

5. S4 and S5 Dark slide switch

- a. The S4 switch should be turned on when the dark slide is inserted into the film holder which is set at horizontal format.
- b. The S5 switch should be turned on when the dark slide is inserted into the film holder which is set at vertical format.

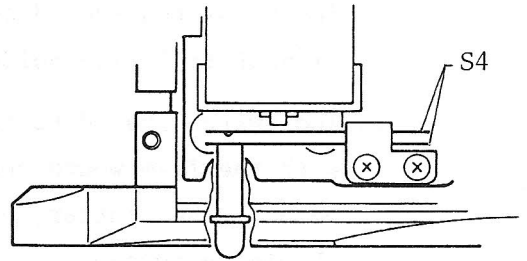


Fig. 124

- c. The each switch should be turned off when the dark slide is removed.
- d. When the S1 switch is turned on, the middle red LED in the finder screen should be illuminated while the S4 or S5 switch is closed.

In the above case, if the S2 switch is turned on upon further depressing the shutter release button, the MC does not operate because the shutter release signal is not generated.

6. S6 Cocking lever return switch

- a. When the set lever have completely returned, the S6 switch should be turned off with clearance 1.5mm to 2mm between both switch contacts.

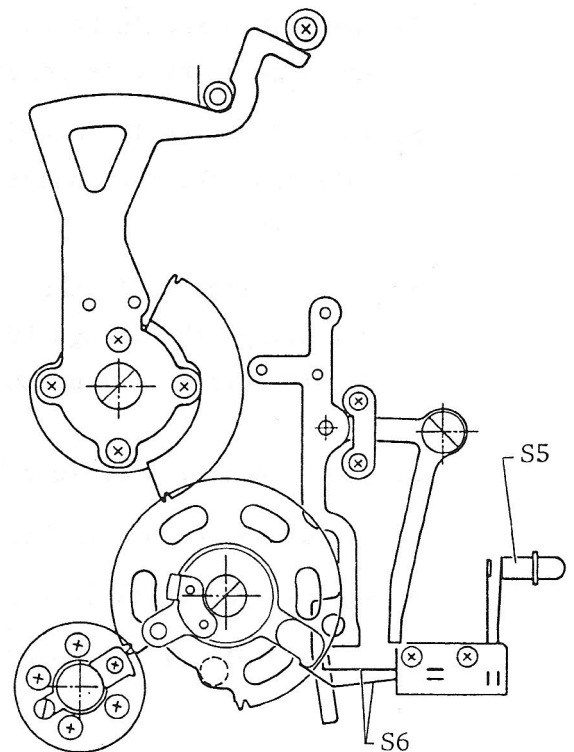


Fig. 125

- b. When the S6 switch is turned off, it can be possible to release the shutter.

However, releasing the shutter cannot be possible when the S6 switch is turned on.

7. S7 Wind-finish switch

a. R-M lever - Normal position

- 1) The S7 switch should be turned on without roll film holder.
- 2) The switch should be turned off with the film wound and when release the shutter, the switch should be turned on.

b. R-M lever - "M" position

- 1) The S7 switch should be turned off when the cocking lever is cocked.
- 2) The switch should be turned on when the shutter is released.

c. When S7 switch is turned on, releasing shutter cannot be possible.

- d. If S7 switch is turned off after releasing, the orange LED in the finder screen will not be illuminated.

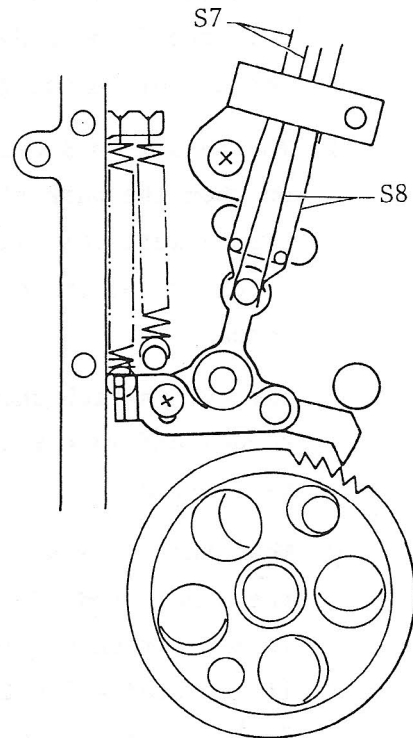


Fig. 126

8. S8 Winder-stop switch

- a. S8 switch operation should be in reverse of S7 switch.
- b. When S8 switch is turned on, the winder is stopped.
- c. Be careful not to ground its blue and red leadwires and contacts.

9. S9 Winder-reverse switch

- a. S9 switch should be turned on when the cocking lever is pressed down to maximum  $110^{\circ}30' \pm 0^{\circ}30'$ .

When the cocking lever is returned from the maximum angle, S9 switch should be turned off.

- b. Turning on the S9 switch should make reverse rotation of the winder motor.

- c. Be careful not to ground its white and orange leadwires and contacts.

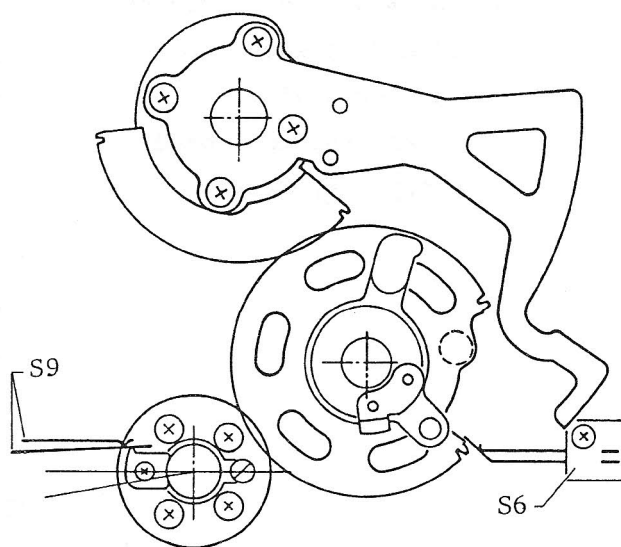



Fig. 127

## 10. AE/M Switch

- a. The M switch should be turned on when the shutter dial is set to any shutter speeds except  mark.

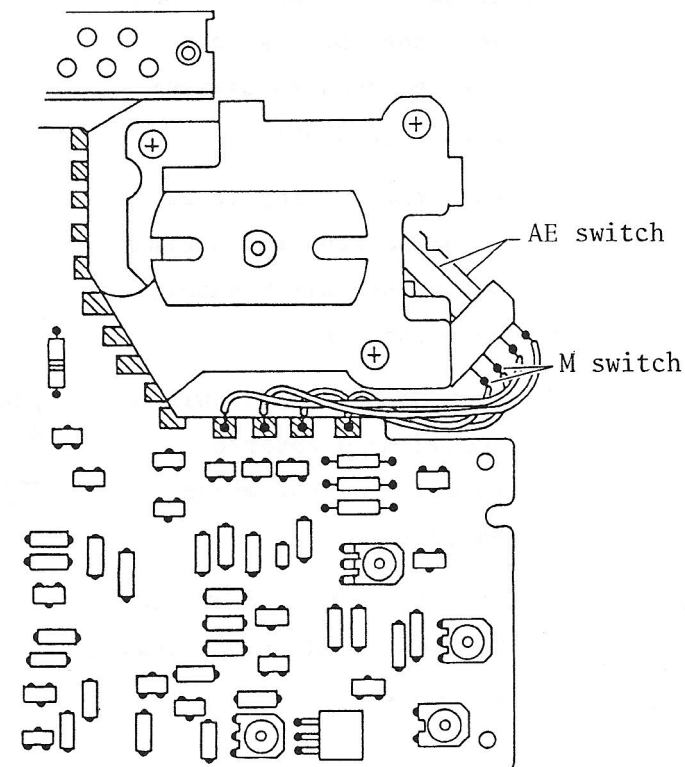



Fig. 128

- b. The AE switch should be turned on when the shutter dial is set to  mark.

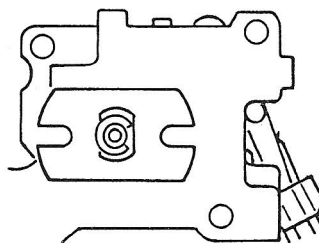


Fig. 129



#### 5-4 GV flash light intensity signal and flash-charge ready signal

##### A. Adjustment of GV light intensity signal

###### A-1. Check

1. Set the ASA to 100 and aperture ring to F5.6.
2. Connect the DCV-tester plus terminal to the GV-output terminal and DCV-tester minus terminal to ground.

Note: It can be checked by applying ZEX-3 flash circuit tester into the hot shoe.

3. The output voltage should be  $1.081\text{mV} \pm 10\text{mV}$  when the S1 switch is turned on.
4. The output voltage will increase/decrease 54mV at every one stop F-number change.

###### A-2. Adjustment

Adjustment is made by turning VR5 resistor.

##### B. Check of flash-charge ready signal

1. Connect the flash ready signal terminal to ground.
2. The green LED in the finder screen should be illuminated when the S1 switch is turned on.

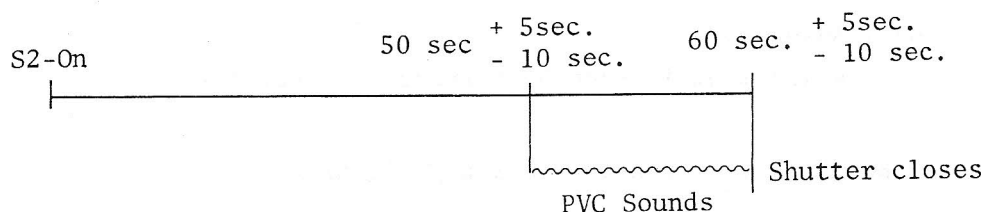
## 5-5 Warning buzzer

The "Timer device" for the RZ67 camera will close the shutter automatically after approximately one minute since the S2 switch is turned on in order to prevent inadvertent battery depletion.

Therefore the bulb exposure and mirror-up exposure should be finished within one minute.

### A. Check of PCV buzzer

1. When the shutter speed dial is set to B, the shutter will remain open as long as the shutter release button remains depressed.
2. The buzzer should sound after approximately 50 seconds, 10 seconds later the buzzer should stop and the shutter should close.



- B. In case of mirror-up exposure, the shutter should be released with the cable release within 50 seconds of pressing the shutter release button. If this is not done, the buzzer will sound after 50 seconds and continue for 10 seconds before stopping.

Be careful if you release the shutter with the cable release after the buzzer stops, the shutter speed will be 1/400 sec.

## 5-6 Drop of battery volt and flickering level of Monitor LED

### A. Check of Battery voltage

1. To check the condition of the battery, insert the dark slide into the film holder and depress the shutter release button; the red warning LED should illuminate with a steady glow.
2. If the red LED flickers, it indicates that battery voltage is low and the battery should be replaced as soon as possible.

### B. Flickering level of red monitor LED

#### B-1. Check

1. Insert the SLS-19 dummy battery into the battery chamber of the camera body and connect it to a DC voltage regulator.
2. When 4.9 volt is supplied to the dummy battery, the red LED should flicker.
3. When 4.5 volt is supplied, the red LED should not flicker or illuminate.

#### B-2. Adjustment

Adjustment is made by turning the VR6 variable resistor.

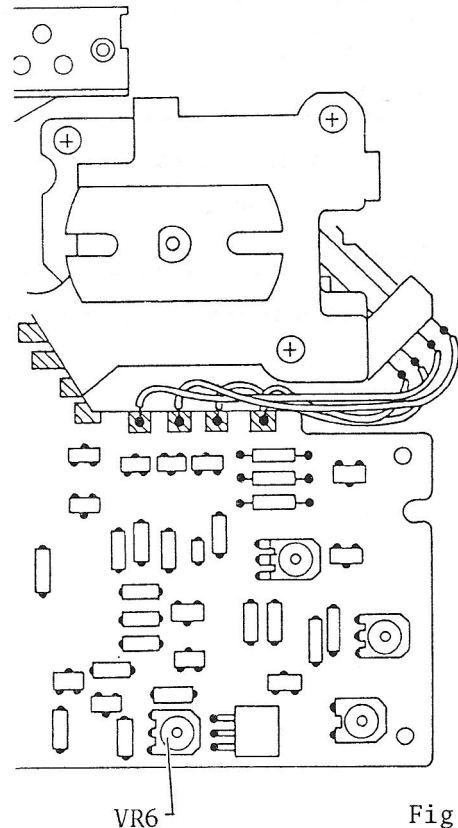


Fig. 130

### C. Check of battery leakage

#### C-1. Wiring of dummy battery.

1. Wire the Dummy battery, Tester and 6 V. Battery as shown in Fig. 130.
2. Before measuring, insert one 6 V silver-oxide battery (4SR44) or 6 V alkaline battery (4LR44) into the battery chamber of the camera and leave it for approximately 30 sec.
3. Remove the 6 volt battery and insert the dummy battery, but be careful its polarity.

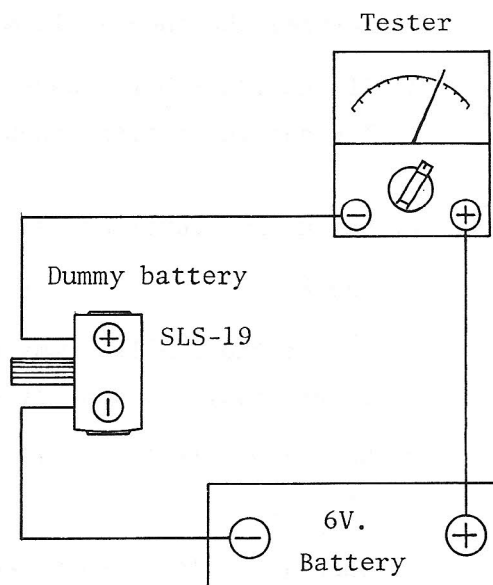


Fig. 131

#### C-2. Check of power consumption

1. When the S1 switch turned on, the tester should indicate 3mA to 7mA.

Note: Push the dummy battery with your finger once to check pinching the red leadwire (27) under the battery chamber.

2. The tester should indicate 16mA to 21mA upon releasing the shutter at 1 sec. or 4 sec.

## 5-7 Monitor LEDs

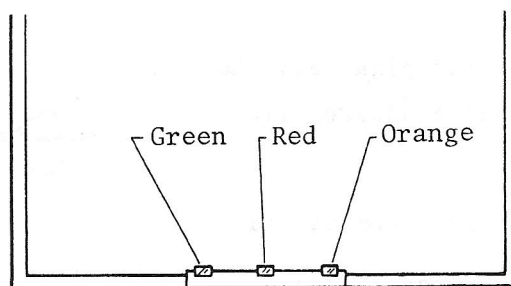


Fig. 132

S1 : ON

LED	Illuminate
ORANGE	<ol style="list-style-type: none"> <li>1) Cocking lever not set (Mirror-up)</li> <li>2) Cocking lever has been only partially depressed.</li> </ol> <p><u>A. R-M lever - normal position</u></p> <ol style="list-style-type: none"> <li>1) Without roll film holder</li> <li>4) With empty roll film holder</li> <li>5) Film has not advanced completely</li> </ol> <p><u>B. R-M lever - M</u></p> <ol style="list-style-type: none"> <li>6) Cocking lever has not been depressed sufficiently.</li> </ol>
RED	<ol style="list-style-type: none"> <li>1) Without removing dark slide from the film holder.</li> </ol>
GREEN	<ol style="list-style-type: none"> <li>1) When a Mamiyalite MZ or ZE is connected to the hot shoe and fully charged.</li> </ol>

### 5-8 Check of MC

1. Remove a battery from the battery chamber.
2. Unsolder the pink (31) and black (32) leadwires from the MC.
3. Check it by a ohm tester

Tester range : X 1

Tester terminal Red (+)

..... Pink (31) leadwire

Tester terminal Black (-)

..... Black (32) leadwire

Tester should indicate approximately  $6\Omega$  and the MC should operate in thrusting out with a sound.

4. If the MC does not operate, replace it with new one.

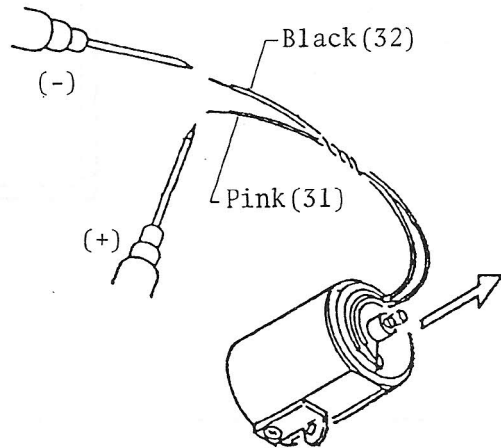


Fig. 132-A

## 5-9 Check and adjustment of shutter speed

A. Measure it by FL-400 type shutter speed tester

Necessary instrument etc.

1) FL 400 shutter speed tester with M645 sensor head

2) 110mm/f2.8 lens

3) Outer cassette of film holder

1. Set the function knob of the tester to "SH-SPD" for lens shutter.

2. Attach the 110mm/f2.8 lens and the outer cassette to the camera and set the aperture ring to F2.8.

3. Shift the R-M lever to M and set the release button collar to electromagnetic position.

4. Install the camera on the camera base of the tester and correspond the lens optical axis to the beam axis of the tester by rotating the handle.

5. Measure each shutter speed by releasing the shutter.

6. Adjustment of shutter speed

Adjust is made by turning the VR4 variable resistor.

2. Set of camera

a. Aperture ring: f2.8 (full open)

b. R-M lever: M

c. Electromagnetic position

3. Measurement

Set the sensor with 6 x 7 mask into the outer cassette film rails.

Then measure each shutter speed by releasing the shutter.

4. Adjustment of shutter speed

Adjustment is made by turning the VR4 variable resistor.





# 6

## TROUBLE SHOOTING

# 6-1 Cannot release the shutter at electromagnetic position.

(R-M lever - M)

## Phenomenon

- 1) When the mirror is up, the orange monitor LED illuminates when the S1 switch is turned on.

Though releasing the shutter is impossible after cocking the cocking lever.

1	Pink(31) and Black(32) leadwire ----- Poor sholder	
2	MC-operation --- Malfunction	→ See text "5-8"
3	S2 switch ON-OFF?	→ "5-3 ~ 3"

- 2) After cocking the cocking lever, cannot release the shutter upon depressing the shutter release button.

However, the orange LED illuminates.

4	After cocking S6 SW should be turned OFF	
5	Operation of M5100-1540 S6 SW lever?	
6	S7 SW should be turned OFF.	→ See text "3-5"
7	Multi-lever in Fig. 52 is in right position?	

- 3) After cocking, cannot release the shutter upon releasing the shutter button.


However, the red LED illuminates.

8	Has S4 SW or S5 SW be turned on?
9	Leadwires for S4 SW or S5 SW --- Short

6-2 While the cocking lever is returned from its maximum cocking angle, try to depress the shutter button. However the shutter should not operate. If operates and the orange LED illuminates, check following point.

1	S6 switch should not be turned off when the cocking lever is on the way of from its maximum angle.
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\* If it is turned off, continuous sequence photography with using the winder will be impossible.

6-3 All shutter speeds except  become 1/400 sec.

1	ON-OFF function of AE/M switch	→ See text "5-3 ~ 10"
2	S3 switch ... Malfunction	→ See text "5-3 ~ 4"
3	Time/Normal switch of the lens ... Malfunction	→ See text "6-4"

6-4 Depressing the coking lever will be possible while time exposure has operated.

1	Time/Normal switch of lens --- Malfunction
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Note: 1) When the time lever is set to normal position (N appears), lens signal pin on the lens

⑦ - ⑪ --- Continuity

⑪ - ⑧ --- Open

2) When the time lever is shifted to time (T appears)

⑦ - ⑪ --- Open

⑪ - ⑧ --- Continuity

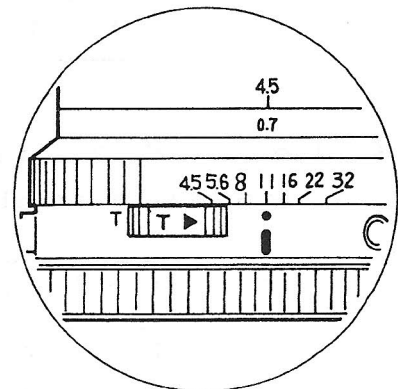


Fig. 136

6-5 Monitor LEDs don't illuminate.

1	Contact efficiency of the S0 switch --- Poor	→ See text "5-3"
2	B0 power supply terminal --- Should be 6 volt	→ "
3	S1 switch --- Malfunction	→ "

6-6 When mirror is up, the orange LED does not illuminate with the S1 switch turned on.

However, the MC will operate.

4	S7 switch --- Malfunction After releasing, it should be turned on.	→ See text "3-5"
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6-7 When mirror is up, the orange LED illuminates for a moment and is put out with the S1-ON.

5	TR 20 --- Poor solder
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6-8 The orange LED illuminates during shutter operating.

6	R4 (30 k $\Omega$ ) --- Poor solder
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6-9 When the dark slide is inserted, the red LED does not illuminate with S1-ON.

7	Battery voltage
8	ON-OFF of S4 · S5 When the dark slide is inserted, the S4 or S5 should be turned on.

6-10 When the Mamiyalite MZ18R or 36R is charged, the green LED does not illuminate with S1-ON.

9	No connection to hot shoe?
10	R55 (300 $\Omega$ ) --- Poor solder

6-11 Without MZ flash, the green LED illuminate with S1-ON.

11	Contact of flash-charge ready signal --- short?
12	Blue leadwire (5) from green LED --- short?

6-12 Battery exhaustion

1	Red (27) from battery case Purple (33) Red (34) from S0 Purple (39) leadwires --- short	→ See text "5-6 ~ c"
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6-13 When Time exposure or Bulb exposure is made, one minute timer device operates, but warning buzzer does not sound.

1	H-IC6292 - No. 5 pin --- Poor solder
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6-14 Proper exposure indication green LED in PD-prism finder does not illuminate or illuminate, but it stays at "+", never change.

1	Finder signal transmitting terminals --- Dirt?	→ See text "5-2"
2	AV, SV and TV --- --- Output signal	

6-15 Camera does not operate properly with remote control.

Phenomenon

- 1) When the camera with receiver MZ is left, the battery will be exhausted quickly.
- 2) Shutter does not operate at bulb upon releasing by the remote control.
- 3) When camera with RB lens is operated by the remote control, camera does not operate.

1	Blue (23), Yellow (21) and Green (22) leadwires from RC-outlet --- --- wrong wiring?
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6-16 Mamiyalite MZ fires at Auto and Manual, but does not fire at MZ-auto.

1	Hot shoe and GV flash light intensity signal contact --- Contact efficiency?	
2	Output voltage of GV 1081mv $\pm$ 10mV * ASA100 F5.6 S1-ON	→ See text "5-4"

6-17 Winder does not operate properly.

#### Phenomenon

- 1) While the winder start signal is generated on the WS terminal after shutter closing, the winder does not operate even if pushing the start button of the winder.
- 2) The winder operation will stop in the midst of cocking.
- 3) After winding, the winder will continue to drive for approximately 15 sec.

Then it stops.

1	S8 switch ON-OFF function?	→ See text "3-5 ~ A, B, C" "5-3 ~ 8"
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Note: Check point

- #1) S8 should be turned off.
  - #2) S8 should not be turned on even if for a moment.
  - #3) After cocking, S8 should be turned on.
- 4) The winder suddenly stops in the middle of winding.

2	S9 switch ON-OFF --- Malfunction The S9 switch should be turned on at the maximum cocking angle of the cocking lever.	→ See text "5-3 ~ 9"
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5) Continuous sequence photography will be impossible.

3	S6 switch should not be turned off when the cocking lever is on the way from its maximum angle.
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6-18 When the cocking lever is returned just before reaching the maximum cocking angle, the mirror rises and the shutter runs.

1	Reverse-rotation-prevention pawl --- Malfunction	→ See text "1-3"
2	Disengagement of lever for the pawl --- Bing slightly fast.	→ Replace M5100-15581 lever with new one.

7

MAMIYA RZ67 INSPECTION STANDARD

This inspection standard will be applied for the RZ67 with its lens and roll film holder.

Insert the battery into the chamber and load the film into the holder.

#### 7-1 Attaching lens

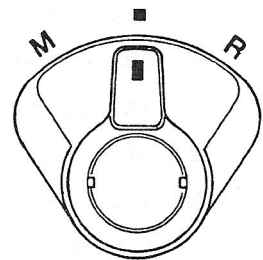
- a. Before attaching a lens to the camera body, the mirror should be charged and the shutter of the lens cocked.
- b. Seat the lens on the camera body with the central index of the lens lined up with the red alignment dot of the camera body.
1. The lens should be secured to the camera body when the bayonet ring of the lens is rotated 50° to 80° degree.
2. If you try to rotate the bayonet ring to remove the lens without first depressing the cocking lever of the camera body, the movement of the ring should be interrupted to make it impossible to remove the lens.

#### 7-2 Attaching the holder

1. Operation of the holder lock lever should be in proper sliding friction and should firmly lock the holder to the camera body.
2. The holder lock lever should automatically lock in place.

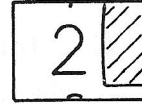
#### 7-3 Advancing the film at normal position of R-M lever

1. When the cocking lever of the camera body is depressed, the film should be advanced in rotating the film advance knob of the holder.
2. When the numeral "1" appears in the exposure counter, the cocking lever should be automatically locked to prevent double cocking as well as at each picture frame 2, 3, .....10.



#### 7-4 Exposure counter and Red mark

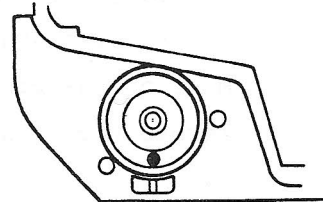
1. When the film is advanced to the next frame, the numeral in the exposure counter should automatically changed and red mark should disappear.
2. The red mark should appear in exposure counter after releasing the shutter releasing button.
3. The exposure counter should automatically return to its starting position "S" whenever the back cover is opened.



#### 7-5 Monitor lamps at electromagnetic shutter release

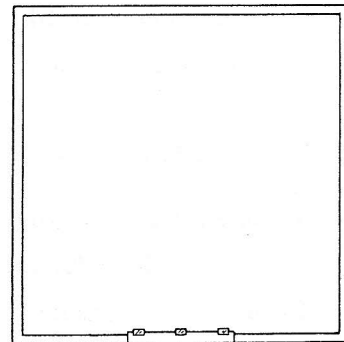
1. Dark slide in holder (Red warning lamp)

When the shutter release button is depressed without removing the dark slide from the film holder, red warning lamp should illuminate and the shutter should not be released.



2. Cocking lever not set (Orange warning lamp)

If the cocking lever has not been depressed or has been only partially depressed, the orange warning lamp should illuminate and the shutter should not be released when the shutter release button is pressed as well as following two cases:



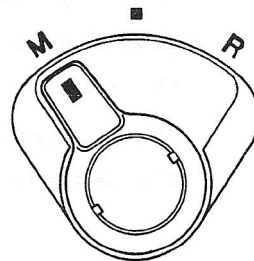
- 1) While the film is advanced from its start mark "S" to first picture frame "1".
  - 2) After fixed exposure number have been taken (10 or 20).
3. Mamiyalite charged (Green signal lamp)  
When a Mamiyalite ZE, MZ is connected to the hot shoe and fully charged, the green lamp should illuminate upon pressing the shutter release button halfway.  
Further depressing the shutter release button, the flash should fire.

4. When the shutter release button is depressed halfway after removing the dark slide and depressing the cocking lever fully, the monitor lamps should not illuminate and the shutter should be able to release.

#### 7-6 R-M lever

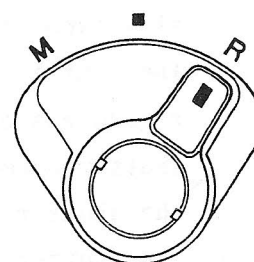
1. Multiple exposure position

When the R-M lever is set to "M" position, pushing down on the cocking lever should cock the shutter and mirror, but should not advance the film.

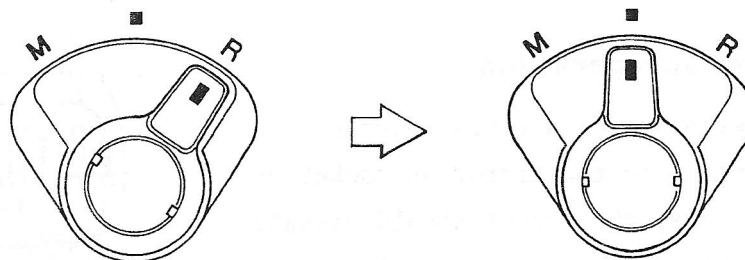


2. Revolving back position

- a) When the R-M lever is set to "R" position, the revolving back should smoothly be rotated and the viewfinder format should automatically changes from horizontal to vertical, or vice versa.

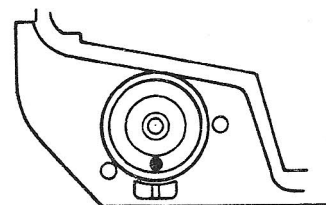



- b) The R-M lever should automatically return from "R" to its normal position upon depressing the cocking lever or shutter release button.




#### 7-7 Shutter speed

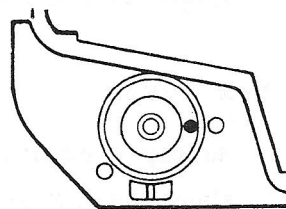
1. Aligning the collar with white dot (electromagnetic release position) should make it possible to operate the shutter at the numeral speed on the dial you select.



2. The shutter speed dial should lock in place at the  position.

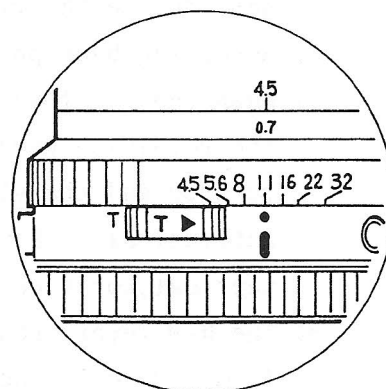
If the shutter button is depressed at this position, the shutter should operate at maximum speed 1/400 sec.

3. The  position should be unlocked by rotating the dial while depressing the lock release button.
4. Aligning the collar with orange dot should make it possible to operate the shutter at approximately 1/400 sec., regardless of the setting of the shutter speed dial.



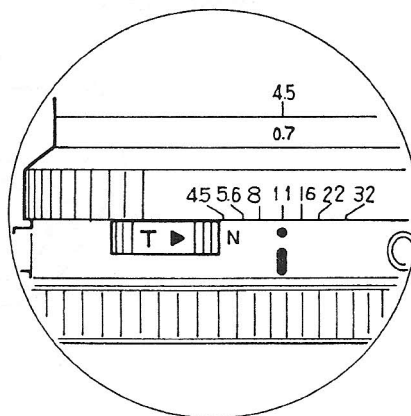
## 7-8 Time exposure

1. Slide the T lever of the lens until the letter "T" appears to make a time exposure.  
The shutter should remain open, regardless of the setting of the shutter speed dial, upon depressing the shutter release button.
2. The shutter should be closed with the T slide lever slided in opposite direction until the letter "N" appears.



## 7-9 Mirror-up operation

1. After screwing a cable release firmly into the mirror-up socket of the lens, the socket should elevate slightly to be ready for mirror-up operation.
2. The mirror-up socket should retract upon removing the cable release.



#### 7-10 Focusing knob operation

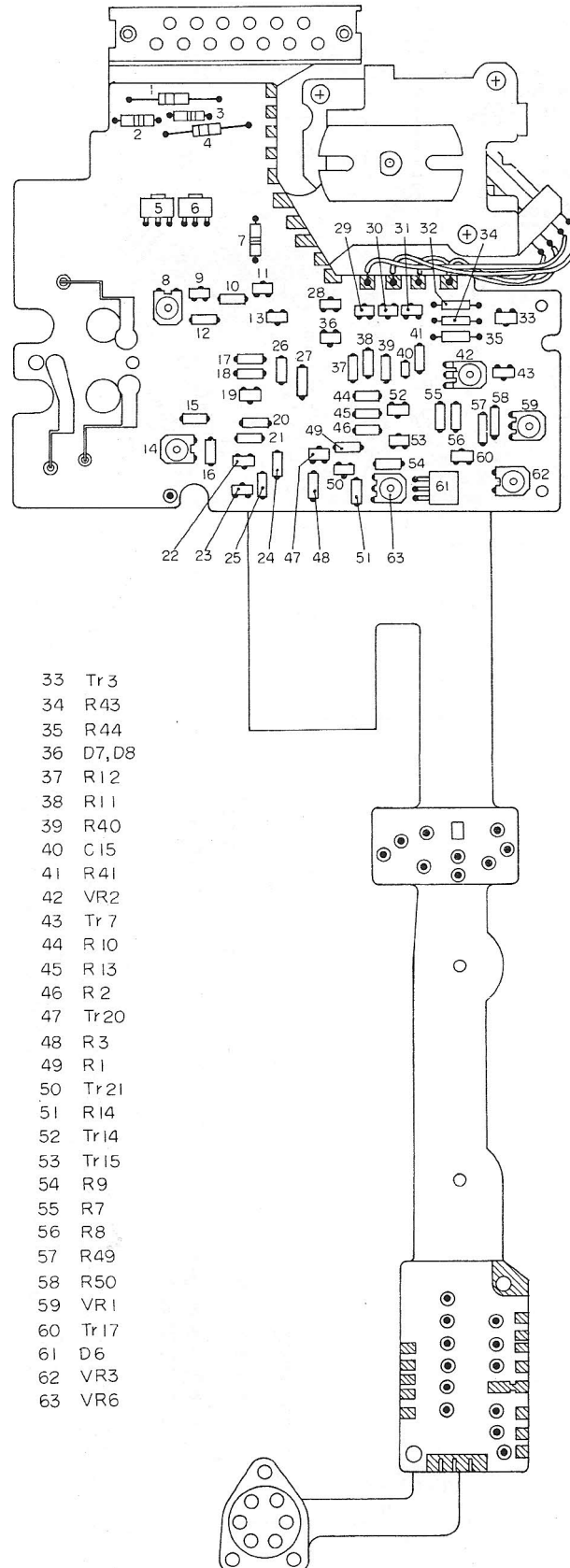
1. Smooth rotation should be required for the both focusing knobs and it should be possible to extend the bellows fully.
2. Locking the focusing knob:
  - a. Focusing knob should be locked in place when the focusing lock lever is raised and is pushed forward.
  - b. The lock lever should stop with click at horizontal upon returning it.

#### 7-11 Focusing hood operation

1. Raising the focusing hood should be made by merely lifting the back of the hood.
2. The magnifier should pop up into position by sliding the magnifier release slightly to the left.
3. The magnifier should lock in place upon pushing the magnifier frame down.
4. The focusing hood should be folded by gently squeezing the right and left panels of the hood together.

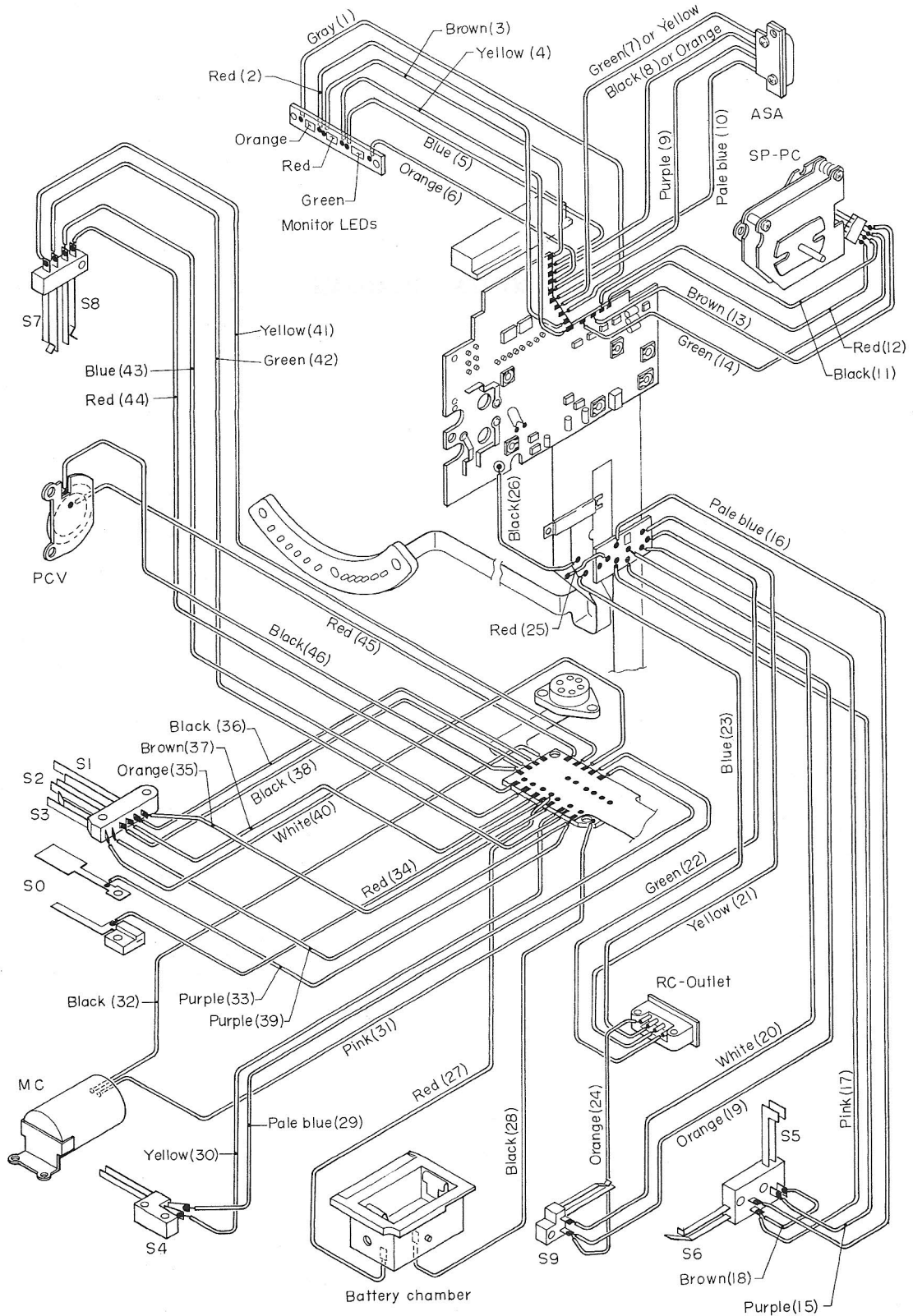
## WIRING DIAGRAM

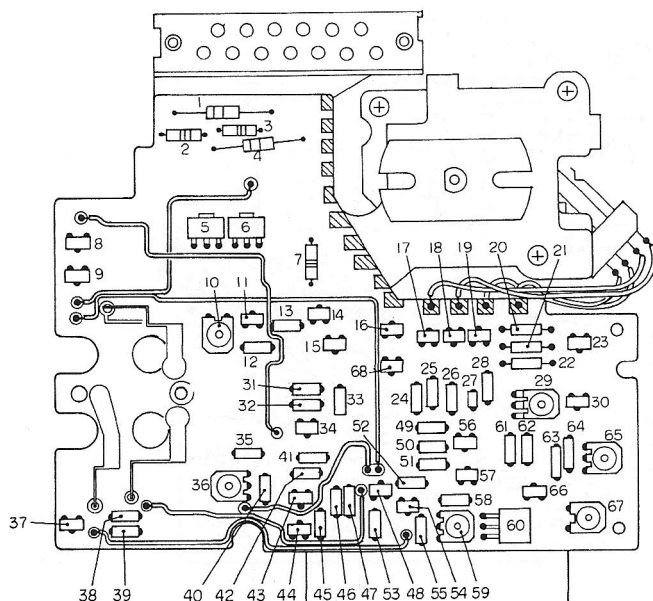




1	D10	33	Tr3
2	R17	34	R43
3	R18	35	R44
4	D11	36	D7, D8
5	Tr9	37	R12
6	Tr10	38	R11
7	R55	39	R40
8	VR4	40	C15
9	Tr12	41	R41
10	R15	42	VR2
11	D9	43	Tr7
12	R16	44	R10
13	Tr13	45	R13
14	VR5	46	R2
15	R6	47	Tr20
16	R59	48	R3
17	R26	49	R1
18	R25	50	Tr21
19	Tr24	51	R14
20	R29	52	Tr14
21	R28	53	Tr15
22	Tr25	54	R9
23	Tr19	55	R7
24	R4	56	R8
25	R5	57	R49
26	R27	58	R50
27	R58	59	VR1
28	Tr6	60	Tr17
29	D1, D2	61	D6
30	Tr1	62	VR3
31	Tr2	63	VR6
32	R42		

# RZ67 Wiring diagram





1	D10	35	R6
2	R17	36	VR5
3	R18	37	Tr28
4	D11	38	R56
5	Tr9	39	R57
6	Tr10	40	R59
7	R55	41	R29
8	D13	42	R28
9	Tr27	43	Tr25
10	VR4	44	Tr19
11	Tr12	45	R5
12	R16	46	R4
13	R15	47	R58
14	D9	48	Tr20
15	Tr13	49	R10
16	Tr6	50	R13
17	D1, D2	51	R2
18	Tr1	52	R1
19	Tr2	53	R3
20	R42	54	Tr21
21	R43	55	R14
22	R44	56	Tr14
23	Tr3	57	Tr15
24	R12	58	R9
25	R11	59	VR6
26	R40	60	D6
27	C15	61	R7
28	R41	62	R8
29	VR2	63	R49
30	Tr7	64	R50
31	R26	65	VR1
32	R25	66	Tr17
33	R27	67	VR3
34	Tr24	68	D7, D8

