



Culligan®

Culligan® Automatic Water Softeners

assisted living facilities

cafeterias

casinos

educational facilities

food service

grocery

hotel/hospitality

institutions

laundry

corporate campuses

theme parks

vehicle wash



Hi-Flo® 3 Automatic Water Softener

Culligan Hi-Flo® 3 Water Softener Standard Features

- **Corrosion Resistant Tanks**—made from fiberglass-reinforced polyester. Additional reinforcement from continuous fiberglass overwrap. Underdrain design maximizes softener's capacity, reduces pressure loss.
- **Softening Media**—High quality resin provides stability and uniform size for top performance and long life.
- **Choice of Cycle Controllers**—Regeneration cycle may be initiated by timeclock any or every day of the week. Optional meter starts cycle after preset volume of water has been softened.
- **Positive Motor-Driven Regeneration Valve**—Motor driven piston is reliable under severe water conditions, resists dirt, iron, turbidity.
- **Automatic Brine Control**—Automatically measures the correct amount of brine. A single turn of dial sets correct amount dosage and capacity.
- **Dubl-Safe™ Brine System**—Positive overflow protection. Automatic refill control is backed up by shutoff float valve to minimize chance of overflow.

Trust The Water Experts®



The Culligan Hi-Flo® 3 Automatic Water Softener

Applications and Benefits

- RO/DI Pretreatment
- Apartment buildings, assisted living facilities and hotels—Quality water for laundry, dishwashers, boilers.
- Office buildings—For heating plant pretreatment, tenant convenience, general housekeeping.
- Restaurants—For dishwashing, cleaning material savings, scale reduction.
- Car washes—Quality results, detergent and water heating savings, scale reduction.
- Light industry—For process and make-up water, boiler and cooling system pretreatment, general housekeeping.

Options

- Regeneration Flexibility—There are several choices for regenerating a Hi-Flo® 3 water softener to meet your requirements. The simple, economical choice is timeclock operation for both single and duplex units. If water usage varies, meter operation is available to signal regeneration immediately or delay regeneration until a pre-set time. Duplex meter operated units may be operated in parallel or on an alternating basis, depending upon your needs.

Warranty

Culligan® Hi-Flo® 3 water softeners are backed by a limited 1-year warranty against defects in materials, workmanship, and corrosion. The plastic conditioner tank has a 5-year warranty. See printed warranty for details.*

Some localities have corrosive water. A softener cannot correct this condition, so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures, or water-using equipment. If you suspect corrosion, your independently operated Culligan dealer has equipment to control the problem.

*Culligan will provide a copy of warranties upon request.

System Specifications

Pressure:	30–120 psig 210–830 kPa
Vacuum:	None ¹
Temperature:	40–100°F 4 - 38°C
Electrical:	120V, 60 HZ
Turbidity:	5 NTU, max. ²
Chlorine:	1 mg/L, max. ²
Iron:	5 mg/L

¹Tank warranty is void if subject to vacuum

²See media specification for details

Model	Resin Qty. (Ft ³)	Pipe Size	Flow Rates(gpm)		Tank Size***	
			Continuous*	Peak**	Softener	Brine
HC-120 ¹	4	2"	45	60	16 x 65	24 x 48
HC-150-1.5 ¹	5	1.5"	40	55	21 x 54	24 x 48
HC-150-2	5	2"	60	78	21 x 54	24 x 48
HC-210	7	2"	58	76	21 x 69	24 x 48
HC-300	10	2"	65	85	24 x 72	30 x 48
HC-450	15	2"	75	100	30 x 72	30 x 48

*Flow rate at a 15 psi pressure loss.

**Flow rate at a 25 psi pressure loss.

***Dimensions are diameter by tank height.

¹ Models noted are only available as single systems. Refer to Softminder Twin Plus systems if duplex operation is required.

The contaminants or other substances removed or reduced by this water treatment device are not necessarily in your water.

“Hey Culligan Man!”

Culligan
Trust The Water Experts.®

www.culligan.com

1-800-CULLIGAN

©2003 Culligan International Company

Printed in USA (5/03)

MOORE PART NO. 46956



Culligan, Hey Culligan Man, Culligan Man, Culligan Commercial @ Work, www.culligan.com and Culligan Service Network are trademarks of Culligan International Company.

Hi-FLO® 3

FULLY AUTOMATIC WATER SOFTENERS

SPECIFICATIONS AND OPERATING DATA

Single Tank	Exchange Capacity ¹ @ Salt Dosage		Service Flow Rates ²				Pipe Size	Resin Qty.	Softener Tank Size	Brine Tank Size	Approx. Ship. Weight
			Peak		Continuous						
			Flow	Press. Drop	Flow	Press. Drop					
	Model	Minimum gr @ lb g @ kg	Maximum gr @ lb g @ kg	gpm m³/hr	psi kPa	gpm m³/hr	psi kPa	in in	ft³ L	in mm	in mm
HC-150	100,000/30	150,000/75	78	25	60	15	2	5	21 x 54	24 x 48	540
	6,480/14	9,720/34	17.7	172	13.6	103	2	142	530 x 1,370	610 x 1,200	460
HC-210	140,000/42	210,000/105	76	25	58	15	2	7	21 x 69	24 x 48	640
	9,070/19	13,600/48	17.2	172	13.2	103	2	198	530 x 1,750	610 x 1,200	290
HC-300	200,000/60	300,000/150	85	25	65	15	2	10	24 x 72	30 x 48	865
	12,960/27	19,400/68	19.3	172	14.7	103	2	284	410 x 1,830	760 x 1,200	395
HC-450	300,000/90	450,000/225	100	25	75	15	2	15	30 x 72	30 x 48	1,250
	19,440/41	29,160/102	22.7	172	17.0	103	2	426	760 x 1,830	760 x 1,200	570

1 Exchange capacities based on treating water containing 10 grains per gallon (171 mg/L) of hardness (expressed as calcium carbonate), free of color, oil, turbidity and at a service flow rates not exceeding 20 gpm per square foot (49 m³/m²/min) of bed area. These are nominal capacities and will vary with influent water characteristics, temperature, pressure and other factors.

2 Operation of a softener at peak flow rate for extended periods of time may result in a slight reduction of softening capacity. This is due to premature hardness breakthrough.

NOTE: Operational, maintenance and replacement requirements are essential for this product to perform as advertised. Specifications are shown for single models. Duplex models have two softener tanks and one brine tank system.

Culligan

Commercial Systems
©2000 Culligan
1-800-CULLIGAN
www.culligan.com
Printed in USA 4/00
DCO 992587
SL-0074





LIMITED

WARRANTY

SOFT-MINDER. TWIN PLUS/HI-FLO. 3 WATER SOFTENERS

You have just purchased one of the finest water conditioners made. As an expression of our confidence in Culligan products, your water conditioner is warranted to the original end-user, when installed in accordance with Culligan International Company specifications, against defects in material and workmanship from the date of original installation, as follows:

For a period of ONE YEAR	The entire unit
For a period of THREE YEARS	The control valve body, but excluding its internal parts
For a period of FIVE YEARS	The fiberglass-reinforced conditioner tank*
For a period of FIVE YEARS	The conditioner tank if it has an epoxy-phenolic coated interior
For the LIFETIME of the original consumer purchaser	The Tripl-HullTM conditioner tank.

*The tank must be protected by a vacuum breaker device as described in the unit's operating manual. Damage to the tank caused by vacuum is not covered by this warranty. The unit must be used in operating conditions that conform to Culligan's recommended design guidelines.

If a part described above becomes defective, within the specified period, you should notify your independently-operated Culligan dealer and arrange a time during normal business hours for the dealer to inspect the water conditioner on your premises. Any part found defective within the terms of this warranty will be repaired or replaced by the dealer. You pay only freight from our factory and local dealer charges.

We are not responsible for damage caused by accident, fire, flood, freezing, Act of God, misuse, misapplication, neglect, alteration, installation or operation contrary to our printed instructions, or by the use of accessories or components which do not meet Culligan specifications, all of which are not covered by this warranty.

Our product performance specifications are furnished with each water conditioning unit. TO THE EXTENT PERMITTED BY LAW, CULLIGAN DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE; TO THE EXTENT REQUIRED BY LAW, ANY SUCH IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE ONE-YEAR PERIOD SPECIFIED ABOVE FOR THE ENTIRE CONDITIONER. As manufacturer, we do not know the characteristics of your water supply or the purpose for which you are purchasing a water conditioner. The quality of water supplies may vary seasonally or over a period of time, and your water usage rate may vary as well. Water characteristics can also differ considerably if your water conditioner is moved to a new location. For these reasons, we assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us. Further, we assume no liability and extend no warranties, express or implied, for the use of this product on a non-potable water source. OUR OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED TO THE REPAIR OR REPLACEMENT OF THE FAILED PARTS OF THE WATER CONDITIONER, AND WE ASSUME NO LIABILITY WHATSOEVER FOR DIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, GENERAL, OR OTHER DAMAGES.

CONSUMERS:

Some states do not allow the exclusion of implied warranties or limitations on how long an implied warranty lasts, so the above exclusion may not apply to you. Similarly, some states do not allow the exclusion of incidental or consequential damages, so the above exclusion or limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

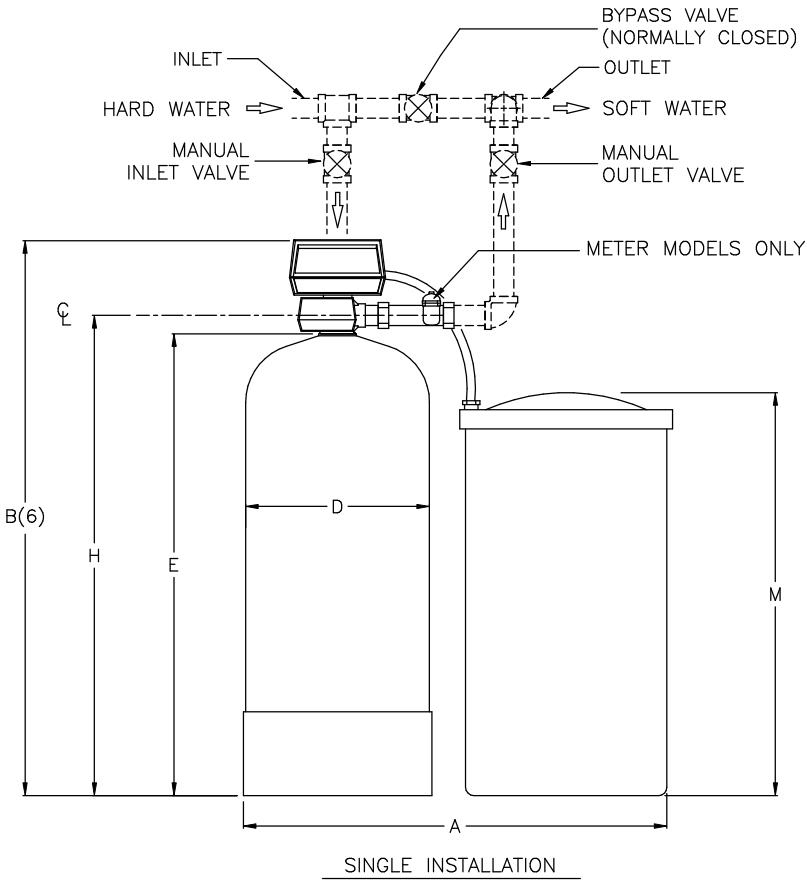
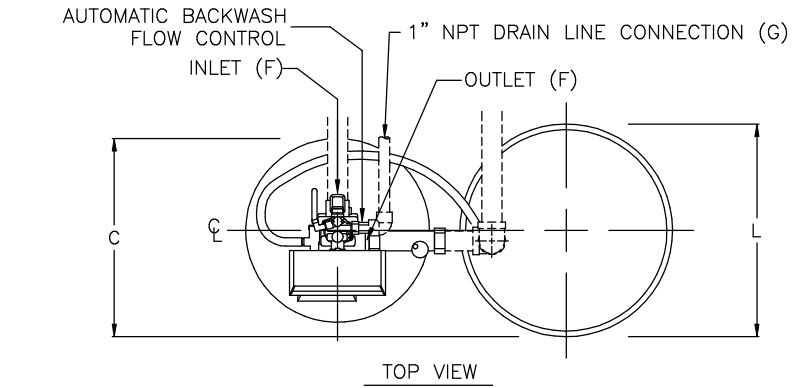
Consult your telephone directory for your local independently-operated Culligan dealer, or write Culligan International Company, for warranty and service information.


CULLIGAN INTERNATIONAL COMPANY
One Culligan Parkway
Northbrook, Illinois 60062

NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF CONTROL VALVE TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM. THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) TO PERMIT THE OBSERVATION OF THE DRAIN FLOW DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECT TO A VACCUM.

DIMENSIONS (INCHES)											UNIT DATA PER TANK							
MODEL	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L	BRINE TANK HEIGHT M	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	SIMPLEX OPER. WT. lbs.	SIMPLEX SHIP. WT. lbs.
HC-120	45	76	21	16	65	2.0	1.0	67.2	24	48	120 @ 60	4	45	60	7	1.0	1895	475
HC-150-1.5	50	66	24	21	55	1.5	1.0	57.2	24	48	150 @ 75	5	40	55	12	1.0	1960	540
HC-150	50	66	24	21	55	2.0	1.0	57.2	24	48	150 @ 75	5	60	78	12	1.0	1960	540
HC-210	50	82	24	21	71	2.0	1.0	73.2	24	48	210 @ 105	7	58	76	8	1.0	2070	640
HC-300	60	84	28.50	24	73	2.0	1.0	75.2	30	48	300 @ 150	10	60	85	15	1.25	2580	865
HC-450	65	92	31.50	30	81	2.0	1.0	83	30	48	450 @ 225	15	75	100	25	1.5	3300	1250

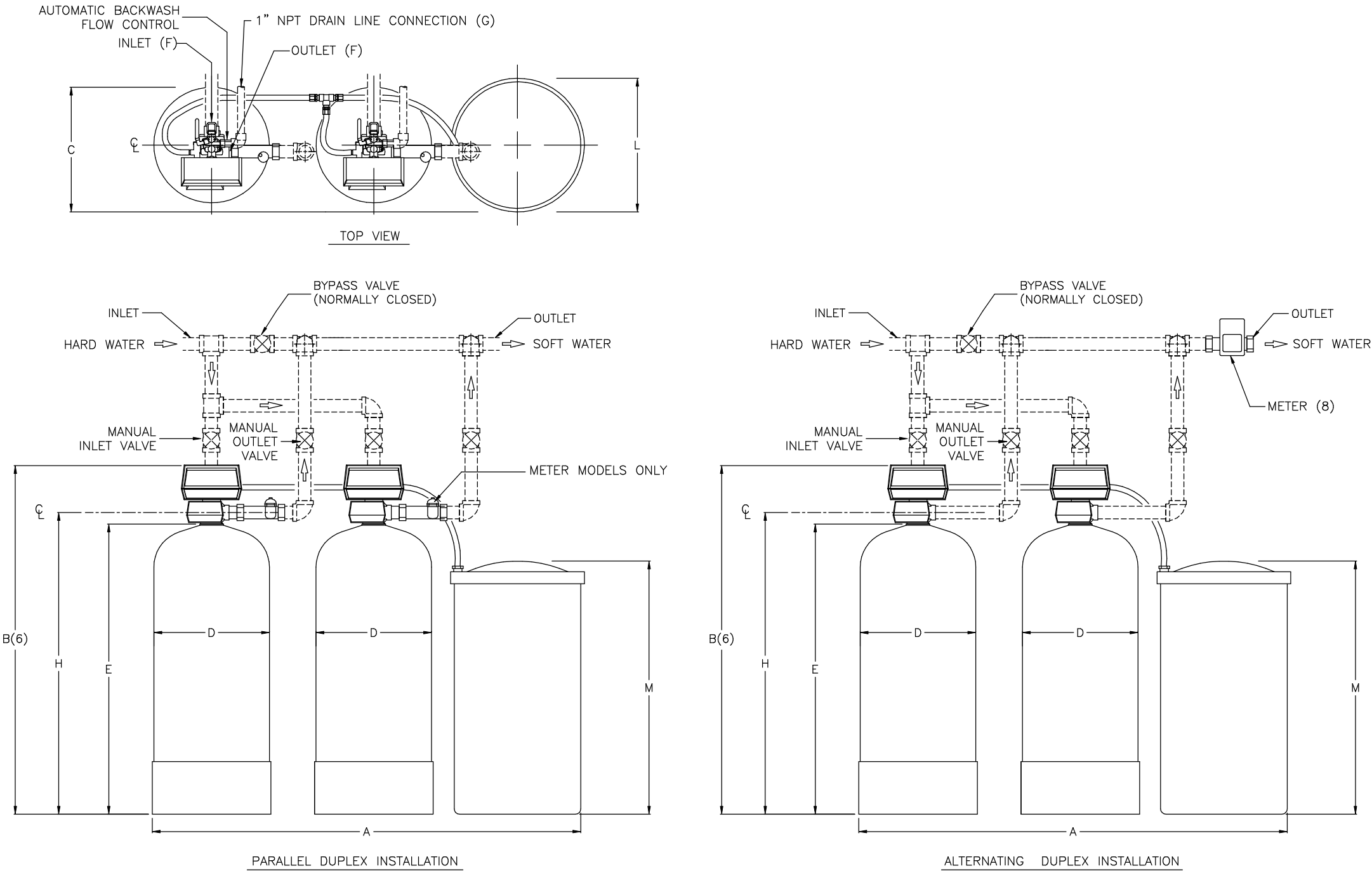


DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED					<div> ENGINEERED SYSTEMS NORTHBROOK, ILLINOIS</div> <p>PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.</p>		NAME HI-FLO® 3 AUTOMATIC SOFTENER SINGLE TECHNICAL DATA SHEET					
Let.	Change	By	App	Date			DETAILED BY: KMR 2/12/04		APP. BY:		SHEET 1 OF 1	
							REF. NO.		PART NO. S3_1			

NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF CONTROL VALVE TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM. THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) TO PERMIT THE OBSERVATION OF THE DRAIN FLOW DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECT TO A VACCUM.

DIMENSIONS (INCHES)											UNIT DATA PER TANK							
MODEL	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L	BRINE TANK HEIGHT M	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	DUPLEX OPER. WT. lbs.	DUPLEX SHIP. WT. lbs.
HC-150	82	66	24	21	55	2.0	1.0	57.2	24	48	150 @ 75	5	60	78	12	1.0	2865	1030
HC-210	82	82	24	21	71	2.0	1.0	73.2	24	48	210 @ 105	7	58	76	8	1.0	3085	1230
HC-300	93	84	28.50	24	73	2.0	1.0	75.2	30	48	300 @ 150	10	60	85	15	1.25	3575	1664
HC-450	104	92	31.50	30	81	2.0	1.0	83	30	48	450 @ 225	15	75	100	25	1.5	4950	2435

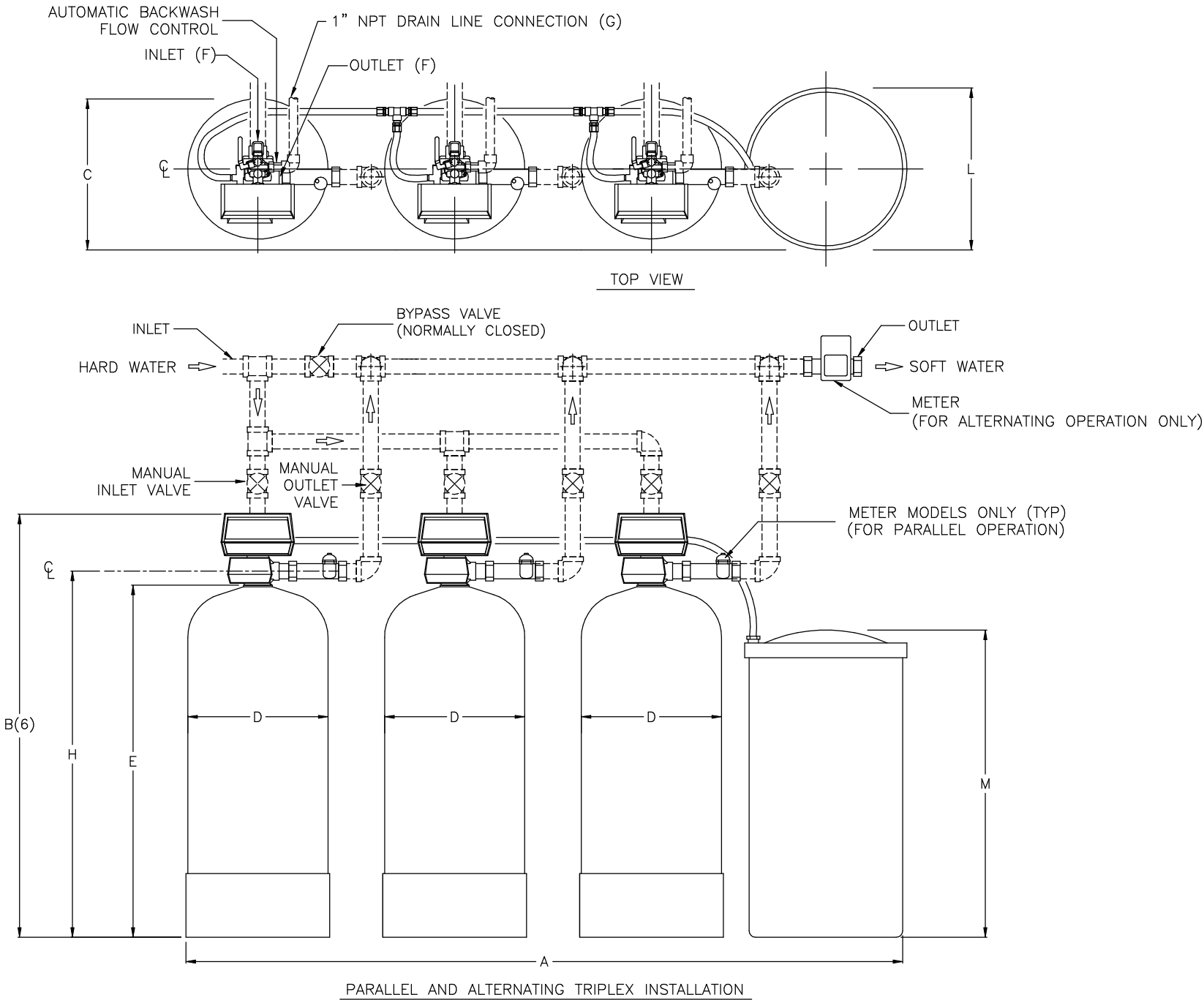



DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED					 ENGINEERED SYSTEMS NORTHBROOK, ILLINOIS PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.	NAME HI-FLO® 3 AUTOMATIC SOFTENER DUPLEX TECHNICAL DATA SHEET		
Let.	Change	By	App	Date		DETAILED BY: KMR 2/13/04	APP. BY:	SHEET 1 OF 1
						REF. NO.	PART NO.	
						S3_2		

NOTES:

- (1) ITEMS SHOWN IN BROKEN LINES TO BE FURNISHED BY OTHERS.
- (2) ALL DIMENSIONS ARE ± 1 INCH (25mm) AND SUBJECT TO CHANGE WITHOUT NOTICE.
- (3) UNIONS SHOULD BE LOCATED ON INLET AND OUTLET CONNECTIONS OF CONTROL VALVE TO FACILITATE SERVICING.
- (4) THE USE OF DISSIMILAR METALS IN A PIPING SYSTEM IS NOT RECOMMENDED. WHERE DISSIMILAR METALS MUST BE CONNECTED IN A WATER SYSTEM. THE USE OF NONCONDUCTIVE (DIELECTRIC) FITTINGS MAY REDUCE GALVANIC CORROSION.
- (5) AN ELECTRICAL OUTLET SHOULD BE PROVIDED WITHIN FIVE FEET OF THE EQUIPMENT LOCATION.
- (6) ALLOW A MINIMUM OF 24 INCHES ABOVE SOFTENER FOR FILLING.
- (7) TO PERMIT THE OBSERVATION OF THE DRAIN FLOW DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE OR CONFORM TO LOCAL SANITATION CODES.
- (8) WHEN USING A WATER METER, THERE MUST BE A MINIMUM AMOUNT OF STRAIGHT PIPE BEFORE AND AFTER THE SENSOR. REFER TO THE INSTALLATION INSTRUCTIONS FOR DETAILS.
- (9) SYSTEM USES FRP TANKS WHICH MUST NOT BE SUBJECTED TO VACUUM. INSTALL SIPHON BREAK ON DRAIN LINE. INSTALL VACUUM BREAKER ON INLET PIPING IF THE SERVICE LINE IS SUBJECT TO A VACCUM.

	DIMENSIONS (INCHES)										UNIT DATA PER TANK							
MODEL	WIDTH A	HEIGHT B(6)	DEPTH C	TANK DIA. D	TANK HEIGHT E	INLET/OUTLET PIPE SIZES F	DRAIN SIZE G	FLOOR TO INLET H	BRINE TANK DIA. L	BRINE TANK HEIGHT M	MAX. CAPACITY KGR @ SALT DOSAGE	RESIN VOLUME ft ³	CONTINUOUS FLOW gpm @ 15 psi drop	PEAK FLOW gpm @ 25 psi drop	DRAIN FLOW gpm	MIN. DRAIN PIPE SIZE IN.	TRIPLEX OPER. WT. lbs.	TRIPLEX SHIP. WT. lbs.
HC-150	112	66	24	21	55	2.0	1.0	57.2	24	48	150 @ 75	5	60	78	12	1.0	3770	1520
HC-210	112	82	24	21	71	2.0	1.0	73.2	24	48	210 @ 105	7	58	76	8	1.0	4100	1820
HC-300	125	84	28.50	24	73	2.0	1.0	75.2	30	48	300 @ 150	10	60	85	15	1.25	4570	2463
HC-450	143	92	31.50	30	81	2.0	1.0	83	30	48	450 @ 225	15	75	100	25	1.5	6600	3620



DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED					 ENGINEERED SYSTEMS NORTHBROOK, ILLINOIS <small>PRINT AND BILL OF MATERIAL ARE NOT TO BE USED WITHOUT THE WRITTEN CONSENT OF CULLIGAN INTERNATIONAL CO.</small>	NAME HI-FLO® 3 AUTOMATIC SOFTENER TRIPLEX TECHNICAL DATA SHEET		
Let.	Change	By	App	Date		DETAILED BY: KMR 2/13/04	APP. BY:	SHEET 1 OF 1
						REF. NO.	PART NO.	
						S3_3		