TT1080

marantz®

model TT1080

Turntable

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SPECIFICATIONS

Description	Condition	Nominal	Limit
Type		Direct drive, auto return system	
Platter		Aluminum alloy die-cast, 30.8 cm outer diameter with strobe rim	
Motor		Direct drive DC servo motor	
Speed	Measured at 3 kHz signal	2-speed: 33-1/3 rpm 45 rpm	
Speed adjustment		±3%	±2.5%
Rumble	DIN 45539B (weighted)	67 dB	62 dB
Wow & Flutter	Measured at 3 kHz signal	Less than 0.04% WRMS	0.065% WRMS
Tone arm			
Headshell		Plug-in type	
Overall length		285 mm	
Effective length		222 mm	
Overhang		16.8 mm	
Adjustable force range		0 to 2.5g/1 turn of the scale ring (directly readable in 0.25 g steps)	
Acceptable cartridge weight		4 – 6.5 g	
Cartridge		Dual magnet type AT-3410	
Frequency response		20 – 20,000 Hz	
Output voltage	AT-6606 record	2.5mV at 1 kHz 5 cm/sec.	2.5mV ±3 dB
Channel difference	AT-6606 record	2 dB at 1 kHz	3 dB
Channel separation	AT-6606 record	20 dB at 1 kHz	15 dB at 1 kHz
Tracking force		2 grams	
Compliance		5×10^{-6} cm/dyne	
Stylus tip		0.6 mil diamond	
Power source		120 volts, 60 Hz AC	
Dimension		121(H) x 420(W) x 365(D) mm	
Weight		4.5 kg	

DISASSEMBLY INSTRUCTIONS

Before disassembly, disconnect the power plug and output cords.
Remove the Bottom plate (4) from the cabinet as follows:

1. Remove dust cover.
2. Fasten tone arm to the arm rest.
3. Remove turntable mat and remove the belt from the motor pulley.
4. Remove turntable platter.
5. Position the unit upside down and remove five screws (A in Fig. 1) which mount the Plate bottom to the cabinet and four screws (B in Fig. 1) which mount the rubber feet to the cabinet.

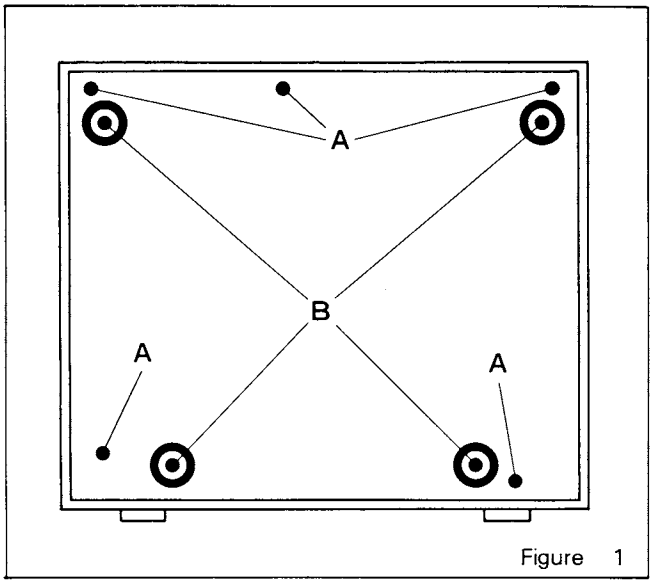


Figure 1

REASSEMBLY INSTRUCTIONS

To reassemble, use DISASSEMBLY INSTRUCTIONS in reverse.

ADJUSTMENTS

1. Tools required for adjustments
   (1) Phillips-head screwdrivers (for M3 and M4)
   (2) Slotted-head screwdrivers (medium and small sizes)

2. Stylus clearance adjustments
   (1) Set the cueing lever to up position and move the tone arm over the record surface (Fig. 2). The clearance between the stylus point and the record should measure between 5 – 9 mm. This dimension is set by screw A in Fig. 2.
   (2) Move the tone arm to the end of the record and slowly rotate the turntable platter until the tone arm starts returning. Stop the platter rotation when the tone arm is in the approximate position as above. Again measure the distance between the stylus point and the record surface. This measurement should be approximately the same clearance 5 – 9 mm. If the height needs to be adjusted, adjust screw B in Fig. 2.

3. Auto-return Trip adjustment
   Adjust the gap between the turntable gear hook and the Trip trigger for 0.3 – 0.4 mm by turning the adjusting pin referring to Fig. 3.

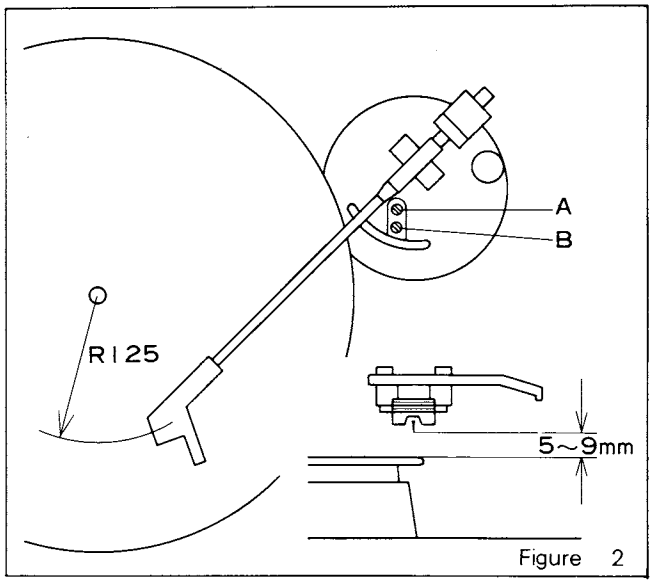


Figure 2

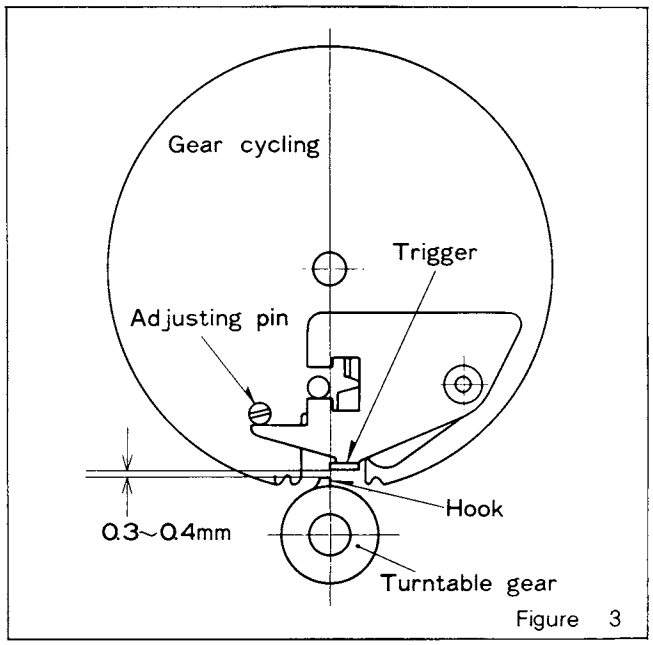


Figure 3

4. Auto-return adjustments
   (1) Set the cueing lever to the up position.
   (2) Move the tone arm to the end of the record disc so that the end of the program is just occuring. Rotate the adjusting screw so that the Trip trigger does not engage the turntable gear hook until complete record ends (Fig. 4).
   (3) After this adjustment check that the tone arm returns at the end of the completed program on the disc. We recommend to use a test record comparable to stock No. RG-800 for this check.

5. Micro SW adjustments
   (1) Adjust the distance between the Micro SW and the Plate PU fix ass'y (56) for the distance specified in Fig. 5. Note that two different types of Micro SW are used in this model and that each type requires a different gap as shown in Fig. 5.

   (2) Rotate the Gear cycling (43) through its complete cycle to make sure that the Micro SW is functioning properly by the movement of the Return plate ass'y (49).

6. Turntable speed
   The rotating speeds of the turntable can be adjusted to minimum ±2.5% with the variable resistor knob. If the specified adjusting range cannot be obtained, adjust as follows:

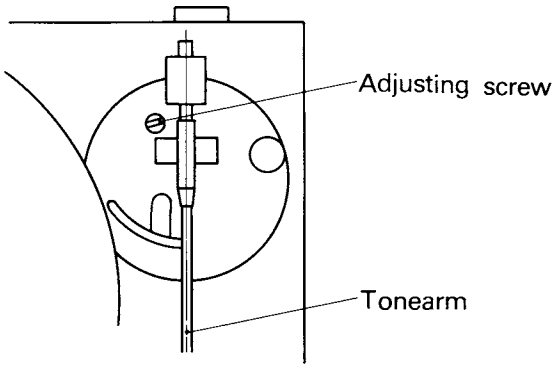


Figure 4

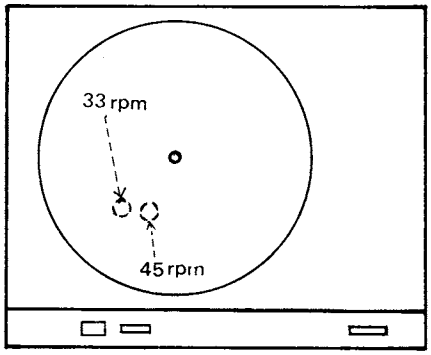


Figure 6

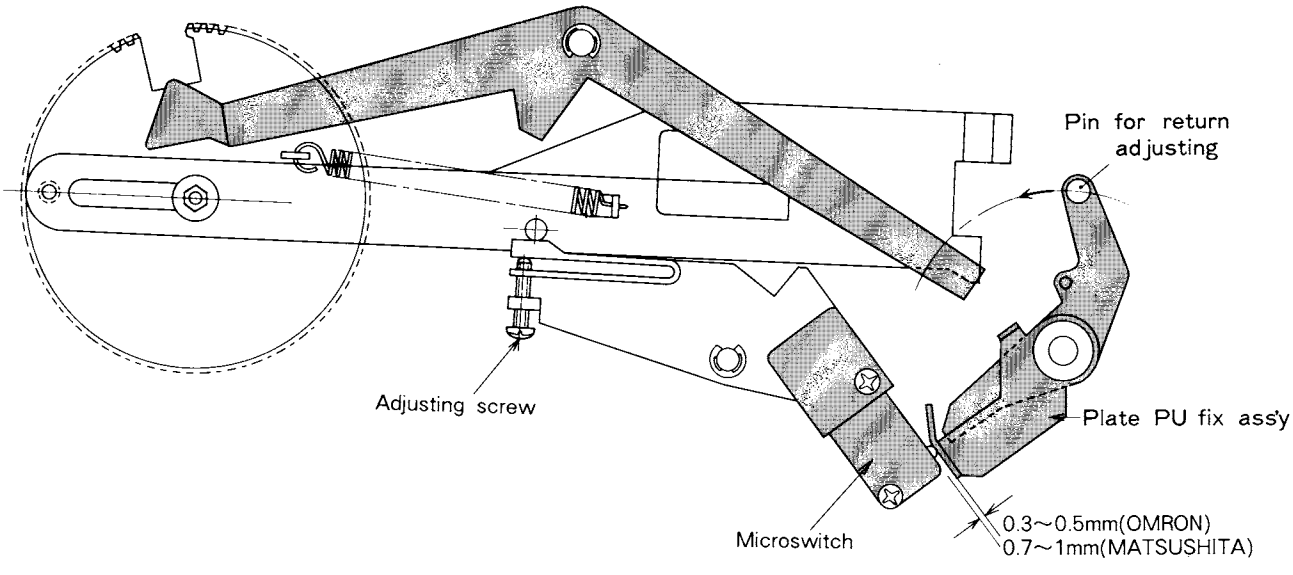


Figure 5

(1) Place the variable resistor knob at the center (150°) of rotating possible angle (300°).
(2) Set the speed selector knob to 33 and rotate the semi-fixed variable resistor through the hole described in Fig. 6 so that the strobe index appears stationary.
(3) Make the same arrangement for 45 rpm.

PARTS REPLACEMENT

1. TONE ARM

(1) Remove the Plate bottom (4) from the cabinet according to DISASSEMBLY INSTRUCTIONS.
(2) Remove the screw which fixes the Cover shield (69) and remove Cover shield.
(3) Disconnect the tone arm leads from the PCB (74).
(4) Remove the Angle mount (68) after removing two screws and remove the Support shaft (67).
(5) Loosen the screw with hexagon hole and the Plate PU fix ass'y (56) can be removed. Before removing the Plate PU fix ass'y carefully remove the Spring (42) from the Lever (60).
(6) Remove the Ring snap (112), and the Tone arm can be removed.
(7) Before placing new Tone arm wipe the shaft of new Tone arm with soft cloth dipped in silicon oil.
Reverse the above procedure to install a new Tone arm.

NOTE: For correct positioning of Plate PU fix ass'y (56) refer to Fig. 5.

(8) To make sure the automatic return operation, apply ADJUSTMENTS 2, 4 and 5.

2. MOTOR

(1) Remove the Bottom plate (4) from the cabinet according to DISASSEMBLY INSTRUCTIONS.

(2) Pull out the connector of cord ass'y from motor control PCB.

(3) Remove the motor after removing the 3 hexagon nuts (115).

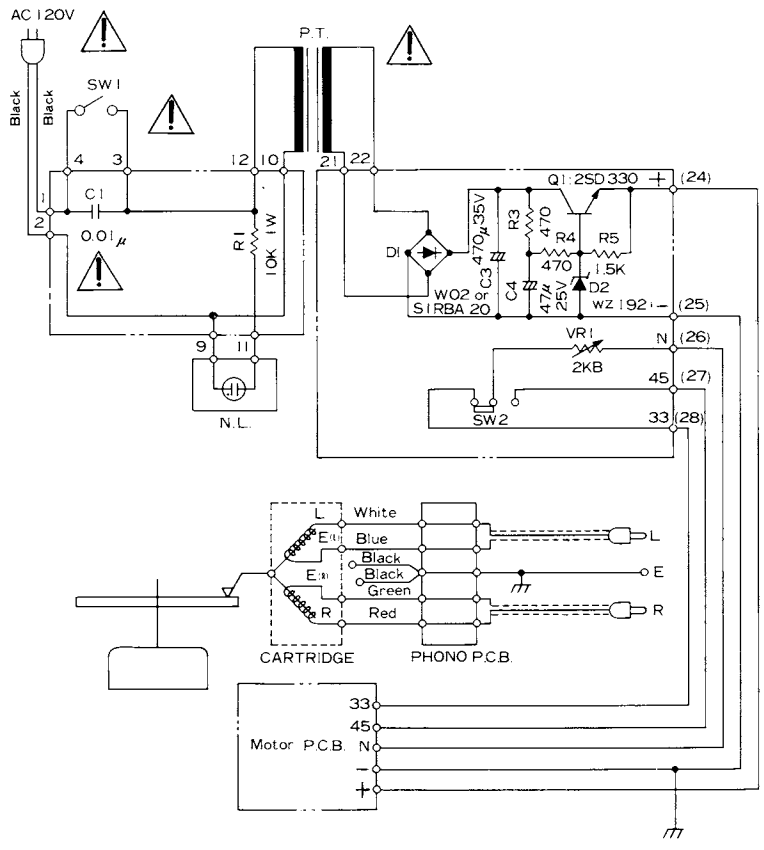
(4) Reverse the above procedure to install a new motor.

(5) Apply ADJUSTMENTS 3 and 6.

3. PAD LID

If the pad lid (10) has fallen or is missing from the lid(5), install the pad lid by inserting the wire with 0.7 mm in diameter into the center hole of the pad lid. Without this kind of metalic tool it would be impossible to install new pad lid to lid by hand.

SCHEMATIC DIAGRAM



To service personnel

Make sure that only replacement parts recommended by the manufacturer should be used when the parts marked "⚠" in schematic diagram are exchanged.

Never fail to make leakage-current or resistance measurements before returning the appliance to the customer so as to make sure that exposed parts are acceptably insulated from the supply circuit.

TROUBLESHOOTING

1. The turntable platter will not rotate even though tone arm is above the record.

Yes: Check to see that the voltage is supplied between (21) and (22) terminals in printed circuit board.
- **No:** Power transformer is defective.
- **Yes:** Check to see that the voltage is supplied between (24) and (25) terminals in printed circuit board.
  - **No:** The rectification circuit is defective.
  - **Yes:** Motor is defective.

2. The tone arm returns to tone arm rest upon placing on record.
Check to see that the gap between turntable gear and trip is adequate referring to ADJUSTMENTS 3.

- **No:** Adjust the gap.
- **Yes:** Check to see that return arm moves to the original position when tone arm is moved from the center of the turntable to the tone arm rest by hand.
  - **No:** The return arm is not correctly mounted.
  - **Yes:** The Plate PU fix ass'y (56) is not correctly mounted or Gear cycling (43) is not laterally mounted.

3. The tone arm will not automatically return.
Check to see that the gap between turntable gear and trip is adequate referring to ADJUSTMENTS 3.

- **No:** Adjust the gap.
- **Yes:** Check to see that tone arm returns when tone arm is moved to the center of the record.
  - **No:** The Plate PU fix ass'y is not correctly mounted.
  - **Yes:** Adjust return position referring to ADJUSTMENTS 4.

4. The turntable platter will not stop rotating.
Check to see that the Micro SW lever is sufficiently pushed by the Plate PU fix ass'y when tone arm returns to tone arm rest.

- **No:** The Plate PU fix ass'y is not correctly mounted.
- **Yes:** Check to see that the gap between the Plate PU fix ass'y and Micro SW is adequate referring to ADJUSTMENTS 5.
  - **No:** Adjust the gap.
  - **Yes:** Micro SW is defective.

5. No sound from the speaker.
   Remove headshell. Touch the upper two terminals (L+ and R+) at the end of the tone arm with a metalic screw-driver and listen for the speaker to produce a humming noise (Fig. 7).

Yes: Cartridge or headshell lead-wires is defective.
No: Perform continuity test between tone arm end and output shielded cord on dead channel (Fig. 8).
Yes: ⊕ and ⊖ cables are not isolated.
No: Plug of output shielded cord or terminal is wrong connected. Perform continuity test of input terminal of amplifier or receiver.

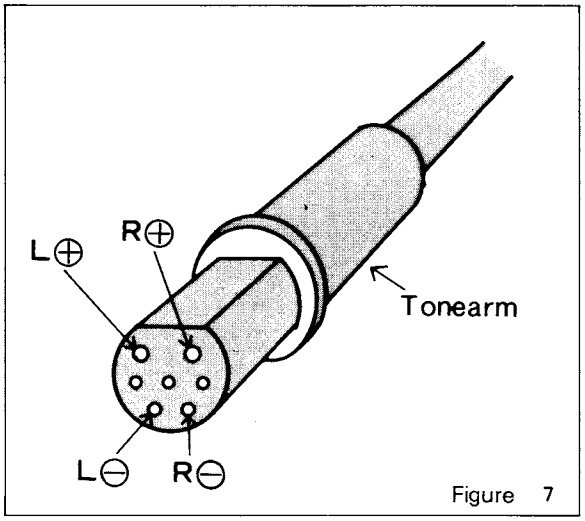


Figure 7

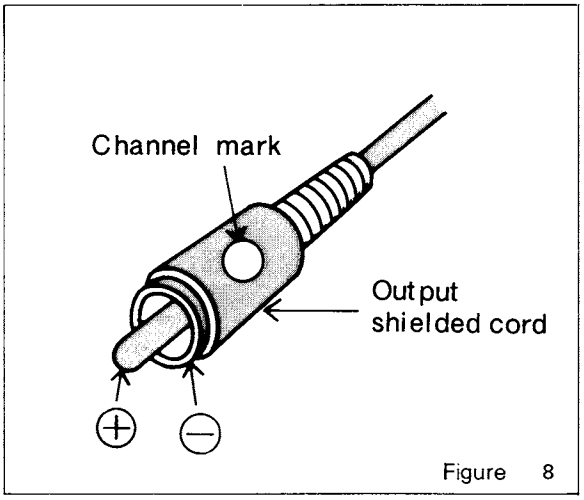


Figure 8

MECHANISM OPERATING PRINCIPLE

Automatic return (Refer to Fig. 9)
When the stylus tip approaches the final groove of the record the pin on the Lever (60) pushes the Arm (54). At the same time the other end of the Arm (54) pushes the Trip (44) in the direction of the arrow and the Trip (45) moves together with Trip (44) in that direction.
When the stylus tip enters the final rough-pitch groove of the record and pawl of Trip (45) engages the pawl of the turntable gear, the Gear cycling (43) starts turning. The Return plate ass'y (49) will be moved by the turning of Gear cycling and the Spindle lifting (32) will be lifted on a slope of Plate (49) and the Tone arm will be lifted from the record surface.
The Plate moves to press the Lever (60) and the Tone arm returns to its rest.
The Gear cycling turns until the Plate ass'y (49) returns to the starting position and Micro SW (29) is turned off, motor stops rotation and turntable platter stops.

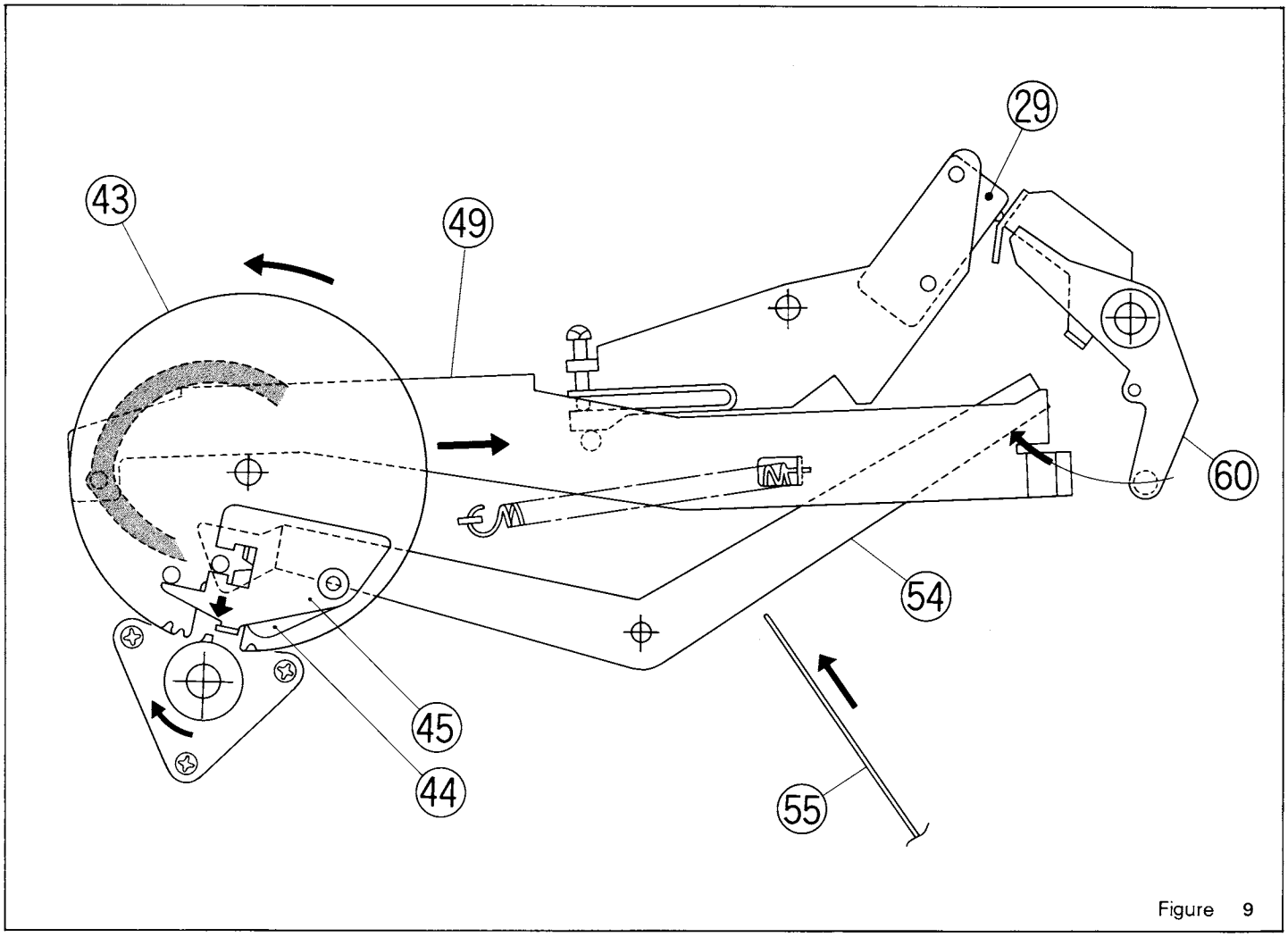


Figure 9

PARTS LIST

Ref. No.	Parts No.	Description
1	D 2045101	Platter, turntable
2	K 4786900	Hinge
3	D 1005308	Cabinet
4	H 3172800	Bottom plate
5	D 2098300	Lid
6	K 4835600	Plate, name
8	D 4849901	Knob
9	D 4850201	Knob
10	131 2290413400	Pad lid
11	K 3173105	Panel, control
12	131 2611121300	Bushing
13	D 3172600	Filter
14	D 4851000	Cushion
15	131 2520323600	Felt
16	134 2510215000	Spring, mounting
17	D 4849802	Knob
18	D 3172700	Cover
19	A 4351701	Blind
20	134 2420816900	Spacer
21	C 2101800	Motor ass'y
⚠ 22	4243920390	Power cord
23	F 3165200	Wire shield ass'y
24	A 4850300	Plate
25	C 4850600	Arm rest ass'y
26	134 2160118200	Knob
27	D 4850701	Knob
28	D 2098200	Plate, unit
⚠ 29	4231921995	Micro SW
31	4237921520	Terminal lug
32	134 2411614000	Spindle lifting
33	134 2510124700	Spring
34	134 2331011900	Support arm
35	B 4542500	Screw
36	D 4402701	Cushion
37	134 2410824400	Plate
38	134 2510310900	Spring plate
39	134 2412018400	Lever
40	134 2412112000	Guide
41	134 2412412600	Cam
42	E 4851600	Spring
43	134 2411011100	Gear cycling
44	134 2412211800	Trip
45	A 4841700	Trip
46	134 2410700400	Collar
47	D 4843400	Pin
48	D 4310000	45 rpm adapter
49	134 0603511600	Return plate
50	134 2210612100	Holder

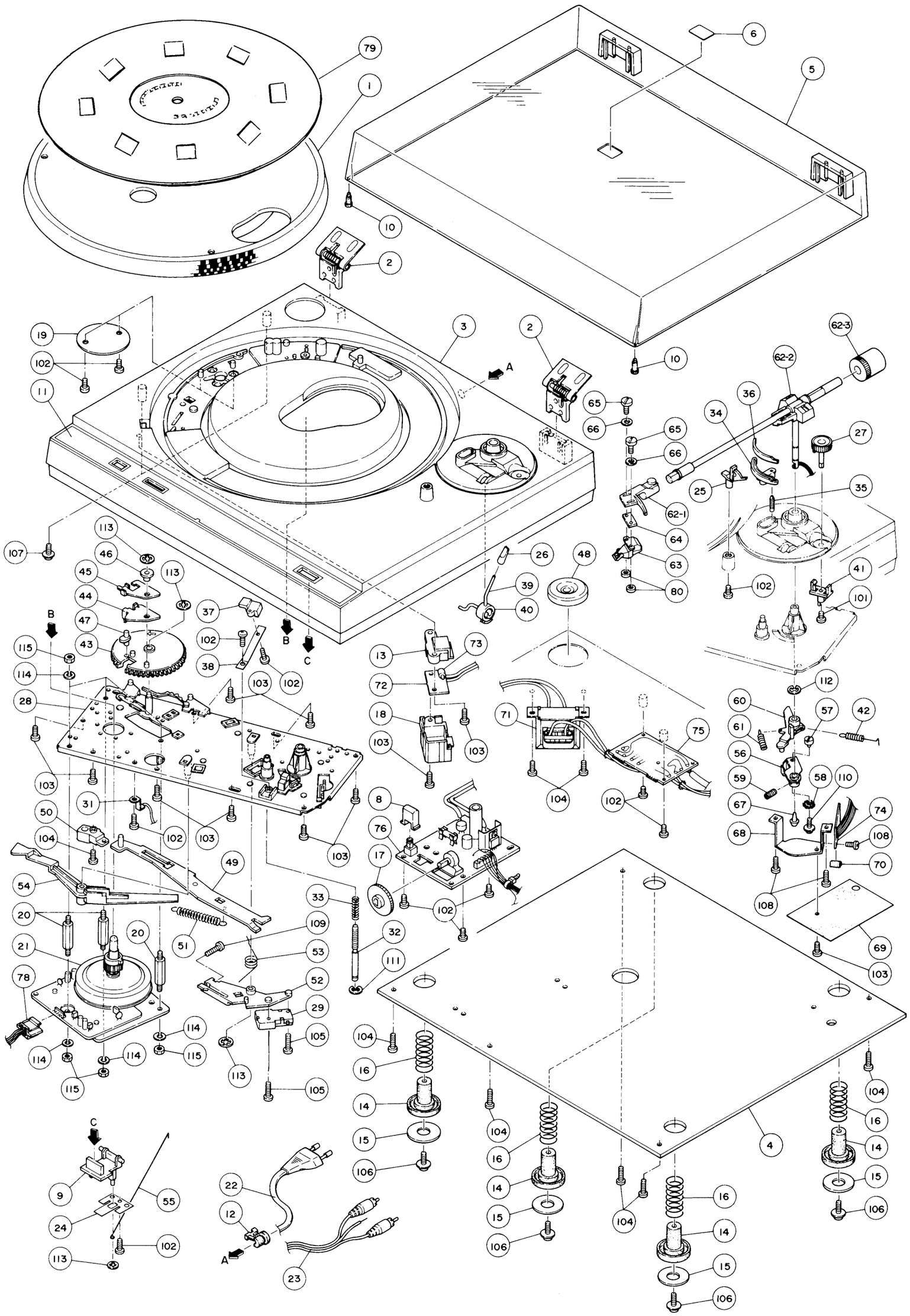
Ref. No.	Parts No.	Description
51	134 2510124600	Spring
52	134 2410821000	Plate
53	134 2510130800	Spring
54	134 2412319100	Arm
55	E 4849500	Rod
56	134 0602212200	Plate PU fix ass'y
57	134 2412412200	Cam
58	131 2420317501	Wave washer
59	131 2420115102	Screw
60	141 2741988800	Lever
61	134 2510120500	Spring
62	C 3170800	Tonearm ass'y
62-1	C 4847000	Headshell ass'y
62-2	C 2097900	PU arm ass'y
62-3	C 4856400	Weight ass'y
63	F 4837400	Cartridge
65		Screw ⊖ 2.6 x 11
66		Washer
67	134 2411710600	Support shaft
68	134 2240321900	Angle mount
69	F 4850900	Cover shield
70	134 252051200	Cushion
⚠ 71	F 3171301	Power trans.
72	4226204360	Printed circuit B.D.
73	4612202700	Neon lamp
73	4612220795	Neon lamp
74	4226207950	PCB
75	F 3170201	PCB
⚠ C1	F 4795000	Condenser
76	F 3170202	PCB
R3	R2E DBJ471 A	CARBO 470 1/4W
R4	R2E DPJ471 A	CARBO 470 1/4W
R5	R2E DPJ152 A	CARBO 1.5K 1/4W
C3	C1V RE477 A	ELECT 470μF 35V
C4	C1E RE476 A	ELECT 47μF 25V
D1	DGG W02	DIODE BRIDGE
D2	DJJ WZ192	ZENER DIODE WZ-192
Q1	203 5857033040	2SD 330D
Q1	203 5857033050	2SD 330E
VR1	F 3170501	VR 2K-B
SW2	F 3170600	SW Push 1KEY
78	C 4849300	Cord ass'y
79	D 2096401	Turntable platter mat
80		Nut

SCREWS, WASHERS AND NUTS

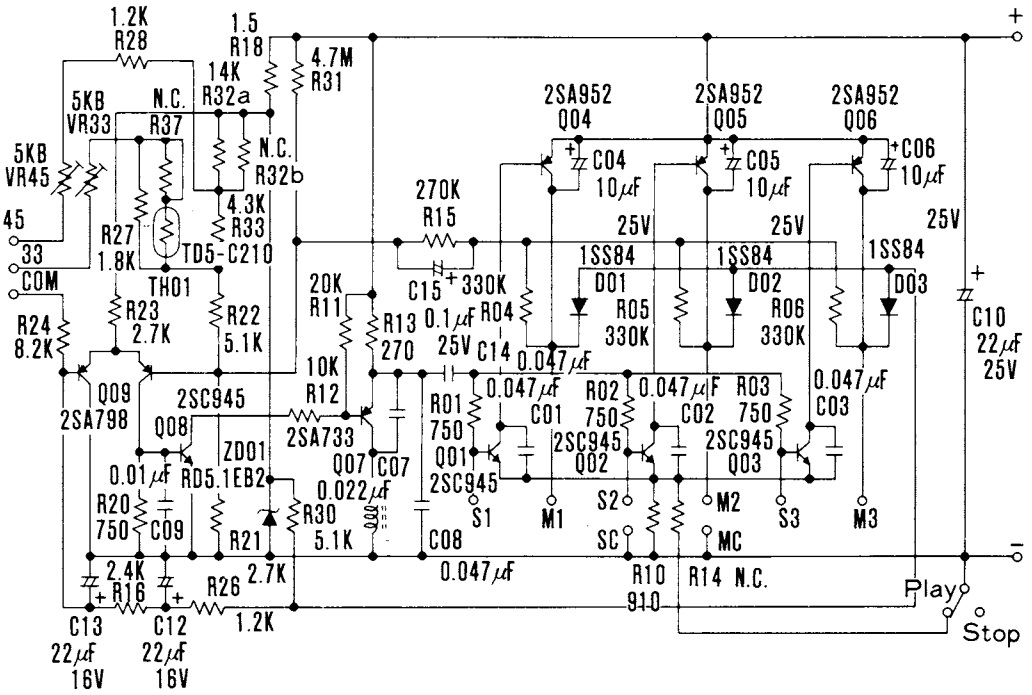
Ref. No.	Description
101	⊕ Brazier head taptite screw B φ2.6 x 6
102	⊕ Brazier head taptite screw B φ 3 x 8
103	⊕ Brazier head taptite screw B φ 3 x 10
104	⊕ Brazier head taptite screw B φ 3 x 12
105	⊕ Brazier head taptite screw B φ 3 x 16
106	⊕ Brazier head taptite screw B with plain washer φ 3 x 10
107	⊕ Brazier head taptite screw B with plain washer φ 3 x 12
108	⊕ Pan head taptite screw B φ 3 x 10

Ref. No.	Description
109	⊕ Pan head taptite screw C φ 3 x 14
110	⊕ Pan head taptite screw B with plain washer φ2.6 x 6
111	E type washer φ 2
112	C type washer φ 5
113	Stop ring CSTW-3
114	Spring washer φ 3
115	Hexagon nut M3

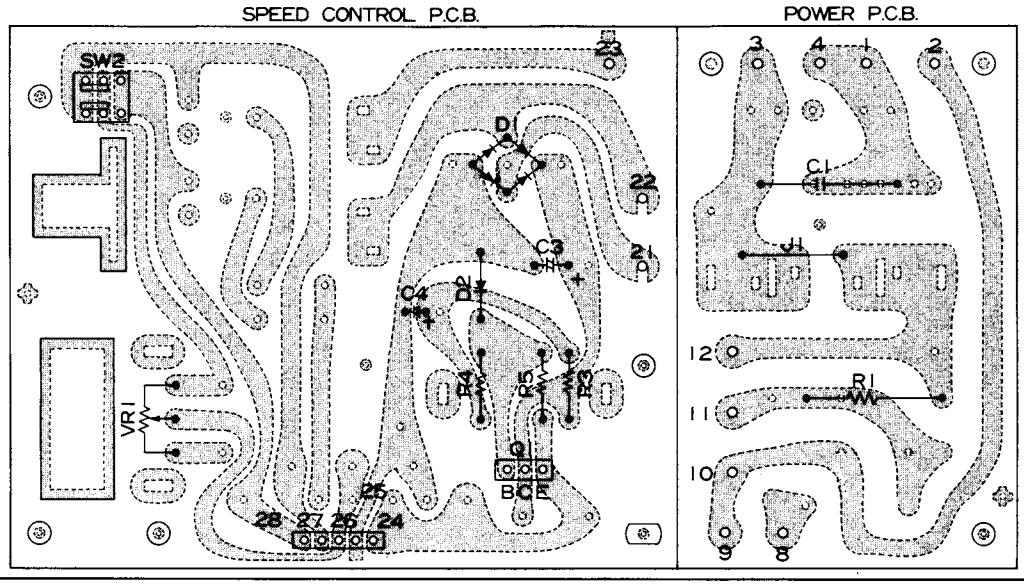
EXPLODED VIEW



SERVO CONTROLLER CIRCUIT DIAGRAM



PRINTED CIRCUIT BOARD



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Parts for your MARANTZ stereo are generally available within 72 hours throughout the nation via a toll-free line to our national parts depot in California. The sales professionals who take your call immediately refer to their own desk top computer terminal and can quickly determine the availability and price information you require. If, for some reason, your order should exceed our available stock, we usually can instantly provide an alternate replacement part or current delivery information. When the order is placed and confirmed, the computer simultaneously generates"hard copy" orders at the distribution center. As hard copies come directly from the computer to the national parts depot, your requested stock is assembled and prepared for shipment and placed on the first available carrier for delivery to you.

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The following information must be supplied to eliminate delays in processing your order:

1. Complete address.
2. Complete part numbers.
3. Complete description of parts.
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5. Account number (for account customers only).

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