

Turbo 21 Boxjet

Electric Pressure Washer

FEATURES

This lightweight, portable high-pressure washer makes the toughest clean-up tasks faster and easier. Weighing only 43 pounds, you can take it virtually anywhere. Ideal for light industrial applications and for home owners to wash the car, the boat, the pool and patio. Use it to clean rain gutters, driveways, lawn equipment and recreational vehicles.

Each unit comes complete with a 26-foot high-pressure hose, gun and lance with variable spray nozzle (up to 45°), adjustable pressure regulator and low-pressure soap injection system.

Easy to carry - easy to use. Just remove the travel plug, attach to a garden hose, and plug into a standard 110V-15 amp circuit. Then you're ready to wash your troubles away.

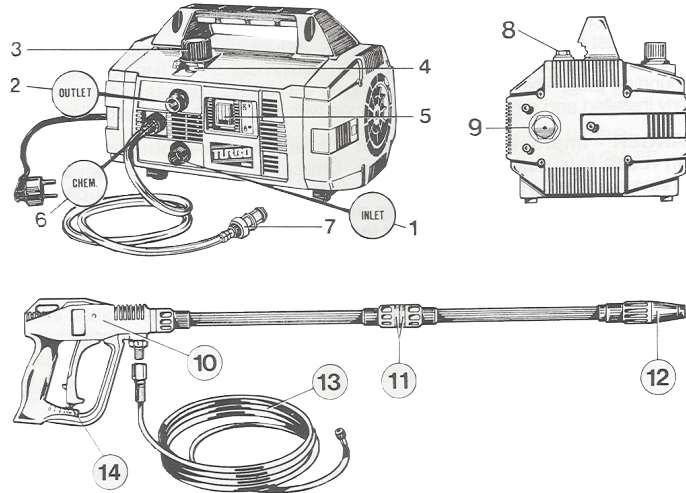


SPECIFICATIONS

Pressure Washer Model	PU1021 (Turbo 21 Boxjet with Multireg)
Maximum Volume	2.1 GPM
Maximum Pressure	1000 PSI
Single Phase Motor Power	1.5 HP
Motor Protector	Current Thermal Overload
Motor Protection Grade	ISO IP55
Maximum Inlet Temperature	140°F
Maximum Suction Depth	3.3 ft.
Hose Length	26 ft.
Cord Length	7 ft. (35 ft. GFCI Cord U.L. Approved)
Weight	42.8 lbs.
Oil Capacity	12 oz.
Oil Type	General Pump Oil #100214 (6-pack) or #100216 (24-pack)
Dimensions	14.2" x 9.7" x 9.4"

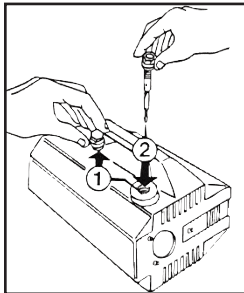


Installation and Operating Instructions

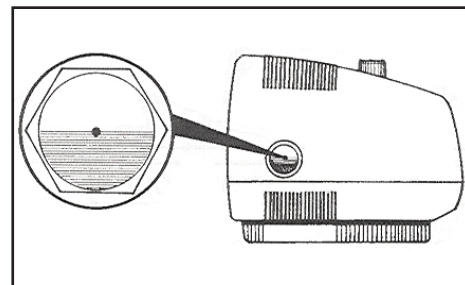


1. Inlet
2. Outlet
3. Pressure Adjustment Knob
4. Pressure Indicator
5. On/Off switch
6. Chemical Regulator
7. Chemical Filter
8. Oil Dipstick
9. Oil Level Indicator
10. Automatic Gun
11. Quick-Lance
12. Multireg Nozzle
13. High Pressure Hose

THE MACHINE MUST BE PLACED IN A HORIZONTAL POSITION, ON A LEVEL SURFACE.



Replace the red oil travel plug (1) with the black and yellow dipstick (2).



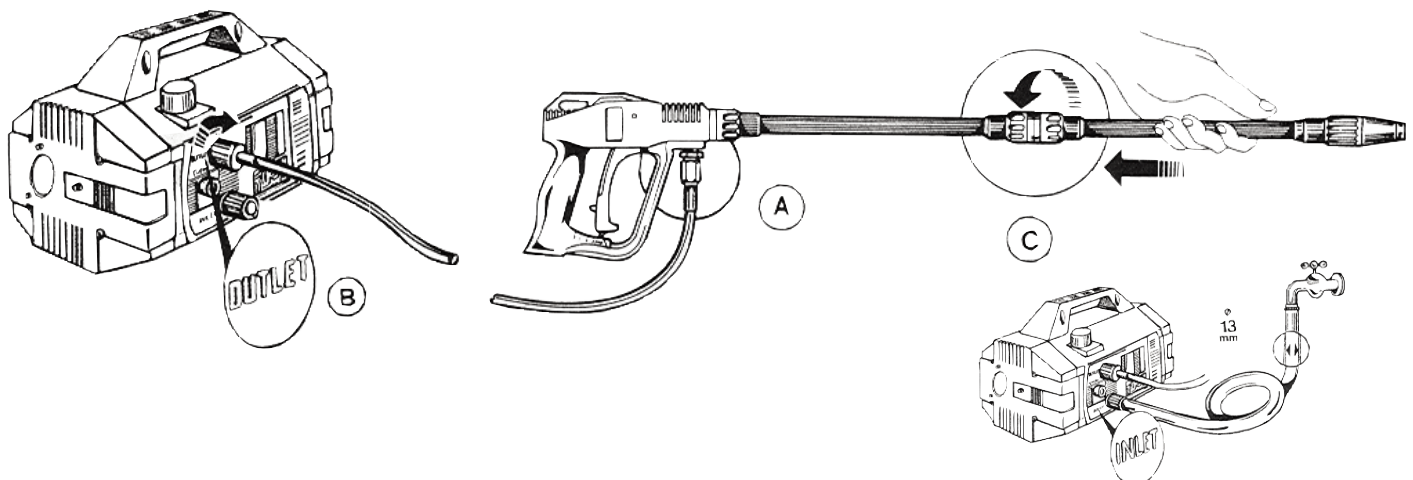
Check that the oil in the sight glass is at the halfway level.

Connection of high pressure line:

1. Connect one end of the high pressure hose to the gun (A) and the other to the outlet connection (B).
2. Assemble the lance by pushing the two halves together and then fix by turning the connector (C).

Connection to water supply:

1. The maximum temperature of the inlet water must not exceed 140°F.
2. Connect the water supply to the INLET port by means of a reinforced hose (200 PSI) with internal diameter of no less than 13 mm (1/2").
3. Considering that the water flow decreases in accordance with the length of the hose, make sure that the quantity of water reaching the machine is at least 2.7 GPM.



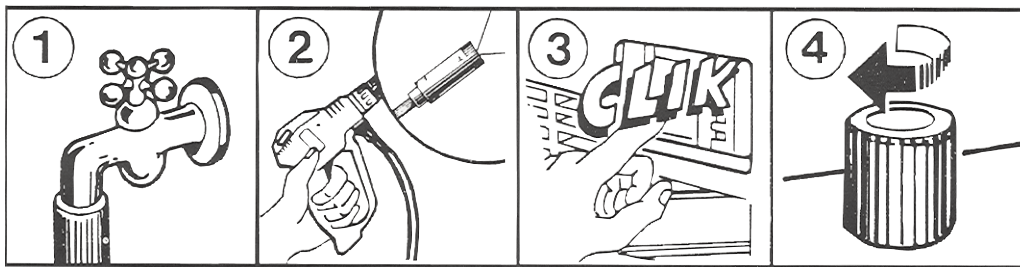
Connection to electrical supply:

1. Make sure that the main voltage is the same as shown on the identification label on the machine.
2. Make sure that the plug complies with your local regulations, and that it is provided with ground connection.
3. The power outlet must be protected by a residual circuit breaker having a sensitivity of less than 30 amp.
4. Do not connect other appliances to the same outlet.
5. Insert the plug after making sure that the switch on the machine is in the OFF position.

WARNING: In case of power failure during operation, turn the machine OFF for safety reasons.

Starting the machine:

1. Turn on the water.
2. Set the pressure to zero by turning the knob counter-clockwise.
3. Switch on the unit.
4. Hold the gun in the open position for a few seconds to allow the air to escape from the hoses.
4. At this point adjust the machine to your pressure requirement and you are ready to begin.

**CHECKING AND CHANGING THE OIL**

- The level of the oil must be checked periodically.
- The first important oil change must be carried out after the first 20 hours of work and successively every 150 hours.
- In any case we suggest an oil change at least once a year.
- Oil type: Series 100 GP-oil (30 wt. non-detergent)
- Capacity: 11 oz.

GENERAL PRECAUTIONS FOR USE

1. Keep the machine out of the reach of children.
2. High pressure water jets are potentially dangerous if used incorrectly. In particular, the jet must not be directed against persons or animals, electrical equipment or the machine itself.
DO NOT USE the machine when persons and/or animals are within the reach of the jet.
3. The user must operate the machine in safe conditions and situations avoiding any situations of potential danger to himself or other persons. In particular the user will have to:
 - Avoid operating in unstable balance conditions.
 - Remember that the high pressure jet generates a recoil when the gun is opened. The force of this recoil is less than 4.5 pound-force.
 - Use adequate protective clothing.
 - Wear protective goggles and anti-slip rubber shoes.
 - Avoid contaminating the environment with polluting, toxic or harmful substances.
4. This machine is built in compliance with the requirements of the current safety regulations. The use of electrical appliances involves the respect of some basic rules:
 - Do not touch electrical parts or components.
 - All operations of inspection, maintenance or repair must be made by qualified personnel only. **ALWAYS** disconnect the plug before proceeding to any of the above mentioned operations.
5. Do not pull power cord to unplug. Do not pull high pressure hose to move unit.
6. Before using the machine, inspect power cord to make sure it is not damaged. If it is damaged, have it replaced by qualified personnel. Replace power cord only with a cable of the same type as the original, this can be identified by the marking on the outer sleeve. Do not damage or effect risky repair on power cord.
7. Before using the machine, inspect high pressure hose to make sure it is not damaged. In case of replacement make sure the new hose has at least the same specifications as the original. Technical specifications (maximum working pressure, date of manufacture, name of manufacturer) must be marked on the outer sleeve of hose.

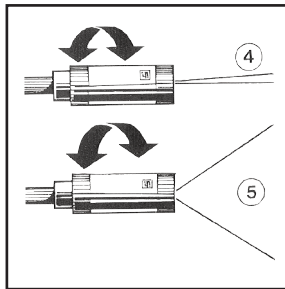
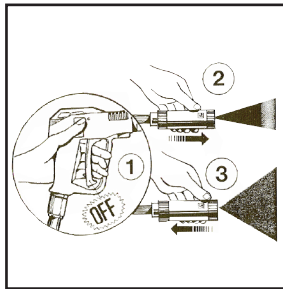
GENERAL PRECAUTIONS FOR USE (continued)

8. While the machine is running, do not cover it and do not place it in an enclosed space with insufficient ventilation.
9. Do not leave the machine running for more than 5 minutes with the gun closed. Should it run for a longer period, the temperature of the recirculating water will increase rapidly and could risk damaging the pump and pump seals.
10. When the machine is not in use, lock gun trigger in safe position to prevent it from being opened by accident.
11. For the sake of safety use only approved spare parts and accessories.

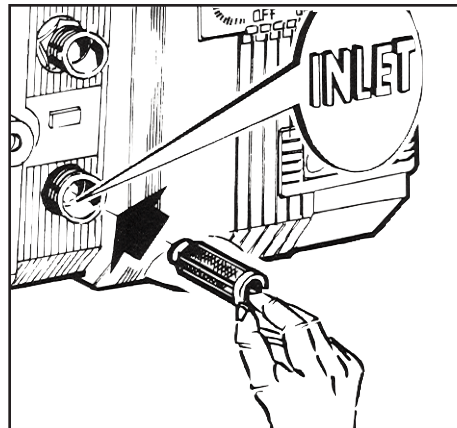
HOW TO USE THE "ROTOTEK" (OR "MULTIREG")

A) Selection of high or low pressure by push-pull action. The selection of the pressure must be carried out with the gun in closed position (1).

B) Adjustment from straight (4) to fan (5) of water jet by simple turning of the ROTOTEK.



CHECKING THE WATER FILTER

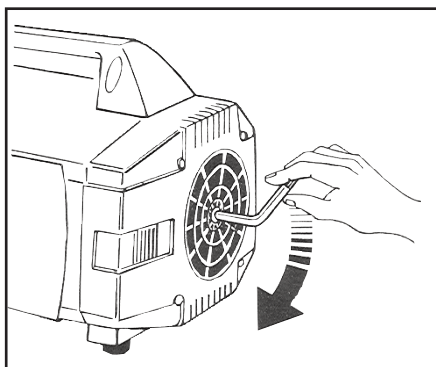
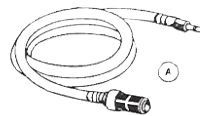
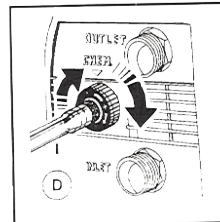
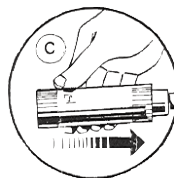
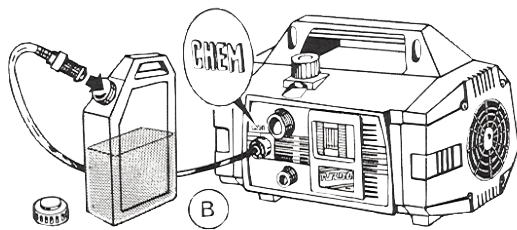


It is important to check the filter before using the machine. Remember that a well-cleaned filter means good performance and long life for your machine.

HOW TO USE THE DETERGENT KIT

The unit can suck and mix detergents and other liquid chemicals thanks to an automatic device incorporated in the unit itself, which is remote-controlled by operating the Rototek. The unit is equipped with a chemical suction kit (Fig A).

- Fit the brass connector into the chemical control knob and filter into chemical container (Fig. B).
- Select low pressure with the Rototek (Fig. C)
- At this point the suction and mixing of the chemical will start automatically.
- You can regulate the quantity of chemicals by adjusting the chemical control knob (Fig. D).
- When you wish to stop using chemicals in order to clean or rinse, simply release the gun trigger and adjust the Rototek to high pressure.
- At this point the chemical injection automatically stops.
- If you foresee not using the unit for a long period of time, we suggest to clean the chemical suction kit with clear water to avoid chemical deposit build-up.



PRECAUTIONS IN THE CASE OF STORING or FREEZING

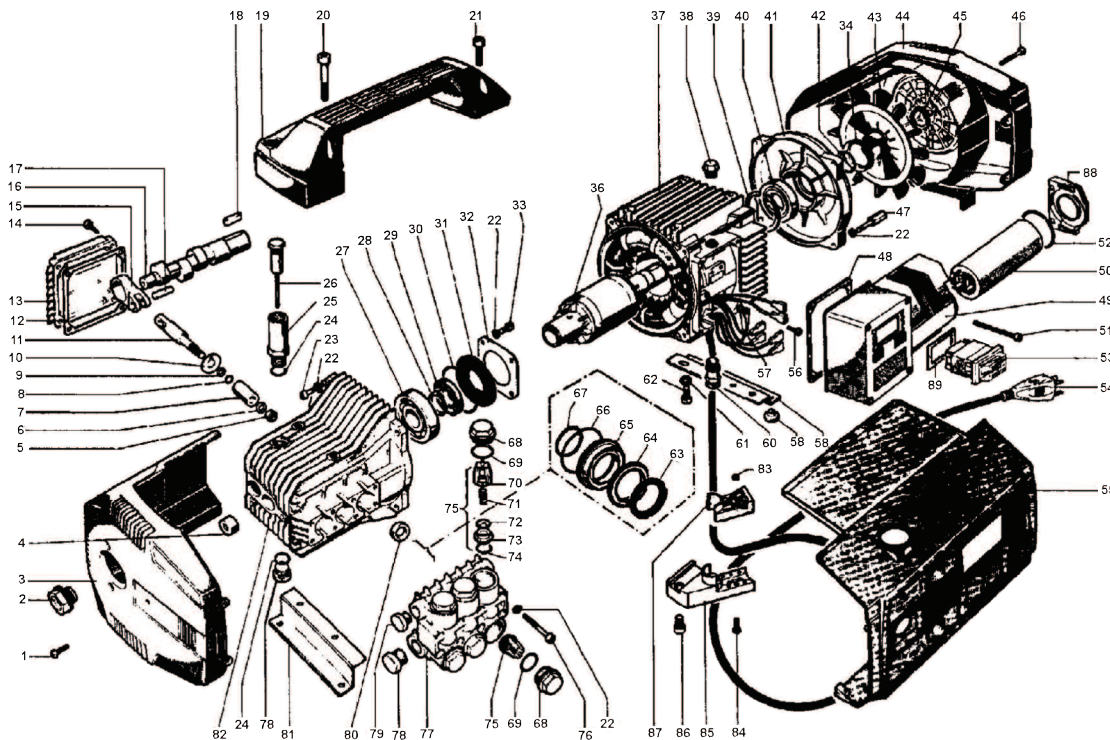
If the unit is to be stored in a place where there is risk of freezing, or it is to remain unused for more than 3 months, we recommend placing some anti-freeze solution into the pump (a normal anti-freeze as used in your vehicle). If in doubt at low temperatures or any long length of storage time, we suggest you turn the motor with the key provided before starting, to release any possibilities of blockages from freezing or a build-up of line scale deposits.

Taking these precautions before starting will avoid damage to the unit

Remember to remove the key before switching on.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Pump running normally but pressure does not achieve rated values	Pump sucking air	Check that hoses and fittings are air tight
	Valves worn or dirty Unloader packing worn Nozzle incorrect or worn Worn piston packing Dirty filter	Check, clean or replace Check and replace Check and replace Check and replace Check and clean
Fluctuating pressure	Valves worn or stuck Pump sucking air	Check, clean or replace Check that hoses and fittings are air tight
	Worn piston packing Dirty filter	Check and replace Check and clean
Pressure drops after period of normal use	Nozzle worn Valves worn, dirty or stuck Unloader packing worn Worn piston packing Dirty filter	Check and replace Check, clean or replace Check, clean or replace Check and replace Check and clean
Pump noisy	Pump sucking air	Check that hoses and fittings are air tight
	Valves dirty or worn Worn bearings Water too hot Dirty filter	Check, clean or replace Check and replace if necessary Reduce temperature Check and clean
Presence of water in oil	High humidity in air	Check and change oil twice as often
	Piston packing and oil seal worn	Check and replace
Water dripping from under pump	Piston packing worn The o-rings of piston guide or retainer worn	Check and replace Check and replace
Oil dripping	Oil seal worn	Check and replace
The motor does not start when switched on	The plug not well connected or lack of power supply	Check plug, cable and switch
When switching on the unit, the motor hums but does not turn on	The main voltage is insufficient, lower than the minimum required	Check that the main power supply is adequate
	The pump is stuck or frozen	Check by turning the motor manually as described in instructions (page 4)
	Incorrect extension cord	Check and replace
The motor stops	Tripped thermal overload due to overheating	Check that the main voltage corresponds to the specifications: F-122, F-124, X-220, X230, X240: switch off the motor and let it cool a few minutes X117 & X161: wait a few minutes before turning on the unit again



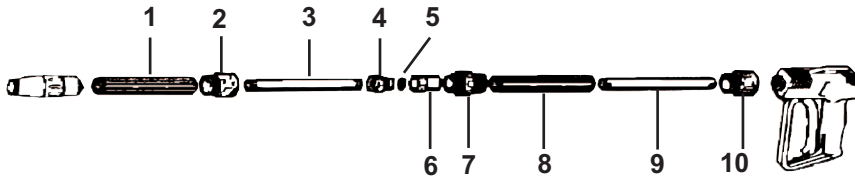
PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1.	99157000	Screw, M5 x 16	6	31.	50211551	Spacer, Crankcase	1	61.	96701400	Washer, M8.4, Schnorr	4
2.	97596800	Indicator, Oil	1	32.	50150074	Cover, Crankcase	1	62.	99303700	Screw, M8 x 16	4
3.	51230151	Cover	1	33.	99180700	Screw, M6 x 10	4	63.	51100051	Ring, Head	3
4.	91801400	Bearing, Needle	1	34.	90165200	Seal, Oil	1	64.	90261800	Packing	3
5.	92221600	Nut, M8, SS	3	36.	41340702	Rotor	1	65.	51080070	Retainer, Packing	3
6.	96700800	Washer, M8	3	37.	41328602	Housing	1	66.	90360400	O-ring, .989 x .070	3
7.	51040009	Piston, dia. 15mm	3	38.	98209300	Plug, 3/8-19 BSPP	1	67.	90383500	O-ring, .593 x .103	3
8.	90357200	O-ring, .208 x .070	3	39.	90079500	Ring, Dia. 52mm	1	68.	96221800	Plug, Valve, M24	6
9.	90502200	Ring, Back-up, 6.2x9x1.5	3	40.	91832300	Bearing, Ball	1	69.	90384700	O-ring	6
10.	96707000	Washer, M9	3	41.	41070022	Cover, Rear Motor	1	70.	36200251	Guide, Valve	6
11.	51050056	Guide, Piston	3	42.	90385700	O-ring, .937 x .103	1	71.	94737600	Spring	6
12.	51210184	Cover, Gasket	1	43.	41030051	Fan, Motor	1	72.	36200176	Plate, Valve	6
13.	51160322	Cover, Crankcase	1	44.	51230051	Cover, Motor	1	73.	36200366	Seat, Valve	6
14.	99186700	Screw, M6 x 18	4	45.	90062800	Clip, Retainer	1	74.	90384100	O-ring, .674 x .103	6
15.	51030022	Rod, Connecting	3	46.	99165800	Screw, M5 x 45	4	75.	36703201	Unit, Valve	6
16.	51020435	Crankshaft	1	47.	41210465	Screw	4	76.	99194300	Screw, M6 x 40	6
17.	97731000	Pin, Connecting Rod	3	48.	41210147	Gasket	1	77.	51120022	Manifold, Aluminum	1
18.	91487800	Key	1	49.	41212451	Cover, Switchplate	1	78.	98210000	Cap, 3/8-19 BSPP	2
19.	51240051	Handle	1	50.	93568800	Capacitor	1	79.	98204100	Cap, 1/4-14 BSPP	1
20.	99314400	Screw, M8 x 50	2	51.	99170600	Screw	4	80.	90156500	Seal, Oil	3
21.	99306900	Screw, M8 x 25	2	52.	90388600	O-ring, 1.799 x .103	1	81.	51200274	Rail, Mounting	1
22.	96693800	Washer, M6, 4, Schnorr	20	53.	93503100	Switch	1	82.	51010322	Crankcase	1
23.	99189700	Screw, M6 x 25	4	54.	10710801	Cable	1	83.	92192600	Nut, M4	2
24.	90383300	O-ring, .549 x .103	2	55.	51230751	Cover	1	84.	99130600	Screw, M4 x 16	2
25.	51210051	Spacer, Oil Dipstick	1	56.	99151500	Screw, M5 x 12	1	85.	41211851	Holder, Cable	1
26.	98209700	Oil Dipstick	1	57.	96691300	Washer, M5.3x9x.6	1	86.	99303900	Screw, M8 x 16	1
27.	91832800	Bearing, Ball	1	58.	51200374	Rail, Mounting	1	87.	41211951	Clamp	1
28.	90063500	Circlip	1	59.	98192400	Plug	4	88.	41212051	Cover, Switchbox	1
29.	90163400	Ring, Oil Seal	1	60.	93521000	Nut, Cable Fitting	1	89.	41212684	Gasket	1
30.	90409700	O-ring, 2.187 x .139	1								

REPAIR KITS

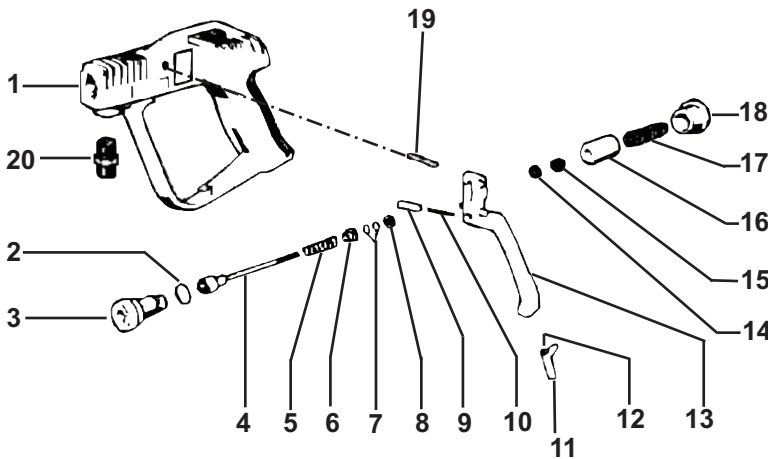
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ITEM NO'S INCLUDED IN KIT	70, 71, 72, 73, 74, (75)	80	68, 69	63, 64, 65, 66, 67	65, 66, 67	63, 64, 66, 67
NUMBER OF ASSY'S IN KIT	6	3	6	1	3	3

QUICK LANCE



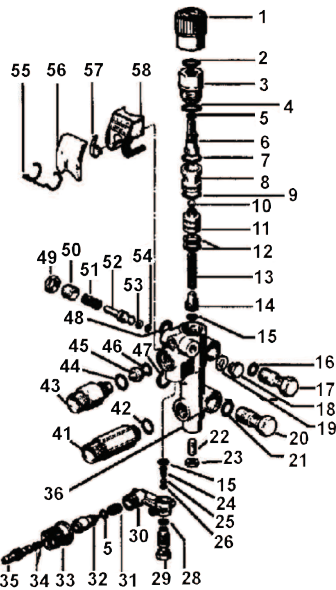
ITEM	PART NO.	DESCRIPTION	QTY
1.	18010698	Hand Grip	1
2.	10029551	Ring Nut	1
3.	18203389	Tube	1
4.	10029770	Male Coupling	1
5.	90382000	O-ring	1
6.	1002870	Female Coupling	1
7.	10029651	Coupler	1
8.	18010498	Hand Grip	1
9.	18203389	Tube	1
10.	10029451	Ring Nut	1

P10 Gun



ITEM	PART NO.	DESCRIPTION	QTY
1.	18205802	Gun Body	1
2.	90384100	O-ring	1
3.	18205902	Valve Seat	1
4.	18207102	Rod	1
5.	94737800	Spring	1
6.	18204270	Guide Spring	1
7.	90356800	O-ring	2
8.	90500700	Anti-ext. Ring	1
9.	18205370	Shaft	1
10.	94730500	Spring	1
11.	18205051	Latch	1
12.	94730300	Spring	1
13.	18204851	Trigger	1
14.	96684000	Washer	1
15.	92193500	Nut	1
16.	18205270	Spring Guide	1
17.	94741400	Spring	1
18.	98219200	Cap	1
19.	97615500	Pin	1
20.	95284000	Inlet Fitting	1

ZOKR1 UNLOADER



ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1.	36258351	Knob, Adjusting	1	28.	90358500	O-ring, .426 x .070	1
2.	90383500	O-ring, .594 x 103	1	29.	36256370	Seat, Valve	1
3.	36255670	Screw, Press. Adjust.	1	30.	36256251	Body, Chem Inj.	1
4.	90384700	O-ring, .797 x 103	1	31.	94738300	Spring, .384 x .394	1
5.	90358000	O-ring, .344 x .070	2	32.	36256470	Needle, Valve	1
6.	36257402	Piston, Unloader	1	33.	36356551	Knob, Adjusting	1
7.	90359800	O-ring, .801 x .070	1	34.	90357000	O-ring, .176 x .070	2
8.	36255466	Seat, Valve	1	35.	36256670	Hose Barb	1
9.	90359600	O-ring, .739 x .070	1	36.	36258241	Body, Valve	1
10.	97480200	Ball, 9/32"	1	41.	36258470	Nipple, Inlet, 1/2 NPT	1
11.	36257270	Piston, .089	1	42.	90359100	O-ring, .551 x .070	1
12.	90508000	Ring, Back-up	2	43.	10031870	Nipple, Outlet, 3/8 NPT	1
13.	94734400	Spring, .295 x 1.575	1	44.	90383200	O-ring, .549 x .103	1
14.	36255270	Support, Spring	1	45.	10030751	Nozzle, .071	1
15.	90358200	O-ring, .364 x .070	2	46.	90382200	O-ring, .391 x .103	1
16.	90382000	O-ring, .369 x .103	1	47.	90383900	O-ring, .625 x .103	1
17.	36256770	Fitting, Banjo	1	48.	90383300	O-ring, .549 x .103	1
18.	98196600	Plug, Hex Head	1	49.	92259200	Nut, Jam, M14	1
19.	96710000	Washer, Flat	1	50.	36258070	Screw, Adjusting	1
20.	36256870	Fitting, Banjo	1	51.	94733800	Spring, .283 x .709	1
21.	90382700	O-ring, .469 x .103	1	52.	36257970	Piston, Gauge	1
22.	99305400	Screw, Set	1	53.	90500700	Ring, Back-up	1
23.	99221800	Nut, Jam, M8	1	54.	90356800	O-ring, .145 x .070	1
24.	94821700	Spring, Conical	1	55.	94871800	Clip, Spring	1
25.	97478200	Ball, 7/32"	1	56.	36257751	Cover, Gauge	1
26.	90357200	O-ring, .208 x .070	1	57.	36257851	Needle, Gauge	1

REPAIR KITS

KIT NO.	94	95
ITEM NO'S INCLUDED IN KIT	5, 15, 24, 25, 26 28, 31, 34, 44, 46	2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 15, 16, 21, 42, 47, 48, 53, 54
NUMBER OF ASSY'S IN KIT	1	1