

# Application Note

---

## **FD7131 (FD7132) How to Avoid Light Reflection on the Dome Cover**

© 2010 VIVOTEK Inc. All Right Reserved

VIVOTEK may make changes to specifications and product descriptions at any time, without notice.

The following are trademarks of VIVOTEK Inc., and may be used to identify VIVOTEK products only: VIVOTEK.

Other product and company names contained herein may be trademarks of their respective owners.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from VIVOTEK Inc.

### **Revision History**

<b>Version</b>	<b>Issue date</b>	<b>Author</b>	<b>Comment</b>
<b>1.0</b>	<b>2009/05/20</b>	<b>Peggy Li</b>	<b>First release</b>
<b>1.1</b>	<b>2010/01/11</b>	<b>Polly Yang</b>	<b>Note added: Cleaning the Cover</b>
<b>1.2</b>	<b>2010/01/12</b>	<b>David Liu</b>	<b>Checked and modified grammar</b>

## Tables of contents

<b>Introduction.....</b>	<b>4</b>
<b>1. What causes the light reflection? .....</b>	<b>6</b>
1.1 The Cover is Improperly Fitted to the Body of the Camera .....	6
1.2 Cover Screws not Locked .....	7
1.3 Rubber Ring Improperly Fitted.....	8
1.4 Camera Placed Behind Glass .....	8
1.5 Cover is Dirty or Scratched.....	10
<b>2. How do I solve the problem?.....</b>	<b>11</b>
2.1 Use Screws to Lock the Cover to the Camera Body .....	11
2.2 Rubber Ring in Contact with the Cover.....	11
2.3 Do Not Place the FD7131 Behind Glass .....	12
2.4 Keep the Cover Clean.....	12
2.5 Use a Special Tool to Clean the Cover.....	12
<b>3. Additional Cause of Light Reflections on FD7132.....</b>	<b>14</b>

## ***Introduction***

VIVOTEK's FD7131 is a full-featured dome network camera designed for indoor surveillance. It comes with a wide-angle vari-focal lens, allowing for maximum coverage, and a sophisticated 3-axis mechanism and industrial design, offering very flexible and easy hardware installation for either ceiling or wall mount. To prevent false alarms, the camera is also equipped with a PIR (Passive infrared) sensor, which can detect motion caused by temperature changes in the infrared range emitted by surrounding objects. When the environment lacks sufficient lighting, the built-in white-light illuminators will be activated automatically or manually so as to supplement the low light conditions without the need for additional equipment.

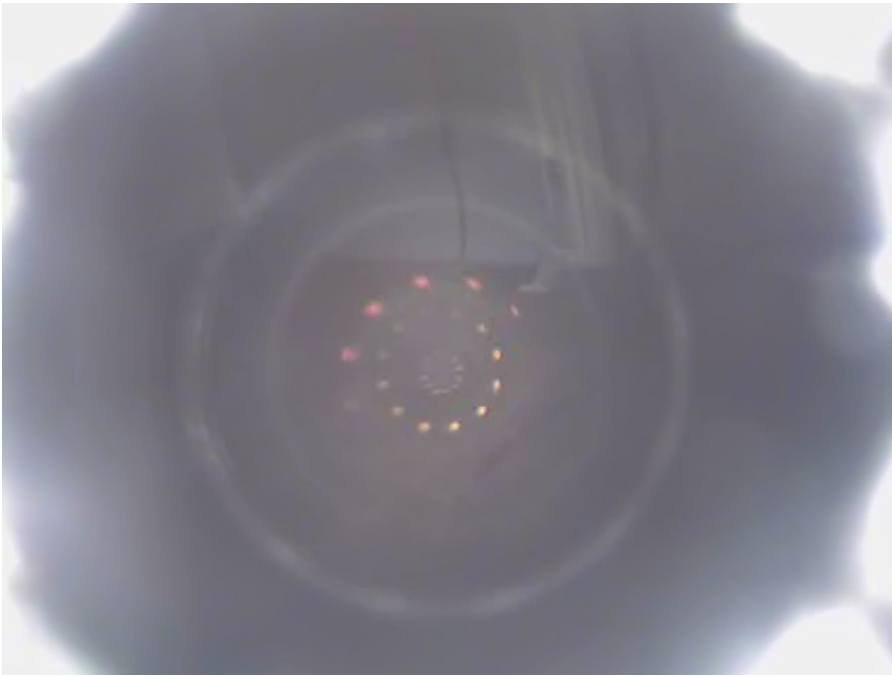
White light LEDs are built surrounding the lens of the camera. In low light conditions, the LEDs can be turned on for clearer video and temporary nighttime surveillance. For example, when the PIR detects a moving object, the FD7131 can automatically turn on the white light LEDs to catch the person in the act, similar to the act of shining a flashlight on the person.

There are two methods by which to turn on the white light LEDs:

1. Go to the "Application" page and set up an Event. You can turn on the white light LEDs via the motion trigger, PIR trigger, DI trigger, or set them to turn on periodically.
2. You can also turn on the white light LEDs on the browser page of the FD7131 simply by clicking on the "Turn On" button.

However, some customers have reported problems when the white light LEDs are turned on whereby a light reflection on the cover obscures the view of the FD7131.

See Picture-1 and Picture-2.



**Picture-1**



**Picture-2**

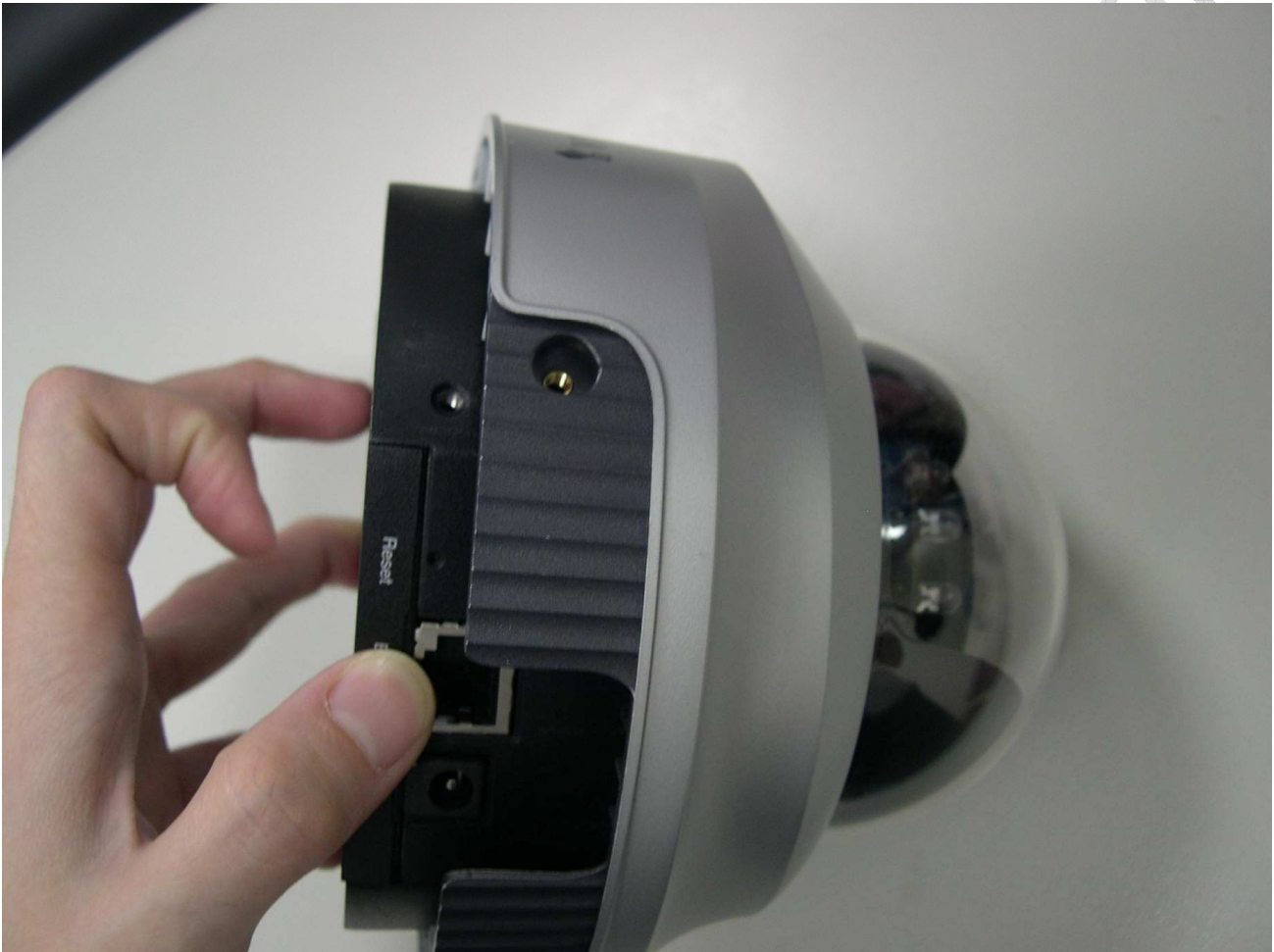
In this document, we will discuss the causes of this problem and ways to resolve the issue.

## **1. What causes the light reflection?**

### **1.1 The Cover is Improperly Fitted to the Body of the FD7131/FD7132 Camera**

The cover to the FD7131 may not be properly secured to the body of the camera.

See Picture-3.



**Picture-3**

## 1.2 Cover Screws not Locked

Although the cover is attached, it may not be attached properly with the screws. The FD7131 has a sophisticated 3-axis mechanical and industrial design; please see the picture below to make sure that the cover is secured accordingly. See Picture-4.

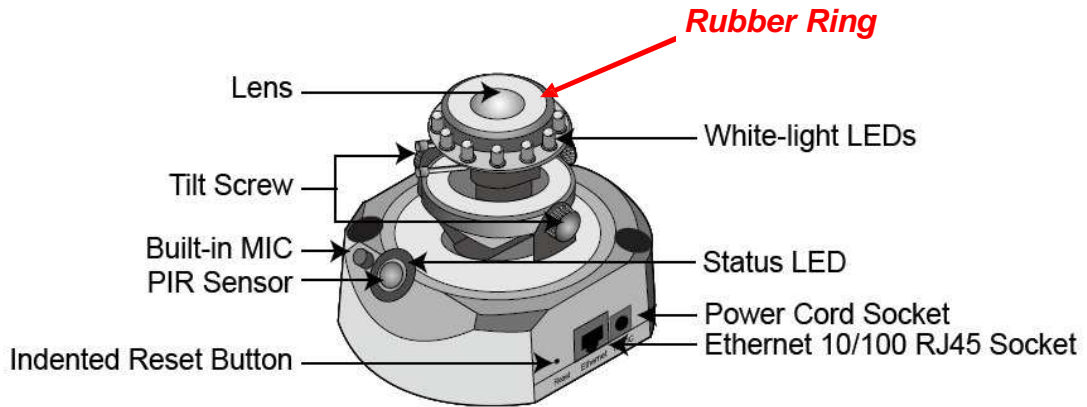


Picture-4

### 1.3 Rubber Ring Improperly Fitted

This is a rare possibility, however, please check that the rubber ring surrounding the lens of the camera is in contact with the cover.

See Picture-5 and Picture-6.



Picture-5



Picture-6

***Make sure the rubber ring is in contact with the cover!***



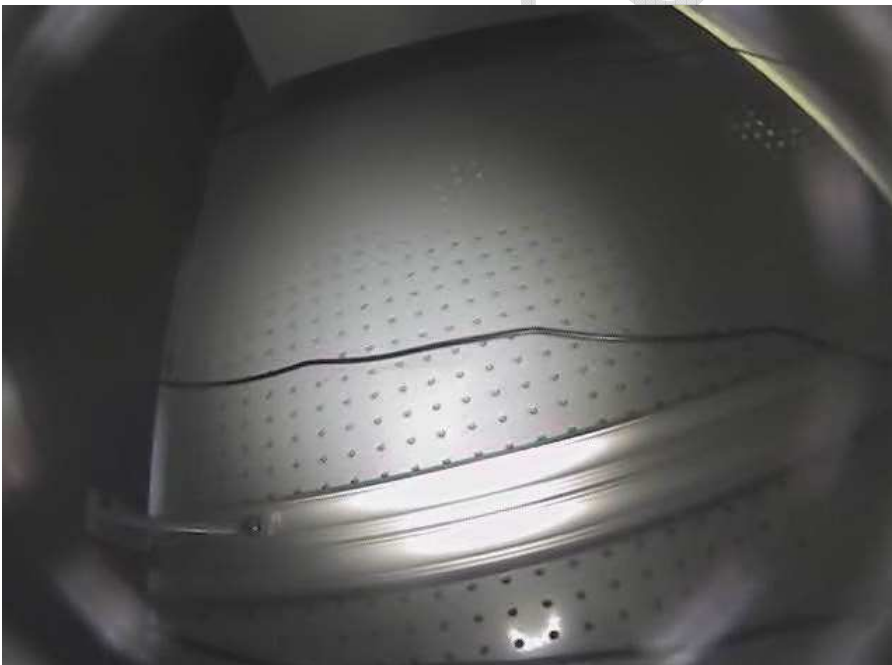
## 1.4 Camera Placed Behind Glass

If the camera is placed behind a glass window, during daytime there may not be any visible effect, but when the white light LEDs are turned on, a light reflection may become visible. See Picture-7 and Picture-8.



**Picture-7**

FD7131 behind glass without the white light LED on.



**Picture-8**

FD7131 behind glass with the white LED on.

## 1.5 Cover is Dirty or Scratched

If the cover of the FD7131 becomes dirty or scratched, you can see the reflection even if you do not turn on white light LEDs. Please see the difference between Picture-9 and Picture-10.



**Picture-9**

FD7131 with white light LEDs on and without the cover.



**Picture-10**

FD7131 with white light LEDs on and with a dirty cover.

## ***2. How do I resolve the problem?***

### **2.1 Use Screws to Lock the Cover to the Camera Body**

Please make sure the screws fasten the cover to the camera body securely. See Picture-11.



**Picture-11**

### **2.2 Rubber Ring in Contact with the Cover**

Please see Picture-6 to make sure that the rubber ring is in contact with the cover.

If the rubber ring has been loosened or damaged, please contact [rma@vivotek.com](mailto:rma@vivotek.com) for repair.

## 2.3 Do Not Place the FD7131 Behind Glass

Please place the FD7131 camera in an appropriate location and not behind a glass or transparent surface.

## 2.4 Keep the Cover Clean

Please keep the cover clean and protect it from scratches or damage.

## 2.5 Use a Special Tool to Clean the Cover

1. Use an **air gun** and **air compressor** to clean dust and stains from the dome cover instead of cleaning by hand. See Picture-12 and Picture-13.



**Picture-12**

**Air Gun**



**Picture-13**

**Air Compressor**

2. Use **pressurized air duster** to remove dust and stains. See Picture-14.



**Picture-14**

**Pressurized Air Duster**

**Please note: Do not use your clothes to clean the dome cover.**

VIVOTEK Confidential

### **3. Additional Cause of Light Reflections on FD7132**

Different from the FD7131, the FD7132 features true day and night functionality with a removable IR-cut filter and IR illuminators. Thus, the FD7132 has a different design for the lens/illumination module, which in turn means that the design of the rubber ring on the FD7132 is different from the FD7131.



**Picture-15**

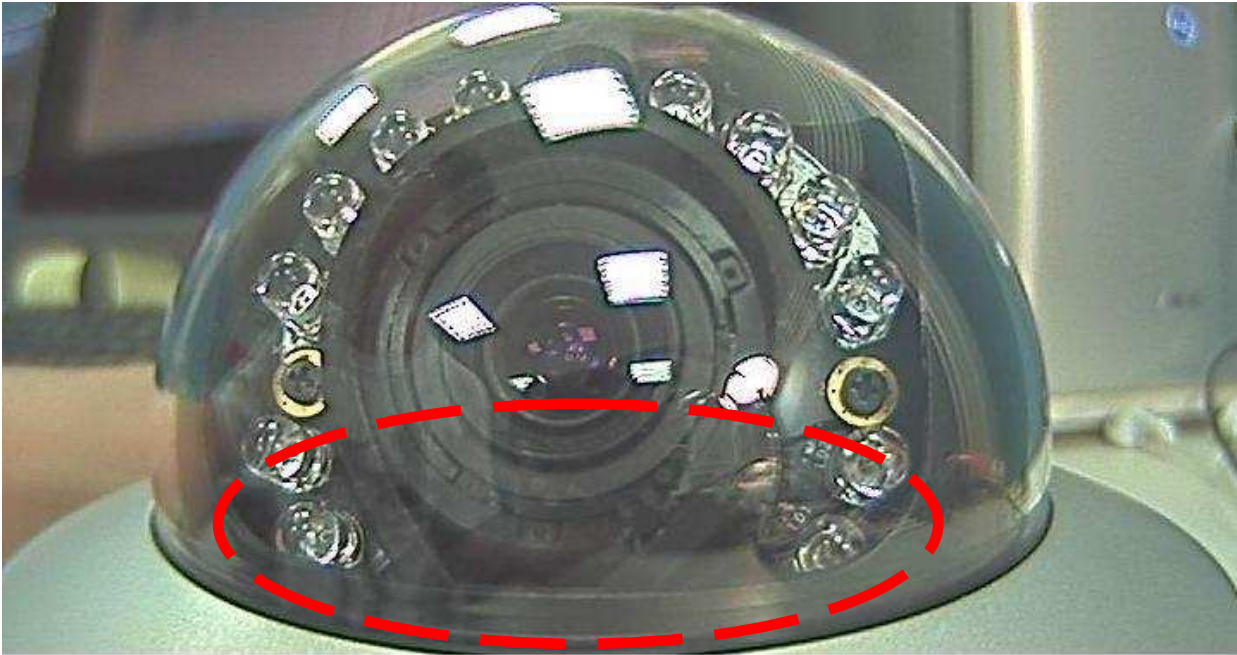
**Rubber Ring on the FD7131**



**Picture-16**

**Rubber Ring on the FD7132**

Due to this design, the light reflection on the FD7132 may be caused by another reason. When you adjust the lens of the FD7132 past 80 degrees, it may cause distortion of the rubber ring. See Picture-17.



**Picture-17**

Thus, when you set up the FD7132, please make sure that the rubber ring is in proper contact with the cover and avoid adjusting the lens past 80 degrees.

VIVOTEK Confidential