



**GE Medical Systems**

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# **Technical Publications**

**Revision 3**

## **LightSpeed RT<sup>16</sup> and Xtra Service Intro Planner (ISERV)**

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### **UPDATES NOTICE**

This is information for service to inform service operations and service personnel about new program introduction. Please be noticed that this documentation is not updated after product general release (M4) timing.

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**REVISION HISTORY**

<b>REV</b>	<b>DATE</b>	<b>PRIMARY REASON FOR CHANGE</b>
A	August 20, 2008	Draft release
1	September 1, 2008	Updated according to HII feedback.
2	December 11, 2008	Updated program schedule; Updated option list according to 5229206CCT rev 10; Updated FRU list changing 5193969 to 5193969-10 according to RSPL rev 3. Added software part numbers.
3	January 15, 2009	Updated PSI code.

# SERVICE INTRO PLANNER LightSpeed RT<sup>16</sup> and Xtra (Vision)

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## SECTION 1 – OBJECTIVE

This Service Introduction Planner provides information for **LightSpeed RT<sup>16</sup> and Xtra (LSRT16 Vision forward production)**, and intended to prepare the field with information regarding the new configuration, new features and product enhancements introduced by the LightSpeed RT16 Vision program.

This Service Introduction Planner is not a service manual or users guide. It is a collection of information taken from several source documents that are available.

If you have any questions or suggestions please contact Service Engineering personnel:

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## SECTION 2 – INTRODUCTION

### 2-1 PROGRAM INTRODUCTION

LightSpeed RT16 (LSRT16 in short) Vision (registered as #18746 in eNPI) is a general release based on previous product 16 slices wide bore LightSpeed RT16 /Xtra product, with the purpose to advance various functions and performance. Product name will not be changed. Only forward production will be covered.

The purposes of this program are:

- Expands table capacity of GT (Global table) from 500lbs standard to 650lbs optioned through a new mechanical/firmware design.
- Enables new functions/features such as Respiratory triggering on CT console on LSRT16 Vision.
- Improves IQ performance and has opportunity to satisfy customers.
- Global software package release (V3 program) is to be wrapped in LSRT16 Vision program to upgrade LSRT16 product in various respects to a higher level.

### PROGRAM SCHEDULE

Milestone	Definition	Planned Date	Estimated	Actual
M0	Product concept proposal	FW05'08		FW05'08
M1	Design input/IDP	FW20'08	FW20'08	FW22'08
M2	Release components/parts	FW28'08	FW32'08	FW28'08
MS	Sales announcement	FW35'08		FW35'08
MV	Verification	FW39'08	FW44'08	FW48'08
ME	External Evaluation	FW42'08		FW45'08
M3	Product validation -release	FW48'08	FW04'09	
M4	Unrestricted production	FW18'09		
M5	Product vitality	FW18'10		

### 2-2 SYSTEM CONFIGURATION AND SPECIFICATION (PSI CODE)

The following table shows LightSpeed RT16/Xtra configuration and system PSI codes. The PSI codes of LightSpeed RT16/Xtra systems keep the same without change. The RT16 Vision systems will be manufactured firstly in China and then transferred to USA.

Table 2-1 System PSI codes and Specification

Product Name	LightSpeed Xtra	LightSpeed RT <sup>16</sup>
System Cat#	B70182RT	B70192RT
PSI Code	CSPE31	CSPE30
Std. Minimum Scan Time (sec.)	0.5	0.8
Std. Max. mA	800	440
Std. Slice Thickness	16 X 0.625	16 X 1.25

Table 2-2 System Configuration

Description		GEHW Cat#	WSO CAT#	LightSpeed Xtra	LightSpeed RT16	
Mandatory	GANTRY	B70022RT		Std	Std	
	GOC4	B70042RT		Std	Std	
	PDU	B71732CA		Std	Std	
	SCIM	B75552CA		Std	Std	
	Ship Collector	B70252RT		Std	Std	
	Tech Pub/OS/Std SW Options Vision	B70202RT		Std	Std	
	19" LCD Monitor	B71292CA		Std	Std	
Mandatory Selection	Table	GT1700	B72382CA	Select	Select	
		High Capacity Table	B70212RT	Select	Select	
	Keyboard	Japanese Keyboard	B75462CA		Select	Select
		Danish Keyboard	B75482CA		Select	Select
		Netherlands Dutch KBD	B75492CA		Select	Select
		English Keyboard	B75472CA		Select	Select
		French Keyboard	B75402CA		Select	Select
		German Keyboard	B75412CA		Select	Select
		Italian Keyboard	B75422CA		Select	Select
		Norwegian Keyboard	B75512CA		Select	Select
		Spanish Keyboard	B75442CA		Select	Select
		Swedish Keyboard	B75532CA		Select	Select
		European Portuguese KBD	B75522CA		Select	Select
		Brazilian Portuguese KBD	B75432CA		Select	Select
		European Keyboard	B75502CA		Select	Select
		Simplified Chinese KBD	B75452CA		Select	Select
		Cable	Long Cables	B71182CA		Select
Short Cables	B71172CA			Select	Select	
Standard	Std SW Option List	Patient 16-Slice	These Options are standard and are included in B70202RT for GEHW and xxxxxxx(TBD) for WSO	Std	Std	
		Wide View		Std	Std	
		AutomA / SmartmA		Std	Std	
		SmartPrep		Std	Std	
		Helical Tilt		Std	Std	
		Large Image Series		Std	Std	
		Direct 3D		Std	Std	
		D-MPR (Covers VariViewer)		Std	Std	
		Data Export		Std	Std	
		Interchange (Copy Composer)		Std	Std	

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**SYSTEM APPEARANCE (GANTRY AND TABLE)**

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## **2-3 SERVICE DOCUMENTATION**

The following DVD will be distributed via Tab182 as Class M.

2360027-300 Service Method DVD Rev. TBD

Class A CD is attached to each system:

5196837-200 Service manual Rev. 6

Class C CD can be downloaded from Common Document Library:

5196839-200 Service manual Rev. 6

## **2-4 CLASS C AND CLASS M SOFTWARE**

Class C/M software shall be released with V3 software package before MV, and distributed via TAB 182.

Class C CDROM Part number: 5323839

Class M CDROM Part number: 5323840

## 2-5 OPTION CAT# CONFIGURATION CHANGE

Some new options are added to previous LightSpeed RT16 system. Please see below option list. New options are in blue.

Table 2-2 Option List

Description	Pre-requisite	GEHW Cat#	WSO CAT#	LightSpeed Xtra	LightSpeed RT16
Xtra Option package	NA	B70072RT	NA	Std	Opt
0.625mm Thickness Option	NA	B70082RT	NA	Opt	Opt
Rear Cable Cover	NA	NA	B7850TC	Opt	Opt
Bar Code Reader	NA	NA	B7540RB	Opt	Opt
ConnectPro SW Only	Need B7540RB	NA	B7500LN	Opt	Opt
ConnectPro (SW & bar Code Reader)	NA	NA	B7500PL	Opt	Opt
Adv 4D with IPC board	NA	B70322RT	NA	Opt	Opt
Global Modem	NA	NA	B7700MG	Opt	Opt
DASM-Digital	NA	NA	B7700L	Opt	Opt
Volume Viewer on OC	NA	NA	B7540LD	Opt	Opt
Advanced Vessel Analysis on OC	NA	NA	B7868LA	Opt	Opt
DentaScan on OC	NA	NA	B7540LS	Opt	Opt
AutoBone on Xstream OC	NA	NA	B7868AB	Opt	Opt
Perf 4 - Neuro on the OC	NA	NA	B7870HN	Opt	Opt
SmartStep w/Boom (new Boom)	NA	NA	B7864SM	Opt	Opt
UPS for Hpower Platform	NA	NA	B7999ZA	Opt	Opt
China Docs RT16	NA	TBD	NA	Opt	Opt
GT1700/2000 Table Dolly	NA	NA	B77472AD	Opt	Opt
Tilting Table Dolly	NA	NA	B7864TD	Opt	Opt
Dolly Collector	NA	NA	B7850LD	Opt	Opt
Small Room 14"-25" installation Dolly	NA	NA	B7700SB	Opt	Opt
Exam Split FX	NA	NA	B7866PK	Opt	Opt
2 IG Upgrade Kit for GOC4, JARREL	NA	NA	B7866PS	Opt	Opt
IVY 3150B EKG Monitor	Need B70232RT	NA	E8007RP	Opt	Opt
Advantage CTC Pro for OC	NA	NA	B7864KL	Opt	Opt
CT Fluoro Software Only	Need B7866PS and B7864SM	NA	B7868FM	Opt	Opt
CT Fluoro on H-Power Platform	Need B7866PS	NA	B7868FL	Opt	Opt
RTP COUCH GT1700/2000/PET	NA	NA	E8505MJ	Opt	Opt
Diacor Carbon Overlay VCT	NA	NA	E6315JE	Opt	Opt
Neuro 3D Filter	NA	B75902CA	NEW (TBD)	Opt	Opt
Integrated Injector Class 1	Need B75802CA and B70232RT and (E8004L or E8004LA or E8004LB)	B75822CA	NA	Opt	Opt
Integrated Injector Class 4	Need B75802CA and B70232RT and (E8004L or E8004LA or E8004LB)	B75832CA	NA	Opt (Not for US)	Opt (Not for US)
Nemoto Injector	NA	NA	E8004L E8004LA E8004LB	Opt	Opt
Prospective Gating Pkg	NA	B70262RT	NA	Opt	Opt
Prosp&Retro Gating	NA	B70272RT	NA	Opt	Opt

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PG upgrd to Retro Gating	NA	NA	B77001FD	Opt	Opt
OC Power Adaptor Box	NA	B75802CA	NA	Opt	Opt
Gantry Accessory I/F HW option (AC outlet & IPC B'd)	NA	B70232RT	NA	Opt	Opt
Gating upgrd w/Adv4D	RT16 Vision new Option, for RT16 Legacy product B70002RT and B70032RT upgrade. (Activation time - TBD)				
Gating upgrd w/oAdv4D	RT16 Vision new Option, for RT16 Legacy product B70002RT and B70032RT upgrade. (Activation time - TBD)				

## SECTION 3 – HARDWARE DIFFERENCES

### 3-1 HARDWARE CHANGE OVERVIEW

Compared with current LightSpeed RT16 systems, LSRT16 Vision has below changes:

- High Capacity Table (also called GT650lbs) replaces GT2000.
  - Key components strengthened such as Cradle, IMS shaft. Table capacity improved from 500 lbs to 650 lbs.
  - Scan range is reduced to 1600 mm.
  - 5/8 anchor bolts, washer and drill bush added in the ship collector (GT1700/GT2000 uses ½ inch anchor)
- Options (**SmartStep, Respiratory Gating, Integrated Injector**) related hardware: New accessory interface board (IPC board) on gantry, Console Adapter Box.

Console will remain GOC4. True-in-One (TIO) console will be used as it is released to the product in 2009 or later.

### 3-4 RECOMMENDED SPARE PART LIST

Part Number	Detailed Part Description
5266910	Cradle long Assy
5314211	HILTI ANCHOR STUD, 5/8 DIA X 8.0 LG
5315833	Drill Bushing 5/8
5314487	5/8 Anchor washer
5313952	Body Strap A
5313953	Body Strap B
5313954	Body Strap C
2381848-4	COLLECTOR - BASE COVER - RT
5316347	IPC option kit cable harness, RT Vision
5127774-2	ELEVATION POTENTIOMETER ASSY positioning GT
5136002	IPC Board
5306201	Cable - IPC J11 to Left I/F Panel
5169215	Cable - IPC to TGPU
5189456	Cable - TGPU Power supply to IPC 24VDC
5306481	Cable - PowerPan to I/F Panels
5193967	Cable - TGPU J5 to LAN Switch 1
5193969-10	Cable - LAN Switch 2 to IPC J5
5193969-2	Cable - LAN Switch 3 to PowerPan(Console)
2286150-2	Smartstep cable
5306106	Assembly Accessory Panel LH ASM, CT HD
5306107	Assembly Accessory Panel RH ASM, CT HD
5316353	Console Adapter Box
5317258	CABLE POWER INJECTOR TO CONSOLE
5169456	Cable, gantry to injector_PathFinder

## SECTION 4 – SOFTWARE DIFFERENCES

Software installation process is the same as the current LSRT16 Vision system software (08BW17.7) except the following.

- Option licenses are saved and restored as a part of system state

Below are the part numbers of LightSpeed RT16 Vision software:

- 5328867 BSD Delight and RT16 Xtra Vision software collector
- 5323838 BSD Delight and RT16 Xtra Vision application software 08BW44.1
- 5323837 Linux OS 6.3.8
- 5328828 Series-Over-LAN CD
- 5331002 Service Pack 1-0-3 for LightSpeed RT16 Vision

LSRT16 Vision forward production will use global software package release (V3 program). Below new features and improvement will be brought by this version.

- **Work Flow Feature**
  - Work Flow feature
  - Prospective Respiratory Gating (optional)
  - Integrated Injector (optional)
  - Chest Kernel
  - Graphic Retro
  - Auto Voice for SmartPrep
  - Flip/Rotate
  - Copy PMR & Series
  - WW/WL Preset for Scout
  - Preset Exam Description Enhancement
  - Film composer enhance
  - DICOM Structured Dose Report
- **IQ Feature**
  - Neuro 3D Filter (optional)
- **Service Features**
  - Systems Health Monitor
- **Quality Fix**
  - Including Improvement on tube warm up and other common fix

## SECTION 5 – SERVICE ACTION DIFFERENCES

### 5-1 INSTALLATION DIFFERENCE

- For High Capacity Table, to meet seismic requirement, a new set of 5/8 inch anchor bolts should be used instead of ½ inch ones. Minimum room size will be reduced by about 400 mm in length.
- New options installation

### 5-2 SERVICE TOOL

#### **System Health Monitor**

A software tool to provide User and Field Engineer sufficient information to determine if a successful completion of a scan is likely. The intent is to:

1. Reduce exposure to radiation and contrast agents when the scanner is incapable of performing the actions necessary to be successful.
2. Provide faulty component analysis to FE personnel.

## SECTION 6 – MAINTENANCE

### 6-1 IB AND NEW INSTALLATION

For LightSpeed RT16 forward production, High Capacity Table will phase in to replace current GT2000 after LSRT16 Vision program signoff. Installation Cost is estimated same as current LightSpeed RT16 systems.

### 6-2 PERIODIC MAINTENANCE

Add CTPM-1708 Cradle bottom inspection (For High Capacity Table). PM schedule is same as current LightSpeed RT16 systems.

### 6-3 OLC FOCAL POINT IN EACH POLE

Table 6-1 Focal points in each pole

<b>OLC - America</b>	<b>OLC - Europe</b>	<b>OLC - Asia</b>
Patrick Quilter GEMS-Am Milwaukee TEL: 262-524-5380 FAX: 1-330-479-8749	Ashok Verma GEMS-E Buc TEL: (33)-1-30-83-10-14 FAX: (33)-1-3070-9970	Jiro Sato GEYMS Hino TEL: (81)-42-648-2643 FAX: (81)-42-648-0053

### 6-4 TECHNICAL SUPPORT AND ESCALATION

Support will continue through the normal field support for each pole.

### 6-5 TRAINING REDINESS

LightSpeed RT16 Vision training will focus on the difference compared with the current LightSpeed RT16, so the training will be inherited from existed RT16 trainings.

First T-conf based ERT (Early Readiness Training) was hold in FW50’2008. Second T-conf ERT is planned in January 2009.

Official training course integration and detailed training strategy will be done by Training Center after ERT.

The Training Focal Point is Mr. Joel Jensen.