

INSTRUCTION MANUAL

MODEL
WV-O33P



BEFORE OPERATING
YOUR TV CAMERA
PLEASE READ THIS
INSTRUCTION MANUAL
COMPLETELY

PANASONIC
TELEVISION
CAMERA

CONTENTS

	Page
INTRODUCTION	1
FEATURES	2
CAUTION	3
OPERATING CONTROLS	4
TRIPOD USE	4A
OPERATING INSTRUCTIONS (VTR-Video-RF)	5-6
LENS INFORMATION	7
SECONDARY CONTROLS	8-9
COMPONENT LOCATION	10
SPECIFICATIONS	11-12
ACCESSORIES	13
WARRANTY	14-15

INTRODUCTION

You have just purchased one of the finest television camera's with advance design and engineering features unsurpassed in its price field. This PANASONIC television camera is simple to operate and will produce very stable and clear images and is designed and manufactured for use with the PANASONIC (Tape-A-Vision) Video Tape Recorder or with a closed circuit television system.

This television camera will supply both video output and RF output simultaneously allowing unlimited applications in industry, education, medicine, transportation, and allied fields.

FEATURES

* COMPACT

This television camera is compact and lightweight: (only 7 lbs.), making it convenient to set up and easy to carry.

* HIGH SENSITIVITY

This television camera uses a highly sensitive vidicon (7735A or 7262A) tube and can produce clear pictures even in dimly lighted areas.

(Lighting requirements are slightly more than 40 Lux if the object to be pictured is stationary.)

* AUTOMATIC LIGHT CONTROL

This camera is equipped with an electronic light compensation circuit and once focused, it needs no further adjustments.

* LENS INTERCHANGEABILITY

Any lens of the 16mm C mount type (from an ultra wide-angle 9mm lens to a 100mm zoom lens) may be mounted.

* HIGH RESOLUTION

Picture resolution of more than 400 horizontal lines and more than 300 vertical lines result in sharp, detailed, high resolution picture.

* RELIABILITY

Advanced solid state electronic circuits insure years of reliable operation.

* STABILITY

Power supply is automatically regulated to compensate for power line variations which allows telecasting of steady pictures.

CAUTION

1. HANDLE THIS CAMERA WITH CARE.

Avoid jarring or striking this camera as it contains a sensitive vidicon tube which can be damaged due to improper handling.

2. NEVER FACE THE CAMERA TOWARD THE SUN.

Whether the television camera is in use or not, never face it toward the sun, or damage to the vidicon tube may result.

3. DO NOT PLACE THE LENS SECTION DOWN.

Always transport the television camera with its lens section facing up. Never set up the camera with its lens section facing down, to prevent damage to the vidicon tube.

4. ALLOWABLE TEMPERATURE AND HUMIDITY CONDITIONS.

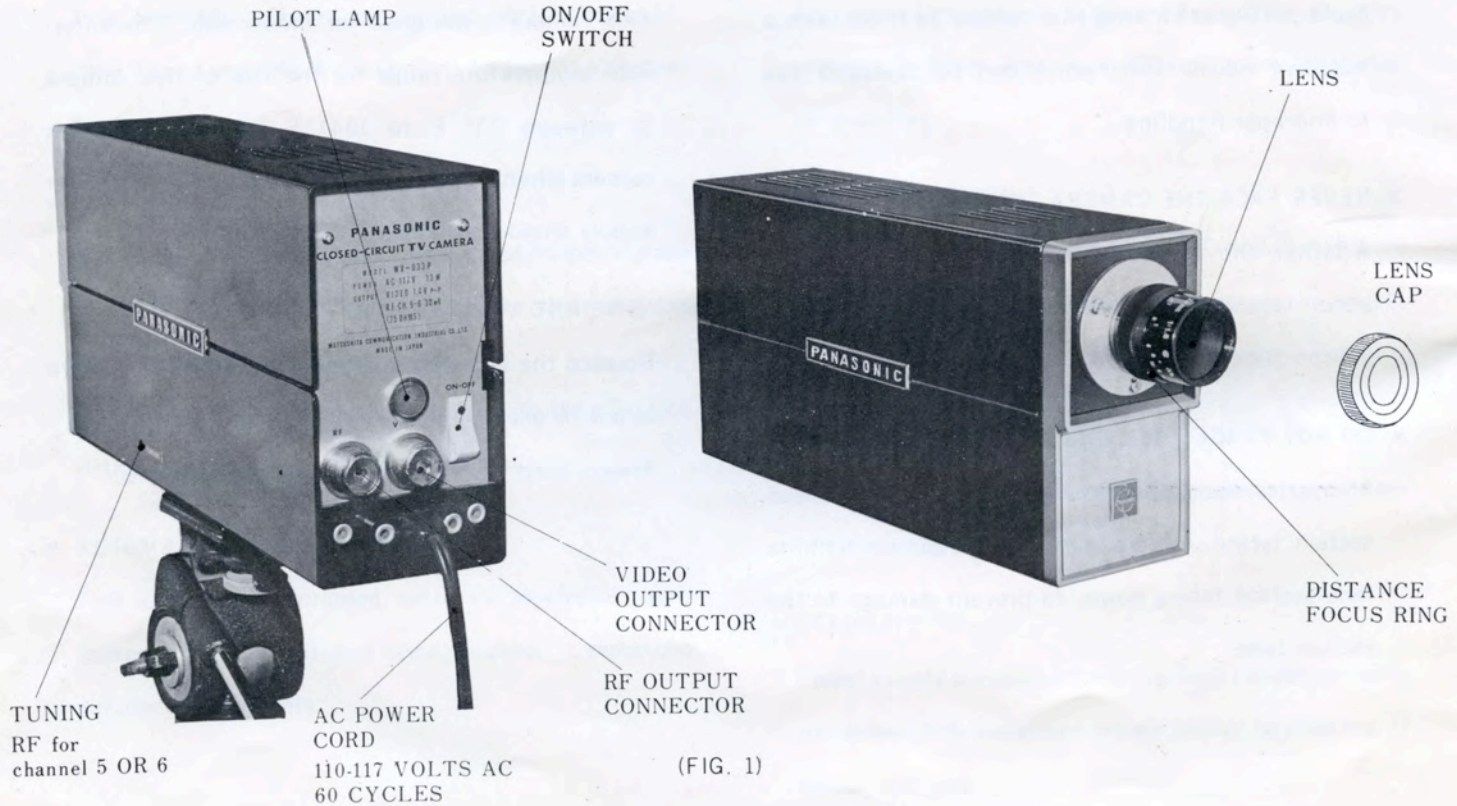
This camera is designed for indoor use. The allowable temperature range for the use of this camera is between 23° F to 104° F. Avoid using this camera when the humidity is above 90%. The power supply should be between 105V and 130V.

5. LENS AND VIDICON TUBE PROTECTION.

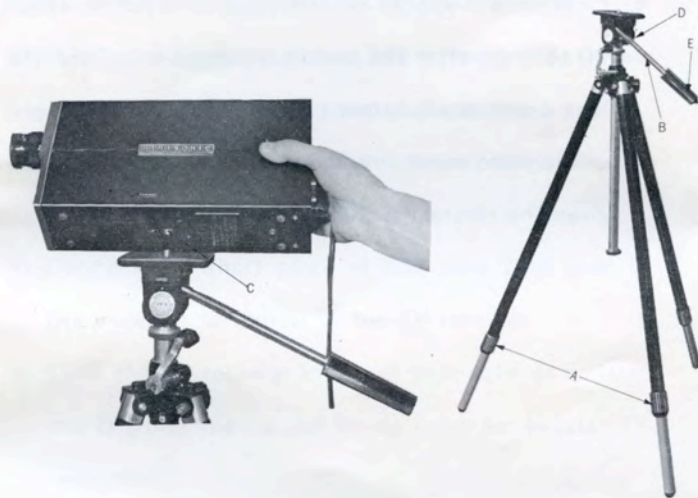
Replace the lens cap over the lens when the camera is not in use.

Always keep the camera in a horizontal plane.

OPERATING CONTROLS



ATTACHING CAMERA TO THE TRIPOD



1. Extend the legs of the tripod to the desired length. The tripod legs can be lengthened or shortened by turning the knurled locking sleeve A counterclockwise to loosen and clockwise to tighten.
2. By keeping the pan handle B of the tripod turned to the back of the camera, place the Video Camera on the tripod head so that the back receptacle C located on the camera bottom fits the screw of the tripod. Tighten the screw firmly.
3. The pan handle B is used for tilting the camera up or down and for turning the camera right or left. In order to move pan handle right or left, make sure that the locking screw D is unlocked. The pan handle is locked by turning the grip E of the handle clockwise. Avoid any shock to the camera.

A. OPERATION — VIDEO OUTPUT

To Connect to Video Tape Recorder

- 1) Mount camera on tripod.
- 2) Connect power cord to a power source of 117 volts AC.
- 3) Connect the coaxial cable to the camera video output jack marked (V) on rear panel.
- 4) Connect the other end of coaxial cable to the camera input jack on (VTR) Video Tape Recorder.
- 5) Push AC switch on camera; red light on rear panel will light.
- 6) See the Video Tape Recorder's instruction manual on proper operation of the recorder with this TV camera.

To Connect to a Video Monitor Receiver

Follow steps 1, 2, and 3 as outlined in OPERATION A.

- 4) Connect the other end of coaxial cable into the

coaxial connector on Video monitor receiver.

- 5) Push camera power switch to the ON position.
- 6) Pictures will appear on the video monitor in about 40 seconds after the switch is turned on. Turn the lens distance adjustment while looking at the screen of the video monitor and set it to the position which gives the clearest pictures.

B. OPERATION — R.F. OUTPUT

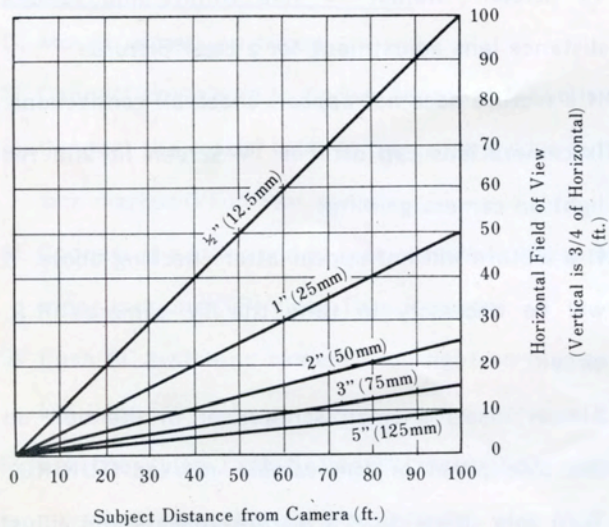
To Connect to a Conventional TV Receiver

- 1) Mount camera on a tripod and connect the camera's AC line cord into a 117 Volt AC power source.
- 2) Connect the coaxial cable to the camera's R.F. Output jack.(marked RF) on rear panel of camera.
- 3) Connect the other end of the coaxial cable into the matching transformer (MM-73P).
- 4) Connect the short piece of 300 ohm twin lead to the antenna terminals of the TV receiver.
- 5) Tune the TV receiver to either channel 5 or 6. (Use the channel that is not being used for regular TV reception.)
- 6) Turn on TV receiver and the TV camera. Red light on rear of camera indicates that the unit is operating
- 7) In about 40 seconds a picture should appear on the

- TV screen. Adjust TV fine tuning and camera distance lens adjustment for a clear picture.
- 8) If a picture does not appear, check all connections. Is camera lens cap off? Is TV screen lit and red light on camera glowing?
 - 9) If a picture will not appear after checking above, it will be necessary to tune the TV camera's R.F. circuit.

Simply insert a small screwdriver in the hole on the side panel of the camera marked (TUNING). Turn very slowly until a picture appears and adjust for the sharpest picture possible.

Also adjust the camera's lens for distance and sharp focus. Adjust the TV fine tuning control and camera distance adjustment alternately.



LENS INFORMATION:

Any lens may be used as long as it is of the 16mm C Mount type. The WV-033P type television camera, however, is equipped with an F1.8 25mm lens.

When it is necessary to use a wideangle lens or a telephoto-lens, choose the most appropriate one in accordance with the graph:

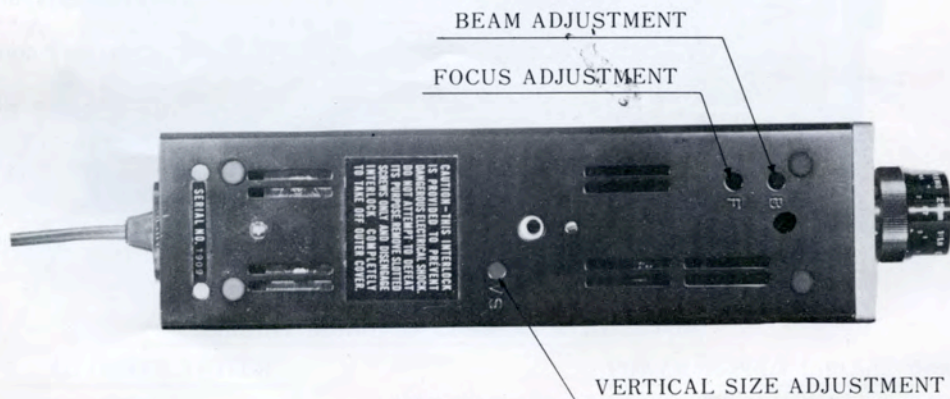
SECONDARY CONTROLS

When a TV receiver reproduces clear and linear pictures from regular TV broadcasts, reproduces non-linear, enlarged or blurred pictures from the TV camera, adjust the camera's secondary controls as follows:

(See Fig. 2 for control location)

VERTICAL SIZE ADJUSTMENT (V.S.)

Aim the TV camera to display the picture of a resolution chart (or a sheet of white paper with a black circle having a diameter of about 10 inches) on the screen of a properly adjusted receiver. Then, adjust vertical size control (V.S.) to obtain an undistorted circle.



(FIG. 2)

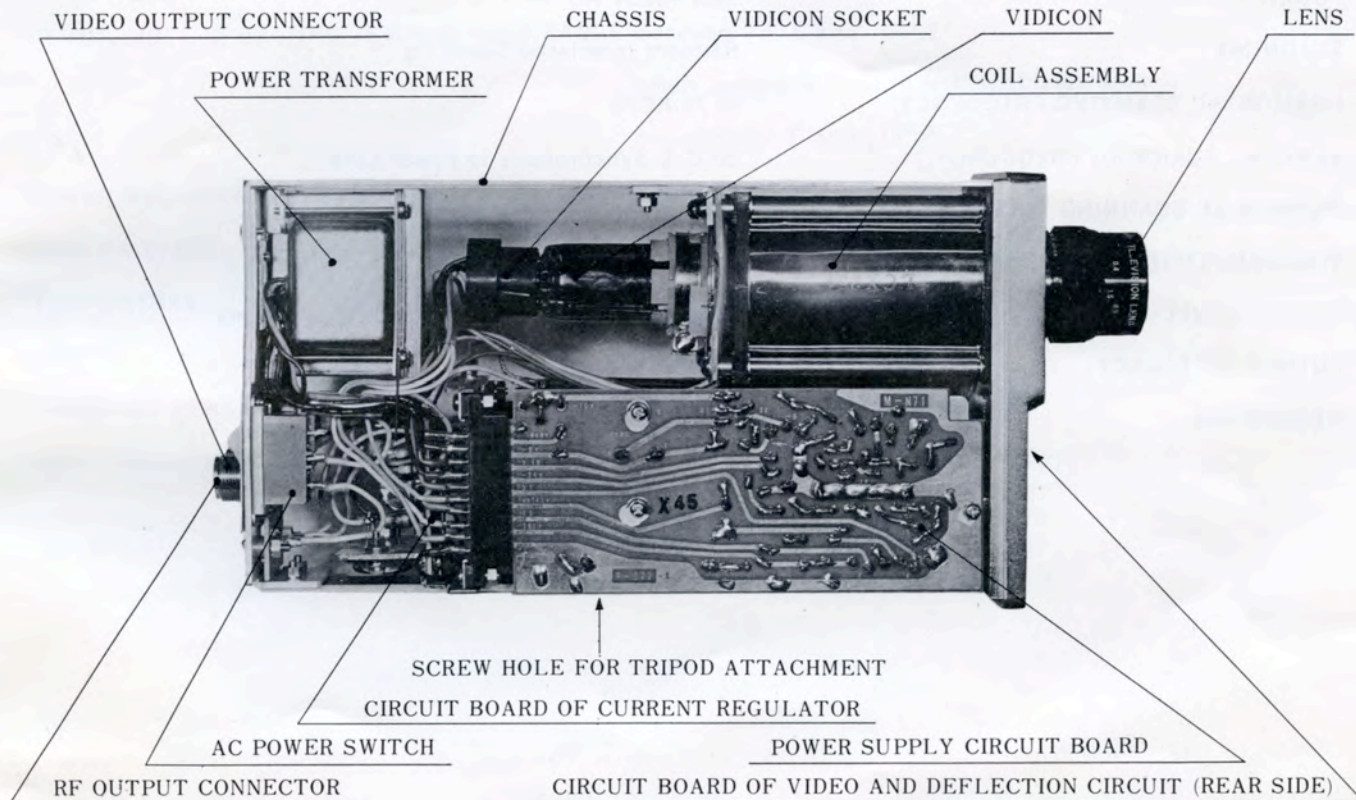
FOCUS ADJUSTMENT (F)

Adjust control (F) after setting the lens distance adjustment for clearest picture. Then turn control (F) slowly left or right for clearest picture focus. After adjustment, recheck the lens distance setting.

BEAM ADJUSTMENT (B)

- 1) Should this control be turned to its extreme clockwise position, no picture will appear on the TV receiver screen; or if turned fully counter clockwise the picture on the TV screen will be blurred and distorted.
- 2) To properly set the beam control, turn slowly clockwise until picture just disappears or control is at end of rotation. Then slowly turn counter clockwise until picture just appears and the white areas are resolved clearly.

COMPONENT LOCATION



SPECIFICATIONS:

POWER SUPPLY:	110V -120V AC, 60 C/S
SCANNING:	Random Interlaced Scanning
HORIZONTAL SCANNING FREQUENCY:	15.75 KC/S
VERTICAL SCANNING FREQUENCY:	60 C/S Synchronous to Power Line
NUMBER OF SCANNING LINES:	525 Lines
VIDEO AMPLIFIER FREQUENCY RESPONSE:	5 MC/S \pm 3 DB
OUTPUT LEVEL:	Video Output, 1.4 Vp-p; RF Output, 30 mV
OUTPUT IMPEDANCE:	75 Ohm (unbalanced)
RESOLUTION:	Over 400 Horizontal Lines, and Over 300 Vertical Lines

REQUIRED LIGHT INTENSITY: Over 100 Lux

PERMISSIBLE OPERATING TEMPERATURE RANGE: Between 23° F and 104° F
when camera is used in well ventilated areas,
between 23° F and 113° F.

POWER REQUIREMENT: About 13 watts

CAMERA TUBE: Vidicon 7735A or 7262A

TRANSISTORS: 26

DIODES: 18

STANDARD LENS: F1.8 25mm C Mount without Iris.

BODY DIMENSIONS: Width 2-3/4"; Height 5-1/2"; Depth 10-1/4"
(less lens).

WEIGHT: 7 lbs.

ACCESSORIES:

- 1 – 20 ft. Coaxial Cable with Connectors.
- 1 – Coaxial Extension Connector.
- 1 – #MM73P Matching Transformer (75 to 300 ohm).
- 2 – Coaxial Connectors.
- 1 – 300 ohm Twin Lead with Spade Connectors.

WARRANTY

The attached Warranty Registration Card must be mailed within 10 days after purchase from a PANASONIC Franchised Dealer to validate the Warranty.

MATSUSHITA ELECTRIC CORPORATION OF AMERICA, hereinafter referred to as MECA warrants to the original purchaser, upon conditions hereinafter set forth, that this PANASONIC Video Camera, used thereafter solely within the United States of America, is free of defects in material and workmanship under normal use. MECA's obligation under this Warranty shall be limited to repairing, or at our option, to exchanging any parts that show evidence of defect within ninety (90) days from the date of original purchase of the camera for use, with functionally operative parts and transistors/tubes provided that said parts or transistors/tubes shall be returned to MECA directly, or through an authorized PANASONIC Servicenter.

Replacement of the VIDICON TUBE used in the video Camera is subject to inspection and approval of MECA. Replacement parts supplied under this Warranty carry the unexpired portion of the original Warranty only.

The Warranty includes the furnishing of labor involved or connected therewith within ninety (90) days from the date of purchase by the original using purchaser pro-

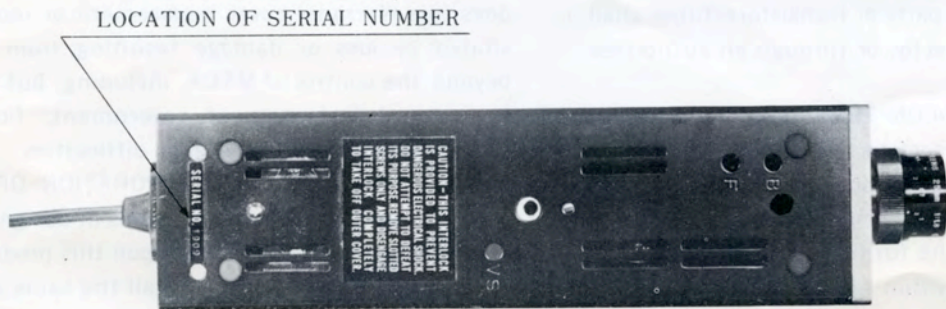
vided the product is brought to an authorized PANASONIC Servicenter, except if the defect is due to the customer's improper use of controls.

The Warranty does not include responsibility for any transportation expenses, nor any damages or losses incurred in transportation in connection therewith.

This Warranty shall not apply to appearance items, including, but not limited to, the knobs, case or any part or parts of this instrument that have been installed, altered, repaired or misused through negligence, or otherwise, in a way that, in the opinion of MECA, affects the reliability of, or detracts from the performance of any part or parts of the instrument; or if serial numbers have been altered, defaced or removed. Nor does this Warranty cover replacement or repairs necessitated by loss or damage resulting from any cause beyond the control of MECA, including, but not limited to, acts of God, acts of government, floods, fires, shortage of material and labor difficulties.

MATSUSHITA ELECTRIC CORPORATION OF AMERICA reserves the right to make changes in design or to make additions to or improvements upon this product without incurring any obligation to install the same on products previously manufactured.

The foregoing is in lieu of all other Warranties express, implied or statutory, and MECA neither assumes nor authorizes any person to assume for it, any other obligation or liability in connection with the sale of this product. In no event shall MECA or its franchised dealers be liable for special or consequential damages, or for any delay in the performance of this Warranty due to causes beyond their control. The above Warranty is the separate obligation of MECA and its franchised dealers and neither is for any purpose whatsoever the agent of the other.





MATSUSHITA COMMUNICATION INDUSTRIAL CO., LTD.
Yokohama, Japan

MATSUSHITA ELECTRIC CORPORATION OF AMERICA
PAN-AM. BUILDING
200 PARK AVENUE
NEW YORK, N. Y. 10017

Printed in Japan