

7E 7EX Cosumable Repair Parts List

Satisloh Part #	National Optronics	Description
Keypad		
02054142	2907	Keypad assy (7E/ 7EA only)
20054375	94559	Keypad cable (7E/7EA/7EX)
20057235	29200	Keypad (7EX Only)
Display		
02054141	90975	Monitor /Display (7E / 7EA Only)
20054647	90899	Backlight Inverter board-90975 display REPLACEMENT KIT FOR 2914 BOARD)
50057840	90974	Backlight Inverter kit-90907 display 2913 board
20054212	2906	Display interface board (inside lid of machine) - 7E all lines
02061819	29424	Display Assembly 7EX
20059642	94426	Display Cable 7EX
05064953	29290	Hinge Block Right (display 7EX)
05064954	29292	Hinge Block Left (display 7EX)
35053267	22100121	Longer screw for hing block 7EX - 8-32 x 1/2 button head cap screw
Motion Control		
Size		
20057715	94428	NOP CABLE ASSEMBLY NOISE SUPPRESION 7EX
02054126	90543	Size leadscrew (Full Assembly)
15050491	70186	Bearing (Front Size Lead-srew)
15050494	70311	Bearing (Rear -Size Lead-screw)
05057953	28257	Rail - size short
05057952	28255	Rail - size long
15050480	70153	Bearing insert repalcments
20057583	55323	Servo motor
20053094	65520	Coupler -servo
05057991	29103	Home Switch Vane
02060390	48338	Size Home switch Kit (includes below *) will need if older style
02060397	91009	Home Switch (only) *
05058001	29142	Home switch Bracket*
05062503	29434	Home Switch Plate*
35051714	22100153	Screws (quantity 4) 4-40 x 1/4 SHCS*
Bevel		
20057715	94428	NOP CABLE ASSEMBLY NOISE SUPPRESION 7EX
02054125	90548	Bevel Leadscrew w/Left Support Block
05057947	28216	Block Bearing 3/8-8 Leadscrew .69 Thk; Right Side Support Block
15050491	70186	Bearing (Left-Bevel Lead-srew)
15050494	70311	Bearing (Right-Bevel Lead-screw)
05057945	28205	Rails bevel (need 2)
15050480	70153	Bearing insert repalcments
20057583	55323	Servo motor
20053094	65520	Coupler -servo
05057991	29103	Home Switch Vane
02060387	48337	Bevel Home switch Kit (includes below *) will need if older style
02060397	91009	Home Switch (only) *
05058001	29142	Home switch Bracket*
05062503	29434	Home Switch Plate*
35051714	22100153	Screws (quantity 4) 4-40 x 1/4 SHCS*
Axis		
20057715	94428	NOP CABLE ASSEMBLY NOISE SUPPRESION 7EX
20057583	55323	Servo motor
20053094	65520	Coupler -servo
02061344	28333	Axis gearbox - hmsw style (Bearing)v2
02061343	28332	Axis gearbox - encoder style (Bearing)v2
90051100	65168	Shim .002
90051101	65169	Shim .001
90051102	65171	Shim .003
05058002	29147	Cover - Axis Gearbox
Wiring/Boards		
20054208	94535	50 pin cable
20053099	2901	Size interface card
20054209	94537	Wire - size interface to chuck interface

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20053100	2902	Chuck / axis interface card- electric chuck
90051144	2903	Chuck / axis interface -air chuck
20054400	94609	Service jumper
20054381	94569	Main Wiring Harness (7E Only)
20059085	94665	Main Wiring Harness (7EX Only)
Power Supply		
02066228	90474	5V power supply (new one for 7EX as of 2015/2016)
20053095	3406	5V power supply (original 7E type)
02066227	90473	24V power supply (new one for 7EX as of 2015/2016)
02066229	90476	7EX Power Supply Plate assy (new one for 7EX as of 2015/2016)
02066226	29479	POWER SUPPLY PLATE ASSY, VER 2, 7E
20053362	77339	Power supply fuse (2.5A sub miniature)
20054279	77205	On/off switch 15Amp 7E
20054356	94520	Wire (AC input to switch) white
20054357	94521	Wire (AC input to switch) black
20054358	94522	Wire (switch to line filter) white
20054359	94523	Wire (switch to line filter) black
90051434	77099	Power cord 7E
90051600	87445	Non-Conductive Screw Driver
20054288	77361	Power Receptical AC (rear of machine)
Probing		
02054129	90895	Probe Assembly (7E Only)
02054130	90922	C-body assy
02061148	29430	Probe Assembly (7EX Only)
92007957	27092	probe tips
90051115	87246	Step Calibration Disk
Vacuum		
05057836	87181	Vacuum 12 Gallon (C-19 Plug) 115V
90051111	80212	Replacment Vacuum Motor (Red Canister Vacuum = 950c) 115V- Vacuum Discontinued
90051117	90153	Vacuum Motor Replacement Kit (Red Canister) 115V
90051112	80215	Vacuum Brushes "open style" (black head - red cansister vac)
20057672	80211	Replacment Motor (Silver Can Vacuum = ShopVac UM2S250) 115V
90054463	29043	Replacement Motor Kit (silver can vacuum = for ShopVac UM2S250) 115V
20057673	80214	Replacment Brush (silver can vacuum) - need 2
92007959	90140	Vacuum bag set (25 count)
92008416	90145	Vacuum bag set (10 count)
90050864	87150	Foam Filter Sleeve
90051572	87170	Vacuum Spring Clip
90051573	87175	Vacuum Crevice Tool
90051567	87155	Vacuum Hose 1.5" x 12'
90051571	87164	Vacuum Hose 2.5" x 6'
02054667	90500	Static Discharge Hose Assembly
90054378	87169	Inlet Deflector , Vacuum
20054345	94504	Adapter (Standard Vac to C-19)
02054134	90900	Relay (Main) - vacuum / cutter motor
02054143	90913	Vac switch assy - 3 position
20054290	77371	Vacuum Receptical (New Style - C-19 vacuum)
Cutter Motor		
20053098	80733	Cutter motor -no break
02060383	90601	Motor Controller (Universal) 115 (7E Only)
20053361	77320	Fuse (universal Controller) - 15 Amp
20057425	90604	Motor Controller Dynamic Breaking (7EX Only)
02054140	77336	Fuse (Controller 7EX) - 6.3 Amp (slow blow)
20054282	77292	Wall - switch - motor (7E Only)
02054134	90900	Relay (Main) - vacuum / cutter motor
Coolant & Chip Chute		
02054299	28471	Coolant bottle assy internal
02054136	90767	Water solenoid - internal coolant bottle
02054135	90938	Coolant bottle assy external
02054300	90946	Water solenoid - external bottle
20054399	94604	Cable assy external bottle

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Satisloh Part #	National Optronics	Description
02054154	90694	Filter assy - coolant bottle
90050982	75158	Filter element
20053101	94598	Coolant interface board assy - wired
20053362	77339	Fuse - coolant - 2.5 amp
92007958	29104	Sponge - 7E/7EX (pack of 10)
92007964	75170	Tri - Cool (quart)
60053083	74241	Blue Water Line
02054138	90901	Chip chute assy
05056675	29106	Chip chute top (clear part only)
05058208	90531	Chip chute top assy (with manifold)
60053076	73061	Spring (chip chute)
05057966	28456	Hinge - chip chute cover
02054137	90373	Solenoid assembly (chip chute cover lift)
20054347	94509	Solenoid wiring harness
Chuck Motor/Clamping		
15050481	90537	Chuck Motor Full Assembly (7E/7EX product lines)
02054131	90539	Clamp arm replacement kit (contains parts below*)
05057961	28374	Clamp arm *
35051478	22100481	Shoulder screw*
35051479	90538	Lead-screw assy*
60053072	65163	Chuck Arm Bumper O-Ring
05058167	87262	Force gauge
05058194	90369	Force gauge assy kit (with instructions)
05058170	87433	Chuck alightment tool
92007952	90089	Right side clamp - vario 22mm (short white)
02054872	90043	Right side clamp- vario 19mm (short white)
92007953	90083	Right side clamp - vario 17mm (short white)
02055340	90077	Right side clamp 22mm (long black)
90051626	90044	Right side clamp 19mm (long black)
02055341	90076	Right side clamp - 17mm (long black)
92007962	90177	Taper plug (6 pk) 22mm
92007963	90178	Taper plug (6 pk) 17mm
92008211	73168	Taper plug (individual) 17mm
60053081	73162	Taper plug (individual) 19mm
90051109	73166	Taper plug (individual) 22mm
Software		
90051097	3328	System disk (Floppy)
90051178	3325	Backup disk (Floppy)
90051179	3329	Help graphics - (3 disks)- Floppy
20054405	94631	USB TO DISK DRIVE
90051718	95519	System Update & Backup ----- USB KEY/Thumb Drive (usb cage only)
05058241	90978	Chemisty Kit , Upgrade - Floppy
05058240	90977	Chemisty Kit, Upgrade- USB
60053067	55618	Software Dongle, Serial Port, Chemistrie, Configured
Electronics Enclosure		
02061891	29500	Card Cage, USB - 7E 115V Only
02061889	2895	Interface Board -front of cage (configured 7E Only)
20054303	77920	I/O Board (interior left)
02061895	29504	Card Cage , USB - 7EX (115V or 230V)
02061888	2894	Interface Board - front of cage (configured 7EX Only)
90051718	95519	System Update & Backup -(usb cage only)
20054405	94631	USB TO DISK DRIVE
90051469	77341	Fuse - Drill rotation/ 1.25 A
Cutter Body		
02054033	90833	Cutter body assy - hi luster
05057841	93148	Cutter clamp - long
35051505	65232	Torx screws - cutter clamp
90051586	87256	Torx Driver
92007960	93930	Groove wheel - large
92008080	93410	Groove wheel - small
02054036	90812	Multi flute cutter assy

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Satisloh Part #	National Optronics	Description
05058245	93131	Cutter clamp - short / multi-flute
05057841	93148	Cutter clamp - long (main cutter)
35051505	65232	Torx screws - cutter clamp
92007884	93072	Carbide cutter (10 pk)
92008052	93074	Coated carbide cutter
Drill		
02054150	90908	Drill assy (7E Only)
02054149	90909	Drill spindle assy (7E Only)
05058239	90972	Groove assy upgrade kit (7E Only)
02054554	90944	Groove assy - no jumper- drill
20054403	94624	Drill -reverse direction jumper (7E -groove)
90054571	29468	Drill Upgrade Kit (7EX) - if no drill in machine contains drill & accessories
02061093	29195	Combo Drill Assembly (7EX) - full drill
02060463	91004	Drill Spindle -combo drill (7EX)
92007907	29209	Drill bit - left hand- long life
92008220	29218	Drill bit -right hand- long life - standard
92007961	93936	Groove blade - drill
02054156	90915	Motor - spindle
02054157	90916	Motor - pivot
02054155	29207	Belt- drill
90051659	90692	Pin gauge - 1.4 mm
90051469	77341	Fuse - Drill rotation/ 1.25 A
35051742	22100207	Screw 8/32 by 1/2 shcs ss (drill screws to base of machine)
Drill Limit Switches (7EX- need only switch / 7E Need all below with switch*)		
20057670	90013	Upper Limit Switch -Drill
20057671	90014	Lower Limit Switch
05063434	29044	Bracket , Switch Drill 7EX (need 1 if 7E)*
35053090	22100542	Screw - 2-56 x 5/16 Button Head Cap Screw (7E will need 4)*
35051663	22100018	Screw - 6-32 x 1/4 Socket Set Screw , cup point (7E will need 2)*
35053081	22100089	Screw - 4-40 x 3/8 Button Head Cap Screw (7E will need 2)*
35051717	22100156	Screw - 4-40 x 3/8 Socket Head Cap Screw (7E will need 2)*
20054398	94602	No Drill Jumper
20054380	94568	Drill Cable Harness/ Solenoid - to card cage
Door/Case Top		
7E Door Componets		
90051693	90942	Door replacment kit (7E Only) (contains below*)
02054147	90904	Door roller assy, pinned "shaft with o-rings" (7E)*
02061830	29481	Door motor assembly (7E)*
02054916	29126	Bracket Mount Door Switch "need 2" (7E)*
02054144	90903	Door Assembly "door with bushings" (7E)*
35051721	22100161	Bracket screw(door switch)- 4/40 by 5/8 shcs
02054148	90910	Door switch (single)
90051697	90981	Door switch (double)
35051681	22100077	Screw -(door switch to bracket) 2/56 by 3/8 bhcs
05058004	29154	Door bushings (clear door)
60053020	73184	Door o-rings
20054395	94595	Door cable harness (7E)
7EX Door Componets		
02061615	90079	Door Assembly 7EX ONLY (contains below*)
05058004	29154	Door bushings (clear door)*
20057513	77820	Magnetic Safety Switch "Pilz" (7EX)
20057514	77825	Cable Magnetic Safety Switch (7EX)
02061836	29483	Door Roller Assembly , pinned "shaft & o-rings" (7EX)
02061831	29482	Door Motor Assembly, pinned (7EX)
05063104	29270	Bracket Mount , switch - lower/door closed (7EX)
35051721	22100161	Screw (bracket mount to machine) 4-40 x 5/8 SHCS
02054148	90910	Door switch (single)
60053020	73184	Door o-rings
35051681	22100077	Screw -(door switch to bracket) 2/56 by 3/8 bhcs
05058004	29154	Door bushings (clear door)
20054395	94666	Door Cable Harness (7EX)

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Satisloh Part #	National Optronics	Description
Other Case Top Componets		
20054311	90911	Fan Assembly "115V" (7E Only)
20058389	90121	Fan Assembly "24V" (7EX Only)
20056716	77221	E-Stop (7EX)
20059978	94692	E-Stop wiring Harness (7EX)
25050764	82225	Lid Support Lift Cylinder
60053106	82227	Ball socket - lift cylinder (need 2)
Safety System 7EX		
20056716	77221	E-Stop (7EX)
20059978	94692	E-Stop wiring Harness (7EX)
20057513	77820	Magnetic Safety Switch "Pilz" (7EX)
20057514	77825	Cable Magnetic Safety Switch (7EX)
20058825	77397	Pilz Relay - (same for both in 7EX)
20059977	94690	AC Pilz relay cable
20060238	94691	Cable Pilz - interface to card cage
Accessories & Consumables		
92007956	87605	Pattern blanks (ST109-C)
60053023	88501	6 base x 3mm test poly lenses
92009360	88508	8 base x 3mm test blanks
90053801		4mm Plano Essilor Lens
20054345	94504	Cheater cord - stand vac to c-19
90051103	65411	Cleaning wheel
60053119	87400	Dial Caliper
90051601	87450	3/16 -Long Handle Ball Driver
90051602	87452	3/16 - Tee Handle Wrench (Allen)
90051603	87462	3/32 - Tee Handle Wrench (Allen)
90051586	87256	Torx Driver
90051600	87445	Non Conductive Screw Driver (adjusting power supply)
90051116	87501	Pin extractor tool
90051575	87179	Hex Key Set - 1/16 to 1/4 -L shape Allen
90051598	87410	Multi-Meter/ Volt Meter
92007959	90140	Vacuum bag set (25 count)
92008416	90145	Vacuum bag set (10 count)
20053362	77339	Fuse - coolant - 2.5 amp
90051469	77341	Fuse - Drill rotation/ 1.25 A
20053361	77320	Fuse (universal Controller-7E) - 15 Amp
02054140	77336	Fuse (Controller 7EX) - 6.3 Amp (slow blow)
92007962	90177	Taper plug (6 pk) 22mm
92007963	90178	Taper plug (6 pk) 17mm
92008211	73168	Taper plug (individual) 17mm
60053081	73162	Taper plug (individual) 19mm
90051109	73166	Taper plug (individual) 22mm
92007957	27092	Probe tips
60053020	73184	Door o-rings
05058004	29154	Door bushings (clear door)
92007958	29104	Sponge - 7E/7EX (pack of 10)
02054154	90694	Filter assy - coolant bottle
90050982	75158	Filter element
92007964	75170	Tri-Cool (quart)
92007961	93936	Groove blade - drill
92007960	93930	Groove wheel - large (dual Polish)
92008080	93410	Groove wheel - small (Dual Polish)
92007884	93072	Carbide cutter (10 pk)
92008052	93074	Coated carbide cutter
35051505	65232	Torx screws - cutter clamp
92007907	29209	Drill bit - left hand- long life (7EX)
92008220	29218	Drill bit - right hand - long life - (original 7E)
02054030	50060	Barcode Scanner (Serial)
90051757	87342-11	User Manual 7E
90054950	87607-11	User Manual 7EX
90051536	85031	Dust Cover (7E)