

Modul + Air

General Instructions

WARNING! The following instructions must be carried out as stated to avoid injury or damage to the equipment.

PRE-USE CHECKS

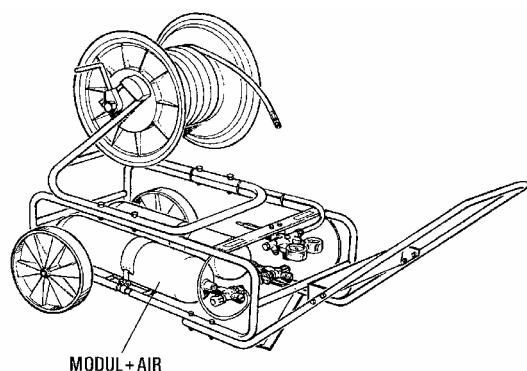
Replacing Cylinders

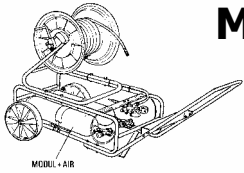
- 1 Ensure that the cylinder valve is closed and open the connector bleed screw.
- 2 Unscrew the hand wheel connector from the cylinder valve.
- 3 With the frame horizontal to support the cylinder, release the cylinder band catch and remove the cylinder.
- 4 Slide the fully charged cylinder into the frame, ensuring that it is correctly located and is firmly against the end of the frame.
- 5 Fasten the cylinder band and secure the cam-lock fastener by turning the butterfly catch 90° clockwise and folding the catch flat. (if necessary, minor adjustments can be made by rotating the cam-lock fastener: clockwise to tighten and anti-clockwise to loosen).
- 6 Close the bleed screw, then fit and tighten the hand wheel connector firmly.

Leak Test

Warning: Apparatus that fails the leak test must be withdrawn from service. An explanatory note should be attached and the unit returned for servicing.

- 1 Ensure both compressed air cylinders valves are closed.
- 2 Open, then close, the bleed screws on all cylinder connectors.
- 3 Open cylinder 'A' valve slowly and pressurise the system.
- 4 Use the High Pressure (HP) gauge to check that the cylinder is at least 80% full (160 bar for 200 bar cylinders and 240 bar for 300 bar cylinders), and that the MP gauge indicates between 6.0 and 7.0 bar.
- 5 Close the cylinder valve.
- 6 Open Cylinder 'B' connector bleed screw and check that: the non-return valve is not stuck open and that no compressed air escapes.
- 7 For a period of one minute check that the cylinder pressure on the HP gauge does not drop by more than 10 bar.
- 8 Close Cylinder 'B' bleed screw.
- 9 Using a suitable breathing apparatus, vent all the pressurised air from the system. Open Cylinder 'A' bleed screw and, vent the cylinder connector hose. Close the bleed screw on completion.
- 10 Repeat Steps 3 to 8 for Cylinder 'B'.





Modul + Air cont...

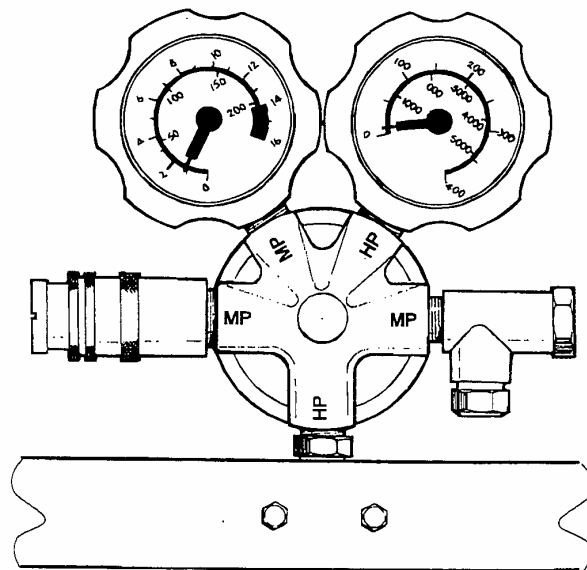
General Installation Instructions

WARNING! The following instructions must be carried out as stated to avoid injury or damage to the equipment.

PRE-USE CHECKS

Whistle test

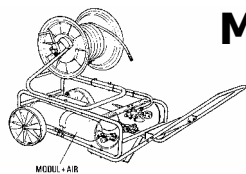
- 1 Charge the cylinder from either cylinder.
- 2 Close the cylinder valve, and, with the system still pressurised, connect a suitable breathing apparatus to the hose outlet. Pull the coupling to ensure that it is firmly connected.
- 3 Vent air from the pneumatic system by either:
 - a) Open the demand valve bypass on the breathing apparatus (if fitted),
 - b) Or, don the face mask and breathe down the system.
- 4 Observe the HP gauge and check that:
 - a) The needle moves smoothly,
 - b) The high pressure warning whistle sounds at 55 ± 5 bar
- 5 Close the bypass or remove the face mask when the tests are completed and the system is fully vented.



Free Flow test

- 1 With the breathing apparatus still connected. Open a cylinder valve, and either:
 - a) Open the BA demand valve bypass (if fitted),
 - b) Or, activate the demand valve
- 2 With the demand valve free-flowing check that the MP gauge stays between 6.0 and 7.0 bar. If a medium pressure warning whistle or DS4 is fitted, check that it does not alarm.
- 3 Close the cylinder valve, and vent the pneumatic system through the demand valve.
- 4 Disconnect the breathing apparatus.
- 5 If the cylinder frame and hose reel is to be used with two sets of breathing apparatus, the test should be carried out with both sets fitted, and free flowing.





Modul + Air cont...

General Installation Instructions

WARNING! The following instructions must be carried out as stated to avoid injury or damage to the equipment.

OPERATING INSTRUCTIONS

Warning: Before connecting breathing apparatus to Modul-Air, it must be fully checked in accordance with the breathing apparatus user manual.

When the equipment is in use, an experienced operator **MUST** remain with the supply system at all times to act as base controller and monitor the air supply. Under no circumstances must the equipment be left unmanned when wearers are being supplied from the unit.

Using Compressed Air From Cylinders

- 1 Carry out the Cylinder Frame Pre-Use Checks
- 2 If a DS4 low pressure alarm is fitted complete , the DS4 Pre Use Checks
- 3 Open the valve on one cylinder (Cylinder 'A')
- 4 Don the breathing Apparatus in accordance with the breathing apparatus user manual.
- 5 Connect the pigtail coupling to hose reel's airline and complete the Pre-Use checks

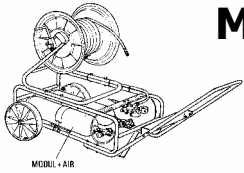
Changing Cylinders While in Use

Cylinders must be changed when the high pressure warning whistle sounds.

- 1 Check that the bleed screw on the connector of the reserve cylinder (Cylinder 'B') is closed and slowly turn ON the cylinder valve.
- 2 Close the empty cylinder's (Cylinder 'A') cylinder valve and open the bleed screw on the connector to de-pressurise the hose.
- 3 Check the HP gauge to confirm that cylinder 'B' is at least 80% FULL. (160 bar for 200 bar cylinders and 240 bar for 300 bar cylinders)
- 4 Undo connector hand wheel to release cylinder 'A' connector and remove the connector from the cylinder.
- 5 Release the cam-lock catch and open cylinder 'A' band.
- 6 Remove cylinder 'A' from the frame, mark it EMPTY and store it well away from any full cylinders.
- 7 Position and secure the new cylinder in the frame.
- 8 Fit the connector hand wheel and check that the bleed screw is closed.

Compressed air is now supplied from cylinder 'B', with cylinder 'A' acting as the back up supply





Modul + Air cont...

General Installation Instructions

WARNING! The following instructions must be carried out as stated to avoid injury or damage to the equipment.

After Use

Shutting Down the Frame and Hose Reel

- 1 Close the cylinder valve of the cylinder in use.
- 2 Open the connector bleed screw to release any high pressure air.
- 3 Remove any used cylinders. These should be marked EMPTY and stored away from any full cylinders.
- 4 Disconnect the external compressed air line (if used), from the hose reel connector. (If the hose is permanently attached to the hose reel, do not disconnect).
- 5 Completely bleed the airline system of the cylinder frame and hose reel by opening the bypass valve on the breathing apparatus (if fitted), or allowing the demand valve to free flow. Close the bypass on completion.
- 6 Disconnect the breathing apparatus from the end of the airline. (The breathing apparatus must be cleaned and checked in accordance with the appropriate user manual).
- 7 Rewind the airline hose onto the reel.

Cleaning

- 1 Clean all parts of the apparatus with a mild soap and water solution, followed by a thorough rinse with clean water. (The hose should be unwound to ensure that all parts are cleaned).
- 2 Allow to dry away from direct heat. (The hose must be dried thoroughly prior to rewinding onto the reel).
- 3 Inspect all parts of the apparatus for damage, including all quick release couplings.

Caution: Do not drop the hose ends as this could cause damage to the connections making them difficult or impossible to connect.

Testing

Pre-Use Checks

Depending on the configuration of the system, any relevant tests detailed in Pre-Use Checks must be carried out on the equipment.

Cylinder Frame

- 1 Fit two fully charged compressed air cylinders to the cylinder frame.
- 2 Carry out the Pre-Use Checks.
- 3 If a leak is present, check for audible leaks and test all joints with a soap and water solution, ensure that all couplings are secure and all O-rings are clean and in good condition.

Hose Reel

- 1 Connect an external compressed air supply to the hose reel.
- 2 Carry out the Pre-Use Checks
- 3 A leak is present, check for audible leaks and test all joints with a soap and water solution, ensure that all couplings are secure and all O-rings are clean and in good condition

Caution: DO NOT TRY TO CURE LEAKS BY TIGHTENING JOINTS

If the leak test fails, the apparatus must be withdrawn from service. An explanatory note should be attached and the unit returned for service.

