

## DISASSEMBLY AND ASSEMBLY PROCEDURES:

**WARNING!** All of the disassembly and assembly procedures described below should begin with removing all paintballs, removing propellant source and test discharging your marker in a safe manner before proceeding with the disassembly and assembly step described below.

**Tools Required:** Phillips Screw Driver, 1/2" Wood Dowel, 1/8" & 3/32" Allen wrenches (Included), Adjustable wrench  
**Assembly Chart:** Please refer to Assembly Chart for component reference numbers.

### 1. General Maintenance & Bolt and Striker Disassembly/Assembly Procedure:

Procedure	Steps
Bolt/Striker Disassembly	<ul style="list-style-type: none"> <li>Make sure marker is de-gassed and free of paintballs.</li> <li>Remove Bolt Release Pin (20) located on top of Marker.</li> <li>Remove Bolt (18).</li> <li>Hold thumb over Striker Plug (29) *Caution: Hold thumb over striker plug until striker spring is removed.</li> <li>Remove Field Strip Pin (12).</li> <li>Slowly back off on Striker Plug to relieve tension of Striker Spring (26).</li> <li>Remove Striker Spring (26), Striker Spring Guide Pin (28) and Striker Bumper (27).</li> <li>Remove Striker (25) by gently tapping marker against a padded surface.</li> <li>Check condition of Bolt (19) and Striker (24) O-rings and replace if necessary.</li> <li>Place one drop of JT approved marker lubricant on each O-ring.</li> </ul>
Bolt/Striker Assembly	<ul style="list-style-type: none"> <li>Replace any O-rings that appear damaged.</li> <li>Insert Striker into lower bore, pointing Barrel of Marker down. Make sure flat on Striker is pointing down.</li> <li>Press firmly on the rear of the Striker and pull Trigger (59) twice so Striker enters bore. (This operation releases rear so Striker can move forward.)</li> <li>Insert Bolt, making sure the Ball Stop slot lines up with the Ball Stop on left side of the marker.</li> <li>Line up holes in Bolt and Striker, insert Bolt Release Pin.</li> <li>Install Striker Bumper.</li> <li>Install Striker Spring &amp; Spring Guide. The end of the Striker Spring should be almost flush with the rear of Marker.</li> <li>Install Striker Plug so groove lines up with Field Strip Pin hole.</li> <li>Insert Field Strip Pin.</li> </ul>

### 2. Volumizer Disassembly/Assembly Procedure:

Procedure	Steps
Volumizer Disassembly	<ul style="list-style-type: none"> <li>De-gas Marker</li> <li>Unscrew Barrel (14)</li> <li>Unscrew Volumizer (53)</li> <li>Remove Volumizer O-ring (70)</li> <li>Inspect O-ring for damage</li> <li>Replace O-ring if damaged</li> </ul>
Volumizer Assembly	<ul style="list-style-type: none"> <li>Lubricate O-ring with JT approved lubricant</li> <li>Re-install O-ring</li> <li>Screw on Volumizer</li> <li>Screw on Barrel</li> </ul>

### 3. Grip Panel and Battery Removal & Replacement

Procedure	Steps
Battery Removal	<ul style="list-style-type: none"> <li>De-gas Marker</li> <li>Unscrew two Grip Panel Screws (97) on right side</li> <li>Remove right side Grip Panel (73)</li> <li>Disconnect Battery and dispose.</li> </ul>
Battery Installation	<ul style="list-style-type: none"> <li>Install new Battery</li> <li>Align Grip Panel over screw holes</li> <li>Screw on Grip Panel Screws</li> </ul>

### 4. CA Adapter & Cup Seal Subassembly Disassembly and Assembly Procedure:

Procedure	Steps
CA Adapter and Cup Seal Disassembly	<ul style="list-style-type: none"> <li>De-gas Marker</li> <li>Press Safety (58) to put Marker into "safe mode"</li> <li>Unscrew Bottom Line Screws (80)</li> <li>Unscrew Expansion Chamber (93) or Regulator Assembly (72) (Model 5.0 with Pressure Line Assembly) (83) from CA Adapter (35)</li> <li>Unscrew CA Adapter Screw (8)</li> <li>Remove CA Adapter (35) from Main Body (1) revealing Cup Seal Subassembly</li> <li>Remove Cup Seal Subassembly (36, 37, 38, 39) from the Valve Bore.</li> <li>Remove the Valve Spring (36) and set aside</li> <li>Remove Cup Seal Guide (37) from the Cup Seal and set aside</li> <li>Disassemble Cup Seal (38) from Valve Pin (39) using Adjustable Wrench</li> <li>Replace Cup Seal (38)</li> </ul>
CA Adapter and Cup Seal Assembly	<ul style="list-style-type: none"> <li>Reinstall the Cup Seal to Valve Pin.</li> <li>Hand-start the Cup Seal onto the Valve Pin.</li> <li>Sung Cup Seal and Valve Pin together. Use adjustable wrench and pliers</li> <li>Install Cup Seal Guide onto the Cup Seal.</li> <li>Install the Valve Spring onto the Cup Seal and install into Valve Bore.</li> <li>Insert the CA Adapter into the Valve Bore.</li> <li>Install the CA Adapter Screw.</li> <li>Screw in the Expansion Chamber into the CA Adapter until snug tight and align.</li> <li>Align the Bottom Line to the Drop Forward.</li> <li>Reassemble the Pressure Line Subassembly to the Drop Forward.</li> <li>Gas up Marker and check for leaks. <b>WARNING!</b> Marker should be in safe mode during pressure leak tests</li> </ul>

### 5. Recommended Dealer or Factory Service Key Components and Subassemblies:

JT USA highly recommends that you return your marker or major component for service or repair of the following:

COMPONENT/SUBASSEMBLY	JT USA INSTRUCTIONS
Electronic Information Center	<ul style="list-style-type: none"> <li>Replace battery first and if still not functioning remove Drop Forward Screws (8) and Trigger Frame Screws (44) and return Trigger Frame Subassembly only to JT USA or a JT authorized dealer.</li> </ul>
Electronic Trigger Mechanism	<ul style="list-style-type: none"> <li>Replace battery first and if still not functioning remove Drop Forward Screws (8) and Trigger Frame Screws (44) and return Trigger Frame Subassembly only to JT USA or a JT authorized dealer.</li> </ul>
Valve	<ul style="list-style-type: none"> <li>Call JT USA representative first to make sure cause of problem is Valve (3). Get return authorization and return to JT USA or JT authorized dealer.</li> </ul>
Gas Pressure Regulator	<ul style="list-style-type: none"> <li>Call JT USA representative first to make sure cause of problem is the Regulator Assembly. Get return authorization and return to JT USA or JT authorized dealer.</li> </ul>
Pressure Line Assembly	<ul style="list-style-type: none"> <li>Call JT USA representative first to make sure cause of problem is the Pressure Line Assembly (83). Get return authorization and return to JT USA or JT authorized dealer.</li> </ul>

### GENERAL TROUBLESHOOTING GUIDELINES:

#### GENERAL MAINTENANCE:

Regular maintenance of your Excellerator is the best insurance against a problem with your marker in the field. JT USA recommends that you conduct a general maintenance of your Excellerator after every 1000 paintballs shot. This general maintenance will involve removal of the bolt and striker and checking the condition of O-rings. Replacing worn O-rings or lubricating dry O-rings will go a long way to preventing a problem while playing. It is recommended that you use a lubricant that is designed specifically for markers, such as JT Approved Marker Lubricant. This lubricant is designed to be compatible with the various types of materials used in your Excellerator. See Bolt and Striker Disassembly/Assembly Procedures for the detailed steps involved in removing the bolt and striker.

#### GAS LEAKS:

Gas leaks will occur in the marker because of dirty, dry or defective O-rings or seals. There are over 15 of these O-rings, washers and seals in your Excellerator marker. The most common O-rings that may require maintenance by you are:

- Bolt O-rings (19) 3 each
- Striker O-ring (24)
- Cup Seal (38)

You should plan on maintaining a small supply of these O-rings and seals for your regular maintenance. The other O-rings and seals in the marker should not need regular maintenance as the above listed.

### QUICK MARKER TROUBLESHOOTING GUIDE

**WARNING!** All troubleshooting and corrective actions should begin with removing all paintballs, removing propellant source and test discharging your marker in a safe manner before proceeding with corrective steps.

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION(S)	COMMENTS & TOOLS NEEDED
Gas leaks at marker/bottle connection point	1. Gas bottle O-ring dry or defective	-Remove gas bottle from marker -Lubricate O-ring -Replace O-ring -Replace Gas Bottle Valve*	*Dealer assistance required
Gas leaks out barrel	2. Gas bottle Valve defective Cup seal (38) defective	-De-gas marker -Replace cup seal	See Cup Seal Disassembly Procedure
Gas leaks through Volumizer	Volumizer O-ring (70) dry or defective	-De-gas marker -Remove barrel -Remove volumizer -Check O-ring -Lubricate O-ring or replace	
Marker does not re-cock or mis-fires	1. Insufficient gas to Marker 2. Depleted Battery 3. Striker O-ring (24) dry or defective 4. Bolt O-rings (19) dry or defective 5. Defect striker spring (26)	-De-gas marker -Check functioning of gas bottle -De-gas marker -Replace Battery -De-gas marker -Lubricate O-ring or replace -De-gas marker -Lubricate O-ring or replace -De-gas marker -Remove striker spring -Inspect and replace if appropriate	See Bolt & Striker Disassembly Procedure
Marker does not shoot paintballs straight	1. Paintball debris in marker/barrel 2. Out-of-round (old) paintballs	-De-gas marker -Remove & clean barrel (14) -Clean vertical feed adapter (2) -Clean bolt (18) & 1) area -De-gas marker -Replace with fresh paintballs	-Squeeze Swab required See Bolt Disassembly Procedure
Bolt hangs up	Bolt (18) hanging up on paintball debris	-Remove barrel -Remove Bolt Release Pin (20) -Use wood dowel to release bolt -Remove bolt and clean bolt and chamber	-1/2" wood dowel needed See Bolt Disassembly Procedure
Marker double feeds paintballs	Ball stop (5) dirty or broken	-De-gas marker -Remove ball stop screws/cover (7/6) -Remove ball stop (5) -Clean ball stop or replace	-Phillips screwdriver needed
Marker chops paintballs	1. Ball stop (5) dirty or broken 2. Striker O-ring (24) dirty 3. Bolt (18) & receiving chamber (1) dirty 4. Ball loader not working properly 5. Defective paintballs	-De-gas marker -Remove ball stop screws/cover (7/6) -Remove ball stop (5) -Clean ball stop or replace -De-gas marker -Remove & clean/replace dirty or worn O-ring -De-gas marker -Remove bolt & clean -Swab marker and barrel -De-gas marker -Clean, repair or replace ball loader -De-gas marker -Replace paintballs	-Phillips screwdriver needed

### UNDERSTANDING YOUR EXCELLERATOR WARRANTY

#### WARRANTY:

JT warrants to the original purchaser that your Excellerator™ Series Marker is free from defects in materials and workmanship for a period of 1 year from the date of purchase. Its warranty applies when the product is used for the purpose intended, under normal conditions, and does not apply to damage caused by typical wear and tear, unreasonable use, alterations or neglect. JT USA will promptly replace, or repair your product if found defective in materials or workmanship. Any product needing repairs due to wear and tear will be charged a reasonable fee. Proof of purchase will be required.

#### WARRANTY SERVICE:

For warranty service, or repair/rebuild service, contact JT USA Customer Services. See instructions below.

### CONTACTING JT CUSTOMER SERVICE

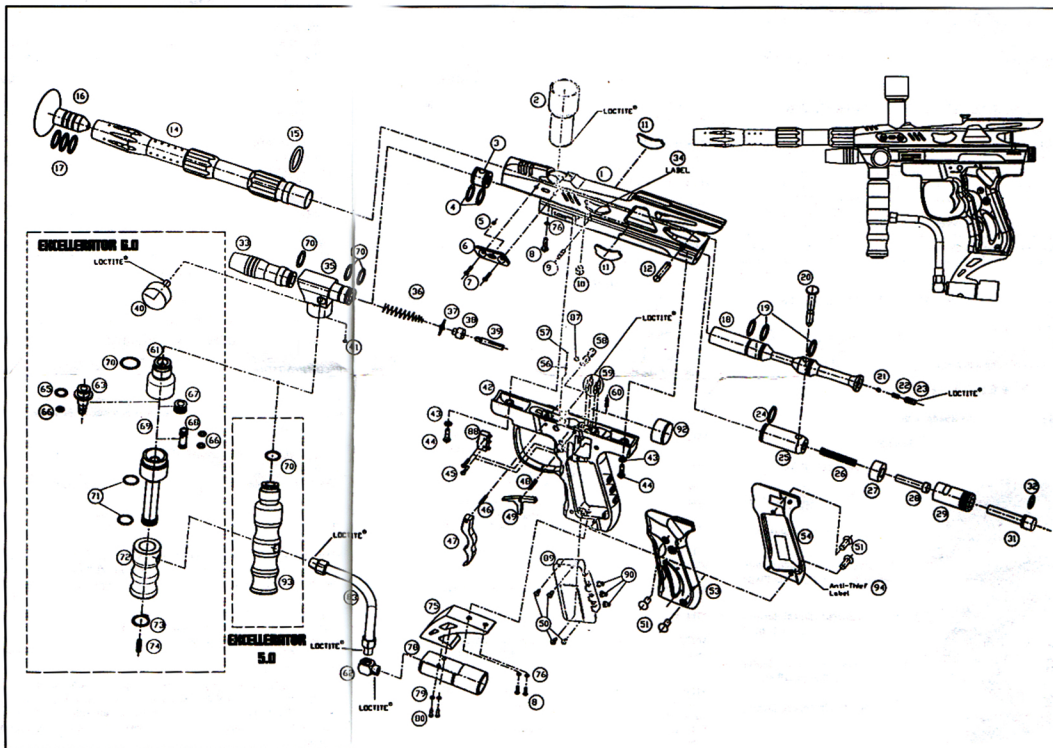
Contact JT USA Customer Services if you have any questions concerning your Excellerator Marker or any JT USA product.

STEP 1: Call Customer Service at (800) 587-2246.

STEP 2: Explain the information that you want or the problem that you have. In the case of a product return for repair or replacement, Customer Service will assign a Return Authorization (RA #) Number. This number is used to track your particular product return. Customer Service will explain how to return your product and the associated costs.

STEP 3: Warranty items should be sent to:

JT USA Customer Services  
 515 Main Street  
 Chula Vista CA 91911  
 PH# (800) 587-2246



### JT USA EXCELLERATORS 5.0 & 6.0 PARTS LIST

1 RECEIVER BODY	49 SEAR
2 VERTICAL FEED ADAPTER	50 PCB# SCREWS (4)
3 VALVE BODY	51 GRIP PANEL SCREWS (4)
4 VALVE BODY O-RINGS (2)	52
5 BALL STOP	53 GRIP PANEL (LEFT)
6 BALL STOP COVER	54 GRIP PANEL (RIGHT)
7 BALL STOP COV. SCREWS (2)	55
8 CA & DR. FORW. SCREWS (3)	56 SAFETY PIN SPRING
9 VALVE BODY PIN	57 SAFETY PIN STEEL BALL
10 VALVE BODY SCREW	58 SAFETY PIN
11 JT LOGO	59 SOLENOID SCREW (4) *
12 FIELD STRIP PIN	60 SEAR SPRING
13	61 REGULATOR BONNET
14 BARREL	62 EXP CHAM. 90 DEG. ELBOW
15 BARREL O-RING	63 REGULATOR PISTON
16 BARREL PLUG	64
17 BARREL PLUG O-RINGS (3)	65 REG. PISTON LARGE O-RING
18 BOB	66 REG. PISTON SMALL O-RING (3)
19 BOB O-RINGS (3)	67 REGULATOR SPRING
20 BOLT RELEASE PIN	68 REGULATOR ADJUSTER SLID
21 BOLT RELEASE PIN BALL	69 REGULATOR MAIN BODY
22 BOLT RELEASE SPRING	70 VOL. EXP CH & CA O-RINGS (4)
23 BOLT RELEASE SET SCREW	71 REGULATOR O-RINGS (2)
24 STRIKER O-RING	72 REGULATOR OUTER SLAVE
25 STRIKER	73 REGULATOR RETAINING RING
26 STRIKER SPRING	74 REGULATOR ADJUSTER SCREW
27 STRIKER BUMPER	75 DROP FORWARD
28 STRIKER SPRING GUIDE PIN	76 CA & DROP FORWARD WASHERS (3)
29 STRIKER PLUG	77
30	78 BOTTOM LINE ADAPTER
31 VELOCITY ADJUSTER SCREW	79 BOTTOM LINE WASHERS (2)
32 VEL. ADJ. SCREW O-RING	80 BOTTOM LINE SCREWS (2)
33 VOLUMIZER	81
34 WARNING LABEL	82
35 CA ADAPTER	83 PRESSURE LINE ASSEMBLY
36 VALVE SPRING	84
37 CUP SEAL GUIDE	85
38 CUP SEAL	86
39 VALVE PIN	87 SAFETY PIN O-RING
40 PRESSURE GAUGE	88 TRIGGER MICRO SWITCH
41 AIR FILTER SCREEN	89 PRINTED CIRCUIT BRD ASSMBY
42 TRIGGER FRAME	90 ELECT. CONTROL BUTTONS (3)
43 TRIGGER FRAME WASHERS (2)	91
44 TRIGGER FRAME SCREWS (2)	92 TRIGGER SOLENOID
45 TRIG. MICR SWIT. SCREWS (2)	93 EXPANSION CHAMBER
46 TRIGGER PIN	94 ANTI-THIEF LABEL
47 TRIGGER	95 1/8" ALLEN WRENCH
48 SEAR PIN	96 3/32" ALLEN WRENCH

\*FACTORY SET. DO NOT ALTER!  
 BOLD-FACED PARTS: EXCELLERATOR 6.0 UNIQUE PARTS