

# Operating Instructions

Before attempting to connect or operate this product, please read these instructions completely.

N1098-0 YWV8QA5088AN Printed in Japan  
N 30

**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN

CAUTION:  
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK), NO USER SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

SA 1965

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

SA 1966

Remove dust on the faceplate of filter glass before mounting the lens on the camera.

For U.S.A.

Warning:  
This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

The serial number of this product may be found on the top of the unit.  
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

**WARNING:**  
TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## PREFACE

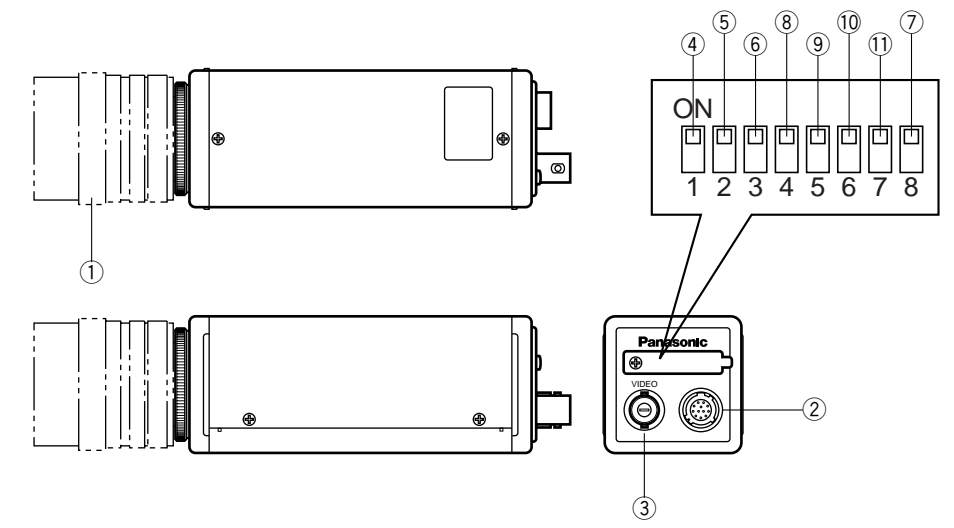
The Panasonic GP-MF852PT Double Speed Machine Vision Camera has a 2/3" Interline Transfer CCD image sensor which features 380 000 pixels, a horizontal resolution of 500 lines, and minimum smear.

## FEATURES

- Newly developed 2/3" double speed progressive scan type CCD image sensor with 768 (H) x 494 (V) pixels.
- External synchronization : External HD/VD input enables system setup with external video processors, etc.
- Frame reset with Read out Inhibit (R/I) control : R/I control (this controls the timing of Readout Inhibition from CCD) enables to capture the same timing pictures from two or more cameras into one image memory.
- In all camera function modes, high speed

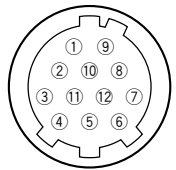
- Clean the CCD faceplate with care.**  
Do not clean the CCD with strong or abrasive detergents. Use lens tissue or a cotton tipped applicator and ethanol.
- Never face the camera towards the sun.**  
Do not aim the camera at bright objects. Whether the camera is in use or not, never aim at the sun or other extremely bright objects. Otherwise, blooming or smear may be caused.
- Do not drop anything inside the camera.**  
Dropping metal for example inside the camera could permanently damage the unit. If anything is dropped inside the camera, turn the power off immediately and ask a qualified service person for servicing.
- Do not operate the camera beyond the specified temperature, humidity or power source ratings.**  
Use the camera under conditions where temperature is between -10°C - +50°C (14°F - 122°F), and humidity is below 90 %.  
The input power source is DC 12 V, 465 mA.

## MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



① **2/3" Manual Iris Lens (Sold Separately)**

② **Camera Connector (12-pin)**  
This is connected with the optional Camera Cable GP-CA34 , GP-CA33, GP-CA59 or GP-CA60.



**CAUTION:** CONNECT THIS TO A DC 12 V CLASS 2 POWER SUPPLY ONLY.

Pin No.	Description
1	Ground
2	+12V IN
3	Ground for Video Out
4	Video Out
5	Ground for HD
6	HD IN
7	VD/V reset
8	Ground
9	No connection
10	No connection
11	No connection
12	Ground for VD

③ **Video Output Connector**  
This connector is used to connect with the VIDEO IN connector of the monitor.

④ **Rear Panel Switch No.4 (4/ON)** 4   ON

⑤ **Rear Panel Switch No.5 (5/ON)** 5   ON  
These switches (Rear Panel Switch No. 4, 5, 6, and 7) are used to set the shutter speed. The shutter speed changes according to the mode which is set by the Rear Panel Switch No. 2, 3, and 8.

⑥ **Rear Panel Switch No.6 (6/ON)** 6   ON

⑦ **Rear Panel Switch No.7 (7/ON)** 7   ON

The shutter speed can be set as below:

Rear Panel Switch				Mode	
No.4	No.5	No.6	No.7	Mode 7	Mode 2-5
OFF	OFF	OFF	OFF	Normal	Not Specified
ON	OFF	OFF	OFF	1/100	Not Specified
OFF	ON	OFF	OFF	1/250	Not Specified
ON	ON	OFF	OFF	1/500	Not Specified
OFF	OFF	ON	OFF	1/1 000	Not Specified
ON	OFF	ON	OFF	1/2 000	1/2 000
OFF	ON	ON	OFF	1/4 000	1/4 000
ON	ON	ON	OFF	1/8 000	1/8 000
OFF	OFF	OFF	ON	1/15 000	1/15 000
ON	OFF	OFF	ON	1/30 000	1/30 000
Other Combinations				Not Specified	Not Specified

## PREPARATIONS

### 1. Power Supply for Camera

Prepare a regulated DC power supply which can supply DC 12 V  $\pm$ 10 % DC 465 mA or more current and rated CLASS 2.

### 2. Lenses

Be sure to use the optional manual iris lens having the following items.

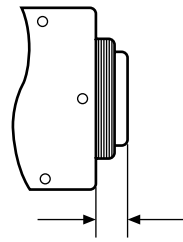
Focus : Adjustable

Lens Weight : Less than 300 g (0.66 lbs.)

**Note:** If the lens is heavier than 300 g (0.66 lbs.), both the lens and the camera should be secured by using the supporter.

Mount : C-mount

The protrusion at the rear of the lens should be as shown in the illustration.

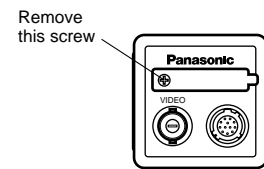


Less than 7.5 mm (1/2")

### 3. Switch Covers Removal

**Caution:** The following preparation should be made by qualified service personnel or system installers.

For setting the Rear Panel Switch No.1 to 8, remove the switch cover fixing screw on the rear panel as shown below.



## SPECIFICATIONS

Pick-up Device :	Inter Line Transfer type CCD with 768 (H) x 494 (V) pixels.
Image Size :	2/3" (7.95 (H) x 6.45 (V) mm) Full non interlace (1/60 s)
Synchronization :	Internal or External (Selectable Automatically) Internal : Built-in sync generator External : 4.0 V[p-p]/75 $\Omega$ Horizontal drive and Vertical drive pulses
External Reset :	External signal (4.0 V[p-p]/75 $\Omega$ , negative) supplied to EXT VD IN connector can be used as reset signal
Horizontal Resolution :	500 lines at center
Minimum Illumination :	5 lx (0.5 foot-candles), (F1.4, Gain (+6 dB), $\gamma$ OFF)
Gamma :	1.0
Gain Selection :	0/+6 dB
Electronic Shutter :	9-step (1/100 s to 1/30 000 s) at normal 5-step (1/2 000 s to 1/30 000 s) at Shutter Trigger
Lens Mount :	C-Mount
Vibration Resistance :	7 G (10 Hz - 150 Hz) (2 hours each for three axes)
Shock Resistance :	80 G (IEC 68) *IEC=International Electrotechnical Commission
Power Source :	DC + 12 V, 465 mA
Ambient Temperature :	-10°C - +50°C (14°F - 122°F)
Dimensions :	45(W) x 45(H) x 120(D) mm [1-25/32*(W) x 1-25/32*(H) x 4-23/32*(D)]
Weight :	270 g (0.6 lbs.) (Camera Only)

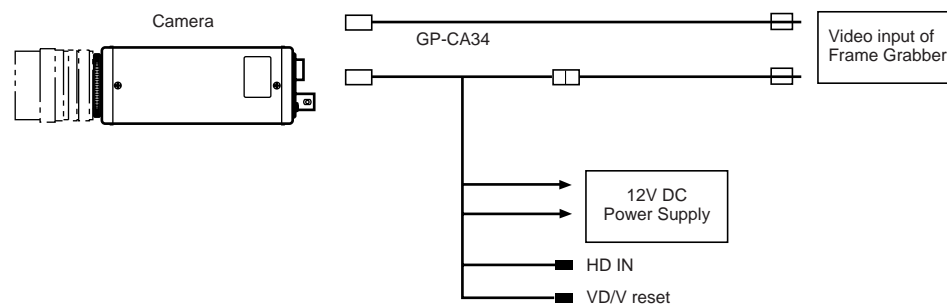
Dimensions and weight indicated are approximate values.

Specifications are subject to change without notice.

## SYSTEM CONNECTIONS

**Caution:** Keep the power switches of all units to OFF before connections.

1. Connect the optional camera cable GP-CA34 between the connector of this camera and the 12 V DC Class 2 power supply(not provided as an accessory).
2. Connect the video connector of the GP-CA34 to the Frame Grabber.



**Caution:** Use a 12 V DC Class 2 Power Supply only

## OPTIONAL ACCESSORIES

Camera Cable	GP-CA34
	GP-CA33
	GP-CA59
	GP-CA60

## EXTERNAL SYNCHRONIZATION

### Full non interlace

The GP-MF852PT works in full non interlace mode when external HD/VD signal is supplied to pin-6 and pin-7 of the camera connector (12-pin).

### Notes:

- If the picture appears disturbed, be sure to match the phases of falling edges of the external HD/VD.
- Normal monitor cannot display the picture from this camera. To display the picture, synchronize the camera and multiscan monitor from external HD/VD.