



SAFETY NOTICES

In the interests of your own safety, it is essential to take note of the following:

- All hydraulic components are suitable only for use in model building and may only be used for this purpose.
- All hydraulic components are to be kept out of the reach of small children (There is a risk that small parts or oil can be swallowed).
- The commissioning and operation of hydraulic components may be carried out by minors only when under adult supervision.
- **Even though these hydraulic components are intended for use in model building, there is a significant risk of burns or crushing injury if they are handled incorrectly.**
- Operation of the hydraulic components in an environment in which there are gases, dust or vapours is not allowed.
- Before switching on the pump motor, make sure that all servos are in the neutral position, otherwise cylinders could be abruptly extended. **Risk of injury!**
- Do not exceed the maximum permitted working pressure of 13 bar (max. pump output).
- The hydraulic components can become very hot during operation. **Risk of injury!**
- During connection of the hydraulic components, the electric motor must be isolated from any supply of voltage.
- Before commissioning, fasten all components securely to a suitable substructure.
- Check that all connecting hoses are firmly seated in the connection nipples.
- Should the hydraulics be dismantled, first make sure that all components are depressurised.

OPERATING INSTRUCTIONS

- Do not allow the pump motor speed to exceed 7,000 rpm and connect the motor to the controller with direction of rotation clockwise (looking in the direction of the pump).
- The hydraulic pump delivers a max. working pressure of 13 bar. This can be set lower with the pressure controller (turn the setting screw anti-clockwise)
- All connections to the hydraulic pump must be made in accordance with the following connection diagram. No connection may be closed off.
- Markings on the hydraulic pump
OUT = to control valve
IN = from tank
RET = to tank
LEAK = to tank
- The tank must be provided with an air vent and can be filled to 80 % max. of its total volume.
- Do not open the hydraulic pump or allow it to run without oil.
- Use only the specified hydraulic oil. This is classified as non-hazardous. (The corresponding safety data sheets can be requested.)
- Change the hydraulic oil after an initial running time of one hour, thereafter every ten hours running time.
- The motor adapter and pump package includes all the necessary parts for the motor-pump coupling.
- Feed quantity according to speed, up to 650 ml/min.
- The cylinders are manufactured entirely from stainless steel.
- All cylinders are screwed together and can be dismantled to, for example, change a seal.
- A number of control valves can be connected in line.
- Always one connection block and one pressure controller for each control valve unit.

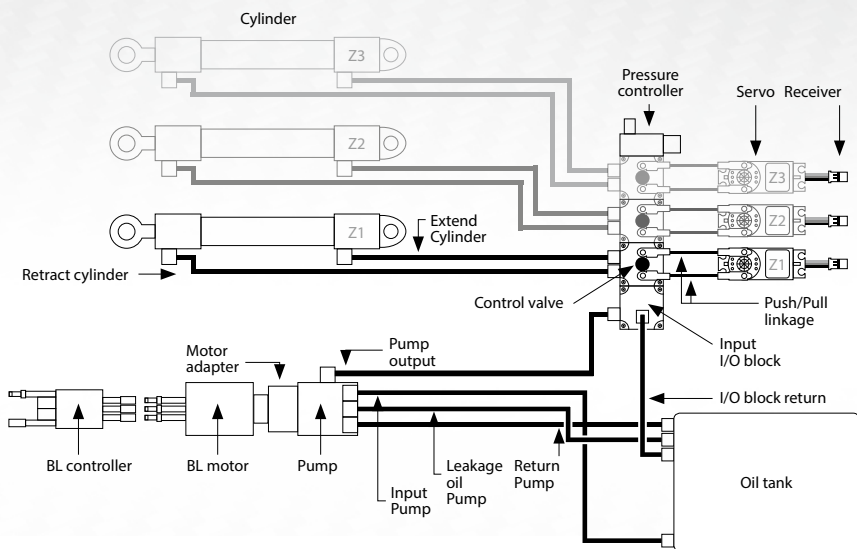
GUARANTEE AND LIABILITY

Our general conditions of business apply. Amongst other things, our guarantee and liability are excluded in the event of personal injury or material damage resulting from the following causes:

- Use of the hydraulic components for a purpose or in a manner other than as intended.
- Incorrect assembly, dismantling, commissioning and maintenance of the hydraulic components.
- Unauthorised constructional modification of the hydraulic components.
- Repairs carried out incorrectly.



CONNECTION DIAGRAM



CONTROL VALVES

Fine setting of the control disc:

With the four screws on the control block, the freedom of movement of the control disc can be adjusted. If required, these screws must be tightened with care, otherwise there is a risk that the block becomes leaky or is obstructed.

With the six screws on the top ring of the control block, the sealing ring of the control disc is compressed, ensuring that the system is sealed. If need be, this can be readjusted.

Dimensions (without pressure controller and inlet/outlet block):

single: 20x20x15 mm / double: 20x20x15 mm /
triple: 20x20x15 mm / quadruple: 20x20x15 mm /
quintuple: 100x20x15mm

CYLINDERS

Fine adjustment, cylinders:

The sealing and ease of movement of the piston rod are adjusted by the screws on the cylinder head.

If there is any leakage around the piston rod, this can be corrected by carefully and evenly tightening these screws.

Important: On no account pull the piston out or push it in by hand. To avoid any damage, only operate the cylinders in a closed system with oil pressure.

For more detailed information, see our Website at www.carson-modelsport.de

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Service-Hotline for Germany: Mon - Thu, 08:00 - 17:00 // Fri, 08:00 - 14:30

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