

# **Service Manual**

**XG-M**      (CODE NO. 2019)



**MINOLTA**

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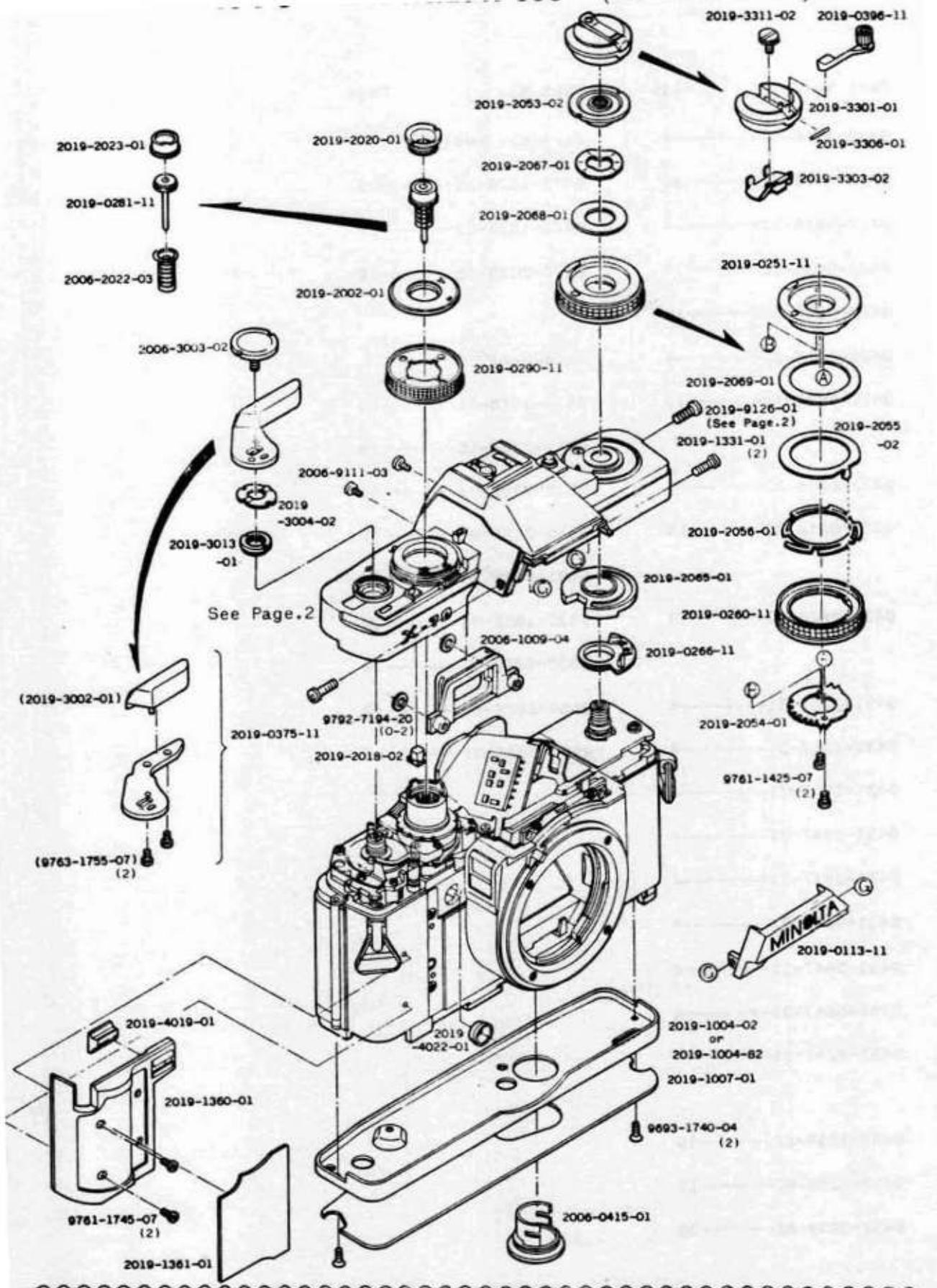
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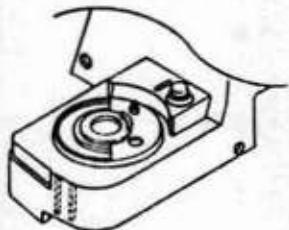


■ 新部品に順次切替  
 The current bottom cover will be exchanged in order with new one.

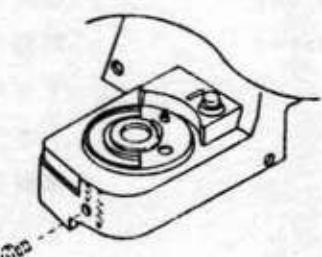
Part No.	Part Name	Qty.
2019-0113-11	Front top cover set	正面 上部カバーセット 1
2019-0251-11	ASA cover plate set	ASA カバー板セット 1
2019-0260-11	ASA operation knob set	ASA 操作ノブセット 1
2019-0266-11	ASA contact holder set	ASA 接片ホルダーセット 1
2019-0281-11	Shutter release button set	シャッター放出ボタンセット 1
2019-0290-11	Shutter speed dial/Function selector	シャッターダイヤルセレクター 1
2019-0375-11	Film advance lever set	巻上レバーセット 1
(2019-3002-01)	Film advance lever knob	巻上レバー担当 1
(9763-1755-07)	Tap tite screw	十字穴付半丸皿頭タップタイトねじ 2
2019-0396-11	Rewinding handle set	巻戻しハンドルセット 1
2006-0415-01	Battery holder set	電池ケース蓋 1
2019-1004-02 or 2019-1004-82 or 2019-1007-01	Bottom cover	下カバー 1
	Sheet	下カバー用保護シート 1
2006-1009-04	Eye-piece frame	接眼枠 1
2019-1331-01	Screw	止めビス 2
2019-1360-01	Grip	グリップ 1
2019-1361-01	Grip leather	グリップ貼皮 1
2019-2002-01	Shutter speed dial	スピードダイヤル銘板 1
2019-2018-02	Auto lock button	オートロック鈕 1
2019-2020-01	Shutter release button pressure	シャッター放出押え 1
2006-2022-03	Shutter release button spring	シャッター放出スプリング 1
2019-2023-01	Shutter release button cap	シャッター放出キャップ 1
2019-2053-02	ASA dial nut	ASA 押えナット 1
2019-2054-01	ASA click plate	ASA クリック板 1
2019-2055-02	ASA dial	ASA 銘板 1
2019-2056-01	ASA spring	ASAスプリング 1
2019-2065-01	ASA contact holder guide	ASA 接片ホルダーガイド 1
2019-2067-01	Pressure spring	ASA操作リング押えバネ 1
2019-2068-01	Operation knob sheet	ASA操作リングシート 0-1
2019-2069-01	ASA dial sheet	ASA 銘板シート 1
2006-3003-02	Winding lever pressure	巻上レバー押え 1
2019-3004-02	Winding lever friction	巻上レバーフリクション 1
2019-3013-01	Top cover nut	上カバー止めナット 1
2019-3301-01	Rewindig knob	巻戻しノブ 1
2019-3303-02	Rewindin handle spring	巻戻しハンドルバネ 1
2019-3306-01	Rewinding handle axis	巻戻しハンドル軸 1
2019-3311-02	Rewinding knob screw	巻戻しノブビス 1
2019-4019-01	Self-timer window	セルフ表示窓 1
2019-4022-01	Reflection ring	セルフ表示反射環 1
2006-9111-03	Screw	特殊止めビス 2
2019-9126-01	Screw	特殊止めビス 1
9693-1740-04	Phillips type tapping screw	十字穴付半丸皿頭タッピングねじ 2
9761-1425-07	Tap tite screw	十字穴付なべ頭タップタイトねじ 2
9761-1745-07	Tap tite screw	十字穴付なべ頭タップタイトねじ 2
9792-7194-20	Tap tite screw	薄ワッシャー 0-2

(for XG-M)

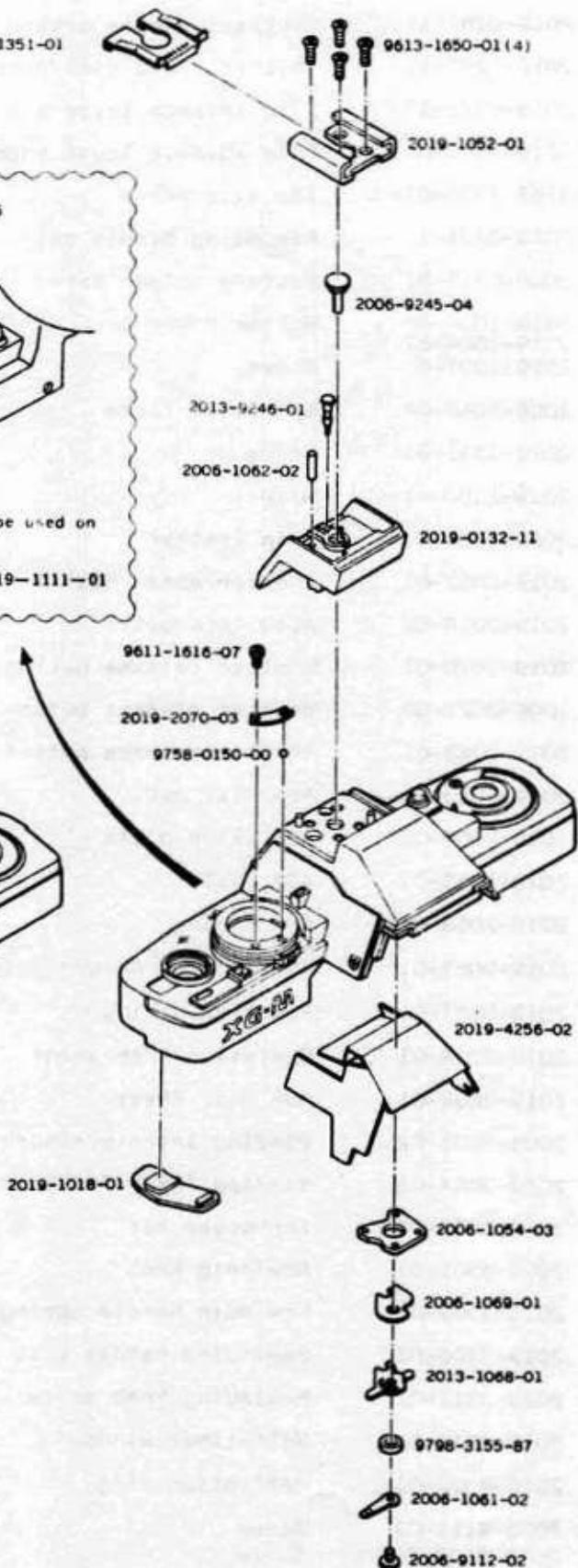
2019-0130-11



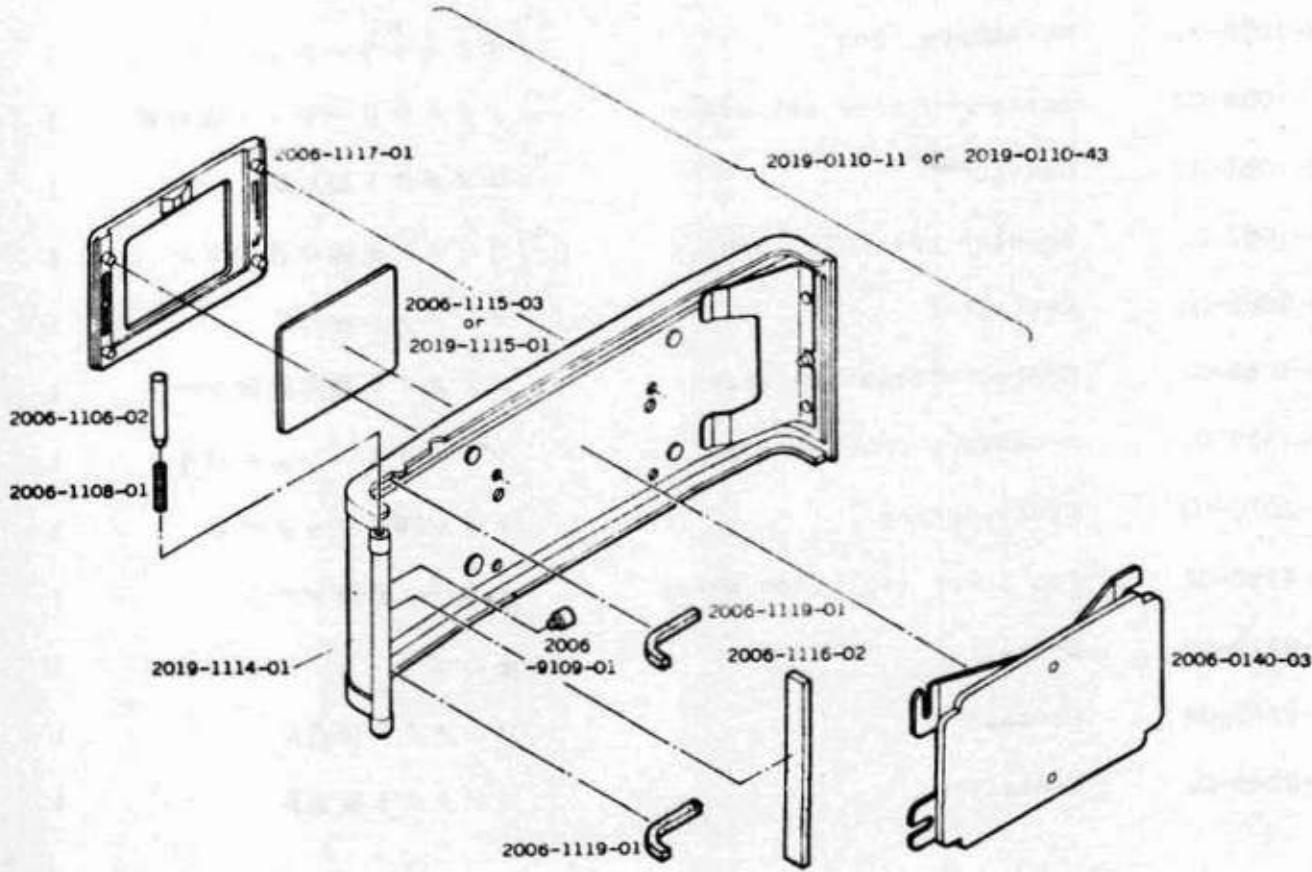
2019-0130-25



- 2019-9126- and 2019-1111-01(Refer to P.15) should be used on the top cover (0130-25) with a screw-hole.
- ピス穴のある上カバー（0130-25）には2019-9126-01, 2019-1111-01 (P. 15参照) を使用して下さい。



Part No.	Part Name	Qty
2019-0130-11 or 2019-0130-25	Top cover set(for XG-M)	1
2019-0134-11	Top cover set (for X-70)	1
2019-0132-11	Accessory shoe base set	1
2019-1018-01	Counter window	1
2019-1052-01	Accessory shoe	1
2006-1054-03	Accessory shoe set plate	1
2006-1061-02	Contact-D	1
2006-1062-02	Counter operation pin	1
2013-1068-01	Contact-E	1
2006-1069-02	Contact isolation sheet	1
2019-1315-01	Accessory shoe spring	1
2019-2070-03	Click spring	1
2019-4256-02	Top cover isolation sheet	1
2006-9112-02	Screw	1
2006-9245-04	Contact-A	1
2006-9246-02	Contact-B	1
9611-1616-07	Phillips type screw	1
9613-1650-01	Phillips type screw	4
9758-0150-00	Steel ball	1
9798-3155-87	Washer	1



(2019-0110-11)

2006-1115-03

DIN ASA	24	200
12 • 12	27	400
15 • 25	30	600
18 • 50	33	1600
21 • 100	36	3200

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(for XG-M)

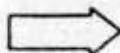
(2019-0110-43)

2019-1115-01

ISO	24	200
(DIN ASA)	27	400
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21 • 100	39	6400

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(for XG-M & X-70)



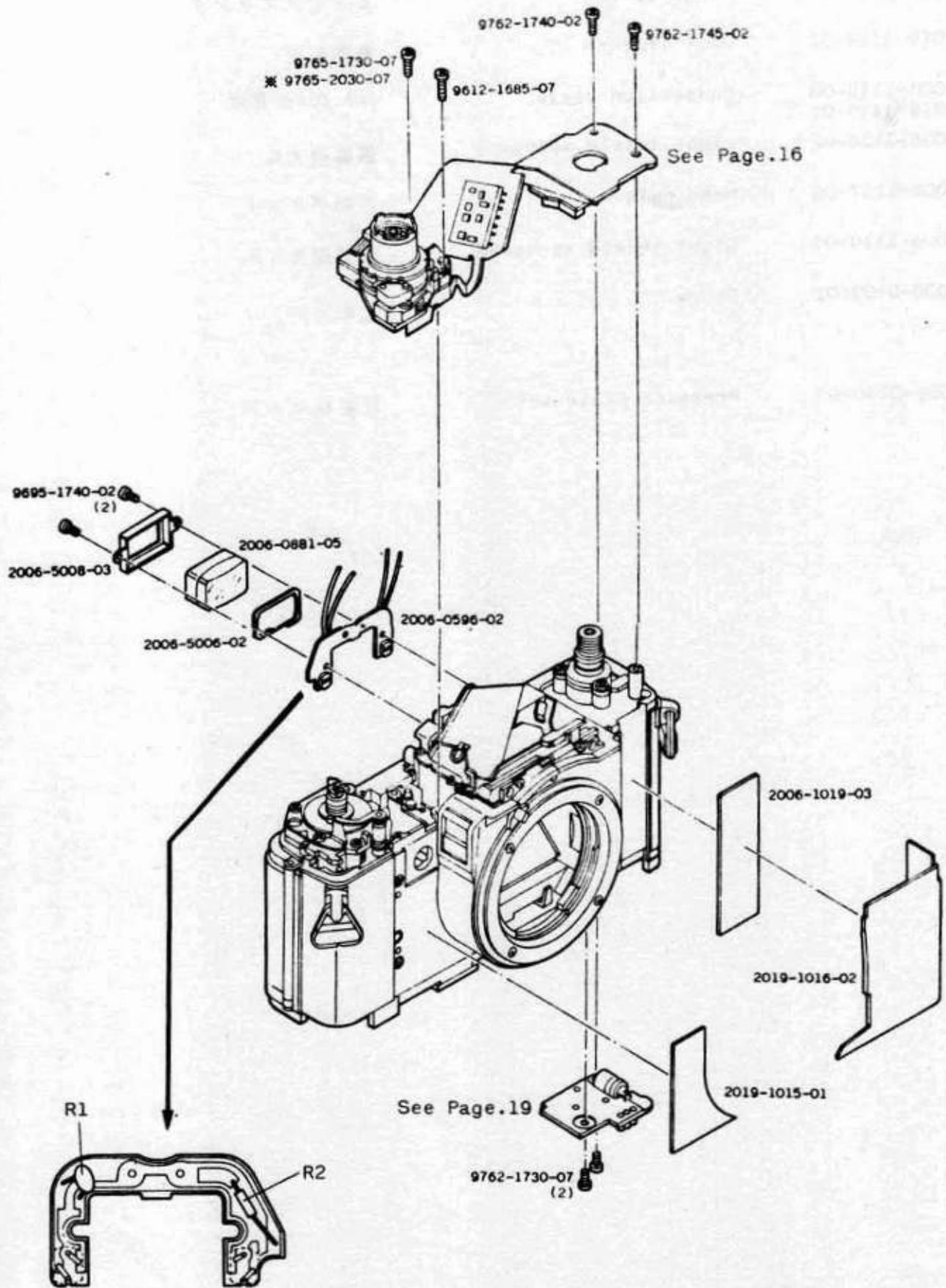
■ Changed item....ASA indication has changed to ISO.

■ The current parts will be exchanged in order with new ones for XG-M.

■ 変更内容 . . . . ASA表示からISO表示に変更

■ XG-M社順次新部品に切换

Part No.	Part Name	Qty.
2019-0110-11 2019-0110-43 or	Back cover set	裏蓋セット
2006-1106-02	Hinge axis-A	ヒンジ軸A
2006-1108-01	Hinge spring	ヒンジスプリング
2019-1114-01	Back leather	裏蓋貼皮
2006-1115-03 2019-1115-01 or	Conversion scale	ASA. DIN換算板
2006-1116-02	Light shield sponge	裏蓋遮光片
2006-1117-01	Memo halder	裏蓋ポケット
2006-1119-01	Light shield sponge-B	裏蓋遮光片B
2006-9109-01	Screw	止めビス
2006-0140-03	Pressure plate set	圧着板セット

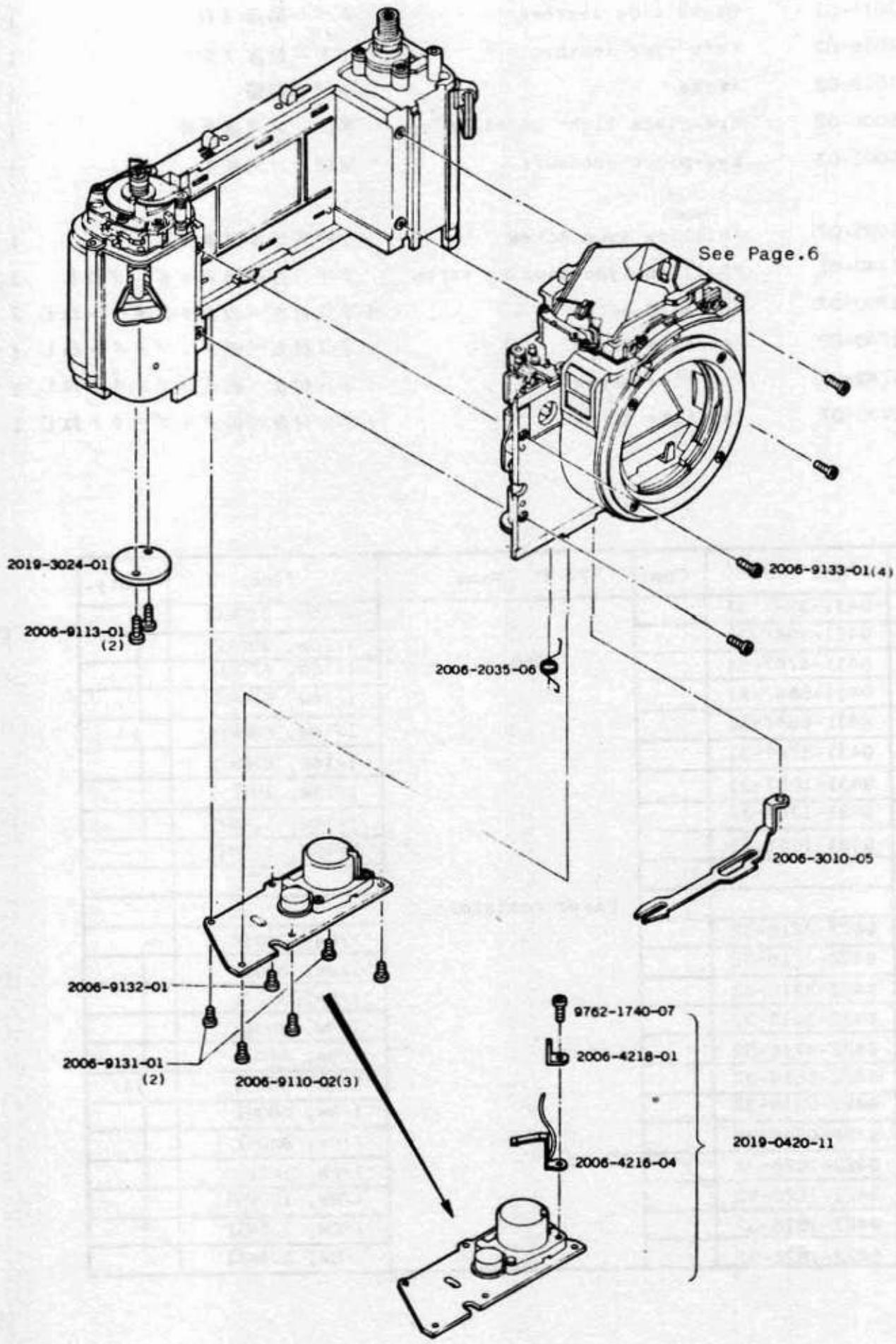


\* The screw for damaged hole

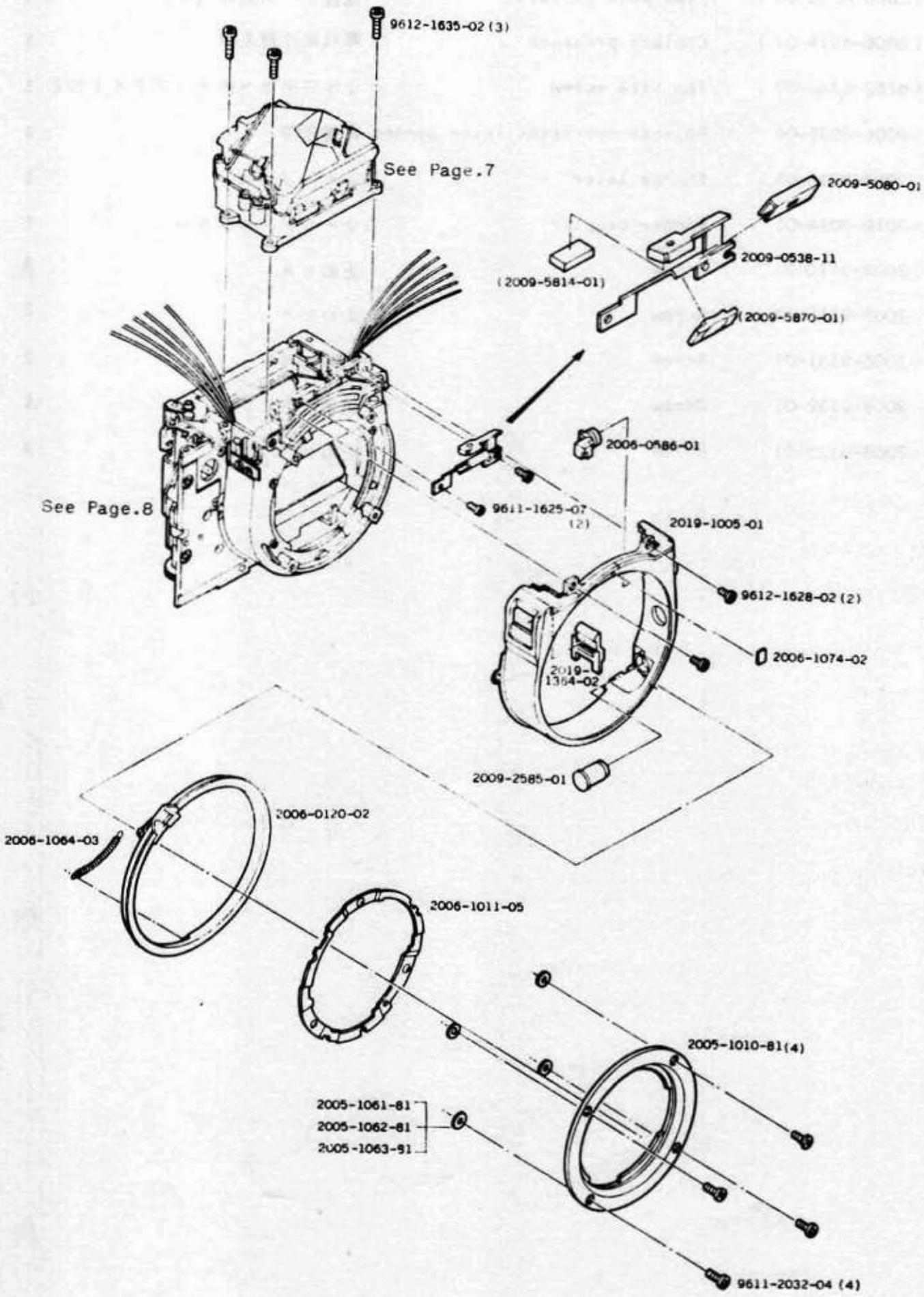
ねじ穴不良対策ビス

Part No.	Part. Name	
2006-0596-02	Cds circuit base plate set	Cds基板セット
2006-0881-05	Eye-piece set	接眼レンズセット
2019-1015-01	Right side leather	ボデー貼皮（右）
2019-1016-02	Left side leather	ボデー貼皮（左）
2006-1019-03	Plate	ボデー貼板
2006-5006-02	Eye-piece light shield plate	接眼レンズ遮光枠
2006-5008-03	Eye-piece pressure	接眼レンズ押え
9612-1685-07	Phillips type screw	十字穴付なべ頭小ねじ
9695-1740-02	Phillips type tapping screw	十字穴付皿頭タッピングねじ
9762-1730-07	Tap tite screw	十字穴付なべ頭タップタイトねじ
9762-1740-02	Tap tite screw	十字穴付なべ頭タップタイトねじ
9762-1745-02	Tap tite screw	十字穴付なべ頭タップタイトねじ
9765-1730-07	Tap tite screw	十字穴付なべ頭タップタイトねじ

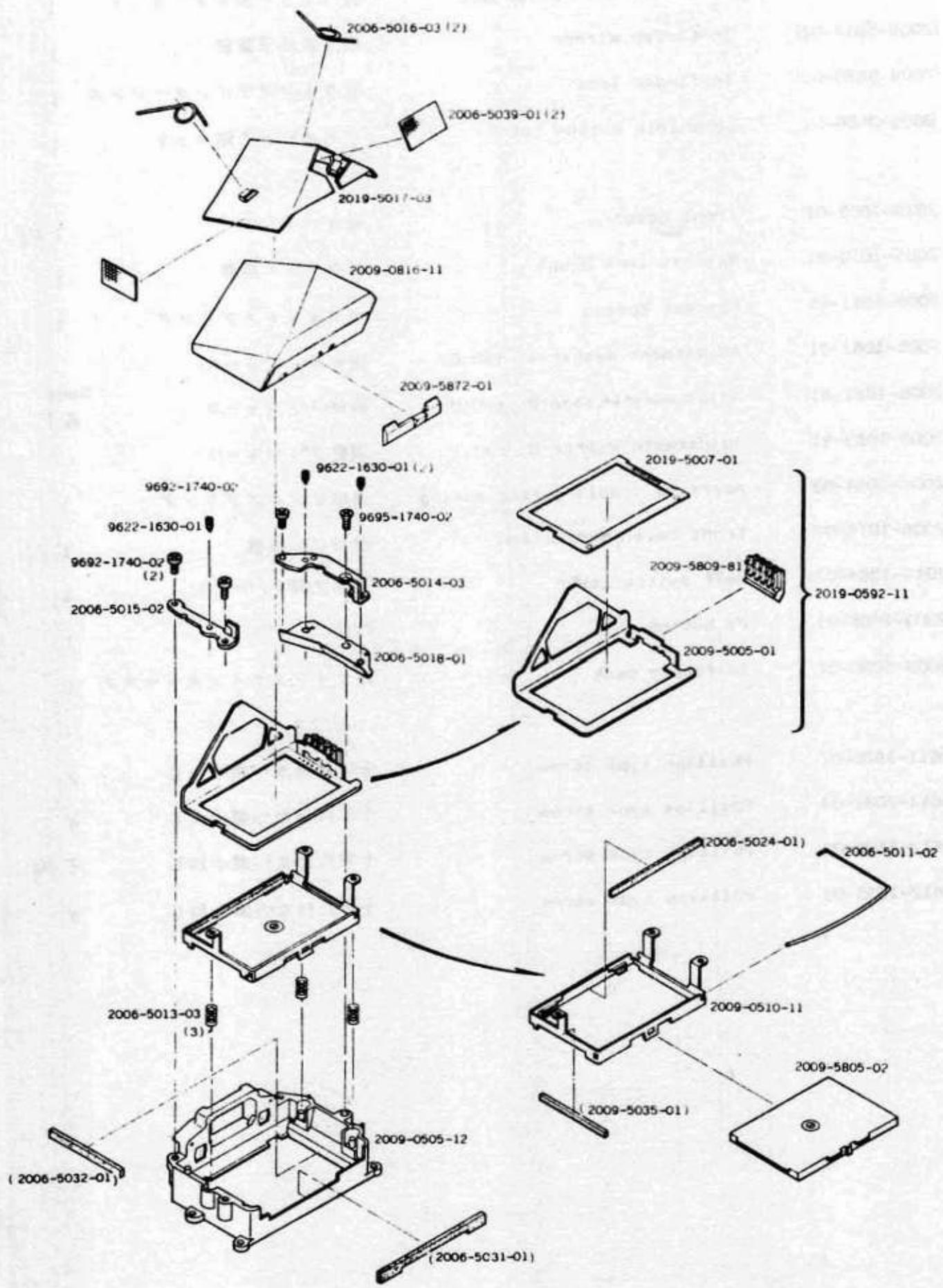
Symbol	Part No.	Com	Part Name	Type.	Qty.
R1	9431-3347-31		Fixed resistor	1/16W, 330KΩ	
	9431-3947-31			1/16W, 390KΩ	
	9431-4747-31			1/16W, 470KΩ	
	9431-5647-31			1/16W, 560KΩ	
	9431-6847-31			1/16W, 680KΩ	>1
	9431-8247-31			1/16W, 820KΩ	
	9431-1057-31			1/16W, 1MΩ	
	9431-1257-31			1/16W, 1.2MΩ	
	9431-1557-31			1/16W, 1.5MΩ	
R2	9422-2216-32		Fixed resistor	1/8W, 200Ω	
	9422-2716-32			1/8W, 270Ω	
	9422-3316-32			1/8W, 330Ω	
	9422-3916-32			1/8W, 390Ω	
	9422-4716-32			1/8W, 470Ω	
	9422-5616-32			1/8W, 560Ω	>1
	9422-6816-32			1/8W, 680Ω	
	9422-8216-32			1/8W, 820Ω	
	9422-1026-32			1/8W, 1KΩ	
	9422-1226-32			1/8W, 1.2KΩ	
	9422-1526-32			1/8W, 1.5KΩ	
	9422-1826-32			1/8W, 1.8KΩ	



Part No.	Part Name	Qty.
2019-0420-11	Battery case base plate set	1
( 2006-4216-04 )	Plus side contact	1
( 2006-4218-01 )	Contact pressure	1
( 9762-1740-07 )	Tap tite screw	1
2006-2035-06	Release operation lever spring 吸着用SP	1
2006-3010-05	Charge lever	1
2019-3024-01	Winder coupler	1
2006-9110-01	Screw	3
2006-9113-02	Screw	2
2006-9131-01	Screw	2
2006-9132-01	Screw	1
2006-9133-01	Screw	4

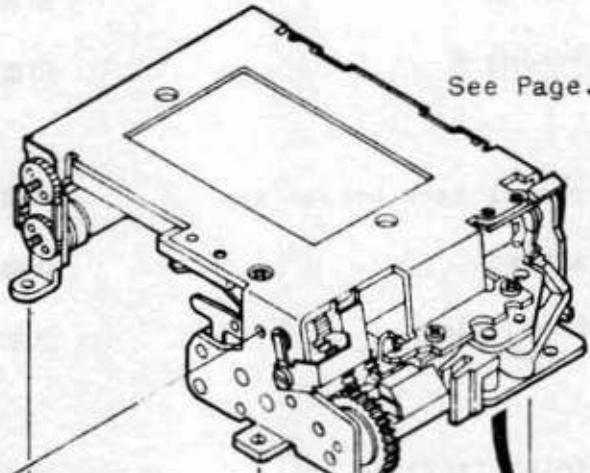


Part No.	Part Name		Qty.
2006-0120-02	Aperture coupling ring set	連結リングセット	1
2009-0538-11	In-finder base plate set	絞りミラー ホルダーセット	1
(2009-5814-01)	In-finder mirror	絞り表示平面鏡	1
(2009-5870-01)	In-finder lens	絞りインフайнダーレンズ	1
2006-0586-01	Lens lock button set	レンズロック釦セット	1
2019-1005-01	Front cover	前カバー	1
2005-1010-81	Bayonet lens mount	バヨネット座板	1
2006-1011-05	Bayonet spring	バヨネットスプリング	1
2005-1061-81	Adjustment washer-A t=0.02	調整ワッシャーA	Some 若干
2005-1062-81	Adjustment washer-B t=0.05	調整ワッシャーB	
2005-1063-81	Adjustmetn washer-C t=0.1	調整ワッシャーC	
2006-1064-03	Aperture coupling ring spring	連結リングスプリング	1
2006-1074-02	Front cover indication	前カバー指標	1
2019-1364-02	Self switch lever	セルフSWレバー	1
2009-2585-01	PV button	PV釦	1
2009-5080-01	In-finder mask	絞りインフайнダーマスク	1
9611-1625-07	Phillips type screw	十字穴付なべ頭小ねじ	2
9611-2032-04	Phillips type screw	十字穴付なべ頭小ねじ	4
9612-1628-02	Phillips type screw	十字穴付なべ頭小ねじ	2
9612-1635-02	Phillips type screw	十字穴付なべ頭小ねじ	3



Part No.	Part Name		Qty.
2009-0505-12	Penta. holder set	ベンターホルダーセット	1
(2006-5031-01)	Packing-A	防塵モルトブレンA	1
(2006-5032-01)	Packing-B	防塵モルトブレンB	1
2009-0510-11	Fresnel lens holder set	焦点板ホルダーセット	1
(2006-5024-01)	Packing-C	防塵モルトブレンC	1
(2009-5035-01)	Shield plate	防塵塗ビシート	1
2019-0592-11	Penta. receiver set	ベンタ受セット	1
(2009-5005-01)	Penta. receiver	ベンタ受	1
(2019-5007-01)	Scale plate	目盛板	1
(2009-5809-81)	L.E.D mirror	光路棒	1
2009-0816-11	Penta. prism set	ベンタプリズム	1
(2009-5872-01)	In-finder prism	絞りインフайнダープリズム	1
2006-5011-02	Fresnel lens pressure spring	焦点板押えSP	1
2006-5013-03	Fresnel lens holder spring	焦点板ホルダーSP	3
2006-5014-03	Penta. pressure (Left side)	ベンタ押え(左)	1
2006-5015-02	Penta. pressure (Right side)	ベンタ押え(右)	1
2006-5016-03	Penta. spring	ベンタ押えSP	2
2019-5017-03	Penta. pressure	ベンタ押え板	1
2006-5018-01	L.E.D diffusion plate	LED拡散板	1
2006-5039-01	Tape (15mmX9mm)	ベンタ押え板接着テープ	2
2009-5805-02	Fresnel lens	焦点板	1
9622-1630-01	Screw	トガリ先止めねじ	3
9692-1740-02	Phillips type tapping screw	十字穴付ナベ頭タッピングねじ	3
9695-1740-02	Phillips type tapping screw	十字穴付皿頭タッピングねじ	1

See Page.17,18



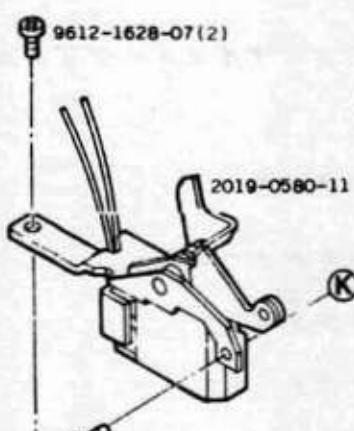
2006-9004-02  
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9613-1645-07

(LD13)  
9353-2642-01

(C3)  
9565-3338-32

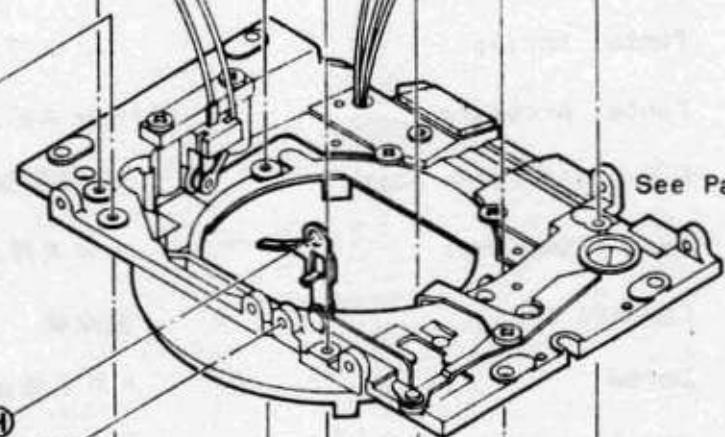
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2019-0580-11

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See Page.9



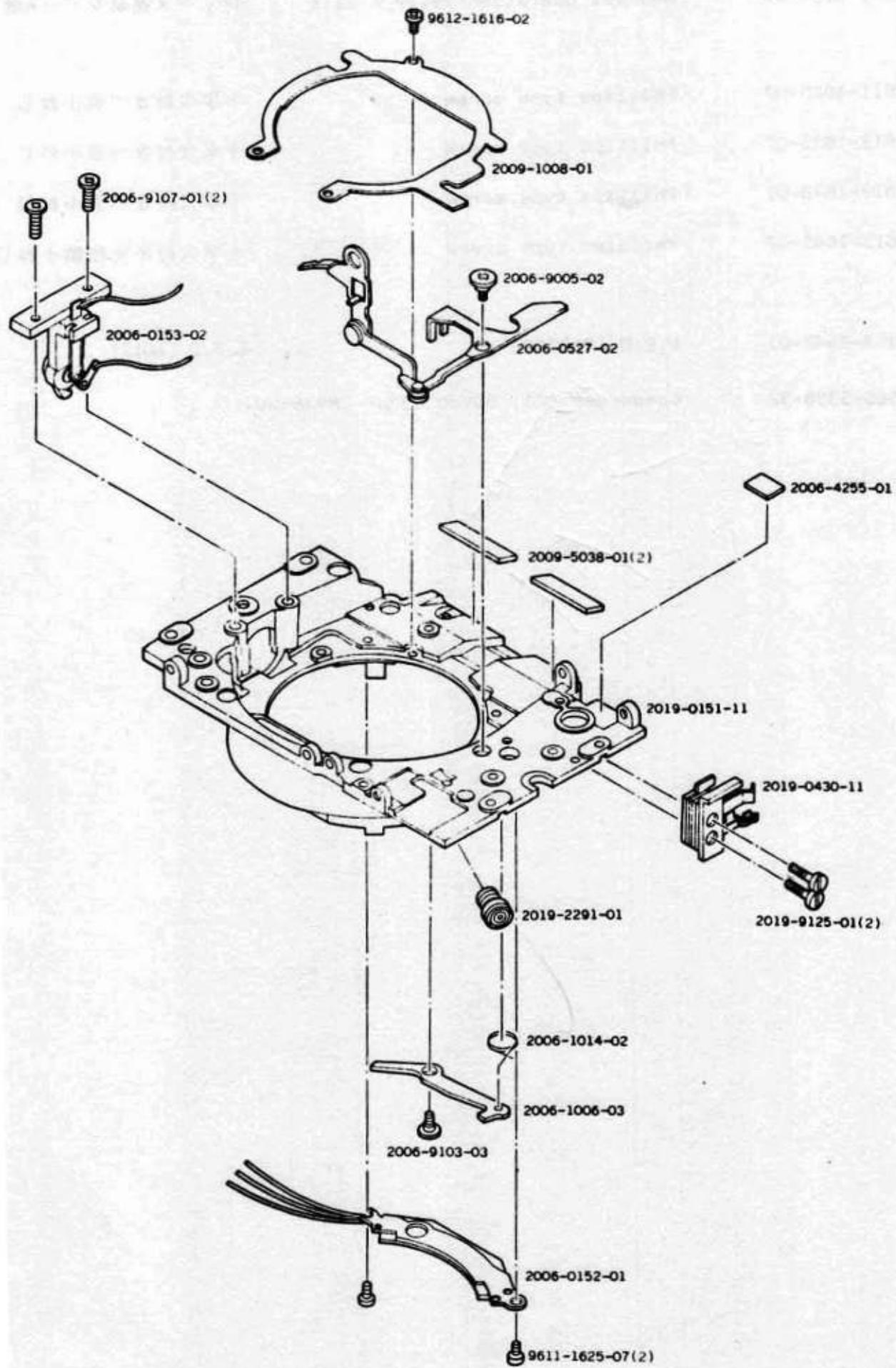
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K

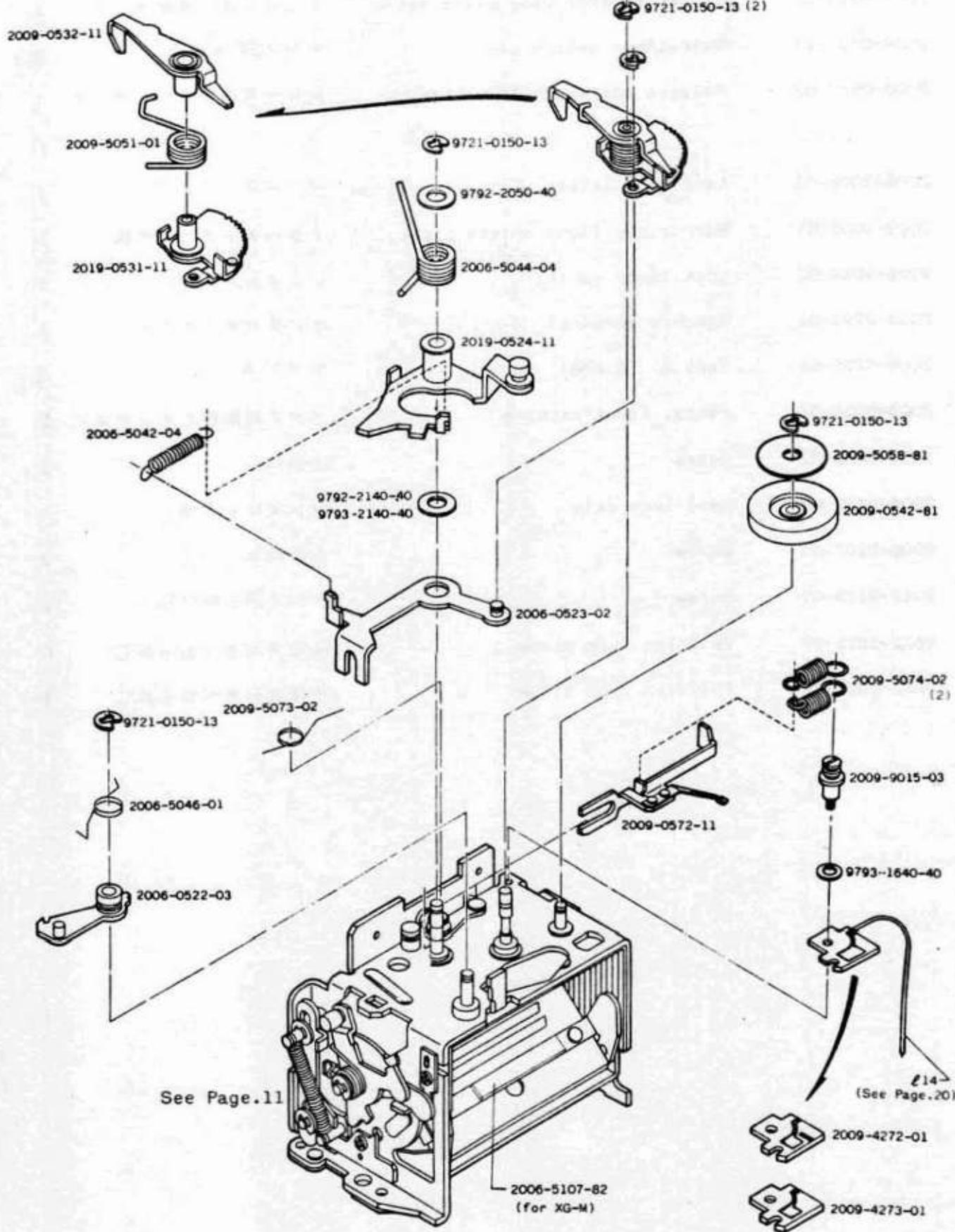
9612-1625-07(3)

9611-1625-07(3)

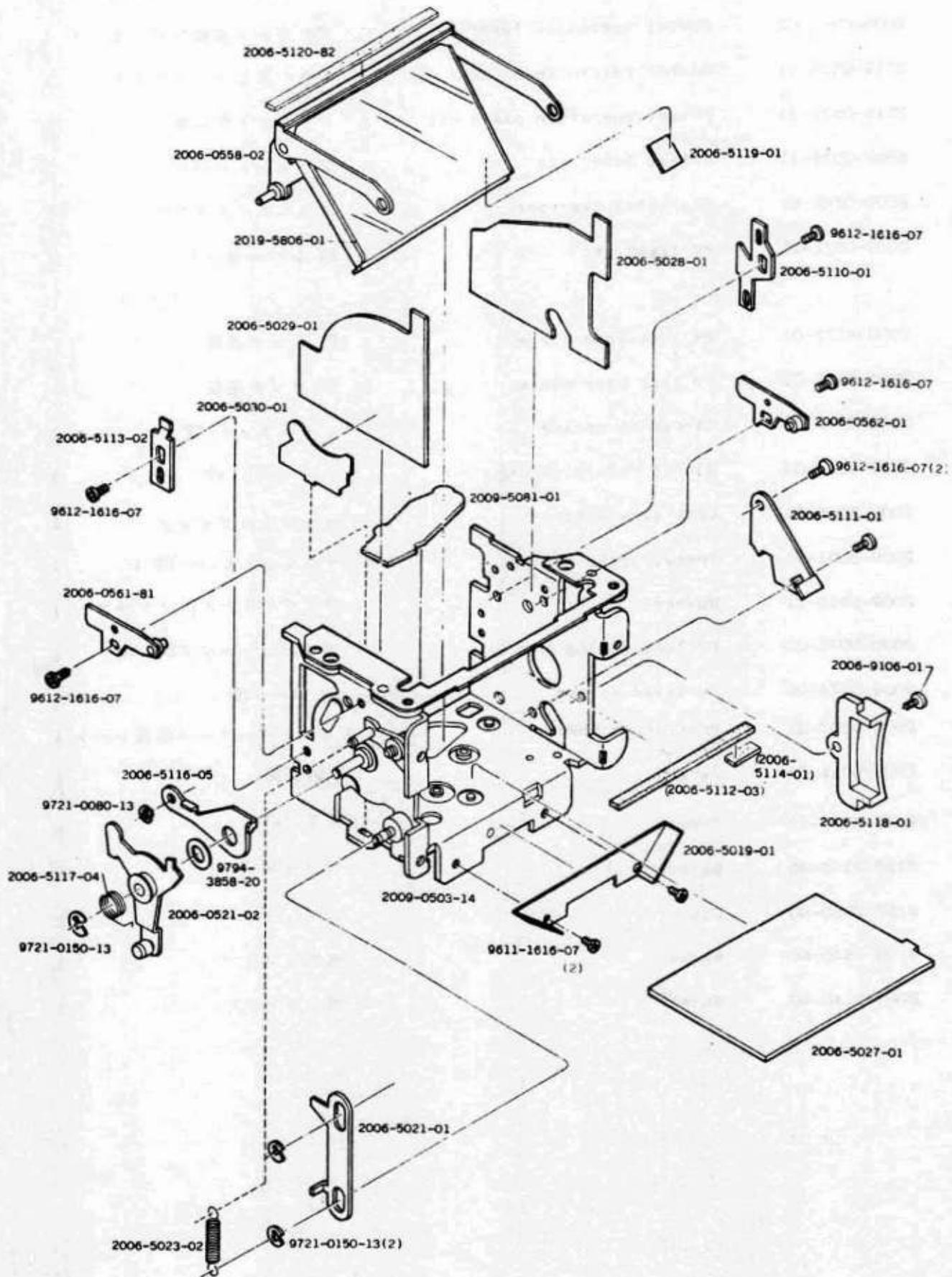
Part No.	Part Name		Qty.
2019-0580-11	Magnetic release base plate set	レリーズマグネット台板	1
2006-9004-02	Release operation lever A axis	レリーズ連結レバーA軸	1
9611-1625-07	Phillips type screw	十字穴付なべ頭小ねじ	3
9612-1625-07	Phillips type screw	十字穴付なべ頭小ねじ	3
9612-1628-07	Phillips type screw	十字穴付なべ頭小ねじ	2
9613-1645-07	Phillips type screw	十字穴付半丸皿頭小ねじ	1
9353-2642-01	L.E.D (TLR108)	L.E.D (LD13)	1
9565-3338-32	Condenser (C3; 50V/0.033μF CR426YSU)		1



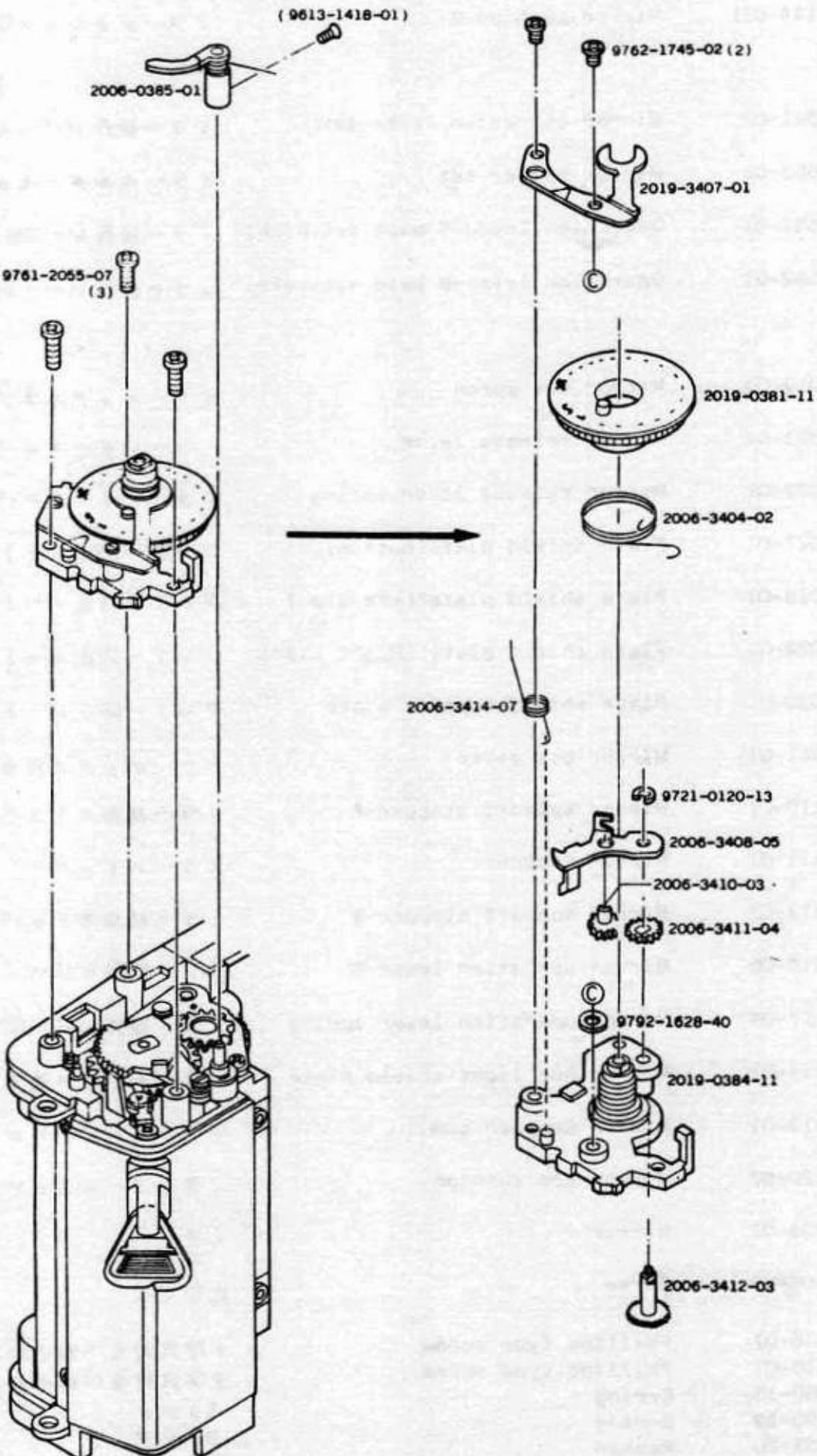
Part No.	Part Name	Qty.
2019-0151-11	Front base plate set	前枠セット 1
2006-0152-01	Circuit base plate-B	回路基板B セット 1
2006-0153-02	Remote control base plate set	リモコン接片基板セット 1
2019-0430-11	Self-timer switch set	セルフSW セット 1
2006-0527-02	Release operation lever set	レリーズ連結レバーセット 1
2006-1006-03	Lens lock lever	レンズロックレバー 1
2009-1008-01	Mirror box light shield plate	ミラーボックス遮光板 1
2006-1014-02	Lock lever spring	ロックレバーSP 1
2019-2291-01	Synchro terminal	シンクロターミナル 1
2006-4255-01	Tape A (3.8X8)	テープ A 1
2009-5038-01	Penta. front packing	ペンタ前面押えクッション 2
2006-9005-02	Screw	止めねじ 1
2006-9103-03	Lens lock axis	レンズロック軸 1
2006-9107-01	Screw	止めねじ 2
2019-9125-01	Screw	セルフSW止めねじ 2
9611-1625-07	Phillips type screw	十字穴付なべ頭小ねじ 2
9612-1616-02	Phillips type screw	十字穴付なべ頭小ねじ 1



Part No.	Part Name	Qty.
2006-0522-03	Mirror return lever lock claw set ミラー戻しレバーロック爪セット	1
2006-0523-02	Preset operation lever set プリセット連動レバーセット	1
2019-0524-11	Mirror return lever set ミラー戻しレバーセット	1
2019-0531-11	Preset operation plate set プリセット作動板	1
2009-0532-11	Preset lever set プリセットレバー	1
2009-0542-81	Fly wheel gear set フライホイルギヤー	1
2009-0572-11	PV lever set PV レバーセット	1
2009-4272-01	PV lock base plate PV ロック基板	1
2009-4273-01	PV lock base plate PV ロック基板	
2006-5042-04	Mirror-up spring ミラーアップ SP	1
2006-5044-04	Mirror return spring ミラー戻し SP	1
2006-5046-01	Lock claw spring ロック爪スプリング	1
2009-5051-01	Preset lever spring プリセットレバー SP	1
2009-5058-81	Washer フライホイールワッシャー	1
2009-5073-02	PV lock spring プレビューロック SP	1
2009-5074-02	PV lever spring PV レバー SP	2
2006-5107-82	Protection sheet ミラー ホルダーアーム保護シート	1
2009-9015-03	Screw 止めビス	1
9721-0150-13	E-ring E リング	5
9792-2140-40	Washer 薄ワッシャー	1
9792-2050-40	Washer 薄ワッシャー	1
9793-1640-40	Washer 薄ワッシャー	1
9793-2140-40	Washer 薄ワッシャー	1



Part No.	Part Name	Qty.
2009-0503-14	Mirror box set	ミラー ボックス セット
(2006-5112-03)	Mirror cushion	ミラー クッション
(2006-5114-01)	Mirror cushion-B	ミラー クッションB
2006-0521-02	Mirror operation lever-set	ミラー 操作 レバー セット
2006-0558-02	Mirror holder set	ミラー ホルダーセット
2006-0561-81	Operation lever-B base set(Right)	ミラー 操作 レバーベース セット (右)
2006-0562-01	Operation lever-B base set(Left)	ミラー 操作 レバーベース セット (左)
2006-5019-01	Mirror box apron	ミラー ボックスエプロン
2006-5021-01	Mirror release lever	ミラー リリース レバー
2006-5023-02	Mirror release lever spring	ミラー リリース レバー SP
2006-5027-01	Flare shield plate(bottom)	フレアーアシストシート (下)
2006-5028-01	Flare shield plate(Left side)	フレアーアシストシート (左)
2006-5029-01	Flare shield plate (Right side)	フレアーアシストシート (右)
2006-5030-01	Flare shield support plate	フレアーアシストシート 補助板
2009-5081-01	Mirror box cover	ミラー ボックス 穴カバー
2006-5110-01	Mirror support stopper-A	ミラー 補助ストッパーA
2006-5111-01	Mirror stopper	ミラーストッパー
2006-5113-02	Mirror support stopper-B	ミラー 補助ストッパーB
2006-5116-05	Mirror operation lever-B	ミラー 作動 レバー
2006-5117-04	Mirror operation lever spring	ミラー 操作 レバー SP
2006-5118-01	Mirror box light shield plate	ミラー ボックス 遮光片
2006-5119-01	Mirror stopper gum	ミラーストッパー ゴム
2006-5120-82	Mirror arm cushion	ミラー アーム クッション
2019-5806-01	Mirror	ミラー
2006-9106-01	Screw	止めビス
9611-1616-07	Phillips type screw	十字穴付 なべ頭 小ねじ
9612-1616-07	Phillips type screw	十字穴付 なべ頭 小ねじ
9721-0080-13	E-ring	Eリング
9721-0150-13	E-ring	Eリング
9794-3858-20	Washer	薄ワッシャー



Part No.	Part Name	Qty.
2019-0381-11	Counter dial set	カウンターダイヤルセット 1
2019-0384-11	Winding base plate-B set	巻取台板Bセット 1
2006-0385-01	Film indication lever set	フィルム表示レバーセット 1
(9613-1418-01)	Phillips type screw	十字穴付半丸皿頭小ねじ 1
2006-3404-02	Counter return spring	カウンター戻しSP 1
2019-3407-01	Counter index	カウンター指標 1
2006-3408-05	Counter operation lever set	カウンター駆動操作レバー 1
2006-3410-03	Counter operation gear-B set	カウンター駆動ギヤー 1
2006-3411-04	Counter operation gear-C set	カウンター伝達ギヤー 1
2006-3412-03	Counter operation gear-A set	カウンター連結ギヤー 1
2006-3414-07	Return lever spring	ゼロリターンSP 1
9761-2055-07	Tap tite screw	十字穴付なべ頭タップタイトねじ 1
9762-1745-02	Tap tite screw	十字穴付なべ頭小ねじ 2
9721-0120-13	E-ring	E リング 1
9792-1628-40	Washer	薄ワッシャー 1

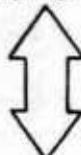
■ Use each part in combination  
(2006-0325-12 and 2006-3042-01,  
2006-0325-13 and 2006-3042-03).  
■ それぞれペアで使用して下さい。

2006-3042-01

2006-0325-12



(for XG-M)



2006-3042-03

2006-0325-13



(for XG-M & X-70)

9761-2040-07 (2)

9611-2090-07

2006-3055-02

2006-3053-02

2006-3052-03

2006-0325-12

2006-3421-03

2006-9106-01

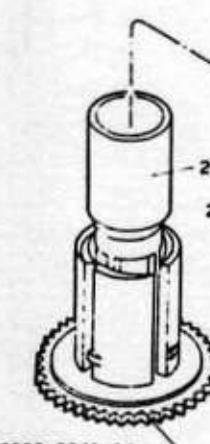
2006-3415-03

2019-3416-05

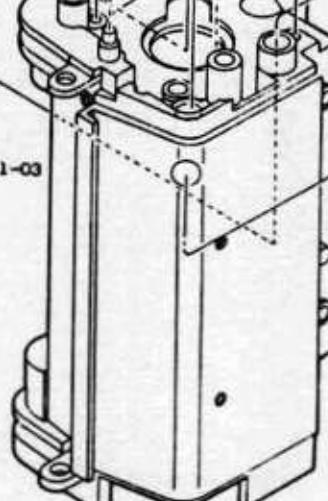
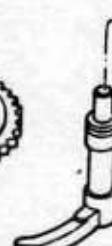
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2006-0325-13

9721-0200-03



2006-3041-04



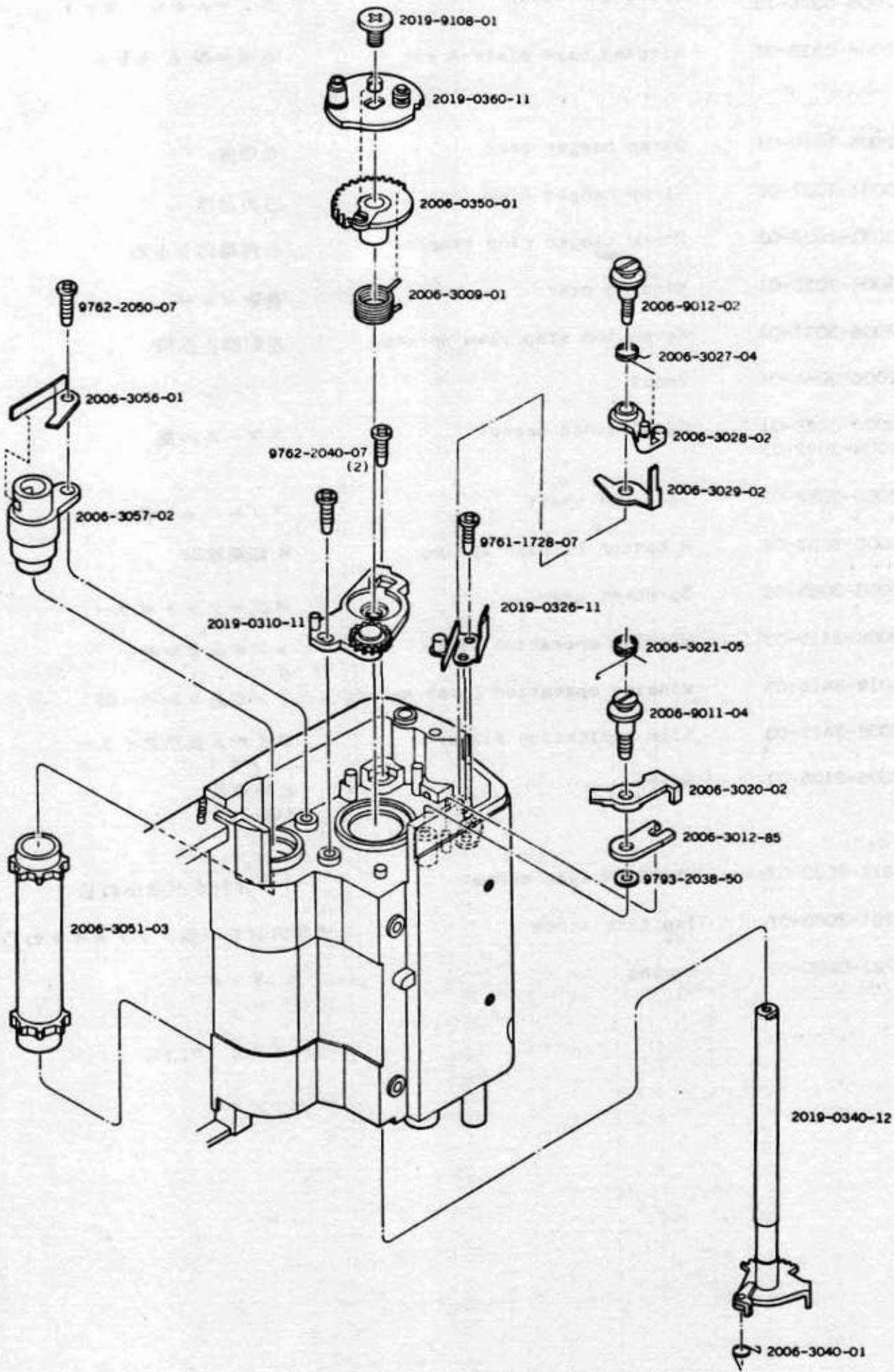
2006-1020-01

2019-0302-11

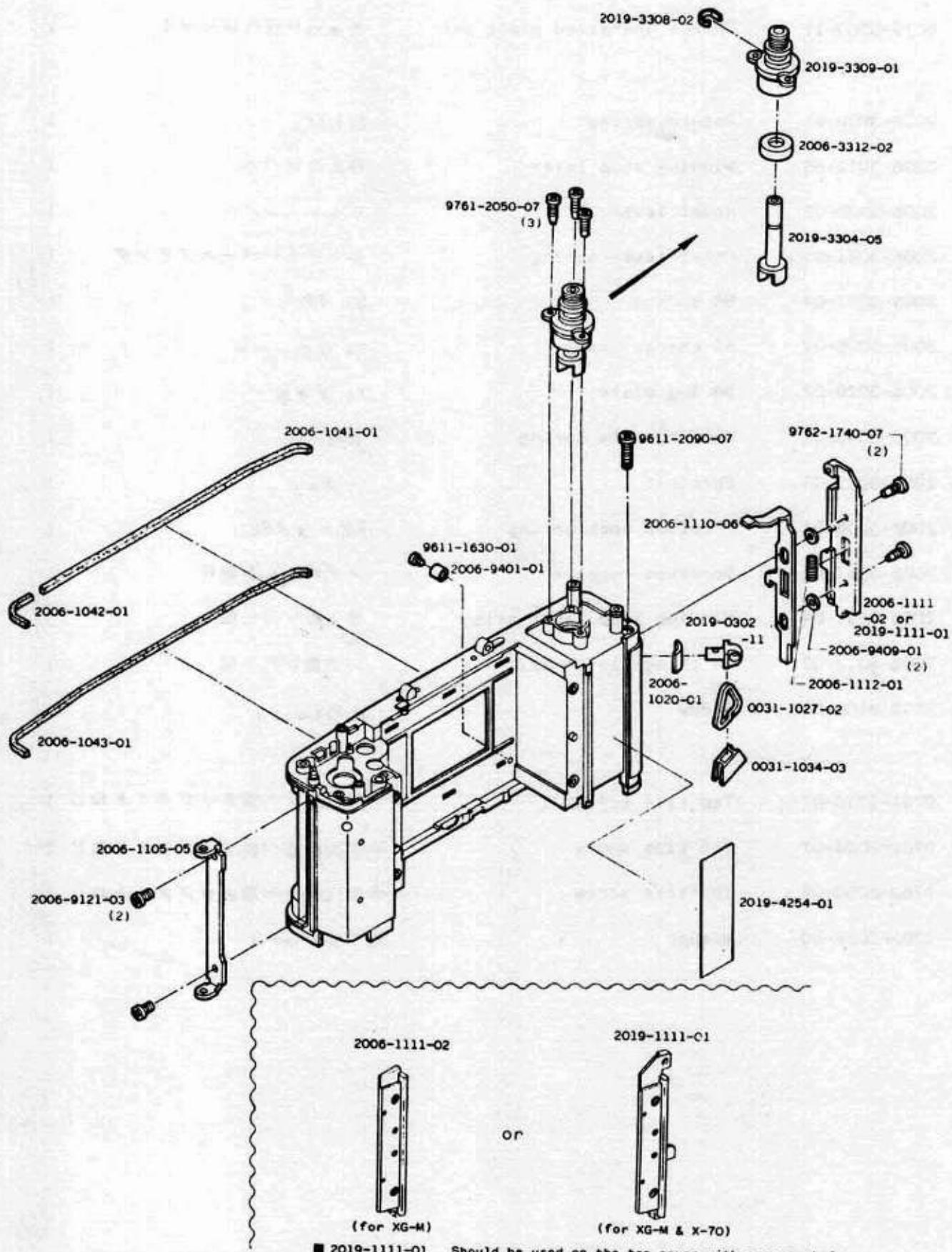
0031-1027-02

0031-1034-03

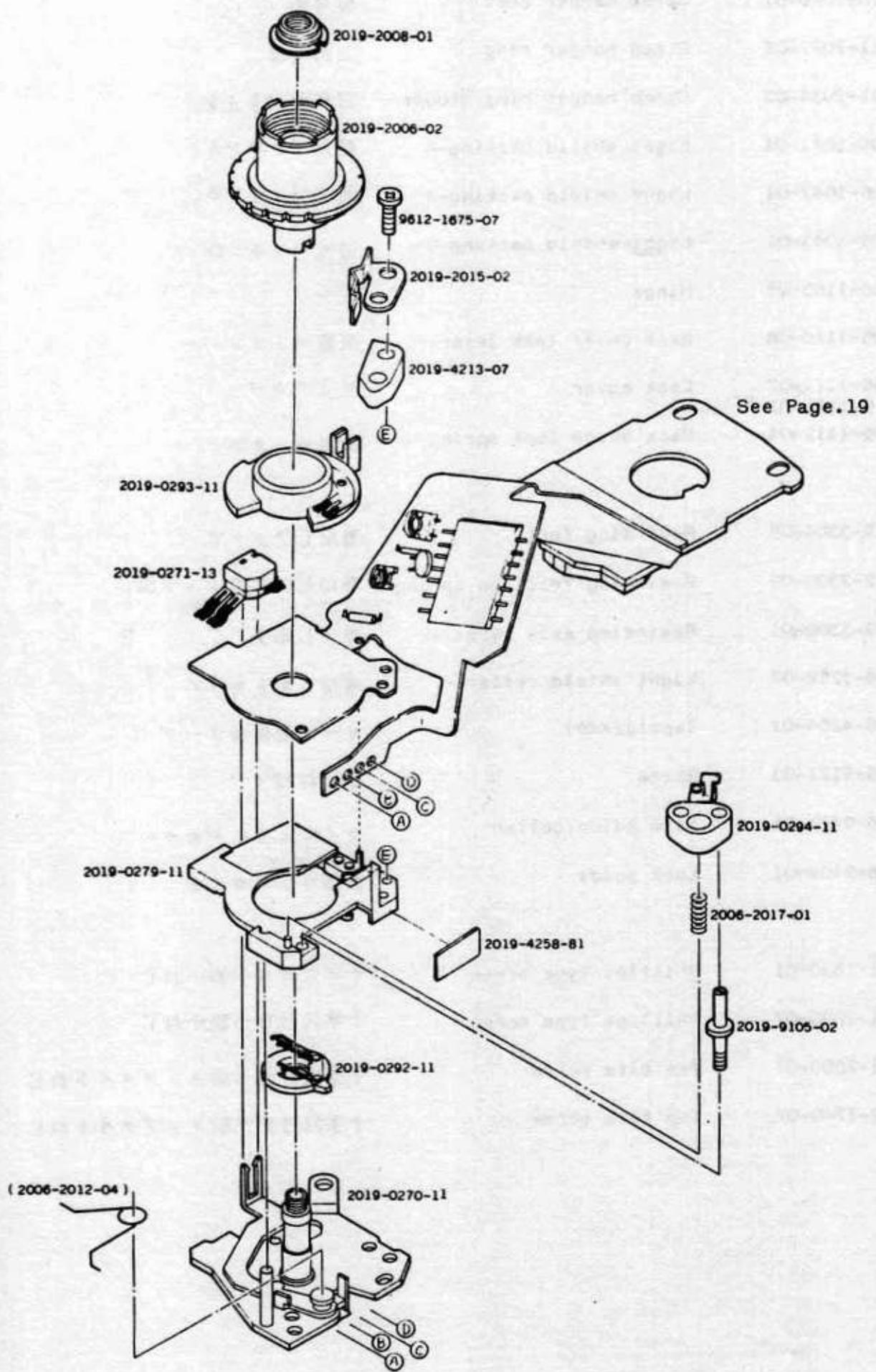
Part No.	Part Name		Qty
2019-0302-11	Strap hanger set	吊環セット	1
2006-0325-12 or 2006-0325-13	Spool gear set	スプールギヤーセット	1
2006-0338-02	Winding base plate-A set	巻取台板 A セット	1
2006-1020-01	Strap hanger seat	吊環座	1
0031-1027-02	Strap hanger ring	三角吊環	1
0031-1034-03	Strap hanger ring stopper	三角環回り止め	1
2006-3032-01	Winding gear	巻取ギヤー	1
2006-3037-02	Reversion stop claw spring	逆転防止爪SP	1
2006-3041-04	Spool	スプール	1
2006-3042-01 or 2006-3042-03	Spool inner barrel	スプール内筒	1
2006-3052-03	Sprocket shaft	スプロケット軸	1
2006-3053-02	R button release spring	R 卸解除SP	1
2006-3055-02	Sprocket gear	スプロケットギヤー	1
2006-3415-03	Winding operation lever	トンボ返りレバー	1
2019-3416-05	Winding operation lever spring	トンボ返りレバーSP	1
2006-3421-03	Film indication filler	フィルム表示フイラー	1
2006-9106-01	Screw	止めねじ	1
9611-2090-07	Phillips type screw	十字穴付なべ頭小ねじ	1
9761-2040-07	Tap tite screw	十字穴付なべ頭タップタイトねじ	2
9721-0200-03	E-ring	E リング	1



Part No.	Part Name	Qty
2019-0310-11	Winding axis receiver set	1
2019-0326-11	S4 contact set	1
2019-0340-12	Winding operation plate set	1
2006-0350-01	Shutter charge gear-D set	1
2019-0360-11	Charge operation plate set	1
2006-3009-01	Return spring	1
2006-3012-85	Winding stop lever	1
2006-3020-02	Reset lever	1
2006-3021-05	Reset lever spring	1
2006-3027-04	S4 spring	1
2006-3028-02	S4 charge lever	1
2006-3029-02	S4 lug plate	1
2006-3040-01	Winding calw spring	1
2006-3051-03	Sprocket	1
2006-3056-01	R button lock spring	1
2006-3057-02	Sprocket receiver	1
2006-9011-04	Winding stop lever axis	1
2006-9012-02	S4 change lever axis	1
2019-9108-01	Screw	1
9761-1728-07	Tap tite screw	1
9762-2004-07	Tap tite screw	2
9762-2050-07	Tap tite screw	1
9793-2038-50	Washer	1

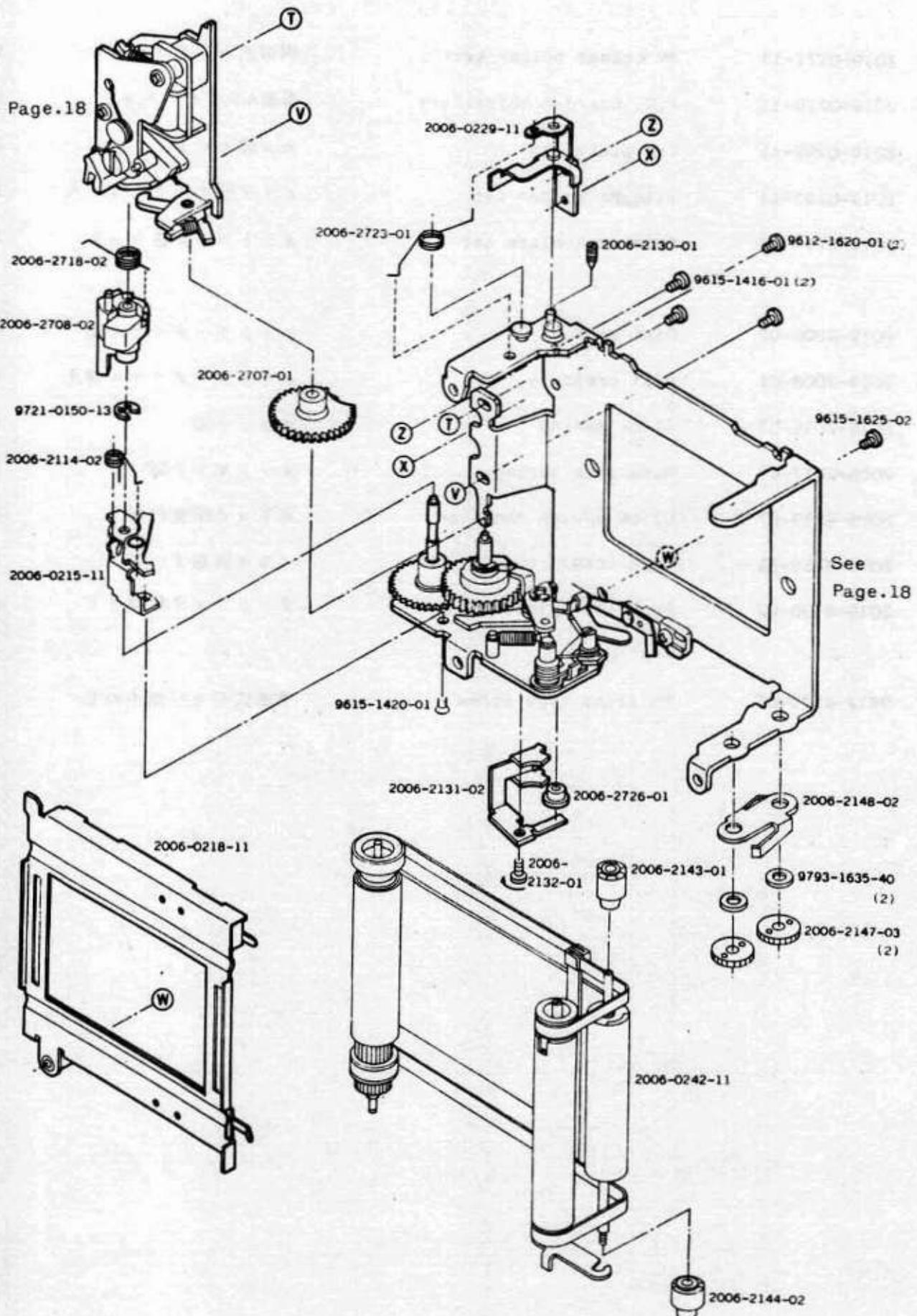


Part No.	Part Name	Qty.
2019-0302-11	Strap hanger set	1
2006-1020-01	Strap hanger seat	1
0031-1027-02	Strap hanger ring	1
0031-1034-03	Strap hanger ring stopper	1
2006-1041-01	Light shield packing-A	1
2006-1042-01	Light shield packing-B	1
2006-1043-01	Light shield packing-C	1
2006-1105-05	Hinge	1
2006-1110-06	Back cover lock lever	1
2006-1111-02 or 2019-1111-01	Lock cover	1
2006-1112-01	Back cover lock spring	1
2019-3304-05	Rewinding fork	1
2019-3308-02	Rewinding friction spring	1
2019-3309-01	Rewinding axis receiver	1
2006-3312-02	Light shield collar	1
2019-4254-01	Tape(12X45)	1
2006-9121-03	Screw	2
2006-9401-01	Film guide collar	1
2006-9409-01	Lock guide	2
9611-1630-01	Phillips type screw	1
9611-2090-07	Phillips type screw	3
9761-2050-07	Tap tite screw	3
9762-1740-07	Tap tite screw	2

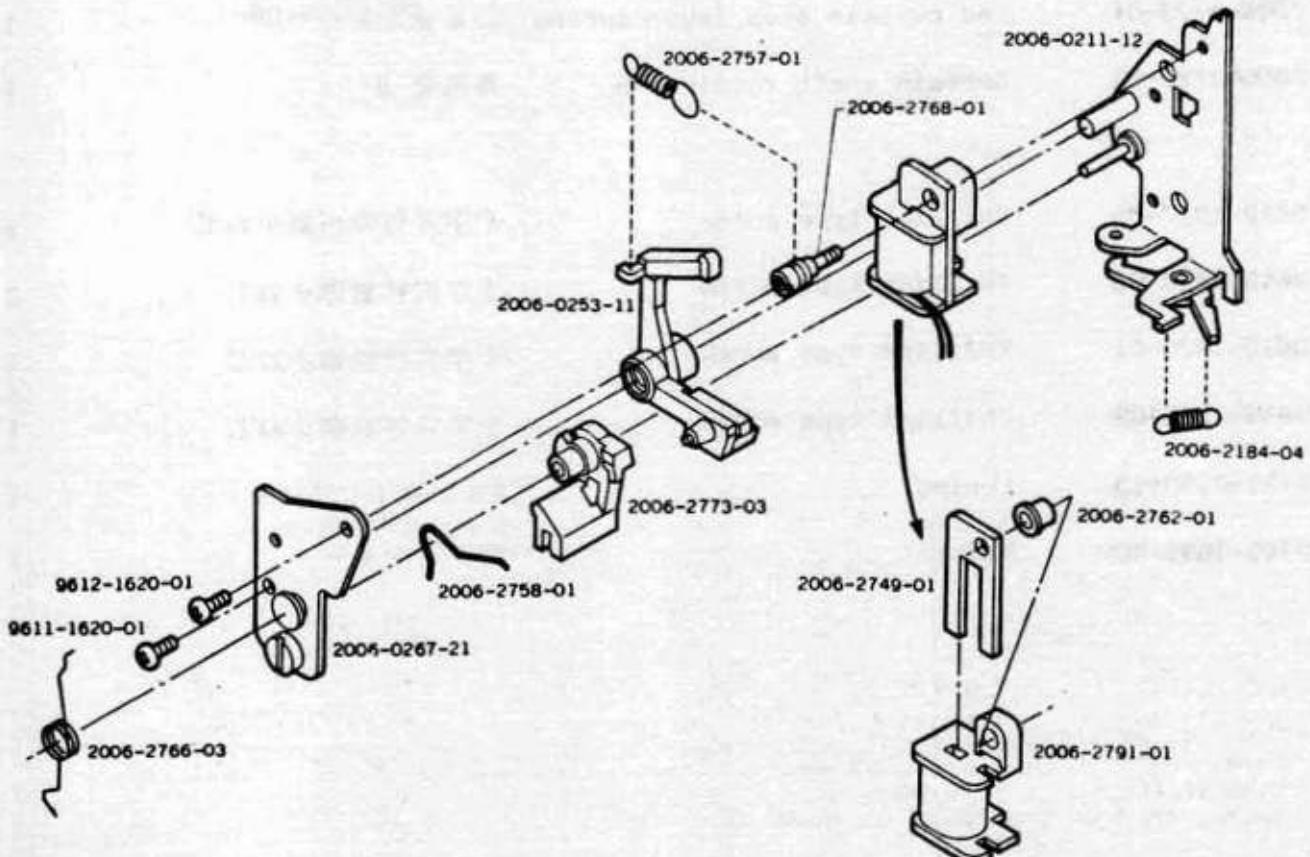
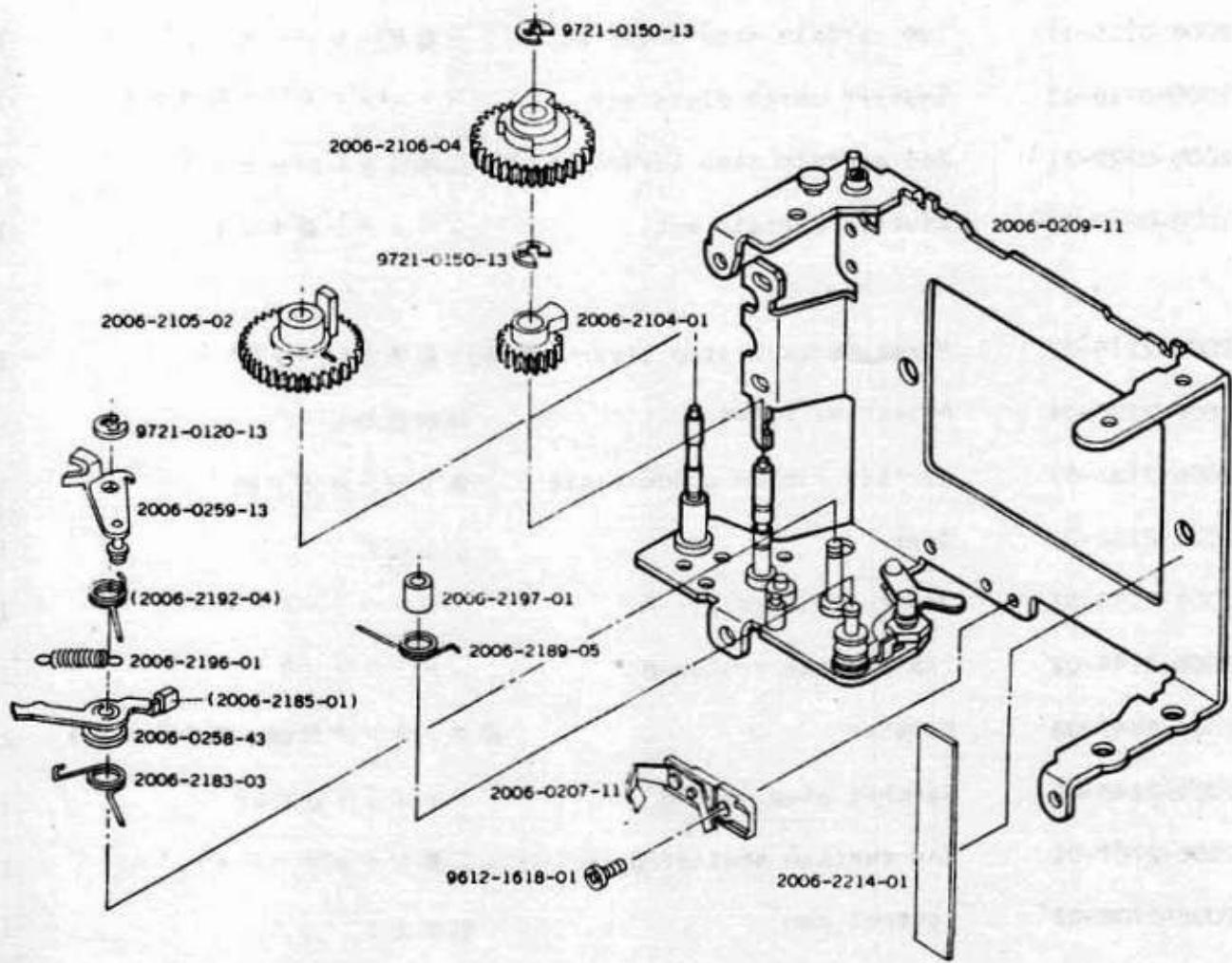


Part No.	Part Name	Qty.
2019-0270-11 (2006-2012-04)	Shutter speed dial base plate set シャッターダイヤル台板セット AM change spring	1
2019-0271-13	AM change holder set	1
2019-0279-11	P.C. board-A holder set	1
2019-0292-11	Cam plate set	1
2019-0293-11	Main SW holder set	1
2019-0294-11	Auto lock plate set	1
2019-2006-02	Dial axis	1
2019-2008-01	Dial pressure	1
2019-2015-02	Click spring	1
2006-2017-01	Auto lock spring	1
2019-4213-07	Click spring receiver	1
2019-4258-81	Tape (6x9)	1
2019-9105-02	Auto lock plate guide	1
9612-1675-07	Phillips type screw	1
	十字穴付なべ頭小ねじ	

See Page.18

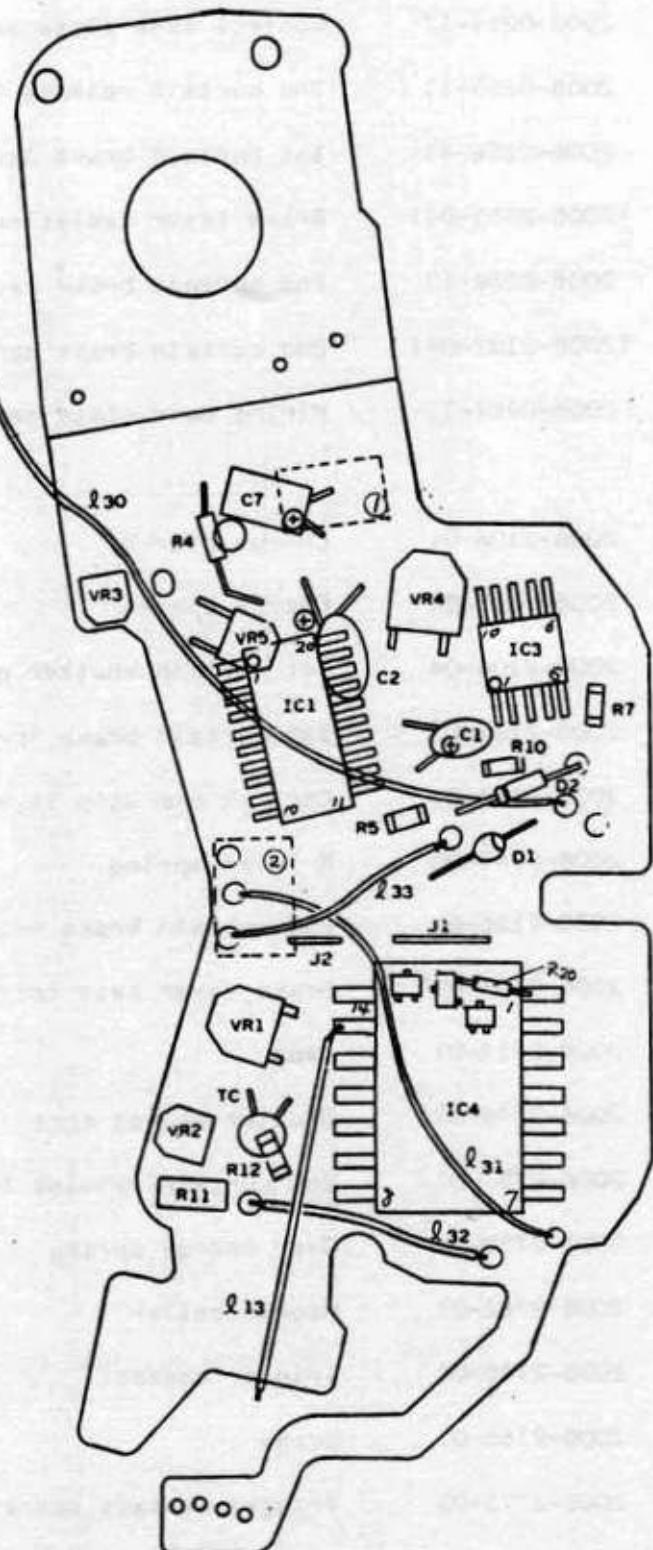
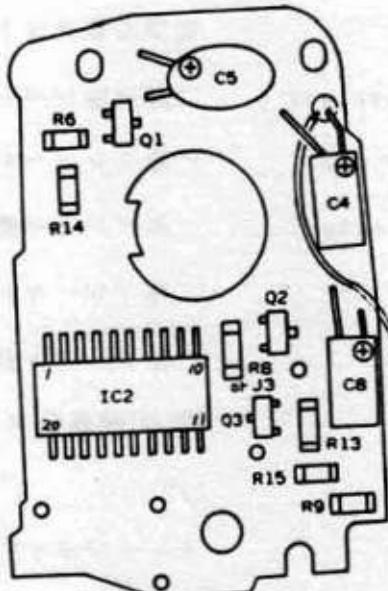


Part No.	Part Name	Qty.
2006-0222-11	Shutter block	1
2006-0215-11	1st curtain stop lever set	1
2006-0218-11	Shutter cover plate set	1
2006-0229-11	2nd curtain stop lever set	1
2006-0242-11	Shutter curtain set	1
2006-2114-02	First curtain stop lever spring—幕係止レバーSP	1
2006-2130-01	Adjusting screw	1
2006-2131-02	Curtain ribbon guide plate	1
2006-2132-01	Screw	1
2006-2143-01	2nd curtain roller-A	1
2006-2144-02	2nd curtain roller-B	1
2006-2147-03	Ratchet	2
2006-2148-02	Ratchet stop spring	1
2006-2707-01	2nd curtain shutter gear	1
2006-2708-02	Control cam	1
2006-2718-02	Control cam operation spring	1
2006-2723-01	2nd curtain stop lever spring	1
2006-2726-01	Curtain shaft receiver-B	1
9612-1620-01	Phillips type screw	2
9615-1416-01	Phillips type screw	2
9615-1420-01	Phillips type screw	1
9615-1625-02	Phillips type screw	1
9721-0150-13	E-ring	1
9793-1635-40	Washer	2

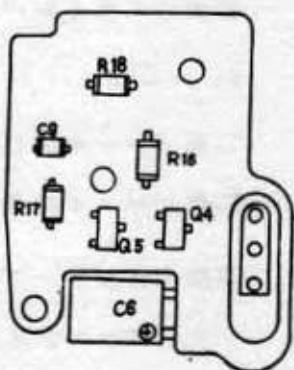


Part No.	Part Name		Qty.
2006-0207-11	X contact plate set	X接片セット	1
2006-0209-11	Shutter base plate set	シャッターベースプレートセット	1
2006-0211-12	Control base plate set	制御台板セット	1
2006-0253-11	2nd curtain release lever set	二幕解除レバーセット	1
2006-0258-43	1st curtain brake lever set	一幕ブレーキレバーセット	1
(2006-2185-01)	Brake lever isolation collar	一幕ブレーキ絶縁カラー	1
2006-0259-13	2nd curtain brake lever set	二幕ブレーキレバーセット	1
(2006-2192-04)	2nd curtain brake spring	二幕ブレーキSP	1
2006-0267-21	Wiring base plate set	Mg 配線基板セット	1
2006-2104-01	Charge gear-B	チャージギヤーB	1
2006-2105-02	Charge gear-A	チャージギヤーA	1
2006-2106-04	1st curtain shutter gear	一幕シャッターギヤー	1
2006-2183-03	1st curtain brake spring-B	一幕ブレーキSP B	1
2006-2184-04	Control cam stop lever spring	制御カム停止レバーSP	1
2006-2189-05	X lever spring	XレバーSP	1
2006-2196-01	2nd curtain brake return spring	二幕ブレーキ戻しSP	1
2006-2197-01	Brake lever axis collar	二幕ブレーキ消音カラー	1
2006-2214-01	Tape	幕縫金保護テープ	1
2006-2749-01	Shutter magnet core	シャッターマグネット鉄芯	1
2006-2757-01	2nd curtain release lever spring	二幕解除レバーSP	1
2006-2758-01	Over charge spring	吸着片オーバーチャージSP	1
2006-2762-01	Magnet collar	マグネット取付カラー	1
2006-2766-03	Trigger contact	トリガー接片	1
2006-2768-01	Screw	止めねじ	1
2006-2773-03	Trigger contact operation lever	トリガー接片作動レバー	1
2006-2791-01	Shutter magnet bobbin	シャッターマグネットボビン	1
9611-1620-01	Phillips type screw	十字穴付ねじ	1
9612-1618-01	Phillips type screw	十字穴付ねじ	1
9612-1620-01	Phillips type screw	十字穴付ねじ	1
9721-0120-13	E-ring	Eリング	1
9721-0150-13	E-ring	Eリング	2

2019-0402-01



2019-0427-01



R4	9422-2036-32	1/8W, 20KΩ	1
	9422-2236-32	1/8W, 22KΩ	
	9422-2436-32	1/8W, 24KΩ	
	9422-2736-32	1/8W, 27KΩ	
	9422-3036-32	1/8W, 30KΩ	
	9422-3336-32	1/8W, 33KΩ	
	9422-3936-32	1/8W, 39KΩ	
	9422-4736-32	1/8W, 47KΩ	
	9422-5636-32	1/8W, 56KΩ	
	9422-6836-32	1/8W, 68KΩ	
	9422-1046-32	1/8W, 100KΩ	
	9422-2046-32	1/8W, 200KΩ	

9372-2062-01(TC) Should employ 9422-3926-62 as  
the R12.  
9372-2862-03(TC) should employ 9422-4726-62 as  
the R12.

TC 9372-2062-01に對してR12は9422-3926-62を  
使用して下さい又、  
TC 9372-2862-31に對してR12は9422-4726-62を  
使用して下さい。

Assy. Part No. 2019-0402-01 Assy. Part Name Flexible P.C. board set  
フレキシブル基板セット

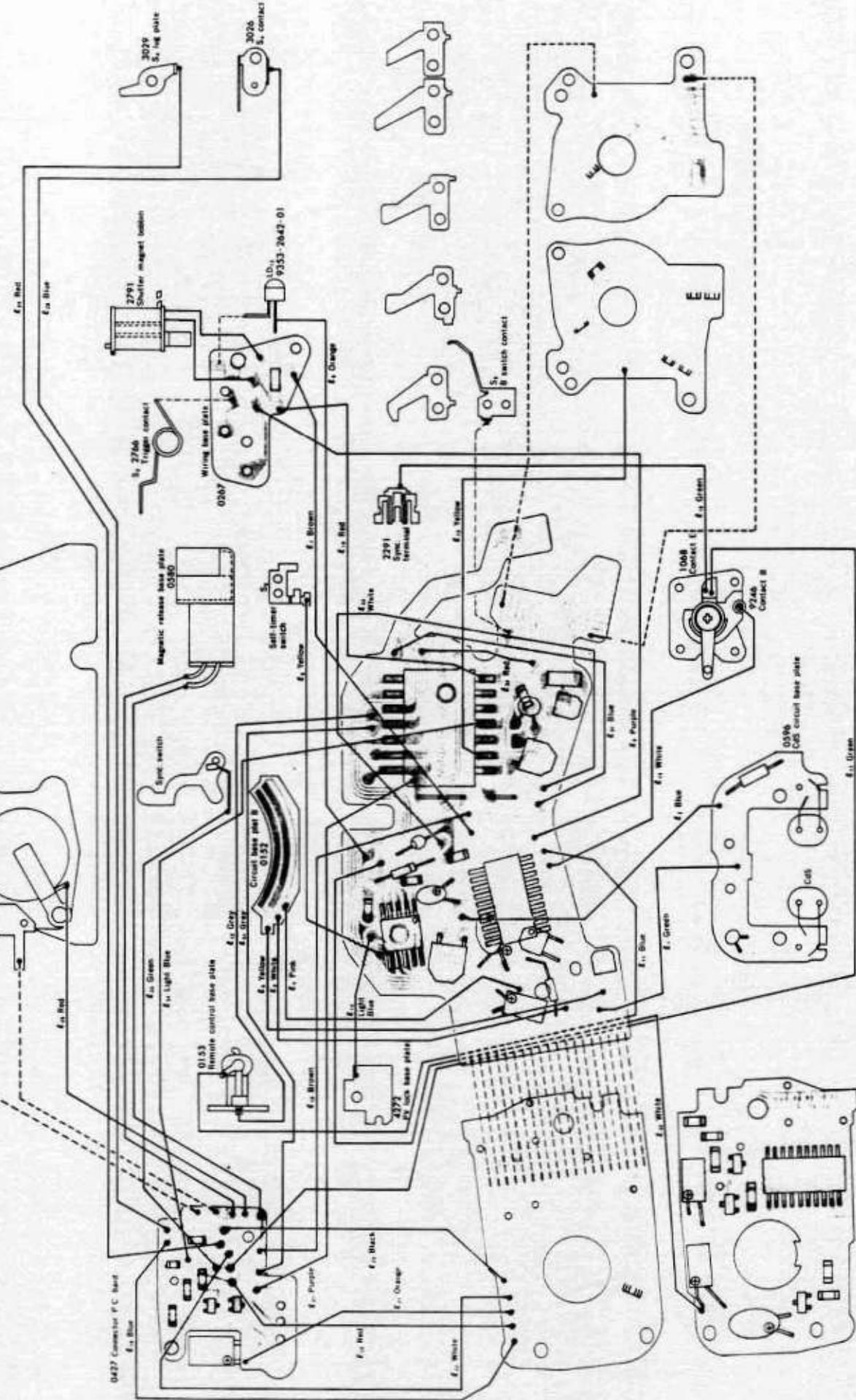
Symbol	Part No.	Com	Part Name	Type.	Qty.
IC1	2006-4301-03		I C	M51865	1
- IC2	2006-4302-03			M51866	1
IC3	2006-4303-03			M51867	1
IC4	2019-4304-01			HIC	1
D1	9361-1631-01		Diode	MB162	1
D2	9361-5631-11			IS953	1
Q3 Q2 Q1	9363-1632-02	03,04	Transistor	2SA812	3
TC	9372-2062-01	or	Thermistor	112202-02	1
	9372-2862-03			112502-02	
R5	9422-1046-62			1/8W, 100KΩ	1
R6	9422-3046-62			1/8W, 300KΩ	1
R7	9422-6806-62		Fixed resistor	1/8W, 68Ω	1
R8	9422-3916-62			1/8W, 390Ω	1
	9422-8216-62			1/8W, 820Ω	
	9422-1826-62			1/8W, 1.8KΩ	
	9422-3326-62			1/8W, 3.3KΩ	
J3	2019-8443-01		Jump lead wire	Ø0.4 ℓ=4	
R9	9422-3016-62		Fixed resistor	1/8W, 300Ω	1
R10	9422-2416-62			1/8W, 240Ω	2
R11	9423-2426-63			1/4W, 2.4KΩ	1
R12	9422-3926-62	or		1/8W, 3.9KΩ	1
	9422-4726-62			1/8W, 4.7KΩ	
R13	9422-3036-62		Variable resistor	1/8W, 30KΩ	1
R14	9422-1036-62			1/8W, 10KΩ	1
R20	9422-2036-32			1/8W, 20KΩ	0-1
VR5 VR1	9472-2039-38			VG062K 20KΩ	2
VR3 VR2	9472-1539-63		Condenser	EVM-14G 15KΩ	2
VR4	9472-1529-38			VG062K 1.5KΩ	1
C1	9535-1555-36			35V/1.5μF TYPE202	1
C2	9535-6845-31			35V/0.68μF CSI5E	1
C4	9511-2265-65		Lead wire	6.3V/22μF ECEAOJK	1
C5	9531-4765-31			3.15V/100μF CSI5E	1
C7	9515-2255-61			50V/2.2μF ECEAIHK	1
C8	9511-3365-61			6.3V/33μF ECEAOJK	1
ℓ13	2006-8401-01		Jump lead wire	Ø0.08/7wires ℓ=30	1
ℓ30	2006-8409-01			Ø0.08/7wires ℓ=85	1
ℓ31	2006-8403-01			Ø0.08/7wires ℓ=45	1
ℓ32	2006-8411-01			Ø0.08/7wires ℓ=20	1
ℓ33	2006-8409-01			Ø0.08/7wires ℓ=25	1
J1	2019-8441-01			Ø0.4 ℓ=8	1
J2	2019-8442-01			Ø0.4 ℓ=5	1
② ①	2019-4258-31		Isolation tape	6X9	2

Assy. Part No. 2019-0427-01 Assy. Part Name Connector P.C. board set  
中継基板セット

Symbol	Part No.	Com	Part Name	Type.	Qty.
Q4 Q5	9362-1633-02	03,04	Transistor	2SC1623	2
R16	9432-2258-62			1/8W, 2.2MΩ	1
R17	9432-1558-62			1/8W, 1.5MΩ	1
R18	9432-3958-62			1/8W, 3.9MΩ	1
C6	9511-1075-61		Condenser	6.3V/100μF ECEAOJK	1
C9	9564-6824-61			25V/6800PF CM21WR	1
③	2019-1066-02		Motor drive connect Holder モータードライブ接点ホルダー		1

XG-M code No.2019-100 (for EXPORT)  
X-70 code No.2019-500 (for DOMESTIC)

0420 Battery can last while



## Lead wires list

Symbol	Part No.	Color	Type.	Qty.	
	l1	2006-8417-01	Green	Ø0.08/7wires $\ell=35$	1
	l2	2006-8403-01	Blue	Ø0.08/7wires $\ell=55$	1
l30	l15 l3	2006-8409-01	White	Ø0.08/7wires $\ell=85$	3
	l4	2006-8408-01	Pink	Ø0.08/7wires $\ell=85$	1
	l5	2006-8401-01	Yellow	Ø0.08/7wires $\ell=75$	1
	l6	2006-8401-01	Yellow	Ø0.08/7wires $\ell=110$	1
	l7	2006-8402-01	Brown	Ø0.08/7wires $\ell=90$	1
	l8	2006-8413-01	Purple	Ø0.08/7wires $\ell=90$	1
	l9	2006-8404-01	Orange	Ø0.08/7wires $\ell=110$	1
	l10	2006-8411-01	Red	Ø0.08/7wires $\ell=100$	1
l19	l11	2006-8403-01	Blue	Ø0.08/7wires $\ell=100$	2
	l12	2006-8406-01	Grey	Ø0.08/7wires $\ell=130$	1
	l13	2006-8401-01	Yellow	Ø0.08/7wires $\ell=30$	1
	l14	2009-8427-01	Light Blue	Ø0.08/7wires $\ell=145$	1
	l16	2006-8417-01	Green	Ø0.08/7wires $\ell=200$	1
	l17	2006-8417-01	Green	Ø0.08/7wires $\ell=215$	1
	l18	2006-8402-01	Brown	Ø0.08/7wires $\ell=140$	1
	l20	2006-8411-01	Red	Ø0.08/7wires $\ell=90$	1
	l21	2006-8404-01	Orange	Ø0.08/7wires $\ell=85$	1
	l22	2006-8409-01	White	Ø0.08/7wires $\ell=95$	1
	l23	2006-8414-01	Black	Ø0.08/7wires $\ell=90$	1
	l24	2006-8406-01	Grey	Ø0.08/7wires $\ell=170$	1
	l25	2006-8417-01	Green	Ø0.08/7wires $\ell=55$	1
	l26	2006-8411-01	Red	Ø0.08/7wires $\ell=25$	1
	l27	2006-8413-01	Purple	Ø0.08/7wires $\ell=160$	1
	l28	2006-8403-01	Blue	Ø0.08/7wires $\ell=140$	1
	l29	2006-8411-01	Red	Ø0.08/7wires $\ell=140$	1
	l31	2006-8403-01	Blue	Ø0.08/7wires $\ell=45$	1
	l32	2006-8411-01	Red	Ø0.08/7wires $\ell=20$	1
	l33	2006-8409-01	White	Ø0.08/7wires $\ell=25$	1
	l34	2009-8427-01	Light Blue	Ø0.08/7wires $\ell=170$	1

# REPAIR GUIDE

## 1. Contents of the manual

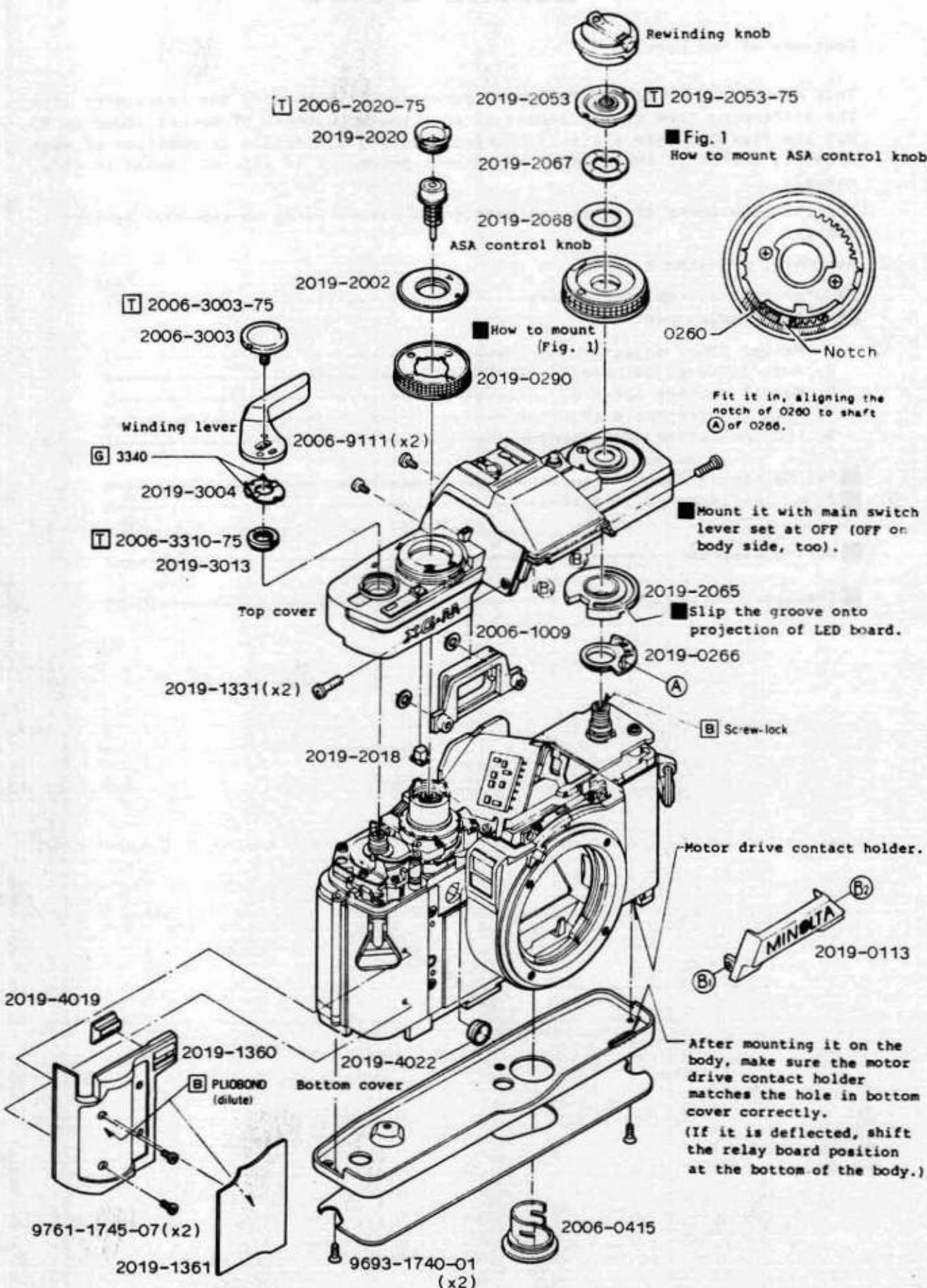
This manual refers to the following paragraph 2. Regarding the adjustment item, the difference from the XG series is only the adjustment of Manual 180mV on P3. But the flexible base plate is changed, causing alteration in position of each element, therefore, the related adjustment procedure is also mentioned in this manual.

For the adjustment of parts not mentioned, please refer to the 2006 Service Manual.

## 2. Assembly, adjustment, etc.

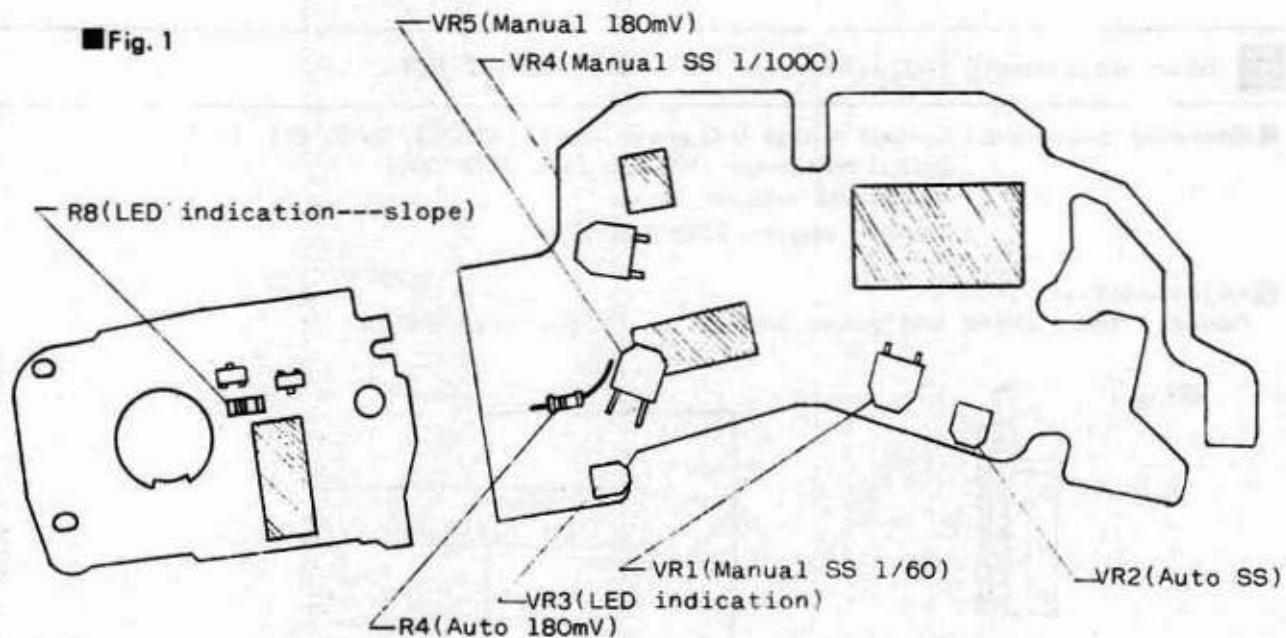
	Page
■ Outer case assembly procedure-----	1
■ Exposure adjustment-----	
1 Manual 180mV adjustment-----	3
2 Auto 180mV adjustment-----	4
3 Manual shutter speed adjustment-----	5
4 Auto shutter speed adjustment-----	5,6
5 LED indication adjustment-----	7
■ PV. SW timing check-----	8
■ F No. in-finder adjustment-----	8
■ Wiring diagram-----	9
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## Outer case assembly procedure



## ■ Adjustment of each variable resistor and fixed resistor Fig.1.

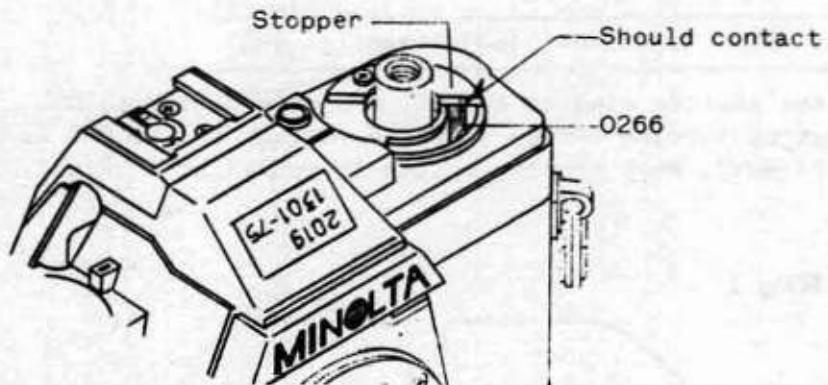
■Fig. 1



## ■ ASA 100 setting method, etc.

- When adjusting the auto shutter speed and LED indication, used the temporary top cover (2019-1301-75) and set it to ASA100, as explained below.

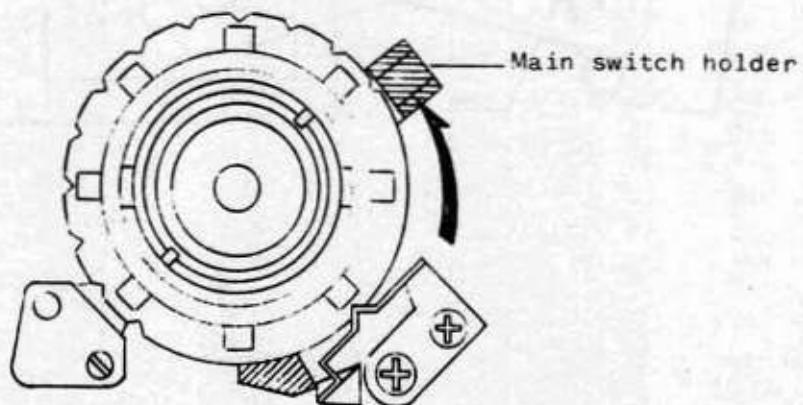
■Fig. 2



- Turn 0266 (ASA brush holder). ASA100 is obtained when the column of 0266 touches the stopper of the temporary top cover.

- Before adjustment, set the main switch to ON by turning 0293 (main switch holder) in the direction of the arrow below.

■Fig. 3



— Refer to 2006 Service Manual (P.28) —

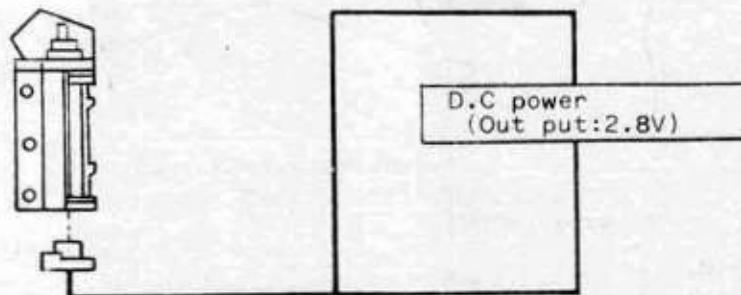
■ 180mV adjustment (Adjustment of VR5, decision of R4)

■ Measuring instruments: Constant voltage D.C power supply (MODEL 524B, E-1, E-2)  
: Digital multimeter (MODEL 2508, 3476, 2507)  
: Resistance selector  
: Battery adapter (2006-0415-75)

■ Adjustment procedure

Connect the camera and power source as illustrated below.

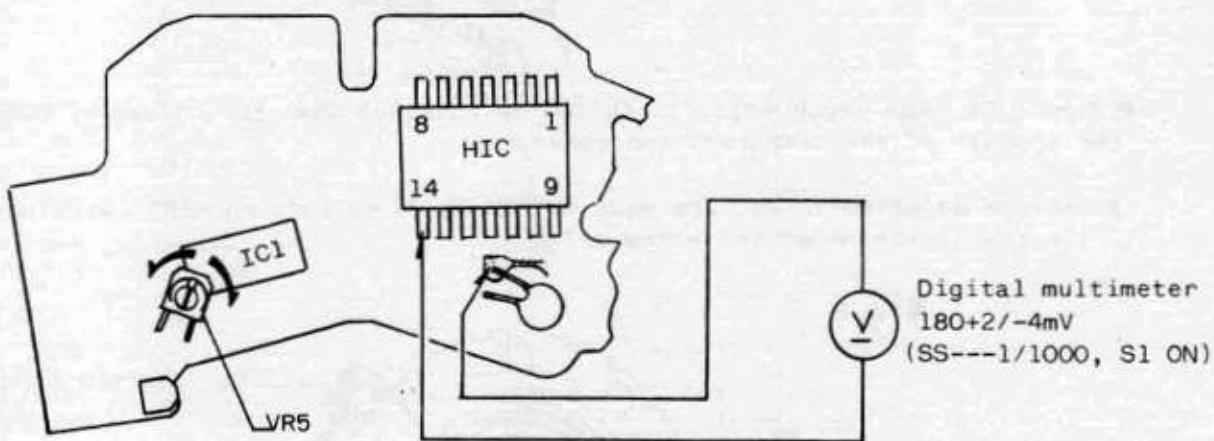
■ Fig. 1



■ Manual 180mV adjustment (adjustment of VR5)

1. Set the shutter dial to 1/1000, and main switch to ON.
2. Adjust by turning VR5 so that the voltage of (S1 ON) is 180mV (allowable range: 180+2/-4mV), When shutter button is pushed as in Fig.2.

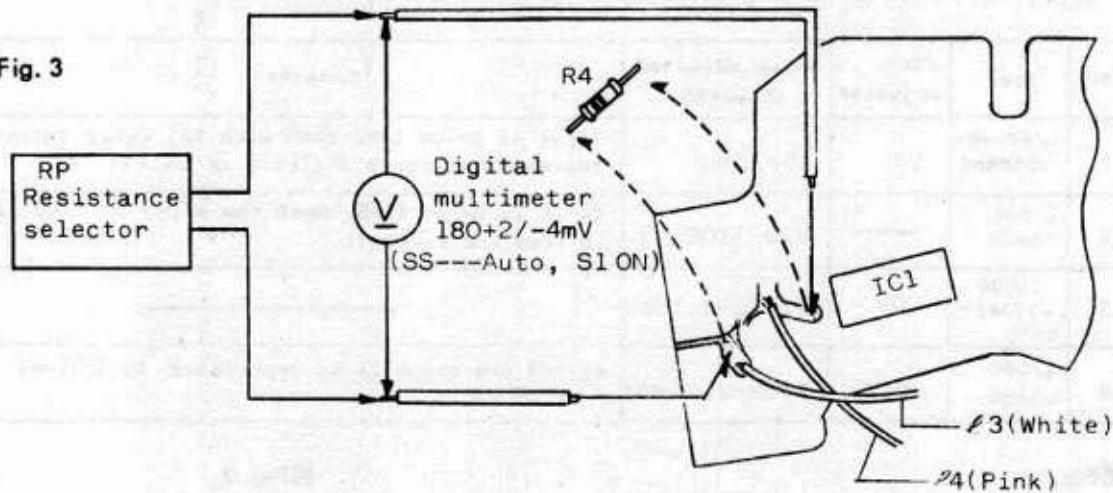
■ Fig. 2



[2] Auto 180mV adjustment (selection of R4)

1. Remove R4 and solder the lead (X2) to the position of R4, then connect the tester as illustrated below.

■Fig. 3



2. Set the shutter dial to A (auto) and main switch to ON; then shift the dial of Rp resistance selector so that the voltage of (S1 ON) approaches 180mV (allowable range: 180+2/-4 mV), when shutter button is pushed.
  3. From those in the following table, pick the R4 that is closest to the resistance obtained by the Rp resistance selector; then solder it to the flexible board.
- After soldering, mask sure the voltage is 180+2/-4mV when measured at either terminal of R4 (in this case, remove the Rp resistance selector).
- If the voltage is not within 180+2/-4 mV, re-check it by changing the resistance fo R4, one rank higher or lower.

[Kinds of R4]

Resistance (KΩ)	Part No.	Resistance (KΩ)	Part No.
20	9422-2036-32	39	9422-3936-32
22	9422-2236-32	47	9422-4736-32
24	9422-2436-32	56	9422-5636-32
27	9422-2736-32	68	9422-6836-32
30	9422-3036-32	100	9422-1046-32
33	9422-3336-32	200	9422-2046-32

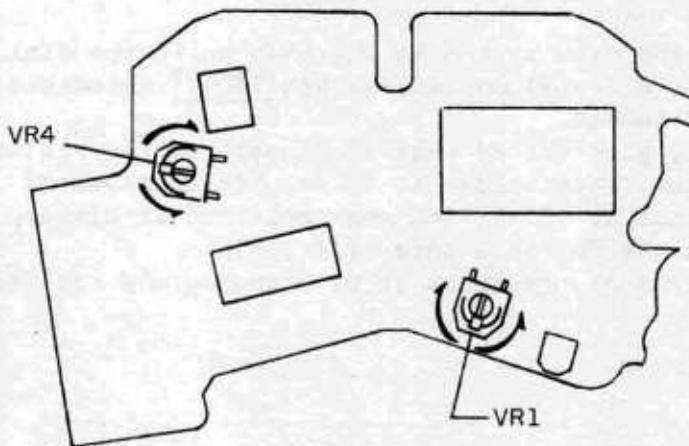
## ■ Measuring instruments: Shutter tester (MODEL S-2101, FS-1DMN4)

## ■ Adjustment procedure

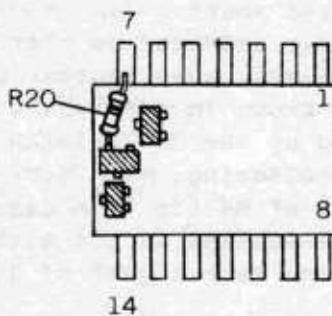
1. Adjust according to the procedure given in the table below.

Step	Item	Part adjusted	Value adjusted (checked)	Remarks
1	1/60 adjustment	VR1	15-17ms	If it is below 15ms even with VR1 fully turned, install resistor R20 ( $24\text{ k}\Omega$ ) as in Fig. 2.
2	1 sec. check	—	(830-1100ms)	If it is below 80ms, make the value of 1/60 within 15-18ms and re-check.
3	1/1000 adjustment	VR4	0.865-1.15ms	—
4	1/500 check	—	(1.62-2.42ms)	Beyond the range it is superseded by 1/1000.

■ Fig. 1



■ Fig. 2



## ■ Auto shutter speed adjustment (adjustment of VR2)

\* The adjusting method at EE level with the use of EE tester is described in this paragraph. When making shutter speed adjustment using a timer counter, as in the 2006 service manual, connect the tester as shown in Fing.3 on P6.

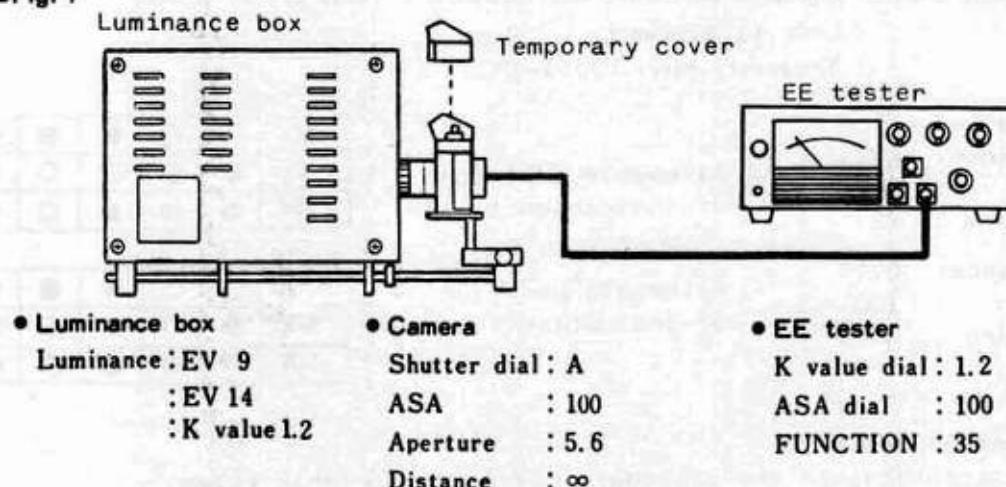
## ■ Measuring instruments: EE tester (MODEL EE-2101, EE-2111)

- : Standard luminance box (MODEL L-2101, L-222, L-223)
- : Lens (1.4/50mm)
- : Temporary cover (2019-1301-75)

## ■ Adjustment procedure

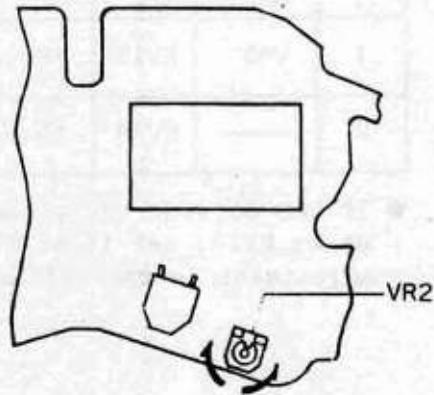
- Set the camera and tester as illustrated below.

■Fig. 1



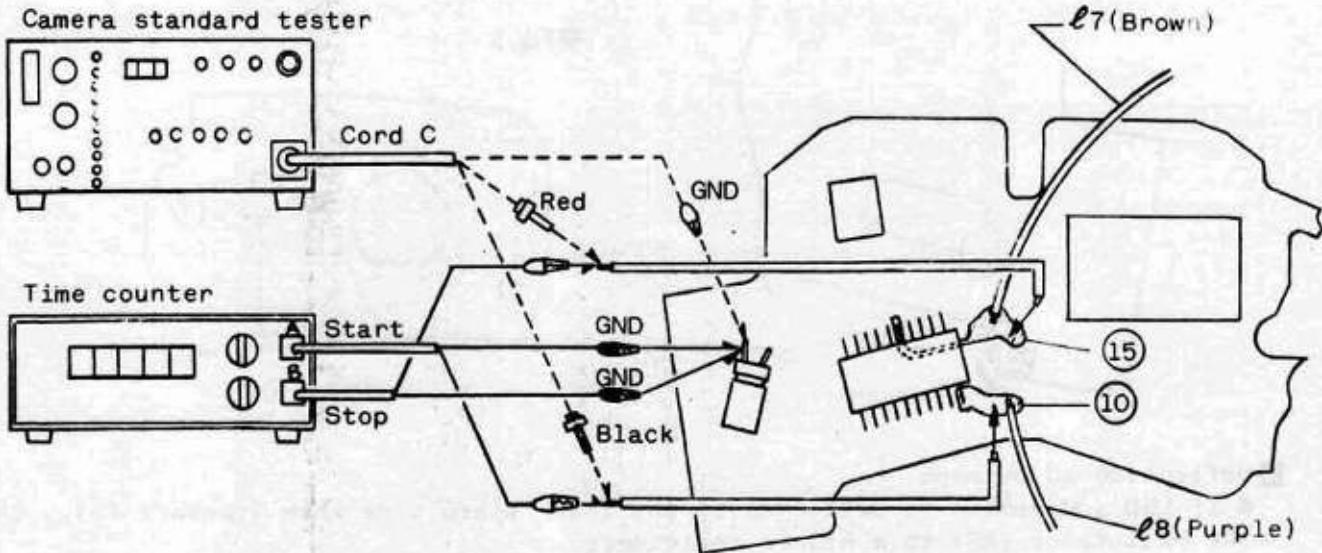
- Adjustment according to the procedure given in the table below.

■Fig. 2



Step	Lumi-nance	Part adjusted	Allowable range
1	EV9	VR2	
2	EV14	Beyond the allowable range, it is superseded by EV9.	$0 \pm 0.8EV$

■Fig. 3 (How to connect the time counter or camera standard tester).



As shown above, solder the measuring lead to terminal 10 (start signal) and 15 (stop signal) of IC1, and then connect it to the time counter or camera standard tester.

For the tester setting and adjustment procedure, refer to 2006 Service Manual(P32.).

## ■ LED indication adjustment (adjustment of VR3)

### ■ Measuring instruments: Standard luminance box (MODEL L-2101, L-222, L-223)

: Lens (1.4/50mm)

: Temporary cover (2019-1301-75)

### ■ Standards

(1) Luminance: EV11 ASA : 100 Aperture : F8	Allowable position of indication ( $\pm 1EV$ )
---	---

60	○	○	●	●	●
30	●	○	○	○	●
15	●	●	●	○	○

(2) Luminance: EV14 ASA : 100 Aperture : F5.6	Allowable position of indication
---	-------------------------------------

1000	○	○	●	●	●
500	●	○	○	○	●
250	●	●	●	○	○

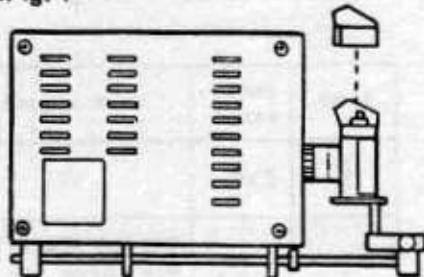
### ■ Adjustment procedure

1. Adjust according to the procedure given in the table below.

Step	Part adjusted	Lumi-nance	F No.	Value adjusted	Allowable range
1	VR3	EV11	F8	LED "30" ON	Standard(1)
2	—	EV14	F5.6	—	Standard(2)

- If LED outside the allowable range lights up at EV14, set it at EV11 or mask the adjustment in the following paragraph.

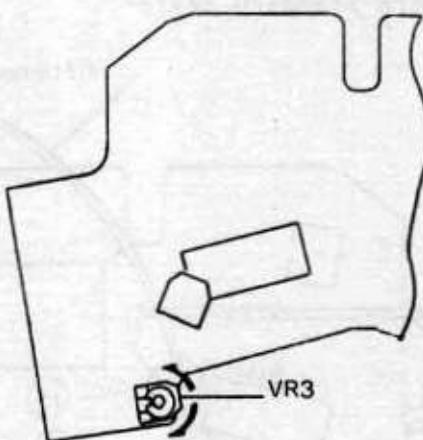
■ Fig. 1



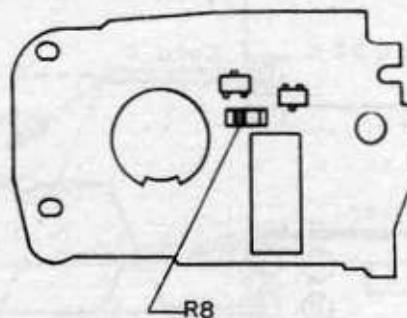
● Luminance box  
Luminance: EV9  
EV14  
K value : 1.2

● Camera  
Shutter dial: A  
ASA : 100

■ Fig. 2



■ Fig. 3



### ■ Deflection adjustment

- If LED indication is deflected to the lower speed side from standard (2)...Change the resistance (R8) to a higher resistance.
- If LED indication is deflected to the higher speed side from standard (2)...Change the resistance (R8) to a lower resistance.

After changing the resistance (R8), perform the adjustment from the beginning.

## PV. SW timing check

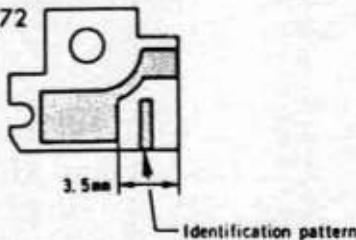
■ The PV. switch is designed to turn on when the PV. button is depressed 2.0mm. There is no chance of abnormality unless locking operations of the PV. lever and actuation of the PV. switch are performed out of sequence. So, check the switch according to the following procedure.

(The positions of PV. lever and switch are closest to each other unless inversion occurs between the operational timings of these parts. The range within which the mirror is allowed to be half raised is narrowed, and this is satisfactory.)

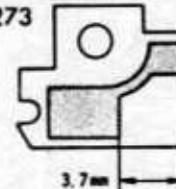
### (OFF operation check)

1. Set the shutter dial to B.
2. When the shutter is being released with shutter button pressed, the operation will be satisfactory if pushing the PV. button until the PV. lever is locked does not cause the second curtain to run.
- In case the second curtain runs (the PV. switch turns ON), replace the adjusting PV. lock base plate (4273) and adjust the PV. switch to delay in turning ON.

■ Fig. 1 4272



4273

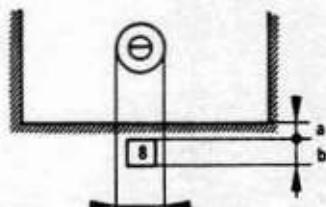


### (ON operation check)

1. Push the shutter button with the PV. button fully depressed. It is satisfactory if the shutter is not released.

## F No. in-finder adjustment

### ■ Specification



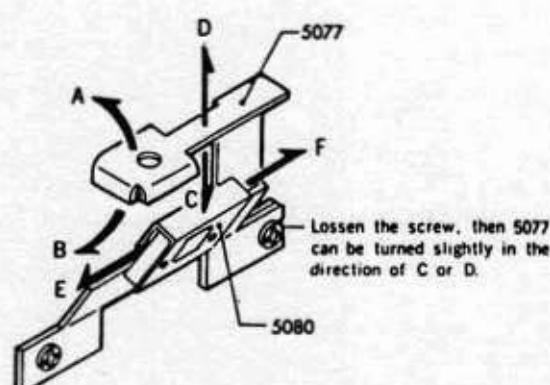
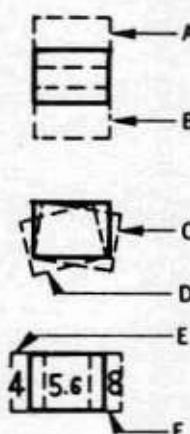
- The F no. indication should be within the frame, and any adjacent number should be invisible at F 5.6.
- Frame position : Height .....  $0 < a \leq b$   
: Within the microprism

### ■ Adjustment

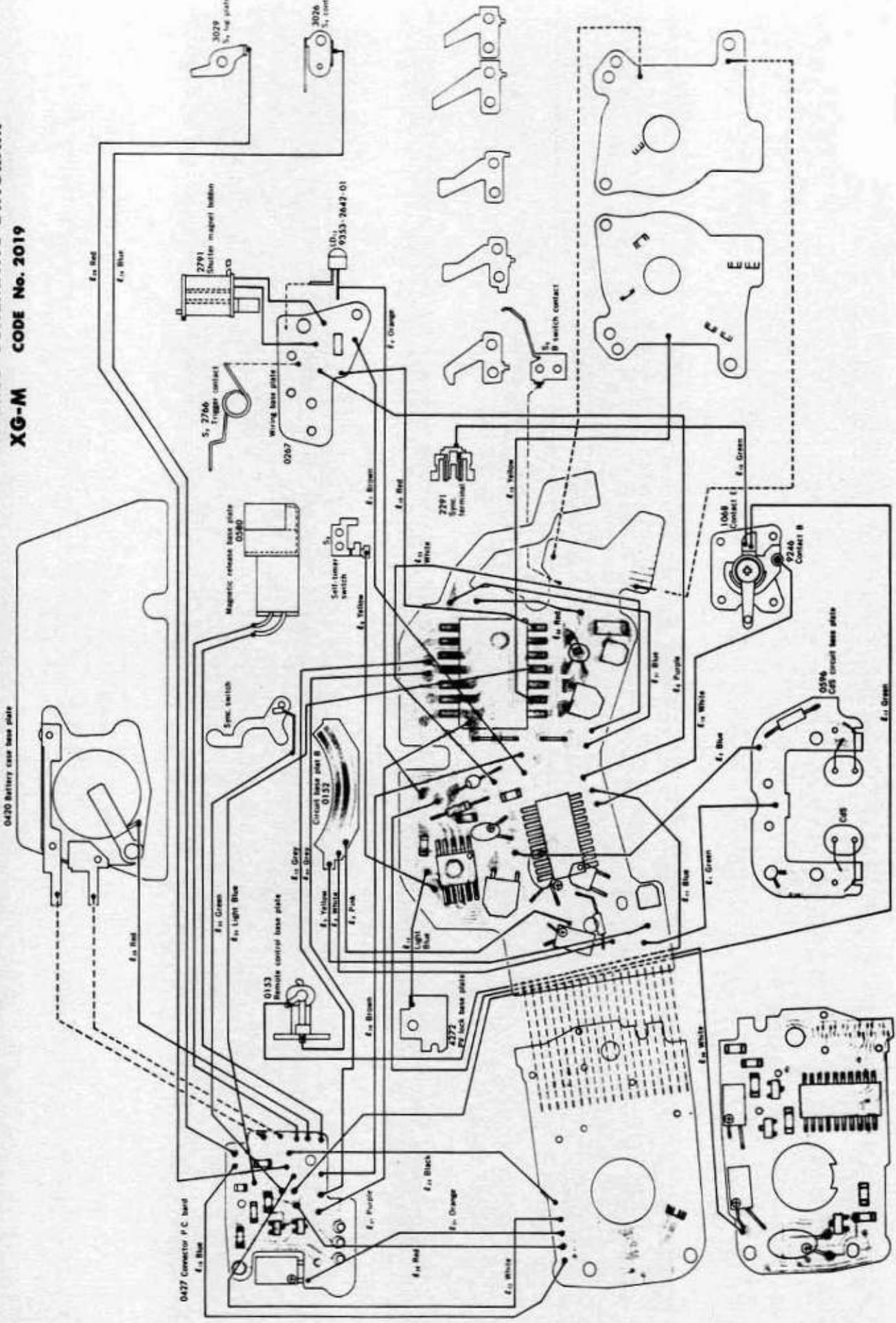
Check for deflection referring to Fig.2. Then make the adjustment by bending (shifting) 5077 and 5080 in each direction of A~E as shown in Fig.3.

■ Fig. 2 (Normal position is shown by thick lines.)

■ Fig. 3



**WIRING SCHEMATIC DIAGRAM**  
**XG-M** CODE No. 2019



# Trouble Shooting Chart

## 1. Hints on use of Trouble Shooting Chart

1. This chart includes the symptoms and causes of troubles on the camera side.
2. Even when a symptom appears on the camera side, the trouble is not always on the camera side but in connection with the replacement lens, winder or exclusive strobo. Therefore, carefully check operations related to the auxiliary parts before using this chart.

## 2. Contents of Chart

Unlike a conventional flow chart, defects and their symptoms are theoretically analyzed in this chart.

## 3. Precautions for Work

1. A digital tester (2507) is to be used as the measuring instrument. It is also allowable to use other measuring instruments when the input impedance exceeds  $10\text{ M}\Omega$ .
2. Use the measuring instrument to check voltages, and a tester of less than 3V to check current conduction.
3. It can be safely said that troubles of electric parts such as IC's diodes, transistors, resistors, capacitors, etc. seldom occur. It is therefore practical to put emphasis on checking for defective soldering of lead wires and electric parts, defective switches, etc.
4. When checking for defective soldering, do not excessively press the parts or pull the lead wires.
5. When measuring voltage, attach a pin to the end of alligator clip because the portion measured is very narrow. Do not directly connect the alligator clip with the portion measured; otherwise damage to the electric parts or to the pattern may occur.
6. When measuring the switch operation pattern, take care not to scratch the pattern outside the switch operation range. In case of a switch contact, take care not to disturb the switch contact.
7. When removing electric parts, pull out the power supply cord.
8. The desirable soldering iron temperature is about  $260\text{--}300^\circ\text{C}$ . In any case, finish soldering in a few seconds. Be sure to remove chips before soldering.

## 4. How to use the Trouble Shooting Chart

1. Problems (symptoms) are listed horizontally, according to function. First check the symptoms of the camera and then find the defective parts reading this chart.

### 2. Symbols used in the chart

#### 2-1 Description of problem

- \* For open parts, defective soldering, disconnected leads, defective switch contacts, etc., are mentioned, including part of shortcircuit problems.  
↓  
↑ show that the lead is caught by top cover or mechanism, causing it to become grounded.

- \* For the termal pressure setting between flexible and other boards, the symbol is as shown in the flexible pattern diagram.

#### 2-2 Description for symptom

- \* For SS and indication functions,

O....normal;        x....defective;

blank....release impossible;

A....auto mode;      M....manual mode

\* For self function, considerations are given mainly to blinking of LD13. For self release, refer to the release colum.

\* The blanks in release, self, bulb, strobe and BC shown that the operations are normal.

Symptoms	Shutter speed			LED indication			Release	Self	Bulb	B.C.	Others ( )----with strobe
	Auto	Manual	Auto	Manual	M letter						
Open part											
IC1 (1)		No exposure	▲ lights up	▲ lights up	○	A:No M:Yes					
(2)		○	▲ lights up	▲ lights up	○	A:No M:Yes					
(3)		○	▲ lights up	▲ lights up	○	A:No M:Yes					
(4)	Kept open	No exposure	X	/	○						
(5)	No exposure	No exposure	○	○	○						
(6)	No exposure	No exposure	○	X	○						Low on the whole -----LED indication
(7)		○	▲ lights up	▲ lights up	○	A:No M:Yes					
(8)	○	○	○	○	○						(1/60 LED not blinking) (Doesn't come 1/60)
(9)			○	○	○	X					
(10)	No exposure	No exposure	○	○	○						
(11)	No exposure	No exposure	○	○	○						
(12)	Kept open	Kept open	○	○	○						
(13)	○	○	○	○	○						(1/60 LED not blinking)
(14)		No exposure	▲ lights up	▲ lights up	○	A:No M:Yes					No exp- osure
(15)	No exposure	No exposure	○	○	○						No exp- osure
(16)	No exposure	No exposure	○	○	○						No exp- osure
(17)	Kept open	○	X	X	○						
(18)	*1	○	*2	*2	○						When change SV & AV, doesn't change LED & SS
(19)		○	▲ lights up	▲ lights up	○	A:No M:Yes					
(20)	Kept open	○	X	X	○						
IC2 (1)	○	○	X(1/1000)	X(1/1000)	○						
(2)	○	○	X(▲)	X(▲)	○						Doesn't work▲lock
(3)	○	○	○	○	○						
(4)	*3	*3	○	○	○						LED doesn't turn off
(5)	*3	*3	○	○	○						
(6)	○	○	X	X	○						
(7)		○	▲ lights up	▲ lights up	○	A:No M:Yes					
(8)	○	○	○	○	○						LED doesn't follow by EV
(9)	○	○	X(▼)	X(▼)	○						
(10)	○	○	X(1/2)	X(1/2)	○						

\*1 : Become fast speed

\*2 : High on the whole

\*3 : Kept open with Remocon

Symptoms	Shutter speed		LED indication			Release	Self	Bulb	B.C.	Others ( )----with strobe
	Auto	Manual	Auto	Manual	M letter					
Open part										
IC2①	○	○	X (1/4)	X (1/4)	○					
②	○	○	X (1/8)	X (1/8)	○					
③	○	○	X	X	○					
④	○	○	X (1/15)	X (1/15)	○					
⑤	○	○	X (1/30)	X (1/30)	○					
⑥	○	○	X (1/60)	X (1/60)	○					
⑦	○	○	X (1/125)	X (1/125)	○					
⑧	○	○	X	X	○					
⑨	○	○	X (1/250)	X (1/250)	○					
⑩	○	○	X (1/500)	X (1/500)	○					
IC3 ①			○	○	○	X	X	X		
②	Bulb	Bulb	○	○	○					
③	○	○	○	○	○					Doesn't release with low voltage
④	○	○	C	○	○					X (Only no blinking)
⑤	○	○	C	○	○					X (Only no blinking)
⑥	○	○	○	○	○					X
⑦	*3	*3	○	○	C					X
⑧	abnormal	abnormal	○	○	C	X				X
⑨	○	○	○	○	○					X
⑩			○	○	○	X	X	X	X	X
HIC ①	Kept open	Kept open	X	X	X					
②			X	X	X					
③	Kept open	Kept open	X	X	X					
④			○	○	○	X	X	X		
⑤			○	○	○	X	X	X		
⑥			○	○	○	X	X	X		
⑦			○	○	○	X				X
⑧			○	○	○	X				X
⑨			○	○	C	X				X
⑩			○	○	○	X				X

\*3 : Kept open with Remocon.

Symptoms	Shutter speed			LED indication			Release	self	Bulb	B.C.	Others ---with strobe
	Auto	Manual	Auto	Manual	M letter						
Open part											
HIC ⑩	○	○	○	○	○						LED keeps lighting on MD-1 or winder side
⑪	No exposure	No exposure	○	○	○				No exposure		
⑫	Kept open	Kept open	X	X	X						
⑬	○	No exposure	○	○	○						
Flexible board ⑭			○	○	○						
(2)	*3	*3	○	○	○						Same as IC-2 ⑤
(3)			○	○	○	X	X	X			Same as HIC ⑦
(4)	*3	*3	○	○	○			X (Doesn't release)			M letter doesn't turn off
(5)	*3	*3	○	○	○			X (Doesn't release)			
(6)			X	X	X	X	X	X	X		
(7)	○	○	○	○	○						Doesn't work ▲ luck
(8)	○	○	○	○	○						(1/60 LED not blinking)
(9)			X	X	X	X	X	X	X		
⑩ High speed	○										Same as IC 1 ⑯
⑪	○	▲ lights up	▲ lights up	○	A : No M : Yes						Same as IC 1 ⑯
⑫	Kept open	Kept open	X	X	○						
⑬			○	○	○	X	X	X			
⑭	○	○	○	○	X						
⑮	○	○	○	○	○						Doesn't work ▲
⑯	○	○	X	X	X						
⑰	○	○	X	X	○						Same as IC2 ⑥
⑱	○	▲ lights up	▲ lights up	○	A : No M : Yes						Same as IC2 ⑦
(A)	○	○	○	○	○				X		
(B)			X	X	X	X	X	X	X		
(C)	○	○	○	○	○						LED keeps lighting on MD-1 or winder side
(D)	○	No exposure	○	○	○						LED indication deflected
(E)	○	No exposure	○	○	○						LED indication deflected
(F)	○	No exposure	○	○	○						LED indication deflected
(G)			X	X	X	X	X	X			
(H)	○	○	○	○	X						

\*3 : Kept open with Remotecon

\*4: Shutter is operated with winding lever sifted back.

Symptoms	Shutter speed		LED indication			Release	Self	Bulb	B.C	Others (-)----with strobe
	Auto	Manual	Auto	Manual	M letter					
Open part										
SW8-3, 4A <i>777</i>			▲ lights up			A:No M:Yes	▲ lock	▲ lock		
SW8-3, 4M <i>777</i>		No exposure		▲ lights up	○					
SW12 <i>777</i>	○	○	○	○	○					Shutter is operated with PV. button depressed
SW12 <i>777</i>			○	○	○	X	X	X		
SW21	○	○	○	○	○				X	
SW21 <i>777</i>	○	○	○	○	○					B.C keeps lighting
R, RC	△	○	△	△	○					EE & indication linearity change great(only A)
R2	Kept open	○	X	X	○					
R4	△	○	△	△	○					
R5, D1	○	○	○	○	○					Same as IC3 ③
R6	○	○	○	○	○		X			
R7	○	○	○	○	○		(only no blinking)			
R8	○	○	○	○	○					Deflect indication linearity
R9	○	○	X	X	○					
R10	○	○	○	○	○				△	Deflect B.C voltage
R11	○	○	○	○	○					Same as ①
R12	○	○	○	○	○					Deflect shutter speed by temperature
R13, 14, 15	○	○	○	○	X					
R16	○	○	○	○	○					Doesn't operate MD-1 & winder
R17	○	○	○	○	○					Same as ⑩
R18	○	○	○	○	○					Possible wrong operation with MD-1 or winder
R19			○	○	○	X		X		
C1	Kept open	Kept open	○	○	○					
C2	No exposure	No exposure	○	○	○					
C3	△	△	○	○	○					Excessive variation
C4	○	○	○	○	○		X			
C5	*3	*3	○	○	○			X		

Symptoms	Shutter speed		LED indication			Release	Self	Bulb	B.C	Others ( )----with strobe
	Auto	Manual	Auto	Manual	M letter					
Open part										
C6			○	○	○	X		X		
C7	High speed	High speed	○	○	○					Metering circuit oscillates
C8	○	○	○	○	○					SS & LED unstable when battery capacity low
C9	○	○	○	○	○					Possible wrong operation with MD-1 or window
D2	○	○	○	○	○					Blinking sclr LED by S2 on when ▲ lights up
TC	○	○	○	○	○					Same as R12
VR1	○	No exposure	○	○	○					
VR2	No exposure	○	○	○	○					Same as J
VR3		No exposure	▲ lights up	▲ lights up	○	A:No M:Yes				Same as L
VR4	No exposure	No exposure	○	○	○					
VR5	kept open	kept open	X	X	○					
TR1	○	○	○	○	○					Doesn't work ▲ lock
TR2, TR3	○	○	○	○	X					
TR4, TR5	○	○	○	○	○					No operation MD-1 & winder
P1(Green)	kept open	○	X	X	○					
P1 III	Kept open	Kept open	X	X	X					Short circuit when Sl. on
P2(Blue)	Kept open	○	X	X	○					
P2 III	Kept open	○	X	X	○					
P3(White)	○	○	○	○	○					Doesn't change SS & LED by AV
P3 III	○	▲ lights up	▲ lights up	○	A:No M:Yes					
P4(Pink)	Kept open	○	▼ lights up	▼ lights up	○					
P4 III	Kept open	○	▼ lights up	▼ lights up	○					
P5(Yellow)	High speed	○	▲ lights up	▲ lights up	○	A:No M:Yes				
P5 III	Kept open	○	X	X	○					
P6(Yellow)	○	○	○	○	○		X			
P6 III	○	○	○	○	○					All mode self function
P7(Brown)	No exposure	No exposure	○	○	○			X		
P7 III	Kept open	Kept open	○	○	○			X		
P8(Purple)	No exposure	No exposure	○	○	○					
P8 III	Kept open	Kept open	○	○	○					

Symptoms	Shutter speed		LED indication			Release	self	Bulb	B.C.	Others
	Auto	Manual	Auto	Manual	M letter					
P9(Orange)	○	○	○	○	○		(Only no lighting)			
P9 $\pi$	○	○	○	○	○		(LED keeps lighting)			
P10(Red)	No exposure	No exposure	○	○	○		(Only no lighting)	X	X	
P10 $\pi$			X	X	X	X	X	X	X	Power source short circuit
P11(Blue)	○	○	○	○	○	X(Remocon)				
P11 $\pi$	○	○	○	○	○			X		
P12(Grey)	○	○	○	○	○	X(Remocon)				
P12 $\pi$	○	○	○	○	○					*4
P13(Yellow)	○	○	○	○	○					Doesn't work ▲ lock
P13 $\pi$	Kept open	Kept open	X	X	X					Power source short circuit
P14(R.blue)	○	○	○	○	○					Shutter is operated with PV button depressed
P14 $\pi$			○	○	○	X		X		
P15(White)	○	○	○	○	○					Same as IC1⑧
P15 $\pi$	○	○	○	○	○					Same as IC1⑧
P16(Green)	○	○	○	○	○					(Strobe doesn't fire)
P16 $\pi$	○	○	○	○	○					(Strobe doesn't fire)
P17(Green)	○	○	○	○	○					(Strobe doesn't fire)
P17 $\pi$	○	○	○	○	○					(Strobe doesn't fire)
P18(Brown)			○	○	○	X		X		
P18 $\pi$			○	○	○	X		X		
P19(Blue)			○	○	○	X	X	X		
P19 $\pi$			X	X	X	X	X	X		Power source short circuit
P20(Red)			X	X	X	X	X	X	X	
P20 $\pi$			X	X	X	X	X	X	X	Power source short circuit
P21(Orange)			○	○	○	X		X		
P21 $\pi$			○	○	○	X		X		Too early exhaustion battery
P22(White)			○	○	○	X	X	X		
P22 $\pi$			○	○	○	X	X	X		Short circuit with S4 on
P23(Black)			X	X	X	X	X	X	X	

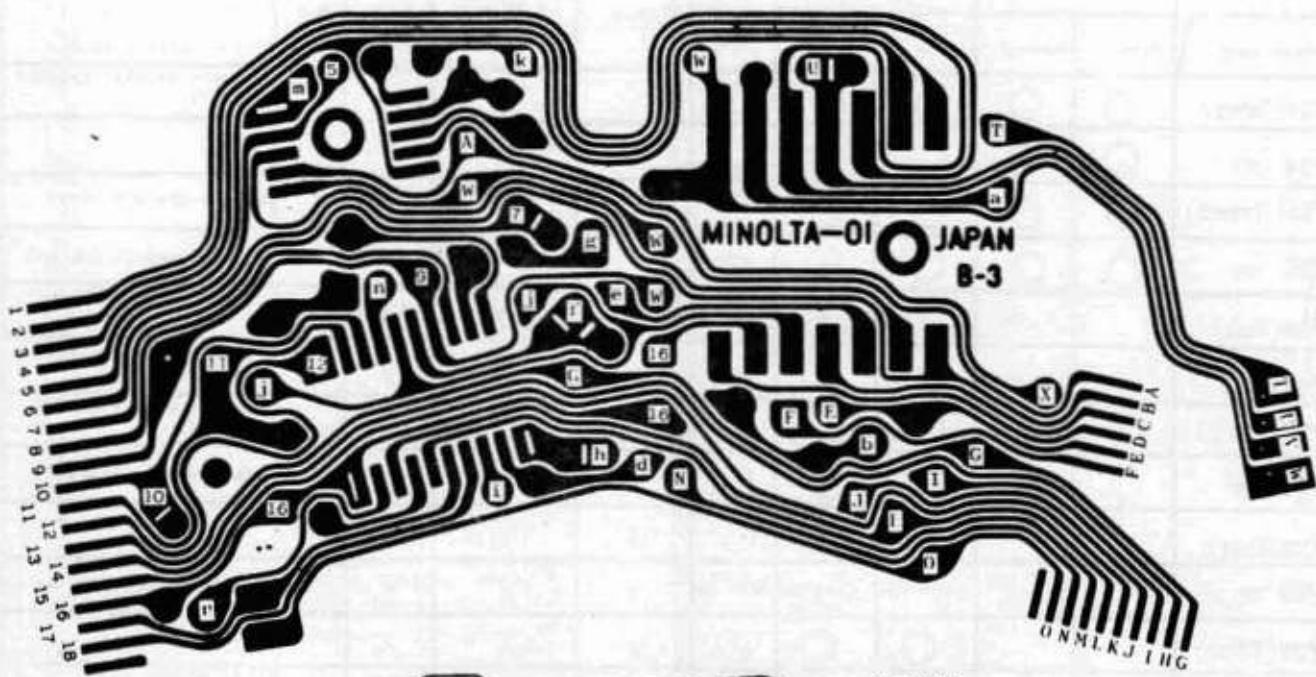
\*4 : Shutter is operated with winding lever sifted back.

Symptoms	Shutter speed		LED indication			Release	Self	Bulb	B.C.	Other
	Auto	Manual	Auto	Manual	M letter					
P24(Grey)	○	○	○	○	○					---with strobe Doesn't shutter release by MD-1
P24 <del>III</del>	○	○	○	○	○	*4	*5			
P25(Green)	○	○	○	○	○					(Strobe doesn't fire)
P25 <del>III</del>	○	○	○	○	○					(Strobe doesn't charge)
P26(Red)			X	X	X	X	X	X	X	
P26 <del>III</del>			X	X	X	X	X	X	X	Power source short circuit
P27(Purple)	○	○	○	○	○					Doesn't work touch SW of MD-1
P27 <del>III</del>	○	○	○	○	○					LED keeps lighting
P28(Red)			○	○	○	X	X	X		
P28 <del>III</del>			X(S4 on)	X(S4 on)	X(S4 on)	X	X	X		Short circuit with S4 on
P29(Blue)			○	○	○	X	X	X		
P29 <del>III</del>			X	X	X	X	X	X		Power source short circuit
P30(White)	○	○	○	○	○			X		
P30 <del>III</del>	○	○	○	○	○			X		
P31(Blue)			○	○	○	X	X	X		
P31 <del>III</del>	○	○	○	○	○			X		
P32(Red)			X	X	X	X	X	X		
P32 <del>III</del>			X	X	X	X	X	X	X	Power source short circuit
P33(White)	○	○	○	○	○					Doesn't work lock
P33 <del>III</del>			○	○	○	X				
P34(R.blue)	○	○	○	○	○					*6
P34 <del>III</del>			○	○	○	X		X		
J1			X	X	X	X	X	X	X	
J2	Kept open	Kept open	X	X	X					
SL1	No exposure	No exposure	○	○	○					No exposure
SL1 <del>III</del>	No exposure	No exposure	○	○	○					No exposure
SL2			○	○	○	X		X		
SL2 <del>III</del>			○	○	○	X		X		

\*4 : Shutter is operated with winding lever is sifted back

\*5 : Self is started with winding lever is sifted back

\*6 : Possible shutter release with PV button is depressed



A : S21  
 B : Power source + line  
 C : S7 OFF  
 F : S8-1(M)  
 G : S7 ON  
 H : S8-4(COM)  
 I : S8-3(M)  
 J : S8-1(A)  
 K : S8-2(A)  
 L : S8-3(COM)  
 M : S8-1(COM)  
 N : S8-2(COM)  
 O : S8-3(A)  
 16 : S8-4(A)

