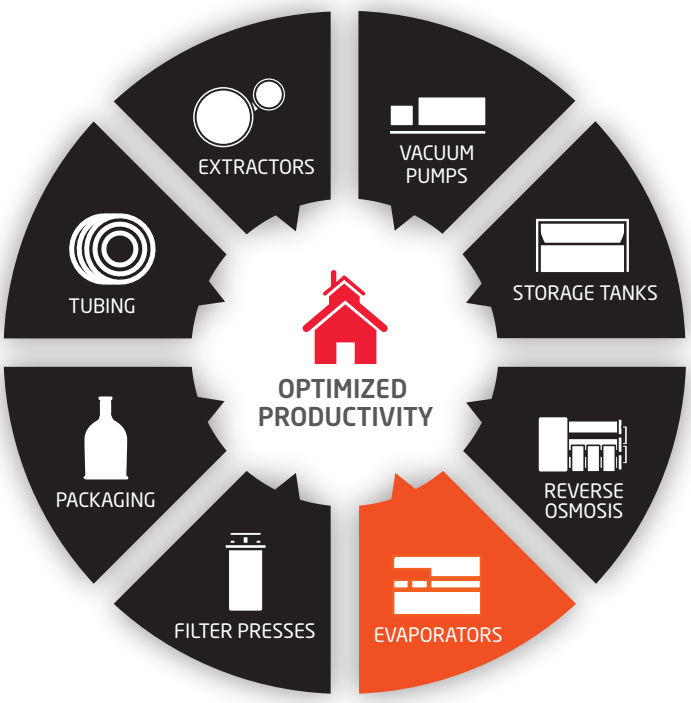
USER MANUAL

Lapierre modulating draw-off



CAUTION: This manual includes information and restrictions concerning these products use. It also contains restrictions in regards to the manufacturer responsibilities. Manual must be kept and read carefully.

TABLE OF CONTENTS

FEATURES AND DESCRIPTION

FEATURES

- Current: 120 Volts, 60 Hz, 1 Phase;
- Power: 0.08 Amps;
- Weight: 4.6 Kg (10.2 lbs);
- Temperature probe: 43 cm (17 inches) RTD type;
- Belimo Actuator: motor 24 Volts, 60 Hz, 23 VA, modulation signal 2-10 Volts;
- Butterfly valve: 5 cm (2 inches) 304 Stainless Steel.

ELECTRONIC COMPONENTS FRONT VIEW

LED Light % valve opening
LED off = closed
LED flashing = % opening
LED on = open

Parameters button (Press)
1 time = Display:
Pb (proportional band)
2 time = Display: units ˚F or ˚C
3 time = Display: temperature

Mode selector
Close = valve closed
Auto = automatic modulation of opening
Open = valve opened

Temperature scale
˚F = Fahrenheit
˚C = Celsius

Probe temperature (reading)

Draw-off temperature set-point

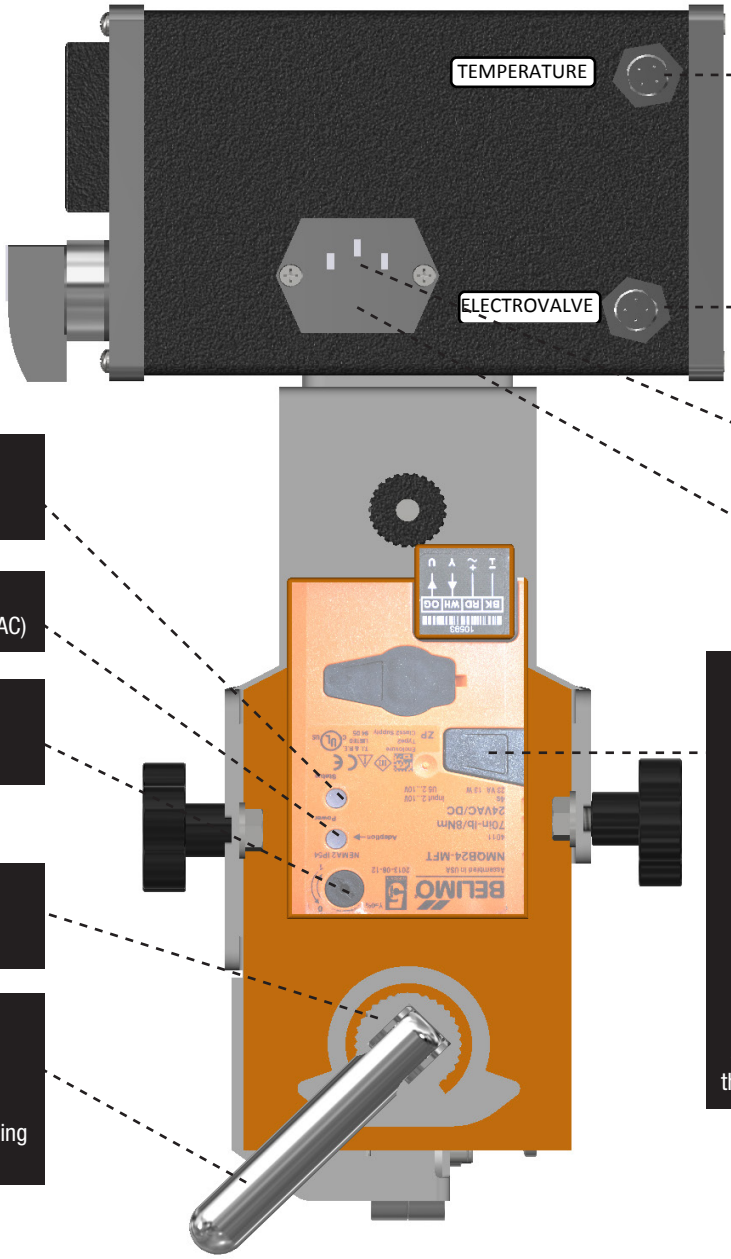
Return to temperature display button

Decrease set-point button

Increase set point button

DESCRIPTION

ELECTRONIC COMPONENTS SIDE VIEW



4 Pins connector for temperature probe

4 Pins connector for Belimo actuator probe

120 Volts power supply, international type

120 Volts 1 Amp Fuse (with 1 spare fuse)

Yellow LED
On = searching for damper end position «0» closed

Green LED
On = power on system (24 Volts AC)

Opening mode selector
Start position,
Adjust to zero «0»

Drive plate SS
Washing position,
At the half of the race

Handle for manual closing/opening

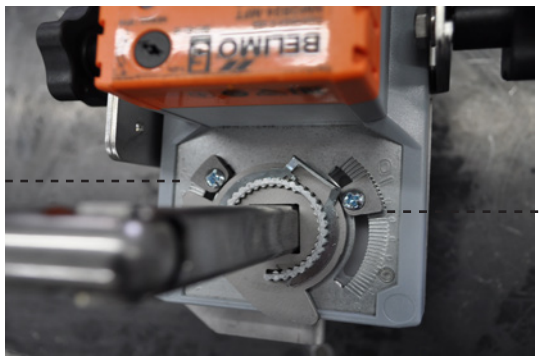
To use handle, disengage mechanism by pressing and holding the manual override button.

Manual Override and reset to Zero Button

To use manual override (open/close manually) press and hold the button.

At button release, the actuator will search for the closing limit lock «0» and register the positioning.

Note: When the draw-off is switched on, it is recommended to press the manual override button to reset the unit, the system registers the limit lock positions, thus opening/closing speed will be faster.



Opening limit lock Position valve open «1»

Closing limit lock Position valve closed «0»

Adjust at plus 4 lines of zero position.

Note: With rubber aging, tighten towards zero as required to ensure proper valve adjustment.

WARNING, CLEANING AND ADJUSTMENT

WARNING

Avoid placing the Draw-Off directly above steam generating areas (syrup pans, syrup tanks etc.).

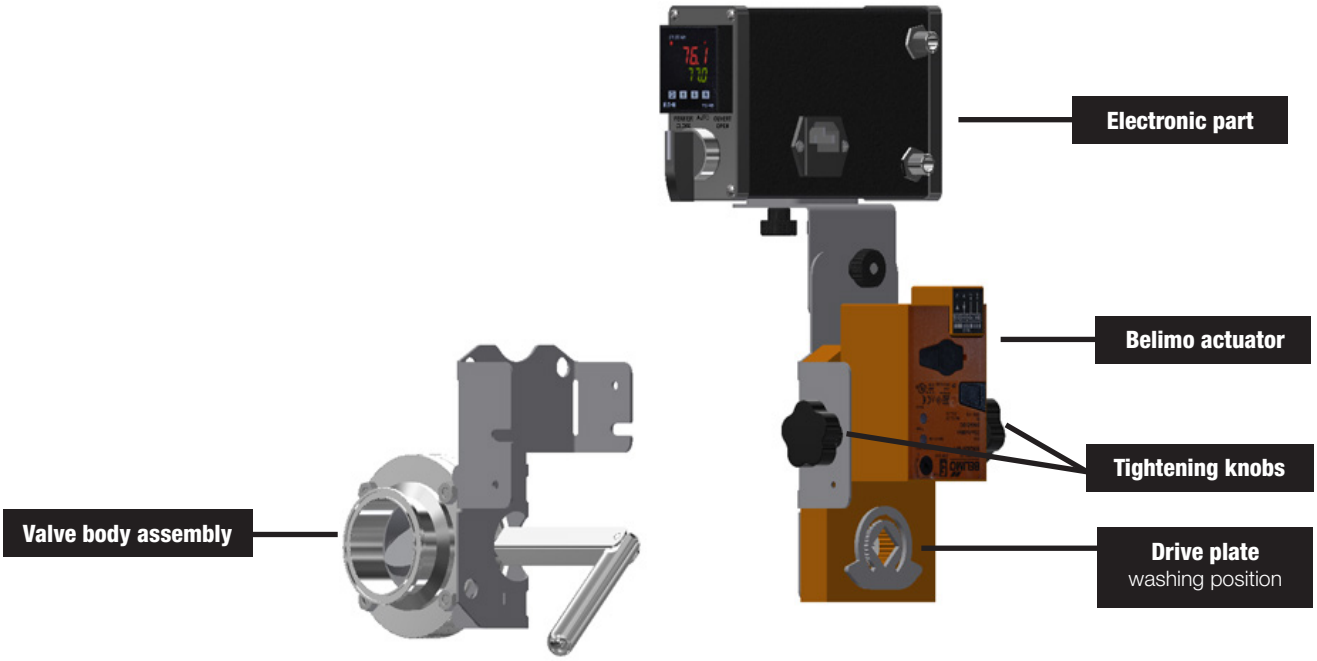
Place the probe tip at about ¼" (6mm) of pan bottom in the area situated on the first 1/3 of the pan towards the draw-off side (Ex: 5 ft (60") pan, in the middle of the 20" area or 10" off the edge). We recommend using our universal probe holder for fine adjustment.

When using the Draw-Off for the first time, check for syrup density of the first draws in relationship with the draw-off temperature display value. You can then set an ideal draw-off temperature value.

CLEANING INSTRUCTIONS

WARNING : Do not soak electronic part and Belimo actuator in water.

- Unplug the unit. To set the machine to the wash position, hold the release button pressed while turning the handle to position the drive plate manually at halfway. (see "Drive plate SS" p.15)
- Use the black tightening knobs on each side of the Belimo actuator to separate the electronic from the valve.
- The valve body assembly only can be soaked and washed. Regular cleaning of the valve body assembly is recommended. To clean the electronic part and the Belimo actuator, use a damped cloth or you can spray a mild cleaning product (dish soap type) and water.
- Make sure valve position before assembly of actuator and electronic part.



DRAW-OFF TEMPERATURE ADJUSTMENT (GREEN DISPLAY)

With up/down buttons, ↑ ↓ increase or decrease the draw-off set point temperature.

ADJUSTMENT

VALVE REACTION ADJUSTMENT

Press one time ↻ button to display Pb (proportional band).
With up/down buttons ↑ ↓ increase or decrease value.
Press R button to return to temperature display.

- Factory adjustment = 5.0

- A high Pb will let go a steady small syrup flow. At each first draw of a boil, «help» syrup move towards the draw-off buy opening the valve manually.

- A low Pb will open/close the valve closer to the draw-off set point. It then behaves with more oscillation, with non-steady flow and rapid opening and closing cycles. If you use a furnace with lots of heat intensity variation such as an old fashion wood evaporator, Pb value could be adjusted down to 1.0 to 3.0. When furnace heat is steady (F5 wood or oil, propane, pellets), Pb value shall get closer to factory adjustment of 5.0 or more if required.

ADJUSTING TEMPERATURE SET-POINT

Press ↻ button twice to display temperature scale selection (˚F or ˚C).
With up/down buttons ↑ ↓ choose ˚F or ˚C, do not use Pu.
Press the R button to return to temperature scale setting.

- Factory adjustment = ˚F

TEMPERATURE CORRECTION (AVAILABLE ONLY ON PROGRAMMING MODE)

Reach the default settings (programming mode).
With up/down buttons ↑ ↓ adjust the temperature.
Press the R button to return to temperature scale setting.

PROBLEMS AND SOLUTIONS

Problem	Possible cause	Do as follows
Display do not light.	No power in power outlet plug.	Try another plug or connect another device to see if there is power.
	Power cord.	Check if plugged properly (both ends) or if cord is damaged or cut.
	Unit main fuse blown.	Open fuse compartment pulling towards you and replace (120 Volts, 1 Amp).
Belimo does not open or close valve.	Green LED is shut off.	Check if 4 pins connector is properly plugged.
	Green LED is on.	With the Open-Auto-Closed selector, test if valve opens or close manually. Press the manual override button to reset to zero.
	Valve is blocked.	Push the override button and manually open/close the valve handle.
	Override button is blocked.	Spray lukewarm water with mild soap while pressing/releasing the button.
Display does not show temperature values.	Display in intermittence SbEr and 4773	Possible defect with temperature probe: check 4 pins plug of temperature probe. Check probe cable/wiring.
	Display a code unknown by you.	Press the R button to return to temperature display.
False temperature reading.	Probe misplaced in syrup pan.	Check height gap ¼" (6mm). Check distance towards syrup draw outlet. Search hottest point.
	Defective probe.	Change probe.
	Temperature value constant but a few degrees more or less than usual (imprecise).	Adjust draw-off temperature set-point taking into account the margin of error (plus or minus).
Display shows «SBER».	Connexions have been inverted.	Swap temp probe and electro-valve connexions.

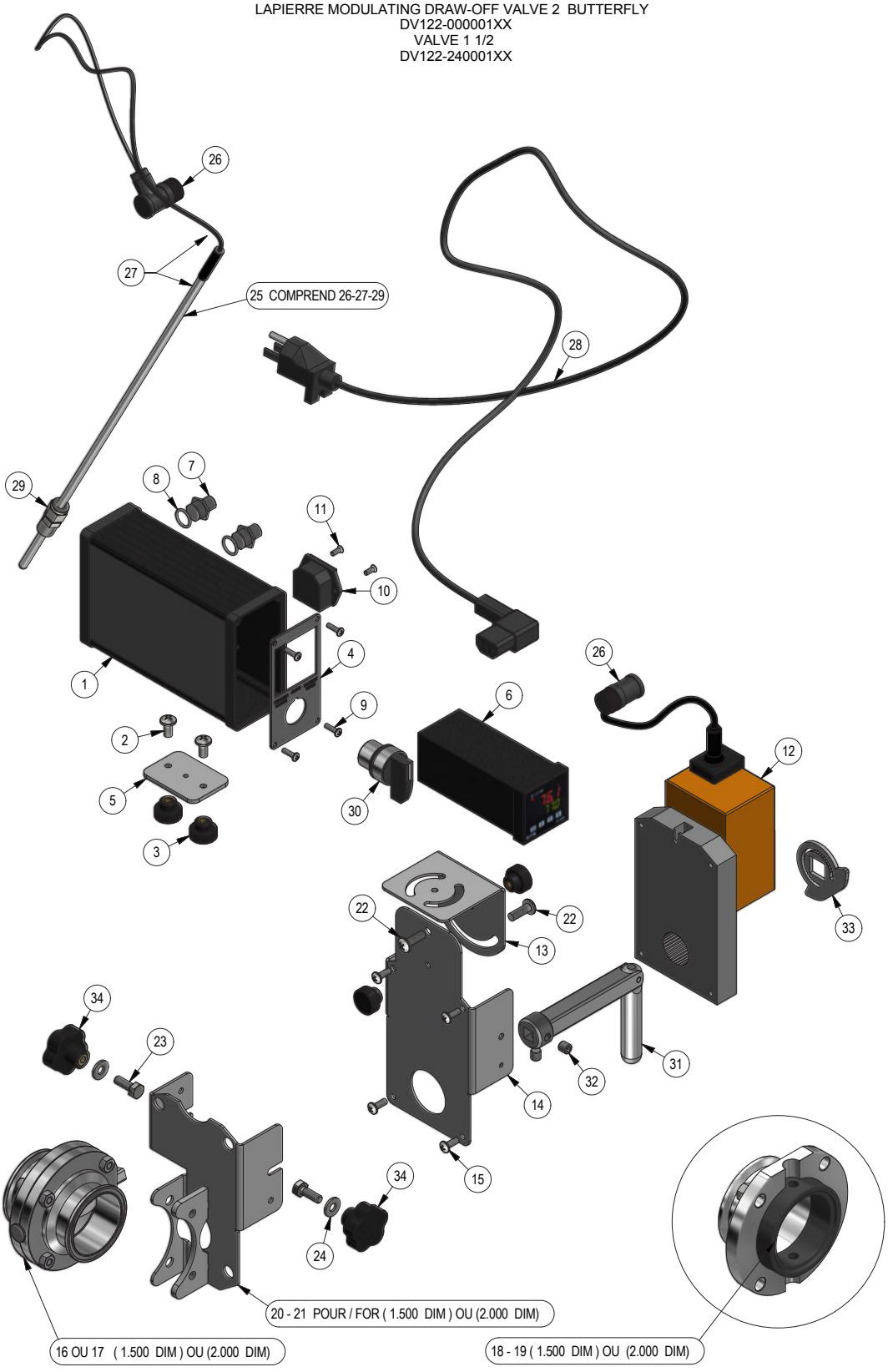
DEFAULT SETTINGS

PROGRAMMING MODE

To get access to default settings (programming mode), hold on ↻ button until you see the word «SEE» on your screen.
With up/down buttons ↑ ↓ you can change the settings.
Press ↻ button to go to the next setting.
Press R button to return to temperature display.

PART LIST

CONTROLEUR LAPIERRE TEMPERATURE SIROP DEBIT VARIABLE MODULANT VALVE 2"
LAPIERRE MODULATING DRAW-OFF VALVE 2 BUTTERFLY
DV122-000001XX
VALVE 1 1/2
DV122-240001XX



PART LIST

Numero	Quantité	Description	CODE
1	1	BOITE HAMMOND MODIFIEE POUR CONTROLEUR A SIROP LAPIERRE HAMMOND BOX MODIFIED FOR LAPIERRE ELECTROVANNE AUTO CONTROL MAPLE SYRUP	DV322-160104A4
2	2	VIS MEC SS 1/4-20 X 3/4" (RONDE/ETOILE) MECH. SCREW (SS)1/4-20 X 3/4" (PAN PHILLIPS)	BU212-042012S6
3	4	BOUTON TP PLASTIQUE 1/4-20 FPT (NOIR) TP PLASTIC FLUTED KNOB 1/4-20 FPT (BLACK)	BU249-000420TP
4	1	PLAQUE DE DEVANT EN SS POUR BOITE HAMMOND MODIFIEE SS FRONT PLATE FOR HAMMOND BOX MODIFIED ON ELECTROVANNE AUTO CONTROL	DV322-010007S5
5	1	PLAQUE DE SOUTIEN EN SS POUR BOITE HAMMOND MODIFIEE SS PLATE SUPPORT FOR HAMMOND BOX MODIFIED ON ELECTROVANNE AUTO CONTROL	DV322-362606S4
6	1	CONTROLE TEMPERATURE EATON TC484130101, 90-250 VAC TEMPERATURE CONTROL (EATON) TC484130101, 90-250 VAC	EL031-090250XX
7	2	RECEPTACLE M12 (#PHC693762) MALE (O'RING INCLUS#014) 4 PINS PG9 SOCKET M12 (#PHC693762) MALE 4 PINS PG9 (INCLUDED O'RING #014)	EL308-693762XX
8	2	O'RING #014 O'RING #014	DV201-000014XX
9	4	VIS MEC SS 6-32 X 1/2" (RONDE/ETOILE) MECH. SCREW (SS) 6-32 X 1/2" (PAN PHILLIPS)	BU212-063208S6
10	1	FICHE FEMELLE 10 AMPS 250 VAC POUR CONTROLEUR A SIROP FEMALE PLUG 10 AMPS 250 VAC FOR ELECTROVANNE AUTO CONTROL	DV322-250010XX
11	6	VIS MEC 6-32 X 3/8"(ACIER TRONCONIQUE) INCLUS AVEC BOITE HAMMOND ECH. SCREW 6-32 X 3/8"(STAINLESS TRONCONIQUE) INCLUDED WITH BOX HAMMOND	VENDU AVEC BOITE HAMMOND SOLD WITH BOX HAMMOND
12	1	ACTUATEUR BELIMO NMQB24-MFT 24VAC/DC, ANALOGIQUE 0-10V 24VAC/DC, ANALOGIQUE 0-10V ACTUATOR BELIMO NMQB24-MFT 24VAC/DC, ANALOG	EL383-024010XX
13	1	SUPPORT SS PIVOTANT POUR BOITE DE CONTROLE DU CONTROLEUR SS SWIVEL BRACKET CONTROL BOX FOR ELECTROVANNE AUTO CONTROL LAPIERRE	DV322-389102S4
14	1	SUPPORT SS FIXE DU CONTROLEUR A SIROP LAPIERRE SS FIXED BRACKET FOR ELECTROVANNE AUTO CONTROL MAPLE SYRUP (LAPIERRE)	DV322-750001S4
15	4	VIS MEC SS 10-24 X 1/2" (RONDE/ETOILE) MECH. SCREW (SS) 10-24 X 1/2" (PAN PHILLIPS)	BU212-102408S6
16	1	VALVE PAPILLON 1.500" SS 304 VALVE PAPILLON 1.500" SS 304	DV322-002424S2
17	1	VALVE PAPILLON 2" SS 304 VALVE PAPILLON 2" SS 304	DV322-003232S2
18	1	JOINT CAOUTCHOUC POUR VALVE PAPILLON 1.500" (NON DISPONIBLE POUR L'INSTANT) GASKET FOR 1.500" BUTTERFLY VALVE (NOT AVAILABLE FOR NOW)	A VENIR UPCOMING
19	1	JOINT CAOUTCHOUC POUR VALVE PAPILLON 2" (NON DISPONIBLE POUR L'INSTANT) GASKET FOR 2" BUTTERFLY VALVE (NOT AVAILABLE FOR NOW)	A VENIR UPCOMING
20	1	BASE SS POUR VALVE PAPILLON 1.500" SS BASE FOR TRICLAMP BUTTERFLY SS 1.500" VALVE	DV322-729024KT
21	1	BASE SS POUR VALVE PAPILLON 2" SS BASE FOR TRICLAMP BUTTERFLY SS 2" VALVE	DV322-729032KT
22	2	VIS MEC SS 1/4-20 X 3/4" (RONDE/ETOILE) MECH. SCREW (SS)1/4-20 X 3/4"(PAN PHILLIPS)	BU212-042012S6
23	2	BOULON HEX SS 1/4-20 X 5/8" HEX BOLT (SS) 1/4-20 X 5/8"	BU202-042010S6
24	2	RONDELLE SS TROU 5/16" POUR BOULON 1/4" FLAT WASHER (SS) INS.DIA.5/16" (BOLT 1/4")	BU200-000005S6
25	1	SONDE DE TEMPERATURE TYPE RTD ASSEMBLEE AVEC FIL DE 84" COMPLET TEMPERATURE PROBE RTD TYPE ASSY WITH 84" WIRE FOR AUTO COMPLETE	DV322-251836KT
26	2	CONNECTEUR M12 FEMELLE 90° CONNECTEUR M12 FEMELLE 90° CONNECTOR M12 FEMALE 90 DEG 4 POSITIONS (#PHC1681130)	EL307-900401XX
27	1	SONDE DE TEMPERATURE TYPE RTD AVEC FIL DE 84", NON ASSEMBLEE TEMPERATURE PROBE RTD TYPE WITH 84" WIRE (NOT ASSY)	DV322-251836XX
28	1	CORDON D'ALIMENTATION 10 AMPS 125V, 18AWG POWER CORD 10 AMPS 125V, 18AWG	DV322-011810XX
29	1	CONNECTEUR SS DE THERMOCOUPLE 1/4" (VALVE #2 & #3 1/4" SUR CONCENTRATEUR) 1/4"SS THERMOCOUPLE CONNECTOR #2 & #3 VALVE ON R.O.	EL014-000005S2
30	1	SELECTEUR 3 POSITIONS MAINTENUES (TELZB5AD3) SELECTOR SWITCH 3 POSITIONS(TELZB5AD3)	EL246-000003XX
31	2	POIGNEE SS POUR VALVE DE CONTROLEUR A SIROP LAPIERRE A DEBIT VARIABLE (MODULANT) SS VALVE HANDLE FOR ELECTROVANNE AUTO CONTROL MAPLE SYRUP (LAPIERRE)	DV322-020008SS
32	2	VIS DE PRESSION A 6 PANS CREUX SS 5/16-18 X 5/16" (ALLEN SCREW) ALLEN SCREW (SS) 5/16-18 X 5/16"	BU230-051805S6
33	1	PLAQUE D'ENTRAINEMENT EN SS POUR VALVE DE CONTROLEUR A DEBIT VARIABLE (MODULANT) SS DRIVE PLATE FOR ELECTROVANNE AUTO CONTROL	DV322-000029S4
34	2	POIGNEE TP PLASTIQUE (ETOILE) 1/4-20 FPT (NOIRE) HANDLE(TP PLASTIC STAR-SHAPED) 1/4-20 FPT (BLACK)	BU252-000420TP

NOTES

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