

KINGMAN

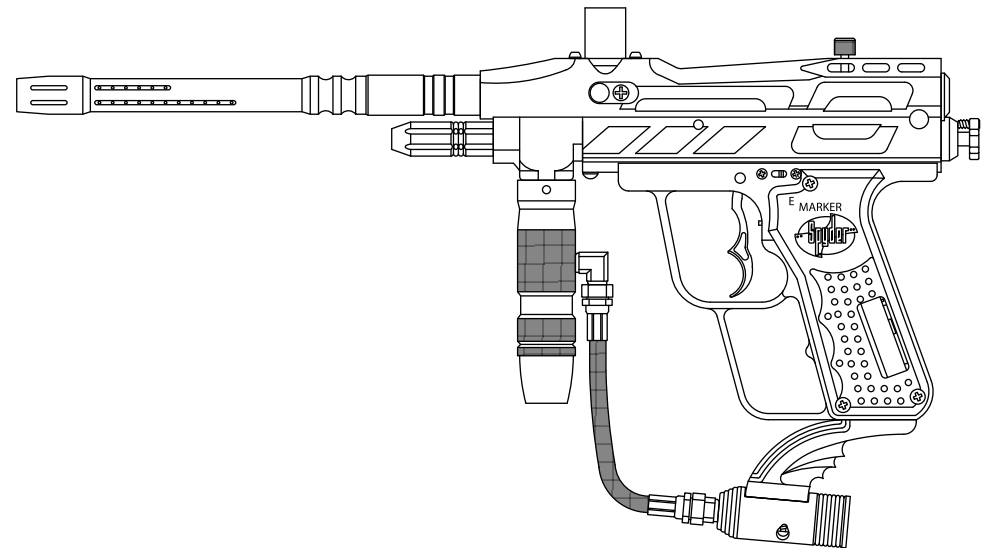
Kingman Group 14010 Live Oak Avenue, Baldwin Park, CA 91706, U.S.A.
Toll-free 888.KINGMAN

www.kingman.com



PILOT

USERS MANUAL



JAVA 9.6V RECHARGEABLE BATTERY & CHARGER INCLUDED

KINGMAN

14010 Live Oak Avenue, Baldwin Park, CA 91706, U.S.A.
Telephone: 626-430-2300 Fax: 626-851-8530
Website: www.kingman.com

CAUTION

- This paintball marker is NOT a toy. It can cause serious injury or death.
- Recommend at least 18 years of age to purchase this product.
- Install a barrel plug in the barrel when not actually playing.
- All persons using this product, or within range while this product is being used, must wear eye and face protection specifically designed for paintball.
- Never shoot a person who is not wearing proper protection.
- Treat every paintball marker as if it were loaded.
- Never look down the barrel of the marker.
- Keep the paintball marker on safe until ready to shoot.
- Always remove gas source before disassembly.
- Fire only 0.68 caliber paintballs from this product.
- Read this manual and air system warning before using this product.
- Transfer this instruction manual upon change of marker ownership.

IMPORTANT

- Firing velocity may vary according to altitude and climate conditions.
- BEFORE using your marker in play, you must always first perform a "SAFE VELOCITY TEST". This can only be accomplished by using a testing device called a "Velocity Chronograph" and can be performed by the dealership where you purchased this product or at a local paintball playing field.
- NOTE: This product is intended to be used at a velocity no greater than 300 feet per second (FPS).
- Recommended velocity is 280 FPS or less.
- This product is NOT intended to be used at any distance less than 25 feet.
- This paintball marker may have excess gas after removal of the tank. Please remove all paintballs and discharge the remaining gas safely.

CO2/HP AIR TANK WARNING

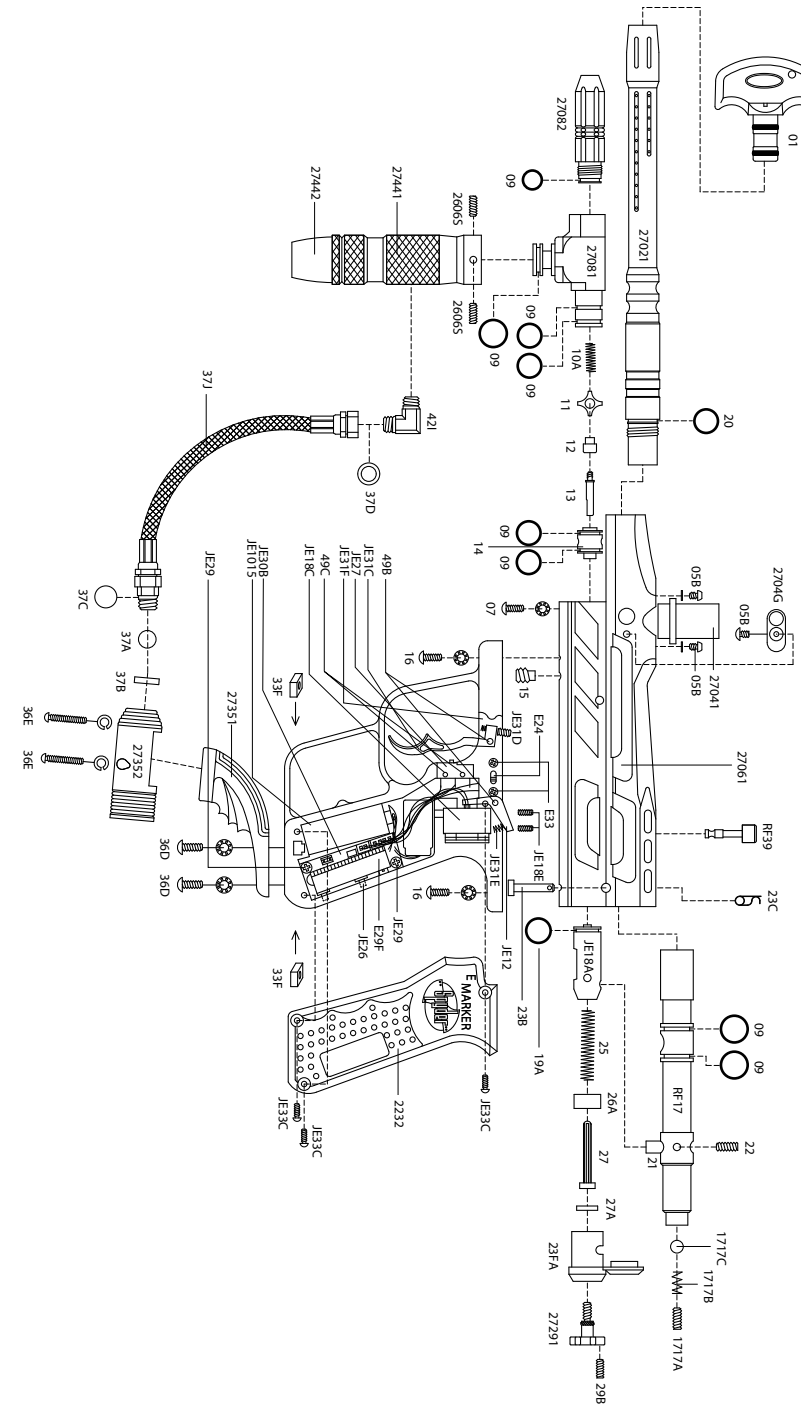


- **VALVES MUST BE INSTALLED OR REMOVED ONLY BY QUALIFIED PERSONNEL.**
- **BOTTLE MUST BE RETESTED SEE CO2/HP TANK LABEL FOR RETEST DATE!**
- Improper use, filling, storage or disposal of this cylinder may result in death, personal injury and property damage.
- This cylinder must be filled only by properly Trained personnel in accordance with CGA Pamphlets P.1 and G-6.3 available from the Compressed Gas Association
www.CGANET.COM
- Do not over pressurize. Do not expose pressurized cylinder to temperatures in excess of 130 degrees F.
- Do not expose cylinder to corrosive materials and do not clean with caustic cleaners.
- Do not alter this cylinder in any way.
- Cylinders heated to a temperature of 250 degrees For more must be condemned or re-qualified in accordance with test defined in CFR-49.
- Keep cylinder out of reach of children.
- The valve should NEVER be detached from the canister. Should this occur, please seek assistance from a trained airsmith immediately.
- This tank is intended for paintball use only.

Spyder Pilot

ITEM #	NAME OF PARTS
01	Spyder Barrel Plug
27021	12" Barrel (Silver)
2704G	Ball Stopper w/ Detent Cover (Silver)
05B	M4 x 6 Screw (Silver)
27041	Direct Feed (Silver)
27061	Receiver (Sky Blue)
07	M5 x 14 Screw w/ Washer
27081	Vertical Adapter (Sky Blue)
27082	Low Pressure Chamber (Sky Blue)
09	O-Ring #015 80D
10A	Valve Spring
11	Cup Seal Guide
12	Cup Seal
13	Valve Pin
14	Valve Body
15	Valve Body Screw
16	Frame Screw M5 x 12 Screw
RF17	Venturi Cocking Bolt
1717A	Retaining Screw
1717B	Retaining Spring
1717C	Retaining Bearing
19A	Striker O-Ring
20	Barrel O-Ring
21	Bolt Pin
22	Bolt Screw
23B	Quick Disconnect Pin
23C	Disconnect Pin Lock
23FA	Striker Bolt Plug (Silver)
25	Striker Spring
26A	Striker Buffer
27	Striker Spring Guide
27A	Flat Disc
27291	Thumb Adjuster w/ screw (Sky Blue)
29B	Lock Screw
2232	Rubber Grip Panel (Black)
33F	Nut Screw

ITEM #	NAME OF PARTS
27352	C/A Adapter (Sky Blue)
2606S	Expansion Chamber Lock Screw
2235L	Deluxe Drop Forward (Silver)
36D	5/32" x 5/8" Screw
36E	5/32" x 7/8" Screw (Black)
37A	Filter O-Ring
37B	Air Filter
37C	Disconnect O-Ring #011
37D	Plastic Washer
37J	Disconnect Hose
2741	Spare Parts Kit
42I	90 Male to Male Adapter
27441	Expansion Chamber (Sky Blue)
27442	Mini Fore Grip (Sky Blue)
49B	Trigger Roll Pin
49C	Touch Switch Roll Pin
E24	On/Off Switch with wiring harnesses
E24A	Battery harness
E29F	C.A.M.D Circuit Board
E33	On/Off Screw (M2 x 6 Screw)
JE1015	Java 9.6v Rechargeable Battery
JE12	Trigger Sear
JE18A	Striker Bolt
JE18C	Coil Set
JE18E	Coil Set Screw
JE26	Charge Pin
JE27	Touch Switch
JE28D	IPI-Tack Switch
JE29	Circuit Board Screw
JE30B	Tournament Lock Switch
JE31C	Trigger
JE31D	Trigger Adjust Screw
JE31E	Sear Spring
JE31F	Trigger Spring
JE33C	Grip Cover Screws (M3 x 10)



SPYDER Pilot Parts List

OPERATION GUIDE

- 1) Put the marker on 'SAFE' by pushing the on/off switch to the right. The marker is now off. To power on the marker, push the on/off switch to the left. CAUTION: with the power on, the electronic circuit board is now powered on and ready to shoot.
- 2) Cock the marker by pulling the Pilot Venturi Cocking Bolt (#RF17) rearward until it latches. Caution: if you let go before it latches, your marker may fire.
- 3) Tighten the air tank until it is snug. If a leak occurs between the tank and the C/A adapter, replace the tank o-ring.
- 4) Install a 7/8th vertical elbow with loader onto the direct feed. Fill the loader with .68 caliber paintballs only.
- 5) Please refer to the C.A.M.D. mode settings guide on page 6,7 to set the R.O.F. and mode in the grip frame.
- 6) With the safety off, fire the marker by pulling the trigger.
- 7) Only use lubrication specifically designed for paintball markers. To lubricate your marker, you will need to disassemble your marker (please note how parts are removed from marker as this will ease re-assembly). Remove the Disconnect Lock Pin (#23C) and the Quick Disconnect Pin (#23B). Hold down the Striker Plug (#23FA) and Thumb Adjuster (#27291), as internal parts may be spring-loaded. As you pull the cocking knob out of the receiver, the Venturi-Cocking Bolt (#RF17) and striker (#JE18A) will also be removed.
- 8) Lubricate o-rings #9 and #19A with a few drops of paintball oil only.
- 9) Re-assemble parts back into the marker. Note: when putting the Venturi-Cocking Bolt and striker back into the marker, you will need to apply pressure behind the bolt while pushing the movable disc of the coil set (#JB18C) forward to the limit at the same time. (right now the battery side grip must be opened) This will allow the bolt and striker to be properly installed back into the receiver.
- 10) When you are finished shooting the marker, first, unload the marker of all paintballs . NOTE: there may be a ball in the receiver; take a couple of shots in a safe direction to make sure that the barrel and receiver are empty. Second, put the barrel plug into the barrel. Put the safety on and slowly unscrew the air source tank. Caution: do not unscrew the tank valve from the tank. Doing so may cause serious injury or death.
- 11) Empty the hopper or remove the hopper off the marker to stop the flow of paintballs in the marker.
- 12) **Adjusting the trigger pull** – You may adjust the trigger pull on your marker by turning the Trigger Adjust Screw (JE31D). Follow these steps to access the trigger adjust screw:
 - (1) Remove the two frame screws (#16/#16D) that connect the grip frame to the receiver.
 - (2) Look inside the trigger frame to find the Trigger Adjust Screw. This is a small screw connected to one end of the trigger.
 - (3) Turn the Trigger Adjust Screw counterclockwise to turn the screw slightly out of the trigger. This will shorten the trigger pull.
 - (4) **CAUTION:** Do not over adjust and shorten the trigger pull too much as this will cause the trigger to be too sensitive and function improperly.
 - (5) Reassemble marker.

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CHARGING INSTRUCTION AND SPECIFICATIONS FOR RECHARGEABLE BATTERY

The battery to be used with your frame is a specially designed 9.6Volt NiMH Battery. To maximize the life of the battery, please read the following instructions before use.

CONNECTING THE BATTERY

Remove the left E-Marker grip cover (part#2232). The battery terminal is located to the left of the circuit board. Attach the battery to the battery connectors by aligning the + (positive) on the battery connector to the + (positive) on the battery.

THE CHARGER FOR THIS BATTERY

This charger is specially designed for a 9.6Volt rechargeable battery. Five types of chargers will be available from your Kingman Dealer:

1. Java Rapid Standard Indoor 110v A/C Charger (#JE1026)
2. Java Rapid Car Charger (#JE1022)
3. Java Standard Indoor 110v A/C Charger (#JE1024)
4. Java Standard 2B Indoor Charger (#JE1023)
5. Java Standard Indoor 220v A/C Charger (JE1025)

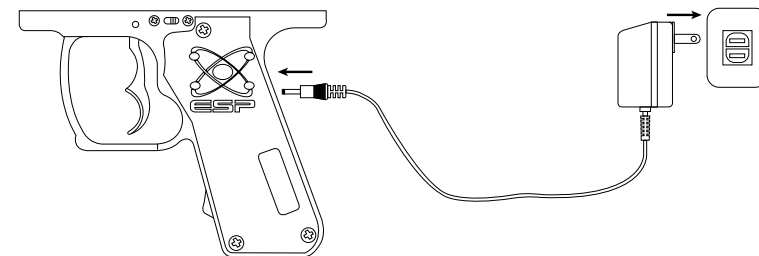
Using a Rapid Charger it will take approximately one and a half hours to fully charge the JAVA 9.6 battery. It will take approximately 5-6 hours for the standard chargers.

WARNING

Using other unspecified batteries or chargers can cause damage to the circuit board. This will void all warranty and liability from Kingman. Please use only Java 9.6 volt NiMH rechargeable battery (Part # JE1015) and Java chargers.

RECHARGING THE BATTERY AFTER INITIAL USE

A fully charged battery will provide about 8000-12000 shots in normal use. The actual shots will depend on the markers and the type of use. Due to the characteristics of the NiMH battery, it won't be necessary to completely drain the battery before recharging it. So, you can charge the battery any time you want and the time needed to the full charge will depend on how much energy is left in the battery. The more energy left in the battery, the sooner it will achieve a full charge.



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Color Access Mode Display (C.A.M.D) Specifications & Operation Diagram

1. The C.A.M.D has one push key for adjustment and 1 Color Display Panel to display all kinds of function.

2. For "MODE" indicator, the C.A.M.D shows following functions:

- (1). SEMI: Semi Auto Mode
- (2). BUR 3: Burst-3 Mode
- (3). BUR 6: Burst-6 Mode
- (4). AUTO: Full Auto Mode

3. For "R.O.F." display, the rate of fire can be adjusted from "6" to "13", that is the rate of fire will be ranged from 6 shots per second to 13 shots per second. But for "SEMI" mode, the "R.O.F." display will be fixed on "13" for reactive trigger response up to 13 shots per second.

4. When Power is turned ON, the defaults will be Mode = "SEMI" and "R.O.F" = "13". All settings can be adjusted while power remain ON. Any adjustments will be lost when Power turns OFF.

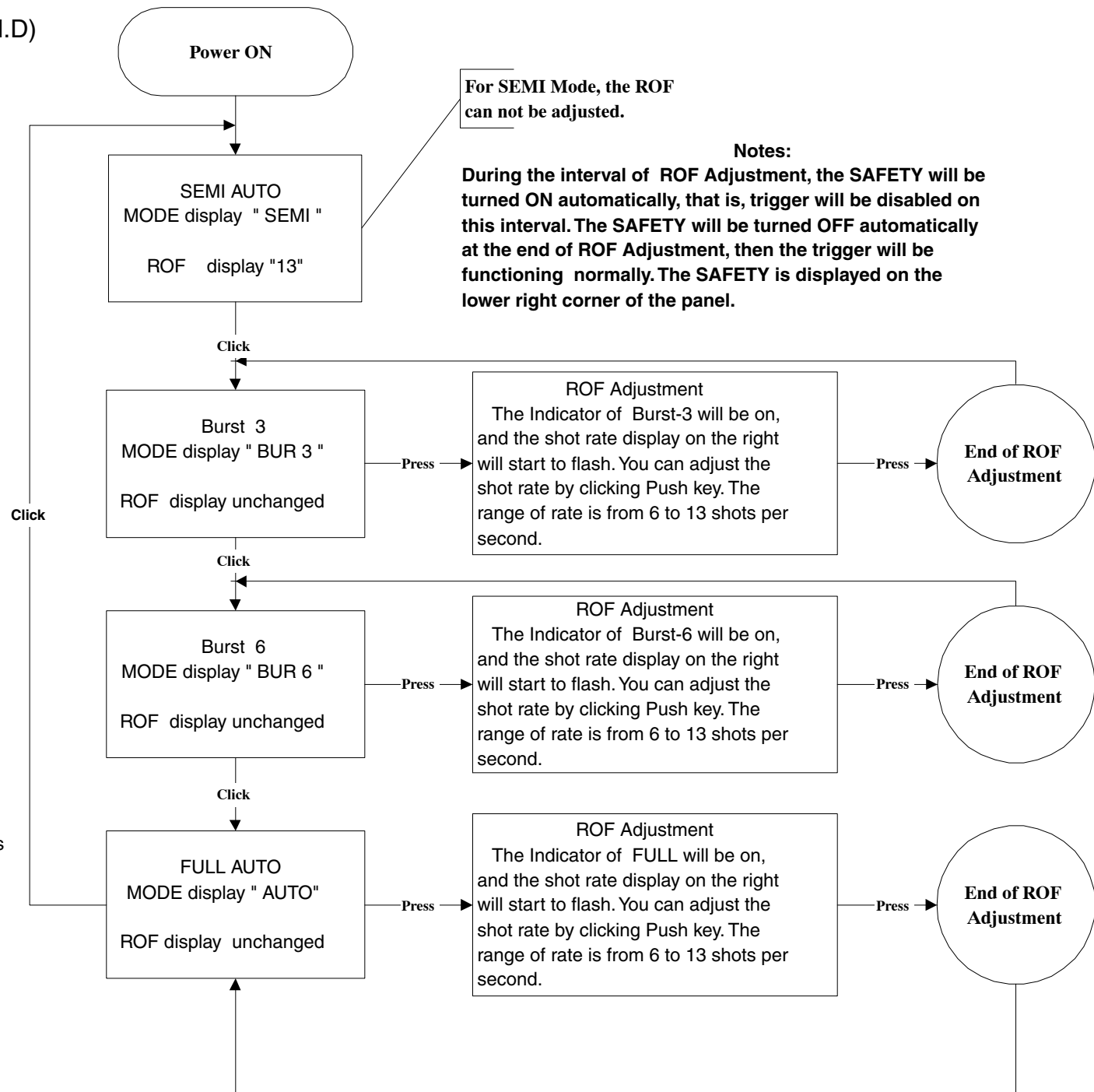
5. The Battery pattern on the panel is used for "Battery Low" Indicator, and will stay OFF during normal operations. When the capacity of battery drops to about 1/3 of the battery full capacity, this indicator will be turned ON.

6. The C.A.M.D is also equipped with a "LOCK" function. A short-circuit plug located on the internal circuit board serves this function. When this plug had been pull off, the MODE will be locked to SEMI, and cannot be adjusted.

7. Operation Methods:

Press, Push and hold the key for over 2 seconds, then release the key.

Click, Push and then release the key. The duration should be less than 1 seconds.



NOTICE:

It is recommended that the battery be charged prior to use to ensure the maximum capacity if you leave the battery unused for over a week.

LIFE OF BATTERY

With the qualified Charger, and in normal use conditions, about 700 – 1000 charge-recharge cycles can be expected. This be varied depending on the type of use.

GENERAL MAINTENANCE

1. Use compressed air to clean the coil set after every use (part no. #JE18C) to maintain performance.
2. Beside step (1), cleaning should only be performed on the exterior of the E-Marker frame. Never submerge the E-Marker frame in any type of liquid for any reason. The electronics may become damaged or destroyed. Keep water or cleaning solution from entering the inside of the Pilot frame. Solvents should not be used to clean any part of the Pilot frame.
3. Always use the appropriate tool to remove screws and other components of the Pilot frame.
4. **DO NOT DRY FIRE.**

TOURNAMENT MODE SETTING

The Pilot circuit board – (C.A.M.D.) part #E29F also equipped with a “LOCK” function. A short-circuit plug (JE30B) located on the internal circuit board serves this function. When this plug had been pulled out, the MODE will be locked to SEMI, (single shot mode) and cannot be adjusted. Putting the lock switch (JE30B) back into the circuit board will enable the multi-mode functions. **IMPORTANT!** For optimal performance, Kingman recommends that an agitator loader or hopper be used in order to shoot at high rate of fire. Kingman also recommends to use JAVA CO₂ Air Tank or High Pressure Air Tank and tournament grade paint.

I. TROUBLESHOOTING

ONE OR MORE OF THE FOLLOWING MAY CAUSE RECOCKING RELATED PROBLEMS:

- a. The pressure in the tank is too low or too high.
- b. Need lubrication. (See OPERATION GUIDE in P4)
- c. #19A (striker o-ring) is damaged. Replace with new Kingman or Kingman-approved o-ring. (NOTE: the #19A O-ring cannot be substituted by a tank o-ring or a #9 o-ring).
- d. Need to clean barrel and upper chamber or the receiver.
- e. Paintball may be defective (i.e. expired, change shape)
- f. #9 (bolt o-ring) is damaged or the o-ring has expanded or swelled. Replace with a new o-ring.
- g. After ball breaks, remove all parts from UPPER chamber of receiver, wipe parts clean, and reassemble parts into receiver. Also make sure to clean barrel with squeegee.

II. HELPFUL HINTS

Always remove air tank before any disassembly of your marker. DO NOT remove #14 (valve body) unless specific valve body repairs are needed. If needed, remove valve body with a long, soft-tipped object such as the eraser end of a pencil. DO NOT remove the valve body with a screwdriver as it will damage the valve body and cause air leaks. (Note: #15 screw must be removed prior to taking out the valve body).

Air leaks are usually cause by a damaged valve body or damaged cup seal (#12). Replace with new valve body and/or cup seal if necessary.

To assure marker is assembled properly, follow the schematic drawing or place parts in order during disassembly. Parts assembled backwards or placed in the wrong order will cause marker to malfunction.

III. ELECTRONIC GRIP TROUBLESHOOTING

- a. Check to make sure there is enough air pressure to fire the marker.
- b. Battery may need to be recharged.
- c. Specific troubleshooting questions may be answered by calling toll free at (888) KINGMAN or (626) 430-2300.

WARRANTY STATEMENT

Kingman warranties to the original customer purchaser that this product is free from defects in material and workmanship under normal use and service for a period of 12 months from the original date of purchase by the initial owner/purchaser. For warranty to be effective, customer must return the enclosed warranty registration card, along with a copy of the purchase receipt, within fifteen days of purchase. Kingman agrees to repair or replace (at its discretion) any product within a reasonable period of time. **This warranty does not cover** o-rings, 9.6v rechargeable battery, charger, scratches, nicks, normal wear and tear of parts, any modifications or normal fading of anodizing or damage caused by dropping or hitting of products. This warranty shall not apply if it is shown by Kingman that the consumer caused the defect or malfunction because of misuse. This warranty only covers original factory parts. Any modifications or tampering of original factory parts will not be covered by this warranty. Any damage caused by water will not be covered by this warranty. Warranty work can only be conducted by Kingman technician or Kingman authorized technicians. If product needs repair, package it carefully and send together with your name, address, phone number and a brief description of the malfunction to:

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Phone no.: 626.430.2300
Fax no.: 626.851.8530

Website: www.kingman.com

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KINGMAN GROUP

Warranty Registration

PLEASE COMPLETE AND RETURN THIS FORM, ALONG WITH A COPY OF YOUR PURCHASE RECEIPT, WITHIN 15 DAYS OF PURCHASE SO THAT WE MAY VALIDATE YOUR ONE YEAR LIMITED WARRANTY.

Mail to: Kingman Group
14010 Live Oak Avenue,
Baldwin Park, CA 91706 U.S.A.

Name	Telephone ()		
Address			
City	State	Zip	Country
Your age	E-mail address	Occupation	
Product name and model			
What other brand(s) of markers do you own?			
Why did you purchase this Kingman marker?			
Avg # of times you play paintball per month			
What is the next paintball product you intend to buy?			
What are your hobbies (other than paintball)?			
What are some magazines you like to read?			
Have you purchased products from the Internet within the last 6 months?			
Comments/Suggestions:			

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