

HOSHIZAKI AMERICA, INC. SERVICE BULLETIN

SB15-0005R1

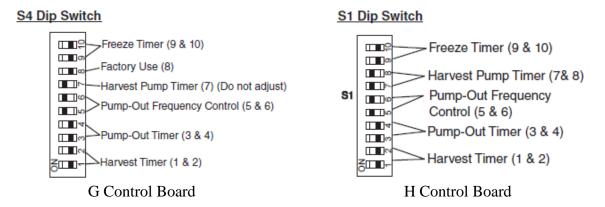
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SUBJECT: Small KM & KMS Control Board, Float Switch and Adjustments

There are several KMS models available. Depending on the unit size and layout, the controls and settings vary to allow the designed outcome for unit operation. It is important to know and understand the adjustments and function of these controls when checking the KMS operation. This bulletin highlights two controls used on the KMS models: the control board and the float switch. Information on the Small KM models is also included as they also use the H board.

Two different control boards are used in the KMS models. The G Board is used in most KMS units and the H board is used in the KMS-2000MLH. The control boards have two dip switch blocks for set up and flexibility of operation.

The first switch block has 10 dip switches. These switches have been used on KM control boards since the initial KM design. In general, the 10 dip switch setting categories are consistent throughout the KM product line.

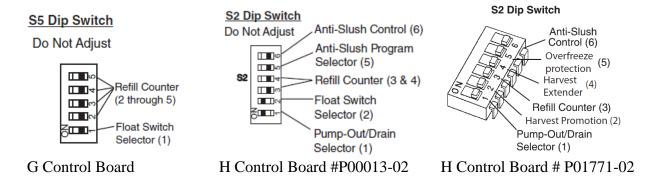


On the S1 or S4 ten switch block, dip switches $1 \sim 6$ are factory set for the most efficient operation however the technician can adjust them to allow for the desired flush and cleaning settings. The default switch settings are provided in the specific model service manual and in the technicians pocket guide. Switches $7\sim10$ are used for sequence set up and should remain on the factory setting. Adjustment to these switches will negatively affect the operation of the unit.

The second dip switch block (S2 or S5) is found only on the G and H boards. These switches are used to set the pump operation, float switch/refill and anti-slush operation. The factory settings are provided in the service manual, pocket guide and on the chart below. Since these switches will change the unit operation, it is important that they remain in the factory setting.

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As you can see, the categories for these switches are different between the G & H control boards. The G board does not have the anti-slush feature. Features vary on the H board by part number. Do not adjust these switches as the wrong adjustment will affect proper operation.

Reservoir refill:

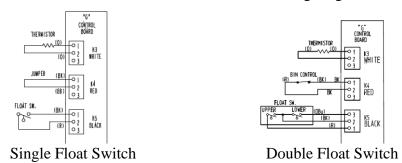
Refilling of the reservoir is necessary on smaller, more compact designs and allows the unit to produce more ice with a smaller reservoir. See chart below for models with refill. Refill will be determined by the board setting and can be accomplished with either a single or double float switch depending on these settings.

Float Switch Selector: G board S5-1, H board S1-2 will determine start and stop of a refill.

Note that a refill will last until the upper float switch closes on double F/S models or for 1 minute maximum on single F/S models.

- *If a single F/S is used with dip 1 ON and a refill is needed, it will occur for 1 minute when the freeze cycle starts.
- *If a double F/S is used with dip 1 OFF and a refill is needed, an open lower F/S will initiate a 1 minute refill.
- *If a double F/S is used with dip 1 ON and a refill is needed, an open upper F/S will initiate a refill and a closed upper F/S will terminate it.

A quick review of the float switch circuit on the unit wiring diagram will reveal the single or double switch.



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Refill counter: G board S5-2 \sim 5, H board S1 - 3 & 4 will determine how often a refill occurs.

Anti-slush: Dip switches 5 & 6 control the anti-slush feature. This feature is needed in some cases on the H board models. The anti-slush turns the pump motor off for 10 seconds in mid freeze cycle. This allows the evaporator plates to sub cool so that normal cubes begin to form immediately when the pump restarts.

The following chart provided S2/S5 settings along with part information by model.

KMS & Small KM Controls and Refill Settings:

Model	Control Board	Float Switch	Refills	Dip Switch Settings, 0=OFF, 1=ON						
				Switch numbers	1	2	3	4	5	6
KMS-750MLH	2A3792-01 "G"	468264-01 Double Float	No refills	S5	0	0	0	0	0	X
KMS-822MLH	2A3792-01 "G"	4A3624-01 Single Float	No refills	S5	0	0	0	0	0	X
KMS-830MLH	2A3792-01 "G"	4A3624-01 Single Float	No refills	S5	0	0	0	0	0	X
KMS-1122MLH	2A3792-01 "G"	4A5509-02 Single Float	No refills	S5	0	0	0	0	0	X
KMS-1230MLH	2A3792-01 "G"	468264-01 Double Float	1 refill	S5	0	1	0	0	0	X
KMS-1400MLH	2A3792-01 "G"	468264-01 Double Float	1 refill	S5	0	1	0	0	0	X
KMS-1401MLH	2A3792-01 "G"	468264-01 Double Float	1 refill	S5	0	1	0	0	0	X
KMS-1401MLJ	2A3792-01 "G"	4A3624-01 Single Float	1 min refill	S5	1	1	0	0	0	X
KMS-2000MLH	P00013-02 "H"	4A3624-04 Single Float	No refills	S2	1	1	0	0	0	0
Other models using H board										
KM-61/101/151B	P00013-02 "H"	4A3624-04 Single Float	No refills	S2	0	0	0	0	0	0
KM-201/260B >V0	P00013-02 "H"	P00816-01 Double Float	No refills	S2	1	0	0	0	*	*
KM-201/260B V1>	P01771-02 "H"	P00816-01 Double Float	No refills	S2	1	0	1	0	0	*
KMD-410M >V1	P00013-02 "H"	P00816-01 Double Float	1 refill	S2	1	1	1	0	0	0
KMD-410M V2>	P01771-02 "H"	P00816-01 Double Float	1 refill	S2	1	1	1	0	0	*
KMD-450M	P00013-02 "H"	4A3624-04 Single Float	No refills	S2	1	0	0	0	0	1

^{*}See factory setting in service manual by model and control board version.

A sequence flow chart is provided in the product service manual to help you understand the sequence of operation.

If you have any questions please contact Technical Support at <u>Techsupport@hoshizaki.com</u> or 1-800-233-1940.