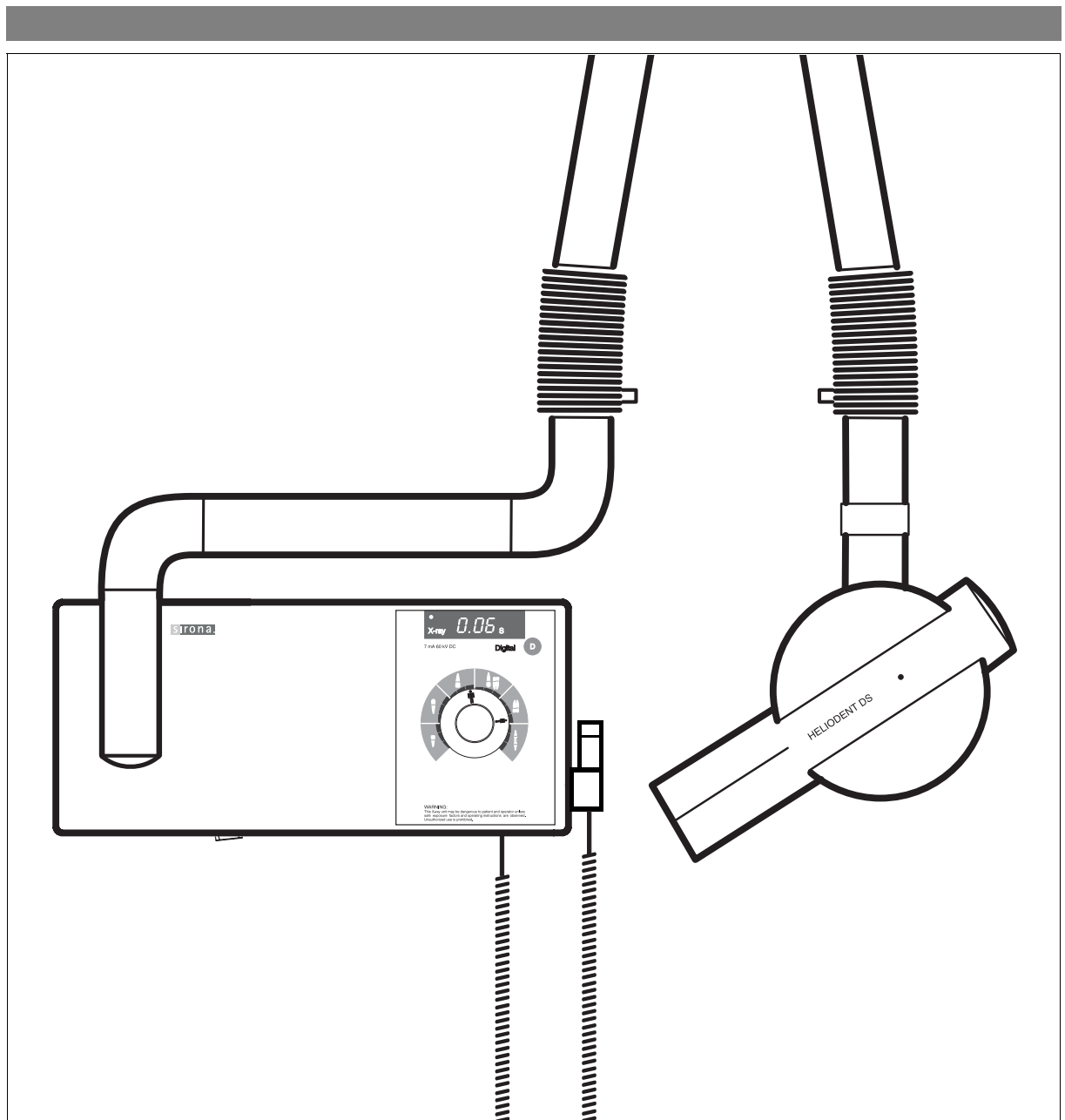


# HELIODENT DS

## Inspection and maintenance



**Dear customer**

You would like to have and will have many years of satisfaction with your **Sirona** X-ray unit.

Safety and reliability are necessary to ensure this.

Your dental dealership offers you service by specially trained engineers for this purpose.

The maintenance should ensure that your product is permanently safe and operational. All components subject to normal wear and tear are checked and, if necessary, replaced. Maintenance work may be performed by the operator only if this is described on the part of Sirona Dental Systems GmbH, otherwise only authorized service engineers of Sirona Dental Systems GmbH or its authorized dealers may be entrusted with the work.

In case you have not concluded a maintenance contract, please contact the customer service department of your dental dealership.

The performed maintenance must be documented in this document, which must be kept with the unit.

We wish you much success and pleasure with your quality product  
from **SIRONA Dental Systems**.

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# 1 General information

## 1.1 Inspection and maintenance

**Inspection and maintenance work must be performed at regular intervals** to protect the safety and health of patients, users and third parties.

As the operator, you should ensure the safety and reliability of your **system by performing inspection on it at least once annually** or having this work performed by your dental dealership.

The information in chapter 2 '**Annual inspection performed by the operator or other authorized personnel**' will be helpful to you. If one or more inspections fail to achieve satisfactory results, please contact your dental dealership.

In addition, your dental dealership also offers you annual inspections performed by specially trained technicians, chapter 3 '**Maintenance by the service engineer**' is provided for this purpose.

**The inspection and maintenance work performed by the operator or service engineer must be reported in this document and kept with the unit!**

## 1.2 Please complete the general information

<b>Customer</b>	
<b>Last name:</b>	
<b>First name:</b>	
<b>Street:</b>	
<b>Post code / city:</b>	
<b>Phone:</b>	

<b>Unit data*</b>			
<b>Unit serial No.:</b>			
<b>Tube unit serial No.:</b>			
<b>Phantom serial No.:</b>			

\* **Info to the engineer: Please update the serial number when replacing a component.**

# 2

## Annual inspection performed by the operator or other authorized personnel

### 2.1 Technical documentation

Technical documentation		Answer questions with yes (✓) or no (–)												
<b>Date</b> (Enter month/year)														
Operating instructions present?														
Installation instructions present?														
Installation Report / Warranty passport completely filled out?														
Customer installation, dimensions, tech. data present?														

### 2.2 Accessories

Accessories (cf operating instructions) Some of the accessories listed here are not included in the scope of delivery, and should be crossed out if not applicable		Answer questions with yes (✓) or no (–)												
<b>Date</b> (Enter month/year)														
Conventional test specimen present?														
Digital test specimen present?														
12" tube present?														
X-ray field limitation present?														
Sensor holder set present?														

2.3 Labels

Compare labeling on the unit with installation report / warranty passport		Answer questions with yes (✓) or no (–)												
Date (Enter month/year)														
Are all labels applied completely according to installation certificate / warranty passport														
Are all labels legible?														

**HELIODENT DS** **sirona**  
The Dental Company

**Installationsprotokoll /** Installation Report / Warranty **Protocole d'installation /** *Protocole de montage /* **Passport** *Passport de garantie*

<b>Kunde / Customer / Client / Cliente</b> Adresse, Tel.: Adresse, Tel.: Adresse, Int.: Direction, Int.:	<b>Händler / Dealer / Depositaire / Depositante</b> Adresse, Tel.: Adresse, Tel.: Adresse, Int.: Direction, Int.:
--	---

Kundennummer / Customer No. No. du client / No. de cliente	Auftragsnummer / Order No. No. de commande / No. de pedido
---	---

**Seriennummern /** Serial numbers / **Numéros de série /** *Numéros de série*

	Pos. Serial No. 1 2 3 4 5 6 7 8 9 10
--	--

Inbetriebnahme gemäß beschriebener Installationsanleitung und Montageanleitung sowie bedarfsweise länderspezifische sicherheitstechnische Kontrollen fahrerfrei durchgeführt.  
 Mise en service électricité conformément aux instructions d'installation et de montage du maître de l'ouvrage et éventuelle contrôles de sécurité spécifiques au pays exécutés sans détection de défauts.

Äußerer Gerätezustand einwandfrei / Visual inspection of unit shows no defects /  
 État extérieur correct de l'appareil / Estado exterior de la unidad en perfectas condiciones

Fehlende Teile  
 Missing parts  
 Pièces manquantes  
 Pieces faltantes

Beschädigte Teile  
 Damaged parts  
 Pièces endommagées  
 Pieces dañadas

Fehlerhafte Funktion  
 Nonconforming function  
 Funciones defectuosas

Unerschriften (lesbar) / Signatures (legible) / Signatures (lisibles) / Firmas (legibles)

Kunde / Customer / Client / Cliente	Unterzeichnende Person / Trained person / Personne initiée / Vendedor / Vendedor	Techniker / Technician / Technician / Técnico	
Date / Date / Date / Fecha	Date / Date / Date / Fecha	Date / Date / Date / Fecha	Date / Date / Date / Fecha

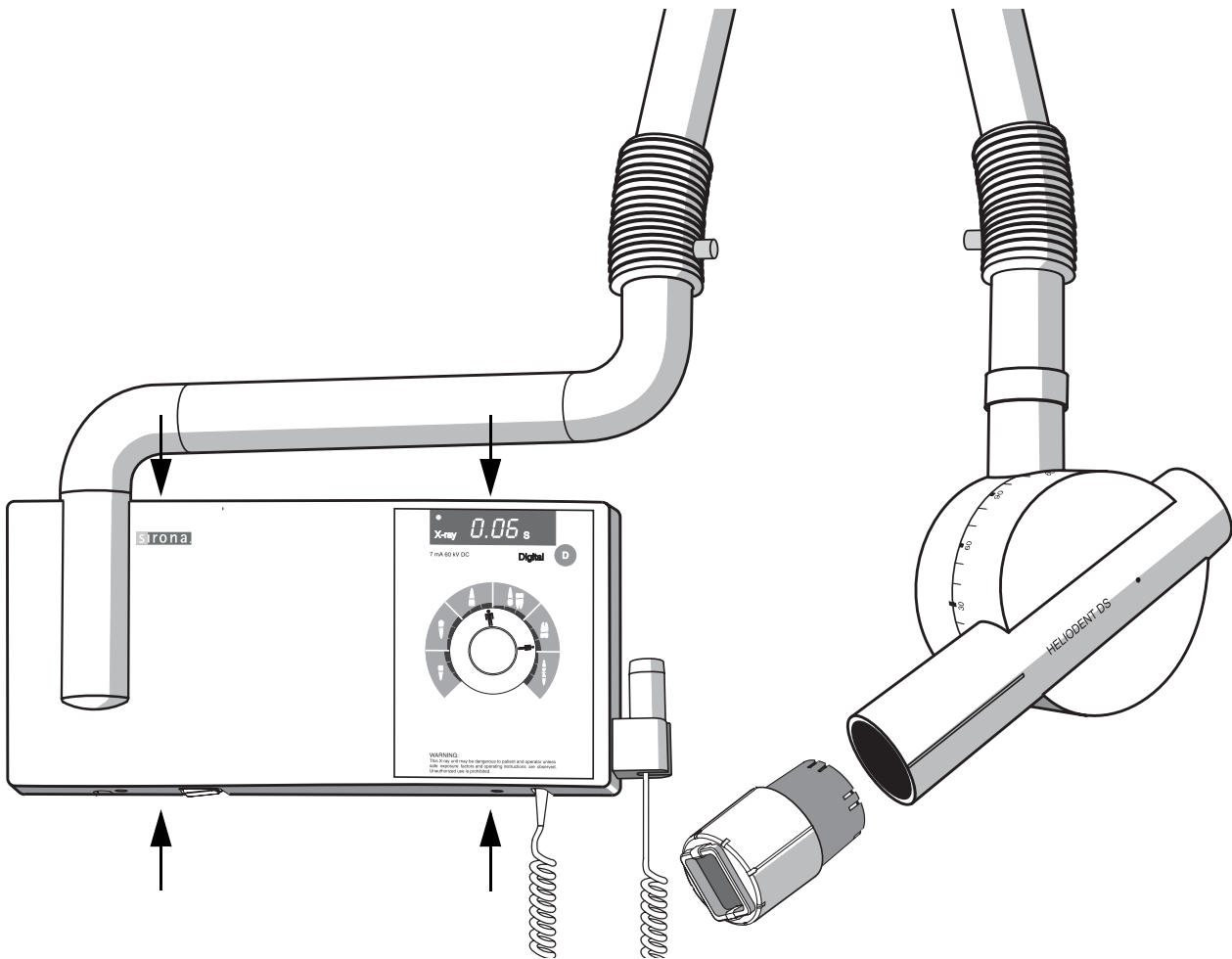
**FÜR DEN KUNDEN**      **FOR THE CUSTOMER**      **POUR LE CLIENT**      **PARA EL CLIENTE**

Sirona Dental Systems GmbH, Fabrikstraße 31, D-64632 Bensheim      A.-Nr. 101 249      41 82 458 D 3302.016.01.02.02 04.2001

Enter changes here:		
X-ray tube unit	Date	Signature
Serial no.		
Serial no.		
Serial no.		
<b>Tube</b>		
Serial no.		
Serial no.		
Serial no.		
<b>Collimation</b>		
Serial no.		
Serial no.		
Serial no.		
<b>12" tube</b>		
Serial no.		
Serial no.		
Serial no.		
<b>Wall version</b>		
Serial no.		
Serial no.		
Serial no.		
<b>Ceiling Version</b>		
Serial no.		
Serial no.		
Serial no.		

**2.4 Surfaces**

Housing covers	Answer questions with yes (✓) or no (–)									
<b>Date</b> (Enter month/year)										
Are all housing covers present?										
Are the housing covers undamaged?										
Do the housing covers fit perfectly?										
Are the housing covers cleaned?										
Are all screws present?										





## 2.5 Functions

Condition of X-ray tube unit / arm / remote control / remote timer / travel stand / ceiling version	Answer questions with yes (✓) or no (-)									
<b>Date</b> (Enter month/year)										
Oil leak on X-ray tube unit (visible on outside of tube housing)?										
Coiled cable with strain relief and antikink protection OK?										
Power cord on mobile stand with strain relief and anti-kink device in order?										
Can the scissor arm be moved without jolting?										
Are the 4 casters of the mobile stand incl. brakes in order?										

Unit functions	Answer questions with yes (✓) or no (-)									
<b>Date</b> (Enter month/year)										
Unit properly fastened to wall?										
Main power switch operative?										
Is the exposure interrupted when you let go of the release switch (dead man's button)?										
Optical (X-ray lamp) and acoustic signals during radiation emission?										
All buttons and indicators functioning?										
Were all unit functions performed according to the operating instructions?										
Does the image quality remain unchanged?										

---

## 2.6 Document annual inspection

The undersigned confirms having checked the unit according to the information listed above.

NOTE: If a question is answered with NO or if an error message occurs repeatedly, please contact your service engineer.

<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	
<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	
<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	
<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	
<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	
<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	
<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	
<b>Date of the inspection:</b>		<b>Name:</b>		<b>Signature:</b>	

# 3 Maintenance by the service engineer

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## General information for the service engineer

The **Service Manual for HELIODENT DS** (Order No. 41 62 975) is an essential requirement for performing the maintenance work, since all measures necessary for maintenance are described in it. The operating instructions delivered with the unit are also required.

### Measurements

Before connecting the measuring instruments always switch the unit off.

Select the correct type of current/voltage and set the measuring range according to the expected measured value.

Perform continuity tests only with the unit switched off.

If you have to take several exposures with radiation to check a measurement, you must comply with the prescribed cool-down phases.

***Observe the radiation protection guidelines before you release radiation.***

---

***If you open the unit:***

***Please observe the precautionary measures when handling PC boards (ESD).***

***Discharge yourself before touching the components by grasping a ground point.***

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## 3.1 Maintenance interval

### NOTE



**In addition to the inspection to be performed annually by the operator or by authorized persons, maintenance must be performed after 4, 7, 10 and then every two years.**

---

Always perform a functional test before starting the maintenance work and notify the customer or practice personnel about any defects found.

Should it be necessary to replace defective components apart from the parts subject to wear, this must be agreed previously with the customer or practice personnel.

**ATTENTION** Discontinuation of spare parts supply:

The supply of spare parts will be discontinued for every unit after a certain period of time. The operator undertakes the responsibility in case of safety-related failures for units which continue to be operated after this time and can no longer be maintained due to the lack of spare parts.

### 3.2 Checking the entry

In Chapter “Annual inspection performed by the operator or other authorized personnel” on page 6

Checking the entry of the annual inspection by the operator		Answer questions with yes (✓) or no (–)						
Maintenance interval after X years	4	7	10	12	14			
Date (Enter month/year)								
Annual inspection performed by the operator?								
Entries complete?								
Are all questions answered with <b>yes</b> ?								
Has all work which in the checks led to a negative result been performed?								

### 3.3 Remote Timer maintenance

(cf Service Manual, section 4.3)

Unit safety		Answer questions with yes (✓) or no (–)						
Maintenance interval after X years	4	7	10	12	14			
Date (Enter month/year)								
Is the mounting on the wall in a safe condition?								
Are all cover parts installed and free of damage?								
Are all protective ground wire connections made firmly?								
Is the power cable connected free of damage, firmly and according to regulations?								
Are the exposure times in order?								

### 3.4 Arm, tube unit maintenance

(cf Service Manual, section 4.4)

Unit safety		Answer questions with yes (✓) or no (-)						
Maintenance interval after X years	4	7	10	12	14			
Date (Enter month/year)								
Is the support arm in order?								
Is the tube unit joint in order?								
Is the tube unit without oil loss?								
Are all protective ground wire connections made firmly? (cf section 4.7)								
Is the tube current in order?								

### 3.5 Travel stand maintenance

(cf Service Manual, section 4.5)

Unit safety		Answer questions with yes (✓) or no (-)						
Maintenance interval after X years	4	7	10	12	14			
Date (Enter month/year)								
Is the mounting of the Remote Timer on the travel stand in a safe condition?								
Are all cover parts available and free of damage?								
Are all protective ground wire connections made firmly?								
Are the cables connected at terminal X3 connected free of damage, firmly and according to regulations.								
Power cord on mobile stand with strain relief and anti-kink device in order?								
Are the 4 casters of the mobile stand incl. brakes in order?								

### 3.6 Ceiling Version with Sirolux Fantastic maintenance

(cf Service Manual, section 4.6)

Unit safety		Answer questions with yes (✓) or no (–)						
Maintenance interval after X years	4	7	10	12	14			
Date (Enter month/year)								
Is the mounting on the ceiling in a safe condition?								
Are all cover parts available and free of damage?								
Are all protective ground wire connections made firmly?								
Are the cables connected at terminal K10 connected free of damage, firmly and according to regulations.								

### 3.7 Safety check

(cf Service Manual, section 4.7)

Unit safety		Answer questions with yes (✓) or no (–)						
Maintenance interval after X years	4	7	10	12	14			
Date (Enter month/year)								
Are all protective ground wire connections made firmly?								
Is the protective ground wire test in order?								
Is the unit leakage current test in order? Enter measurements								

### 3.8 Final work

Unit safety	Answer questions with yes (✓) or no (-)							
Maintenance interval after X years	4	7	10	12	14			
Date (Enter month/year)								
Was the complete functional test performed (see operating instructions)								
Was the unit cleaned?								

### 3.9 Document maintenance

The undersigned confirms having checked the unit according to the information provided above.

If a question is answered with No, the fault must be eliminated.

Date of maintenance:		Engineer's name:		Signature:	
Date of maintenance:		Engineer's name:		Signature:	
Date of maintenance:		Engineer's name:		Signature:	
Date of maintenance:		Engineer's name:		Signature:	
Date of maintenance:		Engineer's name:		Signature:	
Date of maintenance:		Engineer's name:		Signature:	
Date of maintenance:		Engineer's name:		Signature:	
Date of maintenance:		Engineer's name:		Signature:	

# Space for remarks





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We reserve the right to make any alterations which may be required due to technical improvements.

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