

PRIVACY MASK *FOR* *VK-S274 SERIES*

[REV. 1.4]

This manual applies following models:

<NTSC>	VK-S274
<PAL>	VK-S274E
<EIA>	VK-K274
<CCIR>	VK-K274E

CONTENTS

• PRIVACY MASK SPECIFICATION	3
1. Function Specification:	4
a) Setting:	4
i) Center position data:	4
ii) Width data:	4
b) Decomposability for the masking setting (Display screen):	4
c) Masking zone display:	4
d) Number of masking zone:	4
e) Interlocking control with Zooming.	4
2. Interlocking control with Panning and Tilting:	5
a) Pan / Tilt angle:	5
b) Pan/Tilt movement amount:	5
c) Pan/Tilt angle decomposability:	5
3. New communication command format for the Privacy Masking:	6
a) Center position and width data command:	6
b) Pan/Tilt communication command:	6
4. Additional new command:	6
a) New command list:	6
i) Switch the Privacy Mask ON/OFF	7
ii) Privacy Mask shade setting	7
iii) Privacy Mask color (R-Y) setting	7
iv) Privacy Mask color (B-Y) setting	7
v) Set the Privacy Mask position - MASK1	8
vi) Set the Privacy Mask position - MASK2	8
vii) Read the setting degree data of MASK1 / MASK2	8
viii) Degree data (Pan / Tilt)	8
5. Flow Chart:	9
a) Center position, Width data setting:	9
b) PAN / TILT Angle data setting:	10
• APPENDIX	11

[Note]  is difference of data between VK-S454 series and VK-S274 series.

- PRIVACY MASK SPECIFICATION

1. Function Specification:

a) Setting:

Send the position data (A, B) and the width data (C, D) via RS232C to set the masking zone.

i) Center position data:

Signed 256-formalized assume data for the display screen (747 [H] x 240 [V]).

ii) Width data:

Non-signed 256-formalized assume data for the display screen (747 [H] x 240[V]).

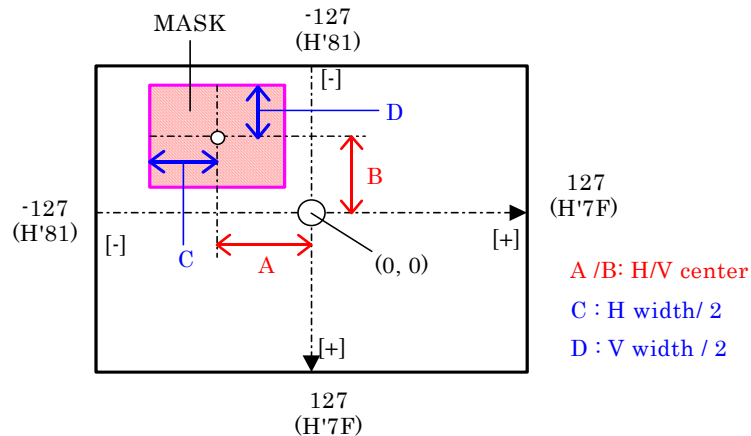


Fig. 1 Coordinate axis for Privacy Mask

b) Decomposability for the masking setting (Display screen):

[H Decomposability]: 2.918 pixels

[V Decomposability]: 0.937 H

c) Masking zone display:

Masking ON/OFF and Gray Scale gradation can be set.

And it will be No display (Standby), if H/V width data=0.

d) Number of masking zone:

Maximum 2 position /zone.

e) Interlocking control with Zooming.

Compensate the masking zone size data according to the zooming (Optical/Digital) ratio.

2. Interlocking control with Panning and Tilting:

a) Pan / Tilt angle:

Center of Pan/Tilt angle is set at the center of the Video display screen <fig. 2 (x, y)> and this center angle data (x, y) will be memorized for each masking setting.

Set the absolute position angle data during Pan/Tilt operation.

(Set reference position as optionally)

b) Pan/Tilt movement amount:

Movement Amount (MA) can be calculated as follow:

$$MA = \tan[d] \times f \text{ value}$$

[d] = (Current angle [P] -> Initial setting angle [Q]) < Refer to fig. 4 >

Note: In case of [d] > 60 degree: Set limit as [d]=60degree < refer to fig. 3 >

Therefore, In order to maintain the interlocking the masking zone movement with Pan/Tilt

t

Movement the angle data should be updated during Pan/Tilt operation.

c) Pan/Tilt angle decomposability:

Set every 1/8 degree (H'000~H'B40).

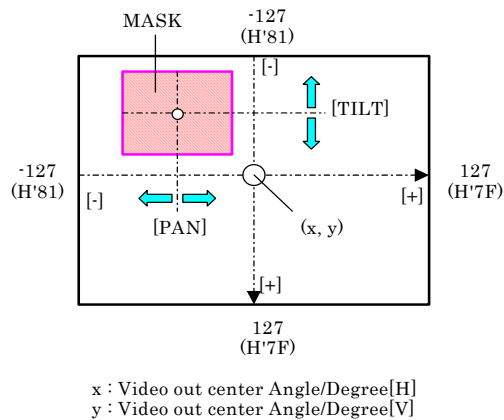


fig. 2

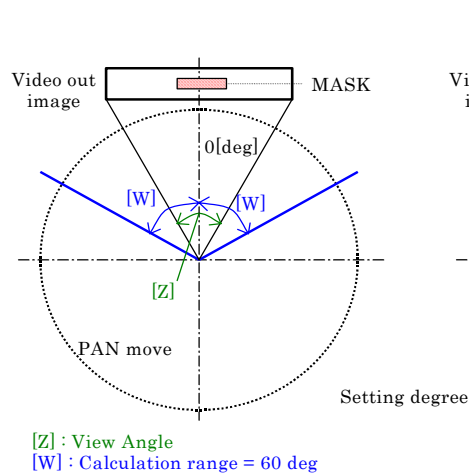


fig. 3

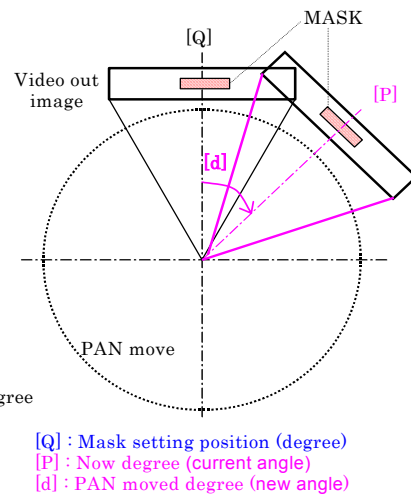


fig. 4

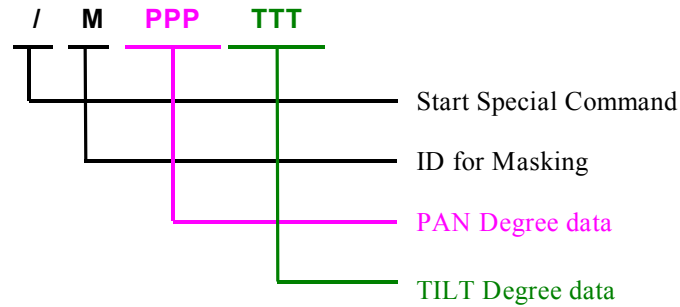
3. New communication command format for the Privacy Masking:

a) Center position and width data command:

Use conventional command format for setting.

b) Pan/Tilt communication command:

Since the absolute angle data is used for setting, the angle data should be updated every field during Pan/Tilt operation and use the following new command format to maintain the movement of the interlocking masking zone with Pan/Tilt operation.



4. Additional new command:

a) New command list:

	Format	Command	Note
Masking On / Off switch	Current	Refer to i)	Common to Mask 1 & 2
Masking gradation setting	Current	Refer to ii)	Common to Mask 1 & 2
Masking color setting	Current	Refer to iii) iv)	Common to Mask 1 & 2
Mask 1	H Center position	Current	Refer to v)
	H width data	Current	Refer to v)
	V Center position	Current	Refer to v)
	V width data	Current	Refer to v)
	Mask setting Switch	Current	Refer to v)
	H Mask setting angle	Current	Refer to vii)
	V Mask setting angle	Current	Refer to vii)
Mask 2	H Center position	Current	Refer to vi)
	H width data	Current	Refer to vi)
	V Center position	Current	Refer to vi)
	V width data	Current	Refer to vi)
	Mask setting Switch	Current	Refer to vi)
	H Mask setting angle	Current	Refer to vii)
	V Mask setting angle	Current	Refer to vii)
Panning data	New	Refer to viii)	Write only, Common to Mask 1 & 2.. 1/8 degree notch angle data
Tilting data	New	Refer to viii)	Write only, Common to Mask 1 & 2. 1/8 degree notch angle data

i) Switch the Privacy Mask ON/OFF

:RF9000
 :WF900X₁X₀
 X₁X₀=00 ; OFF
 X₁X₀=03 ; ON [default]

ii) Privacy Mask shade setting

:RF90100
 :WF901X₁X₀
 (X₁X₀=00 - 0F ; 16 step)
 H'00 ; Black
 H'08 ; Gray [default]
 H'0F ; White

iii) Privacy Mask color (R-Y) setting

:RF92200
 :WF922X₁X₀
 (X₁X₀=00 - 0F ; 16 step)
 H'00 ; <R-Y> min
 H'08 ; <R-Y> center [default]
 H'0F ; <R-Y> max

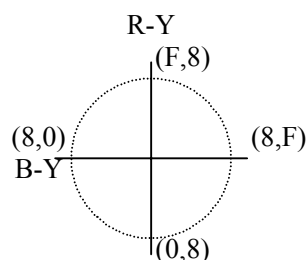
[Note] Privacy mask color level tuning value at Fig. 5

iv) Privacy Mask color (B-Y) setting

:RF92300
 :WF923X₁X₀
 (X₁X₀=00 - 0F ; 16 step)
 H'00 ; <B-Y> min
 H'08 ; <B-Y> center [default]
 H'0F ; <B-Y> max

[Note] Privacy mask color level tuning value at Fig. 5

[Masking color vector]



(x, y) ; x =R-Y ; address "F922" data
 y = B-Y ; address "F923" data

[example]

"x"	"y"	Setting color
8	8	WHITE
F	8	RED
0	8	GREEN
8	F	BLUE
8	0	YELLOW

Fig. 5 Privacy mask color setting

v) Set the Privacy Mask position - MASK1

[New data set]

:WF90EX₁X₀

H'01 ; New data set

Become H'00 after the data processing.

H'00 ; Mask data modify

[H center]

:WF904X₁X₀(X₁X₀=81 (nega) - 00 (center) - 7F (plus))

[V center]

:WF905X₁X₀(X₁X₀=81 (nega) - 00 (center) - 7F (plus))

[H size]

:WF906X₁X₀(X₁X₀=00 - 8F ; 144 step)

[V size]

:WF907X₁X₀(X₁X₀=00 - 8F ; 144 step)

vi) Set the Privacy Mask position - MASK2

[New data set]

:WF90FX₁X₀

H'01 ; New data set

Become H'00 after the data processing

H'00 ; Mask data modify

[H center]

:WF908X₁X₀(X₁X₀=81 (nega) - 00 (center) - 7F (plus))

[V center]

:WF909X₁X₀(X₁X₀=81 (nega) - 00 (center) - 7F (plus))

[H size]

:WF90AX₁X₀(X₁X₀=00 - 8F ; 144 step)

[V size]

:WF90BX₁X₀(X₁X₀=00 - 8F ; 144 step)

vii) Read the setting degree data of MASK1 / MASK2

:rF9140000 ; Mask 1 H degree data

(data range ; H'00000 - H'1680,

; 0.0625 degree/step)

:rF9160000 ; Mask 1 V degree data

(data range ; H'00000 - H'1680,

; 0.0625 degree/step)

:rF9180000 ; Mask 2 H degree data

(data range ; H'00000 - H'1680,

; 0.0625 degree/step)

:rF91A0000 ; Mask 2 V degree data

(data range ; H'00000 - H'1680,

; 0.0625 degree/step)

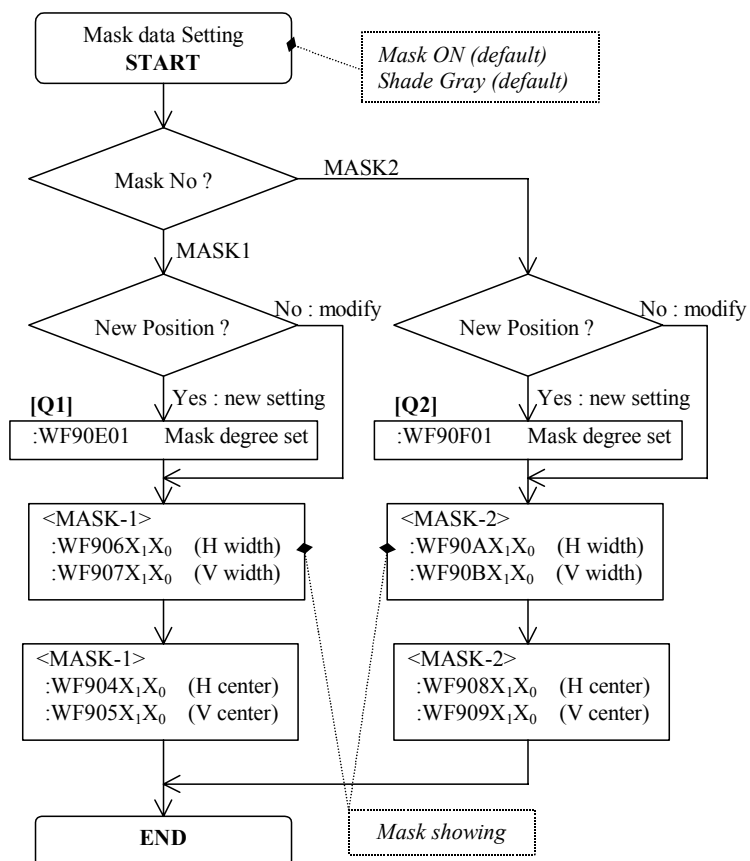
viii) Degree data (Pan / Tilt)

/MX₂X₁X₀Y₂Y₁Y₀ [special write command]X₂X₁X₀ ; PAN degreeY₂Y₁Y₀ ; TILT degree(X₂X₁X₀ / Y₂Y₁Y₀ 000 - B40 ; 0.125 degree/step)

5. Flow Chart:

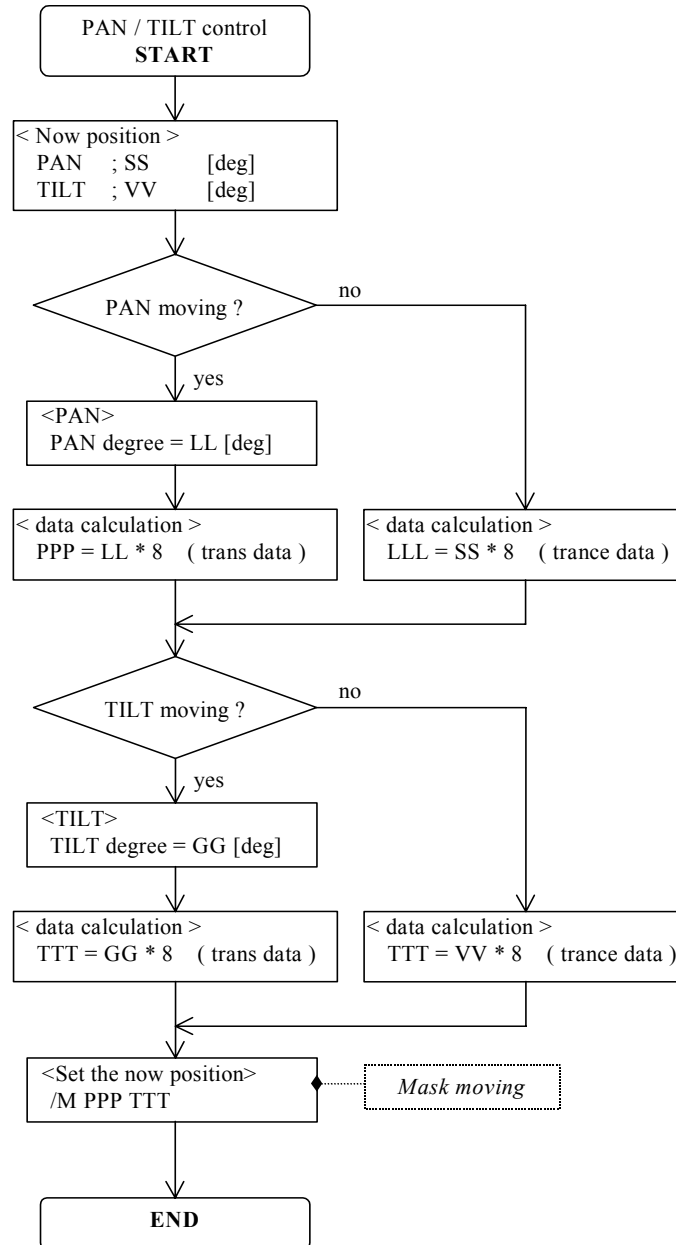
a) Center position, Width data setting:

Follow the flow chart below for the center position and width data setting.
Masking setting angle data will be memorized when [Q1][Q2] are sending.



b) PAN / TILT Angle data setting:

Refer to the flow chart below for the PAN / TILT angle setting:



• APPENDIX

[REV. 1.0]

2001/07/13 * Pilot sample Version (VK-S274)

[REV. 1.1]

2001/08/09 * Pre-Pro sample Version (VK-S274)

< addition > "Privacy Mask color (R-Y) setting "
page - 7 : 4.b. iii)

< addition > "Privacy Mask color (B-Y) setting "
page - 7 : 4.b. iv)

[REV. 1.2]

2001/09/11 * Additional model [VK-S274E] Pre-Pro sample Version
* Mass-production Version [VK-S274]

[REV. 1.3]

2001/09/17 * Additional model [VK-K274] Pre-Pro sample Version
* Mass-production Version [VK-S274E]

[REV. 1.4]

2001/11/06 * Mass-production Version [VK-K274]
* Mass-production Version [VK-K274E]