



# Instruction Manual

## The Integration Control Unit CE

Catalog Number: 170-8123 (100 – 240 volts)

Use this instruction manual for installation and operation of the Integration control unit (170-8123). This brief manual is to replace Step 4 of the Section 4. 2, and 5. 3 Operation of the Integration Control Unit in the Insta Doc Instruction Manual.

### Introduction

The Integration Control Unit for the Insta Doc systems controls the amount of time the CCD camera accumulates light before displaying it on the monitor. Increasing the integration time on the Integration Control Unit allows more light to be collected. Therefore, the Integration Control Unit helps the user to enhance the image to bring out the faintest of bands.

### Installation

Please make sure that all instruments are turned off before connecting cables. For this installation, you will need the power cable that comes with this unit and the Integration Cable (170-7546) that comes separately.

1. Connect each end of the Integrating Cable as follows:

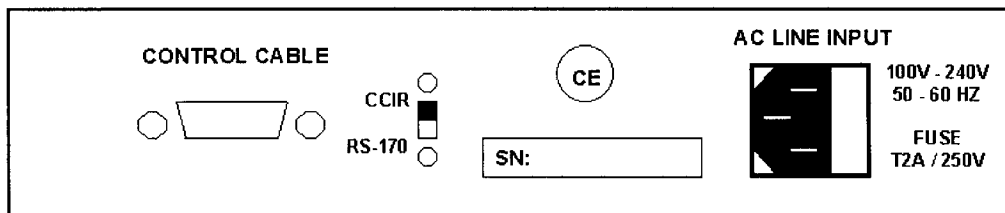
Cable	Instrument to be connected
9 pins DIN connector	Back of the Integration Control Unit
BNC connector (CAMERA VIDEO)	Camera (VIDEO)
Connector (CAMERA AUX)	Camera (AUX)
BNC connector (VIDEO IN)	Printer (IN)
MONO audio plug (REMOTE)	Printer (REMOTE)

2. Set the RS-170/CCIR switch according to the following information:

Country	Switch	Country	Switch
ASEA region	CCIR	Japan, Korea	RS-170
Canada	RS-170	South America	CCIR
China	CCIR	U. S. A.	RS-170
Europe	CCIR	Taiwan	RS-170

If it is unclear which setting is to be used, please contact your local subsidiary or distributor.

3. Connect one end of the 1' BNC cable to VIDEO OUT of the printer and connect the other end to IN of the monitor.
4. Connect each power cable to the instrument and to the appropriate power source.



## Description of the function buttons

### POWER ON/OFF

This is the main switch for this unit. This must always be in ON position to see or print images from the Insta Doc.

### SECONDS

This is to set the integration time in second(s). The left number shows time in second(s) and the right number in tenths of second(s). Lower buttons (+) increase and upper buttons (-) decrease the time.

### INTEGRATE/LIVE

The INTEGRATE/LIVE control switch determines whether image collection is live or integrated.

In the INTEGRATE mode, the Integration Control Unit allows the camera to accumulate light for the time specified by the SECONDS.

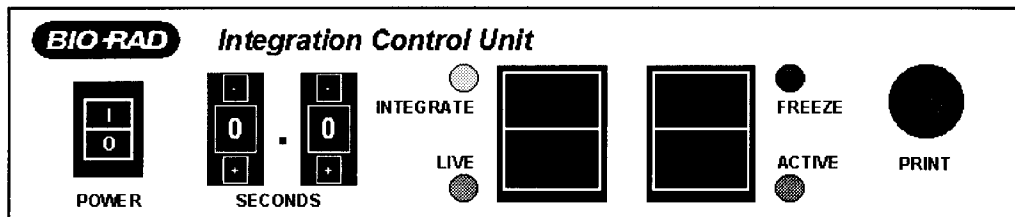
In the LIVE mode, the Integration Control Unit does not use integration, but displays a real-time image.

### FREEZE/ACTIVE

The FREEZE/ACTIVE switch allows you to FREEZE the displayed image by storing the image in a memory buffer in the Integration Controller Unit. The ACTIVE allows you to view the live or integrating images with a continuous update on the monitor. Only one image can be stored in the memory buffer and will be replaced the next time ACTIVE is used.

### PRINT

The PRINT switch can be used to print the active or frozen images.



## 5.3 Operation of the Integration Control Unit

It is assumed that all power switches for the Insta Doc system are ON position.

1. Set the left rocker switch to **LIVE** and the right rocker switch to **ACTIVE** to position and focus an image.
2. Once the position/focus is done, turn the left rocker switch to **INTEGRATE**. For a brighter image, increase integration time.
3. Once desired brightness is achieved, press the print button on the Integration Control Unit to get a printout.
4. You may freeze this image by switching the right rocker switch to **FREEZE**. This will hold one image in the buffer of the Integration Control Unit for future printing. Using the FREEZE button enables the user to see an image on the monitor while turning off the transilluminator.

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