

# TOOL LIST

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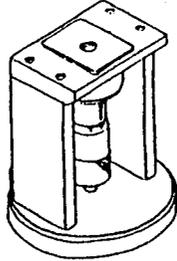
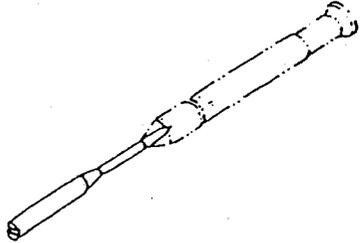
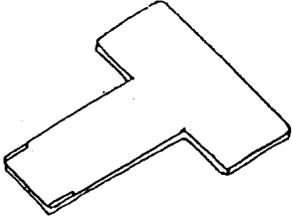
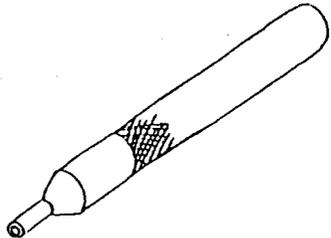
For

## GA645 Professional

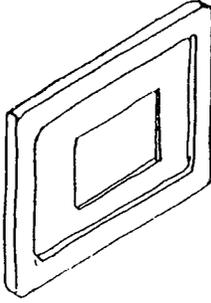
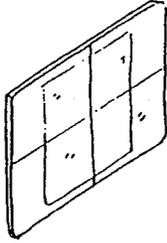
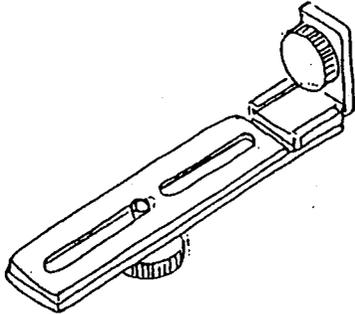
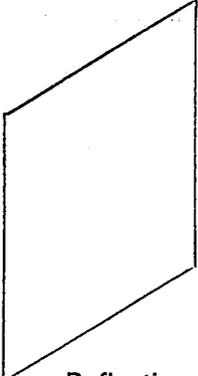
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**1. SPECIAL TOOLS**

Name (Tool No.)	Application	Illustration (Remarks)
Focus adjust stand (JA 869)	For adjustment of focus	(Common used 6 x 9) 
Shaft tightening jig (JA60035)	To tighten shaft (4-47)	
Rear lens assembly tightening jig (JA1499)	To tighten rear lens assembly (4-40)	
Clip ring tightening jig (JA1497)	To tighten clip ring (1-8)	

**1. SPECIAL TOOLS**

Name (Tool No.)	Application	Illustration (Remarks)
<p>AE light receiver adapter (JA1494)</p>	<p>For adjustment of AE</p>	
<p>Parallax adjust jig (JA1495)</p>	<p>For adjustment of viewfinder Parallax</p>	
<p>Bracket (JF 013)</p>	<p>For fixing of camera and flash meter</p>	
<p>AF chart (JF 012)</p>	<p>For adjustment active AF</p>	 <p>Reflection rate : 36%</p>

**2. COMPUTER SYSTEM TESTER FOR IBM SPECIFICATION**

**1. IBM compatibility computers**

- 1) O/S : MS-DOS or PC-DOS
- 2) ISA standard expansion slot
- 3) Main memory (RAM) capacity 640k or more

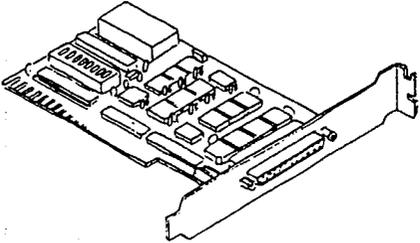
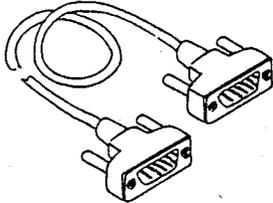
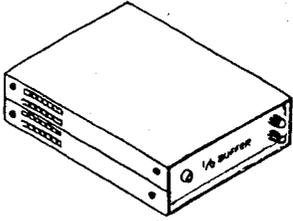
\*Recommended computer models

IBM PC-300 series 486 Models (USA specifications)

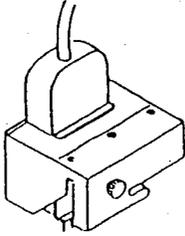
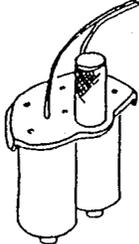
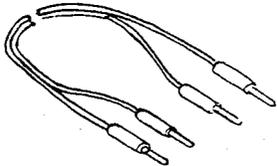
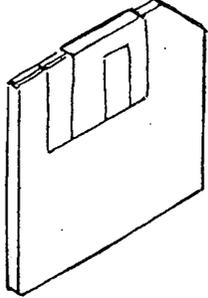
Other IBM compatible

- 1. COMPAQ Pro-Linea 4 / 66
- 2. DELL XMT-590

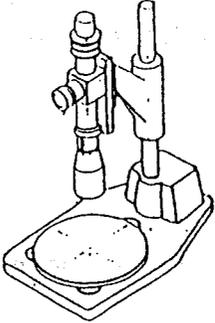
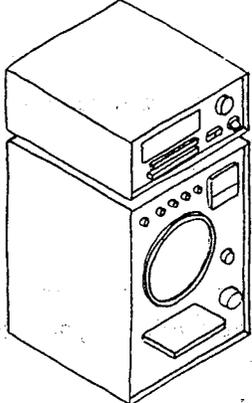
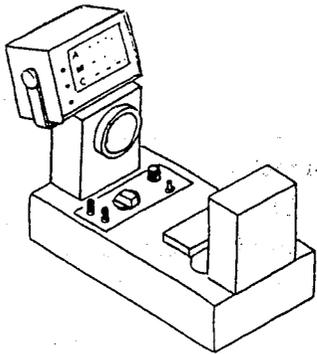
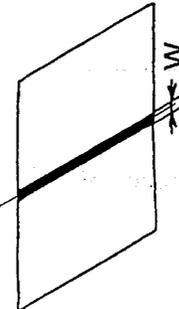
**2. Repair connection tools**

Name (Tool No.)	Application	Illustration (Remarks)
I/O board (JK9510)	UIO-ATPQ IBM used	
Cable 25-25 (JK9001)	IBM used	
Buffer box 25 pin (JA1490S)	IBM used	

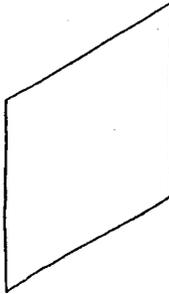
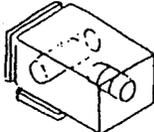
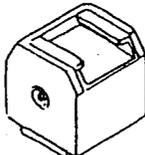
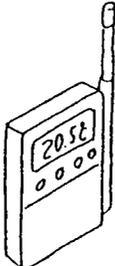
**2. COMPUTER SYSTEM TESTER FOR IBM SPECIFICATION**

Name (Tool No.)	Application	Illustration (Remarks)
Connector (JF 011)	For adjustment of AE, BC, AF and focus	
Dummy battery (JA60081)		
DC-DC cable (JA1492)		
Program software (JS0005) – IBM (JN0005) – NEC	Repair program	

**3. GENERAL TOOLS**

Name (Tool No.)	Application	Illustration (Remarks)
Collimator (Available in a commercial market)	For adjustment of focus	(f = 200mm or more) 
AE-tester (Available in a commercial market)	To measure AE	
Shutter tester (Available in a commercial market)	To measure synchronization	
AF chart Type A (JT 115) Type B (JT 116)	To measure passive AF	 <p>                         TYPE A                          Size : A3                          Line width (W)                          : 9mm                     </p> <p>                         TYPE B                          Size : A2                          Line width (W)                          : 28mm                     </p>

### 3. GENERAL TOOLS

Name (Tool No.)	Application	Illustration (Remarks)
<p>Gray chart (JT 110) (Available in a commercial market)</p> <p>(Superior seamless paper No. 22)</p>	<p>To measure flash light</p>	 <p>Size : 1.5 x 1.5m or more Reflection rate : 18%</p>
<p>Level (JT 111) (Available in a commercial market)</p>	<p>To holder the camera horizontally when measuring passive AF</p>	
<p>Flash code connecting adapter (JT 112) (Available in a commercial market)</p>	<p>To check flash synchronization</p>	
<p>Flash meter (JT 113) (Available in a commercial market)</p>	<p>To measure synchronization (For EEPROM writing)</p>	 <p>(With 10° viewfinder)</p>
<p>Thermometer (JT 114) (Available in a commercial market)</p>	<p>To measure temperature (For EEPROM writing)</p>	

# PRICE LIST for CAMERA TOOL for GA645

October 1995

Tool Name	Tool No.	Description	Unit Price (FOB)
Focus adjust stand	JA869	For adjustment of focus	US\$ 1130
Connector	JA1496	For adjustment of AE, BC, AF and focus	636
Dummy battery	JA60081		299
Shaft tightening jig	JA60035	To tighten shaft	140
Rear lens assembly tightening jig	JA1499	To tighten rear lens assembly	158
Clip ring tightening jig	JA1497	To tighten ring	80
Parallax adjust jig	JA1495	For adjustment of viewfinder Parallax	185
AE light receiver adapter	JA1494	For adjustment of AE	276
Level (Available in a commercial Market)		To hold the camera horizontally when measuring passive AF.	92
Flash code connecting adapter (Available in a commercial Market)		To check flash synchronization	31
Flash meter (Available in a commercial Market)		To measure synchronization (For EEPROM writing)	2247
Thermometer (Available in a commercial Market)		To measure temperature (For EEPROM writing)	113
<b>ADHESIVES AND SOLVENT</b>			
Losoid 6308 / 1G		N/W 200g	102
G30M (SILICON GREASE)	FHA-062	N/W 200g	56
Helicollube	2CM	N/W 500g	170
Tungsten bisulfide (WS2)	FHC-006	N/W 12g	14
Dry Surf MF-2400N		N/W 1000cc	231
Three Bond 15211B		N/W 1500cc	14
Three Bond 14011B		N/W 200g	24
Pflobond	FHD-011	N/W 500g	38