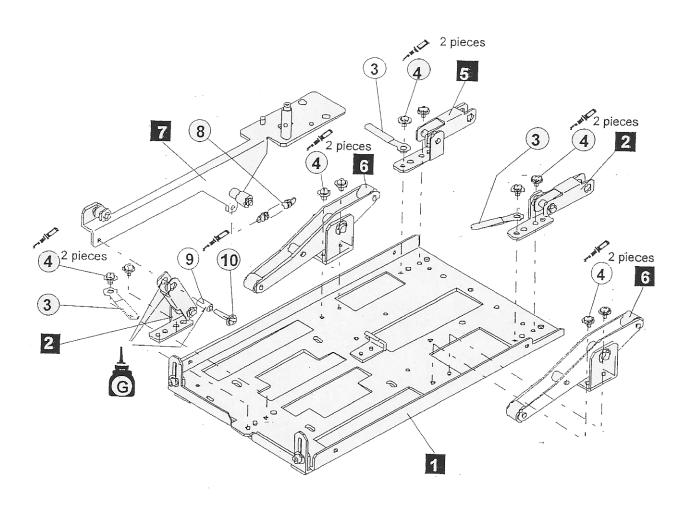


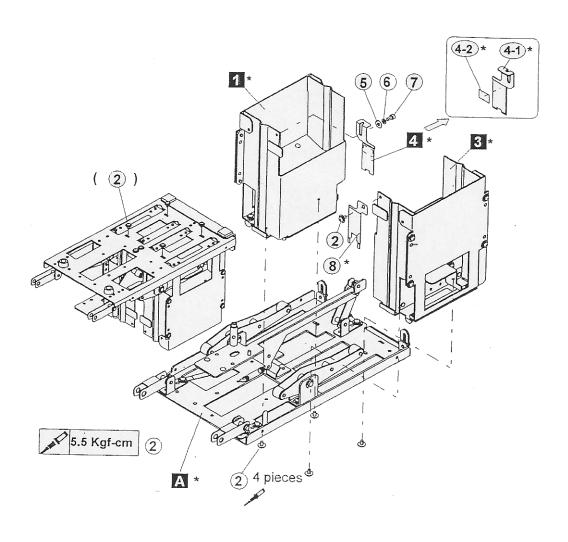
Diassembling and Reassembling (Step - A)



No.	Part Number	Description	Qty.
1.	41-NJ07001T1N5 a	Base Unit	1
*2.	41-NJ03005T1N5 a #2	Rail Link L unit	2
3.	41-CS-9	Coaching Clip	3
4.	-	M2.6x5 + Pan head screw w/washer & spring chromate	10
*5.	41-NJ03006T1N5 a # 2	Rail Link R Unit	1
6.	41-NJ03001T1N5 a	Drive Link Plate unit	2
7.	41-NJ0300007T1N5 a	Rail Supporter Unit	1
8.	41-SH05-15	Vibration Spring	1
9.	41-CB-2609	Brass Spacer	1
10.	-	M2.6x14 + Pan head screw w/washer & spring chromate	1



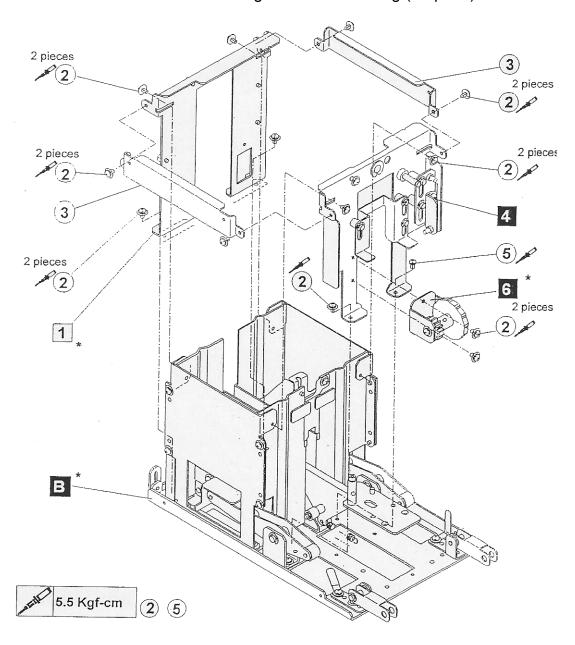
Diassembling and Reassembling (Step - B)



No.	Part Number	Description	Qty.
*1.	41-NJ01000T1N5 b # 2	Scooping chamber L unit	1
2.	-	M2.6x5 + Pan head screw w/washer & spring chromate	5
*3.	41-NJ01001T1N5 b # 2	Scooping chamber unit R unit	1
4.	-	Passing Plate 1: Scooping Chamber	1
*4.1	41-NJ01028T1N5 f # 5	Passing Plate 1	1
4*.2	41-t0.1x12x8	Label	1
5.	-	M2.6 Washer	1
6.	-	M2.6 Spring Washer	1
7.	-	M2.6 Hexagon Socket Head Cap	1
*8.	41-NJ01029T1N5 b	Passing Plate 2: Scooping Chamber M3	1



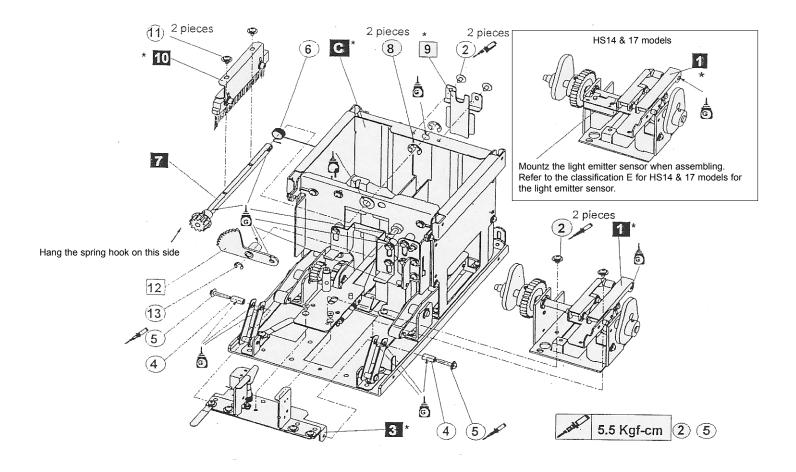
Diassembling and Reassembling (Step - C)



No.	Part Number	Description	Qty.
*1.	41-NJ02002T1N5 a # 2	Rear brush holder plate unit	1
2.	-	M2.6x5 + Pan head screw w/washer & spring chromate	13
3.	41-NJ02042T1N5 b	Cover Bracket	2
4.	41-NJ02006T1N5	Front Brush Holder PLate	1
5.	-	M2.6x5 + Pan head screw w/washer & spring chromate	1
*6.	41-NJ02001T1N5 a #2	Vibration Cam	1



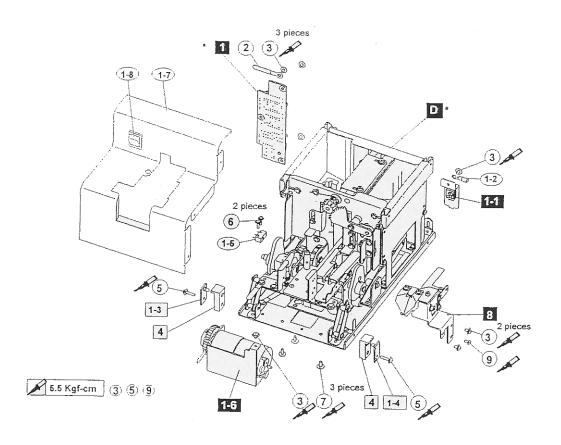
Diassembling and Reassembling (Step - D)



No.	Part Number	Description	Qty.
*1.	41-NJ04000T1N5 a # 2	Driver Unit	1
2.	-	M2.6x5 + Pan head screw w/washer & spring chromate	4
*3.	41-NJ03008T1N5 b # 2	Rail Supporter Unit	1
4.	41-CB-2609	Brass Spacer	2
5.	-	M2.6x14 + Pan head screw w/washer & spring chromate	2
6.	41-NJ02041T1N5 a	Brush Spring	1
7.	41-NJ0204T1N5 a	Brush driver shaft unit	1
8.	41-E-5	Snap Ring (E)	2
*9.	41-NJ02013T1N5 a	Rear Cover Plate	1
*10.	41-NJ02005T1N5 a # 2	Brush Unit: M3	1
11.	-	M2.6x5 + Pan head screw w/washer & spring Ni Plated	2
12.	41-NJ02023T1N5 a	Brush Gear 1, caulking	1
13.	41-E-3	Snap Ring (E)	1



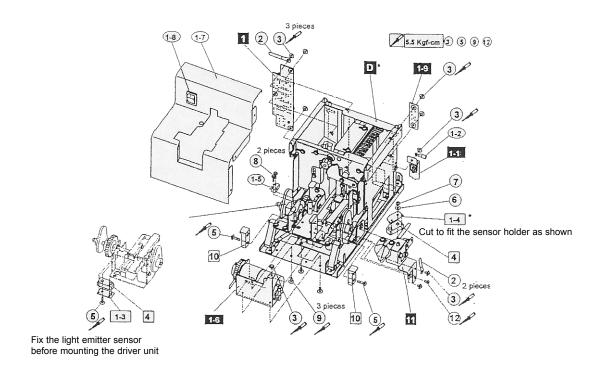
Diassembling and Reassembling (Step - E) for HS-20 through HS-50



No.	Part Number	Description	Qty.
*1.	-	See Wiring diagram of main PCB	1
1-1	41-NJ02003TIN5 a	DC Jack unit	1
1-2	41-TMEV 0.3-3	Pressure connection terminal with insulating cover	1
1-3	41-NJ09012T1N5	Light emitter sensor unit	1
1-4	41-NJ09014T1N5	Light Receiver Sensor Unit	1
1-5	41-D2F-01F	Microswitch	1
1-6	41-NJ04007T1N5	Motor Unit	1
1-7	41-NJ0811T1N5 b	Front Cover	1
1-8	41-JW-S11RKKR	Power Switch	1
2.	41-CS-9	Coaching Clip	1
3.	-	M2.6x5 + Pan head screw w/washer & spring chromate	7
4.	41-NJ03037TN5a	Sensor Holder Unit	2
5.	-	M2.6x12 + Pan head screw w/washer & spring chromate	2
6.	-	M2.6x10 + Pan head screw w/washer & spring chromate	2
7.	-	M2.6x8 + Pan head screw w/washer & spring chromate	3
8.	41-NJ05001T1N5 a # 2	Bit Guide Unit	2
9.	-	M2.6x5 + Pan head screw w/washer & spring chromate	1



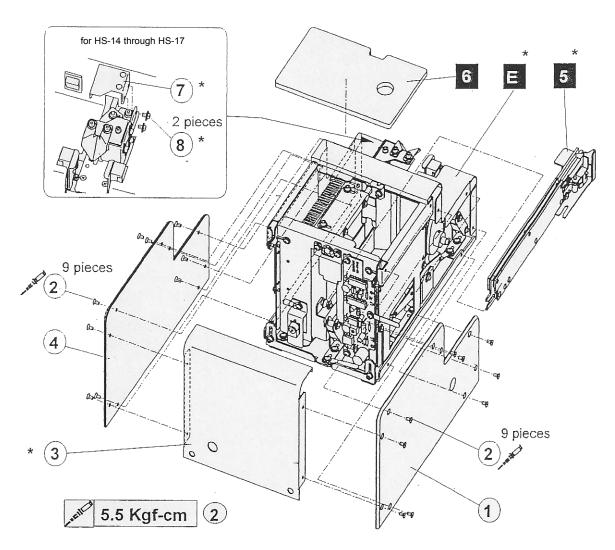
Diassembling and Reassembling (Step - E) for HS-14 through HS-17



No.	Part Number	Description	Qty.
1.	-	See Wiring diagram of main PCB	1
1-1	41-NJ02003TIN5 a	DC Jack unit	1
1-2	41-TMEV 0.3-3	Pressure connection terminal with insulating cover	1
1-3	41-NJ090125	Light emitter sensor unit	1
*1-4	41-NJ09014T1N5	Light Receiver Sensor Unit	1
1-5	41-D2F-01F	Microswitch	1
1-6	41-NJ04007T1N5	Motor Unit	1
1-7	41-NJ0811T1N5 b	Front Cover	1
1-8	41-JW-S11RKKR	Power Switch	1
1-9	41NJ09016T1N5	Diagram of VR board	1
2.	41-CS-9	Coaching Clip	2
3.	-	M2.6x5 + Pan head screw w/washer & spring chromate	9
4.	41-NJ03037TN5a	Sensor Holder Unit	2
5.	-	M2.6x12 + Pan head screw w/washer & spring chromate	2
6.	-	Washer M2.6	1
7.	-	Hexagon Nut M2.6	1
8.	-	M2.6x10 + Pan head screw w/washer & spring chromate	2
9.	-	M2.6x8 + Pan head screw w/washer & spring chromate	3
10.	41-NJ03037T1N5 a	Sensor Holder Unit	2
11.	41-NJ05001T1N5 a # 1	Bit Guide Unit	1
12.	-	M2.6x5 + Pan head screw w/washer & spring chromate	1



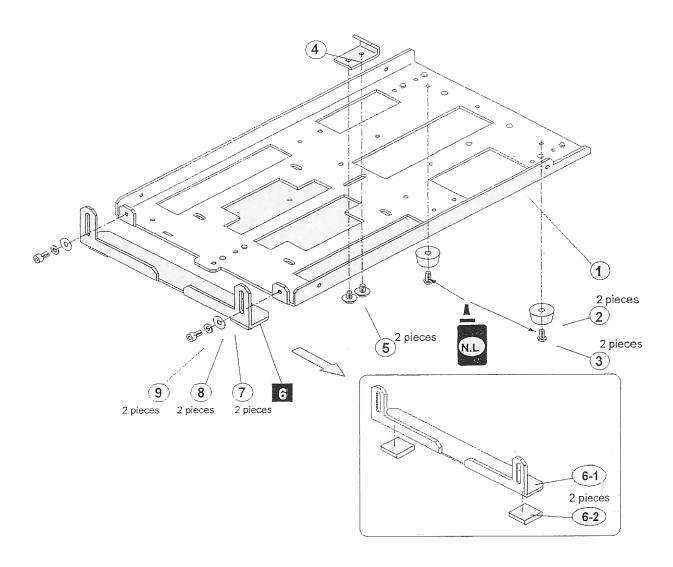
Diassembling and Reassembling (Step - F)



No.	Part Number	Description	Qty.
1.	41-NJ08013T1N5 a	Side Cover L	1
2.	-	M2.6x5 + Countersunk head screw Ni plated	18
*3.	41-NJ08012T1N5a #1	Rear Cover	1
4.	41-NJ08014T1N5	Side Cover R	1
*5.	41-NJ06001T1N5c #4	Rail Assembly	1
6.	41-NJ08001T1N5 a	Top Cover	1
*7.	41-NJ05017T1N5	Sensor Cover: M17	1
*8.	-	M2.6x5 + Pan head screw w/washer & Ni plated	2



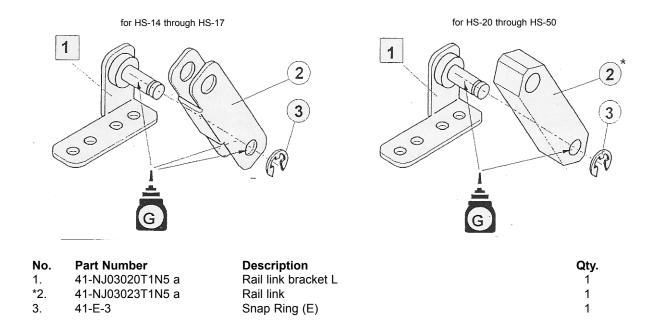
Diassembling and Reassembling (Step - A-1)



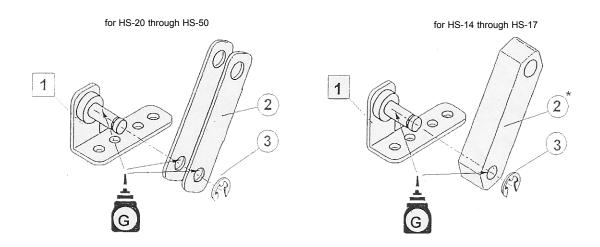
No.	Part Number	Description	Qty.
1.	41-NJ07012T1N5 d	Base	1
2.	41-K11W	Front Feet	2
3.	-	M2.6x5 + Pan head screw , chromate	2
4.	41-NJ07015T1N5 a	Rail Stopper	1
5.	-	M2.6x5 + Pan head screw w/washer & spring chromate	2
6.	41-NJ07013T1N5 # 1	Base Bracket Unit	1
6-1	41-NJ07014T1N5 a	Base Bracket	1
6-2	41-TM166 No 8	Rear Feet	2
7.	-	M2.6x5 Washer	1
8.	-	M2.6x5 Spring Washer	2
9.	-	M2.6x5 Hexagon Socket Head Cap Screw	2



Diassembling and Reassembling (Step - A-2)



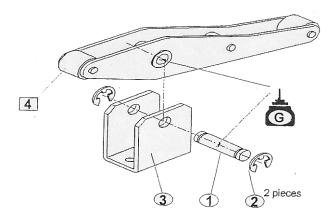
Diassembling and Reassembling (Step - A-5)



No.	Part Number	Description	Qty.
1.	41-NJ03024T1N5 a	Rail link bracket R	1
*2.	41-NJ03023T1N5 a	Rail link	1
3.	41-E-3	Snap Ring (E)	1

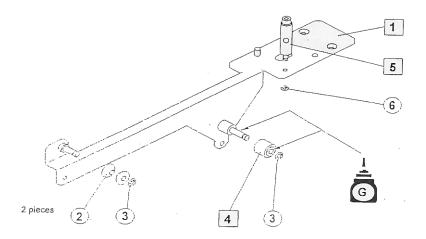


Diassembling and Reassembling (Step - A-6)



No.	Part Number	Description	Qty.
1.	41-NJ03018T1N5	RShaft Drive Link	1
2.	41-E-4	Snap Ring (E)	2
3.	41-J03011T1N5 a	Drive Link Bracket	1
4.	41-NJ03002T1N5 a	Drive Link Plate Unit	1

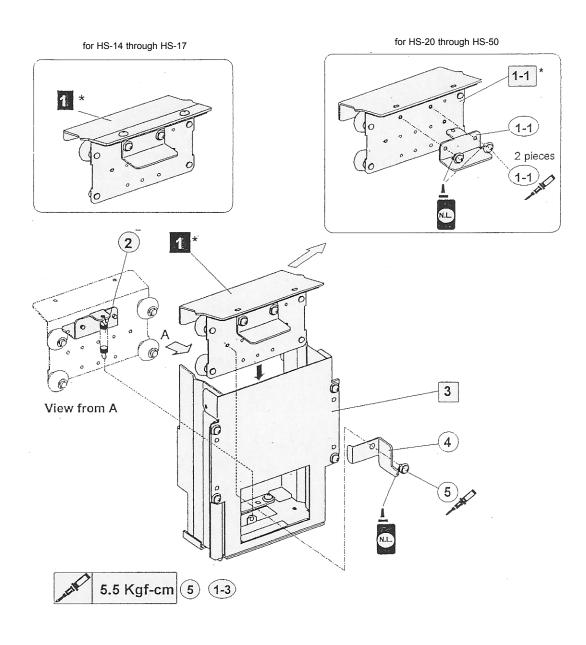
Diassembling and Reassembling (Step - A-7)



No.	Part Number	Description	Qty.
1.	41-NJ03026T1N5 a	Rail Supporter 1, Caulking	1
2.	41-NJ03031T1N5	Roller: Rail Supporter 1	2
3.	41-E-2	Snap Ring (E)	2
4.	41-NJ03032T1N5	Vibration Roller: Rail Supporter	1
5.	41-NJ03033T1N5 a	Fixing screws: Rail supporter 1 unit	1
6.	41-E-1.5	Snap Ring (E)	1



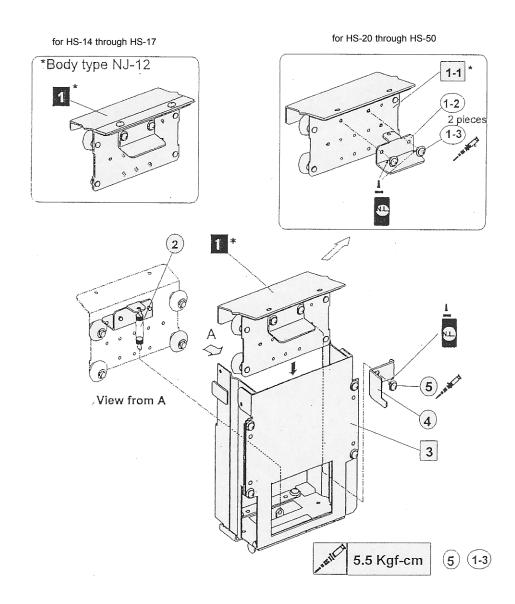
Diassembling and Reassembling (Step - B-1)



No.	Part Number	Description	Qty.
1.	41-NJ01003T1N5 c	Welding: Scooping Plate Unit	1
*1.1	-	Welding: Scooping Plate	1
1-2	41-NJ01017T1N5 g	Drive Holder Plate: Scooping	1
1-3	-	M2.6x5 + Pan head screw w/washer & spring chromate	1
2.	41-NJ01042T1N5 #2	Tension Spring	1
3.	41-NJ01004T1N5 a	Scooping chamber L unit	1
4.	41-NJ01018T1N5 b	Stopper plate L Scooping	1
5.	-	M2.6x5 + Pan head screw w/washer & spring chromate	1



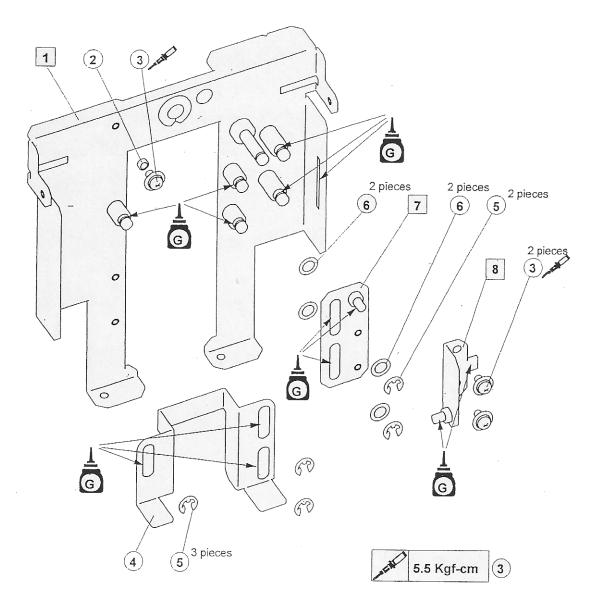
Diassembling and Reassembling (Step - B-3)



No.	Part Number	Description	Qty.
1.	41-NJ01003T1N5 c	Welding: Scooping Plate Unit	1
*1.1	-	Welding: Scooping Plate	1
1-2	41-NJ01017T1N5 g	Drive Holder Plate: Scooping	1
1-3	-	M2.6x5 + Pan head screw w/washer & spring chromate	1
2.	41-NJ01042T1N5 #2	Tension Spring	1
3.	41-NJ01005T1N5 a	Scooping chamber R unit	1
4.	41-NJ01019T1N5 b	Stopper plate R Scooping	1
5.	-	M2.6x5 + Pan head screw w/washer & spring chromate	1



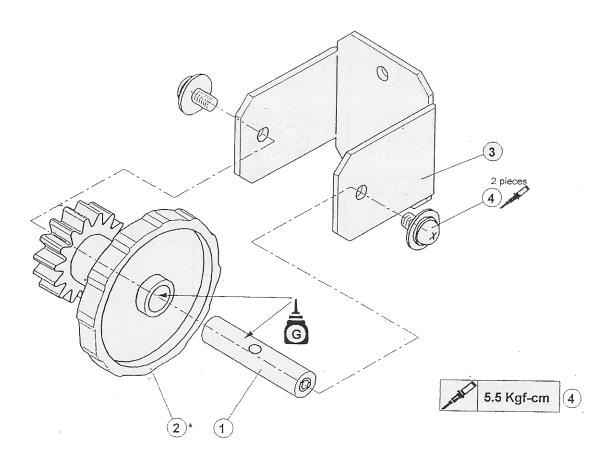
Diassembling and Reassembling (Step - C-4)



No.	Part Number	Description	Qty.
1.	41-NJ02014T1N5 a	Brush Holder PLate (Front) Caulking	1
2.	-	Hoisting Bush Chromate	1
3.	-	M2.6x5 + Pan head screw w/washer & spring chromate	3
4.	41-NJ02019T1N5 a	Shutter Plate	1
5.	41-E-3	Snap Ring (E)	5
6.	-	4.5x7.2x10xto.13 Polyslider	4
7.	41-NJ02026T1N5 a	Sliding Plate 1, Caulking	1
8.	41-NJ02029T1N5 a	Sliding Plate 2, Caulking	1



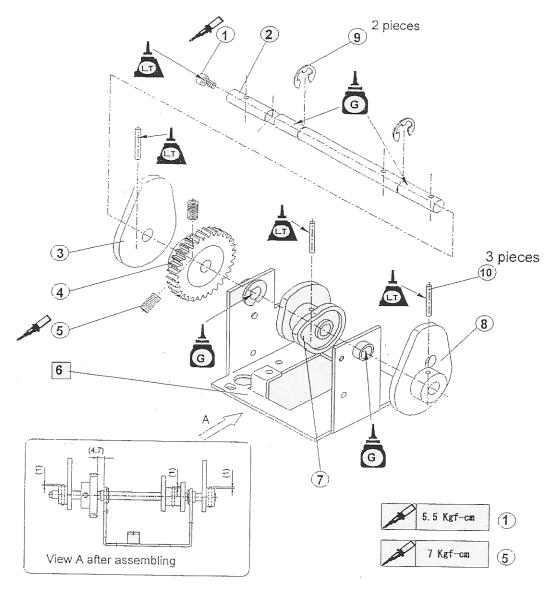
Diassembling and Reassembling (Step - C-6)



No.	Part Number	Description	Qty.
1.	41-NJ02021T1N5 a	Roller Shaft (Vibration Cam)	1
2.	41-NJ02022T1N5 b	Vibration Cam	1
3.	41-NJ02020T1N5 b	Bracket (Vibration Cam)	1
4.	-	M2.6x5 + Pan head screw w/washer & spring chromate	2



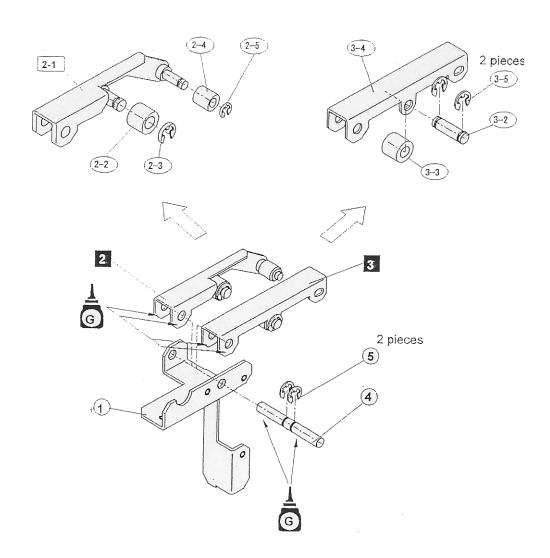
Diassembling and Reassembling (Step - D-1-1)



No.	Part Number	Description	Qtv.
NO.	Fait Nullibei	•	Qty.
١.	-	M2.6x5 Hexagon Socket Head Cap Screw	1
2.	41-NJ04017T1N5 a	Drive Shaft	1
3.	41-NJ04014T1N5 d	Drive Cam L	1
4.	41-NJ04013T1N5 b	Drive Gear 1	1
5.	-	M4x8 Hexagon Socket Head Cap Screw	2
6.	41-NJ04011T1N5 a	Drive Shaft Braket Unit	1
7.	41-NJ04032T1N5 a	Brush Shutter Cam	1
8.	41-NJ04015T1N5 d	Drive Cam R	1
9.	41-E-5	Snap Ring (E)	2
10.	-	ø2.5x16 Spring Pin	3



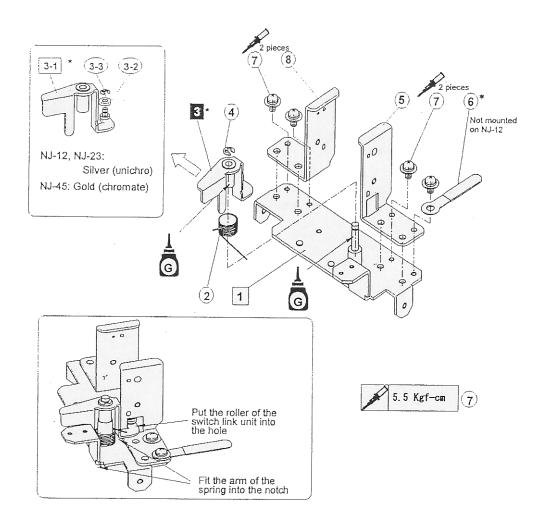
Diassembling and Reassembling (Step - D-1-2)



No.	Part Number	Description	Qty.
1.	41-NJ04023T1N5 d	Cam Link Holder Unit	1
2.	41-NJ04003T1N5 a	Shutter Link Unit	1
2-1	41-NJ04018T1N5 a	Shutter Link Caulking	1
2-2	41-C-406	Juracon	1
2-3	41-E-3	Snap Ring (E)	1
2-4	41-C-306	Juracon Spacer	1
2-5	41-E-2	Snap Ring (E)	1
3.	41-NJ04004T1N5 a	Brush Link Unit	1
3-1	41-E-3	Snap Ring (E)	2
3-2	41-NJ04022T1N5 a	Brush Link Shaft	1
3-3	41-C-407	Juracon Spacer	1
3-4	41-NJ04021T1N5 a	Brush Link	1
4.	41-NJ04024T1N5 a	Cam Link Shaft	1
5.	41-E-2	Snap Ring (E)	2



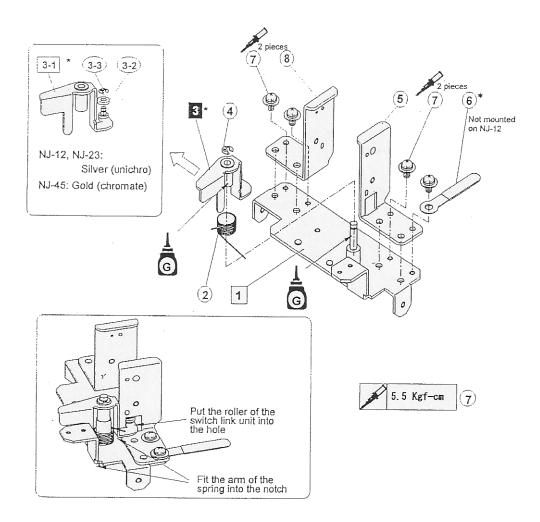
Diassembling and Reassembling (Step - D-3)



No.	Part Number	Description	Qty.
1.	41-NJ03041T1N5	Rail Supporter 2, Caulking	1
2.	41-NJ03047T1N5 a	Switch Link Spring	1
3.	41-NJ03009T1N5 #1	Switch Link Unit	1
3-1	41-NJ03043T1N5 #1	Switch Link Caulking	1
3-2	41-C-2001	Juracon Spacer	1
3-3	41-E-1.5	Snap Ring (E)	1
4.	41-E-2	Snap Ring (E)	1
5.	41-NJ030351T1N5 d	Sensor Bracket L	1
6.	41-CS-9	Coaching Clip	1
7.	-	M2.6x5 + Pan head screw w/washer & spring chromate	4
8.	41-NJ030361T1N5 d	Sensor Bracket L	1



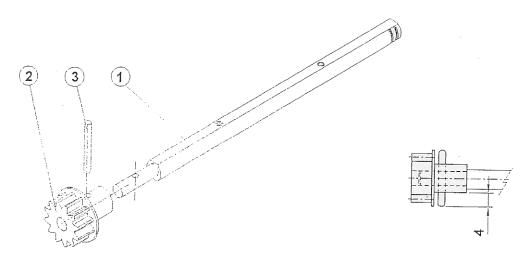
Diassembling and Reassembling (Step - D-3)



No.	Part Number	Description	Qty.
1.	41-NJ03041T1N5	Rail Supporter 2, Caulking	1
2.	41-NJ03047T1N5 a	Switch Link Spring	1
3.	41-NJ03009T1N5 #1	Switch Link Unit	1
3-1	41-NJ03043T1N5 #1	Switch Link Caulking	1
3-2	41-C-2001	Juracon Spacer	1
3-3	41-E-1.5	Snap Ring (E)	1
4.	41-E-2	Snap Ring (E)	1
5.	41-NJ030351T1N5 d	Sensor Bracket L	1
6.	41-CS-9	Coaching Clip	1
7.	-	M2.6x5 + Pan head screw w/washer & spring chromate	4
8.	41-NJ030361T1N5 d	Sensor Bracket L	1

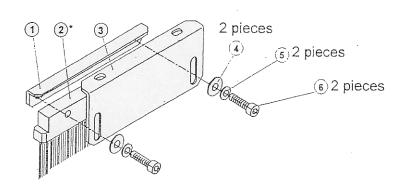


Diassembling and Reassembling (Step - D-7)



No.	Part Number	Description	Qty.
1.	41-NJ02036T1N5 a	Brush Driving Shaft	1
2.	41-NJ02035T1N5 a	Brush Driving Gear 2	1
3.	-	ø2x16 Spring Pin	1

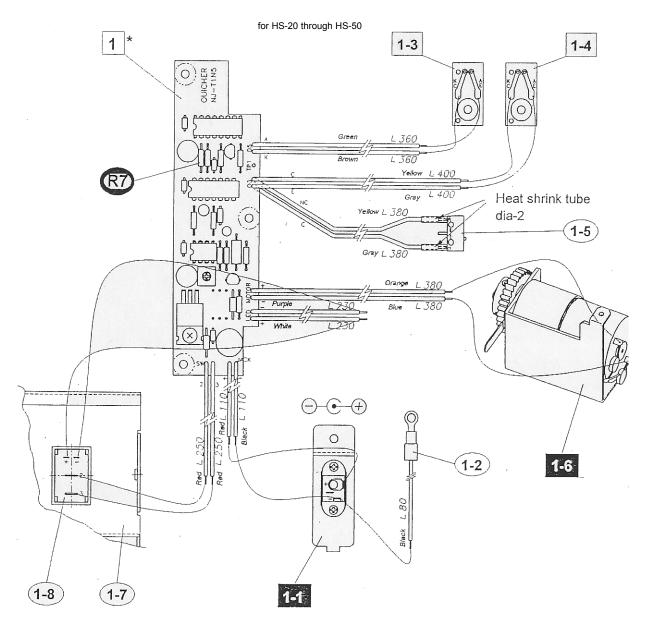
Diassembling and Reassembling (Step - D-10)



No.	Part Number	Description	Qty.
1.	41-NJ02040T1N5 a	Brush Bracket 2	1
*2.	41-NJ02039T1N5 a #1	Brush	1
3.	41-NJ02038T1N5	Brush Bracket 1	1
4.	-	M2.6 Washer	2
5.	-	M2.6 Spring Washer	2
6.	-	M2.6x10 Hexagon Socket Head Cap Screw	2



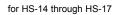
Diassembling and Reassembling (Step - E-1)

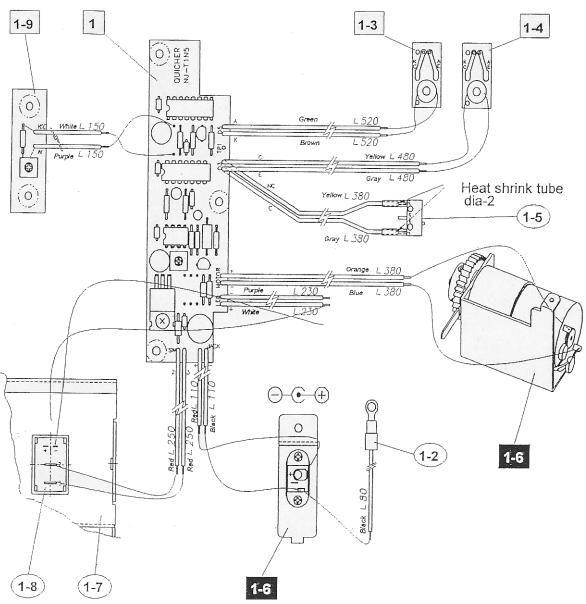


No.	Part Number	Description	Qty.
1.		Main PCB Diagram	
1-1	41-NJ02003T1N5 a	DC Jack Unit	1
1-2	41-TMEV 0.3-3	Pressure Connection Terminal with Insulating Cover	1
1-3	41-NJ09012T1N5	Light Emitter sensor unit	1
1-4	41-NJ09014T1N5	Light Emitter sensor unit	1
1-5	41-D2F-01F	Microswitch	1
1-6	41-NJ04007T1N5	Motor Unit	1
1-7	41-NJ08011T1N5 b	Front Cover	1
1-8	41-JWS11RKKR	Power Switch	1



Diassembling and Reassembling (Step - E-1)

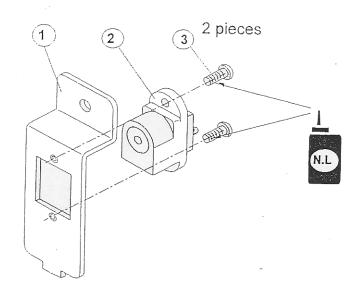




No.	Part Number	Description	Qty.
1.		Main PCB Diagram	
1-1	41-NJ02003T1N5 a	DC Jack Unit	1
1-2	41-TMEV 0.3-3	Pressure Connection Terminal with Insulating Cover	1
1-3	41-NJ09012T1N5	Light Emitter sensor unit	1
1-4	41-NJ09014T1N5	Light Emitter sensor unit	1
1-5	41-D2F-01F	Microswitch	1
1-6	41-NJ04007T1N5	Motor Unit	1
1-7	41-NJ08011T1N5 b	Front Cover	1
1-8	41-JWS11RKKR	Power Switch	1
1-9	41-NJ09016T1N5	VR Board	1

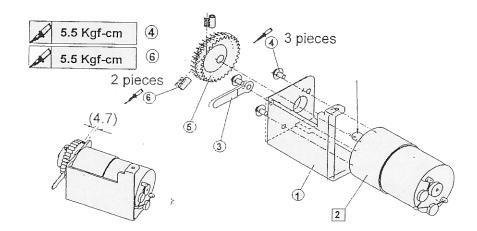


Diassembling and Reassembling (Step - E-1-1)



No.	Part Number	Description	Qty.
1.	41-NJ02032T1N5 a	Jack Bracket	1
2.	41-NJ02033T1N5 a	DC Jack	1
3.	-	M2x5 + Pan head screw, chromate	2

Diassembling and Reassembling (Step - E-1-6)

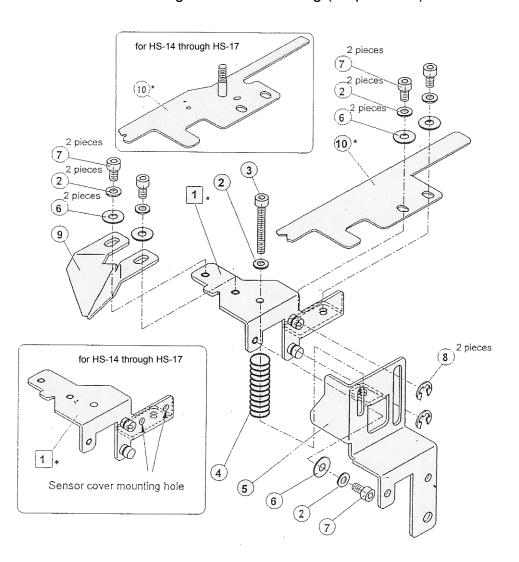


No.	Part Number	Description	Qty.
1.	41-NJ04012T1N5 d	Motor Bracket	1
2.	41-NJ04005T1N5 # 2	Motor	1
3.	41-CS-9	Coaching Clip	1
4.	-	M3x6 + Pan head screw w/washer & spring chromate	3
5.	41-NJ04013T1N5 b	Driving Gear 1	1
6.	-	M4x8 Hexagon Socket Head Cap Screw	2

Corporate Headquarters: 1080 North 11th Street, San Jose, CA 95112 Phone: (408) 292-2214 Fax: (408) 292-2733 www.etorque.com



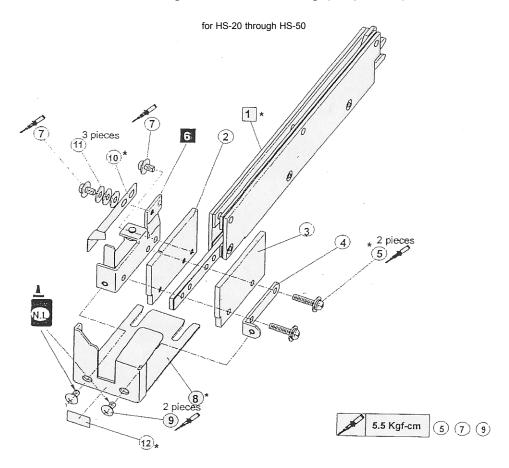
Diassembling and Reassembling (Step - E-1-1)



No.	Part Number	Description	Qty.
*1.	41-NJ05012T1N5 a #1	Bit Guide Bracket 2, Caulking	1
2	-	M2.6 Spring Washer	6
3.	-	M2.6x20 Hexagon Socket Head Cap Screw	1
4.	41-A07-02	Compression Spring	1
5.	41-NJ05011T1N5	Bit Guide Bracket 1	1
6.	-	M2.6 Washer	5
7.	-	M2.6x5 Hexagon Socket Head Cap Screw	5
8.	41-E-3	Snap Ring (E)	2
9.	41-NJ05016T1N5 a	Bit Guide	1
10.	41-NJ05015T1N5 b	Screw Guide (Screw Holding Plate)	1



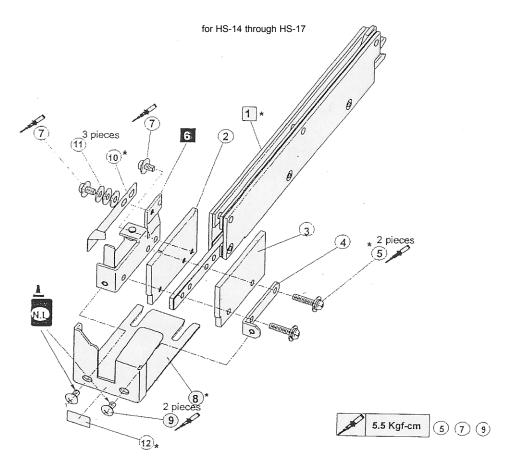
Diassembling and Reassembling (Step - F-5)



No.	Part Number	Description	Qty.
*1.	41-NJ06004T1N5 a # 6	Rail Assembly, Caulking	1
2.	41-NJ060059T1N5 a	Rail 2 L	1
3.	41-NJ060023T1N5 e	Rail 2 R	1
4.	41-NJ060018T1N5 b	Front Rail Brace	1
5.	-	M2.6x12 + Pan head screw with washer & spring, chromate	2
6.	41-NJ060002T1N5 c	Stopper Bracket	1
7.	-	M2.6x5 + Pan head screw with washer & spring, chromate	2
8.	41-NJ060019T1N5 d	Rail Front Plate M3	1
9.	-	M2.6x5 + Oval Countersunk Scrwe, Ni Plated	2
10.	41-NJ060057T1N5 a	Stopper M3	2
11.	-	M2.6 Washer	3
12.	-	Label	1



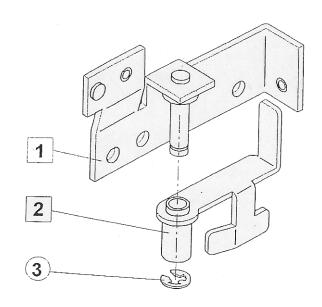
Diassembling and Reassembling (Step - F-5)



No.	Part Number	Description	Qty.
*1.	41-NJ06004T1N5 a	Rail Assembly, Caulking	1
*2.	41-NJ06046T1N5	Shim: Stopper Bracket M17	1
3.	41-NJ06046T1N5 #1	Shim: Stopper Bracket M17	1
4.	41-NJ060038T1N5	Rail Collar A: M17	1
5.	-	M2.6x8 + Pan head screw with washer & spring, chromate	4
6.	41-NJ06040T1N5 b	Rail 2 L: M17	1
7.	41-NJ06051T1N5 # 2	Shim: Front Rail Brace	1
8.	41-NJ06041T1N5 a	Rail 2 R M17	1
9.	41-NJ06002T1N5 c	Stopper Bracket	1
10.	-	M2.6x5 + Pan head screw with washer & spring, chromate	2
11.	41-NJ06039T1N5	Front Rail Plate M17	1
12.	-	M2.6x5 Countersunk Scrwe, Ni Plated	2
13.	41-NJ06061T1N5 a	Stopper M17	1
14.	-	M2.6 Washer	1
15.	-	Label	1

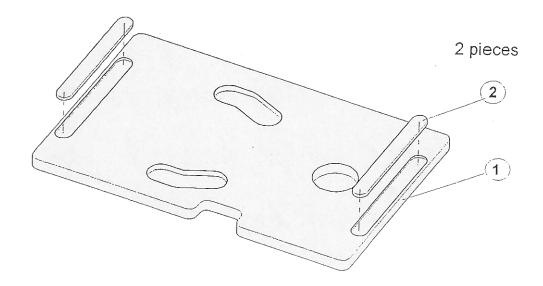


Diassembling and Reassembling (Step - F-5-6)



No.	Part Number	Description	Qty.
1.	41-NJ06053T1N5	Stopper Bracket, Caulking	1
2	41-NJ06056T1N5	Switch Link Holder, Caulking	1
3.	41-E-2	Snap Ring (E)	1

Diassembling and Reassembling (Step - F-6)



No.	Part Number	Description	Qty.
1.	41-NJ08015T1N5 a	Top Cover	1
2	41-NJ08016T1N5 a	Magnet Top Cover	2