

Panasonic
ideas for life

3CCD Convertible Cameras
Pan-tilt Systems
Compact Live Switcher
Signal Converter



3CCD
Convertible
Camera systems

Super high sensitivity and excellent picture quality 3-CCD camera

Panasonic's high-quality 3-CCD convertible cameras offer excellent system expandability for various camera shootings.

- Panasonic's exclusive clean DNR (Digital Noise Reduction) technology produces super crisp images.
- Newly developed 12 bit A/D DSP creates excellent image quality.
- 12 vector color matrix masking for fine color adjustment
- Chroma detail and dark detail correction
- Feature cards make the camera compatible for a wide range of use. Two feature cards can be installed in the camera by using the optional additional card adaptor (AW-EX100).



2/3-INCH
BAYONET MOUNT

16:9/4:3 switchable

AW-E860



- 2/3" 3-CCD high image quality
- Switchable 16:9/4:3 aspect ratios
- Horizontal resolution: 850 lines
- Signal to noise ratio: 65dB (DNR on)
NTSC, 63 dB (DNR on) PAL
- High sensitivity: 2000lx, F11
- Minimum illumination: 0.4 lx, (F1.7, Night Eye H)
- Wide dynamic range: 600%
- Compact size, light weight and low power consumption

1/2-INCH
BAYONET MOUNT

Motor-driven optical



2/3-INCH
BAYONET MOUNT

AW-E750



- 2/3" 3-CCD high image quality
- Horizontal resolution: 850 lines
- Signal to noise ratio: 67dB (DNR on)
NTSC, 65 dB (DNR on) PAL
- High sensitivity: 2000lx, F14
- Minimum illumination: 0.005 lx, 0.00005 lx
(2 seconds CCD charge accumulation)
- Wide dynamic range: 600%
- Compact size, light weight and low power consumption

1/2-INCH
BAYONET MOUNT





Feature Cards

Studio Card
AW-PB305



Studio camera system card

- Output: RGB, Y/Pr/Pb, Y/C, VBS
- 5-inch EVF (Zebra, safety zone, and center marker included), and intercom input and output, and tally output compatible

Lens I/F Card
AW-PB308



Connecting card for contact closure type pan-tilt head

- With a fixed-type camera, zooming and focusing are possible.

Note:The lens control is not servo type control.

SDI Card
AW-PB504



Digital connecting card for video equipment with SDI input jack

- Output: Serial digital interface (SMPTE259M [4:2:2 SDI])
- Zoom/focus of MD lens can be controlled by the contact closure type or the controller without pan-tilt head.

Note:The lens control is not servo type control.

SDI Studio Card
AW-PB506



Studio and SDI Cards integrated into one.

- SDI Output: SMPTE259M compatible
- Viewfinder connector mounted
- Intercom jack and intercom audio volume mounted on the EVF interface bracket
- EVF interface bracket included

Note:

*Option cards AW-PB304/306/307/309/310 can not be used for AW-E860/E750/E655/E650/E350.

*Option cards AW-PB301/302/303 are not required for AW-E860/E750/E655/E650/E350, because functions of these cards are included in AW-E860/E750/E655/E650/E350.

Additional Card Adapter



- Maximum two feature cards can be inserted in the camera by using optional feature card box AW-EX100 with AW-E860/E750/E655/E650/E350.

filter

AW-E655

- 1/2" 3-CCD high sensitivity
- Horizontal resolution: 850 lines
- Signal to noise ratio: 67dB (DNR on) NTSC, 65 dB (DNR on) PAL
- High sensitivity: 2000lx, F14
- Minimum illumination: 0.005 lx, 0.00005 lx (2 seconds CCD charge accumulation)
- Motor-driven optical filter (3200 K, 1/16ND, 1/64ND, IR through) The AW-E655's optical filter rotates for facilitating its use as an infrared camera capable of completely dark scenes from a distance.

1/3-INCH
C-MOUNT

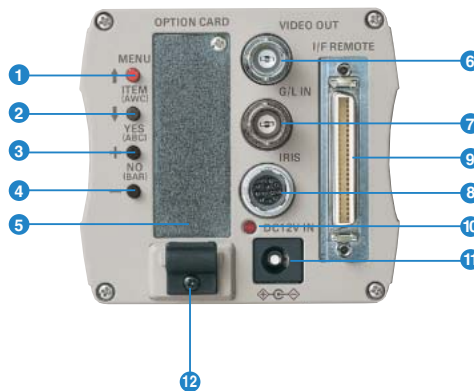


AW-E350

- 1/3" 3-CCD C-mount lens camera
- Horizontal resolution: 850lines
- Signal to noise ratio: 66dB (DNR on) NTSC, 63dB (DNR on) PAL
- High sensitivity: 2000lx, F9.5
- Minimum illumination: 0.015 lx, 0.00015 lx (2 seconds CCD charge accumulation)
- Compact size, light weight and low power consumption

AW-E650

- 1/2" 3-CCD high image quality
- Horizontal resolution: 850lines
- Signal to noise ratio: 67dB (DNR on) NTSC, 65dB (DNR on)PAL
- High sensitivity: 2000lx, F14
- Minimum illumination: 0.005 lx, 0.00005 lx (2 seconds CCD charge accumulation)
- Compact size, light weight and low power consumption



- 1 MENU Button
- 2 ITEM/AWC Button
- 3 YES/ABC Button
- 4 NO/BAR Button
- 5 Option Card Slot
- 6 Video Output Connector
- 7 Genlock Input Connector
- 8 Iris Connector
- 9 Interface/Remote Connector
- 10 Power Indication LED
- 11 DC 12V Input Connector
- 12 Power Cable Clamp

A wide choice of camera/pan-tilt head for various application and installation

Four types of pan-tilt head are available for flexible camera operation in indoor and outdoor use. All pan-tilt heads are capable of quiet, high-speed operation and can be simultaneously controlled from both a controller and PC.

Indoor pan-tilt head

A compact pan-tilt head with a wide pan-tilt range and high speed control

Indoor Pan-tilt Head AW-PH360



- Pan angle:300° Tilt angle:190°
 - High performance: Quiet (Under NC30)
Pan speed:(30° /sec) / Tilt speed:(25° /sec)
Accuracy(+/-3minutes) (0.05 degrees)
 - Smooth starts and stops with soft landing function
 - 50 preset memories
 - Maximum load:8.8lbs(4kg)
 - Maximum control distance: 1,640ft(500m)(from AW-RP501/505/301/400)
3,280ft(1,000m)(from AW-RP605A)
 - RS232C interface
- *AW-PH360 requires AC adapter, AW-PS300A.

Power supply	12V DC
Power consumption	Approx. 36W (Include camera power)
Dimensions	5-1/8"(W)X9-5/8"(H)X7-9/16"(D)(130(W)X244(H)X192(D)mm)
Weight	Approx. 7.7lbs(3.5kg)
Accessories	Pan-tilt cable, Tilt arm, Tilt arm mounting screw, Chain for dropping protection, Screws

AC Adapter **AW-PS300A**



Power	AC120V(P)/AC220V-240V(B/G)
Power Consumption	Approx.573W
Dimensions	8-1/4"(W)X2"(H)X10-13/16"(D) (210(W)X51(H)X275(D)mm)
Weight	Approx.4.8lbs(2.2kg)
Accessories	AC cable(Approx.2.5m)X1

This indoor pan-tilt head can be equipped with convertible camera with heavy lens or ENG camera/camcorder.

Indoor Pan-Tilt head AW-PH500



- Pan angle:300° Tilt angle:180°
 - High performance: Quiet (Under NC40)
Pan speed(15° /sec)
Tilt speed(10° /sec)
 - 50 preset memories
 - Maximum load:33.1lbs(15kg)
 - Maximum control distance:
1,640ft(500m) (from AW-RP501/505/301)
 - RS-232C interface
- *AW-PH500 requires AC adapter, AW-PS505A.

Power supply	12V DC
Power Consumption	Approx.54W(Include camera power)
Dimensions	9-15/16"(W)X25-1/16"(H)X12-1/2"(D)(252(W)X636(H)X317(D)mm)
Weight	Approx.34.8lbs(15.8kg)
Accessories	Tilt armX1, Arm mounting screwsX8, Camera fixing screws/washerX2

AC Adapter **AW-PS505A**



*Refer to page10 for detail information.

High Performance Pan-tilt Head

High Performance Pan-tilt Head AW-PH400



- Pan range:400° Tilt range:190°
- Maximum pan/tilt speed:90° /sec(variable speed)
- Stop accuracy:Maximum 30 seconds (Approx.0.008 degrees)
- Noise: Under NC30(at 30° /sec)
- Maximum load:17.6lbs (8 kg)
- 10 tracing memories(Maximum time:600 seconds)
- RS-232C controllable (Through AW-RP400)
- Tally light available
- Maximum control distance:1,640ft(500m)
- Memory of last position
- Diagonal motion possible
- Optional camera rolling unit(AW-RL400) available
- Tele-prompter output
- Both broadcast and industrial motor driven lenses are acceptable.
- AC adapter(standard accessory) can be installed in pan-tilt head.

Power	AC120 V 60 Hz (NTSC), AC230 V 50 Hz (PAL)
Power consumption	Approx.145 W
Maximum load	Approx.17.6lbs(8 kg)
Maximum speed	90 °/s (30 °/s w/Tele prompter)
Weight	Approx.22.4lbs(10.2 kg)
Dimensions	12-3/8"(W)X21"(H)X7-3/8"(D)(315(W)X534(H)X188(D)mm)

Camera Rolling Unit AW-RL400

* AW-RL400 with
AW-PH400



- Power is supplied from AW-PH400.
- Convertible cameras mountable
- Controlled by AW-RP400.

Power supply	DC24 V, Approx.24 W
Maximum load	8.8lbs(4 kg)
Rotation range	380 °(+/-190 °)
Maximum speed	60 °/s
Weight	Approx.8.8lbs(3.9 kg)
Dimensions	8-1/16"(W)X7-13/16"(H)X10-1/4"(D) (205(W)X198(H)X260(D)mm)

Outdoor pan-tilt head

Outdoor pan-tilt head enables stable shooting despite the rain with a waterproof design.

Outdoor Pan-tilt Head

Outdoor Camera Housing

AW-PH600

AW-CH600



*AW-PH600 requires AC adapter AW-PS600.

AC Adapter
AW-PS600



Power	AC120V(P)/AC220V-240V(B/G)
Power Consumption	Approx. 1.6A
Dimensions	10-1/4"(W)X13-3/8"(H)X5-7/8"(D) (260(W)X340(H)X150(D)mm)
Weight	Approx. 13.2lbs(6kg)
Accessories	A set of mounting board

- Pan angle:300° Tilt angle:85°
- High performance: Quiet (Under NC40)
Pan speed(10° /sec)
Tilt speed(8° /sec)
- In addition to zooming, panning and tilting functions, heater, wiper and defroster functions for the housing can also be controlled by the controller.
- 50 preset memories
- Maximum load:22lbs(10kg)
- Maximum control distance:1,640ft(500m)
(from AW-RP501/505/301)
- RS-232C interface

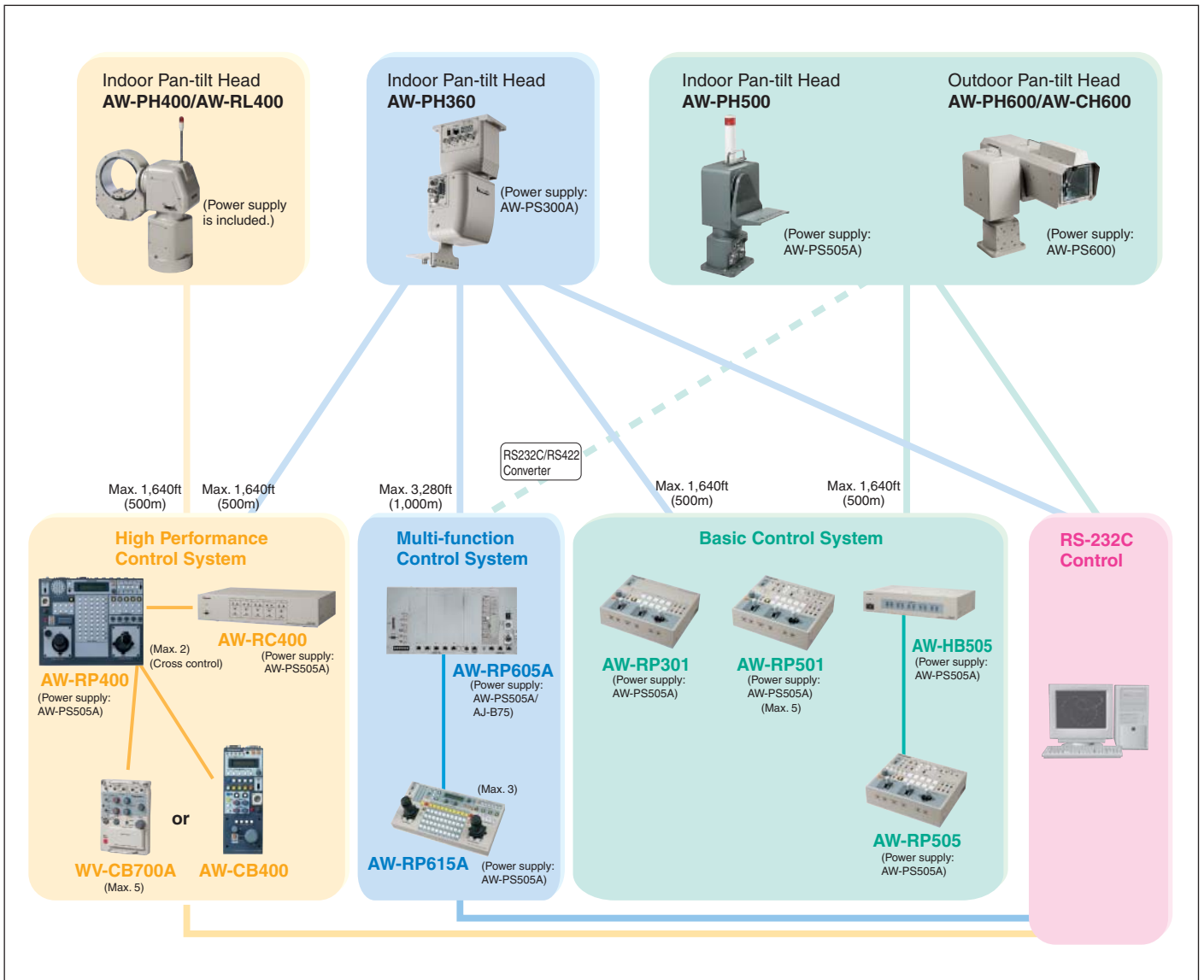
AW-PH600

Power	DC15V
Power Consumption	Approx. 27W
Dimensions	15-3/16"(W)X19-3/8"(H)X8-1/4"(D)(386(W)X492(H)X210(D)mm)
Weight	Approx. 30.8lbs(14kg)
Accessories	Rotating armX1, Arm fixing screwX8, Video relay boxX1

AW-CH600

Power	Supplied from AW-PH600
Dimensions	10-7/8"(W)X10"(H)X28-5/16"(D)(277(W)X253(H)X720(D)mm)
Weight	Approx. 22lbs(10kg)
Accessories	Dedicated keyX1, Spacer/Camera mounting screw: for AW-E350,AW-E650/E655,AW-E750

Pan-tilt control system



Multi-function control system with full camera control and smooth pan-tilt head control

Five cameras/pan-tilt heads control with 50 pre-set memories

Five Pan-tilt Heads

Zoom, Focus, Iris

Three Control Panels

Five Cameras

Multi-function Controller

AW-RP605A

Zoom/iris/focus position indicator (12 steps)

LCD indicator panel & controllers for full camera control

Control switches for pan/tilt head and housing

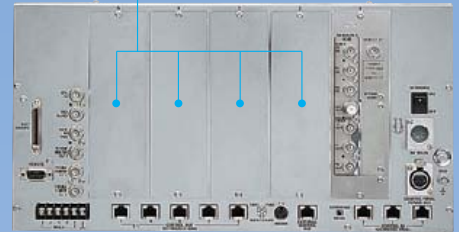
Maximum four additional optional video boards AW-PB605A can be installed in these slots.

Joystick
Lens zoom, focus or iris



Tracing memory Switches (START/STOP/RESTORE/RESET)
Camera selection switch

Joystick
Pan/tilt, focus or iris



Rear view / AW-RP605A Main connection unit

Front view / AW-RP605A control panel

Resisters
Memory buttons for recall tracing memories or 50 preset memories
Switches between high-speed mode and Low-speed mode for joystick operation

- Full camera control function
- 50 pre-set memories per camera
- 10 tracing memories (Memory time: max. 300seconds)
- Ergonomic Joystick Controller
- Five pan/tilt-camera control without hub unit
- Three controllers connection with integrated control hub
- Composite & component output
- Maximum distance from pan-tilt head to main unit of controller: 3,280ft(1,000m)
- Rack mount main connection panel unit with desk top controller

- Tally/intercom function
- Zoom/focus/iris position indicator
- RS-232C input for additional PC control

*AW-RP605A/AW-RP615A requires AC adapter, AW-PS505A. (AJ-B75 is required in more than two video boards)

Power supply	10.8-16V DC
Power Consumption	Approx. 16.8W
Dimensions	Main Unit-16-9/16"(W)X8-11/16"(H)X5-15/16"(D)(420(W)X220(H)X150(D)mm) Panel-16-9/16"(W)X2-7/16"(H)X8-11/16"(D)(420(W)X52(H)X220(D)mm)
Accessories	Connecting Cable(10m)X1, Plug for intercom headsetX1 Plug for intercom systemX1, Rack mount bracketX4, Mounting screwX8

Full control of camera setting and picture quality

Full Camera Control

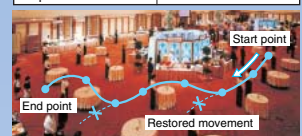
This control unit AW-RP605A can control full functions and picture quality of the camera in addition to lens and pan-tilt head motion. Maximum five cameras can be controlled by one AW-RP605A controller and it is relatively easy to match pictures of each camera and camera conditions.

Camera Control Switch	Setting by menu. Gain: AUTO/MANU Bar/Cam White Balance: ATW/A/B AWC start ABC start
Controls	R/B gain, R/B pedestal

Record/playback of pan-tilt head movement and camera condition Tracing Memory

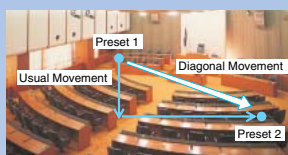
Tracing memory allows the operator to program his critical path moves into the system for easy and repeatable moves at a later time. Up to 10 can be programmed per camera. A total of 300 secs. is allowed.

Memory operation	Recording time
10 operations	30 seconds
5 operations	60 seconds
2 operations	150 seconds
1 operations	300 seconds



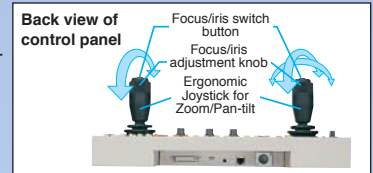
Recall of 50 preset camera positions and conditions Preset Memory

By setting camera position in advance, the preset memory buttons allow you to recall any position instantly. The system is capable of memorizing a maximum 250 positions for five camera pan-tilt head systems, up to 50 positions per camera. And also, when moving between the two preset positions, pan-tilt head delivers natural and smooth camera operation with diagonal movement. The contents of preset memories are pan/tilt/zoom/focus/iris and white balance control.



Flexible speed control of camera/pan-tilt head motion Joystick Control

This joystick controls camera/pan-tilt head from very delicate motion to high speed movements. The ergonomically designed grip and servo speed control, activated by tilting the joystick offers superb operability. This results in smooth motion of lens zoom/focus and pan-tilt head. In addition, this system is equipped with a button to switch between high speed and low speed, which offers more delicate movements for the camera/pan-tilt head.



Additional video board for AW-RP605A

AW-PB605A



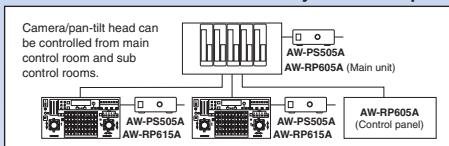
- Up to 4 video boards can be added to the AW-RP605A in addition to the standard accessory video board.
- Each camera requires one video board for video processing.

Power supply	10.8-16V DC
Power Consumption	Approx. 4.8W
Dimensions	4-5/8"(W)X2-3/16"(H)X5-7/16"(D)(117(W)X56(H)X139(D)mm)
Weight	Approx. 1.03lbs(0.47kg)

Additional control panel

AW-RP615A

<System Example>



- Up to 2 of these additional control panels can be connected to the AW-RP605A main unit.
- Maximum cable length from main unit to control panel: 3,280ft(1km)

Note: This max. length is total length of each control panel combined with 10BASE-T straight cable.

*AW-RP615A requires AC adapter, AW-PS505A.

Power supply	10.8-16V DC
Power Consumption	Approx. 7.2W
Dimensions	16-9/16"(W)X2-7/16"(H)X8-11/16"(D)(420(W)X52(H)X220(D)mm)
Accessories	Plug for intercom headsetX1, Rack mount bracketX2, Mounting screwX4

Small size control panels for simple operation

Control Panels

Controls indoor and outdoor pan-tilt head, and camera operation.

Multi-hybrid Control Panel **AW-RP505**



Front view



Rear view

- With 3 coaxial cables (Belden 8281) and a 10BASE-T (UTP Category 5) straight cable, all manner of camera and pan-tilt head operations can be accomplished, as well as transmission of video signals and genlock signals.
- * In addition to the pan-tilt positions of the camera, lens settings for zoom, focus, and iris, as well as ATW, A/B white balance can be preset for easy switchover (maximum of 10 patterns).
- Controls up to 5 sets of cameras and pan-tilt heads with Multi-port Hub Unit (AW-HB505).
- *AW-RP505 requires AC adapter, AW-PS505A.

Power supply	12 DC
Power Consumption	Approx.0.5A
Dimensions	8-1/4"(W)X3-7/16"(H)X6-15/16"(D) (210(W)X88(H)X177(D)mm)
Weight	Approx. 4.8lbs(2.2kg)
Accessories	StickerX1 ,Rack Mtg.BracketX2 Connecting BracketX1,ScrewX12

Controls up to 5 camera pan-tilt systems.

Multi-port Hub **AW-HB505**

For AW-RP505

*AW-HB505 requires AC adapter, AW-PS505A.



Front view



Rear view

- In combination with AW-RP505, up to 5 camera pan-tilt systems can be controlled.
- A cable to connect this unit and a multi-hybrid control panel can be extended up to 10 m, and a cable between the main unit, and camera and pan-tilt head up to 1,640ft(500m).

Power supply	12V DC
Power consumption	Approx. 12V 2 A
Dimensions	16-1/2"(W)X3-7/16"(H)X9-13/16"(D) (420(W)X88(H)X250(D)mm)
Weight	Approx. 8.8lbs(4 kg)
Accessories	Rack mounting clamp x 2, Mounting screw x 4

Hybrid Control Panel

AW-RP501



Front view



Rear view

- Controls one camera and one pan-tilt head.
- *AW-RP501 requires AC adapter, AW-PS505A.

Power supply	12 DC
Power Consumption	Approx.0.7A
Dimensions	8-1/4"(W)X3-7/16"(H)X6-15/16"(D) (210(W)X88(H)X177(D)mm)
Weight	Approx. 4.8lbs(2.2kg)
Accessories	StickerX1 ,Rack Mtg.BracketX2 Connecting BracketX1,ScrewX12

Pan-tilt Control Panel

AW-RP301



Front view



Rear view

- Controls one pan-tilt head.
- *Panasonic CCTV camera or the other company's camera is possible.
- *AW-RP301 requires AC adapter, AW-PS505A.

Power supply	12V DC
Power Consumption	Approx.0.3A
Dimensions	8-1/4"(W)X3-7/16"(H)X6-15/16"(D) (210(W)X88(H)X177(D)mm)
Weight	Approx. 4.6lbs(2.1kg)
Accessories	StickerX1 ,Rack Mtg.BracketX2 Connecting BracketX1,ScrewX12

High Performance Controller

Pan-tilt Controller AW-RP400



Joystick controller can be changed for seesaw controller (standard accessory).



Seesaw controller



Rear view

- Changeable zoom/focus controller (joystick/seesaw)
- Joystick with camera roll control
- 50 preset positions
- 5 pan-tilt heads control
- Zoom/Focus/Pan/Tilt speed control
- Tally/Intercom function
- 10 minutes tracing memory(60 seconds x 10 positions)
- RS232C interface
- Maximum control distance:1,640ft(500m)
- Cross control by two controllers
- Camera control inputs(AW-CB400 or WV-CB700A)
- +DC12 V operation(AC adapter, AW-PS505A is required.)

Power	DC12 V
Power Consumption	Approx.13 W
Weight	Approx.8.4lbs(3.8kg)
Dimensions	8-1/4"(W)X3-7/16"(H)X6-15/16"(D) (210(W)X88(H)X177(D)mm)
Accessories	Rack mounting plate x 2 Mounting screws(M4X8) x 4 Seesaw controller

Remote control units control image quality of convertible cameras

4 models designed for camera control

Remote control units (RCUs) are specialized for image quality adjustment, control, and other camera settings. Equipped with a tally/intercom connector, an intercom can be used. Power supply to camera is also possible. Compact remote control boxes allow users to keep camera control handy.

Remote Control Units (RCUs)

Remote Control Unit WV-RC700A

Front view



Rear view



- Component/Y/C and composite signals are available with this unit.
- Using a coaxial multiplex adapter (AW-ML600), control of camera/lens/pan-tilt head and receiving of sound/video signals are possible with one coaxial cable Belden8281.
- Can remotely control convertible camera settings, switching, and make precise adjustments.
- 26-pin studio cable (WV-CA26U15, WV-CA26U30, WV-CA26U100) can be extended up to 300 meters using the joint adapter WV-CA26T26.
- Connecting with an RCU cable (AW-CA50A26), camera settings, switching, and adjustment are remotely controlled. Power supply to camera is also available.
- Equipped with tally/intercom, AUX (for line view) inputs, contact-closure type camera mount control input terminal (15-pin D-sub)
- Built in WV-CB700A remote control unit can be detached and extended up to 164ft(50m).
- Maximum control distance :984ft(300m)

Camera control functions

Switch:RCB ON/OFF, gain up, color bar/camera, detail correction switch, cable compensation switch, white balance, auto white/auto black setting, shutter speed switch, scene files, lens iris select, user settings, user setting item restriction, gen-lock sub carrier phase coarse adjustment

Adjustment:RB gain, RB pedestal, total pedestal, lens iris adjustment, gen-lock horizontal phase, gen-lock sub carrier phase, cable compensation Y/chroma level, intercom audio level

Power supply	AC 120 V (P)/ AC 220-240 V(B/G)
Power consumption	Approx. 86 W
Dimensions	8-1/8"(W)X5-3/16"(H)X14-9/16"(D) (206.5(W)X132(H)X370(D)mm)
Weight	Approx. 15.62lbs(7.1 kg)
Accessories	4P connector (for tally/intercom) x 1, N-type connector x 1

Remote Control Unit WV-RC550

Front view



Rear view



- Composite and Y/C signal are offered with this unit.
- Can remotely control a variety of convertible camera settings, switching, and make precise adjustments.
- 26-pin studio cable (WV-CA26U15, WV-CA26U30, WV-CA26U100) can be extended up to 100 meters using the joint Adapter WV-CA26T26.
- Connecting with an RCU cable (AW-CA50A26), camera settings, switching, and adjustment are remotely controlled. Power supply to camera is also available.
- Equipped with tally/intercom, AUX (for line view) inputs, contact-closure type camera mount control input terminal (15-pin D-sub).
- Maximum control distance: 328ft(100m).

Camera control functions:

Switch: gain up, gain selection, night eye, color bar/camera, detail correction switch, cable compensation switch, auto white/ auto black setting, white balance, scene files, electronic shutter switch, lens iris select, gen-lock sub carrier phase coarse adjustment.

Adjustment: RB gain, RB pedestal, total pedestal, lens iris adjustment, gen-lock horizontal phase, gen-lock subcarrier phase fine adjustment, Y gain adjustment, cable compensation Y/chroma level, intercom audio level.

Power supply	AC 120V(P)/ AC 220-240V(B/G)
Power consumption	Approx. 56 W
Dimensions	16-1/2"(W)X3-7/16"(H)X9-13/16"(D)/(420(W)X88(H)X250(D)mm)
Weight	Approx. 14.74lbs(6.7 kg)
Accessories	4P connector (for tally/intercom) x 1, Display panel, Rack mounting bracket x 1, Mounting screws x 4

Remote Control Box WV-CB700A



- Light weight and compact size
- Extending from a remote control unit, this box allows users to remotely control a camera up to 164lbs(50m) away.
- Can be connected direct to a convertible camera with an RCB cable AW-CA50T10.

Camera control functions:

Switch: RCB ON/OFF, gain up, color bar/camera, detail correction switch, white balance, auto white/black settings, shutter speed selection, scene files, lens iris select, user settings, genlock sub-carrier phase

Adjustment: RB gain, RB pedestal, total pedestal, lens iris adjustment, genlock horizontal/sub carrier phase

Power supply	Supplied from camera
Dimensions	3-9/16"(W)X5-3/16"(H)X2"(D)/(90(W)X131(H)X51.5(D)mm)
Weight	Approx. 0.81lbs(0.37 g)
Accessories	RCB cable (2 m) x 1, Display panel

Camera Remote Control Unit AW-CB400

Rear view



Front view



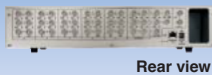
- Five cameras control
- Full camera control
- +DC12V operation
- Tally/Intercom function

*Power is supplied from AW-RP400. Power supply, AW-PS505A is required for controlling camera directly(Maximum control distance : 3,280ft(100m)).

Power supply	DC12 V, Approx.3.8 W
Weight	Approx.3.08lbs(1.4 kg)
Dimensions	3-5/16"(W)X3-3/8"(H)X10-7/16"(D) (100(W)X85(H)X266(D)mm)
Accessories	Pan-tilt controller connection cable

Cable Compensation Unit AW-RC400

Front view

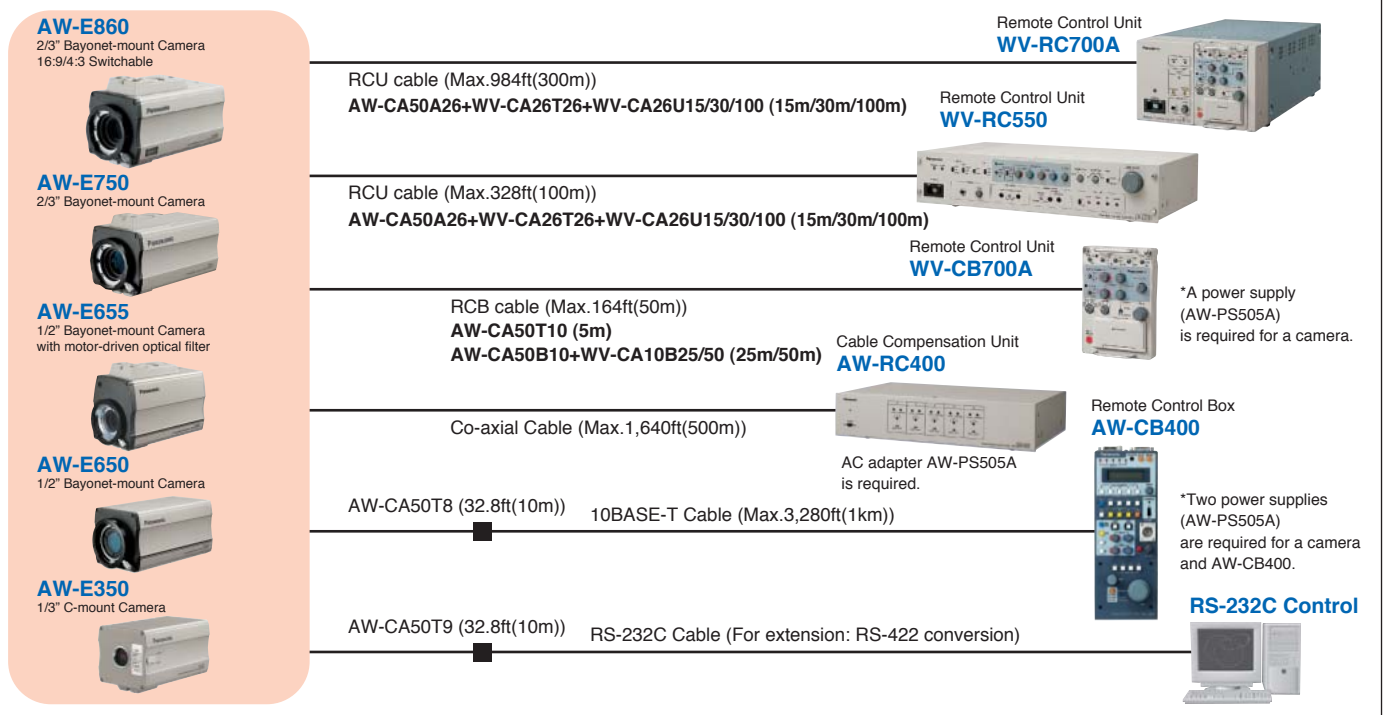


Rear view

- Five channels compensation
- Composite, Y/C, Y/Pb/Pr, R/G/B
- +DC12 V operation (AC adapter AW-PS505A is required.)

Power supply	DC12 V, Approx.9 W
Weight	Approx.8.14lbs(3.7 kg)
Dimensions	16-1/2"(W)X3-7/16"(H)X9-13/16"(D) (420(W)X88(H)X250(D)mm)
Accessories	Pan-tilt head connection cable, Screw(M4X8) x 3

Camera Control System



Switcher for live production of images

For live switching of video images

This switcher switches images transmitted from up to five cameras, using wipe effects, etc. Its compact design is very convenient for field use.

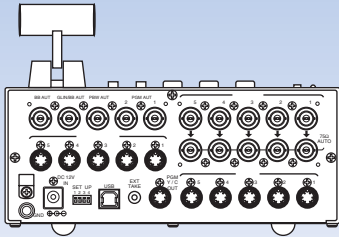
5 inputs compact live switcher with 5 frame synchronizers

AW-SW350



Front view

Rear view



- 5 inputs (composite and YC) in compact body (half rack size)
- Three program outputs and one preview output
- Selectable bus switching system
- 10 bit, 5-channel frame synchronizer/genlock system switchable
- Frame capture, soft wipe and linear key
- DC12V operation
- Tally and intercom function
- NTSC/PAL switchable
- AC adapter AW-PS505A is required.

Power supply	12V DC
Power consumption	Approx. 1.35 A (16 W)
Dimensions	8-1/4"(W)X3-3/8"(H)X6-15/16"(D)(210(W)X86(H)X176(D)mm)
Weight	Approx. 4.8lbs(2.2 kg)
Accessories	Tally/Intercom connector x 4, Rack mounting clamp x 2, Connection bracket x 1, Screw kit x 1

Other Peripherals

Signal Converter AW-EX500



- 1 analog input (composite, Y/C, component) and SDI
- SDI output by option card
- An additional card adapter (AW-EX100) attachable
- Output: video (component, RGB, Y/C-D-sub connector)
- *An optional AC adapter (AW-PS505A)

Power supply	12V DC
Power consumption	Approx. 6.8 W
Dimensions	3-5/16"(W)X3-1/16"(H)X6-1/8"(D) (84(W)X77(H)X155(D)mm)
Weight	Approx. 1.5lbs(0.7 kg)
Accessories	Rubber feet x 4

Coaxial Multiplex Adapter AW-ML600



Front view

Rear view



- Multiplexes and sends power, control, and video/genlock signal through a coaxial cable to convertible camera and pan-tilt head.
- Converts DC power to DC12V, and supplies it from a remote control unit (WV-RC700A). Connects RCU and AW-ML600 with a coaxial cable. (300 m for Belden 8281: N-type connector included.)
- *Not available in some areas.

Power supply	85-110V DC (supplied from remote control unit)
Power consumption	Approx. 45W
Dimensions	8-1/8"(W)X2-1/8"(H)X9-13/16"(D) (206.5(W)X53.5(H)X250(D)mm)
Weight	Approx. 7.7lbs(3.52 kg) (incl. cable)
Accessories	N-type connector (NP101) x 1, Cable (for connection with pan-tilt head) x 1

AC Adapter AW-PS505A



DC Cable included.
For AW-HB505 convertible cameras, live switcher, AW-PH500, AW-RP505, AW-DU600 and more.

Power	AC120V(P)/AC220V-240V(B/G)
Power consumption	Approx. 76W
Dimensions	5-3/16"(W)X2"(H)X10-13/16"(D) (132(W)X51(H)X275(D)mm)
Weight	Approx. 3.5lbs(1.6 kg)
Accessories	Power DC cables (X3)

Public Telephone Line Connecting Adapter / RS232C Distribution Adapter AW-DU600

Enables remote control of camera and pan-tilt head



- AW-PS505A required.
- With use of a public telephone line, remote control of camera and pan-tilt head can be done through AW-RP501 series and PC.
- Up to 5 sets of camera and pan-tilt heads can be controlled with distribution function.
- Directly controllable pan-tilt and zoom/focus.
- * Not available in some areas.
- * Modem required.

5-inch Viewfinder WV-VF65B AW-VF80

- For AW-E860, 16:9/4:3 swichable



Power supply	12V DC (supplied from camera head)
Power consumption	Approx. 13.2 W (12V DC, 1.1 A)
Dimensions	6-3/16"(W)X8-3/8"(H)X14-1/4"(D) (156(W)X213(H)X361.5(D)mm)
Weight	Approx. 6.27lbs(2.85 kg)
Accessories	Tally card x 2, mounting bracket x 1, electronic viewfinder mounting base x 1, hood x 1, tally lamp, base mounting screw (M4) x 2, hood mounting screw (M5) x 2

EVF Mounting Bracket AW-Q40

- For WV-VF65B/AW-VF80
- * AW-Q40 is not required for SDI studio card (AW-PB506).






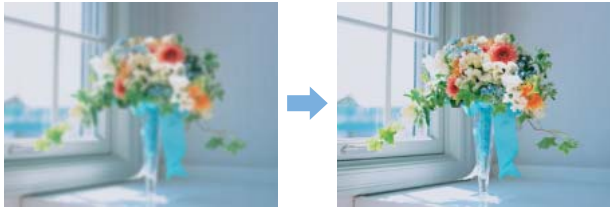


Lenses / Cables




Cables list

Name	Number	Connection apparatus		Length	Note
Power cable	AW-CA8U30	AW-PS600	AW-PH600	30m	
Camera control cable for video signal	AW-CA16U10 / 30	AW-PH600	VTR, AW-RP501, AW-HB505 etc.	10m, 30m	VBS output, Component output, Camera Control
Pan-tilt control cable	AW-CA24U10 / 30	AW-PH600	AW-RP501, AW-CA26U15 etc.	10m, 30m	
Cable joint adapter	WV-CA26T26	AW-E750 etc.	AW-CA26U15 etc.		Connects AW-CA50A26 to longer lengths
Studio cable (26P-26P)	WV-CA26U15 / 30 / 100	AW-E750 etc.	WV-RC550, WV-RC700A	15m, 30m, 100m	
RCB cable	AW-CA50T10	AW-E750 etc.	WV-CB700A	5m	Camera ~ RCB
For RCB cable extension	AW-CA50B10	AW-E750 etc.	AW-CA10B02 etc.	5m	Camera ~ RCB extension cable
RCB extension cable	WV-CA10B25 / 50	AW-CA50B10	WV-CB700A	25m, 50m	10P-10P
Lens extension cable	AW-CA12T12A		AW-E750 etc.	0.15m	12P-12P
RCU cable	AW-CA50A26	AW-E750 etc.	WV-RC550 etc.	15m	
RGB cable	AW-CA50T6	AW-E750 etc.	Monitor, VTR etc.	5m	BNCx5 + S terminal
For RGB extension cable	WV-CA9T5	AW-EX500 etc.	Monitor etc.	5m	D-Sub 9pin-BNCx5
Pan-tilt cable (for pan-tilt control panel)	AW-CA50C15 AW-CA50D15	AW-E750 etc.	AW-PH600	0.4m	Control panel, Component & Composite signal RS-232C(PC), Component & Composite signal
RS-232C pan-tilt cable	AW-CA28T9	AW-PH360	PC	5m	Pan-tilt head is controlled by PC
RS-232C camera control cable	AW-CA50T9	AW-E750 etc.	PC	10m	Camera is controlled by PC
Camera control cable	AW-CA50T8	AW-E750 etc.	AW-CB400	10m	

Lenses

Camera	Lens	Description	Focal length (Max. aperture)	Picture
AW-E350	AW-LZ10MD6	10X MD Zoom Lens	6-60mm (F1.6)	 (AW-LZ10MD6)
	AW-LZ16MD55	16X MD Zoom Lens	5.5-88mm (F1.4)	
	AW-LZ16ST55	16X Studio Zoom Lens	5.5-88mm (F1.4-1.8)	
AW-E650 AW-E655	AW-LZ16AF7	16X Auto Focus MD Lens	7-122mm (F1.9-2.0)	 (AW-LZ16MD55)  (AW-LZ16AF7)  (AW-LZ16MD73)  (AW-LZ17MD9A)
	<ul style="list-style-type: none"> • Work saving by automatic focusing from wide angle to zoom up image (Application example: Parking lot, Dam/river watching, Airport watching, Race track, Harbor surveillance, etc.) • Work saving for camera operators in operation of several cameras by one man operator (Application example: Parliament, Distance learning, Religious production, Shopping mall surveillance, etc.) 			
	<The Image of Auto Focus operation>			
				
	AW-LZ16MD73	16X MD Zoom Lens	7.3-117mm (F1.9-2.3)	
AW-LZ17ST66	17X Studio Zoom Lens	6.6-114mm (F1.5-1.9)		
AW-E750 AW-E860	AW-LZ17MD9A	17X MD Zoom Lens	9-153mm (F1.9-2.6)	
	AW-LZ17ST9A	17X Studio Zoom Lens	9-153mm (F1.9-2.6)	

Control Kits

Control Kit AW-LK30 For MD (Motor Drive) Lenses Cable Length : 190 cm 	Zoom Control Kit WV-LK36 For Studio Zoom Lens AW-LZ17ST9A AW-LZ17ST66 Lens Control Kit WV-LK35 For Canon Zoom Lens 	Lens Control Kit AW-LK50 For Studio Zoom Lens AW-LZ16ST55 
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------

Excellent system expandability accommodates

High Performance Camera/Pan-tilt Control

System example

AW-LZ17MD9A (For AW-E860/E750)
AW-LZ16MD73 (For AW-E655/650)

AW-E860/E750/E655/E650

Indoor Pan-tilt head AW-PH400

※ Tripod mounting plate

PT-Tripod

AC Adapter AW-PS505A

10BASE-T (X1)

Monitor

Pan-tilt Control Panel AW-RP400

Camera Control Unit AW-CB400

Cable Compensation Unit AW-RC400

AC Adapter AW-PS505A

※ Local procurement

Key Products

- AW-E860/E750/E655/E650
- AW-PH400
- AW-RP400
- AW-CB400/AW-RC400

Key Points

- High quality camera
- High performance camera/pan-tilt head/controller
- Max. control distance : 1,640ft(500m)

Simple Camera/Pan-tilt Control

System example

AW-LZ17MD9A (For AW-E860/E750)
AW-LZ16MD73 (For AW-E655/650)

AW-E860/E750/E655/E650

Indoor Pan-tilt head AW-PH360

※ Tripod mounting plate

PT-Tripod

SDI card AW-PB504

BNCX1

DVCPRO VTR AJ-D455

Monitor

10BASE-T (X1)

Belden 8281 (X3) (Max. 1,640ft(500m))

Hybrid control panel AW-RP501

Monitor

Adapter AW-PS300A

AC Adapter AW-PS505A

※ Local procurement

Key Products

- AW-E860/E750/E655/E650
- AW-PH360
- AW-RP501

Key Points

- High quality camera
- Compact size, quiet pan-tilt head
- Compact size controller
- Max. control distance : 1,640ft(500m)

Multi-Function Camera/Pan-tilt Control System

System example

Pan-tilt head AW-PH360

AC adapter AW-PS300A

AC

AW-E860/E750/E655/E650

AC

Camera 1

Camera 5

Video output x 5

GL IN TALLY IN

※1 Coaxial cable x 2

10BASE-T straight cable x 1

※2 On-site production

※3 Dedicated cable (10 m)

※4 10BASE-T straight cable x 1

AW-RP605A (main unit)

Video board AW-PB605A x 4

RS-232C

PC

AC adapter AJ-B75

AC adapter AW-PS505A

Power cable

Intercom headset

AC adapter AW-PS505A

Power cable

Intercom headset

AC adapter AW-PS505A

Power cable

Intercom headset

Monitor

Additional control panel AW-RP615A

Monitor

Additional control panel AW-RP615A

Control panel for multi-function controller AW-RP605A

Sub control room

Sub control room

Main control room

Key Products

- AW-E860/E750/E655/E650
- AW-PH360
- AW-RP605A

Key Points

- High quality camera
- Quiet/accurate camera/pan-tilt head
- Multi-Function Control
- Max. control distance : 3,280ft(1,000m)

For video recording studio and field production

- News Studio
- CATV Studio
- Internet Video Studio
- Virtual Studio
- Field Production
- Wedding Production



As a permanent camera system for a variety of facilities.

- Sports Arena
- Government
- Auditorium
- Race Track
- Conference Halls



Compact Camera/Pan-tilt Controller System

System example

Indoor pan-tilt head AW-PH360

AW-E350

CAM 1

CAM 3

AC Adapter AW-PS300A

※2

AC Adapter AW-PS505A

AC Adapter AW-PS505A

VBS

G/L

Multi-port hub AW-HB505

※1

Multi-hybrid control panel AW-RP505

Live switcher AW-SW350

Monitor

CAM 1

CAM 2

CAM 3

Preview

DVCPRO VTR AJ-D455

※1 BNC X3

10BASE-T X1

※2 DC Power cable

Key Products

- AW-E350
- AW-PH360
- AW-RP505
- AW-SW350

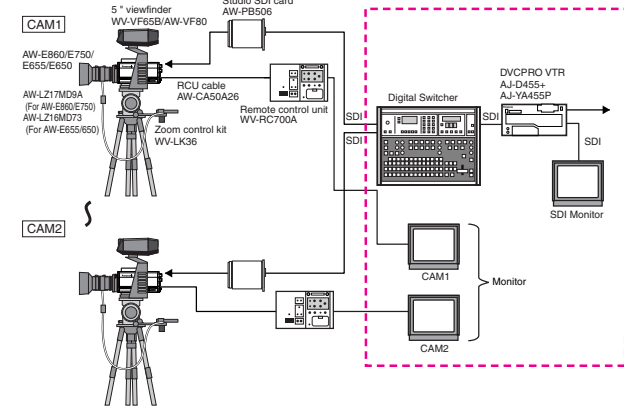
Key Points

- Compact size camera
- Compact size, quiet pan-tilt head
- Compact size controller (Max. five camera / Pan-tilt Control)
- Max. control distance : 1,640ft(500m)
- Compact live switcher

a variety of shooting purposes

High Performance Studio Camera

System example



Key Products

- AW-E860/E750/E655/E650
- WV-VF65B/AW-VF80
- WV-RC700A

Key Points

- High quality camera
- 4.5" B/W Viewfinder
- Full function RCU
- Max. control distance : 984ft(300m)

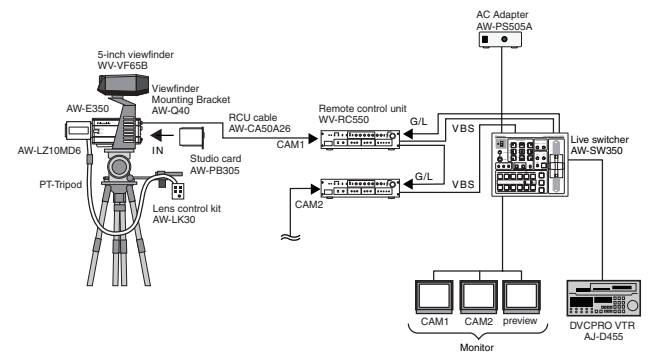
For education video shooting

- School Studio
- Distance Learning



Cost Effective Studio Camera

System example



Key Products

- AW-E350
- WV-VF65B
- WV-RC550
- AW-SW350

Key Points

- C Mount lens camera
- 4.5" B/W Viewfinder
- Simple function RCU
- Max. control distance : 328ft(100m)
- Compact live switcher

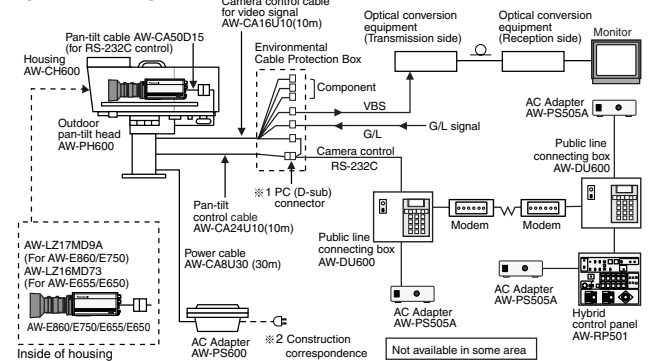
For information gathering/ event shooting

- Shopping Mall Event
- Weather Information camera
- Traffic Information Camera



Outdoor Camera Pan-tilt Control Camera System

System example



Key Products

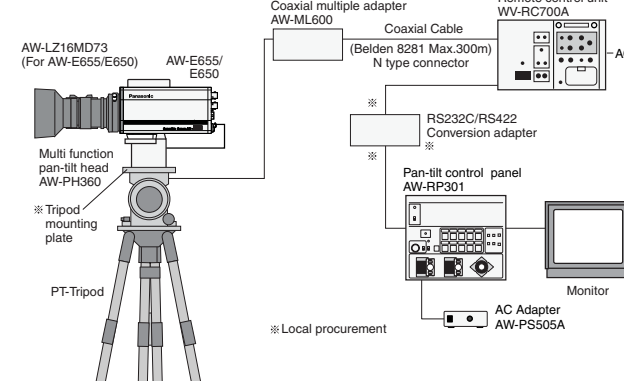
- AW-E860/E750/E655/E650
- AW-PH600/AW-CH600
- AW-DU600
- AW-RP501

Key Points

- High quality camera
- Remote control optical filter (AW-E655)
- All weather type camera housing
- Camera/pan-tilt control through public telephone line

Single Coaxial Camera/Pan-tilt Control System

System example



Key Products

- AW-E655/E650
- AW-PH360
- AW-ML600
- WV-RC700A/AW-RP301

Key Points

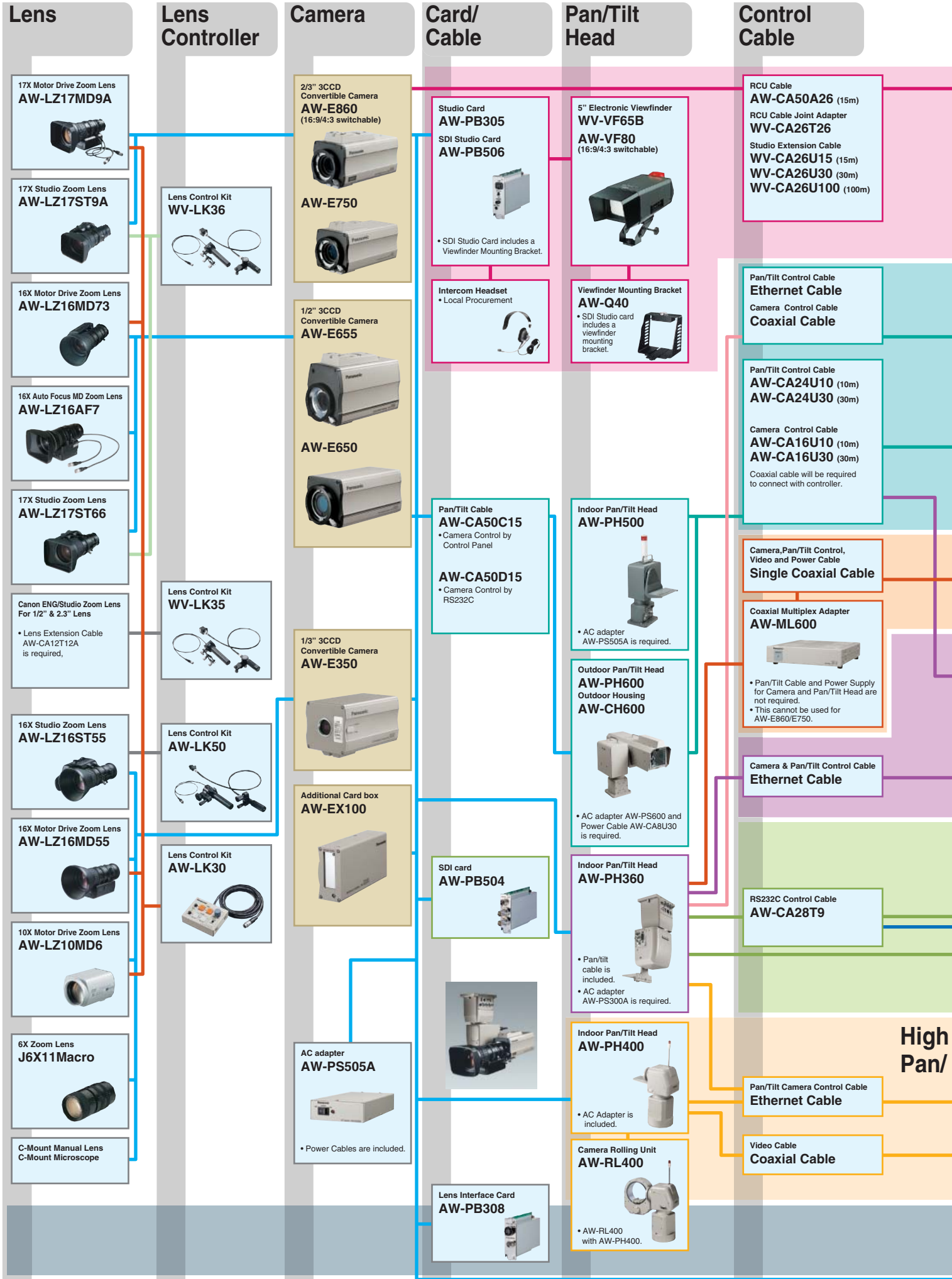
- High quality camera
- Camera/pan-tilt control by single coaxial cable
- Camera/pan-tilt power from RCU
- Full function RCU
- Max. control distance : 984ft(300m)

For medical/research shooting

- Medical Operation Room
- Microphotography
- Graphic Camera



Product configuration diagram



Control Unit

Switcher/ Converter

Studio System



Remote Control Unit
VV-RC700A



Remote Control Unit
VV-RC550



Intercom Headset
• Local Procurement



Live Switcher
AW-SW350



• AC adapter:AW-PS505A

Simple Function Pan/Tilt Control System

Pan/Tilt Control Panel
AW-RP301



• For one pan/tilt head
• AC adapter AW-PS505A is required.

Hybrid Control Panel
AW-RP501



• For one camera and pan/tilt head
• AC adapter AW-PS505A is required.

(AW-RP501 only)

Signal Converter
AW-EX500



• AC adapter:AW-PS505A

Multi-Control Hub Unit
AW-HB505



• For max. five cameras and pan/tilt heads.
• AC adapter AW-PS505A is required.

Multi-Hybrid Control Panel
AW-RP505



• For five cameras and pan/tilt heads
• AC adapter AW-PS505A is required.

Additional Card box
AW-EX100



Remote Control Unit
VV-RC700A



RS422/232C Converter
(Local Procurement)

Pan/Tilt Control Panel
AW-RP301



• For one pan/tilt head
• AC adapter AW-PS505A is required (For AW-PH300A only)

Single Coaxial Multiplex Control System

RS422/232C Converter
(Local Procurement)

Multi-Function Control Panel
AW-RP605A



• AC adapter AJ-B75 or AW-PS505A is required.
Note:Confirm power capacity in AW-RP505.

Additional Video Card
AW-PB605A



Multi-Function Pan/Tilt Control System

Additional Control Panel
AW-RP615A



• AC adapter AW-PS505A is required.

(AW-RP501 only)

SDI Card
AW-PB504



Dial-up Adapter
AW-DU600



(Public Telephone Line Connecting Box/RS232C Distribution Box)
• AC adapter AW-PS505A is required.

Dial-up Adapter Control System

Modem
• Use an approved modem by factory.

(Telephone Line)

Modem
• Use an approved modem by factory.

Dial-up Adapter
AW-DU600



(Public Telephone Line Connecting Box/RS232C Distribution Box)
• AC adapter AW-PS505A is required.

Pan/Tilt Control Panel
AW-RP301



• For one pan/tilt head
• AC adapter AW-PS505A is required.

Multi-Hybrid Control Panel
AW-RP505



• For five cameras and pan/tilt heads
• AC adapter AW-PS505A is required.

Hybrid Control Panel
AW-RP501



• For one camera and pan/tilt head
• AC adapter AW-PS505A is required.

RCB Cable
AW-CA50T10

Remote Control Box
VV-CB700A



Performance Tilt Control System

Pan/Tilt Control Panel
AW-RP400



• AC adapter AW-PS505A is required.

Camera Control Unit
AW-CB400



Cable Compensation Unit
AW-RC400

• AC adapter AW-PS505A is required.



Camera Control System

PC Control Cable
AW-CA50T9
(D-Sub 9Pin 10m)

RCB Cable
AW-CA50T10 (5m)

RCB Extension Cable
AW-CA50B10

RCB Extension Cable for AW-CA50B10
VV-CA10B25 (25m)

VV-CA10B50 (50m)

Camera control cable
AW-CA50T8 (10m)

Personal Computer



Camera Control Box
VV-CB700A



• AC adapter AW-PS505A is required for camera.

Camera Control Unit
AW-CB400



• AC adapter AW-PS505A is required.

■Ratings (NTSC <PAL>)

	AW-E860	AW-E750	AW-E655	AW-E650	AW-E350
Image elements	2/3" IT type 3-CCD		1/2" IT type 3-CCD		1/3" IT type 3-CCD
Pixels	Total elements	Approx. 510,000 <595,728>			
	Effective elements	Approx. 460,000 <538,200>			
Imaging area	8.8HX6.6V(mm) (2/3" 4:3) 9.6HX5.4V(mm) (2/3" 16:9)	9.6HX5.4V(mm) (equivalent to 2/3")	6.4HX4.8V(mm) (equivalent to 1/2")		4.8HX3.6V(mm) (equivalent to 1/3")
Scanning System	2:1 interlaced NTSC system<2:1 interlaced PAL system>				
Scanning Frequency	Horizontal=15.734kHz, Vertical=59.94Hz<Horizontal=15.625kHz, Vertical=50Hz>				
Lens mount	2/3" Bayonet Mount		1/2" Bayonet Mount		1/3"C Mount
Optical Filter	None		1/16ND, 1/64ND, 3200K, IR Through	None	
Synchronize system	Internal/external synchronization				
Standard Illumination	2000lx, F11	2000lx, F14			2000lx, F9.5
Minimum Illumination	0.4 lx(F1.7, Night Eye H)	0.005lx (F1.4) 0.00005lx (F1.4) (2sec. CCD accumulation)			0.015lx (F1.4) 0.00015lx (F1.4) *2
Signal-to-noise Ratio	65dB (DNR on) <63dB (DNR on)>	67dB (DNR on) <65dB (DNR on)>			65dB (DNR on) <63dB (DNR on)>
Horizontal Resolution	850lines				
Registration	0.05%				
Image Enhancer	Horizontal/vertical				
White Balance	A/B 2 memory AWC, ATW				
Black Balance	Self-adjusting				
Color Bar	SMPTE color bar(setup 0/7.5IRE)<EBU colour bar>				
Shutter Speed	OFF, 1/100<1/120>, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 Synchro-scan ELC				
Gain	Manual: max. 42dB (0~30dB in steps, Night Eye H/L) Auto: max. 42dB (AGC 0~30dB, Night Eye/H)	Manual: max. 72dB (0~30dB in steps, Night Eye/H, Digital Gain 0~30dB in 6dB steps) Auto: max. 42dB (AGC 0~30dB, Night Eye/H)			
Iris	Auto (Manual by RCU control)				
Video Output	Composite: 1 Vp-p/75Ω (BNC, 50P connector) YC: Y 1 Vp-p, C 0.286Vp-p<0.3Vp-p> (50P connector) Component: Y 1.0Vp-p, Pr/Pb 0.7Vp-p, RGB 0.7Vp-p/75Ω (50P connector)				
Power	DC 12V				
Power Consumption	Approx. 15.4W	Approx. 12.6W	Approx. 12W	Approx. 11.8W	Approx. 11.3W
Operating Temperature	14°F~113°F(-10°C~+45°C)				
Weight	Approx. 2.5lbs (1.15kg)	Approx. 2.4lbs (1.1kg)	Approx. 2.6lbs (1.2kg)	Approx. 2.02lbs (0.92kg)	Approx. 1.5lbs (0.7kg)
Dimensions	3-5/16" X 3-3/4" X 7-9/16" (84W X 95H X 192D mm)	3-5/16" X 3-3/4" X 7-9/16" (84W X 95H X 192D mm)	3-5/16" X 4-1/2" X 7-3/16" (84W X 114H X 182D mm)	3-5/16" X 3-1/32" X 6-15/16" (84W X 77H X 177D mm)	3-5/16" X 3-1/32" X 6-1/8" (84W X 77H X 156D mm)

*Note 1 = The lens should be within 4.3mm from the lens mount face. Otherwise, there is a risk of damaging the camera unit.

*Note 2 = 2 sec. CCD charge accumulation.

*Weight and dimensions shown are approximate.

*Features and Specifications are subject to change without notice.

*These products may be subjects to export regulations.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Panasonic System Solutions Company
Corporate Broadcast and Multimedia Division

4-3-1 Tsunashima-higashi, Kohoku-ku,
Yokohama-city 223-8639, Japan
Phone +81 45 544 3042 Fax +81 45 544 3448
<http://panasonic.biz/broad/>

[Countries and Regions]

Argentina	+54 1 308 1610	Korea	+82 2 2106 6666
Australia	+61 2 9887 6222	Kuwait	+965 481 2123
Austria	+43 (0)1 610 80 773	Lebanon	+961 1 216827
Bahrain	+973 252292	Malaysia	+60 3 5549 5422
Belgium	+32 (0)2 481 04 57	Mexico	+52 5 488 1000
Bulgaria	+359 2 946 0786	Montenegro, Serbia	+41 (0)26 466 25 20
Brazil	+55 11 3889 4035	Netherlands	+31 73 64 02 577
Canada	+1 905 624 5010	New Zealand	+64 9 272 0100
China	+86 10 6515 8828	Norway	+47 67 91 78 00
(Hong Kong)	+852 2313 0888	Pakistan	+92 5370320 21
Czech Republic	+420 236 032 552/511	Panama	+507 229 2955
Denmark	+45 43 20 08 57	Peru	+51 145 29470
Egypt	+20 2 3938151	Philippines	+63 2 633 6162
Finland, Latvia, Lithuania, Estonia*	+358 (9)521 52 53	Poland	+48 (22)338 1100
France	+33 (0)1 49 46 43 59	Portugal	+351 21 425 77 04
Germany	+49 (0)611 235 401	Puerto Rico	+1 787 750 4300
Greece	+30 210 96 92 300	Romania*	+40 21 211 4855
Hungary	+36 (1)382 60 60	Russia & CIS	+7 095 258 42 06
Indonesia	+62 21 801 5666	Saudi Arabia	+966 1 465 0709
	+62 21 385 9449	Singapore	+65 6270 0110
Iran	+98 21 2271463	Slovak Republic	+421 (0)2 52 92 14 23
Italy	+39 02 67 88 449	Slovenia, Croatia, Bosnia, Macedonia*	+44 (0)20 76 63 36 57
Jordan	+961 6 586 1914	South Africa	+27 11 313 1400
Kazakhstan	+7 3272 504 777		

Spain	+34 (93) 425 93 00
Sweden	+46 (8) 680 26 41
Switzerland	+41 (0)41 259 96 32
Taiwan	+886 2 2725 9100
Thailand	+66 2 731 8888
Turkey	+90 216 578 3700
U.A.E.	+971 4 282201
Ukraine	+380 44 4903437
	+380 44 4903438
	[ext. 112]
U.K.	+44 (0) 1344 70 69 20
U.S.A.	+1 201 348 5300
	+1 800 528 8601

