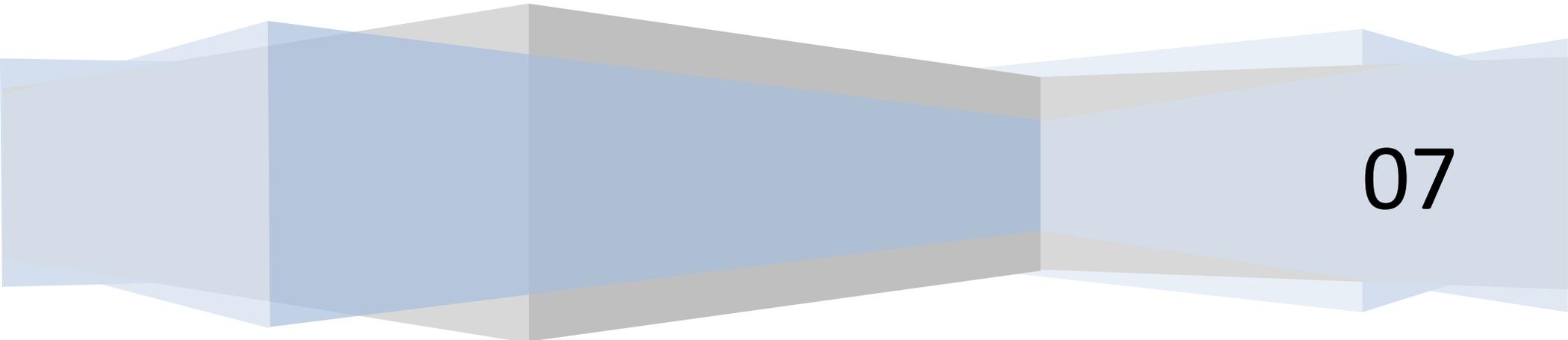


Surgical Strike Paintball

Leak Diagnosis Aid

Angel A1

Michael Kramer – Certified A1 Tech



07



WARNING
Do not attempt to carry out any routine maintenance or servicing until you have read and fully understand the Angel 1 operator's manual supplied with your marker.

A leak from the connection between the high pressure hose and its fitting will be caused by wear to the hose, remove the hose from the fitting and trim it square with a sharp knife so that a new section of hose is in place. It may be required to replace the hose fully if its length is too short to trim and still be pushed fully and firmly into place.

A leak from between the high pressure gas fitting and the fore grip end cap will be caused by a failure in the lock tite used to secure the high pressure fitting in place. Remove the high pressure fitting from the end cap and re apply the appropriate strength loc tite high pressure sealant and allow to cure to seal the fitting back into place.



Regular updates and new product information relating to your Angel 1 can be found [here](#).
As well a [LIST OF DEALERS](#) can be found [here](#).
If you require technical assistance or have any Angel related questions or queries you can contact any of the following technical support. Click below to email one of our Tech support centers.

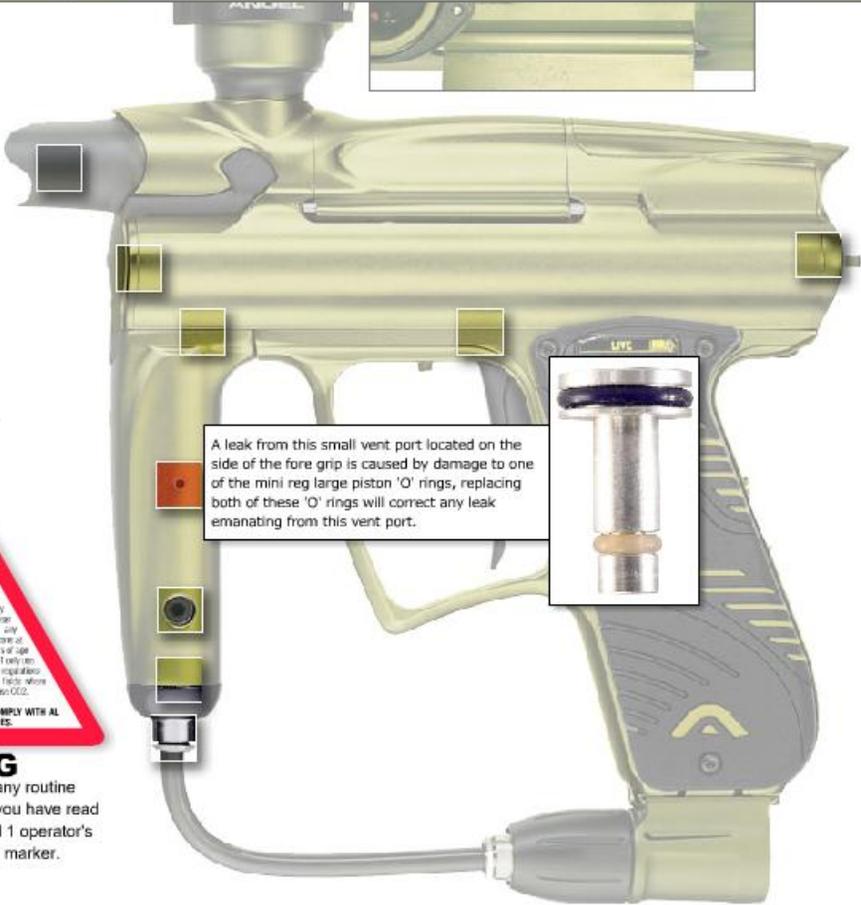
- [West Coast USA](#)
- [East Coast USA](#)
- [Europe](#)
- [Rest of the World](#)



A leak from between the fore grip and the fore grip end cap will be caused by the end cap being loose, or the end cap 'O' ring being cut or damaged or out of its retention groove, replacing this 'O' ring and ensuring it is correctly located within its location groove will correct this.



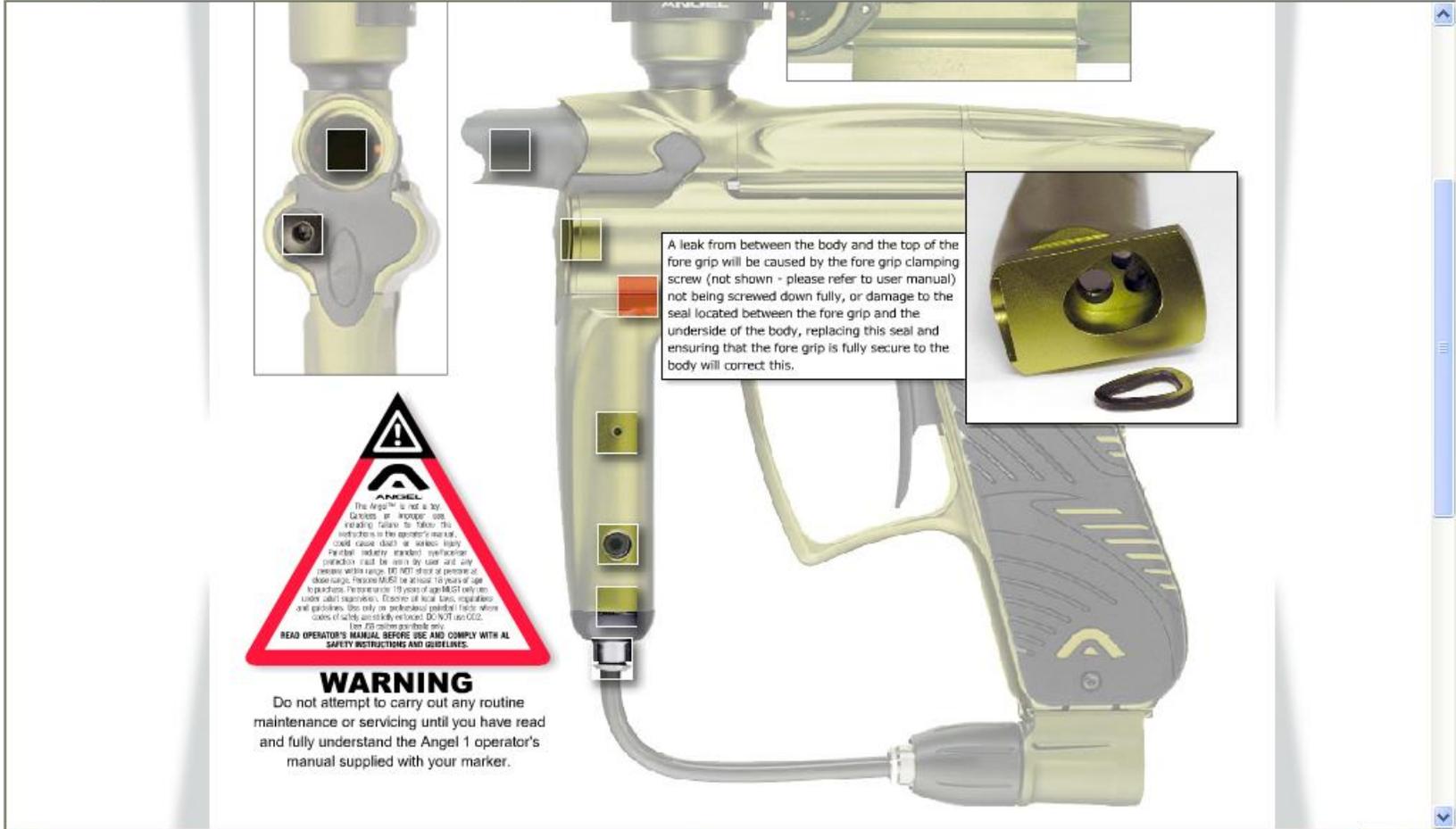
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A leak from this small vent port located on the side of the fore grip is caused by damage to one of the mini reg large piston 'O' rings, replacing both of these 'O' rings will correct any leak emanating from this vent port.



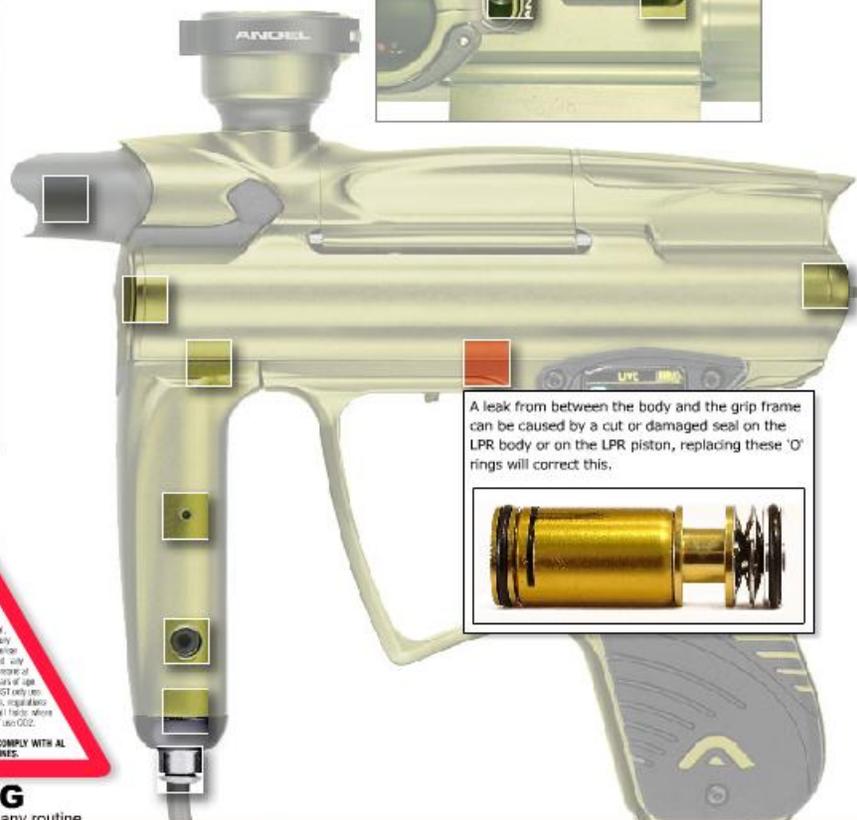
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ANGEL 1

LEAK DIAGNOSIS AID



A leak from between the body and the grip frame can be caused by a cut or damaged seal on the LPR body or on the LPR piston, replacing these 'O' rings will correct this.

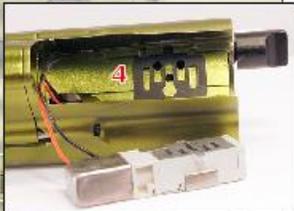


WARNING

Do not attempt to carry out any routine



A leak from the back of the Angel can be caused by a cut or nick to the rearmost ram body 'O' ring **3**, replacing this 'O' ring will correct this.



A leak from the back of the Angel can be caused by a cut or damaged solenoid gasket **4**, a solenoid not clamped down enough, or damage to one of the internal seals inside the solenoid. This can be corrected by changing the gasket **4** that sits between the solenoid and the body, checking to see if the solenoid is clamped down fully, or replacing the solenoid.



A leak from the back may be caused by an over pressurizing LPR this can be caused by damage to the internal face seal **5**. Replacing this portion of the LPR will return the pressure back to its normal range and will correct this leak.

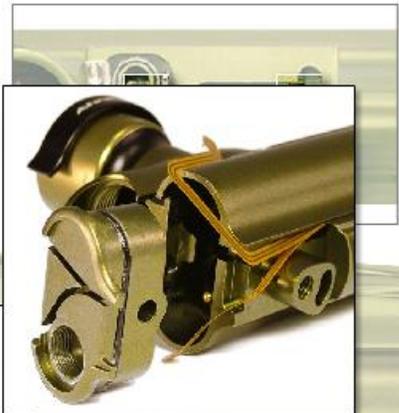


WARNING

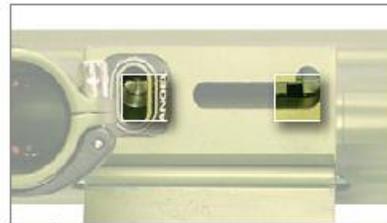
Do not attempt to carry out any routine



A leak from between the front chamber plug and the main body will be due to the front plug 'O' ring. Replacing the front plug 'O' ring will correct this.



WARNING
Do not attempt to carry out any routine



If a leak from the barrel is experienced it will be due to a leak from the **exhaust valve stem/guide assembly** or the **ram** (see inset above). The breech will need to be opened and further investigation will be required to determine the source of the leak.



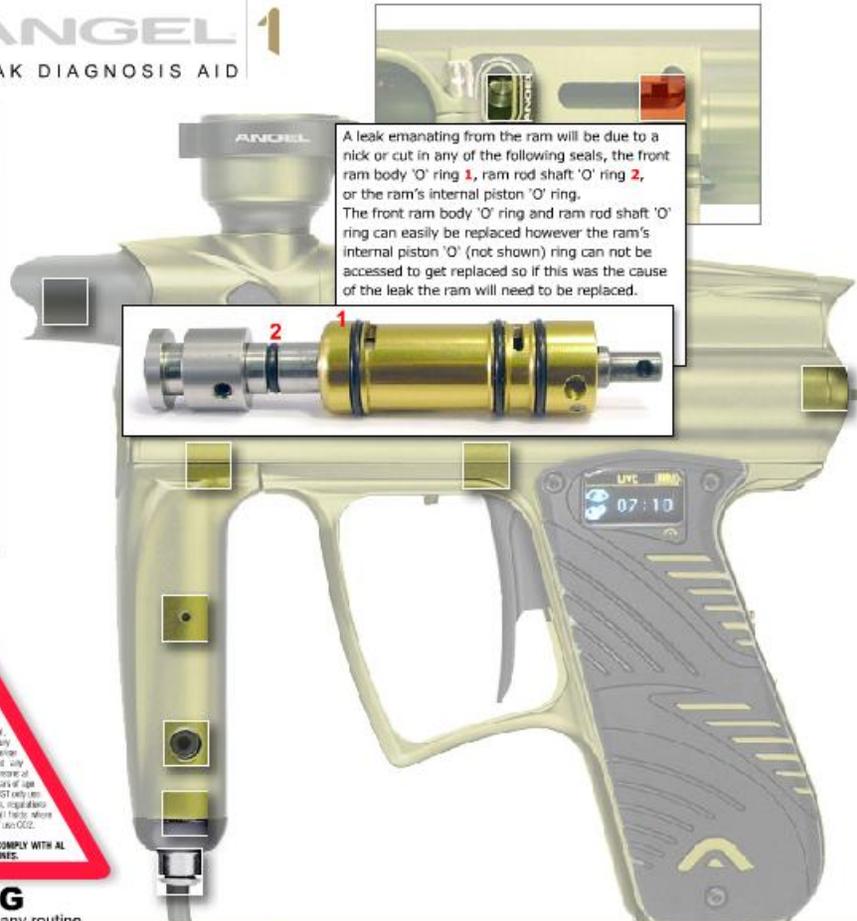
WARNING

Do not attempt to carry out any routine



WARNING

Do not attempt to carry out any routine

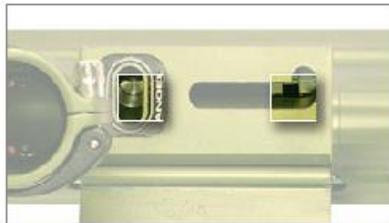


A leak emanating from the ram will be due to a nick or cut in any of the following seals, the front ram body 'O' ring **1**, ram rod shaft 'O' ring **2**, or the ram's internal piston 'O' ring. The front ram body 'O' ring and ram rod shaft 'O' ring can easily be replaced however the ram's internal piston 'O' (not shown) ring can not be accessed to get replaced so if this was the cause of the leak the ram will need to be replaced.



WARNING

Do not attempt to carry out any routine



A leak from the exhaust valve chamber maintenance plug will be due to the chamber plug 'O' ring, replacing this chamber plug 'O' ring will correct this issue.



WARNING

Do not attempt to carry out any routine