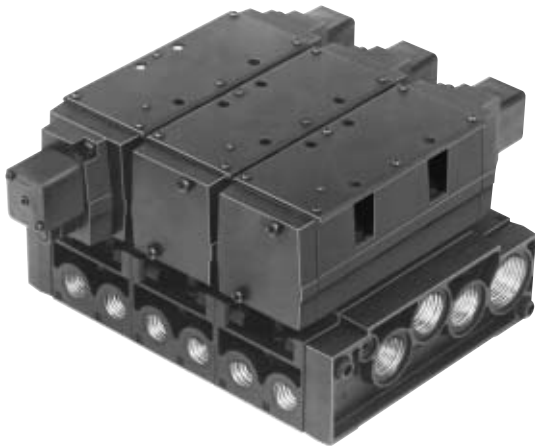




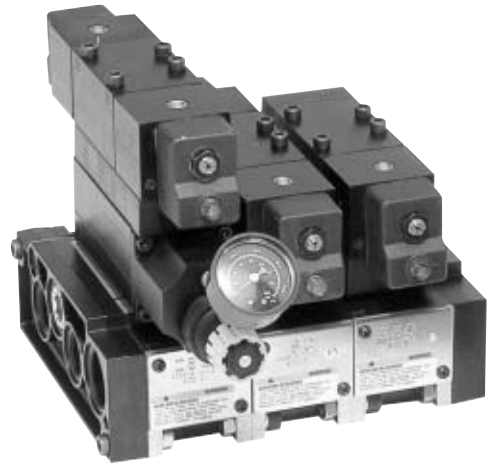
Pneumatic Division North America  
Richland, Michigan 49083

VAL-SIF-121  
45 Series & "H" ISO  
Engineering Level 'A'  
Historical Manual (1974-2001)  
ISSUED: May 7, 2001  
Supersedes: February 15, 2001

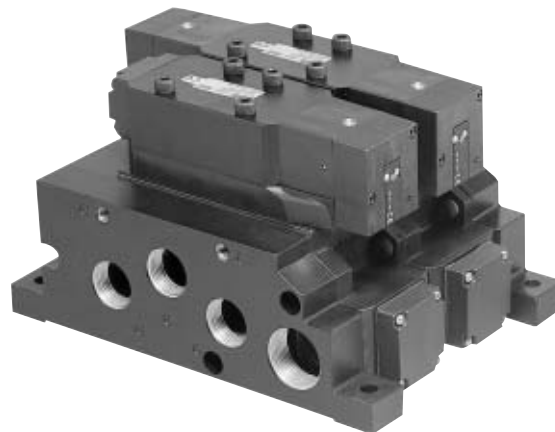
# 45 Series & "H" ISO Engineering Level 'A' Historical Manual (1974 -2001)



45 'A' Series  
Manifold



45 'C' / H 'A' Series  
Manifold



H 'B' Series  
Manifold

History of 45 Series .....	1-2
Model Number Indexes .....	3-6
45 Series Crossover to “H” ISO Engineering Level ‘B’	
4510 Series .....	7-9
4520 Series .....	10-11
4530 Series .....	12-13
45 Series Valve Wiring – VAL-SIF-73 .....	14-15
45 ‘A’ / 45 ‘B’ Part & Repair Kit Information .....	16-19
45 ‘C’ / H ‘A’ Part & Repair Kit Information .....	20-22
Maintenance and Service Bulletin Reference .....	23
H ‘A’ to H ‘B’ Cross Reference .....	24-36
Offer of Sale .....	37

 **WARNING**

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

 **WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application including consequences of any failure, and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

**Offer of Sale**

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated on the separate page of this document entitled “Offer of Sale”.

## Historical Record of the 45 Series

The '45' Series was introduced in 1974 as a manifold and subbase mount valve. The series consisted of the 4510, 4520 and 4530 valves. The design was based on the ISO 5599 Valve Interface, which consisted of 5599-1 for units without an electrical plug in the base, and 5599-2 for units with a plug in the base (Figure A & B). The ISO 5599 standard cover 6 different valve sizes, 1 thru 6. The 4510, 4520, & 4530 corresponds to sizes 2, 3, and 4.

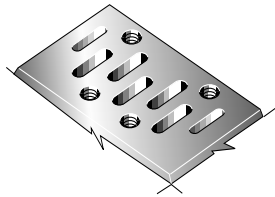


Figure A – 5599-1

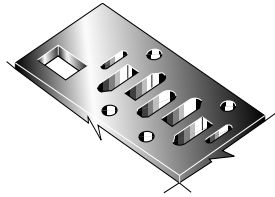


Figure B – 5599-2

The 5599-1 version of the '45' Series met all requirements of the ISO 5599-1 standard. The valve-to-base interface is correct. The 5599-1 version of the '45' Series was either a Remote Pilot or a 30mm Square 3-Pin DIN 43650A electrical connector (Figure C). Currently, ALL 5599-1 versions of the '45' Series are replaced by the Parker 'H' ISO Valve series.



Figure C



Figure D

The 5599-2 version of the '45' Series met the interface requirements of the ISO 5599-2 standard, but did NOT meet the Electrical Plug-In pin designations of the ISO 5599-2 standard (Figure D). The electrical pin designations in the ISO standard were adopted in 1990, 15 years AFTER the '45' Series was introduced. Do to this change in the electrical pin designations, the plug-in version of the '45' Series is NOT to the ISO 5599-2 standard.

**⚠ WARNING: If a person was to place an ISO 5599-2 standard valve on a '45' Series manifold or subbase, the OPPOSITE solenoids would energize, which could cause injury or death in an application.**

The '45' Series had a series of changes in its history. The valve series started out with an Engineering Level of 'A', shown as the 4510A, 4520A, and 4530A. Since then three changes have been made:

### 4510 'B', 4530 'B' - 1978

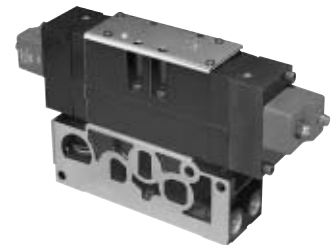
In 1978, the top plate and indicator lights were changed. The function, mounting, and dimensions of the valve went unchanged.

### 4510 'C', 4530 'C' - August 1998

In August of 1998, the 4510 and 4530 valves were updated to a new valve design – Engineering Level 'C'. This new valve design was based on the H2 'A' and H4 'A' ISO valves, but the electrical pin designations were STILL to the '45' Series specification. The 4510 'C' switched completely to the H2 design, and the 4530 'C' switched to the H4 design which utilizes the same valve body, but new solenoid and pilot operators.



4510 'C'



4530 'C'

### 4520 'C' - July 1999

In July of 1999, the 4520 valve was updated to a new valve design – Engineering Level 'C'. This new valve design was based on the H3 'A' ISO valve, but the electrical pin designations were STILL to the '45' Series specification. The 4520 'C' switched completely to the H3 design.



4520 'C'

In addition to the changes in the valve designs, the 4510 Valve was also offered with Sandwich Regulators. The Common Port and Dual Port regulators were introduced in 1980. Since that time, two changes have taken place.

### 4510 Sandwich Regulator Change - February 1998

The 4510 Sandwich Regulator had been a Die Cast Regulator Body - part number PS1274, PS1275, & PS1276. This was changed to a Machined Extruded Aluminum Block in 1998. The bonnet/regulator adjustment section was not changed. The function of the sandwich regulators did not change, just the appearance, therefore the part numbers did NOT change.

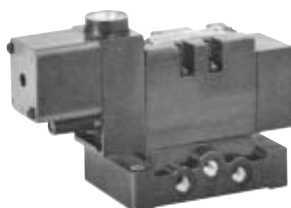
### 4510 Sandwich Regulator Discontinuance - August 1998

The 4510 Sandwich Regulator was discontinued in August of 1998. This was due to the change of the valve to the 4510 'C'. The regulator service kit - PS1273 - is still available for repair of the above Sandwich Regulators.

Due to this regulator discontinuance, and update to the 4510 'C' version valve, the following statements are in place:

- A 4510 'C' valve will NOT work on a 4510 Sandwich Regulator (PS1274, PS1275, PS1276). If a valve needs to be replaced, a new valve and regulator must be ordered.
- A H2 Sandwich Regulator (L9542\*\*\*\*) will NOT work under a 4510 'A' / 4510 'B' valve. If a regulator needs to be replaced, either use regulator repair kit PS1273, or a new regulator and valve must be ordered.

Besides the 4510, 4520, and 4530 series valves, the '45' Series was actually started in 1973 with the introduction of the 4501 valve, a 1/4" subbase/manifold valve with a .60 Cv. The 4501 valve was discontinued in 1989, and there are currently no repair kits available. A suggested cross-over is the Parker F3 series valve, consult factory.



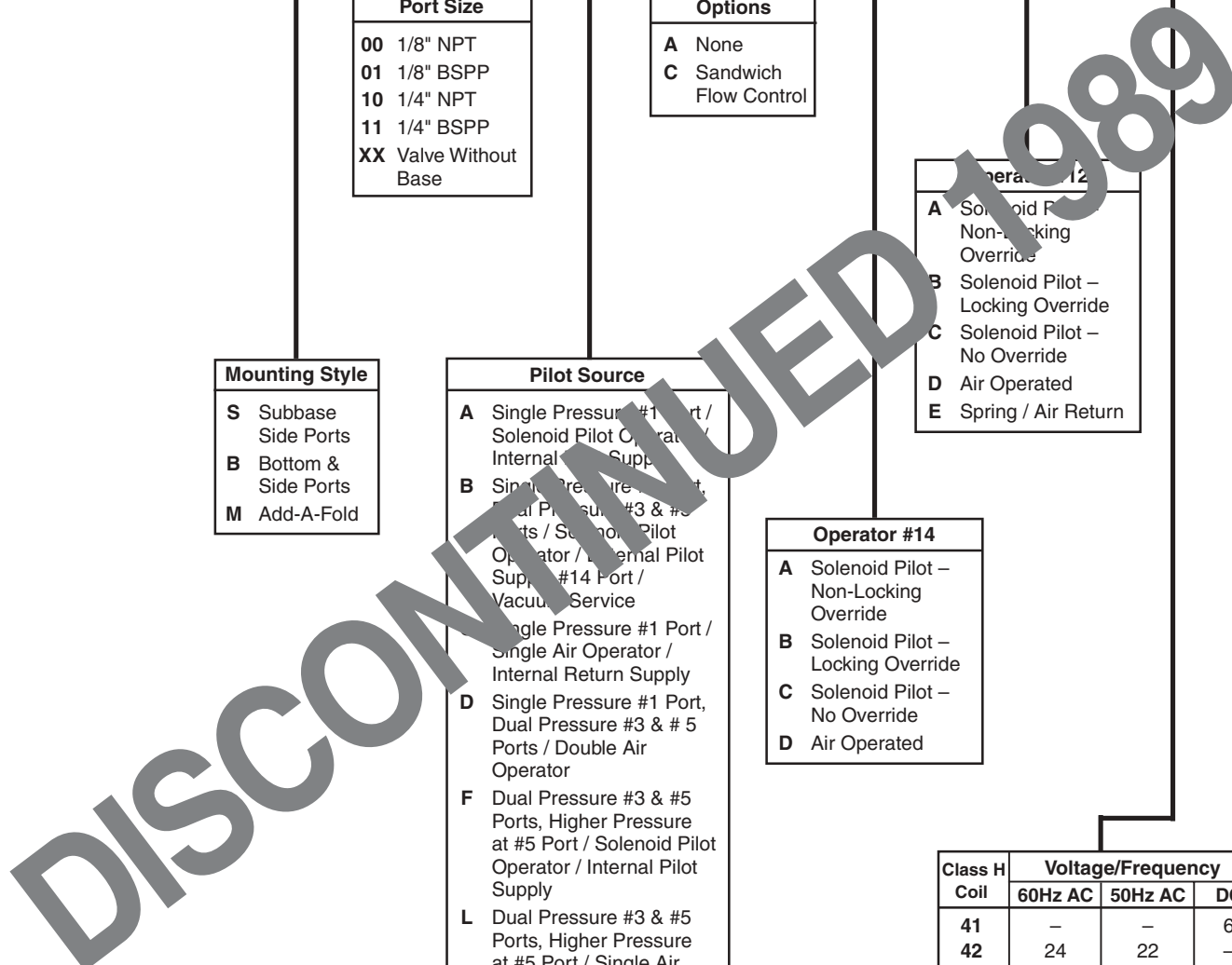
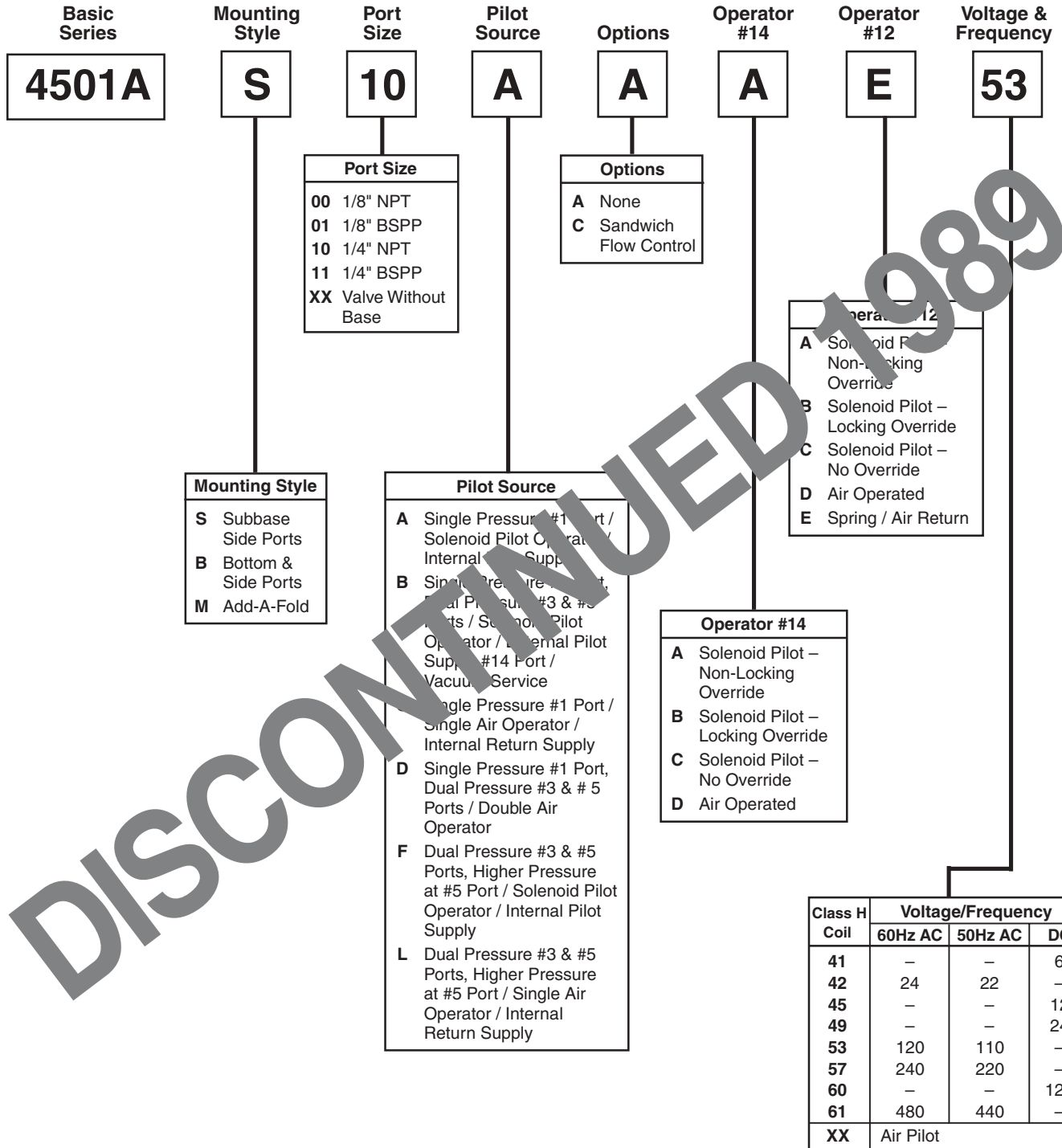
4501

### 45 'C' / H2 'A' / H3 'A' Valve Discontinuance - Effective March 2001

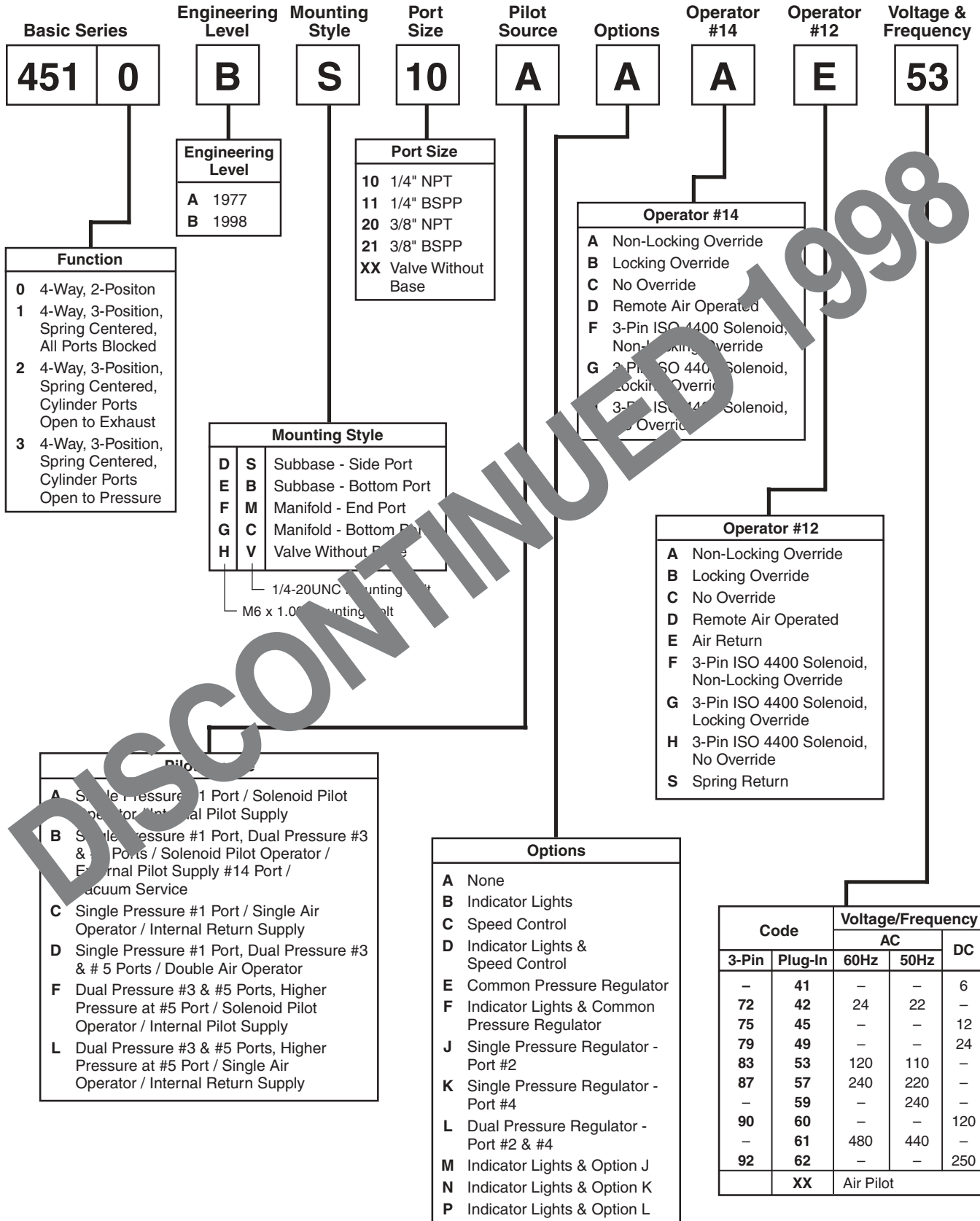
Effective in March 2001, the 4510 'C', 4520 'C', 4530 'C' AND the H2 'A' and H3 'A' product lines will be discontinued and replaced by H2 'B', H3 'B' and H4 'A' ISO Valves. With the changes involved in this discontinuance, the Parker Pneumatic Division has put together some helpful information to assist in keeping machinery and equipment up and running. The remainder of this manual will offer the following:

- A list of the 4501, 4510, 4520, and 4530 Model Number System charts will be shown to help decipher the type of valve you currently have.
- A crossover from the 4510, 4520, and 4530 engineering levels 'A', 'B' and 'C', to the NEW H2 'B', H3 'B' and H4 'A' ISO Series. This list will give the new valve, and the appropriate base and regulator (if required), that is needed to replace your current installation.
- Electrical Details of VAL-SIF-73 describing the WIRING CHANGE REQUIRED in the 45 Series Subbase/Manifold when mounting an H2 'B', H3 'B', or H4 'A' on to an EXISTING 45 SERIES SUBBASE / MANIFOLD. This is due to the Wiring Plug Pins being opposite with the '45' Series to the ISO Valve.
- Cutaway drawings of the 4510, 4520, and 4530 engineering levels 'A' and 'B' valves with repair kits and replacement solenoid pilots.
- Cutaway drawings of the 4510, 4520, and 4530 engineering level 'C' valves (same as the H2 'A', H3 'A', and H4 'A') valves with repair kits and replacement solenoid pilots.
- A list of appropriate instruction sheets to reference when servicing valves.
- A detailed cross reference of the H ISO 'A' Valve to the new H ISO 'B' Valve.

# “4501” Series – 4-Way, 5-Port, 2-Position 1/8" & 1/4" Ports

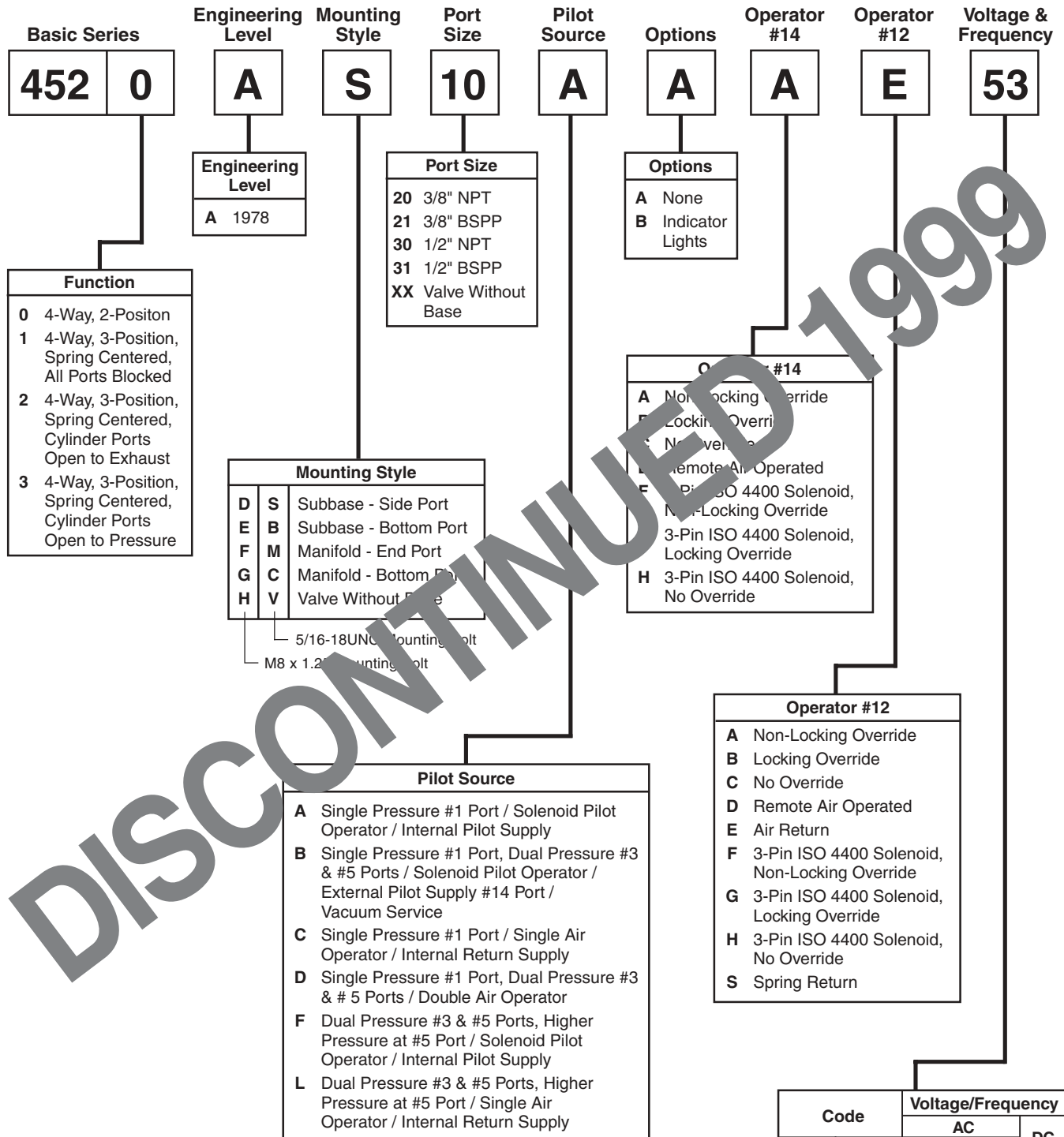


# “4510” Series – 4-Way, 5-Port, 2-Position 1/4" & 3/8" Ports



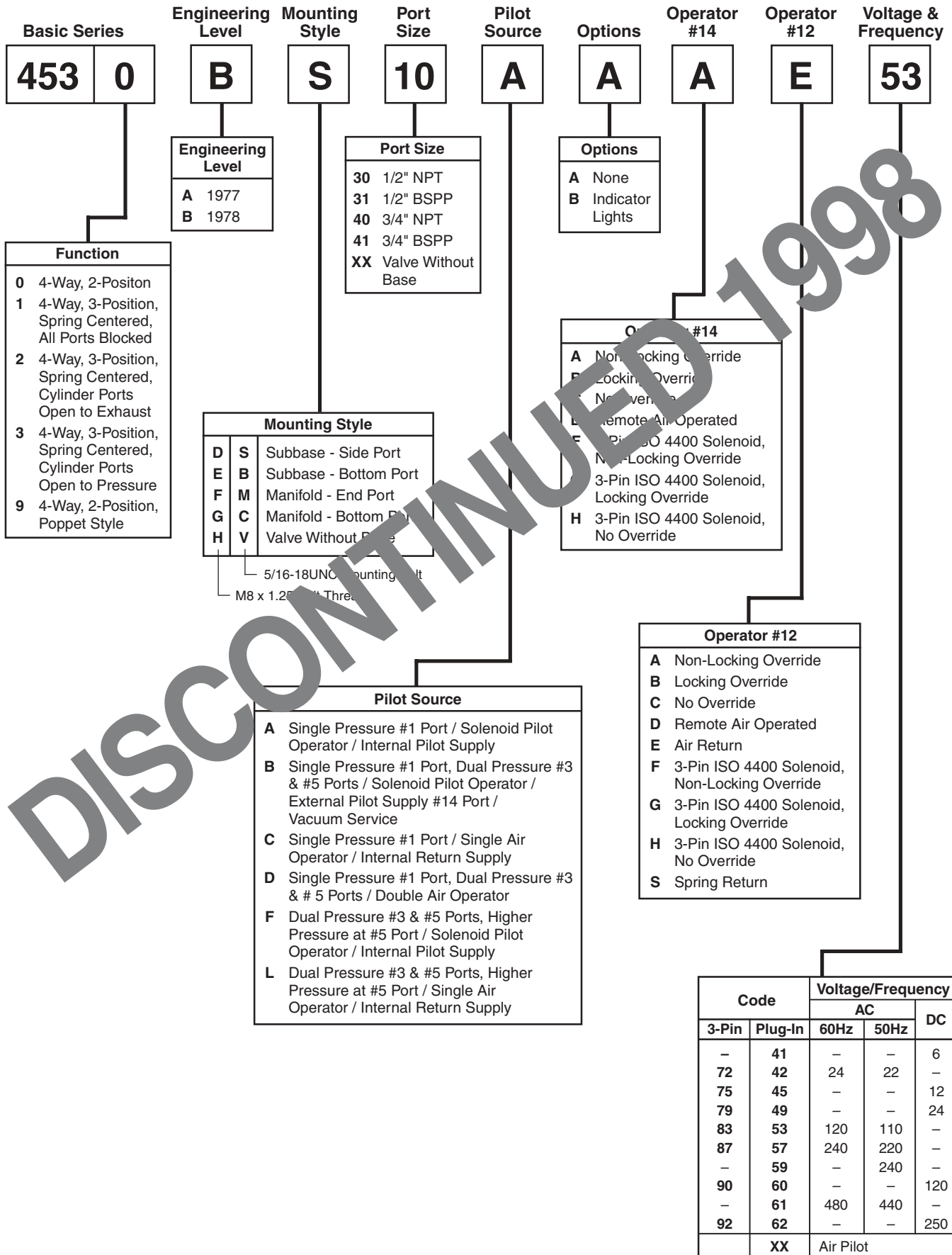


# “4520” Series – 4-Way, 5-Port, 2-Position 3/8" & 1/2" Ports



Code		Voltage/Frequency		
		AC		DC
3-Pin	Plug-In	60Hz	50Hz	
-	41	-	-	6
72	42	24	22	-
75	45	-	-	12
79	49	-	-	24
83	53	120	110	-
87	57	240	220	-
-	59	-	240	-
90	60	-	-	120
-	61	480	440	-
92	62	-	-	250
	XX	Air Pilot		

# “4530” Series – 4-Way, 5-Port, 2-Position 1/2" & 3/4" Ports





# 4510 Series crossover to “H” ISO Engineering Level ‘B’

**WARNING!**  
 When converting from a  
 45 Series Valve to a ‘H’ ISO 5599-2 Valve,  
 the wiring is REVERSED.  
 Follow instructions in this bulletin  
 and VAL-SIF-73.

KEY FOR CHANGES	
1 – Ports move from 1/4" to 3/8"	5 – Refer to Service Kits
2 – Ports move from 3/8" to 1/2"	6 – Must reverse base wiring - VAL-SIF-73
3 – Port move from 1/2" to 3/4"	7 – Regulator Kit must be added - PS4138166P
4 – Ext Pilot Required for Dual Pressure	8 – Regulator Kit must be added - PS4138266P

Old Part #	New Part #	Key
4510BD10AAAA49	<b>H2215BGAB9B</b>	1
4510BD10AAAA53	<b>H2215BGA23B</b>	1
4510BD10AAAA57	<b>H2215BGA87B</b>	1
4510BD10AAAE49	<b>H2115BGAB9B</b>	1
4510BD10AAAE53	<b>H2115BGA23B</b>	1
4510BD10AABB53	<b>H2215BKA23B</b>	1
4510BD10AABE53	<b>H2115BKA23B</b>	1
4510BD10AABE57	<b>H2115BKA87B</b>	1
4510BD10AAFF83	<b>H2215BBL53B</b>	1
4510BD10ABAA53	<b>H2215BGA23B</b>	1
4510BD10ABAE53	<b>H2115BGA23B</b>	1
4510BD10ABBE49	<b>H2115BKAB9B</b>	1
4510BD10ABBE53	<b>H2115BKA23B</b>	1
4510BD10BAAE53	<b>H2115PGA23B</b>	1
4510BD10BAAE57	<b>H2115PGA23B</b>	1
4510BD10BABE53	<b>H2115PKA23B</b>	1
4510BD10BBAE53	<b>H2115PGA23B</b>	1
4510BD10BBBE49	<b>H2115PKAB9B</b>	1
4510BD10CADEXX	<b>H2315000XXB</b>	1
4510BD10DADDXX	<b>H2415000XXB</b>	1
4510BD10FAFF83	<b>H2215BBL53B</b>	1
4510BD20AAAA49	<b>H2215BGAB9B</b>	
4510BD20AAAA53	<b>H2215BGA23B</b>	
4510BD20AAAE42	<b>H2115BGA12B</b>	
4510BD20AAAE49	<b>H2115BGAB9B</b>	
4510BD20AAAE53	<b>H2115BGA23B</b>	
4510BD20AAAE57	<b>H2115BGA87B</b>	
4510BD20AABB53	<b>H2215BKA23B</b>	
4510BD20AABE49	<b>H2115BKAB9B</b>	
4510BD20AABE53	<b>H2115BKA23B</b>	
4510BD20AABE57	<b>H2115BKA87B</b>	
4510BD20AAFE83	<b>H2115BBL53B</b>	
4510BD20AAFF83	<b>H2215BBL53B</b>	
4510BD20ABAA53	<b>H2215BGA23B</b>	
4510BD20ABAE49	<b>H2115BGAB9B</b>	
4510BD20ABAE53	<b>H2115BGA23B</b>	
4510BD20ABBB53	<b>H2215BKA23B</b>	
4510BD20ABBB57	<b>H2215BKA87B</b>	
4510BD20ABBE53	<b>H2115BKA23B</b>	
4510BD20ABBE57	<b>H2115BKA87B</b>	
4510BD20AEFF83	<b>H2215BBL53166B</b>	
4510BD20AFAE53	<b>H2115BGA23166B</b>	

Old Part #	New Part #	Key
4510BD20ALBB53	<b>H2215BKA23266B</b>	
4510BD20BAA53	<b>H2215PGA23B</b>	
4510BD20BAAE49	<b>H2115PGAB9B</b>	
4510BD20BAAE53	<b>H2115PGA23B</b>	
4510BD20BABB53	<b>H2215PKA23B</b>	
4510BD20BABE49	<b>H2115PKAB9B</b>	
4510BD20BBAA49	<b>H2215PGAB9B</b>	
4510BD20BBAA53	<b>H2215PGA23B</b>	
4510BD20BBAE49	<b>H2115PKAB9B</b>	
4510BD20BBAE53	<b>H2115PGA23B</b>	
4510BD20BBBB53	<b>H2215PKA23B</b>	
4510BD20BBBE53	<b>H2115PKA23B</b>	
4510BD20BMBE53	<b>H2115PKA23206B</b>	
4510BD20BMBE57	<b>H2115PKA87206B</b>	
4510BD20BPBB53	<b>H2215PKA23266B</b>	
4510BD20BPBB57	<b>H2215PKA87266B</b>	
4510BD20CADEXX	<b>H2315000XXB</b>	
4510BD20DADDXX	<b>H2415000XXB</b>	
4510BD20FAAE53	<b>H2115PGA23B</b>	4
4510BD21AAAA53	<b>H2216BGA23B</b>	
4510BD21AAAE53	<b>H2116BGA23B</b>	
4510BE20AAAA49	<b>H2225BGAB9B</b>	
4510BE20AAAA53	<b>H2225BGA23B</b>	
4510BE20AAAA57	<b>H2225BGA87B</b>	
4510BE20AAAE49	<b>H2125BGAB9B</b>	
4510BE20AAAE53	<b>H2125BGA23B</b>	
4510BE20AAAE57	<b>H2125BGA87B</b>	
4510BE20AABE57	<b>H2125BKA87B</b>	
4510BE20AAFE79	<b>H2125BBL49B</b>	
4510BE20AAFF79	<b>H2225BBL49B</b>	
4510BE20ABAA53	<b>H2225BGA23B</b>	
4510BE20ABAA57	<b>H2225BGA87B</b>	
4510BE20ABAE53	<b>H2125BGA23B</b>	
4510BE20ABAE57	<b>H2125BGA87B</b>	
4510BE20ABBA53	<b>H2225BKA23B</b>	
4510BE20ABBB53	<b>H2225BKA87B</b>	
4510BE20ABBE53	<b>H2125BKA23B</b>	
4510BE20BAAE49	<b>H2125PGAB9B</b>	
4510BE20BAAE57	<b>H2125PGA87B</b>	
4510BE20BBAE53	<b>H2125PGA23B</b>	
4510BF10AAAA53	<b>H2255BGA23B</b>	1
4510BF10AAAE49	<b>H2155BGAB9B</b>	1

Old Part #	New Part #	Key
4510BF10AAAE53	<b>H2155BGA23B</b>	1
4510BF10AAFE79	<b>H2155BBL49B</b>	1
4510BF10AAFE83	<b>H2155BBL53B</b>	1
4510BF10AAFF83	<b>H2255BBL53B</b>	1
4510BF10ABAA49	<b>H2255BGAB9B</b>	1
4510BF10ABAA53	<b>H2255BGA23B</b>	1
4510BF10ABAE53	<b>H2155BGA23B</b>	1
4510BF10ABBE53	<b>H2155BKA23B</b>	1
4510BF10AFAE53	<b>H2155BGA23166B</b>	1
4510BF10APAE53	<b>H2155BGA23266B</b>	1
4510BF10BAA53	<b>H2255PGA23B</b>	1
4510BF10BBAE53	<b>H2155PGA23B</b>	1
4510BF10BBBE53	<b>H2155PKA23B</b>	1
4510BF10CADEXX	<b>H2355000XXB</b>	1
4510BF20AAAA42	<b>H2255BGA12B</b>	
4510BF20AAAA49	<b>H2255BGAB9B</b>	
4510BF20AAAA53	<b>H2255BGA23B</b>	
4510BF20AAAA57	<b>H2255BGA87B</b>	
4510BF20AAAE42	<b>H2155BGA12B</b>	
4510BF20AAAE49	<b>H2155BGAB9B</b>	
4510BF20AAAE53	<b>H2155BGA23B</b>	
4510BF20AAAE57	<b>H2155BGA87B</b>	
4510BF20AABB49	<b>H2255BKAB9B</b>	
4510BF20AABB53	<b>H2255BKA23B</b>	
4510BF20AABB57	<b>H2255BKA87B</b>	
4510BF20AABE49	<b>H2155BKAB9B</b>	
4510BF20AABE53	<b>H2155BKA23B</b>	
4510BF20AABE57	<b>H2155BKA87B</b>	
4510BF20AAFE79	<b>H2155BBL49B</b>	
4510BF20ABAA53	<b>H2255BGA23B</b>	
4510BF20ABAE49	<b>H2155BGAB9B</b>	
4510BF20ABAE53	<b>H2155BGA23B</b>	
4510BF20ABBB49	<b>H2255BKAB9B</b>	
4510BF20ABBB53	<b>H2255BKA23B</b>	
4510BF20ABBB57	<b>H2255BKA87B</b>	
4510BF20ABBE49	<b>H2155BKAB9B</b>	
4510BF20ABBE53	<b>H2155BKA23B</b>	
4510BF20ABBE57	<b>H2155BKA87B</b>	
4510BF20ABEA53	<b>Obsolete</b>	5
4510BF20AEFE79	<b>H2155BBL49166B</b>	
4510BF20AEFF79	<b>H2255BBL49166B</b>	

### 4510 Series crossover to “H” ISO Engineering Level ‘B’ (continued)

**WARNING!**  
 When converting from a 45 Series Valve to a ‘H’ ISO 5599-2 Valve, the wiring is REVERSED.  
 Follow instructions in this bulletin and VAL-SIF-73.

KEY FOR CHANGES			
1	– Ports move from 1/4" to 3/8"	5	– Refer to Service Kits
2	– Ports move from 3/8" to 1/2"	6	– Must reverse base wiring - VAL-SIF-73
3	– Port move from 1/2" to 3/4"	7	– Regulator Kit must be added - PS4138166P
4	– Ext Pilot Required for Dual Pressure	8	– Regulator Kit must be added - PS4138266P

Old Part #	New Part #	Key	Old Part #	New Part #	Key	Old Part #	New Part #	Key
4510BF20AFAE53	H2155BGA23166B		4510BHXXAAAE45	H21VXBG015B	6	4510CHXXABAE49	H21VXBG089B	6
4510BF20AJAE53	H2155BGA23206B		4510BHXXAAAE49	H21VXBG089B	6	4510CHXXABAE53	H21VXBG023B	6
4510BF20ALAA53	H2255BGA23266B		4510BHXXAAAE53	H21VXBG023B	6	4510CHXXABBB49	H22VXBK089B	6
4510BF20AMAA53	H2255BGA23206B		4510BHXXAABB59	Obsolete		4510CHXXABBB53	H22VXBK023B	6
4510BF20APAA53	H2255BGA23266B		4510BHXXAABE49	H21VXBK089B	6	4510CHXXABBE49	H21VXBK089B	6
4510BF20BAAE53	H2155PGA23B		4510BHXXAABE53	H21VXBK023B	6	4510CHXXABBE53	H21VXBK023B	6
4510BF20BAFE87	H2155PBL53B		4510BHXXAABE57	H21VXBK087B	6	4510CHXXBAAE57	H21VXPG087B	6
4510BF20BAFF79	H2255PBL49B		4510BHXXAAFE79	H21WXBBL49B		4510CHXXBAAE57	H21VXPK087B	6
4510BF20BBAA49	H2255PGAB9B		4510BHXXAAFE83	H21WXBBL53B		4510CHXXBBAA49	H22VXPG089B	6
4510BF20BBAA53	H2255PGA23B		4510BHXXAAFE87	H21WXBBL57B		4510CHXXBBAA53	H22VXPG023B	6
4510BF20BBAE49	H2155PGAB9B		4510BHXXAAFF79	H22WXBBL49B		4510CHXXBBAE49	H21VXPG089B	6
4510BF20BBAE53	H2155PGA23B		4510BHXXAAFF83	H22WXBBL53B		4510CHXXBBAE53	H21VXPG023B	6
4510BF20BBBB53	H2255PKA23B		4510BHXXABAA53	H22VXBG023B	6	4510CHXXBBBB49	H22VXPK089B	6
4510BF20BFAA53	H2255PKA23166B		4510BHXXABAE53	H21VXBG023B	6	4510CHXXBBBB53	H22VXPK023B	6
4510BF20BFAE53	H2155PGA23166B		4510BHXXABBB49	H22VXBK089B	6	4510CHXXBBBE53	H21VXPK023B	6
4510BF20BPAAE49	H2155PGAB9266B		4510BHXXABBB53	H22VXBK023B	6	4511BD10AAAA53	H2515BGA23B	1
4510BF20BPAAE53	H2155PGA23266B		4510BHXXABBB57	H22VXBK087B	6	4511BD10AABB53	H2515BKA23B	1
4510BF20BPBB53	H2255PKA23266B		4510BHXXABBE49	H21VXBK089B	6	4511BD10AAFF79	H2515BBL49B	1
4510BF20BPBB57	H2255PKA87266B		4510BHXXABBE53	H21VXBK023B	6	4511BD10BAAA53	H2515PG023B	1
4510BF20BPBB59	Obsolete		4510BHXXABBE57	H21VXBK087B	6	4511BD10DADDXX	H2815000XXB	1
4510BF20CADEXX	H2355000XXB		4510BHXXABBB53	H22VXPK023B	6	4511BD20AAAA49	H2515BGAB9B	
4510BG20AAAA49	H2265BGAB9B		4510BHXXABBE49	H21VXPK089B	6	4511BD20AAAA53	H2515BGA23B	
4510BG20AAAA57	H2265BGA87B		4510BHXXABBE53	H21VXPK023B	6	4511BD20AAAA57	H2515BGA87B	
4510BG20AAAE53	H2165BGA23B		4510BHXXABBE57	H21VXPK087B	6	4511BD20AACC49	H2515BGAB9B	
4510BG20AAAE57	H2165BGA87B		4510BHXXBAFE83	H21WXPBL53B		4511BD20AAFF79	H2515BBL49B	
4510BG20AABB59	Obsolete		4510BHXXBAFG83	H22WXPBL53B		4511BD20AAFF83	H2515BBL53B	
4510BG20AAFE79	H2165BBL49B		4510BHXXBBAA53	H22VXPG023B	6	4511BD20ABAA53	H2515BGA23B	6
4510BG20AAFF79	H2265BBL49B		4510BHXXBBBB53	H22VXPK023B	6	4511BD20ABBB53	H2515BKA23B	6
4510BG20ABAA53	H2265BKA23B		4510BHXXBBBB59	Obsolete		4511BD20AEFF83	H2515BBL53166B	
4510BG20ABAE53	H2165BKA23B		4510BHXXBBBE49	H21VXPK089B	6	4511BD20BAAA53	H2515PGA23B	
4510BG20ABBB53	H2265BKA23B		4510BHXXBBBE53	H21VXPK023B	6	4511BD20DADDXX	H28WX000XXB	
4510BG20ABBB57	H2265BKA87B		4510BHXXBF53	H22VXPG023B	6,7	4511BE20ABAA53	H2525BGA23B	
4510BG20ABBE53	H2165BKA23B		4510BHXXBPBB53	H22VXPK023B	6,8	4511BE20BAAA57	H2525PGA87B	
4510BG20AEFF83	H2265BBL53166B		4510BHXXCADEXX	H23WX000XXB		4511BE20BBAA53	H2525PGA23B	
4510BG20AF53	H2265BGA23166B		4510BHXXDADDXX	H24WX000XXB		4511BF10AAAA49	H2555BGAB9B	1
4510BG20AF53	H2165BGA23166B		4510CHXXAAAA57	H22VXBG087B	6	4511BF10AAAA53	H2555BGA23B	1
4510BG20APAA53	H2165BGA23266B		4510CHXXAAAE57	H21VXBG087B	6	4511BF10ABAA53	H2555BGA23B	1
4510BG20BFAE53	H2165PGA23266B		4510CHXXAABB57	H22VXBK087B	6	4511BF20AAAA49	H2555BGAB9B	
4510BG20DADDXX	H2465000XXB		4510CHXXAABB59	Obsolete		4511BF20AAAA53	H2555BGA23B	
4510BG20FB53	H2165PGA23B	4	4510CHXXAABE57	H21VXBK087B	6	4511BF20AAAA57	H2555BGA87B	
4510BHXXAAAA49	H22VXBG089B	6	4510CHXXABAA49	H22VXBG089B	6	4511BF20ABAA53	H2555BGA23B	
4510BHXXAAAA53	H22VXBG023B	6	4510CHXXABAA53	H22VXBG023B	6	4511BF20ABBB49	H2555BKAB9B	

## 4510 Series crossover to “H” ISO Engineering Level ‘B’ (continued)

**WARNING!**

When converting from a  
45 Series Valve to a ‘H’ ISO 5599-2 Valve,  
the wiring is REVERSED.

Follow instructions in this bulletin  
and VAL-SIF-73.

**KEY FOR CHANGES**

<b>1</b> – Ports move from 1/4" to 3/8"	<b>5</b> – Refer to Service Kits
<b>2</b> – Ports move from 3/8" to 1/2"	<b>6</b> – Must reverse base wiring - VAL-SIF-73
<b>3</b> – Port move from 1/2" to 3/4"	<b>7</b> – Regulator Kit must be added - PS4138166P
<b>4</b> – Ext Pilot Required for Dual Pressure	<b>8</b> – Regulator Kit must be added - PS4138266P

Old Part #	New Part #	Key	Old Part #	New Part #	Key	Old Part #	New Part #	Key
4511BF20ABBB53	<b>H2555BKA23B</b>		4512BD20DADDXX	<b>H2915000XXB</b>		4512BHXXDADDXX	<b>H29WX000XXB</b>	
4511BF20AFAA53	<b>H2555BGA23166B</b>		4512BD20FAFF83	<b>H2615PBL53B</b>	4	4512BHXXFAFF83	<b>H26WXPBL53B</b>	4
4511BF20APAA53	<b>H2555BGA23266B</b>		4512BD20FBBB53	<b>H2615PKA23B</b>	4	4512BHXXFBBB53	<b>H26VXPK023B</b>	4
4511BF20FAAA53	<b>H2555PGA23B</b>	4	4512BE10AABB57	<b>H2625BKA87B</b>	1	4512CHXXAAA57	<b>H26VXBG087B</b>	6
4511BHXXAAA49	<b>H25VXBG0B9B</b>	6	4512BE20AAAA53	<b>H2625BGA23B</b>		4512CHXXABAA53	<b>H26VXBG023B</b>	6
4511BHXXAAA53	<b>H25VXBG023B</b>	6	4512BE20ABAA53	<b>H2625BGA23B</b>		4512CHXXABBB53	<b>H26VXBK023B</b>	6
4511BHXXAAFF83	<b>H25WXBBL53B</b>		4512BE20BBAA53	<b>H2625PGA23B</b>		4512CHXXBBBB53	<b>H26VXPK023B</b>	6
4511BHXXABAA53	<b>H25VXBG023B</b>	6	4512BF10AAAA53	<b>H2655BGA23B</b>	1	4513BD10AAAA53	<b>H2715BGA23B</b>	1
4511BHXXABBB53	<b>H25VXBK023B</b>	6	4512BF10AAFF83	<b>H2655BBL53B</b>	1	4513BD20AAAA53	<b>H2715BGA23B</b>	
4511BHXXBAFF79	<b>H25WXPBL49B</b>		4512BF10ABAA53	<b>H2655BGA23B</b>	1	4513BD20ABAA53	<b>H2715BGA23B</b>	
4511CHXXAAA57	<b>H25VXBG087B</b>	6	4512BF10AFAA53	<b>H2655BGA23166B</b>	1	4513BD20BAAA53	<b>H2715PGA23B</b>	
4511CHXXABAA53	<b>H25VXBG023B</b>	6	4512BF20AAAA53	<b>H2655BGA23B</b>		4513BD20DADDXX	<b>H2015000XXB</b>	
4511CHXXABBB53	<b>H25VXBK023B</b>	6	4512BF20AABB57	<b>H2655BKA87B</b>		4513BD20FAAA53	<b>H2715PGA23B</b>	4
4511CHXXBBAA53	<b>H25VXPG023B</b>	6	4512BF20AAFF79	<b>H2655BBL49B</b>		4513BF10AAAA53	<b>H2755BGA23B</b>	
4512BD10AAAA53	<b>H2615BGA23B</b>	1	4512BF20ABAA49	<b>H2655BGA89B</b>		4513BF10ABAA53	<b>H2755BGA23B</b>	
4512BD10AABB57	<b>H2615BKA87B</b>	1	4512BF20ABAA53	<b>H2655BGA23B</b>		4513BF20AAAA53	<b>H2755BGA23B</b>	
4512BD10AAFF83	<b>H2615BBL53B</b>	1	4512BF20ABBB53	<b>H2655BKA23B</b>		4513BF20ABAA53	<b>H2755BGA23B</b>	
4512BD10ABAA53	<b>H2615BGA23B</b>	1	4512BF20AEFF79	<b>H2655BBL49166B</b>		4513BF20ABBB53	<b>H2755BKA23B</b>	
4512BD10ABAA57	<b>H2615BGA87B</b>	1	4512BF20AFAA53	<b>H2655BGA23166B</b>		4513BG20AAAA53	<b>H2765BGA23B</b>	
4512BD10DADDXX	<b>H2915000XXB</b>	1	4512BF20BBBA53	<b>H2655PKA23B</b>		4513BG20ABAA53	<b>H2765BGA23B</b>	
4512BD20AAAA49	<b>H2615BGA89B</b>		4512BF20DADDXX	<b>H2955000XXB</b>		4513BG20AFAA53	<b>H2765BGA23166B</b>	
4512BD20AAAA53	<b>H2615BGA23B</b>		4512BG20AAAA53	<b>H2665BGA23B</b>		4513BHXXAAA45	<b>H27VXBG015B</b>	6
4512BD20AAAA57	<b>H2615BGA87B</b>		4512BG20AAAA57	<b>H2665BGA87B</b>		4513BHXXAAA53	<b>H27VXBG023B</b>	6
4512BD20AAFF83	<b>H26A5BBL53B</b>		4512BG20ABAA53	<b>H2665BGA23B</b>		4513BHXXABAA53	<b>H27VXBG023B</b>	6
4512BD20ABAA53	<b>H2615BGA23B</b>		4512BG20AFAA53	<b>H2665BGA23166B</b>		4513BHXXBAAA53	<b>H27VXPG023B</b>	6
4512BD20ABBA53	<b>H2615BKA23B</b>		4512BHXXAAA53	<b>H26VXBG023B</b>	6	4513CHXXABAA53	<b>H27VXBG023B</b>	6
4512BD20ABBB53	<b>H2615BKA23B</b>		4512BHXXAAA57	<b>H26VXBG087B</b>	6	4513CHXXBBAA53	<b>H27VXPG023B</b>	6
4512BD20ALAA53	<b>H2615BGA23266B</b>		4512BHXXABAA53	<b>H26VXBG023B</b>	6			
4512BD20BBAA53	<b>H2615PGA23B</b>		4512BHXXABBB53	<b>H26VXBK023B</b>	6			
4512BD20BBBB53	<b>H2615PKA23B</b>		4512BHXXBBBB53	<b>H26VXPK023B</b>	6			

## 4520 Series crossover to “H” ISO Engineering Level ‘B’

**WARNING!**

When converting from a  
45 Series Valve to a ‘H’ ISO 5599-2 Valve,  
the wiring is REVERSED.

Follow instructions in this bulletin  
and VAL-SIF-73.

**KEY FOR CHANGES**

1 – Ports move from 1/4" to 3/8"	5 – Refer to Service Kits
2 – Ports move from 3/8" to 1/2"	6 – Must reverse base wiring - VAL-SIF-73
3 – Port move from 1/2" to 3/4"	7 – Regulator Kit must be added - PS4138166P
4 – Ext Pilot Required for Dual Pressure	8 – Regulator Kit must be added - PS4138266P

Old Part #	New Part #	Key	Old Part #	New Part #	Key	Old Part #	New Part #	Key
4520AD20AAAA53	H3217BGA23B	2	4520AD30BBBE53	H3117PKA23B		4520AF30BBBE53	H3157PKA23B	
4520AD20AAAE49	H3117BGAB9B	2	4520AD30CADEXX	H3317000XXB		4520AF30DADDXX	H3457000XXB	
4520AD20AAAE53	H3117BGA23B	2	4520AD30DADDXX	H3417000XXB		4520AG30ABAA53	H3267BGA23B	
4520AD20AAAE57	H3117BGA87B	2	4520AD31AAAA53	H3218BGA23B		4520AG30BBAE53	H3167PGA23B	
4520AD20AABE53	H3117BKA23B	2	4520AD31AAAE53	H3118BGA23B		4520AHXXAAAA49	H32VXBG089B	6
4520AD20AAFE79	H3117BBL49B	2	4520AD31AAFE83	H3118BBL53B		4520AHXXAAAA53	H32VXBG023B	6
4520AD20AAFF79	H3217BBL49B	2	4520AD31AAFF83	H3218BBL53B		4520AHXXAAAE53	H31VXBG023B	6
4520AD20ABAA53	H3217BGA23B	2	4520AE20AAAA53	H3227BGA23B	2	4520AHXXAAAE57	H31VXBG087B	6
4520AD20ABAE53	H3117BGA23B	2	4520AE20AAFE83	H3127BBL53B	2	4520AHXXAABB49	H32VXBK089B	6
4520AD20ABBA53	H3217BGA23B	2	4520AE20ABAA53	H3227BGA23B	2	4520AHXXAABB57	H32VXBK087B	6
4520AD20ABBB53	H3217BKA23B	2	4520AE30AAAE53	H3127BGA23B		4520AHXXAABE49	H31VXBK089B	6
4520AD20ABBE53	H3117BKA23B	2	4520AF20AAAA53	H3257BGA23B	2	4520AHXXAABE53	H31VXBK023B	6
4520AD20BBBE53	H3117PKA23B	2	4520AF20AAAE53	H3157BGA23B	2	4520AHXXAABE57	H31VXBK087B	6
4520AD20DADDXX	H3417000XXB	2	4520AF20AABB49	H3257BKAB9B	2	4520AHXXAAFE83	H31WXBBL49B	
4520AD20FAAE53	H3217PGA23B	4	4520AF20AABE49	H3157BKAB9B	2	4520AHXXAAFF83	H32WXBBL53B	
4520AD21AAFE79	H3118BBL49B	2	4520AF20ABAA53	H3257BGA23B	2	4520AHXXAAGE83	H31WXBCL53B	
4520AD30AAAA49	H3217BGAB9B		4520AF20ABAE49	H3157BGAB9B	2	4520AHXXAAGG83	H32WXBCL53B	
4520AD30AAAA53	H3217BGA23B		4520AF20ABAE53	H3157BGA23B	2	4520AHXXABAA53	H32VXBG023B	6
4520AD30AAAA57	H3217BGA87B		4520AF20ABBB53	H3257BKA23B	2	4520AHXXABAE53	H31VXBG023B	6
4520AD30AAAE49	H3117BGAB9B		4520AF20ABBE49	H3157BKAB9B	2	4520AHXXABBB53	H32VXBK023B	6
4520AD30AAAE53	H3117BGA23B		4520AF20ABBE53	H3157BKA23B	2	4520AHXXABBB57	H32VXBK087B	6
4520AD30AAAE57	H3117BGA87B		4520AF21AAAE49	H3158BGAB9B	2	4520AHXXABBE53	H31VXBK023B	6
4520AD30AABB53	H3217BKA23B		4520AF21AAFE79	H3158BBL49B	2	4520AHXXABBE57	H31VXBK087B	6
4520AD30AABB57	H3217BKA87B		4520AF30AAAA49	H3257BGAB9B		4520AHXXBAAE53	H31VXPG023B	6
4520AD30AABE49	H3117BKAB9B		4520AF30AAAA53	H3257BGA23B		4520AHXXBAFF83	H32WXPBL53B	
4520AD30AABE53	H3117BKA23B		4520AF30AAAE49	H3157BGAB9B		4520AHXXCADEXX	H33WX000XXB	
4520AD30AABE57	H3117BKA87B		4520AF30AAAE53	H3157BGA23B		4520CHXXAABB57	H32VXBK087B	6
4520AD30AAFE79	H3117BBL49B		4520AF30AAAE57	H3157BGA87B		4520CHXXAABE57	H31VXBK087B	6
4520AD30AAFE83	H3117BBL53B		4520AF30AABB49	H3257BKAB9B		4520CHXXABAA53	H32VXBG023B	6
4520AD30AAFF79	H3217BBL49B		4520AF30AABB57	H3257BKA87B		4520CHXXABAE49	H31VXBG089B	6
4520AD30AAFF83	H3217BBL53B		4520AF30AABE49	H3157BKAB9B		4520CHXXABAE53	H31VXBG023B	6
4520AD30AAFF87	H3217BBL57B		4520AF30AABE57	H3157BKA87B		4520CHXXABBB53	H32VXBK023B	6
4520AD30AAGE83	H3117BBL53B		4520AF30AAFE83	H3157BBL53B		4520CHXXABBE53	H31VXBK023B	6
4520AD30AAGF83	H3217BBL53B		4520AF30ABAA53	H3257BGA23B		4520CHXXBBBE53	H31VXPK023B	6
4520AD30ABAA53	H3217BGA23B		4520AF30ABAE53	H3157BGA23B		4521AD20AAAA49	H3517BGAB9B	2
4520AD30ABAE49	H3117BGAB9B		4520AF30ABBB49	H3257BKAB9B		4521AD20AAAA53	H3517BGA23B	2
4520AD30ABAE53	H3117BGA23B		4520AF30ABBB53	H3257BKA23B		4521AD20AAFF79	H3517BBL49B	2
4520AD30ABBB53	H3217BKA23B		4520AF30ABBB57	H3257BKA87B		4521AD20ABAA53	H3517BGA23B	2
4520AD30ABBB57	H3217BKA87B		4520AF30ABBE53	H3157BKA23B		4521AD20DADDXX	H3817000XXB	2
4520AD30ABBE53	H3117BKA23B		4520AF30ABBE57	H3157BKA87B		4521AD21AAFF79	H3518BBL49B	2
4520AD30BAAE49	H3117PGAB9B		4520AF30BAAA53	H3257PGA23B		4521AD30AAAA49	H3517BGAB9B	
4520AD30BAAE53	H3117PGA23B		4520AF30BAAE53	H3157PGA23B		4521AD30AAAA53	H3517BGA23B	



## 4520 Series crossover to “H” ISO Engineering Level ‘B’ (continued)

**WARNING!**

When converting from a  
45 Series Valve to a ‘H’ ISO 5599-2 Valve,  
the wiring is REVERSED.

Follow instructions in this bulletin  
and VAL-SIF-73.

**KEY FOR CHANGES**

<b>1</b> – Ports move from 1/4" to 3/8"	<b>5</b> – Refer to Service Kits
<b>2</b> – Ports move from 3/8" to 1/2"	<b>6</b> – Must reverse base wiring - VAL-SIF-73
<b>3</b> – Port move from 1/2" to 3/4"	<b>7</b> – Regulator Kit must be added - PS4138166P
<b>4</b> – Ext Pilot Required for Dual Pressure	<b>8</b> – Regulator Kit must be added - PS4138266P

Old Part #	New Part #	Key	Old Part #	New Part #	Key	Old Part #	New Part #	Key
4521AD30AAAA57	H3517BGA87B		4522AD20ABBB53	H3617BKA23B	2	4522CHXXABAA53	H36VXBG023B	6
4521AD30AAFF83	H3517BBL53B		4522AD20DADDXX	H3917000XXB	2	4522CHXXABBB53	H36VXBK023B	6
4521AD30ABAA49	H3517BGAB9B		4522AD30AAAA49	H3617BGAB9B	2	4523AD20AAFF83	H3717BBL53B	2
4521AD30ABAA53	H3517BGA23B		4522AD30AAAA53	H3617BGA23B	2	4523AD20ABBB53	H3717BKA23B	2
4521AD30ABBB53	H3517BKA23B		4522AD30AAAA57	H3617BGA87B	2	4523AD20DADDXX	H3017000XXB	2
4521AD30BBBB53	H3517PKA23B		4522AD30AAFF83	H3617BBL53B	2	4523AD30AAAA49	H3717BGAB9B	
4521AD30DADDXX	H3817000XXB		4522AD30ABAA53	H3617BGA23B	2	4523AD30AAAA53	H3717BGA23B	
4521AD31AAFF79	H3518BBL49B		4522AD30ABBB53	H3617BKA23B	2	4523AD30DADDXX	H3017000XXB	
4521AE30BAAA53	H3527PGA23B		4522AD30BBAA53	H3617PKA23B	2	4523AD30FBAA53	H3717PGA23B	4
4521AF20AAAA53	H3557BGA23B	2	4522AD30DADDXX	H3917000XXB	2	4523AF20ABBB53	H3757BGA23B	
4521AF20ABAA53	H3557BGA23B	2	4522AE20AAAA49	H3627BGAB9B	2	4523AF30AABB49	H3757BKAB9B	
4521AF30AAAA49	H3557BGAB9B		4522AE20AABB57	H3627BKA87B	2	4523AF30ABAA53	H3757BGA23B	
4521AF30AAAA53	H3557BGA23B		4522AE20DADDXX	H3927000XXB	2	4523AF30ABBB53	H3757BKA23B	
4521AF30AAAA57	H3557BGA87B		4522AF20AABB49	H3657BKAB9B	2	4523AHXXAABB49	H37VXBK0B9B	6
4521AF30ABAA53	H3557BGA23B		4522AF20ABAA53	H3657BGA23B	2	4523AHXXAABB57	H37VXBK087B	6
4521AF30ABBB53	H3557BKA23B		4522AF20ABBB53	H3657BKA23B	2	4523AHXXABAA53	H37VXBG023B	6
4521AF30DADDXX	H3857000XXB		4522AF30AAAA53	H3657BGA23B		4523AHXXABBB53	H37VXBK023B	6
4521AHXXAAAA53	H35VXBG023B	6	4522AF30AABB49	H3657BKAB9B		4523AHXXBAFF83	H37WXPBL53B	
4521AHXXAAAA57	H35VXBG087B	6	4522AF30ABAA53	H3657BGA23B		4523CHXXABAA53	H37VXBG023B	6
4521AHXXAAFF79	H35WXBBL49B		4522AF30ABBB53	H3657BKA23B				
4521AHXXABAA53	H35VXBG023B	6	4522AF30BBBB53	H3657PKA23B				
4521AHXXABBB53	H35VXBK023B	6	4522AG30ABAA53	H3667BGA23B				
4521AHXXBAAA53	H35VXPG023B	6	4522AHXXAAAA53	H36VXBG023B	6			
4521AHXXDADDXX	H38WX000XXB		4522AHXXAABB49	H36VXBK0B9B	6			
4521CHXXABAA49	H35VXBG0B9B	6	4522AHXXAABB57	H36VXBK087B	6			
4521CHXXABAA53	H35VXBG023B	6	4522AHXXAAFF83	H36WXBBL53B	6			
4521CHXXABBB53	H35VXBK023B	6	4522AHXXABAA53	H36VXBG023B	6			
4522AD20AAAA53	H3617BGA23B	2	4522AHXXABBB53	H36VXBK023B	6			
4522AD20AAFF83	H3617BBL53B	2	4522AHXXBBBB53	H36VXPK023B	6			
4522AD20ABAA53	H3617BGA23B	2	4522CHXXAABB57	H36VXBK087B	6			

# 4530 Series crossover to “H” ISO Engineering Level ‘B’

**WARNING!**  
 When converting from a  
 45 Series Valve to a ‘H’ ISO 5599-2 Valve,  
 the wiring is REVERSED.  
 Follow instructions in this bulletin  
 and VAL-SIF-73.

KEY FOR CHANGES	
1 – Ports move from 1/4" to 3/8"	5 – Refer to Service Kits
2 – Ports move from 3/8" to 1/2"	6 – Must reverse base wiring - VAL-SIF-73
3 – Port move from 1/2" to 3/4"	7 – Regulator Kit must be added - PS4138166P
4 – Ext Pilot Required for Dual Pressure	8 – Regulator Kit must be added - PS4138266P

Old Part #	New Part #	Key
4531BD41DADDXX	<b>H4810000XXA</b>	
4532BD41DADDXX	<b>H4910000XXA</b>	
4530BD30CADEXX	<b>H4319000XXA</b>	3
4530BD30DADDXX	<b>H4419000XXA</b>	3
4530BD40CADEXX	<b>H4319000XXA</b>	
4530BD40DADDXX	<b>H4419000XXA</b>	
4531BD30DADDXX	<b>H4819000XXA</b>	3
4531BD40DADDXX	<b>H4819000XXA</b>	
4532BD30DADDXX	<b>H4919000XXA</b>	3
4532BD40DADDXX	<b>H4919000XXA</b>	
4531BF40DADDXX	<b>H4869000XXA</b>	
4532BF40DADDXX	<b>H4969000XXA</b>	
4530BHXXCADEXX	<b>H43WX000XXA</b>	
4530BHXXDADDXX	<b>H44WX000XXA</b>	
4531BHXXDADDXX	<b>H48WX000XXA</b>	
4532BHXXDADDXX	<b>H49WX000XXA</b>	
4532BHXXAAAA42	<b>H46VXBBA42A</b>	6
4530BD30AAAE57	<b>H4119BBA57A</b>	3
4530BD40AAAA57	<b>H4219BBA57A</b>	
4530BE30AAAA57	<b>H4229BBA57A</b>	3
4530BG40AAAA57	<b>H4269BBA57A</b>	
4530BHXXAAAA57	<b>H42VXBBA57A</b>	6
4530BHXXAAAE57	<b>H41VXBBA57A</b>	6
4530CHXXAAAA57	<b>H42VXBBA57A</b>	6
4530CHXXAAAE57	<b>H41VXBBA57A</b>	6
4531BHXXAAAA57	<b>H45VXBBA57A</b>	6
4530BD40AAFE72	<b>H4119BBL42A</b>	
4530BD31AAFE79	<b>H4110BBL49A</b>	
4530BD41AAFE79	<b>H4110BBL49A</b>	
4530BD30AAFE79	<b>H4119BBL49A</b>	3
4530BD30AAFF79	<b>H4219BBL49A</b>	3
4530BD40AAFF79	<b>H4219BBL49A</b>	
4530BF41AAFE79	<b>H4160LBL49A</b>	
4530BHXXBAFE79	<b>H41WXLBL49A</b>	
4531BHXXBAFF79	<b>H45WXLBL49A</b>	
4530BD40AAFE83	<b>H4119BBL53A</b>	
4530BD40AAFF83	<b>H4219BBL53A</b>	
4530BD40BAFE83	<b>H4119LBL53A</b>	
4530BD40BAFF83	<b>H4219LBL53A</b>	
4531BD40AAFF83	<b>H4519BBL53A</b>	
4530BHXXAAFE83	<b>H41WXBBL53A</b>	
4530BHXXBAFE83	<b>H41WXLBL53A</b>	

Old Part #	New Part #	Key
4531BHXXAAFF83	<b>H45WXBBL53A</b>	
4531BHXXBAFF83	<b>H45WXLBL53A</b>	
4530BD40AABB57	<b>H4219BCA57A</b>	
4530BD40AABE57	<b>H4119BCA57A</b>	
4530BD40ABBE57	<b>H4119BCA57A</b>	
4530BD40BBBB57	<b>H4219LCA57A</b>	
4530BD40FB57	<b>H4219LCA57A</b>	4
4532BD40ABBB57	<b>H4619BCA57A</b>	
4530BF40AABB57	<b>H4269BCA57A</b>	
4530BF40AABE57	<b>H4169BCA57A</b>	
4530BF40ABBB57	<b>H4269BCA57A</b>	
4530BF40ABBE57	<b>H4169BCA57A</b>	
4530BF40BBBB57	<b>H4269LCA57A</b>	
4530BF40BBBE57	<b>H4169LCA57A</b>	
4530BG40ABBB57	<b>H4269BCA57A</b>	
4530BHXXAABB57	<b>H42VXBCA57A</b>	6
4530BHXXABBB57	<b>H42VXBCA57A</b>	6
4530BHXXABBE57	<b>H41VXBCA57A</b>	6
4530BHXXBBBB57	<b>H42VXLCA57A</b>	6
4530BHXXFB57	<b>H42VXLCA57A</b>	4,6
4530CHXXAABB57	<b>H42VXBCA57A</b>	6
4530CHXXAABE57	<b>H41VXBCA57A</b>	6
4532BHXXABBB57	<b>H46VXBCA57A</b>	6
4531BD41AAAA49	<b>H4510BGA49A</b>	
4530BD30AAAA49	<b>H4219BGA49A</b>	3
4530BD30AAAE49	<b>H4119BGA49A</b>	3
4530BD30BAAE49	<b>H4119LGA49A</b>	3
4530BD40AAAA49	<b>H4219BGA49A</b>	
4530BD40AAAE49	<b>H4119BGA49A</b>	
4530BD40BAAA49	<b>H4219LGA49A</b>	
4530BD40BAAE49	<b>H4119LGA49A</b>	
4531BD30AAAA49	<b>H4519BGA49A</b>	3
4531BD40AAAA49	<b>H4519BGA49A</b>	
4532BD40AAAA49	<b>H4619BGA49A</b>	
4530BF40BAAE49	<b>H4169LGA49A</b>	
4531BF40BAAA49	<b>H4569LGA49A</b>	
4530BHXXAAAE49	<b>H41VXBGA49A</b>	6
4530CHXXABAE49	<b>H41VXBGA49A</b>	6
4531BHXXAAAA49	<b>H45VXBGA49A</b>	6
4531CHXXABAA49	<b>H45VXBGA49A</b>	6
4530BD41AAAA53	<b>H4210BGA53A</b>	
4530BD30AAAA53	<b>H4219BGA53A</b>	3

Old Part #	New Part #	Key
4530BD30AAAE53	<b>H4119BGA53A</b>	3
4530BD30ABAA53	<b>H4219BGA53A</b>	3
4530BD30ABAE53	<b>H4119BGA53A</b>	3
4530BD30FAAE53	<b>H4119LGA53A</b>	4
4530BD40AAAA53	<b>H4219BGA53A</b>	
4530BD40AAAE53	<b>H4119BGA53A</b>	
4530BD40ABAA53	<b>H4219BGA53A</b>	
4530BD40ABAE53	<b>H4119BGA53A</b>	
4530BD40BAAA53	<b>H4219LGA53A</b>	
4530BD40BAAE53	<b>H4119LGA53A</b>	
4530BD40BBAA53	<b>H4219LGA53A</b>	
4530BD40FAAE53	<b>H4119LGA53A</b>	4
4530BD40FBAA53	<b>H4219BGA53A</b>	4
4531BD30AAAA53	<b>H4519BGA53A</b>	3
4531BD30ABAA53	<b>H4519BGA53A</b>	3
4531BD30ABAA53	<b>H4519LGA53A</b>	
4532BD30AAAA53	<b>H4619BGA53A</b>	3
4532BD30ABAA53	<b>H4619BGA53A</b>	3
4532BD30FAAA53	<b>H4619LGA53A</b>	4
4532BD40AAAA53	<b>H4619BGA53A</b>	
4532BD40ABAA53	<b>H4619BGA53A</b>	
4532BD40FAAA53	<b>H4619LGA53A</b>	4
4533BD30AAAA53	<b>H4719BGA53A</b>	3
4533BD30BAAA53	<b>H4719LGA53A</b>	
4533BD30FAAA53	<b>H4719LGA53A</b>	4
4530BE30AAAA53	<b>H4229BGA53A</b>	3
4530BE40AAAA53	<b>H4229BGA53A</b>	
4531BE40AAAA53	<b>H4529BGA53A</b>	
4530BF40AAAA53	<b>H4269BGA53A</b>	
4530BF40AAAE53	<b>H4169BGA53A</b>	
4530BF40ABAA53	<b>H4269BGA53A</b>	
4530BF40ABAE53	<b>H4169BGA53A</b>	
4530BF40FAAE53	<b>H4169LGA53A</b>	4
4530BG40AAAA53	<b>H4269BGA53A</b>	
4530BG40AAAE53	<b>H4169BGA53A</b>	
4530BG40ABAA53	<b>H4269BGA53A</b>	
4530BG40ABAE53	<b>H4169BGA53A</b>	
4530BG40BBAA53	<b>H4269LGA53A</b>	
4531BF30ABAA53	<b>H4569BGA53A</b>	3
4531BF40AAAA53	<b>H4569BGA53A</b>	



## 4530 Series crossover to “H” ISO Engineering Level ‘B’ (continued)

**WARNING!**

When converting from a  
45 Series Valve to a ‘H’ ISO 5599-2 Valve,  
the wiring is REVERSED.

Follow instructions in this bulletin  
and VAL-SIF-73.

**KEY FOR CHANGES**

1 – Ports move from 1/4" to 3/8"	5 – Refer to Service Kits
2 – Ports move from 3/8" to 1/2"	6 – Must reverse base wiring - VAL-SIF-73
3 – Port move from 1/2" to 3/4"	7 – Regulator Kit must be added - PS4138166P
4 – Ext Pilot Required for Dual Pressure	8 – Regulator Kit must be added - PS4138266P

Old Part #	New Part #	Key	Old Part #	New Part #	Key	Old Part #	New Part #	Key
4531BF40ABAA53	H4569BGA53A		4532BHXXABBB49	H46VXBHA49A	6	4532BG40ABBB53	H4669BHA53A	
4532BF30AAAA53	H4669BGA53A	3	4530BD30AABB53	H4219BHA53A	3	4533BF40ABBB53	H4769BHA53A	
4532BF40AAAA53	H4669BGA53A		4530BD30AABE53	H4119BHA53A	3	4530BHXXAABB53	H42VXBHA53A	6
4530BHXXAAAA53	H42VXBGA53A	6	4530BD30ABAB53	H4219BHA53A	3	4530BHXXABE53	H41VXBHA53A	6
4530BHXXAAAE53	H41VXBGA53A	6	4530BD30ABBB53	H4219BHA53A	3	4530BHXXABAB53	H42VXBHA53A	6
4530BHXXABAA53	H42VXBGA53A	6	4530BD30ABBE53	H4119BHA53A	3	4530BHXXABBB53	H42VXBHA53A	6
4530BHXXABAE53	H41VXBGA53A	6	4530BD40AABB53	H4119BHA53A		4530BHXXABBE53	H41VXBHA53A	6
4530BHXXBAAE53	H41VXLGA53A	6	4530BD40AABE53	H4119BHA53A		4530BHXXABAE53	H41VXLHA53A	6
4530BHXXBBAA53	H42VXLGA53A	6	4530BD40ABBB53	H4219BHA53A		4530BHXXBBBB53	H42VXLHA53A	6
4530CHXXABAA53	H42VXBGA53A	6	4530BD40ABBE53	H4119BHA53A		4530BHXXBBBE53	H41VXLHA53A	6
4530CHXXABAE53	H41VXBGA53A	6	4530BD40ABCE53	H4119BHA53A		4530BHXXFBBB53	H42VXLHA53A	4,6
4530CHXXBBAA53	H42VXLGA53A	6	4530BD40BBBB53	H4219LHA53A		4530CHXXABBB53	H42VXBHA53A	6
4530CHXXBBAAE53	H41VXLGA53A	6	4530BD40BBBBE53	H4119LHA53A		4530CHXXABBE53	H41VXBHA53A	6
4531BHXXAAAA53	H45VXBGA53A	6	4530BD40FBBB53	H4219LHA53A	4	4530CHXXBBBB53	H42VXLHA53A	6
4531BHXXABAA53	H45VXBGA53A	6	4531BD30AABB53	H4519BHA53A	3	4530CHXXBBBE53	H41VXLHA53A	6
4531CHXXABAA53	H45VXBGA53A	6	4531BD30FBBB53	H4519LHA53A	4	4530CHXXFBBB53	H42VXLHA53A	4,6
4532BHXXAAAA53	H46VXBGA53A	6	4531BD40ABBB53	H4519BHA53A		4531BHXXABBB53	H45VXBHA53A	6
4532BHXXABAA53	H46VXBGA53A	6	4532BD30ABBB53	H4619BHA53A	3	4531CHXXABBB53	H45VXBHA53A	6
4532BHXXBBAA53	H46VXLGA53A	6	4532BD40ABBB53	H4619BHA53A		4531CHXXBBBB53	H45VXLHA53A	6
4532CHXXABAA53	H46VXBGA53A	6	4533BD30ABBB53	H4719BHA53A	3	4532BHXXABBB53	H46VXBHA53A	6
4533CHXXFBAA53	H47VXLGA53A	4,6	4530BE40ABBB53	H4229BHA53A		4532CHXXABBB53	H46VXBHA53A	6
4530BD30AABE49	H4119BHA49A	3	4530BE40ABBE53	H4129BHA53A		4533BHXXABBB53	H47VXBHA53A	6
4530BD40ABBB49	H4219BHA49A		4530BF30ABBB53	H4269BHA53A	3	4533CHXXABBB53	H47VXBHA53A	6
4530BD40FBBB49	H4219LHA49A	4	4530BF40ABBB53	H4269BHA53A		4530BD30LADEXX	Obsolete	5
4532BD40ABBB49	H4619BHA49A		4530BF40ABBE53	H4169BHA53A		4530BD40BBBB59	Obsolete	5
4530BF40AABE49	H4169BHA49A		4530BF40BBBB53	H4269LHA53A		4530BHXXBBBB59	Obsolete	5
4530BF40ABBB49	H4269BHA49A		4530BF40BBBE53	H4169LHA53A		4530BVXXABBB53	Obsolete	5
4530BF40ABBE49	H4169BHA49A		4530BG40ABBB53	H4269BHA53A		4530BVXXABBE53	Obsolete	5
4530BG40ABBB49	H4269BHA49A		4530BG40ABBE53	H4169BHA53A		4530BVXXXAFE83	Obsolete	5
4530BHXXABBB49	H42VXBHA49A	6	4531BF40ABBB53	H4569BHA53A		4531BD30AAAA60	Obsolete	5
4530BHXXABBE49	H41VXBHA49A	6	4531BF40BBBB53	H4569LHA53A				
4530BHXXFBBB49	H42VXLHA49A	4,6	4531BG40ABBB53	H4569BHA53A				
4530CHXXABBB49	H42VXBHA49A	6	4532BF40ABBB53	H4669BHA53A				

**! WARNING**

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply before installation, servicing, or conversion.
- Disconnect air supply and de-pressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, voltage, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed on these instructions.
- Installation, service, and conversions of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

Parker Model 45 \_\_\_\_\_ Valves and Bases

Schrader Bellows Model 85 \_\_\_\_\_ Valves and Bases

Speedaire Model 1A21 \_ Valves and Bases

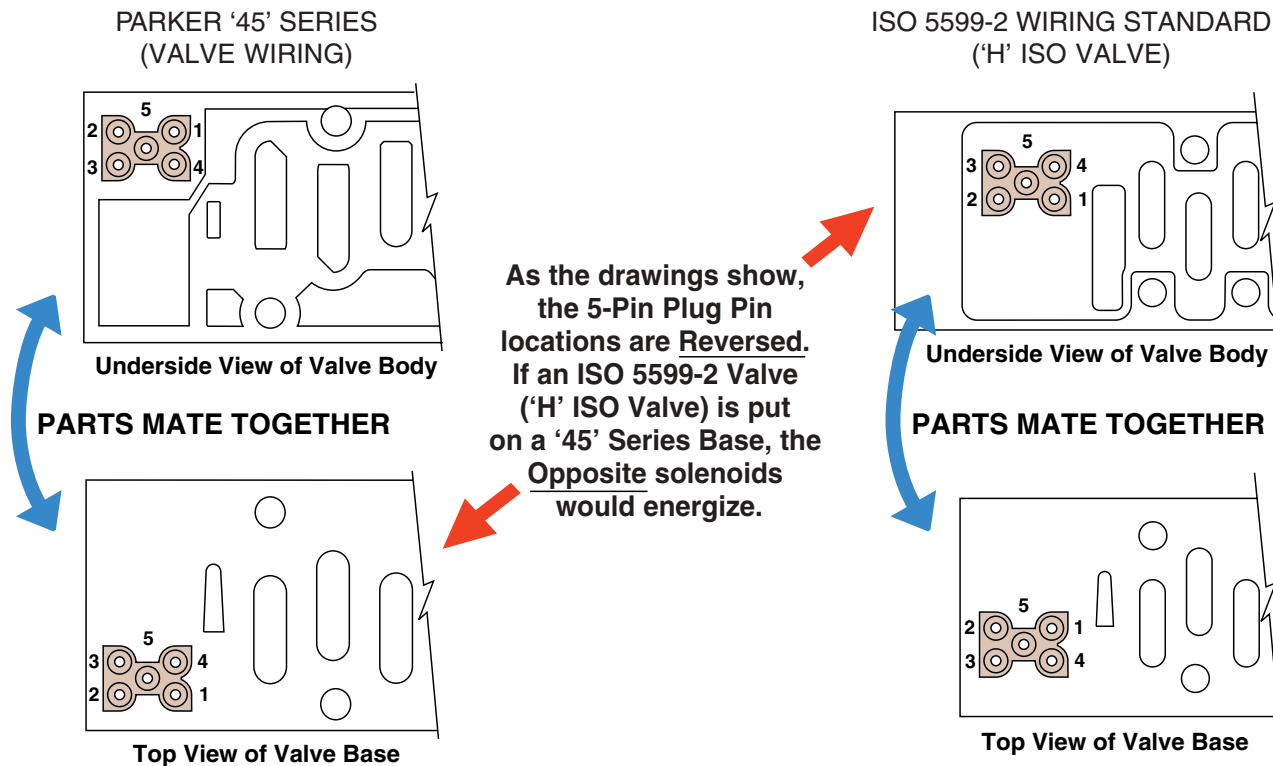
**Reversed Wiring of Solenoids**

Parker Hannifin Corp., Schrader Bellows Pneumatic Division, manufactures the above models of air valves and bases that, in the past, were reported to comply with ISO standard 5599-2: 1990 (and its predecessor drafts ISO DIS 5599-3). These valves and bases were manufactured to interface pattern sizes 2E, 3E, and/or 4E, and have been in production since 1977. In mid 1993, it was discovered that the solenoid wires in the interface electrical connector occupied positions that were opposite to that specified in the ISO standard 5599-2: 1990.

The reason for this reversal was found to be a change that was made to the pin number positions in the electrical connector during an ISO Committee meeting in 1977. But, production tooling had already begun with wiring to the original specification before this change occurred. It was subtle, went unnoticed until 1993, and production occurred with the original wiring specifications. The difference between the original and final wiring specifications are demonstrated in the sketches below.

There were no consequences to this change during all the years prior to the discovery because no other manufacturer was known to produce valves to the ISO 5599-2: 1990 standard. In 1993, several other air valve manufacturers introduced valves to the market whose solenoids are wired in accordance with the published ISO standard. Since valve bodies are physically interchangeable on any of the several manufacturer's bases, the electrical signals to an interchanged set could cause different reactions. An electrical signal supplied to the No. 14 solenoid wires in a Parker base, will operate the No. 12 solenoid of another manufacturer's valve mounted on the Parker base. Likewise, an electrical signal supplied to the No. 14 solenoid wire in another manufacturer's base, will operate the No. 12 solenoid of a Parker valve mounted to the other manufacturer's base.

**ELECTRICAL CONNECTOR PIN POSITION IDENTIFICATION**



In all views, electrical wires in: positions 1 & 3 connect to solenoid 14  
 positions 2 & 4 connect to solenoid 12  
 position 5 connects to ground

## Identification

Parker, Schrader Bellows, and Speedaire valves are identified by a label affixed to the top cover of the valve. Parker valves at issue here are identified by their model numbers, beginning with the digits 45\_\_\_\_\_. Schrader Bellows valves are identified by numbers beginning with the digits 85\_\_\_\_\_. Speedaire valves are identified by their full model numbers, either 1A214 or 1A215. The bases for all of these valves can be either single subbases or stacking manifold bases. If the valve body is removed from its base, cast-in lettering may be found on the upper surface of the base, at the end opposite the field wiring junction box. A Parker, Schrader Bellows, or Speedaire base will have the lettering ISO 2E, or ISO 3E, or ISO 4E; or simply 0 2E, or 0 3E, or 0 4E. There are also Festo bases with this cast-in lettering and with a physical appearance similar to the Parker bases. However, these have been wired in accordance with ISO 5599-2: 1990. These will have a Festo label on the junction box cover, a letter "F" stamped next to the cast-in lettering, and a blue common wire inside the electrical junction box. These bases should be treated as described in – ISO 5599-2 Valve Mounted to ISO 5599-2 Base below.

### Mounting 'H' ISO 5599-2 or Competitor's ISO 5599-2 Valve on '45' Series Base

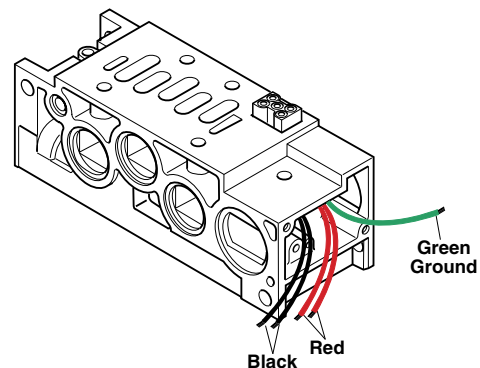
If the electrical wires in either the valve body or base have not been previously changed, then the field wiring connections in the base junction box **MUST** be reversed to be made opposite to that described in Mounting '45' Series Valve.

Reconnect the field wires:

- Single solenoid: Red only
- Double solenoid: 14 Red; 12 Black
- Green to ground

**Do not attempt to remove the plug pins in the base.**

If there is any doubt that a previous wiring change may have occurred, trace the wires from the solenoids to the field junction box in the base and mark the wires for identification with their respective solenoids. Attach them to the field wires in accordance with these identifications.



## Field Wiring Instruction

### Mounting '45' Series Valves on '45' Series Base

The wiring in these products will continue to be supplied as it has in the past - not in conformance to ISO 5599-2: 1990. Therefore, unless any previous wiring changes have occurred, replacement valves and bases can be used without any wiring changes. This can be confirmed by examining the wire insulation color in both the valve body and the base: red wires should be diagonally located in pin positions 2 and 4 (No. 2 would be at the outer corner - see "Parker Wiring" sketch on previous page), black wires should be diagonally located in pin positions 1 and 3, and the green wire should be in the center position 5. Field wiring should then be made in accordance with the wiring instructions found on a label inside the base junction box cover. It would be as follows:

- Single solenoid: Black only
- Double solenoid: 14 Black; 12 Red
- Green to ground

If the wire insulation color scheme is not confirmed as described above, it is possible that previous wire changes have occurred. Then the wires from the solenoids to the field junction box in the base must be traced and the wire marked for identification with their respective solenoids. Attach them to the field wires in accordance with these identifications.

## TESTING

Always test the machine for correct function after connecting the field wires in the base junction box. Do this in such a manner that if a wrong wiring has, in fact, occurred, that there will be no consequential damage, injury, or death. Check every sequence and function of the machine that is associated with the electrical actuation of all solenoids in each valve of the system.

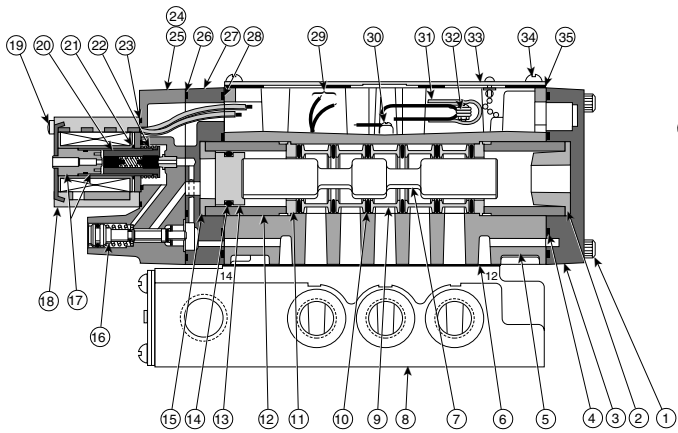
### '45' Series Valve Mounted to ISO 5599-2 Base

If the electric wires in either the valve body or base have not been previously changed, then the field wiring connections in the base junction box will be made opposite to that described in the other manufacturer's instructions. If there is any doubt that a previous wiring change may have occurred, trace the wires from the solenoids to the field junction box in the base and mark the wires for identification with their respective solenoids. Attach them to the field wires in accordance with these identifications.

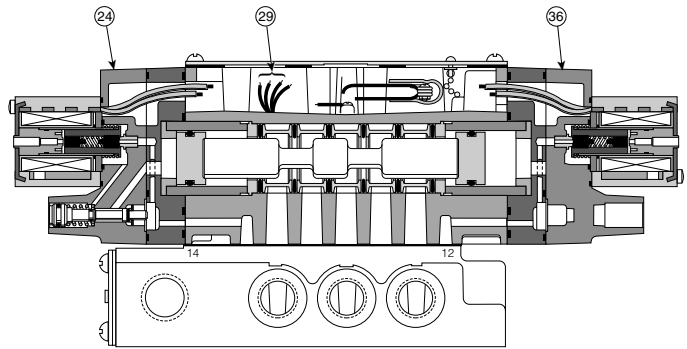
### ISO 5599-2 Valve Mounted to ISO 5599-2 Base

If the other manufacturers of either valve bodies or bases claim conformance to the ISO 5599-2: 1990 standard, and the electric wires in either valve bodies or bases have not been previously changed, then the field wiring connections in the base junction box will be made directly in accordance with the instructions of the other manufacturers. If there is any doubt that a previous wiring change may have occurred, trace the wires from the solenoids to the field junction box in the base and mark the wires for identification with their respective solenoids. Attach them to the field wires in accordance with these identifications.

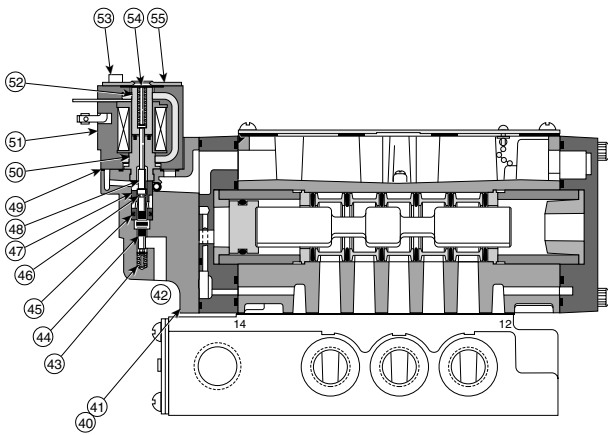
# 45 Series – 2-Position, Engineering Level ‘A’ & ‘B’ (1974-1998)



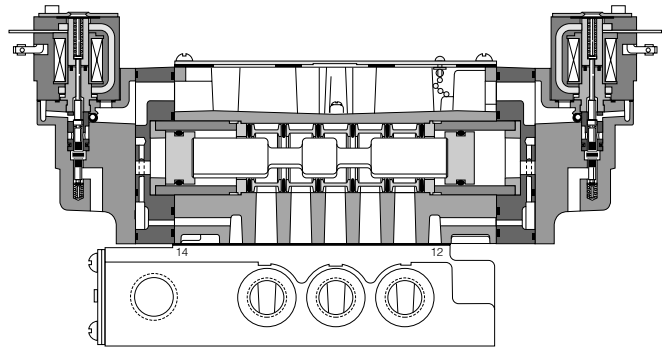
**Single Solenoid Operator - Air Return  
(Plunger Type Solenoid)**



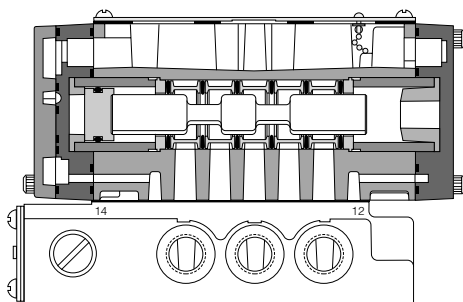
**Double Solenoid Operators  
(Plunger Type Solenoid)**



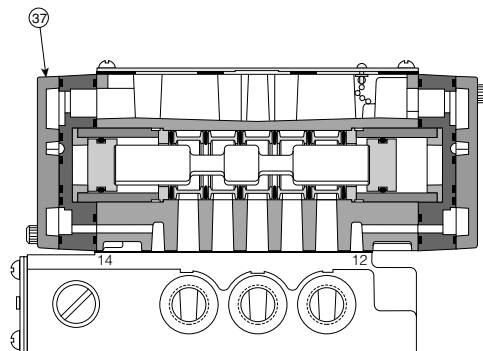
**Single Solenoid Operator - Air Return  
(Stem Style Solenoid)**



**Double Solenoid Operators  
(Stem Style Solenoid)**



**Single Air Operator - Air Return**



**Double Air Operators**

# 45 Series – 2-Position, Engineering Level ‘A’ & ‘B’ (1974-1998)

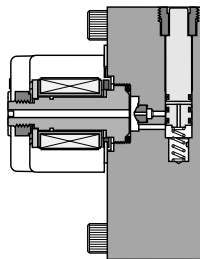
## Valve Service Kit

	4510	4520	4530
<b>Single Solenoid / Air</b> (Items: 1, 2, 4, 10, 14, 15, 26, 28, 38)	PS1201	PS1301	PS1401
<b>Double Solenoid / Air</b> (Items: 10, 14, 15, 26, 28, 38)	PS1202	PS1302	PS1402

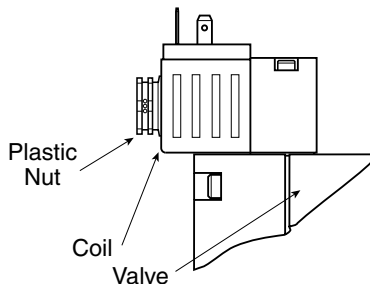
## Solenoid Service Kit

	Non-Locking Override	Locking Override
<b>PLUNGER</b> (Plug-In – PS1418 Discontinued)		
<b>Replacement – 12VDC</b>	PS1499B45P	PS1499C45P
<b>Pilot / Coil 24VDC</b>	PS1499G49P	PS1499H49P
24VAC	PS1499B42P	PS1499C42P
120VAC	PS1499G53P	PS1499H53P
240VAC	PS1499B57P	PS1499C57P
<b>STEM TYPE, 3-PIN DIN</b> (PS2015BP Discontinued)		
<b>Replacement Pilot –</b>	PS1497P	PS1498P
<b>Coil – 12VDC</b>	PS2828A45P	
24VDC	PS2828A49P	
24VAC	PS2828A42P	
120VAC	PS2828A53P	
240VAC	PS2828A57P	

## Plug-In (PS1499\*##P)



## Stem Type, 3-Pin DIN



## Parts Identification List

Item #	Description	2-Position		
		4510	4520	4530
1*	Mounting Screw - Return Cap			
2**	End Bumper Seal - Return			
3**	Air Return Cap			
4*	Gasket, Return Cap (Tab 'A')			
5**	Body			
6	Gasket - Body to Base	See Chart on Page 19		
7	Spool 2-Position	P00310	P00429	P00186
8**	Subbase/Manifold			
9**	Brass Spacers			
10*	Spool Seals			
11**	Brass End Spacers			
12**	Bore Sleeve			
13**	Pilot Piston 2-Position			
14*	Piston Seal O-ring			
15*	End Bumper Seal - Operator			
16**	Manual Override			
17**	Topseat / Plunger Assembly			For Replacement 45 'A' Plug-In Solenoid or Plunger Style Pilot Part, use Replacement Pilot and Coil Kit from the 45 'C' Valve. (shown in chart to the left)
18**	Solenoid Coil			
19**	Screws - Solenoid Coil			
20**	Solenoid Plunger Assembly			
21**	O-ring - Plunger / Coil			
22**	Return Spring - Plunger			
23**	Gasket - Solenoid Base to Coil			
24**	Solenoid Base & Override			
25**	Solenoid Base			
26*	Gasket, Operator-to-Adapter (Tab blank)			
27**	Operator Adapter			
28*	Gasket, Operator-to-Body (Tab 'P')			
29	Wiring Harness - Sgl Sol			
29	Wiring Harness - Dbl Sol			
30**	Ground Screw - Green			
31**	Terminal Insulator			
32**	Electrical Connectors			
33**	Cover Assembly			
34**	Screws Cover			
35**	Cover Gasket			
36**	Solenoid Base w/o Override			
37**	Air Pilot Operator			
38*	Screws - Solenoid / Air Pilot Operator			
39	Body-to-Base Mounting Screws			
	Wire Harness - Base (Not Shown)			
	Vent Filter			
	Indicator Light			
	Nut / Light Mounting			
40**	Pilot Body Assembly			
41**	Pilot Body			
42**	Mounting Screw - Pilot-to-Body			
43**	Poppet Return Spring			For Replacement 45 'A' 3-Pin DIN Solenoid or Stem-Type Operator, use Replacement Pilot and Coil Kit from the 45 'C' Valve. (shown in chart to the left)
44**	Poppet Assembly			
45**	O-ring for Bore Insert			
46**	Lip Seal			
47**	Bore Insert			
48**	Plunger Pin			
49**	Solenoid Seal - Solenoid-to-Pilot			
50**	Fixed Pole & Sleeve			
51**	Solenoid Coil - 3-Pin ISO4400			
52**	Plunger Assembly			
53**	Mounting Screws - Solenoid-to-Pilot			
54**	Override Seal			
55**	Top Plate			

Items without part numbers are discontinued.

\* Items ONLY available in "PS—" Kits

\*\* Component is discontinued

## 49 (24VDC), 53 (120VAC)



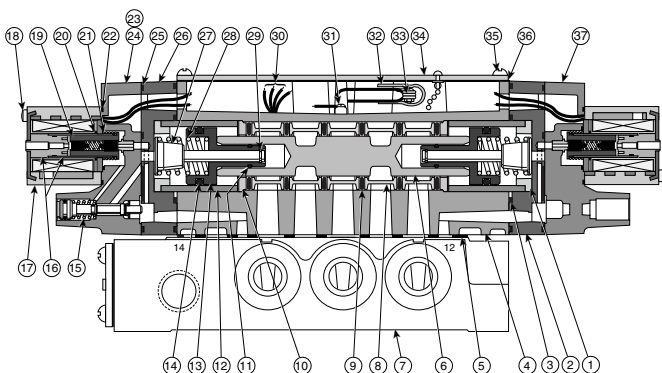
# 45 Series – 3-Position, Engineering Level ‘A’ & ‘B’ (1974-1998)

## Valve Service Kit

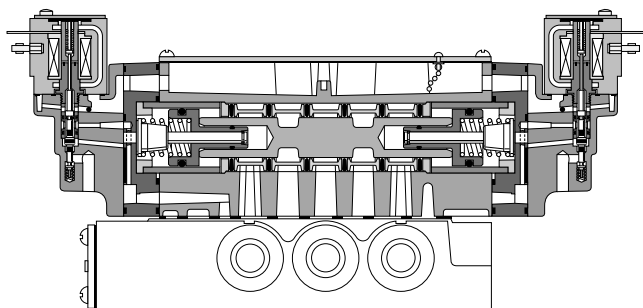
	4510	4520	4530
<b>Valve Body</b> (Items: 1, 3, 9, 11, 14, 25, 28, 29, 38)	PS1234	PS1303	PS1438

## Solenoid Service Kit

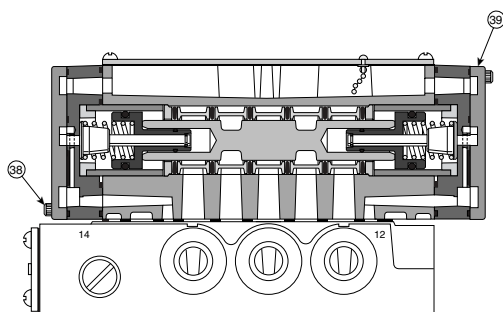
Same as 2-Position



**Double Solenoid Operator  
(Plunger Type Solenoid)**



**Double Solenoid Operator  
(Stem Type Solenoid)**



**Double Air Operators**

## Parts Identification List

Item #	Description	3-Position		
		4510	4520	4530
1*	End Bumper Seal - Operator			
2**	Operator Adapter			
3*	Gasket, Operator-to-Body (Tab 'P')			
4**	Body			
5	Gasket - Body to Base	See Chart on Page 19		
6	Spool 3-Pos APB			P00187
6	Spool 3-Pos PC			P00249
6	Spool 3-Pos CE			P00359
7				
8**	Brass Spacers			
9*	Spool Seals			
10**	Brass End Spacers			
11*	Piston Stem O-ring			
12**	Bore Sleeve			
13**	Pilot Piston 3-Pos			
14*	Large Piston Seal O-ring			
15**	Manual Override			
16**	Topseat / Plunger Assembly			For Replacement 45 'A'
17**	Solenoid Coil			Plug-In Solenoid or
18**	Screws - Solenoid Coil			Plunger Style Pilot Part,
19**	Solenoid Plunger			use Replacement Pilot
20**	O-ring - Plunger / Coil			and Coil Kit
21**	Solenoid Return Spring			from the 45 'C' Valve.
22**	Gasket - Solenoid Base to Coil			(shown in chart on page 17)
23**	Solenoid Base & Override			
25*	Gasket, Operator-to-Adapter (Tab blank)			
27**	Centering Stem			
28*	Spring - Centering Stem			
29*	Retaining Ring			
30**	Wiring Harness - Dbl Sol			
31**	Ground Screw - Green			
32**	Terminal Insulator			
33**	Electrical Connectors			
34**	Cover Assembly			
35**	Screws Cover			
36**	Cover Gasket			
37**	Solenoid Base w/o Override			
38*	Screws - Solenoid / Air Pilot Operator			
39	Air Pilot Operator			
	Vent Filter			
	Indicator Light			
	Nut / Light Mounting			
40**	Pilot Body Assembly			
41**	Pilot Body			
42**	Mounting Screw - Pilot-to-Body			
43**	Poppet Return Spring			For Replacement 45 'A'
44**	Poppet Assembly			3-Pin DIN
45**	O-ring for Bore Insert			Solenoid or
46**	Lip Seal			Stem-Type Operator,
47**	Bore Insert			use Replacement Pilot
48**	Plunger Pin			and Coil Kit
49**	Solenoid Seal - Solenoid-to-Pilot			from the 45 'C' Valve.
50**	Fixed Pole & Sleeve			(shown in chart on page 17)
51**	Solenoid Coil - 3-Pin ISO4400			
52**	Plunger Assembly			
53**	Mounting Screws - Solenoid-to-Pilot			
54**	Override Seal			
55**	Top Plate			

Items without part numbers are discontinued.

\* Items ONLY available in "PS—" Kits














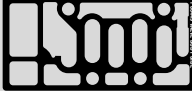

\*\* Component is discontinued

## 49 (24VDC), 53 (120VAC)

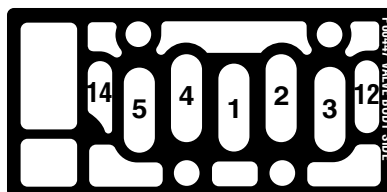


## Replacement Gaskets

4510 / 4520 Engineering Level ‘A’ & ‘B’  
 4530 Engineering Level ‘A’, ‘B’, ‘C’ / H4 ‘A’

		4510 Series	4520 Series	4530 Series
<b>Pilot Supply Option “A” Gasket</b>	<b>OPTION “A” GASKET</b>	Gasket P00270B	Gasket P00444	Gasket P00148
	Use on single or double solenoid. Use on single pressure applications, with dual exhaust. Use with internal pilot supply.			
<b>Pilot Supply Option “B” Gasket</b>	<b>OPTION “B” GASKET</b>	Gasket P00271D	Gasket P00445	Gasket P00149
	Use on single or double solenoid. Use on single pressure, dual pressure, or vacuum application. External pilot signal is required.			
<b>Pilot Supply Option “C” Gasket</b>	<b>OPTION “C” GASKET</b>	Gasket P00272D	Gasket P00446	Gasket P00150
	Use on single air piloted valve. Use on single pressure application. External pilot signal is required. Air operator #14 end. Internal return supply.			
<b>Pilot Supply Option “D” Gasket</b>	<b>OPTION “D” GASKET</b>	Gasket P00273D	Gasket P00447	Gasket P00151
	Use on a double air piloted valve. Use on single or dual pressure, or vacuum application. External pilot signals are required.			
<b>Pilot Supply Option “F” Gasket</b>	<b>OPTION “F” GASKET</b>	Gasket P00275D	Gasket P00449	Gasket P00153
	Use on single or double solenoid. Use on a dual pressure system with the higher pressure connected to port #5.			

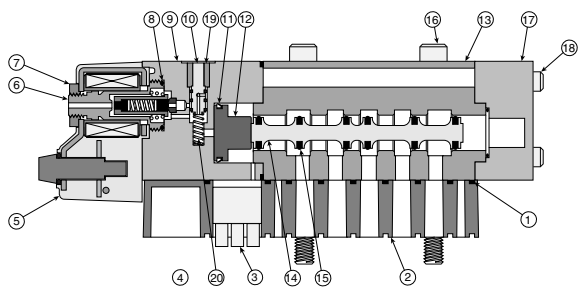
**NOTE:** Any gasket can be used on any subbase. For appropriate Add-A-Fold kit number, when ordering separately, see appropriate “Valve Model Number System”.



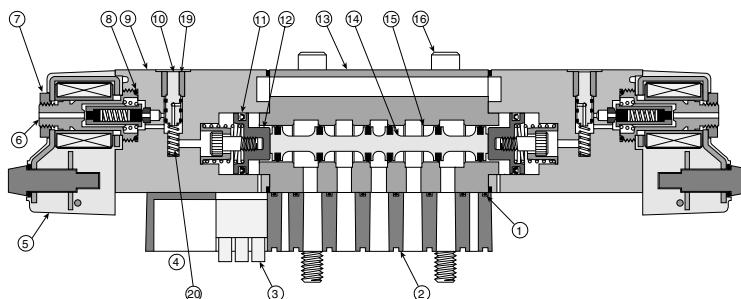
Numbers shown correspond to ports in subbase and

## 4510 ‘C’ / H2 ‘A’ Series – 2 & 3-Position (1998-2001)

2-Position Valve



3-Position Valve



### Parts Identification List

Item#	Description
1	Gasket - valve body to interface block
2	Interface Block
3	Electrical Connector - valve to base
4	Mounting Screw - adapter block to valve body (not shown)
5	Solenoid coil - encapsulated (includes gasket)
6	Plunger Guide Assembly
7	Hex Nut - solenoid coil to plunger guide assembly
8	O-ring - plunger guide assembly to adapter block
9	Adapter Block
10	Override Stem
11	Lip Seal - piston to adapter block
12	Piston (2-position) Piston Assemblies (3-position)
13	Valve Body

Item#	Description
14	Spool
15	Seal - spool to valve body
16	Mounting Screw - valve body & interface block to base
17	Return End Cap
18	Mounting Screw - return end cap to valve body
19	Override Retainer
20	Override Spring

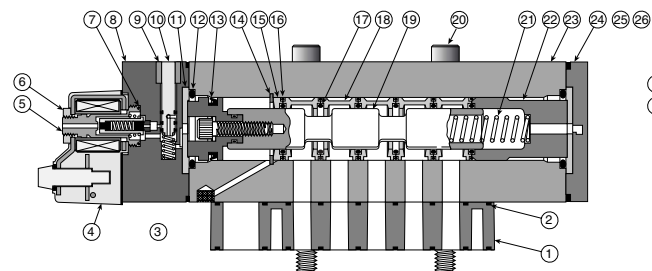
### Valve Body and Spool Replacement Kits – 4510 ‘C’ / H2

Size	2-Position	3-Position		
		APB	CE	PC
<b>4510 ‘C’ / H2</b>	PS4101P	PS4102P	PS4103P	PS4104P

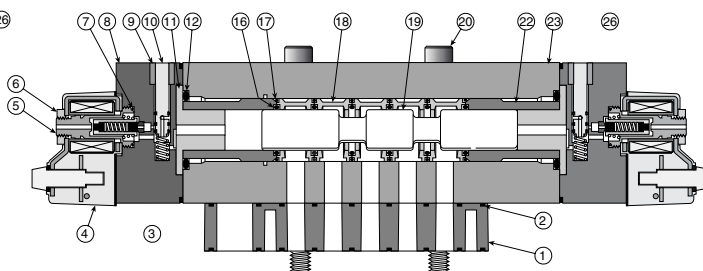
Kit Includes: Spool with seals, piston seals, return spring and lubricant.

## 4520 ‘C’ / H3 ‘A’ Series – 2 & 3-Position (1999-2001)

2-Position Valve



3-Position Valve



### Parts Identification List

Item#	Description
1	Interface Plate
2	Track Seal
3	Mounting Screw - Plate to Body*
4	Solenoid Coil (includes Gasket)
5	Plunger Guide Assembly
6	Hex Nut
7	O-ring Seal
8	Solenoid Adapter, H3
9	Override Retainer
10	Override
11	Shock Pad
12	Seal
13	Piston Seal
14	Retaining Ring
15	Spacer Ring
16	O-ring
17	O-ring
18	Spacer
19	Spool (Assembly)

Item#	Description
20	Mounting Screw
21	Spring
22	End Spacer
23	Valve Body
24	End Cap
25	Screws, End Cap*
26	Screws, Solenoid Adapter* * Not shown

### Valve Body and Spool Replacement Kits – 4520 ‘C’ / H3

Size	2-Position	3-Position		
		APB	CE	PC
<b>4520 ‘C’ / H3</b>	K232024 <sup>*(1)</sup>	K232021	K323023	K232022
	K343094 <sup>†(1)</sup>			
	K352419 <sup>*(2)</sup>	K352420	K352420	K352420
	K352420 <sup>†(2)</sup>			

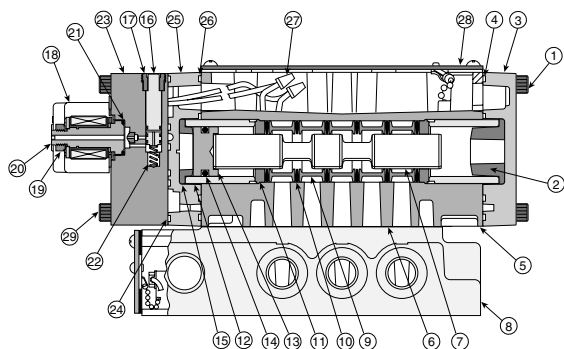
\* Used with Single Solenoid or Single Remote Pilot Valve.

† Used with Double Solenoid or Double Remote Pilot Valve.

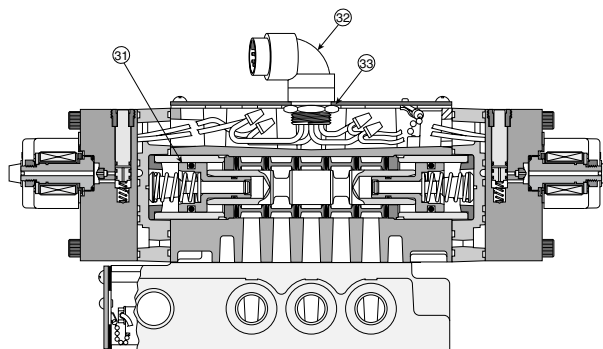
Kit Includes: <sup>(1)</sup> Spool Kits; <sup>(2)</sup> Valve body o-rings, piston seals and lubricant.

# 4530 ‘C’ / H4 ‘A’ Series – 2 & 3-Position (1998-2001)

2-Position Valve



3-Position Valve



## Parts Identification List

**Item# Description**

- 1 Mounting Screw - air return to body
- 2 End Bumper Seal for air return
- 3 Air Return
- 4 Gasket - body to air return (has a tab with an “A” on it)
- 5 Body
- 6 Gasket - body to base
- 7 Spool
- 8 Subbase
- 9 Spacer
- 10 Seals for spool
- 11 End Spacer
- 12 Sleeve
- 13 Pilot Piston - 2-position valve
- 14 O-ring for piston
- 15 End Bumper Seal for solenoid or air operator
- 16 Manual Override Stem
- 17 Override Retainer
- 18 Solenoid Coil - includes gasket
- 19 Hex Nut, Solenoid
- 20 Solenoid Plunger Guide Assembly
- 21 O-ring - plunger guide assembly to adapter block
- 22 Override Spring
- 23 Adapter Block

**Item# Description**

- 24 Gasket - solenoid base or air operator to adapter (has a tab without any letter on it)
- 25 Operator Adapter
- 26 Gasket - adapter to body (has a tab with a “P” on it)
- 27 Insulated Splicer
- 28 Cover
- 29 Mounting Screw - air operator or solenoid operator & adapter to body
- 30 Mounting Screw - body to base (not shown)
- 31 Pilot Piston Assembly - 3-position valve
- 32 Automotive Receptacle
- 33 Conduit Locknut

### Valve Body and Spool Replacement Kits – 4530 ‘C’ / H4

Size	2-Position	3-Position		
		APB	CE	PC
<b>4530 ‘C’ / H4</b>	P00186 <sup>(1)</sup>	P00187	P00249	P00359
	PS1401 <sup>*(2)</sup>	PS1438	PS1438	PS1438
	PS1402 <sup>†(2)</sup>			

\* Used with Single Solenoid or Single Remote Pilot Valve.

† Used with Double Solenoid or Double Remote Pilot Valve.

**Kit Includes:** <sup>(1)</sup> Spool Kits; <sup>(2)</sup> Valve body o-rings, piston seals and lubricant.

## Plug-In / Auto Solenoids

Voltage Range +10% / -15% of Nominal

Voltage Code	Voltage			Coil Kit Number	
	60Hz	50Hz	DC	With Indicator Light	Unlighted
<b>B9*</b>	—	—	<b>24</b>	<b>K252 030*</b>	—
42	24	—	—	—	K252 031
43	—	24	—	—	K252 032
45	—	—	12	—	K252 032
<b>49</b>	—	—	<b>24</b>	<b>K252 033</b>	K252 034
51	—	—	48	—	K252 035
<b>53</b>	<b>120</b>	<b>110</b>	—	<b>K252 036</b>	K252 037
				<b>K252 040†‡</b>	—
57	240	—	—	—	K252 038
59	—	240	—	—	K252 039
<b>23 / 83‡</b>	<b>120</b>	<b>110</b>	—	<b>K252 040‡</b>	K252 041‡

\* Low watt with surge suppression (Blue).

† Replacement coil when Automotive Option “C”, “F”, & “G” are specified in the valve model number.

‡ This coil contains an MOV as standard for surge suppression.

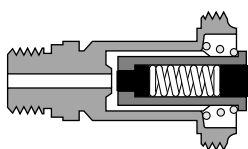
## 30mm CNOMO Solenoid

Code	Voltage			3-Pin 30mm ‘L’		
	AC		DC	Power (VA 60Hz/W)	Holding Amp (mA)	Coil Kit
60Hz	50Hz					
19	—	—	24	2.8 W	117	PS2828619P
42	24	24	—	3.8 VA	157	PS2828A42P
45	—	—	12	2.4 W	211	PS2828A45P
49	—	—	24	2.7 W	111	PS2828A49P
53	120	120	—	3.7 VA	32	PS2828A53P
57	230	230	—	3.6 VA	15	PS2828A57P

## Plug-In / Auto

### Plunger & Guide Assembly (Engineering Level ‘A’)

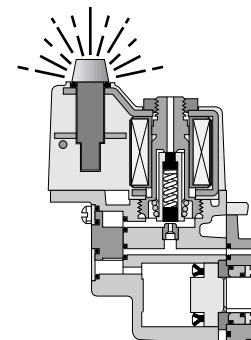
K232 025 Standard Voltages  
K232 049 B9 Low Watt Voltage Code (Blue Coil)



**Includes:** Plunger, Plunger Guide and Spring

### Replacement Indicator Light (Engineering Level ‘A’)

K252 008 24VDC  
K252 009 120VAC



**Includes:** Light and O-ring

## Maintenance and Service Bulletins

### 4510 ‘B’ Maintenance Bulletins

V280BP	4510 “B” Installation & Service
V320CP	4510 “B” w/ Stem Operator Installation & Service
V476P	4510 Sandwich Regulator Installation & Service
V290BP	4510 Sandwich Regulator Installation & Service
V275BP	4511 “B” Installation & Service
V321BP	4511 “B” w/ Stem Operator Installation & Service
V290BP	4511 Sandwich Regulator Installation & Service
V275BP	4512 “B” Installation & Service
V321BP	4512 “B” w/ Stem Operator Installation & Service
V290BP	4512 Sandwich Regulator Installation & Service
V275BP	4513 “B” Installation & Service
V321BP	4513 “B” w/ Stem Operator Installation & Service
V290BP	4513 Sandwich Regulator Installation & Service

### 4520 ‘A’ Maintenance Bulletins

V280BP	4520 “A” Installation & Service
V320CP	4520 “A” w/ Stem Operator Installation & Service
V275BP	4521 “A” Installation & Service
V321BP	4521 “A” w/ Stem Operator Installation & Service
V275BP	4522 “A” Installation & Service
V321BP	4522 “A” w/ Stem Operator Installation & Service
V275BP	4523 “A” Installation & Service
V321BP	4523 “A” w/ Stem Operator Installation & Service

### 4530 ‘B’ Maintenance Bulletins

V280BP	4530 “B” Installation & Service
V320CP	4530 “B” w/ Stem Operator Installation & Service
V275BP	4531 “B” Installation & Service
V321BP	4531 “B” w/ Stem Operator Installation & Service
V275BP	4532 “B” Installation & Service
V321BP	4532 “B” w/ Stem Operator Installation & Service
V275BP	4533 “B” Installation & Service
V321BP	4533 “B” w/ Stem Operator Installation & Service

### 45 ‘C’ Maintenance Bulletins

V282P	4510 “C” Installation & Service
V283P	4520 “C” Installation & Service
V284P	4530 “C” Installation & Service

### H2 ‘A’ / H3 ‘A’ / H4 ‘A’ Maintenance Bulletins

V398EP	H2 Installation & Service
V465BP	H2 Sandwich Flow Control Installation & Service
V476P	H2 Sandwich Regulator Installation & Service
V462BP	H2 Solenoid Service
V480BP	H3 (Non Plug-In) Installation & Service
V481BP	H3 (Plug-In) Installation & Service
V465BP	H3 Sandwich Flow Control Installation & Service
V486P	H3 Sandwich Regulator Installation & Service
V462BP	H3 Solenoid Service
V408BP	H4 Installation & Service
V462BP	H4 Solenoid Service

# H ‘A’ to H ‘B’ Valve Number Cross Reference

This Chart lists in Alphabetical order the change of all of the H ‘A’ part numbers to the H ‘B’ part numbers with the Key for Part Number Changes as a reference to explain the differences. The H ‘A’ product (H1, H2, H3) will be discontinued during February and March 2001.

KEY FOR PART NUMBER CHANGES	
1 – Base Code Change / No BOM Change	8 – Override Locking to Locking Extended ‘K’
2 – Asco Base to Hi-Flow Base	9 – Valve Less Base Change ‘A’ to ‘O’
3 – Asco Manifold to VDMA Manifold	10 – Voltage Code Change - MOV to Surge Sup
4 – Pilot Change ‘-L’ to ‘P’ & ‘P’ to ‘L’	11 – Conduit 72" to 18" Leads
5 – Remote Pilot Code Change ‘B’ to ‘O’	12 – Base Change 45 to Hi-Flow & Port Size
6 – No Override to Non-Locking Override (H1)	13 – No Override to HD Non-Locking Override
7 – Unlighted to Lighted with Surge Sup	14 – Base Change 45 to Hi-Flow

H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key
H1015000XXA	H1015000XXB		H1163BB2B9166CA	H1163BG2B9166CB	7	H1165BHA23166A	H1165BKA23166B	8
H1053000XXA	H1063000XXB	1	H1163BB549000CA	H1163BG5B9000CB	7	H1165BHA23A	H1165BKA23B	8
H1063000XXA	H1063000XXB		H1163BBA49A	H1163BGAB9B	7	H1165BHA49001A	H1165BKAB9001B	7,8
H10WX000XXA	H10WX000XXB		H1163BBA53A	H1163BGA23B	7	H1165BHA53001A	H1165BKA23001B	7,8
H1113BBA49166A	H1113BGAB9166B	7	H1163BBH53A	H1163BGH23B	7	H1165BHA53A	H1165BKA23B	7,8
H1113BBA49A	H1113BGAB9B	7	H1163BBL49A	H1163BBL49B		H11A3BBL49166A	H11A3BBL49166B	
H1113BBA53A	H1113BGA23B	7	H1163BBL53166A	H1163BBL53166B		H11A3BBL49A	H11A3BBL49B	
H1113BBA57A	H1113BGA87B	7	H1163BBL53A	H1163BBL53B		H11A3BBL53A	H11A3BBL53B	
H1113BCA59266A	H1113BKA87266B	7,8	H1163BBP49A	H1163BBP49B		H11A3BBP49A	H11A3BBP49B	
H1113BGA49166A	H1113BGAB9166B	7	H1163BBP53A	H1163BBP53B		H11A3BBP53166A	H11A3BBP53166B	
H1113BGA49A	H1113BGAB9B	7	H1163BCAB9A	H1163BKAB9B	7,8	H11A3BBP53A	H11A3BBP53B	
H1113BGA53A	H1113BGA23B	7	H1163BCL49A	H1163BCL49B		H11A3BCL49A	H11A3BCL49B	
H1113BHA53A	H1113BKA23B	7,8	H1163BCL53166A	H1163BCL53166B		H11A3BCL53A	H11A3BCL53B	
H1113BHAB9A	H1113BKAB9B	8	H1163BCL53A	H1163BCL53B		H11A3BCP53A	H11A3BCP53B	
H1114BGA49A	H1114BGAB9B	7	H1163BCP53A	H1163BCP53B		H11A3BF349000CA	H11A3BM3B9000CB	6,7
H1115BBA53A	H1115BGA23B	7	H1163BG249000CA	H1163BG2B9000CB	7	H11A3BG149000CA	H11A3BG1B9000CB	7
H1115BGA53266A	H1115BGA23266B	7	H1163BG249166CA	H1163BG2B9166CB	7	H11A3BG249000CA	H11A3BG2B9000CB	7
H1115BGA53A	H1115BGA23B	7	H1163BG2B9000FA	H1163BG2B9000FB		H11A3BG249001CA	H11A3BG2B9001CB	7
H1115BGAB9001A	H1115BGAB9001B		H1163BG2B9199CA	H1163BG2B9199CB		H11A3BG249166CA	H11A3BG2B9166CB	7
H1115BGAB9A	H1115BGAB9B		H1163BG323000CA	H1163BG323000CB		H11A3BG2B9000CA	H11A3BG2B9000CB	
H1115BHA49001A	H1115BKAB9001B	7,8	H1163BG323000FA	H1163BG323000FB		H11A3BG2B9000FA	H11A3BG2B9000FB	
H1115BHA53001A	H1115BKA23001B	7,8	H1163BG323166CA	H1163BG323166CB		H11A3BG323000CA	H11A3BG323000CB	
H1115BHA53A	H1115BKA23B	7,8	H1163BG3B9000CA	H1163BG3B9000CB		H11A3BG349000CA	H11A3BG3B9000CB	7
H1123BGA53A	H1123BGA23B	7	H1163BG3B9000FA	H1163BG3B9000FB		H11A3BG349000GA	H11A3BG3B9000GB	7
H1123BGTB9A	H1123BGTB9B		H1163BGA49166A	H1163BGAB9166B	7	H11A3BG353000CA	H11A3BG323000CB	7
H1125BGA53A	H1125BGA23B	7	H1163BGA49A	H1163BGAB9B	7	H11A3BG3B9000CA	H11A3BG3B9000CB	
H1153BBA49A	H1163BGAB9B	1,7	H1163BGA53001A	H1163BGA23001B	7	H11A3BG3B9000GA	H11A3BG3B9000GB	
H1153BBA53A	H1163BGA23B	1,7	H1163BGA53166A	H1163BGA23166B	7	H11A3BGV49A	H11A3BGVB9B	7
H1153BCAB9A	H1163BKAB9B	1,7,8	H1163BGA53A	H1163BGA23B	7	H11A3BH323000CA	H11A3BK323000CB	8
H1153BGA49A	H1163BGAB9B	1,7	H1163BGAB9A	H1163BGAB9B		H11A3BH353000CA	H11A3BK323000CB	7,8
H1153BGA53001A	H1163BGA23001B	1,7	H1163BH2B9000FA	H1163BK2B9000FB	8	H11A3LG2B9000FA	H11A3PG2B9000FB	4
H1153BGA53166A	H1163BGA23166B	1,7	H1163BHA53001A	H1163BKA23001B	7,8	H11A4BB3B9000GA	H11A4BG3B9000GB	7
H1153BGA53A	H1163BGA23B	1,7	H1163BHA53260A	H1163BKA23260B	7,8	H11A4BBL49166A	H11A4BBL49166B	
H1153BGAB9A	H1163BGAB9B	1	H1163BHA53266A	H1163BKA23266B	7,8	H11A4BBL49A	H11A4BBL49B	
H1153BHA53001A	H1163BKA23001B	1,7,8	H1163BHA53A	H1163BKA23B	7,8	H11A4BBL53A	H11A4BBL53B	
H1153BHA53260A	H1163BKA23260B	1,7,8	H1163BHAB9A	H1163BKAB9B	8	H11A4BG249000CA	H11A4BG2B9000CB	7
H1153BHA53266A	H1163BKA23266B	1,7,8	H1163LG323166CA	H1163PG323166CB	4	H11A5BBL49166A	H1115BBL49166B	1
H1153BHA53A	H1163BKA23B	1,7,8	H1163LG3B9000CA	H1163PG3B9000CB	4	H11B3BG2B9000FA	H11B3BG2B9000FB	
H1153BHAB9A	H1163BKAB9B	1,8	H1163LGA49166A	H1163BBL53B	4,7	H11B4BBP49A	H11B4BBP49B	
H1153LGA49166A	H1163PGAB9166B	1,4,7	H1163LGA49A	H1163PGAB9B	4,7	H11E3BB2B9166CA	H1163BG2B9166CB	2,7
H1153LGA49A	H1163PGAB9B	1,4,7	H1163LGA53166A	H1163PGA23166B	4,7	H11E3BB549000CA	H1163BG5B9000CB	2,7
H1153LHA53A	H1163PKA23B	1,4,7,8	H1163LHA53A	H1163PKA23B	4,7,8	H11E3BBH53A	H1163BGH23B	2,7
H1154BGA53A	H1164BGA23B	1,7	H1163PG2B9000FA	H1163LG2B9000FB	4	H11E3BBL49A	H1163BBL49B	2
H1155BBA49A	H1165BGAB9B	1,7	H1164BBL53206A	H1164BBL53206B		H11E3BBL53166A	H1163BBL53166B	2
H1155BBA53A	H1165BGA23B	1,7	H1164BBL53A	H1164BBL53B		H11E3BBL53166AS	H1163BBL53166B	2
H1155BBA57A	H1165BGA87B	1,7	H1164BG249166CA	H1164BG2B9166CB	7	H11E3BBL53A	H1163BBL53B	2
H1155BBA59A	H1165BGA87B	1,7	H1164BG2B9000CA	H1164BG2B9000CB		H11E3BBL53AS	H1163BBL53B	2
H1155BBAB9001A	H1165BGAB9001B	1,7	H1164BGA53A	H1164BGA23B	7	H11E3BBP49A	H1163BBP49B	2
H1155BGA53A	H1165BGA23B	1,7	H1165BBA49A	H1165BGAB9B	7	H11E3BBP53A	H1163BBP53B	2
H1155BGAB9001A	H1165BGAB9001B	1	H1165BBA53A	H1165BGA23B	7	H11E3BCL49A	H1163BCL49B	2
H1155BHA49001A	H1165BKAB9001B	1,7,8	H1165BBA57A	H1165BGA87B	7	H11E3BCL53166A	H1163BCL53166B	2
H1155BHA53001A	H1165BKA23001B	1,7,8	H1165BBA59A	H1165BGA87B	7	H11E3BCL53A	H1163BCL53B	2
H1155BHA53A	H1165BKA23B	1,7,8	H1165BBAB9001A	H1165BGAB9001B	7	H11E3BCP53A	H1163BCP53B	2
H1155BHA83166A	H1165BKA23166B	1,8,10	H1165BGA53A	H1165BGA23B	7	H11E3BG249000CA	H1163BG2B9000CB	2,7
H1155BHA83A	H1165BKA23B	1,8,10	H1165BGAB9001A	H1165BGAB9001B		H11E3BG249166CA	H1163BG2B9166CB	2,7



H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key
H11E3BG2B9000FA	H1163BG2B9000FB	2	H11WXBG353000CA	H11WXBG323000CB	7	H1255LHA53A	H1265PKA23B	1,4,7,8
H11E3BG2B9199CA	H1163BG2B9199CB	2	H11WXBG353000FA	H11WXBG323000FB	7	H1256BGAB9A	H1266BGAB9B	1
H11E3BG353000CA	H1163BG323000CB	2,7	H11WXBG353000GA	H11WXBG323000GB	7	H1263BB2B9000CA	H1263BG2B9000CB	7
H11E3BG353000FA	H1163BG323000FB	2,7	H11WXBG383000CA	H11WXBG323000CB	10	H1263BB353000CA	H1263BG323000CB	7
H11E3BG353166CA	H1163BG323166CB	2,7	H11WXBG449000CA	H11WXBG4B9000CB	7	H1263BBA49A	H1263BGAB9B	7
H11E3BG3B9000CA	H1163BG3B9000CB	2	H11WXBG523000CA	H11WXBG523000CB	7	H1263BBA53A	H1263BGA23B	7
H11E3BG3B9000FA	H1163BG3B9000FB	2	H11WXBG553000CA	H11WXBG523000CB	7	H1263BBH53A	H1263BGH23B	7
H11E3BH2B9000FA	H1163BK2B9000FB	2,8	H11WXBG619000FA	H11WXBG619000FB	7	H1263BBL53A	H1263BBL53B	7
H11E3LG353166CA	H1163PG323166CB	2,4,7	H11WXLBL49A	H11WXPBL49B	4	H1263BBP53001A	H1263BBP53001B	7
H11E3LG3B9000CA	H1163PG3B9000CB	2,4	H11WXLBP53A	H11WXPBP53B	4	H1263BCL53A	H1263BCL53B	7
H11E3PG2B9000FA	H1163LG2B9000FB	2,4	H11WXLCP49A	H11WXP49B	4	H1263BCP53A	H1263BCP53B	7
H11E4BBL53206A	H1164BBL53206B	2	H11WXLG323000CA	H11WXP323000CB	4	H1263BG249000CA	H1263BG2B9000CB	7
H11E4BBL53A	H1164BBL53B	2	H11WXLG353000CA	H11WXP323000CB	4,7	H1263BG249000FA	H1263BG2B9000FB	7
H11E4BG249166CA	H1164BG2B9166CB	2,7	H1213BBA53A	H1213BMA23B	6,7	H1263BG249166CA	H1263BG2B9166CB	7
H11E4BG2B9000CA	H1164BG2B9000CB	2	H1213BBA23A	H1213BGA23B	7	H1263BG2B9000CA	H1263BG2B9000CB	7
H11F3BBP49A	H1163BBP49B	2	H1213BBA49A	H1213BGAB9B	7	H1263BG2B9000FA	H1263BG2B9000FB	7
H11F3BG3B9000FA	H1163BG3B9000FB	2	H1213BBA53206A	H1213BGA23206B	7	H1263BG2B9266CA	H1263BG2B9266CB	7
H11F3BG449000CA	H1163BG4B9000CB	2,7	H1213BBA83A	H1213BGA23B	7,10	H1263BG323000CA	H1263BG323000CB	7
H11F4BBL49A	H11F4BBL49B	3	H1213BGA23466A	H1213BGA23466B	7	H1263BG323000FA	H1263BG323000FB	7
H11F4BG2B9000CA	H11F4BG2B9000CB	3	H1213BGA23A	H1213BGA23B	7	H1263BG323166CA	H1263BG323166CB	7
H11VXB023A	H11VXBG023B	7	H1213BGA49260A	H1213BGAB9260B	7	H1263BG323166FA	H1263BG323166FB	7
H11VXBBA83A	H11VXBG023B	7,9,10	H1213BGA49A	H1213BGAB9B	7	H1263BG323266CA	H1263BG323266CB	7
H11VXBC053A	H11VXBK023B	7,8	H1213BGA53A	H1213BGA23B	7	H1263BG523000CA	H1263BG523000CB	7
H11VXBCA53A	H11VXBK023B	7,8,9	H1213BGA83466A	H1213BGA23466B	10	H1263BG523166CA	H1263BG523166CB	7
H11VXBG023A	H11VXBG023B	7	H1213BGA83A	H1213BGA23B	10	H1263BG549000CA	H1263BG5B9000CB	7
H11VXBG049A	H11VXBG0B9B	7	H1213BGAB9A	H1213BGAB9B	7	H1263BG5B9466GA	H1263BG5B9466GB	7
H11VXBG053A	H11VXBG023B	7	H1213LGA49260A	H1213PGAB9260B	4,7	H1263BGA49133A	H1263BGA49133B	7
H11VXBG0B9A	H11VXBG0B9B	7,9	H1214BGA49A	H1214BGAB9B	7	H1263BGA49A	H1263BGAB9B	7
H11VXBGA49A	H11VXBG0B9B	7,9	H1215BGA23A	H1215BGA23B	7	H1263BGA53001A	H1263BGA23001B	7
H11VXBGA53A	H11VXBG023B	7,9	H1215BGA53001A	H1215BGA23001B	7	H1263BGA53A	H1263BGA23B	7
H11VXBGA83A	H11VXBG023B	9,10	H1215BGA53A	H1215BGA23B	7	H1263BHA53155A	H1263BKA23155B	7,8
H11VXBGAB9A	H11VXBG0B9B	9	H1215BGA83A	H1215BGA23B	10	H1263BHA53166A	H1263BKA23166B	7,8
H11VXBH053A	H11VXBK023B	7,8	H1215BGAB9A	H1215BGAB9B	7	H1263BHA53244A	H1263BKA23244B	7,8
H11VXBHA53A	H11VXBK023B	7,8,9	H1215BHA53001A	H1215BKA23001B	7,8	H1263BHA53260A	H1263BKA23260B	7,8
H11VXLB053A	H11VXPG023B	4,7	H1215BHA53A	H1215BKA23B	7,8	H1263BHA53266A	H1263BKA23266B	7,8
H11VXLB453A	H11VXPG023B	4,7,9	H1225BGA53A	H1225BGA23B	7	H1263BHA53A	H1263BKA23B	7,8
H11VXLG053A	H11VXPG023B	4,7	H1253BBA49A	H1263BGAB9B	1,7	H1263LGA53000CA	H1263PG323000CB	4
H11VXLG0B9A	H11VXPG0B9B	4	H1253BGA49133A	H1263BGAB9133B	1,7	H1263LGA53166CA	H1263PG323166CB	4
H11VXLA53A	H11VXPG023B	4,7,9	H1253BGA49A	H1263BGAB9B	1,7	H1263LGA53000CA	H1263PG3B9000CB	4
H11VXLGAB9A	H11VXPG0B9B	4,9	H1253BHA53206A	H1263BGA23001B	1,7	H1263LHA53A	H1263PKA23B	4,7,8
H11VXLH023A	H11VXPK023B	4,8	H1253BGA53A	H1263BGA23B	1,7	H1264BBL49206A	H1264BBL49206B	7
H11VXLHA83A	H11VXPK023B	4,8,9,10	H1253BHA53155A	H1263BKA23155B	1,7,8	H1264BBL49A	H1264BBL49B	7
H11WXBA353000CA	H11WXB323000CB	6,7	H1253BHA53166A	H1263BKA23166B	1,7,8	H1264BBL53A	H1264BBL53B	7
H11WXBB353000CA	H11WXBG323000CB	7	H1253BHA53244A	H1263BKA23244B	1,7,8	H1264BG249166FA	H1264BG2B9166FB	7
H11WXBBL42A	H11WXBBL42B	7	H1253BHA53260A	H1263BKA23260B	1,7,8	H1264BG2B9000CA	H1264BG2B9000CB	7
H11WXBBL49166A	H11WXBBL49166B	7	H1253BHA53266A	H1263BKA23266B	1,7,8	H1264BG619166FA	H1264BG619166FB	7
H11WXBBL49A	H11WXBBL49B	7	H1253BHA53A	H1263BKA23B	1,7,8	H1264BGA53A	H1264BGA23B	7
H11WXBBL53A	H11WXBBL53B	7	H1253LHA53A	H1263PKA23B	1,4,7,8	H1265BBA53A	H1265BGA23B	7
H11WXBBL57A	H11WXBBL57B	7	H1254BGA53A	H1264BGA23B	1,7	H1265BBAB9001A	H1265BGAB9001B	7
H11WXBBLP42A	H11WXBBLP42B	7	H1255BBA53A	H1265BGA23B	1,7	H1265BBAB9466A	H1265BGAB9466B	7
H11WXBBLP49A	H11WXBBLP49B	7	H1255BBAB9001A	H1265BGAB9001B	1,7	H1265BGA49A	H1265BGAB9B	7
H11WXBBLP53001A	H11WXBBLP53001B	7	H1255BBAB9466A	H1265BGAB9466B	1,7	H1265BGA53001A	H1265BGA23001B	7
H11WXBBLP53A	H11WXBBLP53B	7	H1255BGA49A	H1265BGAB9B	1,7	H1265BGA53A	H1265BGA23B	7
H11WXB353000CA	H11WXBK323000CB	7,8	H1255BGA53001A	H1265BGA23001B	1,7	H1265BGAB9166A	H1265BGAB9166B	7
H11WXBCH53A	H11WXBKH23B	7,8	H1255BGA53A	H1265BGA23B	1,7	H1265BGAB9A	H1265BGAB9B	7
H11WXBCL49A	H11WXBCL49B	7	H1255BGAB9166A	H1265BGAB9166B	1	H1265BHA23166A	H1265BKA23166B	8
H11WXBCL53A	H11WXBCL53B	7	H1255BGAB9A	H1265BGAB9B	1	H1265BHA23A	H1265BKA23B	8
H11WXBPCP49A	H11WXBPCP49B	7	H1255BHA49001A	H1265BKA9001B	1,7,8	H1265BHA49001A	H1265BKAB9001B	7,8
H11WXBPCP53A	H11WXBPCP53B	7	H1255BHA53001A	H1265BKA23001B	1,7,8	H1265BHA53001A	H1265BKA23001B	7,8
H11WXBG249000CA	H11WXBG2B9000CB	7	H1255BHA53166A	H1265BKA23166B	1,7,8	H1265BHA53166A	H1265BKA23166B	7,8
H11WXBG249000GA	H11WXBG2B9000GB	7	H1255BHA53244A	H1265BKA23244B	1,7,8	H1265BHA53244A	H1265BKA23244B	7,8
H11WXBG2B9000CA	H11WXBG2B9000CB	7	H1255BHA53266A	H1265BKA23266B	1,7,8	H1265BHA53266A	H1265BKA23266B	7,8
H11WXBG2B9000FA	H11WXBG2B9000FB	7	H1255BHA53A	H1265BKA23B	1,7,8	H1265BHA53A	H1265BKA23B	7,8
H11WXBG323000CA	H11WXBG323000CB	7	H1255BHA83166A	H1265BKA23166B	1,8,10	H1265LGA531CCA	H1265PGA231CCB	4,7
H11WXBG323000FA	H11WXBG323000FB	7	H1255BHA83A	H1265BKA23B	1,8,10	H1265LGA53205A	H1265PGA23205B	4,7
H11WXBG323000GA	H11WXBG323000GB	7	H1255LGA531CCA	H1265PGA231CCB	1,4,7	H1265LHA53A	H1265PKA23B	4,7,8
H11WXBG349000GA	H11WXBG3B9000GB	7	H1255LGA53205A	H1265PGA23205B	1,4,7	H12A3BB351000CA	H12A3BG351000CB	7

H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key
H12A3BBL49A	H12A3BBL49B		H12VXLGA53A	H12VXPG023B	4,7,9	H1314000XXA	H1314000XXB	
H12A3BBL53A	H12A3BBL53B		H12VXLH023A	H12VXPK023B	4,8	H1314B00XXA	H1314000XXB	5
H12A3BG249166CA	H12A3BG2B9166CB	7	H12VXLHA83A	H12VXPK023B	4,8,9,10	H13A4000XXA	H13A4000XXB	
H12A3BG323000CA	H12A3BG323000CB		H12WXB0NXXA	H12WXB0NXXB		H13A4B00XXA	H13A4000XXB	5
H12A3BG323000FA	H12A3BG323000FB		H12WXB353000CA	H12WXB353000CB	7	H13VX000XXA	H13VX000XXB	
H12A3BG349000CA	H12A3BG3B9000CB	7	H12WXB553000CA	H12WXB553000CB	7	H13VXB00XXA	H13VX000XXB	5
H12A3BG353000CA	H12A3BG323000CB	7	H12WXB849A	H12WXB849B	7	H13VXL00XX001A	H13VXP00XX001B	4
H12A3BG353000FA	H12A3BG323000FB	7	H12WXBBL42A	H12WXBBL42B		H13WX000XXA	H13WX000XXB	
H12A3BG3B9000GA	H12A3BG3B9000GB		H12WXBBL49A	H12WXBBL49B		H13WXB00XXA	H13WX000XXB	5
H12A3LG323166CA	H12A3PG323166CB	4	H12WXBBL53A	H12WXBBL53B		H1413000XXA	H1413000XXB	
H12A3LG353166CA	H12A3PG323166CB	4,7	H12WXBBL57A	H12WXBBL57B		H14A3000XXA	H14A3000XXB	
H12A4BBL49A	H12A4BBL49B		H12WXBBP42A	H12WXBBP42B		H14A4000XXA	H14A4000XXB	
H12A4BG349000GA	H12A4BG3B9000GB	7	H12WXBBP49A	H12WXBBP49B		H14VX000XXA	H14VX000XXB	
H12B3BG323000CA	H12B3BG323000CB		H12WXB53001A	H12WXB53001B		H14WX000XXA	H14WX000XXB	
H12B3BG323000FA	H12B3BG323000FB		H12WXBBP53A	H12WXBBP53B		H1513BAA53A	H1513BMA23B	6,7
H12B3BG353000CA	H12B3BG323000CB	7	H12WXB353000CA	H12WXB353000CB	7,8	H1513BA53A	H1513BGA23B	7
H12B3BG353000FA	H12B3BG323000FB	7	H12WXBCL53A	H12WXBCL53B		H1513BGA49A	H1513BGA9B9	7
H12E3BB2B9000CA	H1263BG2B9000CB	2,7	H12WXBG249000CA	H12WXBG2B9000CB	7	H1513BGA53A	H1513BGA23B	7
H12E3BB353000CA	H1263BG323000CB	2,7	H12WXBG249000FA	H12WXBG2B9000FB	7	H1513BHA53A	H1513BKA23B	7,8
H12E3BBH53A	H1263BBL23B	2,7	H12WXBG2B9000CA	H12WXBG2B9000CB		H1514BGA53A	H1514BGA23B	7
H12E3BBL53A	H1263BBL53B	2	H12WXBG2B9000FA	H12WXBG2B9000FB		H1515BGA23A	H1515BGA23B	
H12E3BBP53001A	H1263BBP53001B	2	H12WXBG2B9001FA	H12WXBG2B9001FB		H1515BGA49A	H1515BGA9B9	7
H12E3BCL53A	H1263BCL53B	2	H12WXBG323000CA	H12WXBG323000CB		H1515BGA53A	H1515BGA23B	7
H12E3BCP53A	H1263BCP53B	2	H12WXBG323000FA	H12WXBG323000FB		H1515BGA83A	H1515BGA23B	10
H12E3BG249000CA	H1263BG2B9000CB	2,7	H12WXBG323000GA	H12WXBG323000GB		H1515BHA49A	H1515BKA9B9	7,8
H12E3BG249000FA	H1263BG2B9000FB	2,7	H12WXBG323000NA	H12WXBG323000NB		H1515BHA53001A	H1515BKA23001B	7,8
H12E3BG249166CA	H1263BG2B9166CB	2,7	H12WXBG349000CA	H12WXBG349000CB	7	H1515BHA53A	H1515BKA23B	7,8
H12E3BG2B9000CA	H1263BG2B9000CB	2	H12WXBG349000GA	H12WXBG3B9000GB	7	H1515LHA23A	H1515PKA23B	4,8
H12E3BG2B9000FA	H1263BG2B9000FB	2	H12WXBG353000CA	H12WXBG323000CB	7	H1515LHA83A	H1515PKA23B	4,8,10
H12E3BG2B9266CA	H1263BG2B9266CB	2	H12WXBG353000FA	H12WXBG323000FB	7	H1516BGA49A	H1516BGA9B9	7
H12E3BG353000CA	H1263BG323000CB	2,7	H12WXBG353000GA	H12WXBG323000GB	7	H1553BBA53A	H1563BGA23B	1,7
H12E3BG353000CAS	H1263BG323000CB	2,7	H12WXBG353000NA	H12WXBG323000NB	7	H1553BGA49A	H1563BGA9B9	1,7
H12E3BG353000FA	H1263BG323000FB	2,7	H12WXBG383000CA	H12WXBG323000FB	10	H1553BGA53A	H1563BGA23B	1,7
H12E3BG353166CA	H1263BG323166CB	2,7	H12WXBG3B9000CA	H12WXBG3B9000CB		H1553BHA53166A	H1563BKA23166B	1,7,8
H12E3BG353166FA	H1263BG323166FB	2,7	H12WXBG3B9000FA	H12WXBG3B9000FB		H1553BHA9A	H1563BKA9B9	1,8
H12E3BG353266CA	H1263BG323266CB	2,7	H12WXBG3B9000GA	H12WXBG3B9000GB		H1553LGA49A	H1563PGA9B9	1,4,7
H12E3BG383000CA	H1263BG323000CB	2,10	H12WXBG449000CA	H12WXBG4B9000CB	7	H1554BGA53A	H1564BGA23B	1,7
H12E3BG549000CA	H1263BG5B9000CB	2,7	H12WXBG4B9000FA	H12WXBG4B9000FB		H1555BBA49166A	H1565BGA9166B	1,7
H12E3BG553000CA	H1263BG523000CB	2,7	H12WXBG523000CA	H12WXBG523000CB		H1555BBA53166A	H1565BGA23166B	1,7
H12E3BG553166CA	H1263BG523166CB	2,7	H12WXBG523000FA	H12WXBG523000FB		H1555BBA53A	H1565BGA23B	1,7
H12E3BG5B9466GA	H1263BG5B9466GB	2	H12WXBG549000CA	H12WXBG5B9000CB	7	H1555BBA57166A	H1565BGA87166B	1,7
H12E3LG353000CA	H1263PG323000CB	2,4,7	H12WXBG553000CA	H12WXBG523000CB	7	H1555BBA57A	H1565BGA87B	1,7
H12E3LG353166CA	H1263PG323166CB	2,4,7	H12WXBG553000FA	H12WXBG523000FB	7	H1555BBA59166A	H1565BGA87166B	1,7
H12E3LG3B9000CA	H1263PG3B9000CB	2,4	H12WXBG619000FA	H12WXBG619000FB		H1555BBAB9A	H1565BGA9B9	1,7
H12E4BBL49206A	H1264BBL49206B		H12WXBGV9A	H12WXBGV9B		H1555BGA49166A	H1565BGA9166B	1,7
H12E4BBL49A	H1264BBL49B	2	H12WXBH249000FA	H12WXBH2B9000FB	7,8	H1555BGA49A	H1565BGA9B9	1,7
H12E4BBL53A	H1264BBL53B	2	H12WXBH323000FA	H12WXBH323000FB	8	H1555BGA53001A	H1565BGA23001B	1,7
H12E4BG249166FA	H1264BG2B9166FB	2,7	H12WXBH353000FA	H12WXBH323000FB	7,8	H1555BGA53A	H1565BGA23B	1,7
H12E4BG2B9000CA	H1264BG2B9000CB	2	H12WXBH523000FA	H12WXBH523000FB	8	H1555BGA83A	H1565BGA23B	1,10
H12E4BG619166FA	H1264BG619166FB	2	H12WXBH553000FA	H12WXBH523000FB	7,8	H1555BHA53166A	H1565BKA23166B	1,7,8
H12F3BG3B9206FA	H1263BG3B9206FB	2	H12WXL353000CA	H12WXP323000CB	4,7	H1555BHA83166A	H1565BKA23166B	1,8,10
H12F3BG449000CA	H1263BG4B9000CB	2,7	H12WXL53A	H12WXPBL53B	4	H1555LGA49A	H1565PGA9B9	1,4,7
H12F4BBL49A	H12F4BBL49B	3	H12WXL249000CA	H12WXP2B9000CB	4,7	H1563BB353000CA	H1563BG323000CB	7
H12F4BG2B9000CA	H12F4BG2B9000CB	3	H12WXL2B9000FA	H12WXP2B9000FB	4	H1563BBA53A	H1563BGA23B	7
H12VXBB023A	H12VXBG023B	7	H12WXL323000CA	H12WXP323000CB	4	H1563BBL49206A	H1563BBL49206B	
H12VXBBA83A	H12VXBG023B	7,9,10	H12WXL323000GA	H12WXP323000GB	4	H1563BBL49A	H1563BBL49B	
H12VXBC053A	H12VXBK023B	7,8	H12WXL323000NA	H12WXP323000NB	4	H1563BBL53001A	H1563BBL53001B	
H12VXBCA53A	H12VXBK023B	7,8,9	H12WXL349000CA	H12WXP3B9000CB	4,7	H1563BBL53166A	H1563BBL53166B	
H12VXBG023A	H12VXBG023B		H12WXL353000CA	H12WXP323000CB	4,7	H1563BBL53266A	H1563BBL53266B	
H12VXBG049A	H12VXBG0B9B	7	H12WXL353000GA	H12WXP323000GB	4,7	H1563BCL53A	H1563BCL53B	
H12VXBG0B9A	H12VXBG0B9B		H12WXL353000NA	H12WXP323000NB	4,7	H1563BCP53A	H1563BCP53B	
H12VXBG49A	H12VXBG0B9B	7,9	H12WXL523000CA	H12WXP523000CB	4	H1563BG249166CA	H1563BG2B9166CB	7
H12VXBG483A	H12VXBG023B	9,10	H12WXL523000FA	H12WXP523000FB	4	H1563BG2B9000CA	H1563BG2B9000CB	
H12VXBGAB9A	H12VXBG0B9B	9	H12WXL553000CA	H12WXP523000CB	4,7	H1563BG2B9000FA	H1563BG2B9000FB	
H12VXBH053A	H12VXBK023B	7,8	H12WXL553000FA	H12WXP523000FB	4,7	H1563BG323000CA	H1563BG323000CB	
H12VXBHA53A	H12VXBK023B	7,8,9	H12WXPCL53A	H12WXLCL53B	4	H1563BG323000FA	H1563BG323000FB	
H12VXLG053A	H12VXPG023B	4,7	H1313000XXA	H1313000XXB				

H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key
H1563BG323166CA	H1563BG323166CB		H15E3LG3B9000CA	H1563PG3B9000CB	2,4	H1653BGC83A	H1663BGC23B	1,10
H1563BG3B9000GA	H1563BG3B9000GB		H15E4BG249000CA	H1564BG2B9000CB	2,7	H1653BHA53155A	H1663BKA23155B	1,7,8
H1563BG523000CA	H1563BG523000CB		H15E4BG249266CA	H1564BG2B9266CB	2,7	H1653BHA53166A	H1663BKA23166B	1,7,8
H1563BG523155CA	H1563BG523155CB		H15VXBG049A	H15VXBG0B9B	7	H1653BHA53A	H1663BKA23B	1,7,8
H1563BGA49A	H1563BGAB9B	7	H15VXBG053A	H15VXBG023B	7	H1655BBA53466A	H1665BGA23466B	1,7
H1563BGA53A	H1563BGA23B	7	H15VXBG0B9A	H15VXBG0B9B		H1655BBA53A	H1665BGA23B	1,7
H1563BGAB9A	H1563BGAB9B		H15VXBG49A	H15VXBG0B9B	7,9	H1655BGA83A	H1665BGA23B	1,10
H1563BHA53166A	H1563BKA23166B	7,8	H15VXBG453A	H15VXBG023B	7,9	H1655BHA49001A	H1665BKAB9001B	1,7,8
H1563BHAB9A	H1563BKAB9B	8	H15VXBGAB9A	H15VXBG0B9B	9	H1655BHA53266A	H1665BKA23266B	1,7,8
H1563LG323000CA	H1563PG323000CB	4	H15VXBH053A	H15VXBK023B	7,8	H1655BHA83A	H1665BKA23B	1,8,10
H1563LG3B9000CA	H1563PG3B9000CB	4	H15VXBHA53A	H15VXBK023B	7,8,9	H1663BBL49A	H1663BBL49B	
H1563LGA49A	H1563PGA9B9	4,7	H15VXLG053A	H15VXPG023B	4,7	H1663BBL53166A	H1663BBL53166B	
H1564BG249000CA	H1564BG2B9000CB	7	H15VXLGA53A	H15VXPG023B	4,7,9	H1663BBP49A	H1663BBP49B	
H1564BG249266CA	H1564BG2B9266CB	7	H15VXLH023A	H15VXPK023B	4,8	H1663BG249000CA	H1663BG2B9000CB	7
H1564BGA53A	H1564BGA23B	7	H15VXLHA83A	H15VXPK023B	4,8,9,10	H1663BG2B9000FA	H1663BG2B9000FB	
H1564BGAB9A	H1564BGAB9B		H15WXB0NXXA	H15WXB0NXXB		H1663BG2B9199CA	H1663BG2B9199CB	
H1565BBA49166A	H1565BGA9166B	7	H15WXBB249000CA	H15WXBG2B9000CB	7	H1663BG2B9299CA	H1663BG2B9299CB	
H1565BBA53166A	H1565BGA23166B	7	H15WXBB353000CA	H15WXBG323000CB	7	H1663BG323000CA	H1663BG323000CB	
H1565BBA53A	H1565BGA23B	7	H15WXBBL49A	H15WXBBL49B		H1663BG323000FA	H1663BG323000FB	
H1565BBA57166A	H1565BGA87166B	7	H15WXBBL53A	H15WXBBL53B		H1663BG323266CA	H1663BG323266CB	
H1565BBA57A	H1565BGA87B	7	H15WXBBP49A	H15WXBBP49B		H1663BG3B9000GA	H1663BG3B9000GB	
H1565BBA59166A	H1565BGA87166B	7	H15WXBBP53A	H15WXBBP53B		H1663BGA53166A	H1663BGA23166B	7
H1565BBAB9A	H1565BGAB9B	7	H15WXBC553000GA	H15WXBK523000GB	7,8	H1663BGA53466A	H1663BGA23466B	7
H1565BGA23A	H1565BGA23B		H15WXBCL53001A	H15WXBCL53001B		H1663BGA53A	H1663BGA23B	7
H1565BGA49166A	H1565BGAB9166B	7	H15WXBCL53A	H15WXBCL53B		H1663BGC23466A	H1663BGC23466B	
H1565BGA49A	H1565BGAB9B	7	H15WXBG249000CA	H15WXBG2B9000CB	7	H1663BGC23A	H1663BGC23B	
H1565BGA53001A	H1565BGA53001B	7	H15WXBG2B9000CA	H15WXBG2B9000CB		H1663BGC49466A	H1663BGC49466B	7
H1565BGA53A	H1565BGA23B	7	H15WXBG2B9000FA	H15WXBG2B9000FB		H1663BGC49A	H1663BGC9B	7
H1565BHA23166A	H1565BKA23166B	8	H15WXBG2B9000GA	H15WXBG2B9000GB		H1663BGH49A	H1663BGHB9B	7
H1565BHA23A	H1565BKA23B	8	H15WXBG323000CA	H15WXBG323000CB		H1663BH523000CA	H1663BK523000CB	8
H1565BHA53166A	H1565BKA23166B	7,8	H15WXBG323000FA	H15WXBG323000FB		H1663BHA53155A	H1663BKA23155B	7,8
H1565LGA49A	H1565PGA9B9	4,7	H15WXBG323000GA	H15WXBG323000GB		H1663BHA53166A	H1663BKA23166B	7,8
H15A3BB349000CA	H15A3BG3B9000CB	7	H15WXBG349000GA	H15WXBG3B9000GB	7	H1663BHA53A	H1663BKA23B	7,8
H15A3BB353000CA	H15A3BG323000CB	7	H15WXBG353000CA	H15WXBG323000CB	7	H1664BG2B9000CA	H1664BG2B9000CB	
H15A3BB353000FA	H15A3BG323000FB	7	H15WXBG353000FA	H15WXBG323000FB	7	H1665BBA53466A	H1665BGA23466B	7
H15A3BBH53A	H15A3BGH23B	7	H15WXBG383000FA	H15WXBG323000FB	10	H1665BBA53A	H1665BGA23B	7
H15A3BBL53A	H15A3BBL53B		H15WXBG383000GA	H15WXBG323000GB	10	H1665BGA23A	H1665BGA23B	
H15A3BG2B9000FA	H15A3BG2B9000FB		H15WXBG3B9000CA	H15WXBG3B9000CB		H1665BHA23A	H1665BKA23B	8
H15A3BG323000CA	H15A3BG323000CB		H15WXBG3B9000GA	H15WXBG3B9000GB		H1665BHA49001A	H1665BKAB9001B	7,8
H15A3BG323000FA	H15A3BG323000FB		H15WXBG523000CA	H15WXBG523000CB		H1665BHA53266A	H1665BKA23266B	7,8
H15A3BG353000CA	H15A3BG323000CB	7	H15WXBG553000CA	H15WXBG523000CB	7	H16A3BBL49A	H16A3BBL49B	
H15A3BG353000FA	H15A3BG323000FB	7	H15WXL353000CA	H15WXP323000CB	4,7	H16A3BG2B9000FA	H16A3BG2B9000FB	
H15A3BG3B9000GA	H15A3BG3B9000GB		H15WXL53000CA	H15WXP523000CB	4,7	H16A3BG2B9266CA	H16A3BG2B9266CB	
H15A3BG449000CA	H15A3BG4B9000CB	7	H15WXL49466A	H15WXP49466B	4	H16A3BG323000FA	H16A3BG323000FB	
H15A3LG323000CA	H15A3PG323000CB	4	H15WXL49A	H15WXP49B	4	H16A3BG353000FA	H16A3BG323000FB	7
H15A3LG323155CA	H15A3PG323155CB	4	H15WXL53001A	H15WXP53001B	4	H16A3BG3B9000GA	H16A3BG3B9000GB	
H15A3LG353000CA	H15A3PG323000CB	4,7	H15WXLBP53A	H15WXPBP53B	4	H16A3BH523000CA	H16A3BK523000CB	8
H15A3LG353155CA	H15A3PG323155CB	4,7	H15WXLG249000CA	H15WXP323000CB	4,7	H16A3BH553000CA	H16A3BK523000CB	7,8
H15B3BG249000CA	H15B3BG2B9000CB	7	H15WXLG323000CA	H15WXP323000CB	4	H16A3LG2B9000FA	H16A3PG2B9000FB	4
H15E3BB353000CA	H1563BG323000CB	2,7	H15WXLG323000GA	H15WXP323000GB	4	H16A3LG323000CA	H16A3PG323000CB	4
H15E3BBL49206A	H1563BBL49206B	2	H15WXLG353000CA	H15WXP323000CB	4,7	H16A3LG323155CA	H16A3PG323155CB	4
H15E3BBL49A	H1563BBL49B	2	H15WXLG353000GA	H15WXP323000GB	4,7	H16A3LG353000CA	H16A3PG323000CB	4,7
H15E3BBL53001A	H1563BBL53001B	2	H15WXLG3B9466FA	H15WXP3B9466FB	4	H16A3LG353155CA	H16A3PG323155CB	4,7
H15E3BBL53166A	H1563BBL53166B	2	H15WXLG523000CA	H15WXP523000CB	4	H16A4BBP53266A	H16A4BBP53266B	
H15E3BBL53266A	H1563BBL53266B	2	H15WXLG553000CA	H15WXP523000CB	4,7	H16B3BG249000CA	H16B3BG2B9000CB	7
H15E3BCL53A	H1563BCL53B	2	H15WXPCL53A	H15WXLCL53B	4	H16B3BG2B9000FA	H16B3BG2B9000FB	
H15E3BCP53A	H1563BCP53B	2	H1615BGA23A	H1615BGA23B		H16B3BG3B9000FA	H16B3BG3B9000FB	
H15E3BG249166CA	H1563BG2B9166CB	2,7	H1615BGA53A	H1615BGA23B	7	H16B3BG3B9000GA	H16B3BG3B9000GB	
H15E3BG2B9000CA	H1563BG2B9000CB	2	H1615BGA83A	H1615BGA23B	10	H16B3BH523000CA	H16B3BK523000CB	8
H15E3BG2B9000FA	H1563BG2B9000FB	2	H1616BGA49A	H1616BGA9B9	7	H16B3BH553000CA	H16B3BK523000CB	7,8
H15E3BG353000CA	H1563BG323000CB	2,7	H1653BFA53466A	H1663BMA23466B	1,6,7	H16E3BBL49A	H1663BBL49B	2
H15E3BG353000FA	H1563BG323000FB	2,7	H1653BFA53A	H1663BMA23B	1,6,7	H16E3BBL53166A	H1663BBL53166B	2
H15E3BG353166CA	H1563BG323166CB	2,7	H1653BGA53466A	H1663BGA23466B	1,7	H16E3BBP49A	H1663BBP49B	2
H15E3BG3B9000GA	H1563BG3B9000GB	2	H1653BGA53A	H1663BGA23B	1,7	H16E3BG249000CA	H1663BG2B9000CB	2,7
H15E3BG553000CA	H1563BG523000CB	2,7	H1653BGC49466A	H1663BGC49466B	1,7	H16E3BG2B9000FA	H1663BG2B9000FB	2
H15E3BG553155CA	H1563BG523155CB	2,7	H1653BGC49A	H1663BGC9B9	1,7	H16E3BG2B9199CA	H1663BG2B9199CB	2
H15E3LG353000CA	H1563PG323000CB	2,4,7	H1653BGC83466A	H1663BGC23466B	1,10	H16E3BG2B9299CA	H1663BG2B9299CB	2

H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key
H1E63BG353000CA	H1663BG323000CB	2,7	H1753BHAB9A	H1763BKAB9B	1,8	H1E13LBA45A	H1E13PGA15B	4,7
H1E63BG353000FA	H1663BG323000FB	2,7	H1753LGA49A	H1763PGAB9B	1,4,7	H1E13LGA49A	H1E13PGAB9B	4,7
H1E63BG353266CA	H1663BG323266CB	2,7	H1755BHA53A	H1765BKA23B	1,7,8	H1E13LHA53A	H1E13PKA23B	4,7,8
H1E63BG383000CA	H1663BG323000CB	2,10	H1755BHA83A	H1765BKA23B	1,8,10	H1E14LGA49A	H1E14PGAB9B	4,7
H1E63BG389000GA	H1663BG389000GB	2	H1763BG323000CA	H1763BG323000CB		H1E14LGC49A	H1E14PGCB9B	4,7
H1E63BGH49A	H1663BGHB9B	2,7	H1763BG523000CA	H1763BG523000CB		H1E15BBA45A	H1E15BGA15B	7
H1E63BH553000CA	H1663BK523000CB	2,7,8	H1763BGAB9A	H1763BGAB9B		H1E15BBA53A	H1E15BGA23B	7
H1E64BG2B9000CA	H1664BG2B9000CB	2	H1763BHA53166A	H1763BKA23166B	7,8	H1E15BGA49A	H1E15BGA23B	7
H1F63BH523000CA	H1663BK523000CB	2,8	H1763BHA53A	H1763BKA23B	7,8	H1E15BGA53A	H1E15BGA23B	7
H1F63BH553000CA	H1663BK523000CB	2,7,8	H1763BHAB9A	H1763BKAB9B	8	H1E15BHA53A	H1E15BKA23B	7,8
H1F64BG2B9000CA	H16F4BG2B9000CB	3	H1763LGC323166CA	H1763PG323166CB	4	H1E15LGA53A	H1E15PGA23B	4,7
H16VXBC053A	H16VXBK023B	7,8	H1763LGA49A	H1763PGAB9B	4,7	H1E25BHA53A	H1E25BKA23B	7,8
H16VXBCA53A	H16VXBK023B	7,8,9	H1765BHA23A	H1765BKA23B	8	H1E53BBAB9206A	H1E63BGAB9206B	1,7
H16VXBG023A	H16VXBG023B		H1765BHA53A	H1765BKA23B	7,8	H1E53BGA53A	H1E63BGA23B	1,7
H16VXBG049A	H16VXBG0B9B	7	H17A3BG323000CA	H17A3BG323000CB		H1E53BGAB9A	H1E63BGAB9B	1
H16VXBG053166A	H16VXBG023166B	7	H17A3BG353000CA	H17A3BG323000CB	7	H1E53BHA53001A	H1E63BKA23001B	1,7,8
H16VXBG053A	H16VXBG023B	7	H17A3LGC323000FA	H17A3PG323000FB	4	H1E53BHA53166A	H1E63BKA23166B	1,7,8
H16VXBGA49A	H16VXBG0B9B	7,9	H17A3LGC353000FA	H17A3PG323000FB	4,7	H1E53BHA53260A	H1E63BKA23260B	1,7,8
H16VXBGA53166A	H16VXBG023166B	7,9	H17B3BG323000CA	H17B3BG323000CB		H1E53BHA53266A	H1E63BKA23266B	1,7,8
H16VXBGA53A	H16VXBG023B	7,9	H17B3BG353000CA	H17B3BG323000CB	7	H1E53BHA53A	H1E63BKA23B	1,7,8
H16VXBGA83A	H16VXBG023B	9,10	H17E3BG353000CA	H1763BG323000CB	2,7	H1E53BHAB9A	H1E63BKAB9B	1,8
H16VXBH053A	H16VXBK023B	7,8	H17E3BG553000CA	H1763BG523000CB	2,7	H1E55BBA53A	H1E65BGA23B	1,7
H16VXBHA53A	H16VXBK023B	7,8,9	H17E3LGC353166CA	H1763PG323166CB	2,4,7	H1E55BGA49A	H1E65BGAB9B	1,7
H16VXLG053A	H16VXPG023B	4,7	H17F4BG2B9000CA	H17F4BG2B9000CB	3	H1E55BGA53001A	H1E65BGA23001B	1,7
H16VXLGA53A	H16VXPG023B	4,7,9	H17VXBG049A	H17VXBG0B9B	7	H1E55BGA53A	H1E65BGA23B	1,7
H16WXB0NXXA	H16WXB0NXXB		H17VXBG0B9A	H17VXBG0B9B		H1E55BGAB9166A	H1E65BGAB9166B	1
H16WXB249000CA	H16WXB249000CB	7	H17VXBG449A	H17VXBG0B9B	7,9	H1E55BGAB9A	H1E65BGAB9B	1
H16WXB553000CA	H16WXB553000CB	7	H17VXBGA49A	H17VXBG0B9B	9	H1E55BHA53001A	H1E65BKA23001B	1,7,8
H16WXBBL49A	H16WXBBL49B		H17VXBH053A	H17VXBK023B	7,8	H1E55BHA53166A	H1E65BKA23166B	1,7,8
H16WXBBL53A	H16WXBBL53B		H17VXBHA53A	H17VXBK023B	7,8,9	H1E55BHA53A	H1E65BKA23B	1,7,8
H16WXBBL57A	H16WXBBL57B		H17WXB0NXXA	H17WXB0NXXB		H1E55LGA53205A	H1E65PGA23205B	1,4,7
H16WXBBLP42A	H16WXBBLP42B		H17WXBBL49A	H17WXBBL49B		H1E63BB353000CA	H1E63BG323000CB	7
H16WXBBLP49A	H16WXBBLP49B		H17WXBBLP49A	H17WXBBLP49B		H1E63BBAB9206A	H1E63BGAB9206B	7
H16WXBCL53A	H16WXBCL53B		H17WXBBLP53A	H17WXBBLP53B		H1E63BBL49A	H1E63BBL49B	
H16WXBG249000CA	H16WXBG249000CB	7	H17WXBG249000CA	H17WXBG249000CB	7	H1E63BBL53001A	H1E63BBL53001B	
H16WXBG249000GA	H16WXBG249000GB	7	H17WXBG2B9000CA	H17WXBG2B9000CB		H1E63BBL53166A	H1E63BBL53166B	
H16WXBG2B9000CA	H16WXBG2B9000CB		H17WXBG2B9000FA	H17WXBG2B9000FB		H1E63BBL53466A	H1E63BBL53466B	
H16WXBG2B9000FA	H16WXBG2B9000FB		H17WXBG323000CA	H17WXBG323000CB		H1E63BBL53A	H1E63BBL53B	
H16WXBG323000CA	H16WXBG323000CB		H17WXBG323000GA	H17WXBG323000GB		H1E63BC123001GA	H1E63BC123001GB	7,8
H16WXBG323000FA	H16WXBG323000FB		H17WXBG353000CA	H17WXBG323000CB	7	H1E63BCL53001A	H1E63BCL53001B	
H16WXBG349000CA	H16WXBG3B9000CB	7	H17WXBG353000GA	H17WXBG323000GB	7	H1E63BCP53A	H1E63BCP53B	
H16WXBG353000CA	H16WXBG323000CB	7	H17WXBG3B9000CA	H17WXBG3B9000CB		H1E63BG249000CA	H1E63BG2B9000CB	7
H16WXBG353000FA	H16WXBG323000FB	7	H17WXBG3B9000GA	H17WXBG3B9000GB		H1E63BG249000FA	H1E63BG2B9000FB	7
H16WXBG3B9000CA	H16WXBG3B9000CB		H17WXBG523000CA	H17WXBG523000CB		H1E63BG249166CA	H1E63BG2B9166CB	7
H16WXBG3B9000GA	H16WXBG3B9000GB		H17WXBG553000CA	H17WXBG523000CB	7	H1E63BG2B9000CA	H1E63BG2B9000CB	
H16WXBG4B9000CA	H16WXBG4B9000CB		H17WXLG353000CA	H17WXP323000CB	4,7	H1E63BG2B9000FA	H1E63BG2B9000FB	
H16WXBG523000CA	H16WXBG523000CB		H17WXLBL49A	H17WXPBL49B	4	H1E63BG2B9001FA	H1E63BG2B9001FB	
H16WXBG553000CA	H16WXBG523000CB	7	H17WXLG323000CA	H17WXP323000CB	4	H1E63BG323000CA	H1E63BG323000CB	
H16WXBGV9A	H16WXBGV9B		H17WXLG353000CA	H17WXP323000CB	4,7	H1E63BG323000FA	H1E63BG323000FB	
H16WXBH323000FA	H16WXBK323000FB	8	H17WXLG523000CA	H17WXP523000CB	4	H1E63BG323166CA	H1E63BG323166CB	
H16WXBH353000FA	H16WXBK323000FB	7,8	H17WXLG553000CA	H17WXP523000CB	4,7	H1E63BG323266CA	H1E63BG323266CB	
H16WXBH523000CA	H16WXBK523000CB	8	H1853000XXA	H1863000XXB	1	H1E63BG349000GA	H1E63BG3B9000GB	7
H16WXBH553000CA	H16WXBK523000CB	7,8	H1863000XXA	H1863000XXB		H1E63BG3B9000GA	H1E63BG3B9000GB	
H16WXLB353000CA	H16WXP323000CB	4,7	H18B3000XXA	H18B3000XXB		H1E63BG449000FA	H1E63BG4B9000FB	7
H16WXLB553000CA	H16WXP523000CB	4,7	H18VX000XXA	H18VX000XXB		H1E63BG523000CA	H1E63BG523000CB	
H16WXLBL49A	H16WXPBL49B	4	H18WX000XXA	H18WX000XXB		H1E63BG549000CA	H1E63BG5B9000CB	7
H16WXLBL53266A	H16WXPBL53266B	4	H1954000XXA	H1964000XXB	1	H1E63BGA53A	H1E63BGA23B	7
H16WXLG323000CA	H16WXP323000CB	4	H1964000XXA	H1964000XXB		H1E63BGA49A	H1E63BGAB9B	
H16WXLG323000GA	H16WXP323000GB	4	H19A4000XXA	H19A4000XXB		H1E63BGH49A	H1E63BGHB9B	7
H16WXLG353000CA	H16WXP323000CB	4,7	H19VX000XXA	H19VX000XXB		H1E63BGH53A	H1E63BGH23B	7
H16WXLG353000GA	H16WXP323000GB	4,7	H19WX000XXA	H19WX000XXB		H1E63BGHB9A	H1E63BGHB9B	
H16WXLG523000CA	H16WXP523000CB	4	H1A00005	H1E63BG2B9000FB		H1E63BGR53A	H1E63BGH23B	7,11
H16WXLG553000CA	H16WXP523000CB	4,7	H1E13BAA53A	H1E13BMA23B	6,7	H1E63BH3B9000FA	H1E63BK3B9000FB	8
H1713BGA53266A	H1713BGA23266B	7	H1E13BBA57A	H1E13BGA87B	7	H1E63BH3B9000GA	H1E63BK3B9000GB	8
H1713LGA49A	H1713PGAB9B	4,7	H1E13BGA49A	H1E13BGA89B	7	H1E63BH523000CA	H1E63BK523000CB	8
H1753BHA53166A	H1763BKA23166B	1,7,8	H1E13BGA53A	H1E13BGA23B	7	H1E63BH523155CA	H1E63BK523155CB	8
H1753BHA53A	H1763BKA23B	1,7,8	H1E13BHA53A	H1E13BKA23B	7,8	H1E63BHA53001A	H1E63BKA23001B	7,8



H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key
H1E63BHA53166A	H1E63BKA23166B	7,8	H1EE3BB353000CA	H1E63BG323000CB	2,7	H1EVXLG049A	H1EVXPG0B9B	4,7
H1E63BHA53260A	H1E63BKA23260B	7,8	H1EE3BBL49A	H1E63BBL49B	2	H1EVXLG053A	H1EVXPG023B	4,7
H1E63BHA53266A	H1E63BKA23266B	7,8	H1EE3BBL53001A	H1E63BBL53001B	2	H1EVXLG0B9A	H1EVXPG0B9B	4
H1E63BHA53A	H1E63BKA23B	7,8	H1EE3BBL53166A	H1E63BBL53166B	2	H1EVXLA49A	H1EVXPG0B9B	4,7,9
H1E63BHAB9A	H1E63BKAB9B	8	H1EE3BBL53466A	H1E63BBL53466B	2	H1EVXLA53A	H1EVXPG023B	4,7,9
H1E63LG323000CA	H1E63PG323000CB	4	H1EE3BBL53A	H1E63BBL53B	2	H1EVXLAGAB9A	H1EVXPG0B9B	4,9
H1E63LG323144CA	H1E63PG323144CB	4	H1EE3BC153001GA	H1E63BK123001GB	2,7,8	H1EEXB0NXXA	H1EEXB0NXXB	
H1E63LG323155CA	H1E63PG323155CB	4	H1EE3BCL53001A	H1E63BCL53001B	2	H1EEXB249000CA	H1EEXBG2B9000CB	7
H1E63LG323166CA	H1E63PG323166CB	4	H1EE3BCP53A	H1E63BCP53B	2	H1EEXB349000CA	H1EEXBG3B9000CB	7
H1E64BBL49A	H1E64BBL49B		H1EE3BG249000CA	H1E63BG2B9000CB	2,7	H1EEXB353000CA	H1EEXBG323000CB	7
H1E64BG249000CA	H1E64BG2B9000CB	7	H1EE3BG249000FA	H1E63BG2B9000FB	2,7	H1EEXB4B9000CA	H1EEXBG4B9000CB	7
H1E64BG249000FA	H1E64BG2B9000FB	7	H1EE3BG249166CA	H1E63BG2B9166CB	2,7	H1EEXB553000CA	H1EEXBG523000CB	7
H1E64BG249166CA	H1E64BG2B9166CB	7	H1EE3BG2B9000CA	H1E63BG2B9000CB	2	H1EEXBBH49A	H1EEXBGBH9B	7
H1E64BG2B9000CA	H1E64BG2B9000CB		H1EE3BG2B9000FA	H1E63BG2B9000FB	2	H1EEXBBH9A	H1EEXBGBH9B	7
H1E64BG3B9000GA	H1E64BG3B9000GB		H1EE3BG2B9001FA	H1E63BG2B9001FB	2	H1EEXBBL49A	H1EEXBBL49B	
H1E64BG619000FA	H1E64BG619000FB		H1EE3BG349000GA	H1E63BG3B9000GB	2,7	H1EEXBBL53466A	H1EEXBBL53466B	
H1E64BGAB9166A	H1E64BGAB9166B		H1EE3BG353000CA	H1E63BG323000CB	2,7	H1EEXBBL53A	H1EEXBBL53B	
H1E64BGAB9A	H1E64BGAB9B		H1EE3BG353000FA	H1E63BG323000FB	2,7	H1EEXBBL53AL	H1EEXBBL53BL	
H1E65BBA53A	H1E65BGA23B	7	H1EE3BG353166CA	H1E63BG323166CB	2,7	H1EEXBPP42A	H1EEXBPP42B	
H1E65BGA49A	H1E65BGAAB9B	7	H1EE3BG353266CA	H1E63BG323266CB	2,7	H1EEXBPP49A	H1EEXBPP49B	
H1E65BGA53001A	H1E65BGA23001B	7	H1EE3BG383000CA	H1E63BG323000CB	2,10	H1EEXBPP53A	H1EEXBPP53B	
H1E65BGA53A	H1E65BGA23B	7	H1EE3BG3B9000GA	H1E63BG3B9000GB	2	H1EEXBC353000CA	H1EEXBK323000CB	7,8
H1E65BGAB9166A	H1E65BGAB9166B		H1EE3BG449000FA	H1E63BG4B9000FB	2,7	H1EEXBC553000GA	H1EEXBK523000GB	7,8
H1E65BGAB9A	H1E65BGAB9B		H1EE3BG549000CA	H1E63BG5B9000CB	2,7	H1EEXBCH53A	H1EEXBKH23B	7,8
H1E65BHA53001A	H1E65BKA23001B	7,8	H1EE3BG553000CA	H1E63BG523000CB	2,7	H1EEXBCL53A	H1EEXBCL53B	
H1E65BHA53166A	H1E65BKA23166B	7,8	H1EE3BGH49A	H1E63BGBH9B	2,7	H1EEXBCP49A	H1EEXBCP49B	
H1E65BHA53A	H1E65BKA23B	7,8	H1EE3BGH53A	H1E63BGBH23B	2,7	H1EEXBCP53A	H1EEXBCP53B	
H1E65LGA53205A	H1E65PGA23205B	4,7	H1EE3BGBH9A	H1E63BGBH9B	2	H1EEXBF353000CA	H1EEXBM323000CB	6,7
H1EA3BB353000CA	H1EA3BG323000CB	7	H1EE3BGR53A	H1E63BGBH23B	2,7,11	H1EEXBG249000CA	H1EEXBG2B9000CB	7
H1EA3BB359000CA	H1EA3BG3B7000CB	7	H1EE3BH3B9000FA	H1E63BK3B9000FB	2,8	H1EEXBG2B9000CA	H1EEXBG2B9000CB	
H1EA3BBL49A	H1EA3BBL49B		H1EE3BH3B9000GA	H1E63BK3B9000GB	2,8	H1EEXBG2B9000FA	H1EEXBG2B9000FB	
H1EA3BBL53A	H1EA3BBL53B		H1EE3BH553000CA	H1E63BK523000CB	2,7,8	H1EEXBG2B9000GA	H1EEXBG2B9000GB	
H1EA3BC353000CA	H1EA3BK323000CB	7,8	H1EE3BH553155CA	H1E63BK523155CB	2,7,8	H1EEXBG2B9001FA	H1EEXBG2B9001FB	
H1EA3BG249000CA	H1EA3BG2B9000CB	7	H1EE3LG353000CA	H1E63PG323000CB	2,4,7	H1EEXBG323000CA	H1EEXBG323000CB	
H1EA3BG2B9000CA	H1EA3BG2B9000CB		H1EE3LG353144CA	H1E63PG323144CB	2,4,7	H1EEXBG323000FA	H1EEXBG323000FB	
H1EA3BG2B9000FA	H1EA3BG2B9000FB		H1EE3LG353155CA	H1E63PG323155CB	2,4,7	H1EEXBG323000GA	H1EEXBG323000GB	
H1EA3BG2B9000GA	H1EA3BG2B9000GB		H1EE3LG353166CA	H1E63PG323166CB	2,4,7	H1EEXBG323000NA	H1EEXBG323000NB	
H1EA3BG323000CA	H1EA3BG323000CB		H1EE4BBL49A	H1E64BBL49B	2	H1EEXBG323166CA	H1EEXBG323166CB	
H1EA3BG323000FA	H1EA3BG323000FB		H1EE4BG249000CA	H1E64BG2B9000CB	2,7	H1EEXBG323206CA	H1EEXBG323206CB	
H1EA3BG323000GA	H1EA3BG323000GB		H1EE4BG249000FA	H1E64BG2B9000FB	2,7	H1EEXBG349000CA	H1EEXBG3B9000CB	7
H1EA3BG353000CA	H1EA3BG323000CB	7	H1EE4BG249166CA	H1E64BG2B9166CB	2,7	H1EEXBG353000CA	H1EEXBG323000CB	7
H1EA3BG353000FA	H1EA3BG323000FB	7	H1EE4BG249FA	H1E64BG2B9000FB	2,7	H1EEXBG353000FA	H1EEXBG323000FB	7
H1EA3BG353000GA	H1EA3BG323000GB	7	H1EE4BG2B9000CA	H1E64BG2B9000CB	2	H1EEXBG353000GA	H1EEXBG323000GB	7
H1EA3BG383000CA	H1EA3BG323000CB	10	H1EE4BG3B9000CA	H1E64BG3B9000CB	2	H1EEXBG353000NA	H1EEXBG323000NB	7
H1EA3BG3B9000GA	H1EA3BG3B9000GB		H1EE4BG619000FA	H1E64BG619000FB	2	H1EEXBG353166CA	H1EEXBG323166CB	7
H1EA3BG523000CA	H1EA3BG523000CB		H1EF3BH523000CA	H1E63BK523000CB	2,8	H1EEXBG353206CA	H1EEXBG323206CB	7
H1EA3BG553000CA	H1EA3BG523000CB	7	H1EF3BH553000CA	H1E63BK523000CB	2,7,8	H1EEXBG383000FA	H1EEXBG323000FB	10
H1EA3BG5B9000CA	H1EA3BG5B9000CB		H1EF4BG2B9000CA	H1EF4BG2B9000CB	3	H1EEXBG3B9000CA	H1EEXBG3B9000CB	
H1EA3BG5B9000GA	H1EA3BG5B9000GB		H1EVXB023A	H1EVXBG023B	7	H1EEXBG3B9000FA	H1EEXBG3B9000FB	
H1EA3BGH53A	H1EA3BGH23B		H1EVXB042A	H1EVXBG012B	7	H1EEXBG3B9000GA	H1EEXBG3B9000GB	
H1EA3BGV49A	H1EA3BGVB9B	7	H1EVXB053A	H1EVXBG023B	7	H1EEXBG4B9000CA	H1EEXBG4B9000CB	
H1EA3LG323000CA	H1EA3PG323000CB	4	H1EVXBB442A	H1EVXBG012B	7,9	H1EEXBG4B9000FA	H1EEXBG4B9000FB	
H1EA3LG323155CA	H1EA3PG323155CB	4	H1EVXBBA53A	H1EVXBG023B	7,9	H1EEXBG523000CA	H1EEXBG523000CB	
H1EA3LG323166CA	H1EA3PG323166CB	4	H1EVXBBA83A	H1EVXBG023B	7,9,10	H1EEXBG523000FA	H1EEXBG523000FB	
H1EA3LG353000CA	H1EA3PG323000CB	4,7	H1EVXBC053A	H1EVXBK023B	7,8	H1EEXBG553000CA	H1EEXBG523000CB	7
H1EA3LG353155CA	H1EA3PG323155CB	4,7	H1EVXBCA53A	H1EVXBK023B	7,8,9	H1EEXBG553000FA	H1EEXBG523000FB	7
H1EA3LG353166CA	H1EA3PG323166CB	4,7	H1EVXBFA53A	H1EVXB023B	6,7,9	H1EEXBGR53A	H1EEXBGRH23B	7,11
H1EA3LGR53A	H1EA3PGH23B	4,7,11	H1EVXBG049166A	H1EVXBG0B9166B	7	H1EEXBGR9A	H1EEXBGRV9B	
H1EA4BG323000GA	H1EA4BG323000GB		H1EVXBG049A	H1EVXBG0B9B	7	H1EEXBH249000FA	H1EEXBK2B9000FB	7,8
H1EA4BG353000GA	H1EA4BG323000GB	7	H1EVXBG053A	H1EVXBG023B	7	H1EEXBH523000CA	H1EEXBK523000CB	8
H1EA4BG3B9000FA	H1EA4BG3B9000FB		H1EVXBGA49166A	H1EVXBG0B9166B	7,9	H1EEXBH553000CA	H1EEXBK523000CB	7,8
H1EA4BG3B9000GA	H1EA4BG3B9000GB		H1EVXBGA49A	H1EVXBG0B9B	7,9	H1EEXL353000CA	H1EEXPG323000CB	4,7
H1EB3BG3B9000FA	H1EB3BG3B9000FB		H1EVXBGA53A	H1EVXBG023B	7,9	H1EEXL49A	H1EEXPL49B	4
H1EB3BG3B9000GA	H1EB3BG3B9000GB		H1EVXBH053A	H1EVXBK023B	7,8	H1EEXLG249000CA	H1EEXPG2B9000CB	4,7
H1EB3BG449000CA	H1EB3BG4B9000CB	7	H1EVXBHA53A	H1EVXBK023B	7,8,9	H1EEXLG2B9000CA	H1EEXPG2B9000CB	4
H1EB3LG323000CA	H1EB3PG323000CB	4	H1EVXLA053A	H1EVXPM023B	4,6,7	H1EEXLG2B9000FA	H1EEXPG2B9000FB	4
H1EB3LG353000CA	H1EB3PG323000CB	4,7	H1EVXLA53A	H1EVXPM023B	4,6,7,9	H1EEXLG323000CA	H1EEXPG323000CB	4

H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key
H1EWXLG323166CA	H1EWXPG323166CB	4	H2157BG123166CA	H2157BG123166CB		H21VXBHA49	H21VXBK0B9B	7,8,9
H1EWXLG349000CA	H1EWXPG3B9000CB	4,7	H2157BG149000CA	H2157BG1B9000CB	7	H21VXBHA53A	H21VXBK023B	7,8,9
H1EWXLG353000CA	H1EWXPG323000CB	4,7	H2157BG249000CA	H2157BG2B9000CB	7	H21VXLB053A	H21VXPG023B	4,7
H1EWXLG353166CA	H1EWXPG323166CB	4,7	H2157BG249000GA	H2157BG2B9000GB	7	H21VXLB057A	H21VXPG087B	4,7
H1EWXLG3B9000CA	H1EWXPG3B9000CB	4	H2157BG323000CA	H2157BG323000CB		H21VXLB053A	H21VXPG023B	4,7,9
H1EWXLG523000CA	H1EWXPG523000CB	4	H2157BG323000FA	H2157BG323000FB		H21VXLB057A	H21VXPG087B	4,7,9
H1EWXLG553000CA	H1EWXPG523000CB	4,7	H2165BBA49A	H2165BGAB9B	7,14	H21VXLG049A	H21VXPG0B9B	4,7
H1EWXPBL57A	H1EWXLBL57B	4	H2165BBA53A	H2165BGA23B	7,14	H21VXLG053A	H21VXPG023B	4,7
H1F15000XXA	H1F15000XXB		H2165BBA57A	H2165BGA87B	7,14	H21VXLG0B9A	H21VXPG0B9B	4
H1F15B00XXA	H1F15000XXB	5	H2165BGA49A	H2165BGAB9B	7,14	H21VXLGA49A	H21VXPG0B9B	4,7,9
H1F15L00XXA	H1F15P00XXB	4	H2165BGA53122A	H2165BGA23122B	7,14	H21VXLGA53A	H21VXPG023B	4,7,9
H1F63000XXA	H1F63000XXB		H2165BGA53166A	H2165BGA23166B	7,14	H21VXLGAB9A	H21VXPG0B9B	4,9
H1FA3000XXA	H1FA3000XXB		H2165BGA53266A	H2165BGA23266B	7,14	H21VXLH049A	H21VXPK0B9B	4,7,8
H1FA3B00XXA	H1FA3000XXB	5	H2165BGA53A	H2165BGA23B	7,14	H21VXLH053A	H21VXPK023B	4,7,8
H1FA4000XXA	H1FA4000XXB		H2165BHA53A	H2165BKA23B	7,8,14	H21VXLHA49A	H21VXPK0B9B	4,7,8,9
H1FA4B00XXA	H1FA4000XXB	5	H2165LGA53166A	H2165PGA23166B	4,7,14	H21VXLHA53A	H21VXPK023B	4,7,8,9
H1FE3B00XXA	H1F63000XXB	2,5	H2165LGA53266A	H2165PGA23266B	4,7,14	H21WXBONXXA	H21WXBONXXB	
H1FVX000XXA	H1FVX000XXB		H21A5BBL49A	H21A5BBL49B		H21WXBBH57A	H21WXBGH87B	7
H1FVXB00XXA	H1FVX000XXB	5	H21A5BBL53A	H21A5BBL53B		H21WXBBL49A	H21WXBBL49B	
H1FWX000XXA	H1FWX000XXB		H21A5BCL53A	H21A5BCL53B		H21WXBBL53A	H21WXBBL53B	
H1FWXB00XXA	H1FWX000XXB	5	H21A5BG123000CA	H21A5BG123000CB		H21WXBBL57A	H21WXBBL57B	
H20WX000XXA	H20WX000XXB		H21A5BG149000CA	H21A5BG1B9000CB	7	H21WXBBP49A	H21WXBBP49B	
H2113BBA53A	H2115BGA23B	7,12	H21A5BG153000CA	H21A5BG123000CB	7	H21WXBBP53A	H21WXBBP53B	
H2113BGA49A	H2115BGAB9B	7,12	H21A5BG249000CA	H21A5BG2B9000CB	7	H21WXBBP57A	H21WXBBP57B	
H2113BGA53A	H2115BGA23B	7,12	H21A5BG2B9000CA	H21A5BG2B9000CB		H21WXBCH53A	H21WXBKH23B	7
H2113LBA53A	H2115PGA23B	4,7,12	H21A5BG323000FA	H21A5BG323000FB		H21WXBCL49A	H21WXBCL49B	
H2115BBA42A	H2115BGA12B	7,14	H21A5BG323000GA	H21A5BG323000GB		H21WXBCL53A	H21WXBCL53B	
H2115BBA49001A	H2115BGAB9001B	7,14	H21A5BG353000FA	H21A5BG323000FB	7	H21WXBCP57A	H21WXBCP57B	
H2115BBA53466A	H2115BGA23466B	7,14	H21A5BG353000GA	H21A5BG323000GB	7	H21WXBG123166A	H21WXBG123166CB	
H2115BBA53A	H2115BGA23B	7,14	H21A5BG449000CA	H21A5BG4B9000CB	7	H21WXBG149000CA	H21WXBG1B9000CB	7
H2115BBA57A	H2115BGA87B	7,14	H21A5BG549000CA	H21A5BG5B9000CB	7	H21WXBG149166CA	H21WXBG1B9166CB	7
H2115BGA49A	H2115BGAB9B	7,14	H21A5BH323000CA	H21A5BK323000CB	8	H21WXBG153166A	H21WXBG123166CB	7
H2115BGA53166A	H2115BGA23166B	7,14	H21A5BH353000CA	H21A5BK323000CB	7,8	H21WXBG249000CA	H21WXBG2B9000CB	7
H2115BGA53A	H2115BGA23B	7,14	H21A6BBL49A	H21A6BBL49B		H21WXBG249000FA	H21WXBG2B9000FB	7
H2115BGAB9A	H2115BGAB9B	14	H21B5BBP49A	H21B5BBP49B		H21WXBG2B9000CA	H21WXBG2B9000CB	
H2115BHA53001A	H2115BKA23001B	7,8,14	H21E7BBL49A	H2157BBL49B	2	H21WXBG2B9000FA	H21WXBG2B9000FB	
H2115BHA53A	H2115BKA23B	7,8,14	H21E7BBL53A	H2157BBL53B	2	H21WXBG323000CA	H21WXBG323000CB	
H2115LBA53A	H2115PGA23B	4,7,14	H21E7BCL53A	H2157BCL53B	2	H21WXBG323000FA	H21WXBG323000FB	
H2115LGA49A	H2115PGAB9B	4,7,14	H21E7BG149000CA	H2157BG1B9000CB	2,7	H21WXBG349000CA	H21WXBG3B9000CB	7
H2115LGA53A	H2115PGA23B	4,7,14	H21E7BG153166A	H2157BG123166CB	2,7	H21WXBG353000CA	H21WXBG323000CB	7
H2115LHA53A	H2115PKA23B	4,7,8,14	H21E7BG153166CA	H2157BG123166CB	2,7	H21WXBG353000FA	H21WXBG323000FB	7
H2125BGA53A	H2125BGA23B	7,14	H21E7BG249000CA	H2157BG2B9000CB	2,7	H21WXBG383000CA	H21WXBG323000CB	10
H2125LGA53A	H2125PGA23B	4,7,14	H21E7BG249000GA	H2157BG2B9000GB	2,7	H21WXBG3B9000FA	H21WXBG3B9000FB	
H2155BAA53A	H2155BGA23B	7,13,14	H21E7BG353000CA	H2157BG323000CB	2,7	H21WXBG449000CA	H21WXBG4B9000CB	7
H2155BBA53266A	H2155BGA23266B	7,14	H21E7BG353000FA	H2157BG323000FB	2,7	H21WXBG449166CA	H21WXBG4B9166CB	7
H2155BBA53A	H2155BGA23B	7,14	H21F5BG323000FA	H2165BG323000FB	2	H21WXBG549000CA	H21WXBG5B9000CB	7
H2155BCA59001A	H2155BKA87001B	7,14	H21F5BG353000FA	H2165BG323000FB	2,7	H21WXBG619000FA	H21WXBG619000FB	
H2155BGA49001A	H2155BGAB9001B	7,14	H21VXBB042A	H21VXBG012B	7	H21WXBGH49A	H21WXBGHB9B	7
H2155BGA49166A	H2155BGAB9166B	7,14	H21VXBB053A	H21VXBG023B	7	H21WXBGH89A	H21WXBGHB9B	
H2155BGA49A	H2155BGAB9B	7,14	H21VXB0057A	H21VXBG087B	7	H21WXLBL49A	H21WXPBL49B	4
H2155BGA53001A	H2155BGA23001B	7,14	H21VXBB042A	H21VXBG012B	7,9	H21WXLBL53A	H21WXPBL53B	4
H2155BGA53166A	H2155BGA23166B	7,14	H21VXBB053A	H21VXBG023B	7,9	H21WXLBL53AL	H21WXPBL53B	4
H2155BGA53266A	H2155BGA23266B	7,14	H21VXBBA57A	H21VXBG087B	7,9	H21WXLG123000GA	H21WXPBG123000GB	4
H2155BGA53466A	H2155BGA23466B	7,14	H21VXBC057A	H21VXBK087B	7	H21WXLG183000GA	H21WXPBG123000GB	4,10
H2155BGA53A	H2155BGA23B	7,14	H21VXBCA57A	H21VXBK087B	7,9	H21WXLG183000GAS	H21WXPBG123000GB	4,10
H2155BGAB9A	H2155BGAB9B	14	H21VXBG023A	H21VXBG023B		H21WXPBL53A	H21WXLBL53B	4
H2155BHA53001A	H2155BKA23001B	7,8,14	H21VXBG049166A	H21VXBG0B9166B	7	H2213BAA53A	H2215BGA23B	7,12,13
H2155BHA53A	H2155BKA23B	7,8,14	H21VXBG049A	H21VXBG0B9B	7	H2215BAA53A	H2215BGA23B	7,13,14
H2155LBA9A	H2155PGAB9B	4,7,14	H21VXBG053A	H21VXBG023B	7	H2215BBA23A	H2215BGA23B	7,14
H2155LCA53166A	H2155PKA23166B	4,7,14	H21VXBG0B9A	H21VXBG0B9B		H2215BBA42A	H2215BGA12B	7,14
H2155LGA49A	H2155PGAB9B	4,7,14	H21VXBG0B9A	H21VXBG0B9B		H2215BBA45166A	H2215BGA15166B	7,14
H2155LGA9A	H2155PGAB9B	4,14	H21VXBG049166A	H21VXBG0B9166B	7,9	H2215BBA45A	H2215BGA15B	7,14
H2156BGA53A	H2156BGA23B	7,14	H21VXBG49A	H21VXBG0B9B	7,9	H2215BBA53A	H2215BGA23B	7,14
H2157BBL49A	H2157BBL49B		H21VXBG49A	H21VXBG0B9B	7,9	H2215BBA57A	H2215BGA87B	7,14
H2157BBL53A	H2157BBL53B		H21VXBG83A	H21VXBG023B	9,10	H2215BBA83A	H2215BGA23B	7,10,14
H2157BCL53A	H2157BCL53B		H21VXBGAB9A	H21VXBG0B9B	9	H2215BGA23A	H2215BGA23B	14
H2157BCL53A	H2157BCL53B		H21VXBH049A	H21VXBK0B9B	7,8	H2215BGA49001A	H2215BGAB9001B	7,14
H2157BG123166A	H2157BG123166CB		H21VXBH053A	H21VXBK023B	7,8			



H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key
H2215BGA49A	H2215BGAB9B	7,14	H2257BG549000CA	H2257BG5B9000CB	7	H22E7BG353166CA	H2257BG323166CB	2,7
H2215BGA53001A	H2215BGA23001B	7,14	H2257BGH53A	H2257BGH23B	7	H22E7BG3B9000CA	H2257BG3B9000CB	2
H2215BGA53166A	H2215BGA23166B	7,14	H2257BH323000CA	H2257BK323000CB	8	H22E7BG3B9000FA	H2257BG3B9000FB	2
H2215BGA53A	H2215BGA23B	7,14	H2257LG323000CA	H2257PG323000CB	4	H22E7BG3B9001FA	H2257BG3B9001FB	2
H2215BGAB83A	H2215BGA23B	10,14	H2257LG523000CA	H2257PG523000CB	4	H22E7BG549000CA	H2257BG5B9000CB	2,7
H2215BGAB9A	H2215BGAB9B	14	H2258BBL49A	H2258BBL49B		H22E7BG553000CA	H2257BG523000CB	2,7
H2215BHA53001A	H2215BKA23001B	7,8,14	H2258BG249000CA	H2258BG2B9000CB	7	H22E7BG553001CA	H2257BG523001CB	2,7
H2215BHA53A	H2215BKA23B	7,8,14	H2258BG2B9000CA	H2258BG2B9000CB		H22E7BGH53A	H2257BGH23B	2,7
H2215LGA49A	H2215PGAB9B	4,7,14	H2258BG2B9166CA	H2258BG2B9166CB		H22E7BH383000CA	H2257BK323000CB	2,8,10
H2215LGA53266A	H2215PGA23266B	4,7,14	H2258BG3B9206GA	H2258BG3B9206GB		H22E7L353000CA	H2257PG323000CB	2,4,7
H2215LGA53A	H2215PGA23B	4,7,14	H2258LG2B9000CA	H2258PG2B9000CB	4	H22E7L553000CA	H2257PG523000CB	2,4,7
H2215LHA53266A	H2215PKA23266B	4,7,8,14	H2265BBA45166A	H2265BGA15166B	7,14	H22E8BBL49A	H2258BBL49B	2
H2225BGA53A	H2225BGA23B	7,14	H2265BBA45A	H2265BGA15B	7,14	H22E8BG249000CA	H2258BG2B9000CB	2,7
H2225BHA53A	H2225BKA23B	7,8,14	H2265BBA53001A	H2265BGA23001B	7,14	H22E8BG2B9000CA	H2258BG2B9000CB	2
H2225BBA53166A	H2225BGA23166B	7,12	H2265BBA57A	H2265BGA87B	7,14	H22E8BG2B9166CA	H2258BG2B9166CB	2
H2225BGA53001A	H2225BGA23001B	7,12	H2265BGA49133A	H2265BGAB9133B	7,14	H22E8BG3B9206GA	H2258BG3B9206GB	2
H2225BGA53206A	H2225BGA23206B	7,12	H2265BGA53133A	H2265BGA23133B	7,14	H22E8LG2B9000CA	H2258PG2B9000CB	2,4
H2225BHA53155A	H2225BKA23155B	7,8,12	H2265BGA53166A	H2265BGA23166B	7,14	H22F5BBL53166A	H2265BBL53166B	2
H2225BHAB9A	H2225BKAB9B	8,12	H2265BGA53A	H2265BGA23B	7,14	H22F5BG2B9000CA	H2265BG2B9000CB	2
H2225BBA53166A	H2225BGA23166B	7,14	H2265BGAB9166A	H2265BGAB9166B	14	H22F5BG2B9166CA	H2265BG2B9166CB	2
H2225BBA57A	H2225BGA87B	7,14	H2265BGAB9A	H2265BGAB9B	14	H22F5BG2B9466CA	H2265BG2B9466CB	2
H2225BCA53166A	H2225BKA23166B	7,14	H2265BHA53166A	H2265BKA23166B	7,8,14	H22F5L323000CA	H2265PG323000CB	2,4
H2225BCA53A	H2225BKA23B	7,14	H2265BHA53A	H2265BKA23B	7,8,14	H22F5L353000CA	H2265PG323000CB	2,4,7
H2225BGA49001A	H2225BGAB9001B	7,14	H2265LBA49A	H2265PGAB9B	4,7,14	H22VXB053A	H22VXBG023B	7
H2225BGA49166A	H2225BGAB9166B	7,14	H22A5BBL49001A	H22A5BBL49001B		H22VXB057A	H22VXBG087B	7
H2225BGA49206A	H2225BGAB9206B	7,14	H22A5BBL49A	H22A5BBL49B		H22VXBBA53A	H22VXBG023B	7,9
H2225BGA49266A	H2225BGAB9266B	7,14	H22A5BBL53166A	H22A5BBL53166B		H22VXBBA57A	H22VXBG087B	7,9
H2225BGA49A	H2225BGAB9B	7,14	H22A5BBL53A	H22A5BBL53B		H22VXBC049A	H22VXBK0B9B	7
H2225BGA53001A	H2225BGA23001B	7,14	H22A5BG249166CA	H22A5BG2B9166CB	7	H22VXBC053A	H22VXBK023B	7
H2225BGA53166A	H2225BGA23166B	7,14	H22A5BG2B9000CA	H22A5BG2B9000CB		H22VXBC057A	H22VXBK087B	7
H2225BGA53206A	H2225BGA23206B	7,14	H22A5BG2B9000FA	H22A5BG2B9000FB		H22VXBC059A	H22VXBK087B	7
H2225BGA53260A	H2225BGA23260B	7,14	H22A5BG2B9000GA	H22A5BG2B9000GB		H22VXBCA49A	H22VXBK0B9B	7,9
H2225BGA53266A	H2225BGA23266B	7,14	H22A5BG323000CA	H22A5BG323000CB		H22VXBCA53A	H22VXBK023B	7,9
H2225BGA53A	H2225BGA23B	7,14	H22A5BG323000FA	H22A5BG323000FB		H22VXBCA57A	H22VXBK087B	7,9
H2225BGAB9A	H2225BGAB9B	14	H22A5BG323000GA	H22A5BG323000GB		H22VXBCA59A	H22VXBK087B	7,9
H2225BHA49166A	H2225BKAB9166B	7,8,14	H22A5BG349000CA	H22A5BG3B9000CB	7	H22VXBG023A	H22VXBG023B	
H2225BHA53001A	H2225BKA23001B	7,8,14	H22A5BG349000GA	H22A5BG3B9000CB	7	H22VXBG049001A	H22VXBG0B9001B	7
H2225BHA53155A	H2225BKA23155B	7,8,14	H22A5BG353000CA	H22A5BG323000CB	7	H22VXBG049A	H22VXBG0B9B	7
H2225BHA53166A	H2225BKA23166B	7,8,14	H22A5BG353000FA	H22A5BG323000FB	7	H22VXBG053A	H22VXBG023B	7
H2225BHA53A	H2225BKA23B	7,8,14	H22A5BG353000GA	H22A5BG323000GB	7	H22VXBG0B9A	H22VXBG0B9B	
H2225BHAB9166A	H2225BKAB9166B	8,14	H22A5BG3B9000CA	H22A5BG3B9000CB		H22VXBGA49001A	H22VXBG0B9001B	7,9
H2225BHAB9A	H2225BKAB9B	8,14	H22A5BG3B9001FA	H22A5BG3B9001FB		H22VXBGA49A	H22VXBG0B9B	7,9
H2225LBA59266A	H2225PGA87266B	4,7,14	H22A5BG523000CA	H22A5BG523000CB		H22VXBGA53A	H22VXBG023B	7,9
H2225LGA49A	H2225PGAB9B	4,7,14	H22A5BG523000FA	H22A5BG523000FB		H22VXBGA83A	H22VXBG023B	9,10
H2225LGAB9266A	H2225PGAB9266B	4,14	H22A5BG523000GA	H22A5BG523000GB		H22VXBGAB9A	H22VXBG0B9B	9
H2225LHA53266A	H2225PKA23266B	4,7,8,14	H22A5BG553000CA	H22A5BG523000CB	7	H22VXBH049A	H22VXBK0B9B	7,8
H2225LHA53A	H2225PKA23B	4,7,8,14	H22A5BG553000FA	H22A5BG523000FB	7	H22VXBH053A	H22VXBK023B	7,8
H2225BGA49166A	H2225BGAB9166B	7,14	H22A5BG553000GA	H22A5BG523000GB	7	H22VXBHA49A	H22VXBK0B9B	7,8,9
H2225BGA49A	H2225BGAB9B	7,14	H22A5BGH49A	H22A5BGHB9B	7	H22VXBHA53A	H22VXBK023B	7,8,9
H2225BGA53A	H2225BGA23B	7,14	H22A5BGVB9A	H22A5BGVB9B		H22VXLG049A	H22VXPG0B9B	4,7
H2225BGAB9A	H2225BGAB9B	14	H22A5BHV49A	H22A5BKVB9B	7,8	H22VXLG053A	H22VXPG023B	4,7
H2225BBL49001A	H2225BBL49001B		H22A5LBL53A	H22A5PBL53B	4	H22VXLA49A	H22VXPG0B9B	4,7,9
H2225BBL53A	H2225BBL53B		H22A6BBL49A	H22A6BBL49B		H22VXLA53A	H22VXPG023B	4,7,9
H2225BCL53A	H2225BCL53B		H22A6BG2B9000CA	H22A6BG2B9000CB		H22VXLH053A	H22VXPK023B	4,7,8
H2225BCP53A	H2225BCP53B		H22A6LG3B9206GA	H22A6PG3B9206GB	4	H22VXLHA53A	H22VXPK023B	4,7,8,9
H2225BG249000CA	H2225BG2B9000CB	7	H22A6LG3B9209GA	H22A6PG3B9209GB	4	H22VXPG053A	H22VXLG023B	4,7
H2225BG249000GA	H2225BG2B9000GB	7	H22B6BG2B9000CA	H22B6BG2B9000CB		H22VXPGA53A	H22VXLG023B	4,7,9
H2225BG2B9000CA	H2225BG2B9000CB		H22E7BBL49001A	H2257BBL49001B	2	H22WXBONXXA	H22WXBONXXB	
H2225BG2B9166CA	H2225BG2B9166CB		H22E7BBL53A	H2257BBL53B	2	H22WXB249000CA	H22WXBG2B9000CB	7
H2225BG323000CA	H2225BG323000CB		H22E7BCL53A	H2257BCL53B	2	H22WXB249000GA	H22WXBG2B9000GB	7
H2225BG323000FA	H2225BG323000FB		H22E7BCP53A	H2257BCP53B	2	H22WXBH57A	H22WXBGH87B	7
H2225BG323166CA	H2225BG323166CB		H22E7BG249000CA	H2257BG2B9000CB	2,7	H22WXBBL49A	H22WXBBL49B	
H2225BG3B9000CA	H2225BG3B9000CB		H22E7BG249000GA	H2257BG2B9000GB	2,7	H22WXBBL53A	H22WXBBL53B	
H2225BG3B9000FA	H2225BG3B9000FB		H22E7BG2B9000CA	H2257BG2B9000CB	2	H22WXBBL57A	H22WXBBL57B	
H2225BG3B9001FA	H2225BG3B9001FB		H22E7BG2B9166CA	H2257BG2B9166CB	2	H22WXBPP49001A	H22WXBPP49001B	
H2225BG523000CA	H2225BG523000CB		H22E7BG353000CA	H2257BG323000CB	2,7	H22WXBPP49A	H22WXBPP49B	
H2225BG523001CA	H2225BG523001CB		H22E7BG353000FA	H2257BG323000FB	2,7	H22WXBPP53001A	H22WXBPP53001B	

H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key
H22WXBPP53A	H22WXBPP53B		H2513BAA53A	H2515BGA23B	7,12,13	H25A5BG353000GA	H25A5BG323000GB	7
H22WXBPP57A	H22WXBPP57B		H2513BBA53A	H2515BGA23B	7,12	H25A5BG353001CA	H25A5BG323001CB	7
H22WXBBC353000CA	H22WXBK323000CB	7	H2513BBA57A	H2515BGA87B	7,12	H25A5BG353466GA	H25A5BG323466GB	7
H22WXBCL49A	H22WXBCL49B		H2515BAA53A	H2515BGA23B	7,13,14	H25A5BG449000CA	H25A5BG4B9000CB	7
H22WXBCL53A	H22WXBCL53B		H2515BBA53466A	H2515BGA23466B	7,14	H25A5BG5B9466GA	H25A5BG5B9466GB	
H22WXBG249000CA	H22WXBG2B9000CB	7	H2515BBA53A	H2515BGA23B	7,14	H25A5LG2B9000CA	H25A5PG2B9000CB	4
H22WXBG249000FA	H22WXBG2B9000FB	7	H2515BBA57A	H2515BGA87B	7,14	H25A5LGH53266A	H25A5PGH23266B	4,7
H22WXBG2B9000CA	H22WXBG2B9000CB		H2515BGA23A	H2515BGA23B	14	H25A6BG323000GA	H25A6BG323000GB	
H22WXBG2B9000FA	H22WXBG2B9000FB		H2515BGA49A	H2515BGAB9B	7,14	H25A6BG353000GA	H25A6BG323000GB	7
H22WXBG323000CA	H22WXBG323000CB		H2515BGA53001A	H2515BGA23001B	7,14	H25A6BG3B9000GA	H25A6BG3B9000GB	
H22WXBG323000FA	H22WXBG323000FB		H2515BGA53266A	H2515BGA23266B	7,14	H25A6BG3B9206GA	H25A6BG3B9206GB	
H22WXBG323000GA	H22WXBG323000GB		H2515BGA53A	H2515BGA23B	7,14	H25E7BBL53001A	H2557BBL53001B	2
H22WXBG349000CA	H22WXBG3B9000CB	7	H2515BGA83A	H2515BGA23B	10,14	H25E7BBL53206A	H2557BBL53206B	2
H22WXBG349000FA	H22WXBG3B9000FB	7	H2515BGA89A	H2515BGAB9B	14	H25E7BBL53A	H2557BBL53B	2
H22WXBG353000CA	H22WXBG323000CB	7	H2515BHA23001A	H2515BKA23001B	8,14	H25E7BCP53A	H2557BCP53B	2
H22WXBG353000FA	H22WXBG323000FB	7	H2515BHA53001A	H2515BKA23001B	7,8,14	H25E7BG249000CA	H2557BG2B9000CB	2,7
H22WXBG353000GA	H22WXBG323000GB	7	H2515BHA53A	H2515BKA23B	7,8,14	H25E7BG2B9000FA	H2557BG2B9000FB	2
H22WXBG383000CA	H22WXBG323000CB	10	H2515BHA83001A	H2515BKA23001B	8,10,14	H25E7BG353000CA	H2557BG323000CB	2,7
H22WXBG383000FA	H22WXBG323000FB	10	H2525BFA53A	H2525BGA23B	7,13,14	H25E7BG353000FA	H2557BG323000FB	2,7
H22WXBG383000GA	H22WXBG323000GB	10	H2525BGA53A	H2525BGA23B	7,14	H25E7BG3B9000CA	H2557BG3B9000CB	2
H22WXBG3B9000CA	H22WXBG3B9000CB		H2553BGA53A	H2555BGA23B	7,12	H25E7BG3B9000FA	H2557BG3B9000FB	2
H22WXBG3B9000FA	H22WXBG3B9000FB		H2555BBA53466A	H2555BGA23466B	7,14	H25E7BG3B9001FA	H2557BG3B9001FB	2
H22WXBG523000CA	H22WXBG523000CB		H2555BBA53A	H2555BGA23B	7,14	H25E7BG4B9166CA	H2557BG4B9166CB	2
H22WXBG523000FA	H22WXBG523000FB		H2555BGA49A	H2555BGAB9B	7,14	H25E7BG53000CA	H2557BG523000CB	2,7
H22WXBG523000GA	H22WXBG523000GB	7	H2555BGA53001A	H2555BGA23001B	7,14	H25E7BGH53A	H2557BGH23B	2,7
H22WXBG619000FA	H22WXBG619000FB		H2555BGA53166A	H2555BGA23166B	7,14	H25E7BH383000CA	H2557BK323000CB	2,8,10
H22WXBGH49A	H22WXBGH9B	7	H2555BGA53266A	H2555BGA23266B	7,14	H25E7LG553000CA	H2557PG523000CB	2,4,7
H22WXBGV23A	H22WXBGV23B		H2555BGA53A	H2555BGA23B	7,14	H25E8BG3B9206GA	H2558BG3B9206GB	2
H22WXBGV83000FA	H22WXBGV23000FB	10	H2555BGAB9A	H2555BGAB9B	14	H25F5BG3B9000GA	H2565BG3B9000GB	2
H22WXBH249000FA	H22WXBK2B9000FB	7,8	H2555BHA49A	H2555BKA89B	7,8,14	H25VXB049A	H25VXB0B9B	7
H22WXBH2B9000FA	H22WXBK2B9000FB	8	H2555BHA53001A	H2555BKA23001B	7,8,14	H25VXB053A	H25VXB0G23B	7
H22WXBH323000CA	H22WXBK323000CB	8	H2555BHA53166A	H2555BKA23166B	7,8,14	H25VXB057A	H25VXB0G87B	7
H22WXBH383000CA	H22WXBK323000CB	8,10	H2555BHA53A	H2555BKA23B	7,8,14	H25VXBBA49A	H25VXB0B9B	7,9
H22WXLBL49A	H22WXPBL49B	4	H2555PHA53A	H2555LKA23B	4,7,8,14	H25VXBBA53A	H25VXB0G23B	7,9
H22WXLBL53A	H22WXPBL53B	4	H2557BBL53001A	H2557BBL53001B		H25VXBBA57A	H25VXB0G87B	7,9
H22WXLBP53A	H22WXPBP53B	4	H2557BBL53206A	H2557BBL53206B		H25VXBG023A	H25VXB0G23B	
H22WXLG2B9000CA	H22WXPB2B9000CB	4	H2557BBL53A	H2557BBL53B		H25VXBG049A	H25VXB0B9B	7
H22WXLG2B9000FA	H22WXPB2B9000FB	4	H2557BCP53A	H2557BCP53B		H25VXBG053A	H25VXB0G23B	7
H22WXLG323000CA	H22WXPB323000CB	4	H2557BG249000CA	H2557BG2B9000CB	7	H25VXBG0B9A	H25VXB0B9B	
H22WXLG323000FA	H22WXPB323000FB	4	H2557BG2B9000FA	H2557BG2B9000FB		H25VXBGA49A	H25VXB0B9B	7,9
H22WXLG323000GA	H22WXPB323000GB	4	H2557BG323000CA	H2557BG323000CB		H25VXBGA53A	H25VXB0G23B	7,9
H22WXLG353000CA	H22WXPB323000CB	4,7	H2557BG323000FA	H2557BG323000FB		H25VXBGA83A	H25VXB0G23B	9,10
H22WXLG353000FA	H22WXPB323000FB	4,7	H2557BG389000CA	H2557BG389000CB		H25VXBGAB9A	H25VXB0B9B	9
H22WXLG353000GA	H22WXPB323000GB	4,7	H2557BG3B9000FA	H2557BG3B9000FB		H25VXBH049A	H25VXB0B9B	7,8
H22WXLG3B9000CA	H22WXPB3B9000CB	4	H2557BG3B9001FA	H2557BG3B9001FB		H25VXBH09A	H25VXB0B9B	8
H22WXLG523000CA	H22WXPB523000CB	4,7	H2557BG489166CA	H2557BG489166CB		H25VXBH09A	H25VXB0B9B	7,8,9
H22WXPBL53A	H22WXLBL53B	4	H2557BG523000CA	H2557BG523000CB		H25VXBHAB9A	H25VXB0B9B	8,9
H22WXPCL53A	H22WXLCL53B	4	H2557BGH53A	H2557BGH23B	7	H25VXLB057A	H25VXPB087B	4,7
H22WXPB323000GA	H22WXLG323000GB	4	H2557BH323000CA	H2557BK323000CB	8	H25VXLB57A	H25VXPB087B	4,7,9
H22WXPB353000GA	H22WXLG323000GB	4,7	H2557LG523000CA	H2557PG523000CB	4	H25WXB0NXXA	H25WXB0NXXB	
H2315000XXA	H2315000XXB		H2558BG3B9206GA	H2558BG3B9206GB		H25WXBH53A	H25WXBGH23B	7
H2315B00XXA	H2315000XXB	5	H2565BGA53001A	H2565BGA23001B	7,14	H25WXBBL49A	H25WXBBL49B	
H23A5000XXA	H23A5000XXB		H2565BGA53A	H2565BGA23B	7,14	H25WXBBL53A	H25WXBBL53B	
H23A5B00XXA	H23A5000XXB	5	H2565BGAB9A	H2565BGAB9B	14	H25WXBBL57A	H25WXBBL57B	
H23A6000XXA	H23A6000XXB		H25A5BB349000CA	H25A5BG3B9000CB	7	H25WXBPP53A	H25WXBPP53B	
H23A6B00XXA	H23A6000XXB	5	H25A5BBL53A	H25A5BBL53B		H25WXBBC353000GA	H25WXBK523000GB	7
H23VX000XXA	H23VX000XXB		H25A5BG249000CA	H25A5BG2B9000CB	7	H25WXBCL53A	H25WXBCL53B	
H23VXL00XX266A	H23VXP00XX266B	4	H25A5BG2B9000CA	H25A5BG2B9000CB		H25WXBPC53A	H25WXBPC53B	
H23WX000XXA	H23WX000XXB		H25A5BG2B9166CA	H25A5BG2B9166CB		H25WXBG249000CA	H25WXBG2B9000CB	7
H23WXB00XXA	H23WX000XXB	5	H25A5BG323000CA	H25A5BG323000CB		H25WXBG2B9000CA	H25WXBG2B9000CB	
H23WXB00XXAS	H23WX000XXB	5	H25A5BG323000FA	H25A5BG323000FB		H25WXBG2B9000FA	H25WXBG2B9000FB	
H23WXL00XXA	H23WXP00XXB	4	H25A5BG323000GA	H25A5BG323000GB		H25WXBG323000CA	H25WXBG323000CB	
H2415000XX001A	H2415000XX001B		H25A5BG323001CA	H25A5BG323001CB		H25WXBG323000FA	H25WXBG323000FB	
H2415000XXA	H2415000XXB		H25A5BG323466GA	H25A5BG323466GB		H25WXBG323000GA	H25WXBG323000GB	
H24A5000XXA	H24A5000XXB		H25A5BG349000FA	H25A5BG3B9000FB	7	H25WXBG323166CA	H25WXBG323166CB	
H24VX000XXA	H24VX000XXB		H25A5BG353000CA	H25A5BG323000CB	7	H25WXBG349000GA	H25WXBG3B9000GB	7
H24WX000XXA	H24WX000XXB		H25A5BG353000FA	H25A5BG323000FB	7	H25WXBG353000CA	H25WXBG323000CB	7

H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key
H25WXBG353000FA	H25WXBG323000FB	7	H26A5BG5B9466A	H26A5BG5B9466B		H26WXBG323255CA	H26WXBG323255CB	
H25WXBG353000GA	H25WXBG323000GB	7	H26A5BGH49A	H26A5BGHB9B	7	H26WXBG349000FA	H26WXBG3B9000FB	7
H25WXBG353166CA	H25WXBG323166CB	7	H26A5BGH53A	H26A5BGH23B	7	H26WXBG349000GA	H26WXBG3B9000GB	7
H25WXBG383000FA	H25WXBG323000FB	10	H26A5BHR53A	H26A5BKH23B	7,8,11	H26WXBG353000CA	H26WXBG323000CB	7
H25WXBG3B9000CA	H25WXBG3B9000CB		H26A5LG2B9000CA	H26A5PG2B9000CB	4	H26WXBG353000FA	H26WXBG323000FB	7
H25WXBG3B9000FA	H25WXBG3B9000FB		H26A5LG323000CA	H26A5PG323000CB	4	H26WXBG353000GA	H26WXBG323000GB	7
H25WXBG3B9000GA	H25WXBG3B9000GB		H26A5LG323266CA	H26A5PG323266CB	4	H26WXBG353255CA	H26WXBG323255CB	7
H25WXBG523000CA	H25WXBG523000CB		H26A5LG353000CA	H26A5PG323000CB	4,7	H26WXBG3B9000CA	H26WXBG3B9000CB	
H25WXBG553000CA	H25WXBG523000CB	7	H26A5LG353266CA	H26A5PG323266CB	4,7	H26WXBG3B9000GA	H26WXBG3B9000GB	
H25WXBGH53A	H25WXBGH23B	7	H26A5PBL53A	H26A5LBL53B	4	H26WXBG523000CA	H26WXBG523000CB	
H25WXBGV23A	H25WXBGV23B		H26A6BBL49A	H26A6BBL49B		H26WXBG553000CA	H26WXBG523000CB	7
H25WXBGV83000FA	H25WXBGV23000FB	10	H26A6BG249000CA	H26A6BG2B9000CB	7	H26WXLG249000CA	H26WXPBG2B9000CB	4,7
H25WXLBL49A	H25WXPBL49B	4	H26A6BG2B9000CA	H26A6BG2B9000CB		H26WXLG2B9000CA	H26WXPBG2B9000CB	4
H25WXLBL53A	H25WXPBL53B	4	H26A6BG3B9000GA	H26A6BG3B9000GB		H26WXLG2B9266CA	H26WXPBG2B9266CB	4
H25WXPBL53A	H25WXLBL53B	4	H26B6BG2B9000CA	H26B6BG2B9000CB		H26WXLG323000CA	H26WXPBG323000CB	4
H25WXPCL53A	H25WXLCL53B	4	H26B6LG2B9000CA	H26B6PG2B9000CB	4	H26WXLG323000FA	H26WXPBG323000FB	4
H25WXPCL53AL	H25WXLCL53B	4	H26E5LG2B9000CA	H26E5PG2B9000CB	2,4	H26WXLG323255CA	H26WXPBG323255CB	4
H2615BBA49A	H2615BGAB9B	7,14	H26E7BG249000CA	H26E7BG2B9000CB	2,7	H26WXLG353000CA	H26WXPBG323000CB	4,7
H2615BBA53A	H2615BGA23B	7,14	H26E7BG249000FA	H26E7BG2B9000FB	2,7	H26WXLG353000FA	H26WXPBG323000FB	4,7
H2615BGA23A	H2615BGA23B	14	H26E7BG2B9000CA	H26E7BG2B9000CB	2	H26WXLG353255CA	H26WXPBG323255CB	4,7
H2615BGA49266A	H2615BGA49266B	7,14	H26E7BG2B9000FA	H26E7BG2B9000FB	2	H26WXLG3B9266CA	H26WXPBG3B9266CB	4
H2615BGA49A	H2615BGAB9B	7,14	H26E7BG353000CA	H26E7BG323000CB	2,7	H26WXLG523000CA	H26WXPBG523000CB	4
H2615BGA53206A	H2615BGA23206B	7,14	H26E7BG3B9000CA	H26E7BG3B9000CB	2	H26WXLG553000CA	H26WXPBG523000CB	4,7
H2615BGA53A	H2615BGA23B	7,14	H26E7BG3B9000GA	H26E7BG3B9000GB	2	H26WXLH523000CA	H26WXPBG523000CB	4,8
H2615BGA83A	H2615BGA23B	10,14	H26E7BG553466CA	H26E7BG523466CB	2,7	H26WXLH553000CA	H26WXPBG523000CB	4,7,8
H2615BHA53001A	H2615BKA23001B	7,8,14	H26E7BGH53A	H26E7BGH23B	2,7	H2715BBA53A	H2715BGA23B	7,14
H2615BHA53A	H2615BKA23B	7,8,14	H26E7BH383000CA	H26E7BK323000CB	2,8,10	H2715BGA49206A	H2715BGA49206B	7,14
H2615LGA53A	H2615PGA23B	4,7,14	H26E7LG2B9266CA	H26E7PG2B9266CB	2,4	H2715BGA53266A	H2715BGA23266B	7,14
H2615LHA23A	H2615PKA23B	4,8,14	H26E7LG353166CA	H26E7PG323166CB	2,4,7	H2715BGA53A	H2715BGA23B	7,14
H2615LHA83A	H2615PKA23B	4,8,10,14	H26E7LG353266CA	H26E7PG323266CB	2,4,7	H2715BHA53166A	H2715BKA23166B	7,8,14
H2653BHA53155A	H2655BKA23155B	7,8,12	H26E7LG3B9266CA	H26E7PG3B9266CB	2,4	H2755BGA49166A	H2755BGA49166B	7,14
H2655BBA53266A	H2655BGA23266B	7,14	H26E8BG2B9000CA	H26E8BG2B9000CB	2	H2755BGA53166A	H2755BGA23166B	7,14
H2655BBA53A	H2655BGA23B	7,14	H26F5BG2B9166CA	H26E5BG2B9166CB	2	H2755BGA53A	H2755BGA23B	7,14
H2655BGA49A	H2655BGAB9B	7,14	H26F5LG2B9000CA	H26E5PG2B9000CB	2,4	H2755BHA53A	H2755BKA23B	7,8,14
H2655BGA53A	H2655BGA23B	7,14	H26VXBB042A	H26VXBG012B	7	H2757BBH53A	H2757BGH23B	7
H2655BHA53155A	H2655BKA23155B	7,8,14	H26VXBB057A	H26VXBG087B	7	H2757BG2B9000FA	H2757BG2B9000FB	
H2655BHA53A	H2655BKA23B	7,8,14	H26VXBBA42A	H26VXBG012B	7,9	H2757BG323000CA	H2757BG323000CB	
H2655LG2B9000CA	H2655PG2B9000CB	4,14	H26VXBBA57A	H26VXBG087B	7,9	H2757BG523000CA	H2757BG523000CB	
H2657BG249000CA	H2657BG2B9000CB	7	H26VXBGA023A	H26VXBG023B		H2757LG523000CA	H2757PG523000CB	4
H2657BG249000FA	H2657BG2B9000FB	7	H26VXBG049A	H26VXBG0B9B	7	H2765BGA53133A	H2765BGA23133B	7,14
H2657BG2B9000CA	H2657BG2B9000CB		H26VXBG053A	H26VXBG023B	7	H2765LGAB9266A	H2765PGAB9266B	4,14
H2657BG2B9000FA	H2657BG2B9000FB		H26VXBG0B9A	H26VXBG0B9B		H27A5BG323000CA	H27A5BG323000CB	
H2657BG323000CA	H2657BG323000CB		H26VXBGA49A	H26VXBG0B9B	7,9	H27A5BG353000CA	H27A5BG323000CB	7
H2657BG3B9000CA	H2657BG3B9000CB		H26VXBGA53A	H26VXBG023B	7,9	H27A5BG523000GA	H27A5BG523000GB	
H2657BG3B9000FA	H2657BG3B9000FB		H26VXBGA83A	H26VXBG023B	9,10	H27A5BG553000CA	H27A5BG523000GB	7
H2657BG523466CA	H2657BG523466CB		H26VXBGA89A	H26VXBG0B9B	9	H27A6BBL53206A	H27A6BBL53206B	
H2657BGH53A	H2657BGH23B	7	H26VXBH053A	H26VXBK023B	7,8	H27A6LG4B9000FA	H27A6PG4B9000FB	4
H2657BH323000CA	H2657BK323000CB	8	H26VXBHA53A	H26VXBK023B	7,8,9	H27E7BBH53A	H2757BGH23B	2,7
H2657LG2B9266CA	H2657PG2B9266CB	4	H26VXLG053A	H26VXPG023B	4,7	H27E7BG2B9000FA	H2757BG2B9000FB	2
H2657LG323166CA	H2657PG323166CB	4	H26VXLGA53A	H26VXPG023B	4,7,9	H27E7BG353000CA	H2757BG323000CB	2,7
H2657LG323266CA	H2657PG323266CB	4	H26VXLH053A	H26VXPK023B	4,7,8	H27E7BG553000CA	H2757BG523000CB	2,7
H2657LG3B9266CA	H2657PG3B9266CB	4	H26VXLHA53A	H26VXPK023B	4,7,8,9	H27E7LG553000CA	H2757PG523000CB	2,4,7
H2658BG2B9000CA	H2658BG2B9000CB		H26VXPH053A	H26VXLK023B	4,7,8	H27VXBG049166A	H27VXBG0B9166B	7
H2665BBA53A	H2665BGA23B	7,14	H26VXPHA53A	H26VXLK023B	4,7,8,9	H27VXBG049A	H27VXBG0B9B	7
H2665BGA49122A	H2665BGA49122B	7,14	H26WXB0NXXA	H26WXB0NXXB		H27VXBG053A	H27VXBG023B	7
H2665BGA53166A	H2665BGA23166B	7,14	H26WXBB353000CA	H26WXBG323000CB	7	H27VXBGA49166A	H27VXBG0B9166B	7,9
H2665BGA53A	H2665BGA23B	7,14	H26WXBBL49A	H26WXBBL49B		H27VXBGA49A	H27VXBG0B9B	7,9
H2665BGA89A	H2665BGA89B	14	H26WXBBL53A	H26WXBBL53B		H27VXBGA53A	H27VXBG023B	7,9
H26A5BBL49166A	H26A5BBL49166B		H26WXBBP49A	H26WXBBP49B		H27VXLG053A	H27VXPG023B	4,7
H26A5BBL49466A	H26A5BBL49466B		H26WXBCL49A	H26WXBCL49B		H27VXLGA53A	H27VXPG023B	4,7,9
H26A5BBL49A	H26A5BBL49B		H26WXBCL53A	H26WXBCL53B		H27VXPG053A	H27VXLG023B	4,7
H26A5BBL53466A	H26A5BBL53466B		H26WXBG249000CA	H26WXBG2B9000CB	7	H27VXPGA53A	H27VXLG023B	4,7,9
H26A5BBL53A	H26A5BBL53B		H26WXBG2B9000CA	H26WXBG2B9000CB		H27WXB0NXXA	H27WXB0NXXB	
H26A5BG2B9166CA	H26A5BG2B9166CB		H26WXBG2B9000FA	H26WXBG2B9000FB		H27WXBBL49A	H27WXBBL49B	
H26A5BG323000CA	H26A5BG323000CB		H26WXBG323000CA	H26WXBG323000CB		H27WXBBL53A	H27WXBBL53B	
H26A5BG349000CA	H26A5BG3B9000CB	7	H26WXBG323000FA	H26WXBG323000FB		H27WXBG249000FA	H27WXBG2B9000FB	7
H26A5BG353000CA	H26A5BG323000CB	7	H26WXBG323000GA	H26WXBG323000GB		H27WXBG323000CA	H27WXBG323000CB	

H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key
H27WXBG323000FA	H27WXBG323000FB		H2E57BG3B9000FA	H2E57BG3B9000FB		H2E8BG353000GA	H2E58BG323000GB	2,7
H27WXBG353000CA	H27WXBG323000CB	7	H2E57BG523000CA	H2E57BG523000CB		H2EVXB042A	H2EVXBG012B	7
H27WXBG353000FA	H27WXBG323000FB	7	H2E57BG549000CA	H2E57BG5B9000CB	7	H2EVXBBA42A	H2EVXBG012B	7,9
H27WXBG3B9000CA	H27WXBG3B9000CB		H2E57BHH53A	H2E57BKH23B	7,8	H2EVXBC053A	H2EVXBK023B	7
H27WXLG2B9000FA	H27WXPGB29000FB	4,7	H2E57LB2B9166CA	H2E57PG2B9166CB	4,7	H2EVXBCA53A	H2EVXBK023B	7,9
H27WXLG323000CA	H27WXPGB323000CB	4	H2E57LBL49A	H2E57PBL49B	4	H2EVXBF353000CA	H2EWXBG323000CB	7,13
H27WXLG353000CA	H27WXPGB323000CB	4,7	H2E57LG2B9166CA	H2E57PG2B9166CB	4	H2EVXBG023A	H2EVXBG023B	
H27WXLG523000CA	H27WXPGB523000CB	4	H2E57LG323266CA	H2E57PG323266CB	4	H2EVXBG049A	H2EVXBG0B9B	7
H27WXLG553000CA	H27WXPGB523000CB	4,7	H2E58BBL49A	H2E58BBL49B		H2EVXBG053266A	H2EVXBG023266B	7
H2815000XXA	H2815000XXB		H2E58BG249000CA	H2E58BG2B9000CB	7	H2EVXBG053A	H2EVXBG023B	7
H2857000XXA	H2857000XXB		H2E58BG2B9000CA	H2E58BG2B9000CB		H2EVXBG0B9A	H2EVXBG0B9B	
H28A5000XXA	H28A5000XXB		H2E58BG2B9166CA	H2E58BG2B9166CB		H2EVXBG0B9A	H2EVXBG0B9B	
H28E7000XXA	H2857000XXB	2	H2E58BG323000GA	H2E58BG323000GB		H2EVXBG0B9A	H2EVXBG0B9B	7,9
H28VX000XXA	H28VX000XXB		H2E58BG349000CA	H2E58BG3B9000CB	7	H2EVXBG0B9A	H2EVXBG023B	7,9
H2915000XXA	H2915000XXB		H2E58BG349000FA	H2E58BG3B9000FB	7	H2EVXBG0B9A	H2EVXBG023B	9,10
H2957000XXA	H2957000XXB		H2E65BBA23A	H2E65BGA23B	7,14	H2EVXBGAB9A	H2EVXBG0B9B	9
H2965000XXA	H2965000XXB		H2E65BBA83A	H2E65BGA23B	7,10,14	H2EVXBH053A	H2EVXBK023B	7,8
H29A5000XXA	H29A5000XXB		H2E65BGA53166A	H2E65BGA23166B	7,14	H2EVXBHA53A	H2EVXBK023B	7,8,9
H29A5BBL49166A	Bad Part Number		H2E65BGA53A	H2E65BGA23B	7,14	H2EVXLB053A	H2EVXPG023B	4,7
H29E7000XXA	H2957000XXB	2	H2E65BGAAB9166A	H2E65BGAAB9166B	14	H2EVXLB053A	H2EVXPG023B	4,7,9
H29VX000XXA	H29VX000XXB		H2E65BGAAB9A	H2E65BGAAB9B	14	H2EVXLB053A	H2EVXPG023B	4,7,9
H29WV000XXA	H29WV000XXB		H2E65LCA53A	H2E65PKA23B	4,7,14	H2EVXLB053A	H2EVXPK0B9B	4,8
H2A00001B	H2167BGC23B		H2E65LGAAB9166A	H2E65PGAAB9166B	4,14	H2EVXLB053A	H2EVXPK0B9B	4,8,9
H2E13BA453A	H2E15BGA23B	7,12,13	H2EA5BB353000CA	H2EA5BG323000CB	7	H2EVXPC053A	H2EVXLB023B	4,7
H2E15BA453A	H2E15BGA23B	7,13,14	H2EA5BBL49A	H2EA5BBL49B		H2EVXPC053A	H2EVXLB023B	4,7,9
H2E15BBA45A	H2E15BGA15B	7,14	H2EA5BBL53A	H2EA5BBL53B		H2E15BBA45A	H2E15BGA23B	7,14
H2E15BBA53A	H2E15BGA23B	7,14	H2EA5BCH53166A	H2EA5BKH23166B	7	H2E15BBA53A	H2E15BGA23B	7,14
H2E15BBA57A	H2E15BGA87B	7,14	H2EA5BCHB9A	H2EA5BKH87B	7	H2E15BBA57A	H2E15BGA87B	7,14
H2E15BGA23001A	H2E15BGA23001B	14	H2EA5BCP53A	H2EA5BCP53B		H2E15BGA23001A	H2E15BGA23001B	14
H2E15BGA49A	H2E15BGAB9B	7,14	H2EA5BG2B9000CA	H2EA5BG2B9000CB		H2E15BGA49A	H2E15BGAB9B	7,14
H2E15BGA53A	H2E15BGA23B	7,14	H2EA5BG323000CA	H2EA5BG323000CB		H2E15BGA53A	H2E15BGA23B	7,14
H2E15BGA83001A	H2E15BGA23001B	10,14	H2EA5BG323000FA	H2EA5BG323000FB		H2E15BGA83001A	H2E15BGA23001B	10,14
H2E15BGAB9A	H2E15BGAB9B	14	H2EA5BG349000CA	H2EA5BG3B9000CB	7	H2E15BGAB9A	H2E15BGAB9B	14
H2E15BHA53A	H2E15BKA23B	7,8,14	H2EA5BG353000CA	H2EA5BG323000CB	7	H2E15BHA53A	H2E15BKA23B	7,8,14
H2E15LGA23A	H2E15PGA23B	4,14	H2EA5BG353000FA	H2EA5BG323000FB	7	H2E15LGA23A	H2E15PGA23B	4,14
H2E15LGA83A	H2E15PGA23B	4,10,14	H2EA5LCHB9166A	H2EA5PKHB9166B	4,7	H2E15LGA83A	H2E15PGA23B	4,10,14
H2E16BBA53A	H2E16BGA23B	7,14	H2EA6BBL49A	H2EA6BBL49B		H2E16BBA53A	H2E16BGA23B	7,14
H2E25BBA53A	H2E25BGA23B	7,14	H2EA6BG249000CA	H2EA6BG2B9000CB	7	H2E25BBA53A	H2E25BGA23B	7,14
H2E25BGA53A	H2E25BGA23B	7,14	H2EA6BG2B9000CA	H2EA6BG2B9000CB		H2E25BGA53A	H2E25BGA23B	7,14
H2E55BBA53166A	H2E55BGA23166B	7,14	H2EA6BG2B9260CA	H2EA6BG2B9260CB		H2E55BBA53166A	H2E55BGA23166B	7,14
H2E55BBA53A	H2E55BGA23B	7,14	H2EA6BG3B9000GA	H2EA6BG3B9000GB		H2E55BBA53A	H2E55BGA23B	7,14
H2E55BGA23A	H2E55BGA23B	14	H2EA6BG4B9000FA	H2EA6BG4B9000FB		H2E55BGA23A	H2E55BGA23B	14
H2E55BGA49A	H2E55BGAB9B	7,14	H2E8B5BG449000CA	H2E8B5BG4B9000CB	7	H2E55BGA49A	H2E55BGAB9B	7,14
H2E55BGA53001A	H2E55BGA23001B	7,14	H2E8B5BG4B9000CA	H2E8B5BG4B9000CB		H2E55BGA53001A	H2E55BGA23001B	7,14
H2E55BGA53266A	H2E55BGA23266B	7,14	H2EE7BBL53001A	H2E57BBL53001B	2	H2E55BGA53266A	H2E55BGA23266B	7,14
H2E55BGA53A	H2E55BGA23B	7,14	H2EE7BBL53260A	H2E57BBL53260B	2	H2E55BGA53A	H2E55BGA23B	7,14
H2E55BGA83A	H2E55BGA23B	10,14	H2EE7BBL53A	H2E57BBL53B	2	H2E55BGA83A	H2E55BGA23B	10,14
H2E55BGAB9A	H2E55BGAB9B	14	H2EE7BCHB9166A	H2E57BKH87B	2,7	H2E55BGAB9A	H2E55BGAB9B	14
H2E55BHA49166A	H2E55BKAAB9166B	7,8,14	H2EE7BCP53A	H2E57BCP53B	2	H2E55BHA49166A	H2E55BKAAB9166B	7,8,14
H2E55BHA49A	H2E55BKAAB9B	7,8,14	H2EE7BG2B9000CA	H2E57BG2B9000CB	2	H2E55BHA49A	H2E55BKAAB9B	7,8,14
H2E55BHA53001A	H2E55BKA23001B	7,8,14	H2EE7BG2B9000FA	H2E57BG2B9000FB	2	H2E55BHA53001A	H2E55BKA23001B	7,8,14
H2E55BHA53166A	H2E55BKA23166B	7,8,14	H2EE7BG2B9166CA	H2E57BG2B9166CB	2	H2E55BHA53166A	H2E55BKA23166B	7,8,14
H2E55BHA53260A	H2E55BKA23260B	7,8,14	H2EE7BG353000FA	H2E57BG323000FB	2,7	H2E55BHA53260A	H2E55BKA23260B	7,8,14
H2E55BHA53A	H2E55BKA23B	7,8,14	H2EE7BG3B9000FA	H2E57BG3B9000FB	2	H2E55BHA53A	H2E55BKA23B	7,8,14
H2E55BHA89166A	H2E55BKAAB9166B	8,14	H2EE7BG3B9000FA	H2E57BG3B9000FB	2	H2E55BHA89166A	H2E55BKAAB9166B	8,14
H2E55LHA53260A	H2E55PKA23260B	4,7,8,14	H2EE7BG549000CA	H2E57BG5B9000CB	2,7	H2E55LHA53260A	H2E55PKA23260B	4,7,8,14
H2E55LHA53266A	H2E55PKA23266B	4,7,8,14	H2EE7BG553000CA	H2E57BG523000CB	2,7	H2E55LHA53266A	H2E55PKA23266B	4,7,8,14
H2E56BGA53A	H2E56BGA23B	7,14	H2EE7BHH53A	H2E57BKH23B	2,7,8	H2E56BGA53A	H2E56BGA23B	7,14
H2E57BBL53001A	H2E57BBL53001B		H2EE7LB2B9166CA	H2E57PG2B9166CB	2,4,7	H2E57BBL53001A	H2E57BBL53001B	
H2E57BBL53260A	H2E57BBL53260B		H2EE7LBL49A	H2E57PBL49B	2,4	H2E57BBL53260A	H2E57BBL53260B	
H2E57BBL53A	H2E57BBL53B		H2EE7LG2B9166CA	H2E57PG2B9166CB	2,4	H2E57BBL53A	H2E57BBL53B	
H2E57BCHB9166A	H2E57BKH89166B	7	H2EE7LG353266CA	H2E57PG323266CB	2,4,7	H2E57BCHB9166A	H2E57BKH89166B	7
H2E57BCP53A	H2E57BCP53B		H2EE8BBL49A	H2E58BBL49B	2	H2E57BCP53A	H2E57BCP53B	
H2E57BG2B9000CA	H2E57BG2B9000CB		H2EE8BG249000CA	H2E58BG2B9000CB	2,7	H2E57BG2B9000CA	H2E57BG2B9000CB	
H2E57BG2B9000FA	H2E57BG2B9000FB		H2EE8BG2B9000CA	H2E58BG2B9000CB	2	H2E57BG2B9000FA	H2E57BG2B9000FB	
H2E57BG2B9166CA	H2E57BG2B9166CB		H2EE8BG2B9166CA	H2E58BG2B9166CB	2	H2E57BG2B9166CA	H2E57BG2B9166CB	
H2E57BG323000FA	H2E57BG323000FB		H2EE8BG349000CA	H2E58BG3B9000CB	2,7	H2E57BG323000FA	H2E57BG323000FB	
			H2EE8BG349000FA	H2E58BG3B9000FB	2,7			



H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key	H 'A' Valve	H 'B' Valve	Key
H2EWXLG123000FA	H2EWXPG123000FB	4	H3257BHA53166A	H3257BKA23166B	7,8,14	H4019000XXA	H4019000XXA	
H2EWXLG123000GA	H2EWXPG123000GB	4	H3257BHA53A	H3257BKA23B	7,8,14	H40WX000XXA	H40WX000XXA	
H2EWXLG153000FA	H2EWXPG123000FB	4,7	H3257LHA53266A	H3257PKA23266B	4,7,8,14	H4110BBL49A	H4110BBL49A	
H2EWXLG153000GA	H2EWXPG123000GB	4,7	H3257LHA53A	H3257PKA23B	4,7,8,14	H4119BBA43A	H4119BBA43A	
H2EWXLG2B9000CA	H2EWXPG2B9000CB	4	H3258BAA49A	H3258BGAB9B	7,13,14	H4119BBA49A	H4119BBA49A	
H2EWXLG2B9000FA	H2EWXPG2B9000FB	4	H3258BAA87A	H3258BGAB9B	7,13,14	H4119BBA53A	H4119BBA53A	
H2EWXLG323000CA	H2EWXPG323000CB	4	H3258BBA49A	H3258BGAB9B	7,14	H4119BBA59A	H4119BBA59A	
H2EWXLG323166CA	H2EWXPG323166CB	4	H3258BBA57266A	H3258BGA87266B	7,14	H4119BBL42A	H4119BBL42A	
H2EWXLG349000FA	H2EWXPG3B9000FB	4,7	H3258BBA57A	H3258BGA87B	7,14	H4119BBL49A	H4119BBL49A	
H2EWXLG353000CA	H2EWXPG323000CB	4,7	H3258BG3B9000GA	H3258BG3B9000GB	14	H4119BBL53A	H4119BBL53A	
H2EWXLG353166CA	H2EWXPG323166CB	4,7	H3258BG549000GA	H3258BG5B9000GB	7,14	H4119BCA53A	H4119BCA53A	
H2EWXPBL49A	H2EWXLBL49B	4	H3267BBA53A	H3267BGA23B	7,14	H4119BGA49A	H4119BGA49A	
H2EWXPBL53A	H2EWXLBL53B	4	H3267BGA49A	H3267BGA87B	7,14	H4119BGA53A	H4119BGA53A	
H2EWXPCL49A	H2EWXLCCL49B	4	H3267BGA53A	H3267BGA23B	7,14	H4119BHA53A	H4119BHA53A	
H2EWXPCL53A	H2EWXLCCL53B	4	H3267BHA49A	H3267BKAB9B	7,8,14	H4119HBA57A	H4119HBA57A	
H2EWXPG323000CA	H2EWXLG323000CB	4	H3267LHA53266A	H3267PKA23266B	4,7,8,14	H4119LBA57A	H4119LBA57A	4
H2EWXPG323000FA	H2EWXLG323000FB	4	H3268BGAB9A	H3268BGAB9B	14	H4119LBL53A	H4119LBL53A	4
H2EWXPG353000CA	H2EWXLG323000CB	4,7	H32A7BBL49A	H3217BBL49B	14	H4119LHA53A	H4119LHA53A	4
H2EWXPG353000FA	H2EWXLG323000FB	4,7	H32A7BBL53001A	H3217BBL53001B	14	H4119PGA53A	H4119PGA53A	4
H2EWXPH2B9000FA	H2EWXPH2B9000FB	4,8	H32A7BBL53A	H3217BBL53B	14	H4129BBA53A	H4129BBA53A	
H2F57000XXA	H2F57000XXB		H32A7BBP53A	H3217BBP53B	14	H4129BBL53A	H4129BBL53A	
H2FE7B00XXA	H2F57000XXB	2,5	H32A7BG249000FA	H3217BG2B9000FB	7,14	H4159BGA49A	H4169BGA49A	1
H2FVX000XXA	H2FVX000XXB		H32A7BG2B9000CA	H3217BG2B9000CB	14	H4159BGA53A	H4169BGA53A	1
H2FVXB00XXA	H2FVX000XXB	5	H32A7BG2B9000GA	H3217BG2B9000GB	14	H4159BGAB9A	H4169BGAB9A	1
H2FWX000XXA	H2FWX000XXB		H32A7BG323000CA	H3217BG323000CB	14	H4159BHA49A	H4169BHA49A	1
H2FWXB00XXA	H2FWX000XXB	5	H32A7BG349000FA	H3217BG3B9000FB	7,14	H4159BHA53A	H4169BHA53A	1
H2FWXL00XXA	H2FWXP00XXB	4	H32A7BG349000GA	H3217BG3B9000GB	7,14	H4159BHA59A	H4169BHA59A	1
H2FWXP00XXA	H2FWXL00XXB	4	H32A7BG353000CA	H3217BG323000CB	7,14	H4159LGA49A	H4169LGA49A	1,4
H3017000XXA	H3017000XXB		H32A7BG3B9000CA	H3217BG3B9000CB	14	H4159LGA53A	H4169LGA53A	1,4
H30A7000XXA	H3017000XXB	12	H32A8BG323000GA	H3218BG323000GB	14	H4169BBL53A	H4169BBL53A	
H30WX000XXA	H30WX000XXB		H32A8BG353000GA	H3218BG323000GB	7,14	H4169BCL49A	H4169BCL49A	
H3215BGA53A	H3217BGA23B	7,12	H32A8BG549000GA	H3218BG5B9000GB	7,14	H4169BGA49A	H4169BGA49A	
H3217BBA23A	H3217BGA23B	7,14	H32B7BG323000FA	H3227BG323000FB	14	H4169BGA53A	H4169BGA53A	
H3217BBA45A	H3217BGA15B	7,14	H32B7BG353000FA	H3227BG323000FB	7,14	H4169BGAB9A	H4169BGAB9A	
H3217BBA49A	H3217BGAB9B	7,14	H3EWXBG323000GA	H3EWXBG323000GB		H4169BHA49A	H4169BHA49A	
H3217BBA53206A	H3217BGA23206B	7,14	H3EWXBG349000FA	H3EWXBG3B9000FB	7	H4169BHA53A	H4169BHA53A	
H3217BBA53A	H3217BGA23B	7,14	H3EWXBG353000CA	H3EWXBG323000CB	7	H4169BHAB9A	H4169BHAB9A	
H3217BBA59A	H3217BGA87B	7,14	H3EWXBG353000FA	H3EWXBG323000FB	7	H4169LGA49A	H4169LGA49A	4
H3217BBA83A	H3217BGA23B	7,10,14	H3EWXBG353000GA	H3EWXBG323000GB	7	H4169LGA53A	H4169LGA53A	4
H3217BGA23A	H3217BGA23B	14	H3EWXBG383000CA	H3EWXBG323000CB	10	H41A0BBL49A	H4110BBL49A	1
H3217BGA49A	H3217BGAB9B	7,14	H3EWXBG3B9000FA	H3EWXBG3B9000FB		H41A9BBL42A	H4119BBL42A	1
H3217BGA53001A	H3217BGA23001B	7,14	H3EWXBG3B9000GA	H3EWXBG3B9000GB		H41A9BBL49A	H4119BBL49A	1
H3217BGA53166A	H3217BGA23166B	7,14	H3EWXBGV53A	H3EWXBGV23B	7	H41A9BBL53A	H4119BBL53A	1
H3217BGA53A	H3217BGA23B	7,14	H3EWXLBL49A	H3EWPBL49B	4	H41A9LBL53A	H4119LBL53A	1,4
H3217BGA83A	H3217BGA23B	10,14	H3EWXLG2B9000FA	H3EWPBG2B9000FB	4	H41B9BBL53A	H4129BBL53A	1
H3217BHA49A	H3217BKAB9B	7,8,14	H3EWXLG3B9000GA	H3EWPBG3B9000GB	4	H41E9BBL53A	H4169BBL53A	1
H3217BHA53A	H3217BKA23B	7,8,14	H3EWPBL53A	H3EWXLBL53B	4	H41E9BCL49A	H4169BCL49A	1
H3217LHA53266A	H3217PKA23266B	4,7,8,14	H3F15B00XXA	H3F17000XXB	5,12	H41VXBBA49A	H41VXBBA49A	
H3218BBA59A	H3218BGA87B	7,14	H3F15E00XXA	H3F17E00XXB	12	H41VXBA53A	H41VXBA53A	
H3218BCA53A	H3218BKA23B	7,14	H3F17000XXA	H3F17000XXB		H41VXBCA57A	H41VXBCA57A	
H3218BGA49A	H3218BGAB9B	7,14	H3F17B00XXA	H3F17000XXB	5	H41VXBGA49A	H41VXBGA49A	
H3227BGA53A	H3227BGA23B	7,14	H3F17E00XXA	H3F17E00XXB		H41VXBGA53A	H41VXBGA53A	
H3255BBA53266A	H3257BGA23266B	7,12	H3F57000XXA	H3F57000XXB		H41VXBGAB9A	H41VXBGAB9A	
H3255BGA49A	H3257BGAB9B	7,12	H3F57B00XXA	H3F57000XXB	5	H41VXBHA53A	H41VXBHA53A	
H3257BBA53266A	H3257BGA23266B	7,14	H3F57L00XXA	H3F57P00XXB	4	H41VXLA53A	H41VXLA53A	4
H3257BBA87A	H3257BGAB9B	7,14	H3F67000XXA	H3F67000XXB		H41VXLHA53A	H41VXLHA53A	4
H3257BBP53001A	H3257BBP53001B	14	H3F67B00XXA	H3F67000XXB	5	H41WXB0NXXA	H41WXB0NXXA	
H3257BCA59001A	H3257BKA87001B	7,14	H3FA7000XXA	H3F17000XXB	12	H41WXBBL49A	H41WXBBL49A	
H3257BCL53A	H3257BCL53B	14	H3FA7B00XXA	H3F17000XXB	5,12	H41WXBBL53A	H41WXBBL53A	
H3257BCV53A	H3257BGV23B	7,14	H3FA8000XXA	H3F18000XXB	12	H41WXBCP49A	H41WXBCP49A	
H3257BG2B9000CA	H3257BG2B9000CB	14	H3FA8B00XXA	H3F18000XXB	5,12	H41WXBG619000FA	H41WXBG619000FA	
H3257BGA49A	H3257BGAB9B	7,14	H3FE7B00XXA	H3F57000XXB	5,12	H41WXLBL53A	H41WXLBL53A	4
H3257BGA53166A	H3257BGA23166B	7,14	H3FVX000XXA	H3FVX000XXB		H41WXLVB9A	H41WXLVB9A	4,7
H3257BGA53A	H3257BGA23B	7,14	H3FVXB00XXA	H3FVX000XXB	5	H41WXPBL53A	H41WXPBL53A	4
H3257BGAB9A	H3257BGAB9B	14	H3FWX000XXA	H3FWX000XXB		H41WXPCL49A	H41WXPCL49A	4
H3257BGT49A	H3257BGT9B	7,14	H3FWXB00XXA	H3FWX000XXB	5	H41WXPCL49AL	H41WXPCL49AL	4
H3257BGV53A	H3257BGV23B	7,14	H3FWXL00XXA	H3FWXP00XXB	4	H41WXPCL53A	H41WXPCL53A	4



H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key	H ‘A’ Valve	H ‘B’ Valve	Key
H41WXPCL53AL	H41WXPCL53AL	4	H43WX000XXA	H43WXB00XXA		H4619LGA53A	H4619LGA53A	4
H41WXPBG353000CA	H41WXPBG353000CA	4	H43WXB00XXA	H43WXB00XXA		H4659BHA53A	H4659BHA53A	1
H41WXPBG353000FA	H41WXPBG353000FA	4	H43WXL00XXA	H43WXL00XXA	4	H4669BHA53A	H4669BHA53A	
H41WXPB3B9000GA	H41WXPB3B9000GA	4	H4419000XXA	H4419000XXA		H46A9BCL53A	H4619BCL53A	1
H4210BBA59A	H4210BBA59A		H4419000XXA	H4419000XXA		H46A9LG353000CA	H4619LG353000CA	1,4
H4210BBV49A	H4210BBV49A		H44A9000XXA	H4419000XXA	1	H46VXBGA53A	H46VXBGA53A	
H4210BG353000GA	H4210BG353000GA		H44VX000XXA	H44VX000XXA		H46VXBHA53A	H46VXBHA53A	
H4219BBA53A	H4219BBA53A		H44VX000XXA	H44VX000XXA		H46WXBONXXA	H46WXBONXXA	
H4219BBA57A	H4219BBA57A		H44WX000XXA	H44WX000XXA		H46WXBBL53A	H46WXBBL53A	
H4219BBL49A	H4219BBL49A		H44WXB0NXXA	H44WXB0NXXA		H46WXBG353000CA	H46WXBG353000CA	
H4219BBL53A	H4219BBL53A		H4510BBL49A	H4510BBL49A		H46WXLG353000CA	H46WXLG353000CA	4
H4219BG2B9000FA	H4219BG2B9000FA		H4510BGA49A	H4510BGA49A		H46WXPCL53AL	H46WXPCL53AL	4
H4219BGA49A	H4219BGA49A		H4510BGA53A	H4510BGA53A		H4710BCA53A	H4710BCA53A	
H4219BGA53A	H4219BGA53A		H4519BBA53A	H4519BBA53A		H4719BGA53A	H4719BGA53A	
H4219BGAB9A	H4219BGAB9A		H4519BBL49A	H4519BBL49A		H47VXBHA53A	H47VXBHA53A	
H4219BHA53A	H4219BHA53A		H4519BBL53A	H4519BBL53A		H47VXHGA53A	H47VXHGA53A	
H4219LHA49A	H4219LHA49A	4	H4519BCA57A	H4519BCA57A		H47WXBONXXA	H47WXBONXXA	
H4219LHA53A	H4219LHA53A	4	H4519BG2B9000CA	H4519BG2B9000CA		H47WXPCL53AL	H47WXPCL53AL	4
H4219PHA53A	H4219PHA53A	4	H4519BG349000FA	H4519BG349000FA		H4819000XXA	H4819000XXA	
H4229LHA53A	H4229LHA53A	4	H4519BG353000CA	H4519BG353000CA		H48A9000XXA	H4819000XXA	1
H4259BCA53A	H4269BCA53A	1	H4519BG353000FA	H4519BG353000FA		H48VX000XXA	H48VX000XXA	
H4259BGA49A	H4269BGA49A	1	H4519BGA49A	H4519BGA49A		H48WX000XXA	H48WX000XXA	
H4259BGA53A	H4269BGA53A	1	H4519BGA53A	H4519BGA53A		H4919000XXA	H4919000XXA	
H4259BHA53A	H4269BHA53A	1	H4519BHA53A	H4519BHA53A		H49A9000XXA	H4919000XXA	1
H4259LHA53A	H4269LHA53A	1,4	H4519LBL53A	H4519LBL53A	4	H49WX000XXA	H49WX000XXA	
H4260BG3B9000GA	H4260BG3B9000GA		H4519LGA53A	H4519LGA53A	4			
H4269BBL53A	H4269BBL53A		H4519PGA53A	H4519PGA53A	4			
H4269BCA53A	H4269BCA53A		H4559BBA49A	H4569BBA49A	1			
H4269BG2B9000FA	H4269BG2B9000FA		H4559BGA49A	H4569BGA49A	1			
H4269BGA49A	H4269BGA49A		H4559BGA53A	H4569BGA53A	1			
H4269BGA53A	H4269BGA53A		H4559LHA53A	H4569LHA53A	1,4			
H4269BHA53A	H4269BHA53A		H4569BBA49A	H4569BBA49A				
H4269LHA53A	H4269LHA53A	4	H4569BBL53A	H4569BBL53A				
H42A0BBV49A	H4210BBV49A	1	H4569BGA49A	H4569BGA49A				
H42A0BG353000GA	H4210BG353000GA	1	H4569BGA53A	H4569BGA53A				
H42A9BBL49A	H4219BBL49A	1	H4569LHA53A	H4569LHA53A	4			
H42A9BBL53A	H4219BBL53A	1	H45A0BBL49A	H4510BBL49A	1			
H42A9BG2B9000FA	H4219BG2B9000FA	1	H45A9BBL49A	H4519BBL49A	1			
H42E0BG3B9000GA	H4260BG3B9000GA	1	H45A9BBL53A	H4519BBL53A	1			
H42E9BBL53A	H4269BBL53A	1	H45A9BG2B9000CA	H4519BG2B9000CA	1			
H42E9BG2B9000FA	H4269BG2B9000FA	1	H45A9BG349000FA	H4519BG349000FA	1			
H42VXBBA53A	H42VXBBA53A		H45A9BG353000CA	H4519BG353000CA	1			
H42VXBCA57A	H42VXBCA57A		H45A9BG353000FA	H4519BG353000FA	1			
H42VXBGA49A	H42VXBGA49A		H45A9LBL53A	H4519LBL53A	1,4			
H42VXBGA53A	H42VXBGA53A		H45E9BBL53A	H4569BBL53A	1			
H42VXBHA49A	H42VXBHA49A		H45VXBBA53A	H45VXBBA53A				
H42VXBHA53A	H42VXBHA53A		H45VXBGA49A	H45VXBGA49A				
H42VXHHA53A	H42VXHHA53A		H45VXBGA53A	H45VXBGA53A				
H42VXLGA53A	H42VXLGA53A	4	H45VXBHA53A	H45VXBHA53A				
H42VXLHA53A	H42VXLHA53A	4	H45VXLHA53A	H45VXLHA53A	4			
H42VXPGA53A	H42VXPGA53A	4	H45WXBONXXA	H45WXBONXXA				
H42VXPHA53A	H42VXPHA53A	4	H45WXBBL49A	H45WXBBL49A				
H42WXBONXXA	H42WXBONXXA		H45WXBBL53A	H45WXBBL53A				
H42WXBBL49A	H42WXBBL49A		H45WXLBL49A	H45WXLBL49A	4			
H42WXBBL53A	H42WXBBL53A		H45WXLBL53A	H45WXLBL53A	4			
H42WXBCL53A	H42WXBCL53A		H45WXLCL53A	H45WXLCL53A	4			
H42WXBCL49A	H42WXBCL49A		H45WXLCL53AL	H45WXLCL53AL	4			
H42WXBG2B9000FA	H42WXBG2B9000FA		H45WXLG353000CA	H45WXLG353000CA	4			
H42WXBG619000FA	H42WXBG619000FA		H45WXPBL53A	H45WXPBL53A	4			
H42WXBH553000FA	H42WXBH553000FA		H45WXPCL53A	H45WXPCL53A	4			
H42WXPBL53A	H42WXPBL53A	4	H4619BAA53A	H4619BGA53A	7			
H42WXPCL49A	H42WXPCL49A	4	H4619BBA53A	H4619BBA53A				
H42WXPCL53A	H42WXPCL53A	4	H4619BCA57A	H4619BCA57A				
H4319B00XXA	H4319B00XXA		H4619BCL53A	H4619BCL53A				
H4320B00XXA	H4320B00XXA		H4619BGA53A	H4619BGA53A				
H4329B00XXA	H4329B00XXA		H4619BHA53A	H4619BHA53A				
H43B0B00XXA	H4320B00XXA	1	H4619LG353000CA	H4619LG353000CA	4			

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right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

**8. Buyer's Property:** Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer, or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

**9. Taxes:** Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

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