



# Indoor Fan Motor Control - Toshiba RAS-13SKV-E Service Manual

Split type indoor/outdoor unit

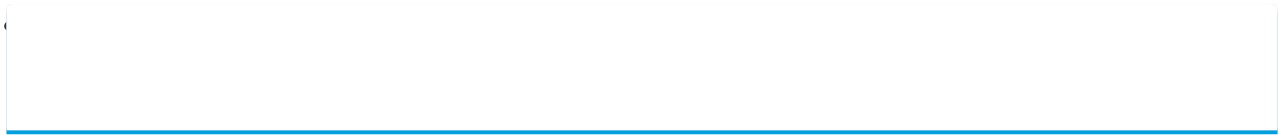


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Troubleshooting



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## Bookmarks





Item

## 2. Indoor fan

<In cooling operation>

### motor control

(This operation controls the fan speed at indoor unit side.)

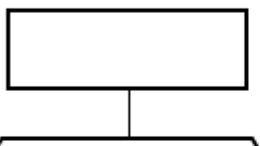
The indoor fan (cross flow fan) is operated by the phase-control induction motor. The fan rotates in 5 stages in MANUAL mode, and in 5 stages in AUTO mode, respectively. (Table 1)

COOL ON

Fan speed setup

AUTO

Ta  
[°C]  
+2.5  
a



+2.0

b

+1.5

c

+1.0

d

+0.5

e

Tsc

Fan speed

level

COOL HEAT DRY

WF

UH

WE

H

UH

WD

UH

M+

WC

H

H

WB

M+

M

M+

WA

M

W9

M

L+

W8

L

W7

L+

L-

L+

W6

L

L

W5

L-

UL

L-

W4

UL

UL

W3

SUL

SUL

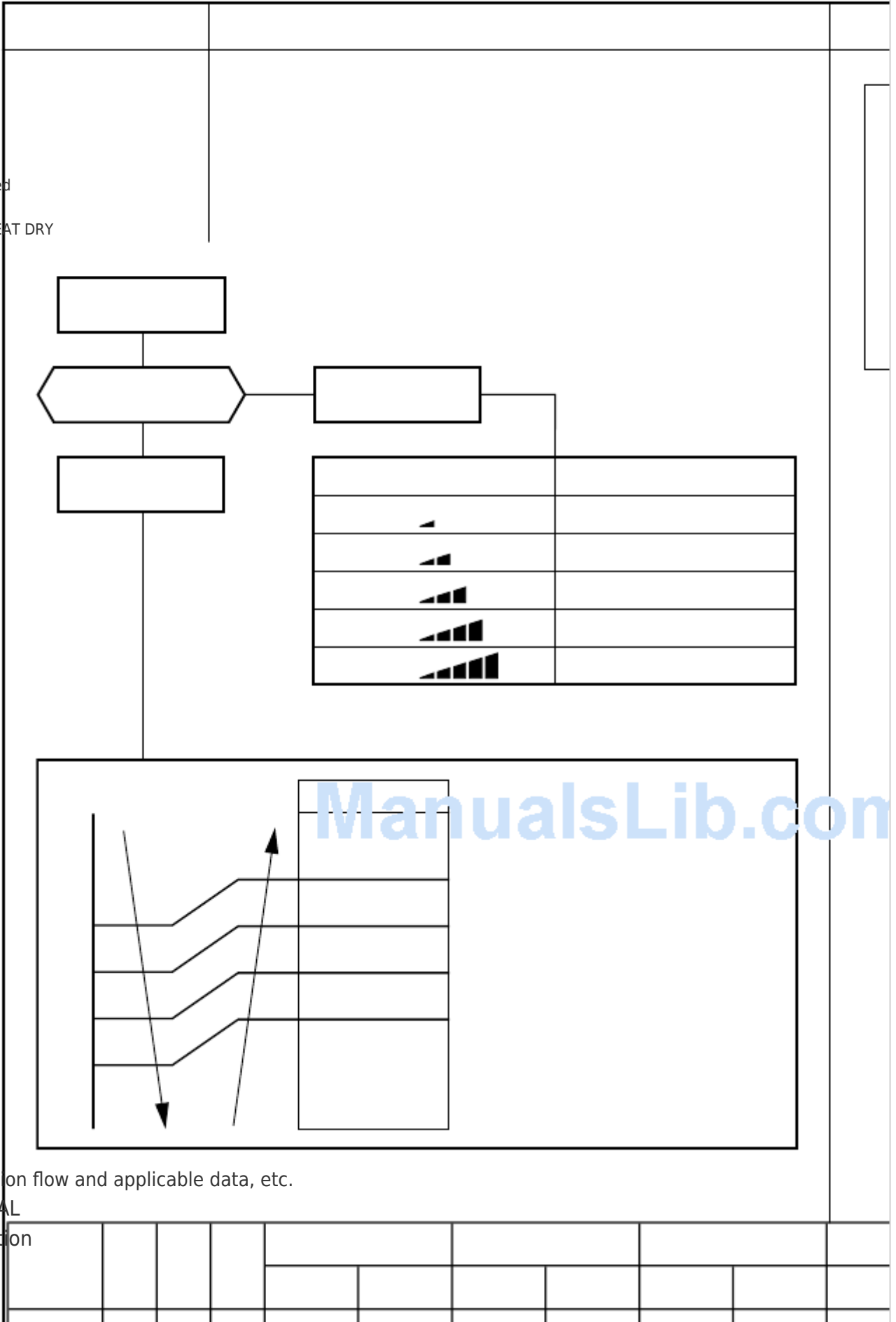
W2

SUL

W1

L

L+



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Operation flow and applicable data, etc.

MANUAL

Indication

L

L+

M  
M+  
H

Air volume AUTO

M+(WE)

\*3

\*3 : Fan speed = (M + -L) x 3/4 + L

\*4 : Fan speed = (M + -L) x 2/4 + L

\*4

\*5

\*5 : Fan speed = (M + -L) x 1/4 + L

(Linear approximation

L(W6)

from M+ and L)

(Table L) Indoor fan air flow rate

RAS-10SKVR-E

RAS-13SKV-E

Fan speed

Air flow rate

Fan speed

(rpm)

(m3/h)

(rpm)

1210

571

1240

1210

571

1240

1170

546

1190

1120

515

1140

1040

465

1040

1000

440

100

960

415

960

870

359

870

850

347

850

760

291

760

760

291

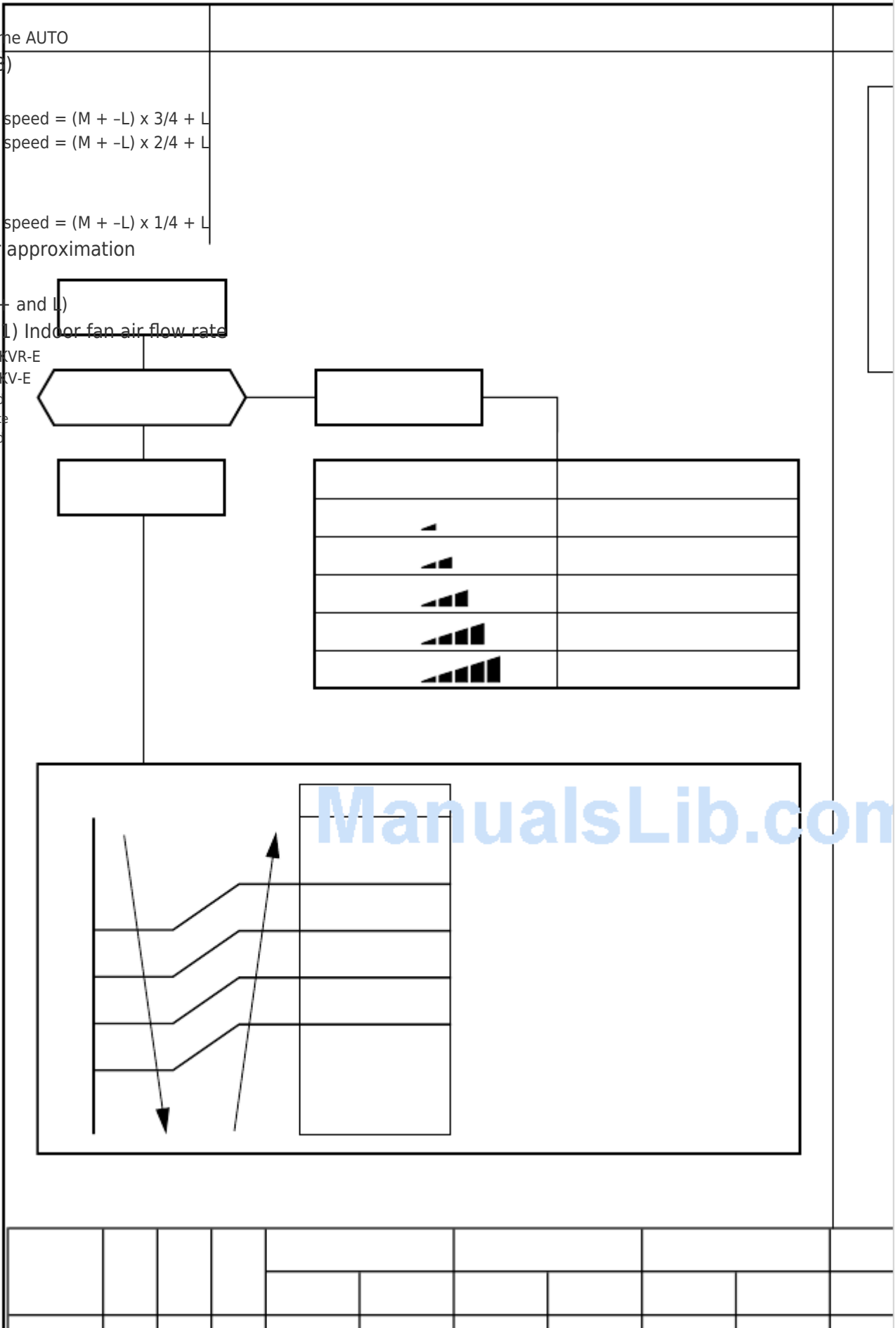
760

700

253

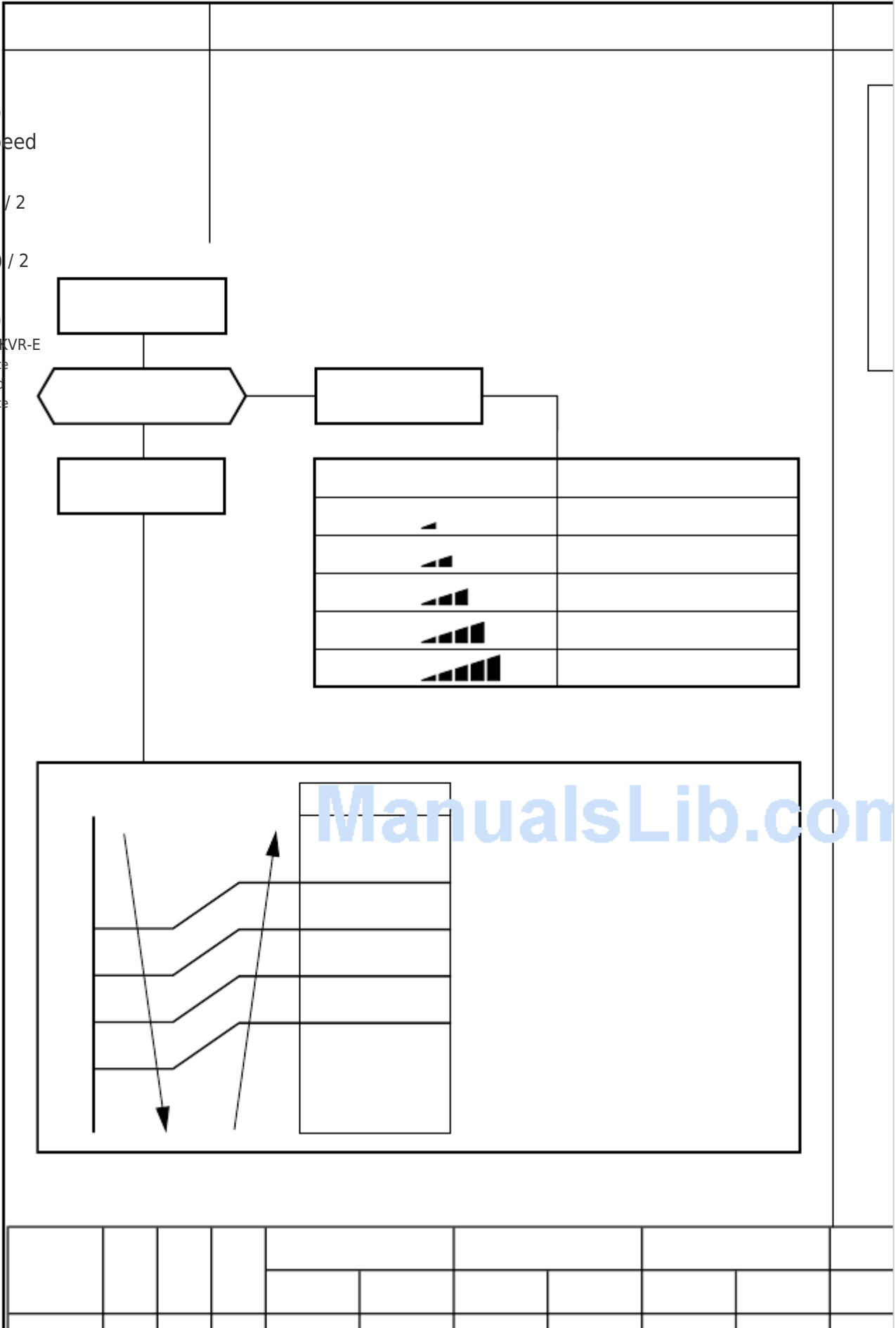
700

650



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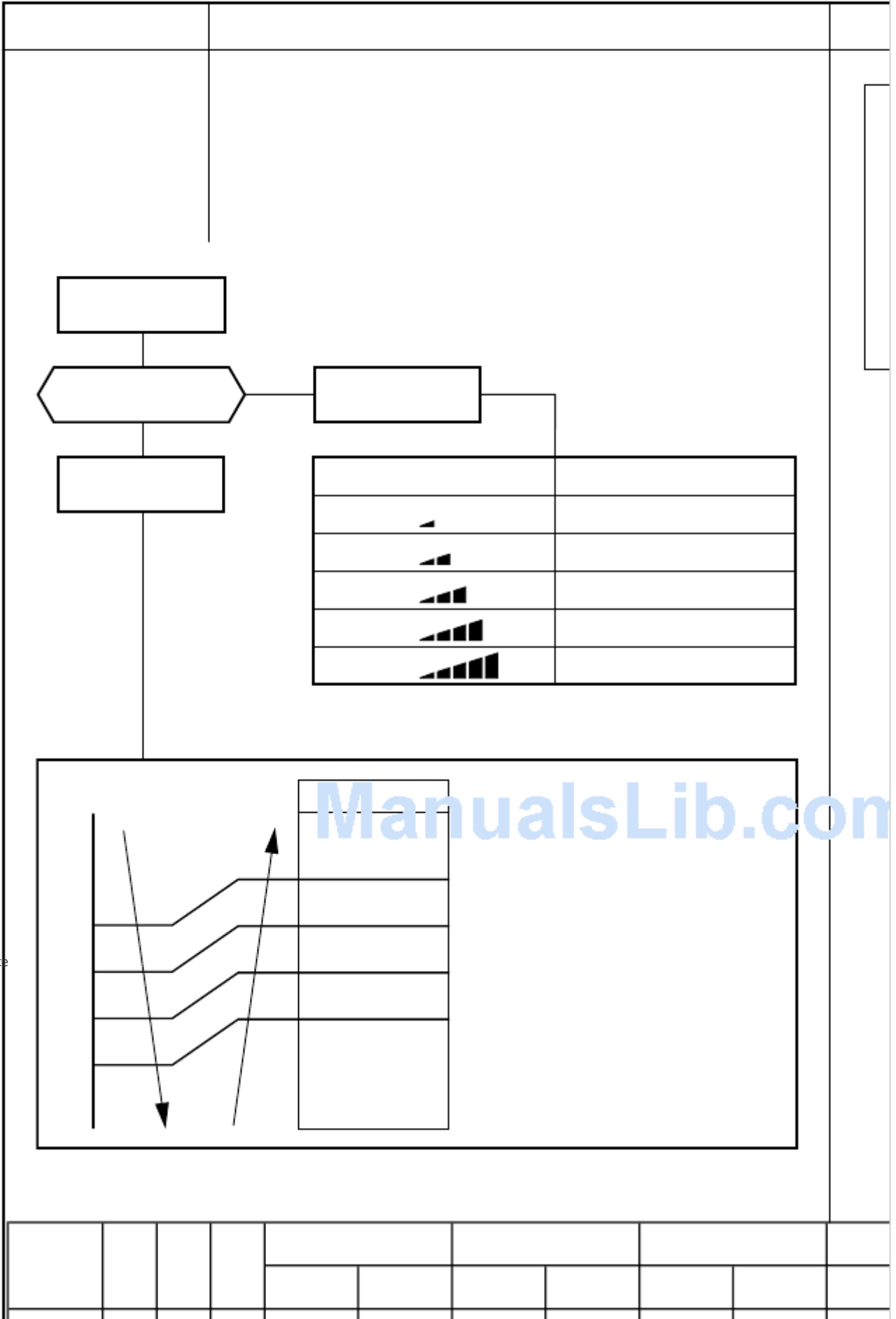
222  
 650  
 500  
 129  
 500  
 500  
 129  
 500  
 (Fig. 1)  
 Fan speed  
 W6  
 $(L + M) / 2$   
 W9  
 $(M + H) / 2$   
 WC  
 (Fig. 2)  
 RAS-13SKVR-E  
 Air flow rate  
 Fan speed  
 Air flow rate  
 (m<sup>3</sup>/h)  
 (rpm)  
 (m<sup>3</sup>/h)  
 630  
 1280  
 614  
 630  
 1280  
 614  
 596  
 1230  
 583  
 563  
 1160  
 540  
 496  
 1070  
 484  
 469  
 1030  
 459  
 443  
 990  
 434  
 383  
 870  
 359  
 369  
 860  
 353  
 309  
 770  
 297  
 309  
 770  
 297  
 269  
 720  
 266  
 236  
 670







(m3/h)  
 (rpm)  
 1470  
 743  
 1510  
 1470  
 743  
 1510  
 1440  
 723  
 1480  
 1390  
 691  
 1430  
 1250  
 601  
 1280  
 1190  
 563  
 1220  
 1120  
 518  
 1150  
 970  
 421  
 1000  
 950  
 408  
 980  
 890  
 370  
 920  
 870  
 357  
 900  
 810  
 318  
 840  
 750  
 280  
 770  
 600  
 183  
 620  
 500  
 119  
 520  
 Air flow rate  
 (m3/h)  
 735  
 735  
 717  
 686  
 594  
 557  
 514  
 421  
 409  
 372  
 360  
 323  
 280  
 187  
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## Chapters

[Service Manual 2](#)

[Auto Restart Function/Remote Controller and Its Functions 32](#)

## Related Manuals for Toshiba RAS-13SKV-E

[Air Conditioner Toshiba RAS-13SKV-E Service Manual](#)

Indoor/outdoor unit, split type air conditioner (120 pages)

[Air Conditioner Toshiba RAS-10SAVP-E Service Manual](#)

(119 pages)

[Air Conditioner Toshiba RAS-B10SKVP-E Owner's Manual](#)

Split type; for general public use (31 pages)

[Air Conditioner Toshiba RAS-B10SKVP-E Service Manual](#)

Split type air conditioner (119 pages)

[Air Conditioner Toshiba RAS-10SKVP-ND Owner's Manual](#)

(61 pages)

[Air Conditioner Toshiba RAS-16SKVP-ND Owner's Manual](#)

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[Air Conditioner Toshiba RAS-10 SKV Series Owner's Manual](#)

Air conditioner (split type) (4 pages)

[Air Conditioner Toshiba RAS-M14GAV-E Installation Manual](#)

Split type (12 pages)

[Air Conditioner Toshiba RAS-13SKHP-E Service Manual](#)

Split wall type air conditioner (70 pages)

[Air Conditioner Toshiba RAS-13SKV2-E Service Manual](#)

Split type (111 pages)

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Split type indoor unit outdoor unit ras-07, 10, 13 skhp series, ras-07, 10, 13 s2ah series (4 pages)

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Split type indoor unit high wall, heat pump type outdoor unit heat pump type (111 pages)

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[Air Conditioner Toshiba RAS-24S3KHS-EE Owner's Manual](#)

(8 pages)

[Air Conditioner Toshiba RAS-10SKP Series Owner's Manual](#)

(8 pages)

## Related Content for Toshiba RAS-13SKV-E

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Toshiba RAS-M05G3KVSG-E

[RAS-18S3KV-E Indoor Fan Motor Control](#)

Toshiba RAS-18S3KV-E

[RAS-M07G3DV-E Indoor Fan Motor Control](#)

Toshiba RAS-M07G3DV-E

[RAS-M07N4KVRG-E Indoor Fan Motor Control](#)

Toshiba RAS-M07N4KVRG-E

[RAS-25G3KVSG-ND Indoor Fan Motor Control](#)

Toshiba RAS-25G3KVSG-ND

[RAS-25E2KVG-ND Indoor Fan Motor Control](#)

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Toshiba RAS-13S3KV-E

[RAS-B05BKVG-E Indoor Fan Motor Control](#)

Toshiba RAS-B05BKVG-E

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