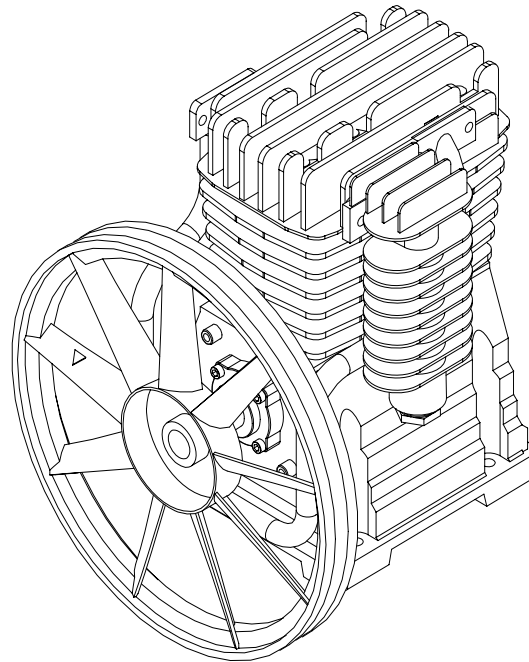




Air Compressor Pump Item # 45931 & 45932

M35983E

OWNER'S MANUAL



Quick Facts

Pump Oil	Replace shipping cap with breather cap (shipped in manual bag). Check pump oil level before starting. Use Non-detergent pump oil (item # 35605).
Maximum RPM	45931: 1450 RPM (700 RPM Minimum) 45932: 1300 RPM (700 RPM Minimum)
Minimum Horsepower	45931: 9.0 hp gas engine, 5.0 hp electric motor 45932: 13.0 hp gas engine, 7.5 hp electric motor
Displacement	45931: 18.1 CFM 45932: 29.7 CFM
CFM @ 90 psi	45931: 15.9 45932: 26.2
Rotation	Pump crankshaft MUST rotate in direction of arrow cast into flywheel.
Drive Belt	Flywheel requires "A" style belt
Air Flow	Belt guard MUST allow maximum air flow past pump.

Any Questions, Comments, Problems, or Parts Orders
Call NorthStar Product Support 1-800-270-0810

THANK YOU

Thank you for purchasing a NorthStar compressor pump. Your pump is designed for long life, dependability, and the top performance you demand. Please take time now to read through this manual so you can better understand the pump's safety precautions. Everyone who uses the pump must read and understand this manual. Enjoy the exceptional performance of your NorthStar pump.

IMPORTANT

Make certain the operator:

- Reads and understands the manuals pertaining to this tank.
- Is instructed in safe and proper operation of this air compressor tank.

NOTICE

K-BAR Industries Incorporated reserves the right to make improvements in design and/or changes in specifications at any time without incurring any obligation to install them on units previously sold.

WARNINGS

ALWAYS bleed pressure from tank before servicing.

ALWAYS use air handling parts that are rated above the maximum allowable working pressure of the tank.

ALWAYS drain tank daily or after each use. Rusted tanks can cause explosion and cause severe injury or death.

ALWAYS read your owners manual before operating.

ALWAYS use at least one safety relief valve rated at 200 psi or below.

ALWAYS use an ASME certified air receiver tank.

ALWAYS use Teflon tape on all threads to reduce leaks.

NEVER exceed the nameplate rating of the tank(200 psi working pressure). Exceeding this rating can cause explosion and cause severe injury or death.

NEVER operate machine without a belt guard in place.

NEVER bypass, modify, or remove safety/relief valves.

NEVER direct air stream at people or animals

NEVER modify or repair tank, obtain replacement from a service center or customer service at 1-800-270-0810.

NEVER breathe receiver air. Can contain **Carbon Monoxide** or other contaminants. Will cause serious injury or death.

NorthStar air compressor tanks are not designed for breathing air.

COMPRESSOR LUBRICATION

CAUTION! Do not operate without lubricant or with inadequate lubricant.
Use of compressor without lubricant or inadequate lubricant voids all warranties.

Synthetic Lubricants

Synthetic lubricants are recommended after 50 hour break-in. Compressor life is greatly increased with the use of synthetic lubricants. **CAUTION!** If you will be using synthetic lubricant, all downstream piping material and system components must be compatible.

Suitable Viton®, Teflon®, Epoxy (Glass Filled), Oil Resistant Alkyd, Fluorosilicone, Fluorocarbon, Polysulfide, 2-Component Urethane, Nylon, Delrin®, Celcon®, High Nitrile Rubber (Buna N. NBR more than 36 Acrylonite), Polyurethane, Polyethylene, Epichlorohydrin, Polyacrylate, Melamine, Polypropylene, Baked Phenolics, Epoxy, Modified Alkyds
(® indicates trademark of DuPont Corporation)

Not Recommended

Neoprene, Natural Rubber, SBR Rubber, Acrylic Paint, Lacquer, Varnish, Polystyrene, PVC, ABS, Polycarbonate, Cellulose Acetate, Latex, EPR, Acrylics, Phenoxy, Polysulfones, Styrene Acrylonitile (San), Butyl

Alternate Lubricants.

You may use petroleum-based lubricant that is premium quality, does not contain detergents, contains only anti-rust, anti-oxidation, and anti-foam agents as additives, has a flashpoint of 440°F (227°C) or higher, and has a auto-ignition point of 650°F (343°C) or higher.

See the petroleum lubricant viscosity table below. The table is intended as a general guide only. Heavy duty operating conditions require heavier viscosities. Refer specific operating conditions to NorthStar Customer Service at 1-800-270-0810 Monday - Friday 7:00 AM-5:30 PM, Saturday 7:30 AM-11:30 AM Central Standard Time.

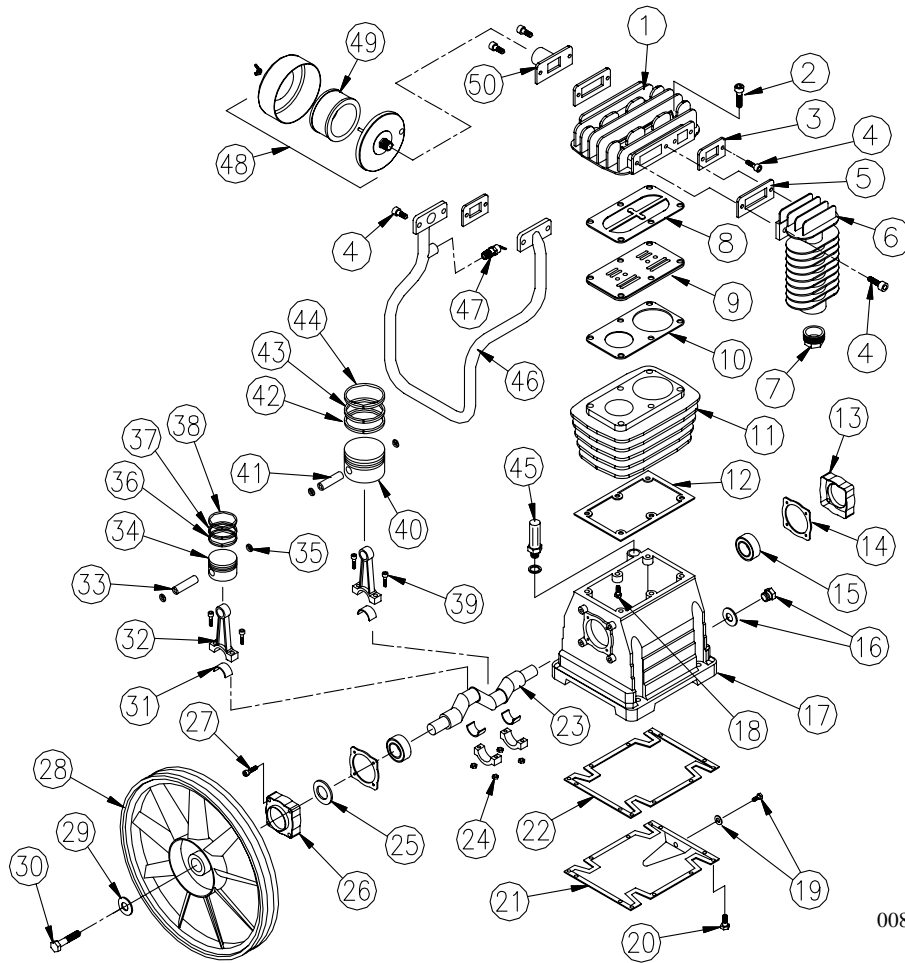
Temperature around Compressor	Viscosity Grade	
	ISO	SAE
Below 40°F (4°C)	60	20
40°F to 80°F (4°C to 27°C)	100	30
80°F to 100°F (27°C to 37°C)	150	40

Pump Capacities.

Refer to the following table for crankcase capacity

Item number	Crankcase Capacity
45931	48 oz.
45932	72 oz.

45931 Exploded View



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Item	Description	Part #	Qty
1	Pump Head	AB4961400	1
2	Head Bolt (M8 x 55mm SHCS)	AB9101744	6
3	Intercooler Gasket	AB4650600	2
4	Intercooler/Aftercooler Bolt (M8 x 20mm SHCS)	AB9101254	8
5	Gasket	AB3970200	2
6	Aftercooler	AB2070100	1
7	Reducer	AB9050282	1
8	Head Gasket	AB4650400	1
9	Valve Plate Assy.	AB4940050	1
10	Cylinder Gasket	AB4950300	1
11	Cylinder	AB4930000	1
12	Frame Gasket	AB4950200	1
13	Cover N.D.E.	AB2060690	1
14	Bearing Cover Gasket	AB2050500	2
15	Bearing	AB9170030	2
16	Oil Sight Glass	AB9022001	1
17	Crankcase	AB4960101	1
18	Cylinder Bolt	AB9107254	6
19	Crankcase Plug	AB9101164	1
20	Crankcase Bolt (M5 x 15 HHCS)	AB9114271	8
21	Crankcase Pan	AB4961301	1
22	Crankcase Gasket	AB4950101	1
23	Crankshaft	AB4961200	1
24	Nut	AB9128234	4
25	Oil Seal	AB9163010	1
26	Cover D.E.	AB2060590	1

Item	Description	Part #	Qty
27	Cover Bolt (M6 x 15 SHCS)	AB9101094	8
28	Flywheel, 350 mm	AB3600100	1
29	Flywheel washer	AB9004008	1
30	Screw, Reverse Thread	AB9110014	1
31	Half Bearing	AB9013011	4
32	Connecting Rod	AB4011100	2
33	Pin	AB4621200	1
34	H.P. Piston	AB4621100	1
35	Circlip	AB9140050	4
36	Piston Ring ROF	AB9020086	2
37	Piston Ring ROS	AB9020053	1
38	Piston Ring AC	AB9020023	1
39	Rod Bolt	AB9106244	4
40	L.P. Piston	AB4922100	1
41	Pin	AB4922200	1
42	Piston Ring ROF	AB9020057	1
43	Piston Ring ROS	AB9020056	1
44	Piston Ring AC	AB9020055	1
45	Oil fill plug	AB9024010	1
46	Intercooler	AB4662010	1
47	Safety Valve	AB9049064	1
48	Air Filter Assy.	35603	1
49	Air Filter	35409	1
50	Intake Manifold	35604	1
	Complete Gasket Kit	AB4950055	1

45932 Exploded View

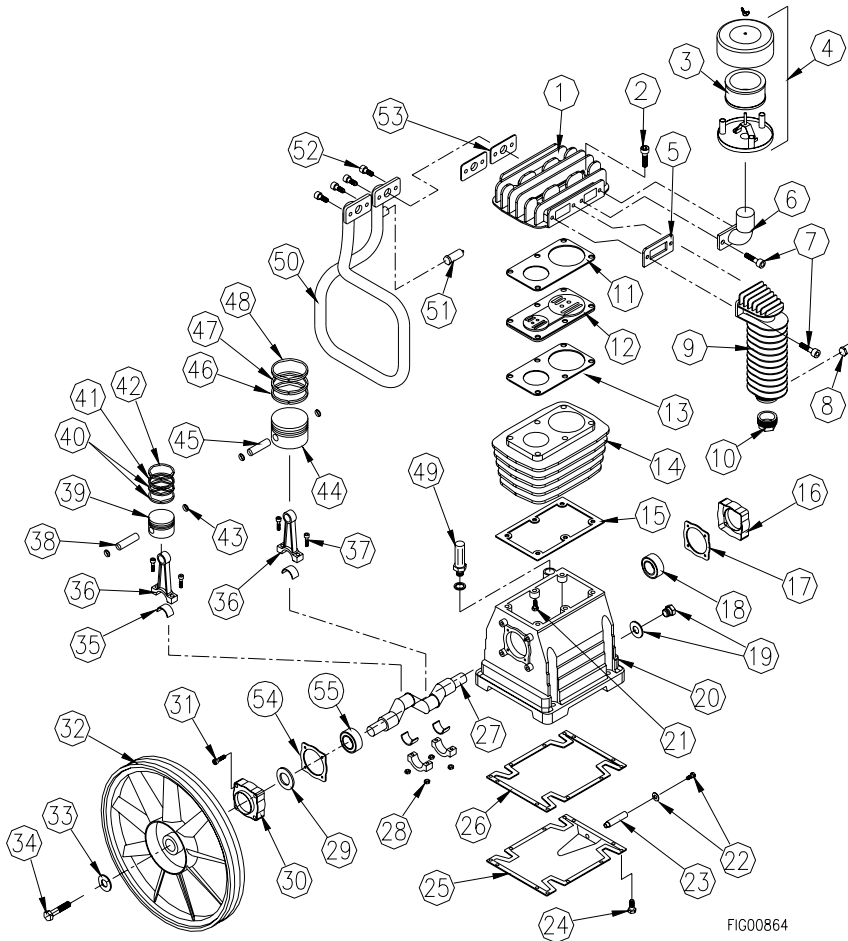


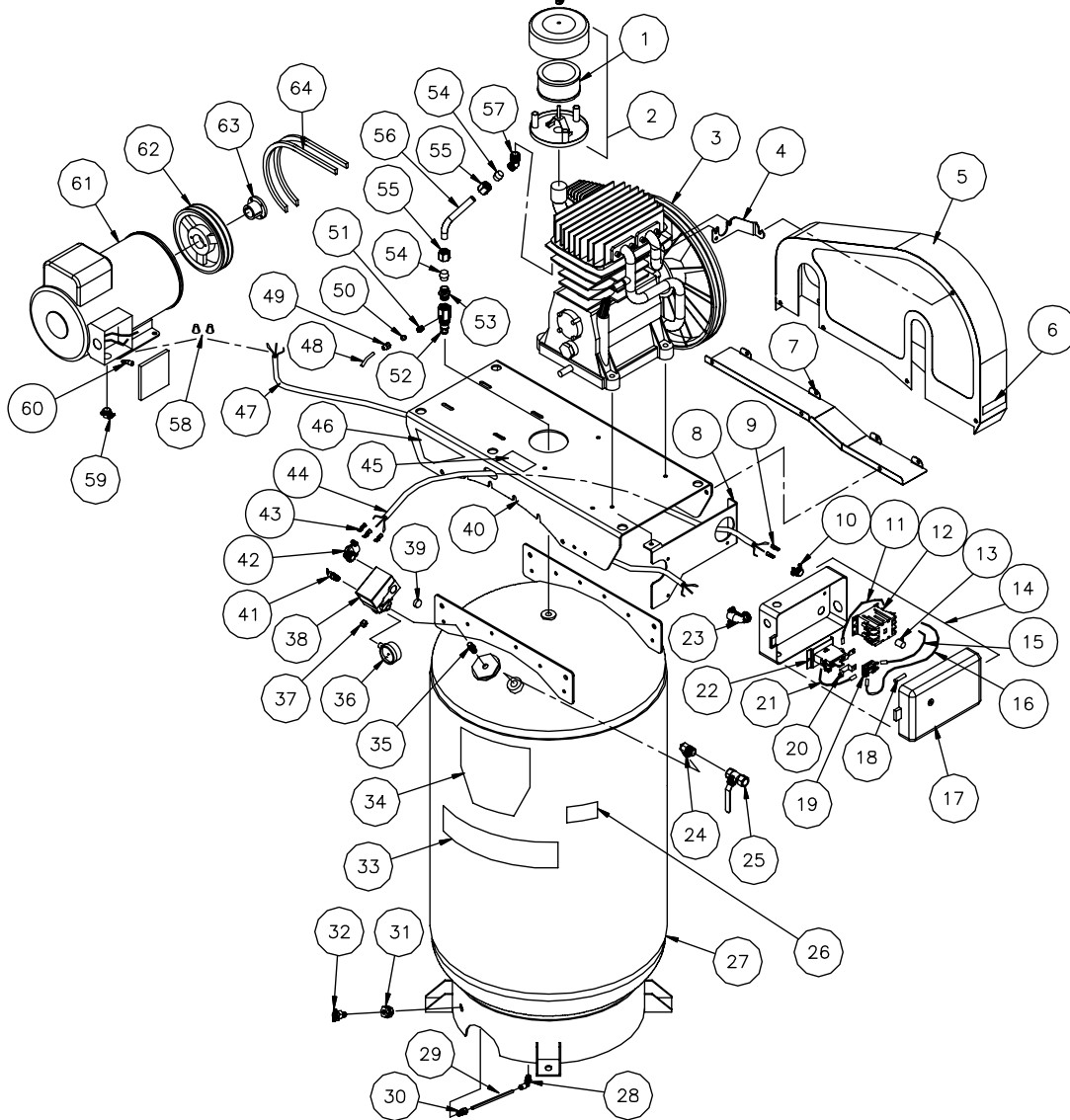
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Item	Description	Part #	Qty
1	Pump Head	AB6061401	1
2	Head Bolt (M10 x 55mm SHCS)	AB9101754	6
3	Air Filter	35409	1
4	Air Filter Assy.	35404	1
5	Intake/Aftercooler Gasket	AB5070200	1
6	Intake Elbow	AB9083227	1
7	Intake/Aftercooler Bolt (M10 x 20 SHCS)	AB9101264	4
8	Safety Valve	AB9049011	1
9	Aftercooler	AB5070100	1
10	Reducer	AB9050284	1
11	Head Gasket	AB6050400	1
12	Valve Plate Assy.	AB6040051	1
13	Cylinder Gasket	AB6050300	1
14	Cylinder, Cast Iron	AB6030000	1
15	Upper Crankcase Gasket	AB6050200	1
16	Cover N.D.E.	AB5061690	1
17	Bearing Cover Gasket	AB5050500	1
18	Bearing	AB9170020	1
19	Oil Sight Glass	AB9022003	1
20	Crankcase	AB6061100	1
21	Cylinder Bolt (M10 x 40mm SHCS)	AB9101324	6
22	Crankcase Plug	AB9101164	1
23	Oil Drain Stub	AB9053201	1
24	Crankcase Bolt (M6 x 20mm HHCS)	AB9114262	12
25	Crankcase Pan	AB6061301	1
26	Lower Crankcase Gasket	AB6050101	1
27	Crankshaft	AB6061200	1
28	Rod Nut	AB9128234	4

Item	Description	Part #	Qty
29	Oil Seal	AB9163030	1
30	Cover D.E.	AB6061590	1
31	Cover Bolt (M6 x 15mm SHCS)	AB9101154	8
32	Flywheel, 430 mm	AB5000100	1
33	Flywheel washer	AB9004009	1
34	Screw, Reverse Thread	AB9110024	1
35	Half Bearing	AB9013014	4
36	Connecting Rod	AB6011101	2
37	Rod Bolt	AB9106244	4
38	Pin, High Pressure	AB6021200	1
39	H.P. Piston, Aluminum	AB6021100	1
40	Piston Ring ROF	AB9020073	2
41	Piston Ring ROS	AB9020041	1
42	Piston Ring AC	AB9020011	1
43	Circlip	AB9140060	4
44	L.P. Piston, Aluminum	AB6022100	1
45	Pin, Low Pressure	AB6022200	1
46	Piston Ring ROF	AB9020076	1
47	Piston Ring ROS	AB9020046	1
48	Piston Ring AC	AB9020016	1
49	Oil fill plug	AB9024006	1
50	Intercooler	AB5262010	1
51	Safety Valve	AB9049064	1
52	Intercooler Bolt (M8 x 20 mm SHCS)	AB9101254	4
53	Intercooler Gasket	AB5050600	2
54	Front Bearing Cover Gasket	AB6050500	1
55	Front Main Bearing	AB9170090	1
	Complete Gasket Kit	AB6050057	1

Air Compressor Exploded View

Note: We have included this exploded view of one of our air compressors to aid you in re-building your air compressor. You can order any of the parts seen below by calling our Product Support at 1-800-270-0810.



Item	Description
1	Air Filter
2	Air Filter Assembly
3	Air Compressor
4	Belt Guard Mount Bracket
5	Belt Guard
6	Rotating Equip. Decal
7	Guard Bottom Bracket
8	Controller Bracket
9	1/4" Female Terminal
10	Strain Relief (12-3 Straight)
11	Wire Assembly (R4)
12	Motor Relay
13	Grounding Post
14	Motor Controller
15	Wire Assembly (R2)
16	Wire Assembly (B3)
17	Controller Box
18	Fuse
19	Fuse Holder
20	Bi-metal Heater
21	Wire Assembly (R3)
22	Overload Relay

Item	Description
23	Strain Relief (8-3 Rt Angle)
24	1/2" NPT Elbow
25	1/2" Ball Valve
26	Name Plate
27	80 Gal Tank, Red
28	1/4" Rt Angle Connection
29	1/4" Diameter HDPE Tube
30	1/4" Straight Connection
31	1/4" NPT Bulkhead Fitting
32	1/4" NPT Water Drain
33	Warning Decal
34	Features Decal
35	1/4" NPT Hex Nipple
36	2" Air Gauge
37	1/4" NPT Plug
38	Pressure Switch/Unloader
39	Dome Cap
40	Top Plate
41	Safety Relief, 200 psi
42	Strain Relief (12-3 Rt. Angle)
43	Fork Terminal, 12
44	Power Cord (12-3, S00W)

Item	Description
45	Warning Decal
46	Instruction Decal
47	Power Cord (8-3, S00W)
48	1/4" Copper Tube
49	1/4" Compression Nut
50	1/4" Compression Sleeve
51	1/8" MPT x 1/4" Comp. Fitting
52	Check Valve
53	3/4" MPT x 5/8" Comp. Fitting
54	5/8" Compression Sleeve
55	5/8" Compression Nut
56	5/8" Copper Tube
57	45 deg 5/8" Comp x 1/2" MPT Fitting
58	Wire Nut
59	Strain Relief
60	Ring Terminal
61	5 HP Magnetek Motor
62	Sheave, AK54K
63	Bushing
64	Belt, A55

Limited Warranty

Dear Valued Customer:

The NorthStar Product you just purchased is built with the finest material and craftsmanship. Use this product properly and enjoy the benefits from its high performance. By purchasing a NorthStar product, you show a desire for quality and durability. Like all mechanical equipment this unit requires a due amount of care. Treat this unit like the high quality piece of machinery it is. Neglect and improper handling may impair its performance. Please thoroughly read the instructions and understand the operation before using your product.

Limited Warranty

NorthStar shall warranty any piece of equipment manufactured, or parts of equipment manufactured, to be free from defects in material or workmanship for a period of 90 days for noncommercial/nonrental use and a period of 90 days for commercial/rental use from the date of purchase by user.

NorthStar shall warranty any wear item, including, but not limited to, valves, seals, pump diaphragms, hoses, and filter elements to be free from defects in material or workmanship for a period of 90 days from the date of purchase by user. This warranty applies to the original purchaser of the equipment and is non transferable. Verification of purchase is the responsibility of the buyer. Parts will be replaced or repaired at no charge, except when the equipment has failed due to lack of proper maintenance. Any misuse, abuse, alteration or improper installation or operations will void warranty. Determining whether a part is to be replaced or repaired is the sole decision of NorthStar.

NOTE: Some services performed by parties other than NorthStar may void warranty.

This warranty covers parts only. It will not provide for replacement of complete products due to defective parts. Components not manufactured by NorthStar are guaranteed by their manufacturer and can be serviced at factory-authorized locations near you. Any costs incurred due to replacement or repair of items outside of a NorthStar approved facility is the responsibility of the buyer and not covered under warranty. NorthStar can supply you with the service center location in your area.

This warranty specifically excludes the following; failure of parts due to damage caused by accident, fire, flood, windstorm, acts of God, applications not approved by NorthStar in writing, corrosion caused by chemicals, use of replacement parts which do not conform to manufacturer's specifications, and damage caused by vandalism. Additional exclusions: loss of running time, inconvenience, loss of income, or loss of use, including any implied warranty of merchantability of fitness for a specific use.

Warranty does not cover items subject to normal wear such as tires, receptacles or any part subject to direct physical contact by the public. This warranty does not cover any personal injury or damage to surrounding property caused by failure of any part.

This warranty is in lieu of any other warranty expressed or implied and NorthStar assumes no other responsibility or liability outside that expressed within this warranty.

Please fill in the following information and have it on hand when you call in on a warranty claim.

Customer Number: _____

Date of Purchase: _____

NorthStar Serial Number: _____

Item Number: _____



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