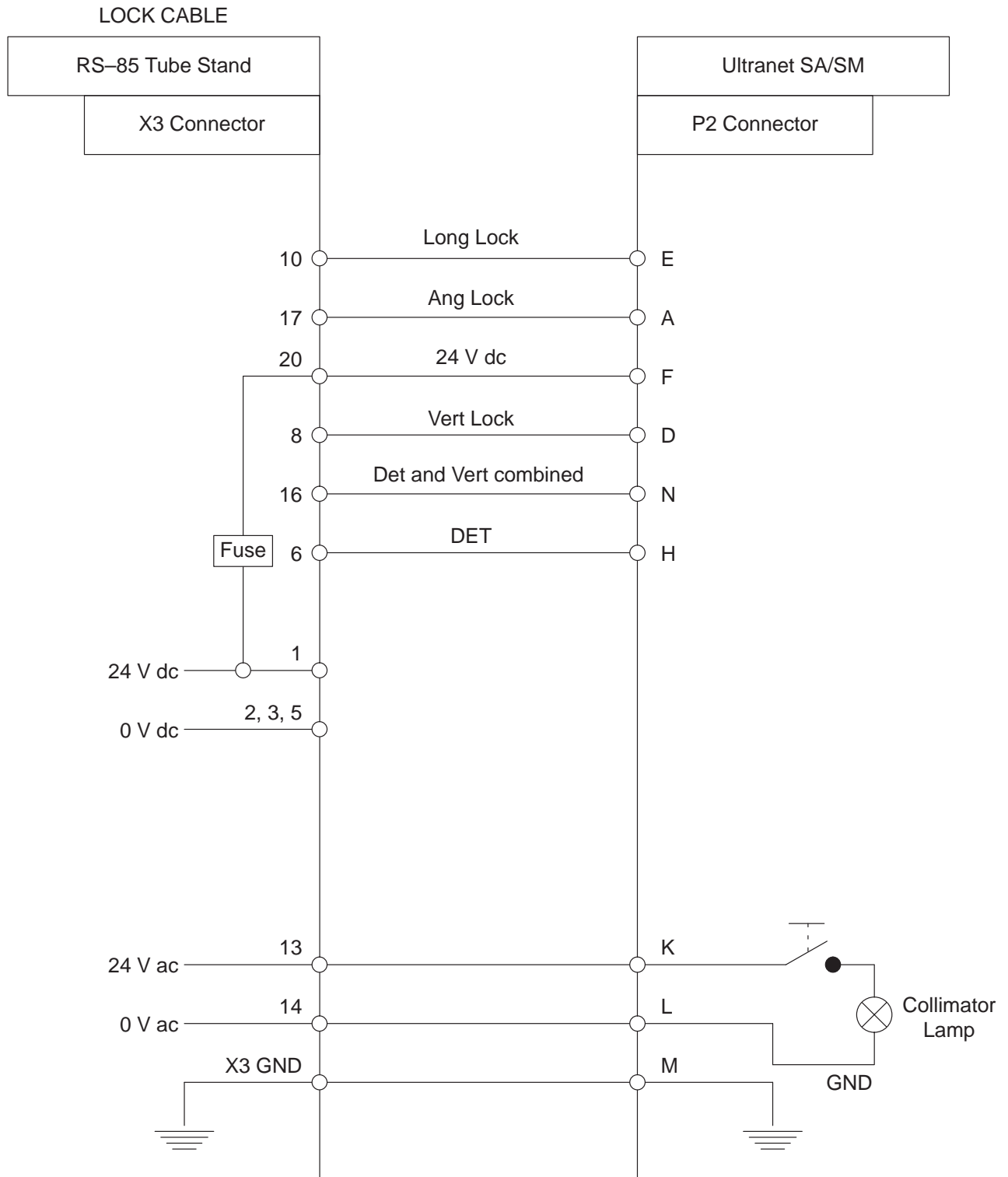
Illustration 3 –



4

4 MIS CHART 27303 "RS-85 TUBE STAND" — "ULTRANET SM"

Illustration 4 –

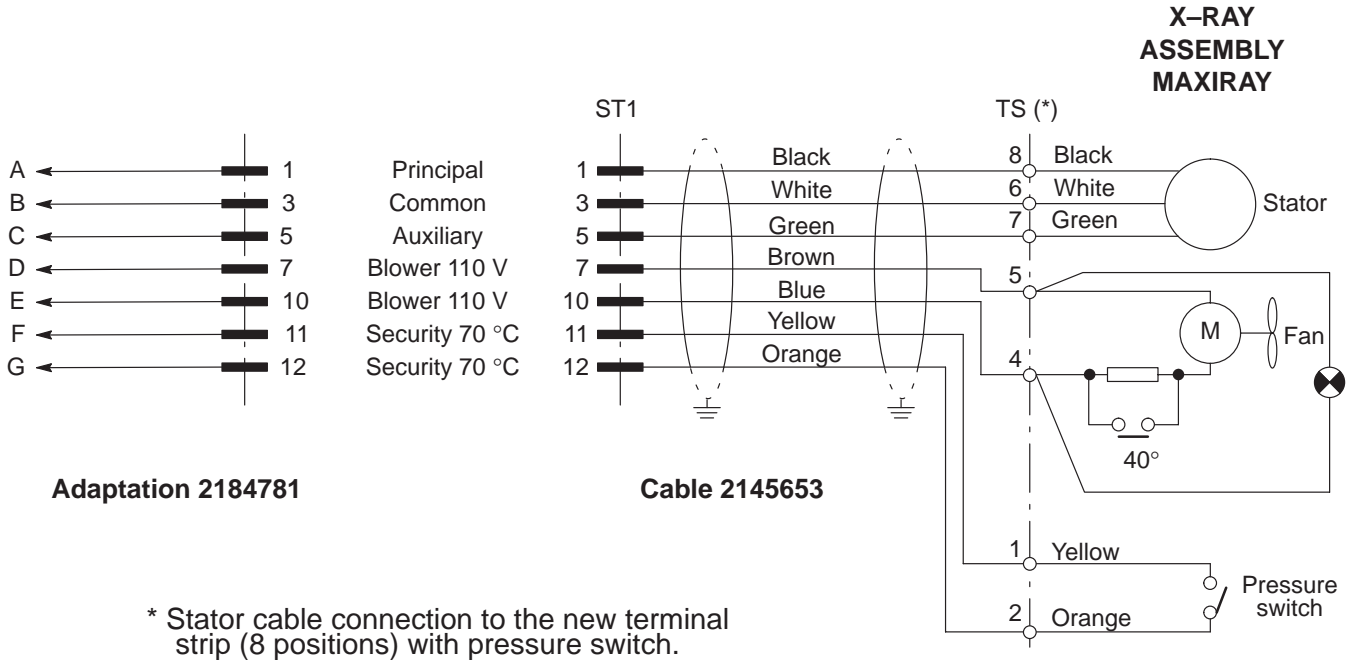


Note: This cable is manufactured by Pausch.

4

5 MIS CHART 27310 "ANODE STARTER" — "MAXIRAY 100"

Illustration 5 –

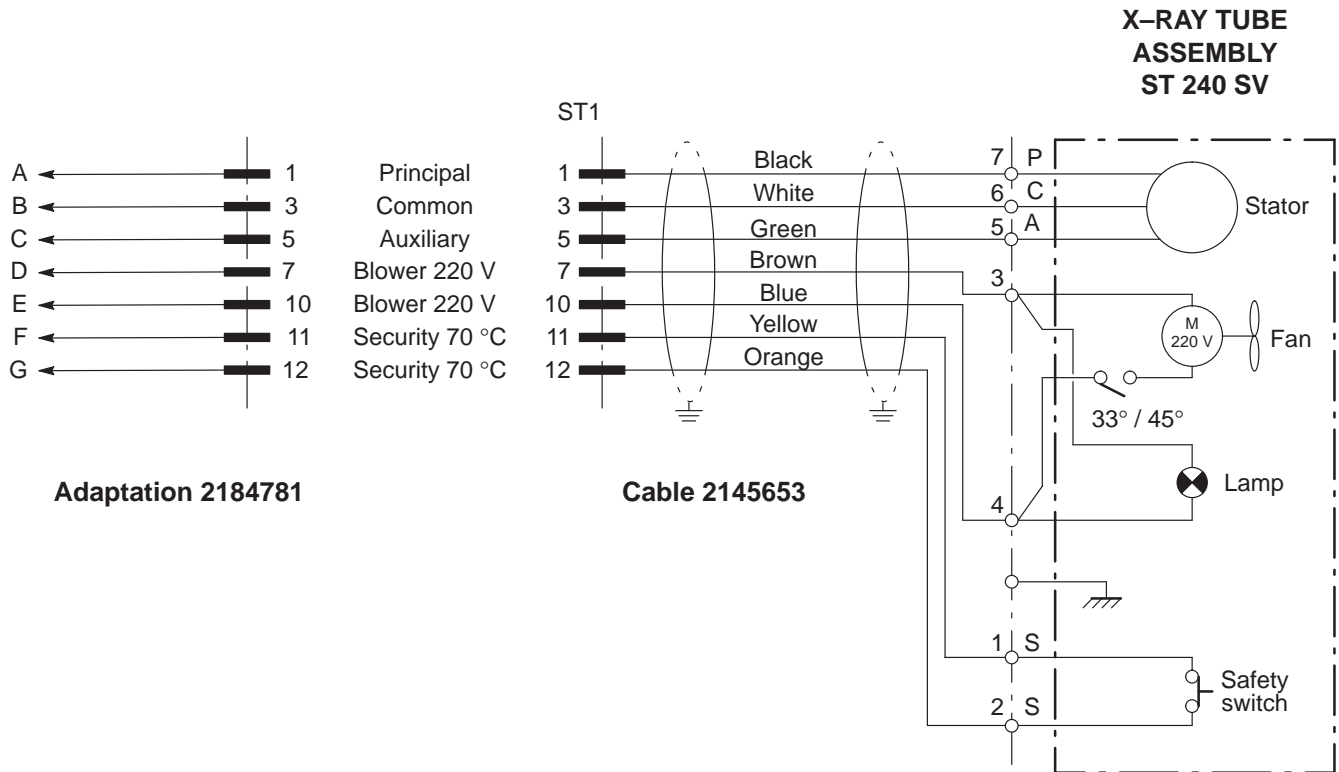


Anode Starter	RARC		TIRC-G	
	Tube 1	Tube 2	Tube 1	Tube 2
A	SO-H7	SU-H7	TS1-4	TS1-2
B	SO-H9	SU-H9	TS1-1	TS1-1
C	1TS2-H8	1TS2-H8	TS1-5	TS1-3
D	1TS1-4	1TS1-5	TS2-4	TS2-4
E	1TS1-A2	1TS1-A2	TS2-2	TS2-3
F	**	**	TS1-6	TS1-6
G	**	**	TS1-7	TS1-8

** The "70 Celcius" safety must be connected to the generator. Use appropriate Service Manual to make the link if it does not exist.

6 MIS CHART 27311 "ANODE STARTER" — "STATORIX 240SV"

Illustration 6 –

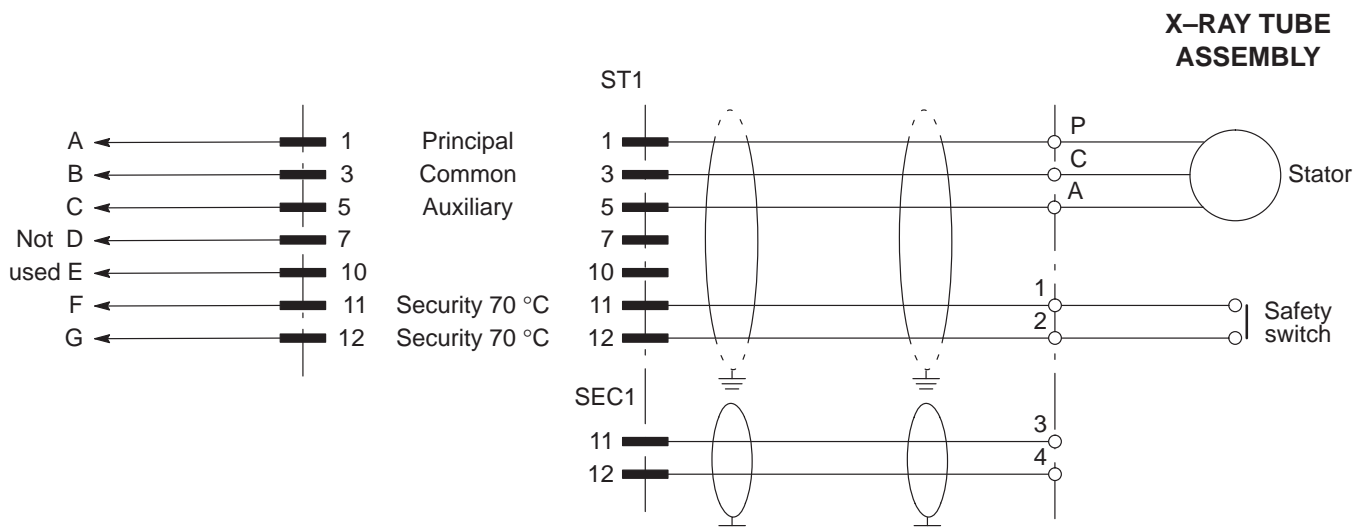


Rotor Controller	Tripleur G		TIRC-G	
	Tube 1	Tube 2	Tube 1	Tube 2
A	83TB2-2	83TB2-4	TS1-4	TS1-2
B	83TB2-1	83TB2-1	TS1-1	TS1-1
C	83TB2-3	83TB2-5	TS1-5	TS1-3
D	83TB1-1	83TB1-1	TS2-14	TS2-14
E	83TB1-2	83TB1-3	TS2-15	TS2-16
F	83TB2-10	83TB2-10	TS1-6	TS1-6
G	83TB2-11	83TB2-12	TS1-7	TS1-8

4

7 MIS CHART 27312 "ANODE STARTER" — "STATORIX 240B"

Illustration 7 –



Adaptation 2184781

Cable 2154651 (16 m)

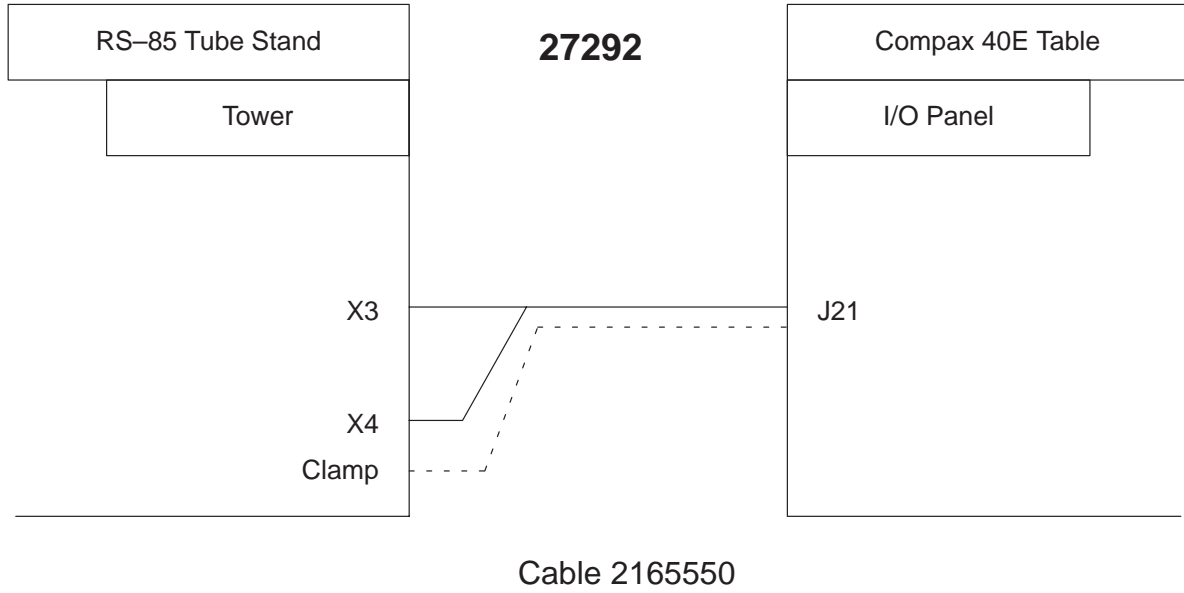
* This two points must be strapped in the anode starter due to the fact that "40° switch" is not mounted on this X-Ray Housing.

** The "70 Celcius" safety must be connected to the generator. Use appropriate Service Manual to make the link if it does not exist.

Rotor Controller	RARC with kit		Tripleur G		TIRC	
	Tube 1	Tube 2	Tube 1	Tube 2	Tube 1	Tube 2
A	SO-H7	SU-H7	83TB2-2	83TB2-4	TS1-4	TS1-2
B	SO-H9	SU-H9	83TB2-1	83TB2-1	TS1-1	TS1-1
C	TS2-H8	TS2-H8	83TB2-3	83TB2-5	TS1-5	TS1-3
*			83TB2-7	83TB2-7	TS1-15	TS1-15
*			83TB2-8	83TB2-9	TS1-13	TS1-18
F	**	**	83TB2-10	83TB2-10	TS1-6	TS1-6
G	**	**	83TB2-11	83TB2-12	TS1-7	TS1-8

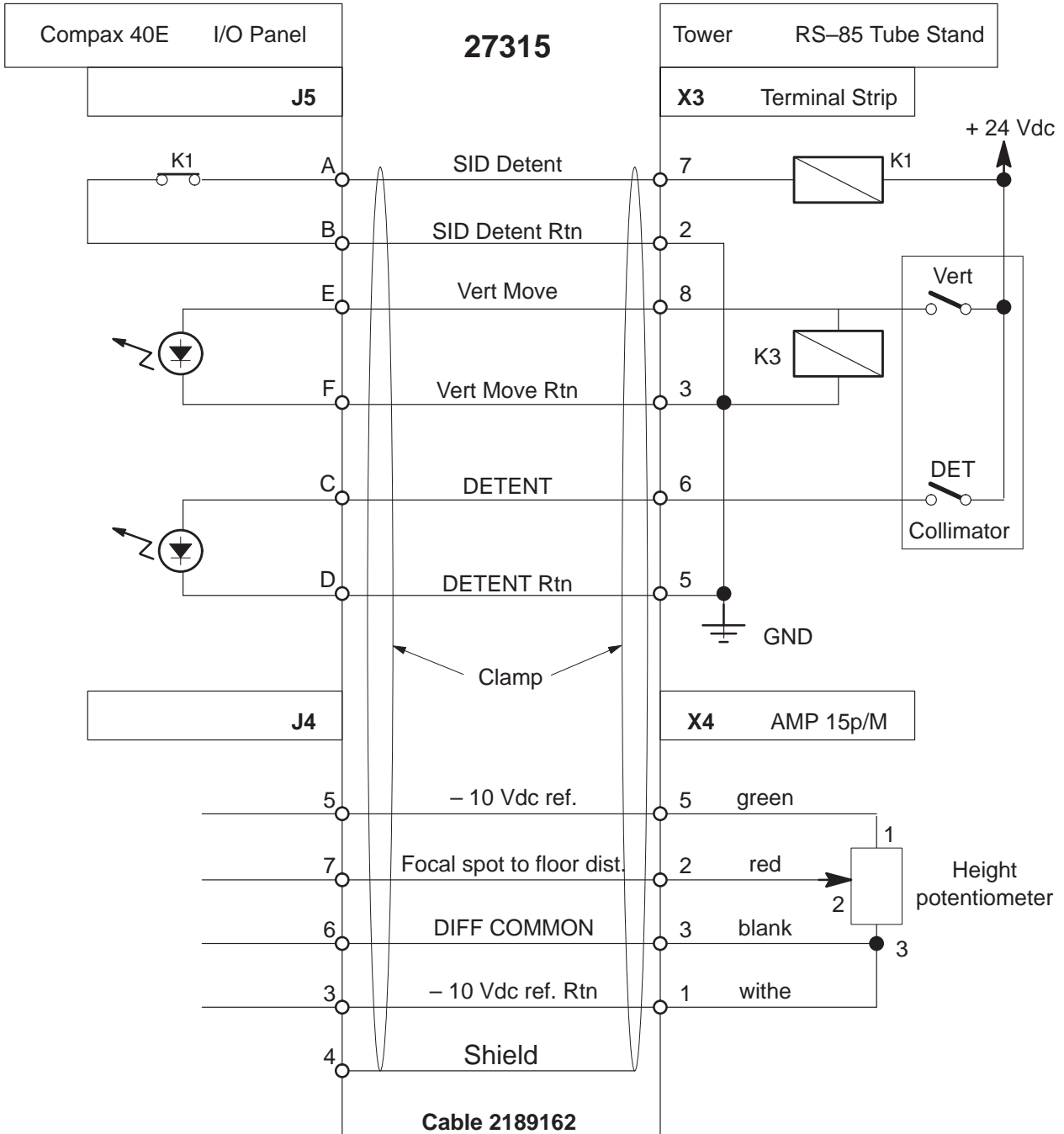
8 MIS CHART 27292 "RS-85 TUBE STAND" — "COMPAX 40E CE"

Illustration 8 –



9 MIS CHART 27315 "RS-85 TUBE STAND" — "COMPAX 40E NO CE"

Illustration 9 –



4

CHAPTER 5 – RENEWAL PARTS

1 INTERFACE CABLES AND SUPPLY

Description	Part N	Qty	Fru
Power supply 24 Vac – 24 Vdc	45435005	1	1
Cable "Fuse box/24 V Power supply"	2183715	1	2
Cable "24 V Power Supply/RS-85" (18 m Max)	2183714	1	2
Cable "Anode starter adaptation"	2184781	1	2
Cable SID for COMPAX 40E CE (18 m)	2165550-2	*	2
Cable SID for COMPAX 40E NO CE (18 m)	2189162	*	2
Rotor cable for Statorix 240B (16 m)	2154651	*	2
Rotor cable for Statorix 240B (22 m)	2154652	*	2
Rotor cable for Maxiray or ST 240SV (18 m)	2145653-2	*	2
Rotor cable for Maxiray or ST 240SV (24 m)	2145653-3	*	2

* According to the system configuration

2 FUSES BOX

Description	Part N	Qty	Fru
Fuses box (equipped)	2184780	1	2
Fuse holder	99057344	2	2
Fuse 3 AT	99183931	2	1

3 RS-85 RECOMMENDED RENEWAL PARTS LIST

Only the following Renewal Part list is kept in stock. For any other renewal part, a special request should be made to Service Engineering.

Note: For Drawing & Position Ref. listed below, refer to RS-85 Mounting Instructions Manual. (03277223) in the Renewal Parts Chapter 4, para 3.

Description	FRU	PAUSCH Ref.	GE-CGR Ref.	Drawing & position Ref.
Lock cable	1	0327 0494	45432579	65
Height potentiometer	1	0006 0240-C	45432580	3A
Height potentiometer cable	2	0327 0629	2181292	4A
Snap ring	2	22000041	45432582	7
Pulley	1	0327 0334	45432583	32
Guide pulley	1	0327 0335	45432584	33
Magnet	1	0105 0148	45432585	37 & 116
Plate spring	1	0327 0342	45432586	39
Diode	1	0006 0179	45432587	45
Switch assy	1	0327 0321	45432588	50
Relay socket	1	0006 0287	45432589	72
Relay	1	0006 0286b	45432590	73
Rope	1	0327 0440	45432591	95
Spring	1	0005 0151j	45432592	105
Plate spring	1	0327 0462	45432593	117
Ball Ø16	1	2900 0004	45432594	126
Rotating arm	1	0327 0500	45432595	133
Cable	1	0327 0510	45432596	140
Cap	1	0322 0058	45432597	149
Detent quick release assy	1	0327 0720	2166832	155
Tube support arm GE	1	0327 0700d	2169060	152
Fuse bag	2	1,6 AT 0,8 AT 3,2 AT	2181167	99

CHAPTER 6 – SCHEMATICS

See document 0327 7223 supplied by PAUSCH.

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CHAPTER 7 – PREVENTIVE MAINTENANCE

1 PERIODICITY

1 visit per year (1 F.E.).

2 OPERATIONS

See SM 03277223, Chapter 4, page 19.

3 SAFETY

Wire rope 45432591 has to be replaced at least every 3 years.

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REVISION HISTORY

REV	DATE	REASON FOR CHANGE	PAGES
0	12-Jun-97	Initial release.	34

NUMBER 2185378-100TPH	SIZE A4	REVISION 1
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