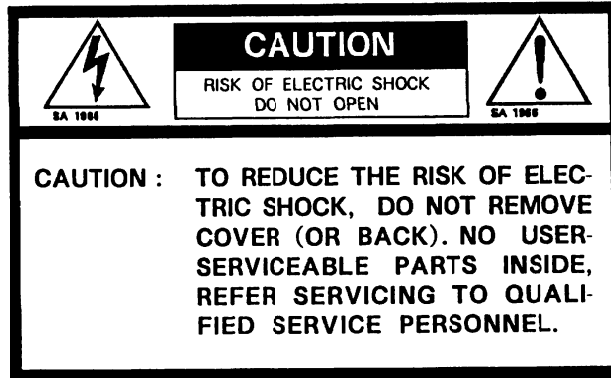


MODEL
PM 9-5A
B/W PICTURE MONITOR
OPERATION MANUAL

Ikegami



The lightning flash with arrowhead within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.



The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the equipment.

WARNING: FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS (REFER TO SERVICE LITERATURE).

AVIS: POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SÉCURITÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT (CONSULTER LE GUIDE DÉ DÉPANNAGE),

MODEL
PM9-5A
B/W PICTURE MONITOR

OPERATION MANUAL

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**WARNING : TO REDUCE THE RISK OF FIRE OR
ELECTRIC SHOCK, DO NOT EXPOSE
THIS EQUIPMENT TO RAIN OR WATER.**

Subject to change without notice.

IJ-G-AFJJ

1. General

The **PM9-5A** is a 9-inch monochrome monitor designed for monitoring and adjusting the video signals of broadcasting facilities and equipment.

It features high picture quality, versatility and economy owing to high cost - to - performance ratio.

When 19-inch rack mount (option) is used, a combination of the PM9-5A with a waveform monitor or a vector scope or two PM9-5As can be accommodated in the standard rack.

2. Features

- (1) High resolution CRT assures horizontal resolution of more than 800 TV lines (at center).
- (2) Two video input and one external sync input are provided, allowing bridge connection or 75Ω termination selected by switch.
- (3) DC restoration circuit provides video black level stability.
- (4) Delay function is provided to facilitate sync signal monitoring.
- (5) Picture size is selectable.
- (6) Red tally function is available.
- (7) VIDEO and SYNC select and tally control can be externally performed with remote connector.
- (8) Using optional rack mount adaptor, one or two PM9-5As or a combination with WFM/vector scope can be mounted in standard rack (EIA RACK).

3. IMPORTANT SAFETY INSTRUCTION


3-1 General

- ① Read all of these instructions.
- ② Save these instructions for later use.
- ③ Follow all warnings and instructions marked on the television equipment.
- ④ Never push objects of any kind into this television monitor through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television monitor.
- ⑤ Do not attempt to service this television monitor yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- ⑥ Do not use attachments not recommended by the television equipment manufacturer as they may result in the risk of fire, electric shock, or injury to persons.
- ⑦ This television monitor has been preadjusted to meet the respective broadcasting standard signals. So, it cannot be used with the signals of different broadcasting standards.
- ⑧ When keeping or transporting the unit for a long time, pack it in the supplied carton or equivalent.

3-2 Power supply

- ① This television equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your television dealer or local power company.
- ② This television equipment is provided with a three-wire grounding type plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature.
If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet.
Do not defeat the safety purpose of the grounding-type plug.
- ③ When connecting and disconnecting the power cable, be sure to hold the plug.
- ④ Do not allow anything to rest on the power cord.
Do not locate this television equipment where the cord will be abused by persons walking on it.
- ⑤ For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.
This will prevent damage to the equipment due to lightning and power-line surges.
- ⑥ Do not overload wall outlets and extension cords as this can result in fire or electric shock.

3-3 Usage and Location

- ① Do not use this television equipment near water – for example, near a bathtub, wash-bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, or the like.
- ② Do not place this television equipment on an unstable cart, stand, or table. The television equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Use only with a cart or stand recommended by the manufacturer, or sold with the television equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
Television equipment and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.

- ③ Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to ensure reliable operation of the monitor and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the television equipment on a bed, sofa, rug, or other similar surface. (This television equipment should never be placed near or over a radiator or heat register.) This television equipment monitor should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
- ④ Avoid operating or placing (keeping) in hot (+40°C or over) and cold (less than 0°C), excessively vibratory, or dusty place.
And avoid operating or placing (keeping) in the places exposed to the direct sunlight. Otherwise the cabinet may deform or the phosphor of the CRT surface may deteriorate.
- ⑤ If an image of extremely high brightness is displayed on the screen for a long time, the CRT may be cause burning.

3-4 Cleaning

- ① Unplug this television equipment from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- ② Do not use thinner or benzine for cleaning. Otherwise, the cabinet may deform or the paint may peel away.

3-5 Repair

- ① Unplug this television monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the television receiver.
 - c. If the monitor has been exposed to rain or water.
 - d. If the monitor does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the monitor to normal operation.
 - e. If the monitor has been dropped or the cabinet has been damaged.
 - f. When the monitor exhibits a distinct change in performance – this indicates a need for service.
- ② When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or injury to persons.
- ③ Upon completion of any service or repairs to this monitor, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.
- ④ For repair service, contact **Ikegami's** authorized sales representative or **Ikegami** service section directly.

4. Specifications

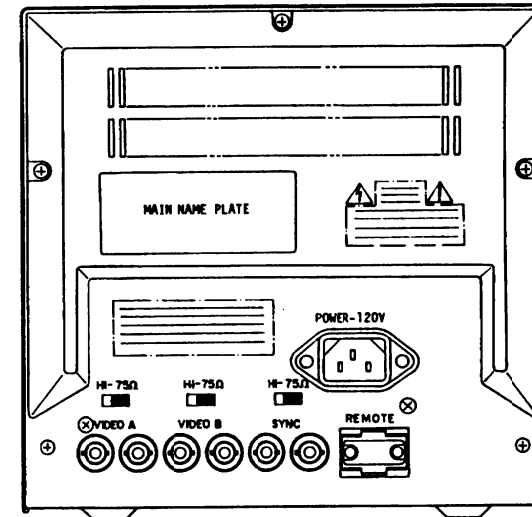
4-1 General Specification

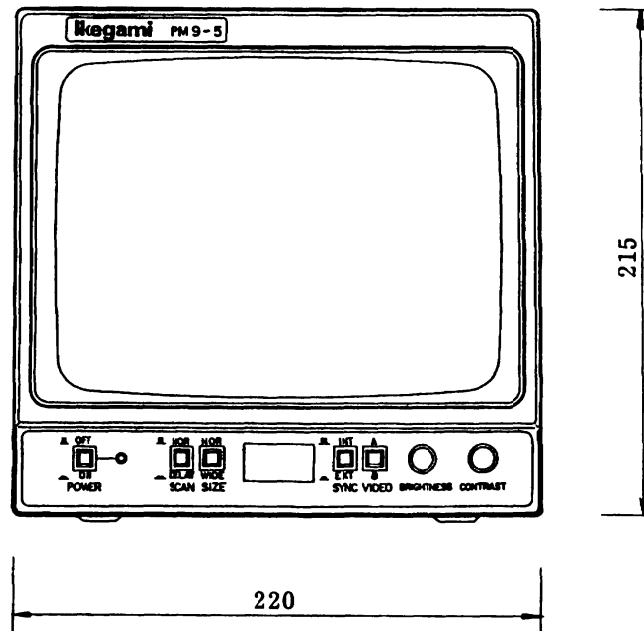
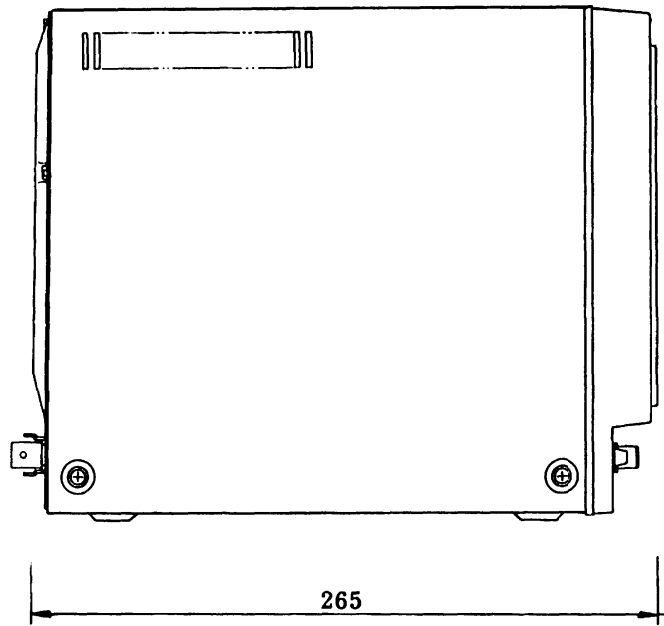
- ① Power supply : AC120 V \pm 10%, 60 Hz
- ② Power consumption : Approx. 45 W or less
- ③ Ambient temperature : 0 ~ 40 °C
- ④ Humidity : 90% or less (no condensation)
- ⑤ Outside dimensions : 220(W) \times 215(H) \times 265(D) mm
- ⑥ Weight : Approx. 6 kg
- ⑦ Standard accessories : Operation manual 1
Power cable 1
Remote connector 1

4-2 Ratings and Performance

- ① Input signal : Video input : 2 channels, BNC type
: Sync input : 1 channel, BNC type
- ② Input level : Video input : VS 1 V_{p-p} or V 0.7 V_{p-p} (positive polarity)
Sync input : 4 V_{p-p} \pm 2 V_{p-p} (negative polarity)
- ③ Input impedance : Video/Sync input : 75 Ω or high impedance bridge connection
- ④ Rated video level : 25 V_{p-p} (at CRT cathode)
- ⑤ DC restoration : Back porch clamp system
- ⑥ Scanning frequency: Horizontal : 15.75 kHz
Vertical : 59.94 Hz
- ⑦ CRT : M22JGV 05 WA
P4 phosphor : Approx. 6500°K
- ⑧ Horizontal resolution : 800 TV lines or more (at center)
- ⑨ Brightness : 60 ft-L or more
- ⑩ Operation : Continuous
- ⑪ Picture size : NOR : 160(H) \times 120(V) mm
- ⑫ Deflection distortion : Less than 2% max. against the screen height in both H and V

4-3 External appearance





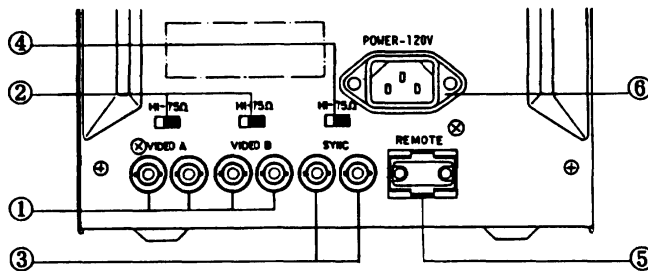
5. Installation

Caution :

This installation should be made by a qualified service person and should conform to all local codes.

Avertissement :

Cette installation doit se faire par une personne de service qualifiée et doit conformer tous les codes locaux.



5-1 Connection with External Equipment

① VIDEO INPUT A/B

② Termination Switch

Apply a video signal to the connectors ①. Video A and B are selectively used and switchable with the front switch refer to **6. Routine Adjustment**. Bridge connection is permitted for each input. When bridge connection is not used, set the termination switches ② to the 75Ω position.

③ SYNC INPUT

④ Termination Switch

Connect a sync signal to this connector ③ for external synchronization. Bridge connection is permitted for this input. When bridge connection is not used, set the termination switch ④ to 75Ω position.

⑤ REMOTE

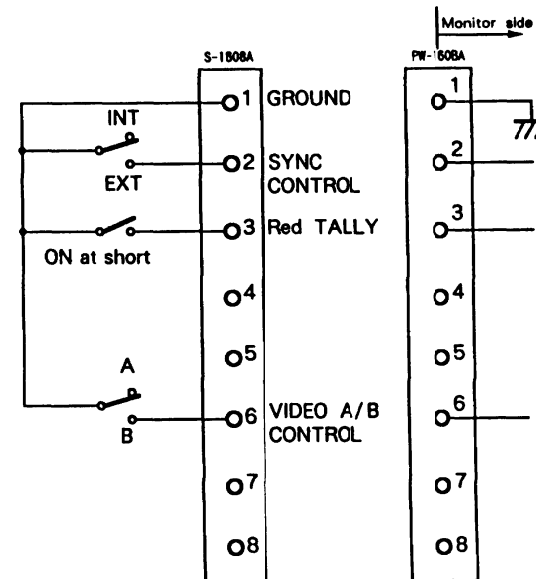
VIDEO A/B and SYNC INT/EXT select and Red tally are controlled externally with the supplied connector. For details, refer to **5-2 Connection of Remote Connector**.

⑥ POWER INPUT

Connect the supplied AC power cable to this terminal to supply single-phase AC120 V/60 Hz.

5-2 Connection of Remote Connector

The connection shown below permits external controls for VIDEO and SYNC select and the red tally.

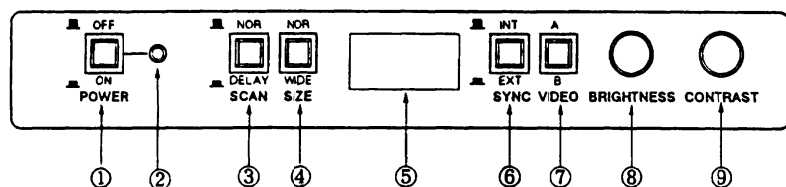


Connecting method of remote connector

6. Routine Adjustment

* The rated performance can be obtained with the following operating in the normal use. Otherwise, ask a qualified serviceman or the Ikegami's dealer for repair.

6-1 Name and function of each part



① POWER switch

A switch to turn on and off the power.

② POWER ON LED

Lights up green when the unit is powered on.

③ SCAN switch

Set to the DELAY position (■) to observe horizontal and vertical sync signals, and to the NOR position (■) to return to an ordinary screen.

④ SIZE switch

Selects the scanning amplitude. Set to the WIDE position (■) to set a wide screen, and to the NOR position (■) to set an under-scan screen.

⑤ Red tally window

Lights up red at the tally mode in the case of remote connection.

(Refer to "5-2 Connection of Remote Connector".)

⑥ SYNC switch

Set to the INT position (■) when using the sync (internal) signal included in the video input (A or B), and to the EXT position (■) when using the sync (external) signal included in the SYNC input.

For the remote operation, make the remote connection (see 5-2) and set this switch to the EXT position (■).

For the external synchronization, be sure to supply a signal synchronized with a video signal.

⑦ VIDEO switch

Selects the video signal connected to the VIDEO input (A or B channel).

For the remote operation, make the remote connection (see 5-2) and set this switch to the A position (■).

⑧ BRIGHTNESS control

Adjusts the brightness of picture.

⑨ CONTRAST control

Adjusts the contrast of picture.

* Common setting of brightness and contrast

Set the CONTRAST control to the MIN position. Turn the BRIGHTNESS control, set it at the position where the raster lights slightly, and set the CONTRAST control to the suitable position. With this setting, a picture can be monitored with a stable black level. Brightness of a picture varies with the blightness around the monitor. Set the brightness each time to the easy-to-see level.

7. Rack Mount

The optional rack mount adaptor permits mounting one or two sets of PM9-5A or installing it with a waveform monitor or a vector scope on the standard rack (EIA RACK).

Monture Cr mail re

L'adaptateur la monture la cr mail re en option vous permet de mettre une ou deux PM9-5As ou de la mettre avec un oscilloscope de contr le ou un vecteur-scope dans la cr mail re standard (EIA RACK).

① Single mount

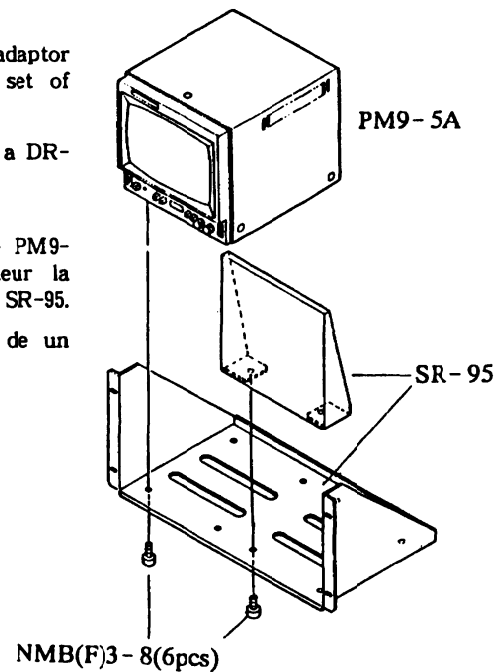
Use the rack mount adaptor SR-95 to mount one set of PM9-5A.

- * The SR-95 consists of a DR-95 and a BL-95

Monture simple

Pour mettre une seule PM9-5A, utiliser l'adaptateur la monture la cr mail re SR-95.

- * Le SR-95 se compose de un DR-95 et un BL-95.

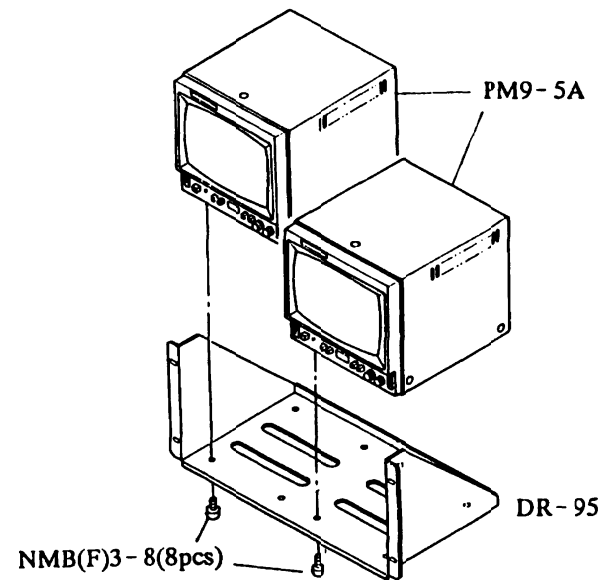


② Dual mount

Use the rack mount adaptor DR-95 to mount two sets of PM9-5A.

Monture double

Pour mettre deux PM9-5As, utiliser l'adaptateur la monture la cr mail re DR-95.



③ **Combination of PM9-5A with a waveform monitor or a vector scope**

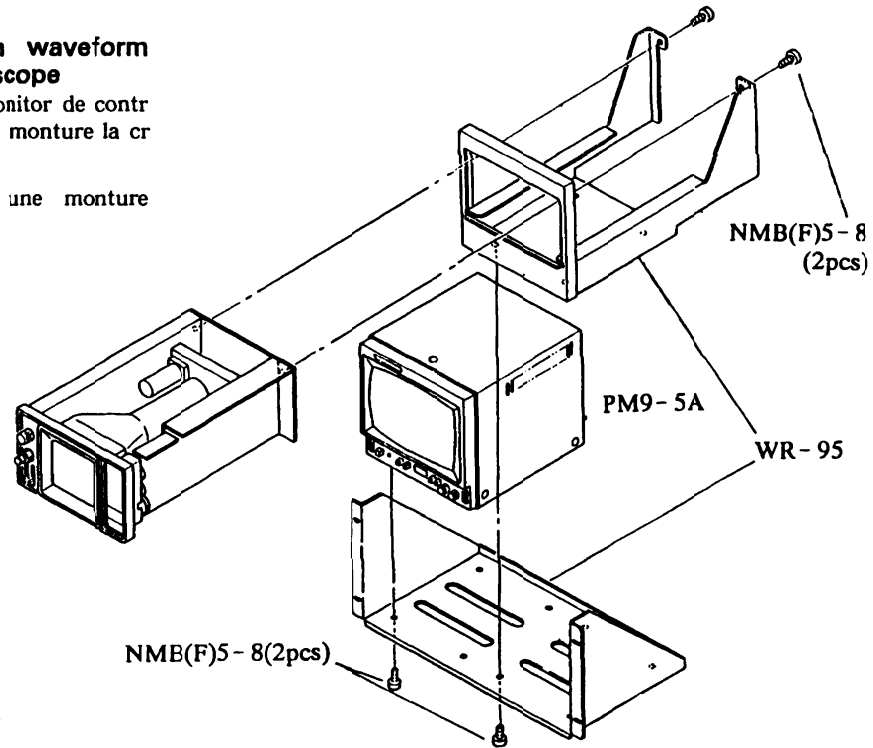
Use the rack mount adaptor WR-95 to mount PM9-5A with a waveform monitor or a vector scope.

- * The WR-95 consists of a DR-95 and a waveform monitor mounting base (M1-909419).

Combinaison d'une PM9-5A et un waveform monitor de contrôle ou un vecteur-scope

Pour mettre un PM9-5A avec un waveform monitor de contrôle ou un vecteur-scope, utiliser l'adaptateur la monture la craille WR-95.

- * Le WR-95 se compose de un DR-95 et une monture waveform monitor de contrôle (M1-909419).



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