



ATTENTION

Misuse or Unsafe Conduct of this product may cause injury or death. Eye protection must always be used by anyone within firing range of the regulator when the regulator is pressurised or being serviced. Read owner's manual prior to use and always have repairs and adjustments carried out by a qualified person.

OWNER'S MANUAL

Thank you for purchasing your new Gladiatair WARRIAIR regulator. This owner's manual is to be used as a guide for safety and installation as well as providing some technical details for pressure change and filling.

SAFETY

The Warriair regulator is fitted with both high (4.5K / 6.7K) and low (1.8K) pressure burst discs compatible with international regulations. These burst discs provide safety to the user and will vent the cylinder should there be a failure in the regulator or when the cylinder exceeds its test pressure.

The LP burst disc will rupture upon a failure in the regulator or issue with flow through the marker, while the HP burst disc will rupture if the cylinder is filled beyond its test pressure.

Ensure the regulator is rated for your cylinder type. Do not use 4500 PSI Regulators on Aluminium cylinders or 3000 PSI Regulators on

Composite cylinders and ensure the regulator is rated for your cylinder type. The markings on your cylinder do provide the service pressure of the cylinder.

The Warriair regulator comes with a safety groove on the inlet thread. This groove allows air to be vented from the cylinder should the regulator be removed from the cylinder with pressurised air still present. This would otherwise cause the regulator to be projectiled out of the cylinder at a forceful speed.

Always ensure the filling process is carried out by a qualified professional using compressed, dry air only.

The regulator is to always be kept clear of moisture, oils, grease, lubricants and dirt. Oil residue or vapours in a cylinder can cause a large explosion during filling as the pressure increases, resulting in serious injury or death. It is **CRITICAL** to never clean the regulator with oil-based products.

INSTALLATION

- Remove rubber dust cover from outlet thread of regulator. Inspect the regulator checking that there is no physical damage. Remove any debris from inlet and outlet threads (**Do NOT install regulator if damage is present**).
- It is best practice to check the overall condition of your cylinder prior to installing the regulator. Confirm the cylinder is safe for service and free of any dust particles or contamination. The hydrostatic and inspection test dates must be current and the cylinder neck thread must be a match to the inlet thread of the regulator.

The cylinder thread is present on the cylinder markings while the regulator thread is on the regulator body. All GladiatAir cylinders and regulators have a 5/8" – 18 UNF thread. Alternatively, a go/no-go gauge can be used to check the cylinder neck thread.

- Ensure the regulator being installed matches the service pressure of the cylinder. 3K Warriair regulator should be installed on cylinders with a 3000 PSI service pressure. 4.5K Warriair regulator should be installed on a cylinder with 4500 PSI service pressure. (**Failure to do so may result in serious injury or death**).
- It is recommended that a small amount of Loctite 243 is placed on the threads below the O-Ring prior to installing the regulator. Follow the manufacturer's instructions and avoid getting Loctite on the O-Ring, inside the regulator or in the safety grooves.

- Wind regulator into the cylinder neck slowly and verify there are no obstructions. The regulator should be able to wind through the cylinder neck thread with minimal force. If the regulator finds a sticking point and stops turning, remove regulator, re-inspect and clean threads before trying again. If the regulator catches a second time or becomes stuck, contact your cylinder supplier immediately.
- Check the regulator is fully seated in the thread. The body of the regulator should meet the top of the cylinder neck (**Do not use if a gap can be seen between regulator and cylinder**).

If the cylinder neck and regulator do not meet flush, ensure that the O-Ring is the correct size.

- Once the regulator has been installed correctly by hand, torque the regulator onto the cylinder.
- The recommended torque setting for the Warriair regulator is 550KGF.CM
- After the regulator has been installed, allow Loctite 243 to cure. Refer to manufacturer's guidelines for curing times.

TECHNICAL

PLEASE NOTE, IT IS ESSENTIAL THAT ANY MAINTENANCE OR ADJUSTMENT WORK IS CARRIED OUT BY AN EXPERIENCED PROFESSIONAL. SERIOUS INJURY OR DEATH CAN OCCUR WHEN A REGULATOR IS INCORRECTLY ASSEMBLED. FOR SAFETY & RELIABILITY, USE ONLY GLADIATAIR SPARE PARTS WHEN UNDERTAKING MAINTENANCE.

BURST DISCS

Both 3K and 4.5K Warriair regulators are fitted with a 1.8K LP burst disc. The 3K has a 4.5K HP burst disc, while the 4.5K has a 6.7K burst disc. In the event a burst disc ruptures and requires replacing, please use the following instructions.

- Remove old burst disc with a 3/8" socket and socket wrench and discard old burst disc.
- Inspect the female port, ensure threads are intact and clean of debris, blow out with clean compressed air if necessary.
- Screw in replacement burst disc and torque to 100KGF.CM for 1.8K and 115KGF.CM for 4.5K/6.7K. (**Always ensure replacement burst discs are genuine GladiatAir products designed for the Warriair Regulator and the value on the burst disc matches the marking on the regulator.**)

O-RINGS

The Warriair regulator will contain numerous internal and external O-Rings, however 1 internal and 2 external O-Rings may need changing at any given time. For changing of external O-Rings on inlet and outlet thread, see following instructions. (Refer to pressure adjustment section for internal O-Rings).

- Remove O-Ring from groove using an O-Ring removal tool.
- Inspect groove to ensure no damage or debris will affect the sealing face.
- Install new O-Ring (**Always establish that the O-Ring is correct size, hardness and material**).

FILL ADAPTER

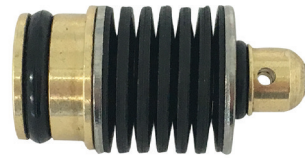
The Warriair regulator fill adapter comes with an inlet filter to minimise the risk of contamination during the filling process. To replace the Warriair fill adapter, please use the following instructions:

1. Remove old fill adapter using 7/16" spanner.
2. Inspect the female port, ensure threads are intact and clean of debris, blow out with clean compressed air if necessary.
3. The fill adapter assembly will consist of adapter, spring and pin with O-Ring. Insert the spring into the female port on the regulator and pin into adapter with the narrow end facing away from the regulator, tighten by hand and then torque to 120 KGF.CM.

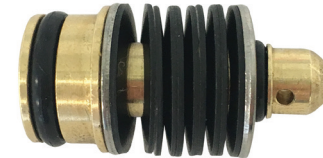
PRESSURE ADJUSTMENT

The Warriair regulator comes with a standard outlet pressure of 900-700 PSI; however, a lower outlet pressure of 600-400 PSI can be achieved if desired. This is adjustable by removing the internal disc springs from the regulator. Use the following instructions.

1. Remove grub screws from regulator using 5/64" hex key, unscrew bonnet from regulator body.



Standard Pressure Configuration



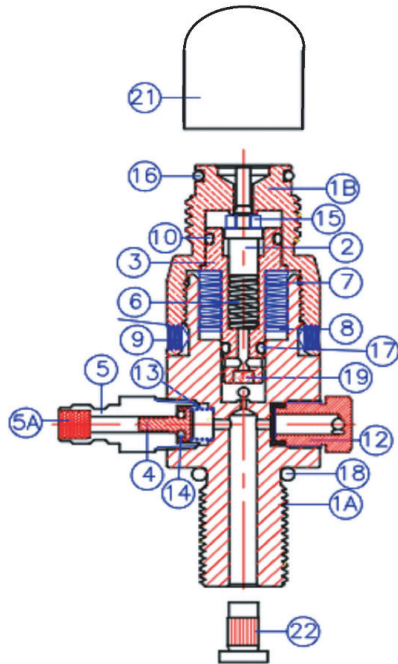
Low Pressure Configuration

2. Remove axle, spring and piston assembly from regulator (At this point, upper piston O-Ring can be replaced using instructions above in O-Ring Section)
3. Remove lower piston O-Ring with O-Ring removal tool, carefully remove the flat washer, followed by 2 disc springs.
4. Replace flat washer and install a new lower piston O-Ring.

5. Carefully reassemble regulator by putting piston assembly back inside the regulator body with seat facing downwards. Insert spring and pin back into piston assembly with the narrow end pointing to the top.
6. Install bonnet back to regulator body, ensure pin is protruding on regulator outlet.
7. Replace grub screws with 5/64" hex key.



SERVICE DRAWING AND PARTS



#	Part	Material	Qty
1A	Body A	A6061	1
1B	Body B	A6061	1
2	Axle Leading	C3604	1
3	Piston	C3604	1
4	Valve Axle	C3604	1
5	Adaptor	SUS303	1
5A	Filter Block	Brass	1
6	Spring	SUS304	1
7	Disc Spring	1085	12
8	Washer	SUS304	2
9	Screw	SCM345	2
10	O-Ring	PU	1

#	Part	Material	Qty
11	Gauge		1
12	Burst Disc	201 Nickel	2
13	Spring	SUS304	1
14	O-Ring	NBR	1
15	Gasket	PU	1
16	O-Ring	PU	1
17	O-Ring	NBR	1
18	O-Ring	NBR	1
19	Teflon Disc	PTFE	1
20	Dust Cover	TPR	1
21	Protect Cover	PVC	1
22	Limit Flow	C3604	1