

# Important Notice

\* September 20, 2011 update: Added precautions on replacement operation.

Update date: September 20, 2011

Issuance date: June 28, 2011

Canon ANELVA Corporation

## Dear Customer Who Uses SPF/L-300, 312, 313, 330, 332 Sputtering System

Thank you for using Canon ANELVA products.

We announced a report “Inspection and replacement notice of timing belt for opening/closing lid of System” to a customer who uses SPF/L-300, 312, 313, 330, and 332 through our homepage and other measures since June 2008. It has been three years since we informed it; however, there are some cases that we are not informed of the current situation of those systems.

### **Applicable product**

Small size sputtering systems in the following table, which were manufactured from 1980 to 2002.

|              |                        |
|--------------|------------------------|
| System Model | SPF-300H               |
|              | SPF-312H               |
|              | SPF-312H Special Model |
|              | SPF-313                |
|              | SPF-330                |
|              | SPF-332H               |
|              | L-312S-F               |
|              | L-313S-FH              |
|              | L-332S-FH              |

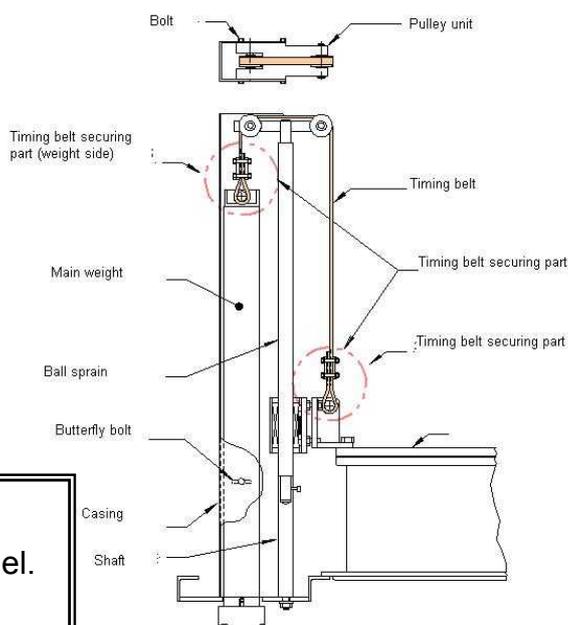
|     | System model                | EVP number           | Manufactured date |
|-----|-----------------------------|----------------------|-------------------|
| 型名  | [Redacted]                  | EVP-[Redacted]       | 製造年 月             |
| 電力  | φ [Redacted] V [Redacted] A | 水量 本体 [Redacted] MPa | [Redacted] L/min  |
|     | φ [Redacted] V [Redacted] A | [Redacted] MPa       | [Redacted] L/min  |
| 周波数 | [Redacted] Hz               | 空圧 [Redacted] MPa    | 質量 [Redacted] t   |

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A system model name and EVP number are described on a “System Sub Name Plate” attached on System rear bottom.



The above image is an example of SPF-332H. The appearance is different, depending on a model.



## **Problem**

If a timing belt is not replaced for a long time on an applicable product, the timing belt may break and cause a lid to fall off. If it is broken when the lid is opened, the fallen lid may pinch your hand or arm and cause bruises or injuries.

## **Countermeasure**

Canon ANELVA announced a product advisory for an applicable system being used for three years or more without replacing a timing belt must stop its operation and replace its timing belt. Replacement is available with additional charge.

Please refer to the “Lift Mechanism Inspection Manual” and inspect periodically for safe use of the System. Also, please bind the “Lift Mechanism Inspection Manual” to an instruction manual file to use for daily inspection.

Even if no defect observed on such inspections, please make sure to replace the timing belt periodically every three years for safe use of the System.

## **Precautions on replacement**

Replacing a timing belt requires special skills and jigs; therefore, only our service engineers are allowed to operate such replacement. Please contact nearest service representatives for replacement inquiries.

Canon ANELVA is not liable for a replacement which is not performed by our service engineer.

## **If you have a System without a lift locking mechanism**

Since January 1994, a lift locking mechanism has been provided to a newly manufactured system to ensure safety. This function prevents a lid to fall off when the lid is opened (at upper limit position). Please consider to install a lift locking mechanism on this occasion as well (please contact us for details).

To the customers using the products in question, we extend our sincerest apologies for any inconveniences resulting from this issue. To ensure that all Canon ANELVA customers can continue using Canon ANELVA products with confidence, we will make every effort to ensure quality and request your continued support.

## **Contact information**

Please contact us at following email.

E-mail: [qcinfo@canon-anelva.co.jp](mailto:qcinfo@canon-anelva.co.jp)

# **SPF/L-300, 312, 313, 330, 332 Series Sputtering System**

Lift Mechanism

Inspection Manual

|         |               |
|---------|---------------|
| 5       | SEP. 20. 2011 |
| 4       | JUN. 27. 2011 |
| 3       | JUN. 17. 2007 |
| 2       | APR. 8. 2007  |
| 1       | DEC. 11. 2007 |
| EDITION | DATE          |

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## FOREWORD

Thank you for using the System.

This Manual describes how to inspect the lift mechanism equipped on SPF/L-300, 312, 313, 330, and 332 series sputtering system.

A lift mechanism eases opening/closing a top lid of a vacuum chamber. A weight, as heavy as the vacuum chamber top lid, is connected with a timing belt to balance the weight. A timing belt is a consumable product. Using it without replacing for a long time causes it to deteriorate and may break in some occasions.

For longer and safe use of the System, please make sure to inspect the lift mechanism and the timing belt as described on the Manual.

If you have any inquires on the contents of this Manual, please contact the nearest service representatives or our sales representatives.



### Applicable System

- SPF-300H
- SPF-312
- SPF-313
- SPF-330
- SPF-332
- L-312S-F
- L-313S-FH
- L-332S-FH



### Inspection Overview

You need to visually inspect a timing belt.

The timing belt of a lift mechanism is located on rear side of the System. Before inspection, check safety of the vicinity, including the wiring and pipes.

Other than visual inspection that you perform, there are inspection items that Canon ANELVA service engineer need to perform. We recommend and request a periodic inspection once a year by our service engineer. Please contact us for such an inquiry, according with your system maintenance schedule.



Never touch the timing belt during its inspection.

## Inspecting Lift Mechanism



### Inspecting Timing Belt

#### Inspection Method

Visually check the timing belt if it has no trouble.

#### Inspection Standard

There should be no trouble on a timing belt, not limited to troubles listed on “Timing Belt Trouble Example” on the next section.

#### Inspection Cycle

Inspect daily, like before starting operation.

#### Replacement Cycle

Please replace it every three years basically.

#### Countermeasure

“Timing Belt Trouble Example” is described on the next section.

It may not be applicable, depending on how you use the System. If any troubles found on a timing belt, replace it with a new one.



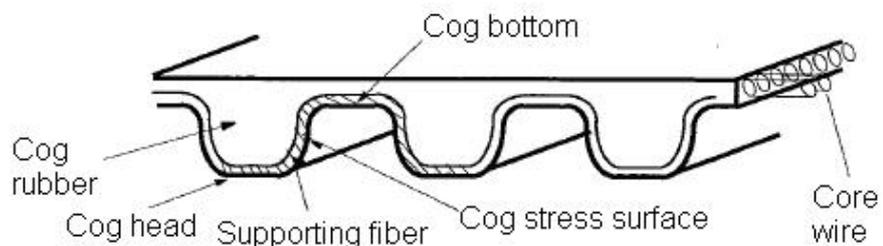
Replacing a timing belt requires special skills and jigs; therefore, only our service engineers are allowed to operate such replacement. Please contact a nearest service representative for replacement inquiries.

Canon ANELVA is not liable for any replacement operation by a person who is not our service engineer.

- It requires handling heavy objects and carrying them (it requires two or more people to operate). There are several operations which are dangerous and require a special training.

- Replacement requires a special jig.

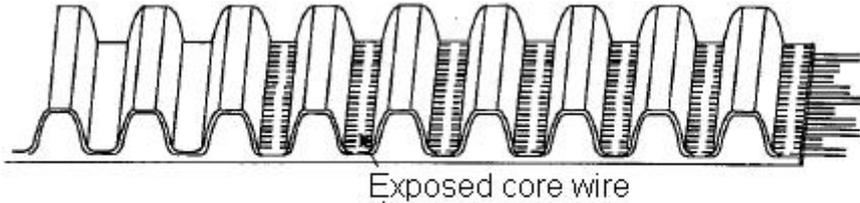
#### Timing Belt Reference Drawing



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## Timing Belt Trouble Example

1. Supporting fiber of a timing belt is worn out due to friction, and the rubber layer or core wire is exposed.

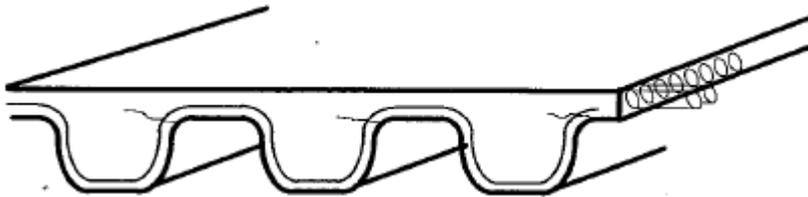


When the cog surface and bottom surface supporting fibers are worn out and the rubber layer and the core wire are exposed.

2. A crack occurred on rear rubber of a timing belt as the rubber is getting rigid and less flexible.



3. A crack reaches from the base of a cog of a timing belt to the rubber layer.



4. A timing belt side surface is broken by friction.
5. A timing belt is not engaging with a pulley cog.
6. The color of a timing belt is changing from light green or yellow to brown.



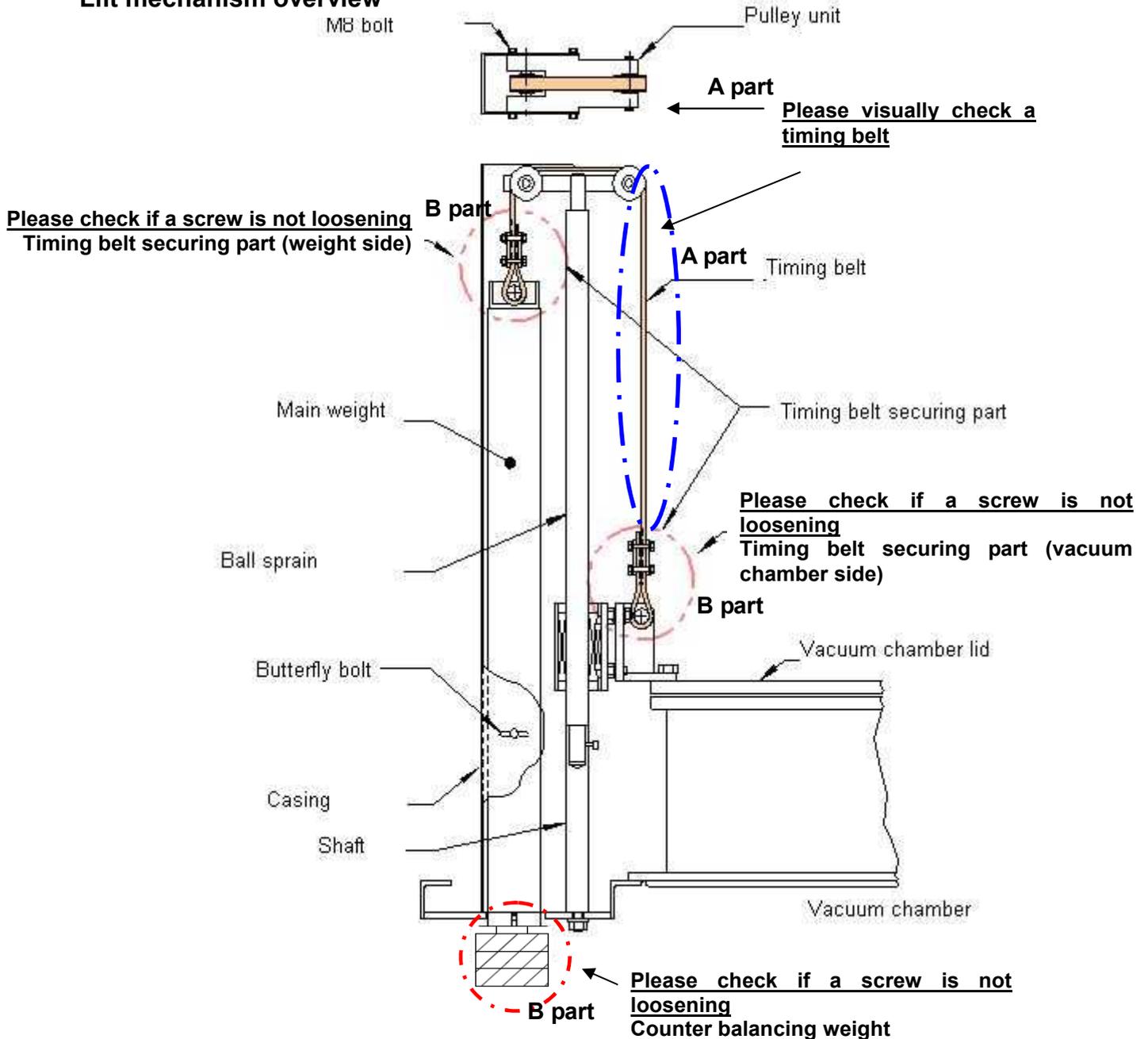
## Inspection of Lift Mechanism

【Locations where a periodic inspection is necessary for safety】

A part: Check if there is any trouble on a timing belt.

B part: Check if the timing belt securing part (weight side and vacuum chamber side) and a screw of a counter balancing weight are not loosening.

### Lift mechanism overview



### 《Timing Belt》

Product

Parts number

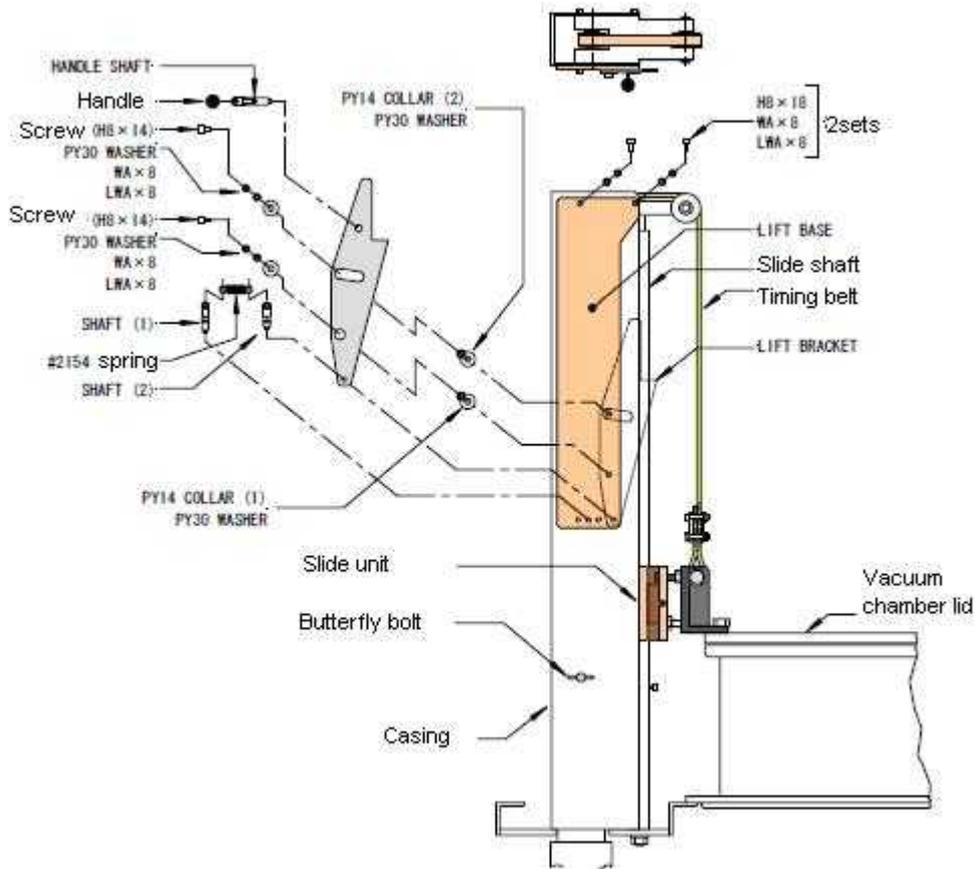
Timing belt high power model

N34050970

### Proposal on Lift Locking Mechanism (optional item)

To a customer who owns a system without a lift locking mechanism;  
 Since January 1994, a lift locking mechanism has been provided to a newly manufactured system to ensure safety.  
 This function prevents a lid to fall off when the lid is opened (at upper limit position). Please consider installing a lift locking mechanism on this occasion as well.

### Locking Mechanism Reference Drawing Brief Version



### How to use a locking mechanism

