L-BAR SEALER LB - 11

LB - 20, 20M & 20MC

LB - 30, 30M & 30MC

USER MANUAL

Get Packed Pty Ltd

Tel: (02) 9452 3566 Fax: (02) 9452 3555

www.getpacked.com.au

HEATSHRINK® AUSTRALIA PTY LTD

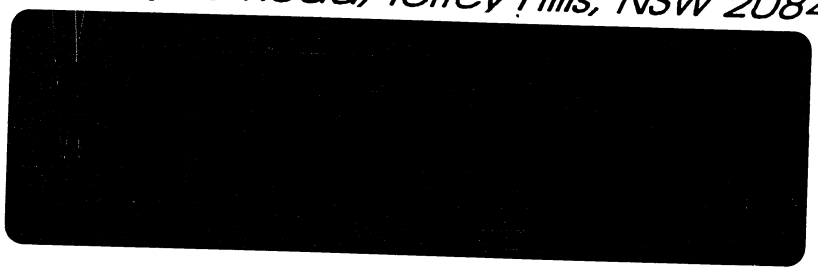
Thank you for the purchase of our

L-BAR SEALER

In this manual, you will find instructions on the correct operations of this machine, as well as other instructions on maintenance and repair. To obtain maximum benefit from the product please read this manual before operating.

Get Packed Pty Ltd
Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

Designed and manufactured in Australia by
HEATSHRINK AUSTRALIA PTY. LTD.
A.C.N. 001 015 210
No. 1 Tepko Road, Terrey Hills, NSW 2084



INDEX

1... MACHINE DESCRIPTION & SPECIFICATIONS Page : 3-4
1.1. DESCRIPTION AND FEATURES 3
1.2. SPECIFICATIONS 4

2...INSTALLATION AND FILM LOADING 5-6
2.1. UNPACKING AND INSTALLATION 5,6

3...OPERATING INSTRUCTION 7-10
3.1. CONTROL PANELS 7
3.2. SETTING TABLE 8
3.3. OPERATING PROCEDURE 8
3.3.1 OPERATING PROCEDURE for LB-11, LB-20 & LB-30 8
3.3.2 OPERATING PROCEDURE for LB-20M, LB-20MC, LB-30M & LB-30MC 9
3.4. MECHANICAL PLUNGER SWITCH 9

4...MAINTENANCE AND CLEANING 10-11
4.1. SEALING HEAD "PTFE" TAPES & HEAT WIRES 10
4.2. SEALING BOTTOM PAD & "PTFE" TAPE 10

5...POSSIBLE FAULTS 11
5.1. NO SEAL AT ALL 11
5.2. IMPROPER SEALING 11
5.3. SEALING WIRE KEEPS BREAKING 11
5.4. SEAL BURSTS OPEN 11
5.5. BLACK DEBRIS ON FILM SEAL 11
5.6. WON'T SEAL WITHOUT EXCESSIVE PRESSURE ON L-BAR 11

6...SPARE PARTS LISTING 12
7.1. SPARE PARTS LISTING FOR LB-20 12
7.2. SPARE PARTS LISTING FOR LB-11 12

7...ELECTRIC DIAGRAMS 14-15
7.1. CONTROL BOX LAY-OUT & LEGEND 14
7.2. ELECTRIC DIAGRAM & LEGEND 15

8... WARRANTY 16

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

INDEX

ILLUSTRATIONS :

TABLE 1 - System 3
TABLE 2 - Specifications 3
TABLE 3 - Legends 7
TABLE 4 - Settings 8
TABLE 5 - Troubleshooting 11
TABLE 6 - Spare parts list for LB-11 12
TABLE 7 - Spare parts list for LB-20 13

FIGURE 1 - LB-11 5
FIGURE 2 - LB-20MC 6
FIGURE 3 - LB-20 6
FIGURE 4 - Control panels 7
FIGURE 5 - Sealing head "PTFE" tapes & heat wires 10
FIGURE 6 - Sealing bottom pad & "PTFE" tape 10
FIGURE 7 - Spare parts for LB-11 12
FIGURE 8 - Spare parts for LB-20 13
FIGURE 9 - Control box lay-out & legend for LB-11 14
FIGURE 10 - Control box lay-out & legend for LB-20 & LB-30 14
FIGURE 11 - Control box lay-out & legend for LB-20MC & LB-30MC 14
FIGURE 12 - Electric diagram & legend 15

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

1. MACHINE DESCRIPTION & SPECIFICATIONS

1.1. DESCRIPTION AND FEATURES

The **HEATSHRINK** range of **L - Bar** sealers are designed to wrap products for computer software companies, video and audio cassette dealers, music stores, publishers, produce and spare parts merchants, stationers etc. Shrink wrapped products are packed loose or enclosed in a film that shrinks to conform to the shape of its contents with "second skin" fit when it is heated. Shrinking the film makes it thicker, stronger, and tougher.

Heat-shrink films are thermoplastic materials that have been stretched during manufacture and have the ability to shrink back to their original configuration when they are heated. A number of plastic films are used for shrink wrapping, and each of them has slightly different characteristics. Some films are stretched in both directions so that they will shrink evenly in all directions when heat is applied. Other films are stretched in only one direction, and shrinking will take place along the same lines. Care should be taken in the selection of a shrink film to ensure that it is the most appropriate one for a particular application.

Heatshrink Australia stocks a large range of films to compliment their range of L-Bar sealers. We will recommend the film to suit your pack

HEATSHRINK L - Bar sealers are most suitable for continuous production of packs with packaging speeds up to 800 packs/hour and are finished in attractive Magnolia and Gunmetal colours. They are available in four sizes, from bench type to free standing models. Each model is available in manual and semi automatic version and with several options available.

HEATSHRINK Shrink tunnels are designed to complement the range of L-Bar sealers to maximise productivity and packaging quality.

Table 1 : System

MODEL	SEALING BAR SIZE (mm)	STYLE	EACH SYSTEM CONTAINS
LB - 11	450 x 450	Bench Free standing Variable height Table	1 L - Bar Sealer + Film dispenser + 1 Spare kit, + 1 User manual
LB - 20	500 x 650		
LB - 20M	500 x 650		
LB - 20MC	500 x 650		
LB - 30	600 x 950		
LB - 30M	600 x 950		
LB - 30MC	600 x 950		

OPTIONAL EXTRAS :
Free standing frame, Film perforator , Castor wheels, Magnetic hold-down, Discharge conveyor.

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

1. MACHINE DESCRIPTION & SPECIFICATIONS

1.2. SPECIFICATIONS

Table 2 : Specification

MODEL		LB - 11	LB - 20	LB -20M	LB -20MC	LB - 30	LB-30M	LB-30MC
Overall size								
Length	(mm)	760	1400	1400	1400	2000	2000	2000
Width	(mm)	550	850	850	850	1000	1000	1000
Height	(mm)	180	1050	1050	1050	1050	1050	1050
Outputs	(packs/min)	8	10	12	12	6	8	8
Operation		Manual	Manual	Manual	Semi-auto	Manual	Manual	Semi-auto
Sealing L - Bar Size	(mm)	450 x 450	500 x 650	500 x 650	500 x 650	600 x 950	600 x 950	600 x 950
Nominal pack size								
Length	(mm)	10 - 400	10 - 600	50 - 600	50 - 600	50-900	50-900	50-900
Width	(mm)	10 - 400	10 - 400	50 - 450	50 - 450	50 - 550	50-550	50-550
Height	(mm)	15 - 75	10 - 150	10 - 150	10 - 150	10 - 150	10 - 150	10 - 150
Power Rating	(V)	240	240	240	240	240	240	240
	(A)	4	5	5	5	6	6	6
Unladen weight	(kg)	24	65	70	75	80	90	95
Nominal Sealing Time	(sec)	1	1.5	1.5	1.5	1.5	1.5	1.5
Model type		Bench type	Free Standing	Free Standing	Free Standing	Free Standing	Free Standing	Free Standing

There are also other models which offer a variety of features such as:

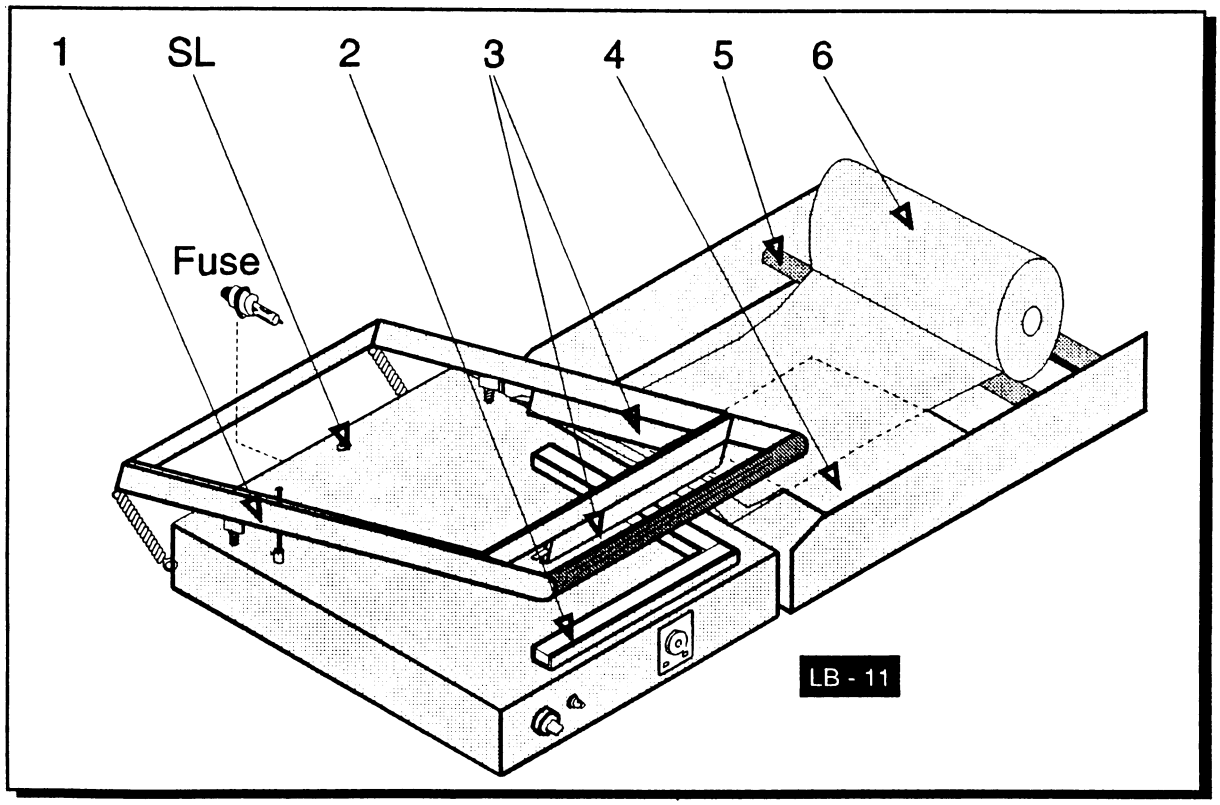
- Pneumatic operated sealing head,
- Motorised film delivery system,
- Fully automatic system including motorised infeed and outfeed conveyors
- Motorised infeed table...

2. INSTALLATION AND FILM LOADING

2.1. UNPACKING AND INSTALLATION

- Remove the machine from packing and mount on a stable suitable site, near a single phase 240V power supply.
- Unclip the L-Bar sealing frame (1) from the "down" position.
- Peel the protective film from the feed table and sealing table.
- Place the roll of the centre folded film (6) on the dispenser rollers (5) so that the film opens toward you and unwinds from the bottom of the roll to the left.
- Part the front edge of the film and unroll enough (approximately 500mm) around the feed table with the top half of the film above and the bottom half below the loading plate (4) and pull between the seals (3) and sealing pad (2).
- If it is difficult to part the centre fold, use 2 pieces of adhesive tape to "grip" the outside surface of each side of the film folds to pull them apart.
- Ensure that there is enough film to seal the product, and that approximately 30-50mm of film "waste" overlaps the front seal.
- Connect the machine to power point and switch on power. To start with set the timer setting to 1.5 seconds. Trial and error will dictate the most suitable time appropriate to the film being used.
- When using a different width roll of film, adjust the roll dispenser (5) so that the front (open) edge of the film is approximately 30mm outside the line of the front seal. You may have to adjust this position according to the height of the product being packed.

Figure 1 : LB -11

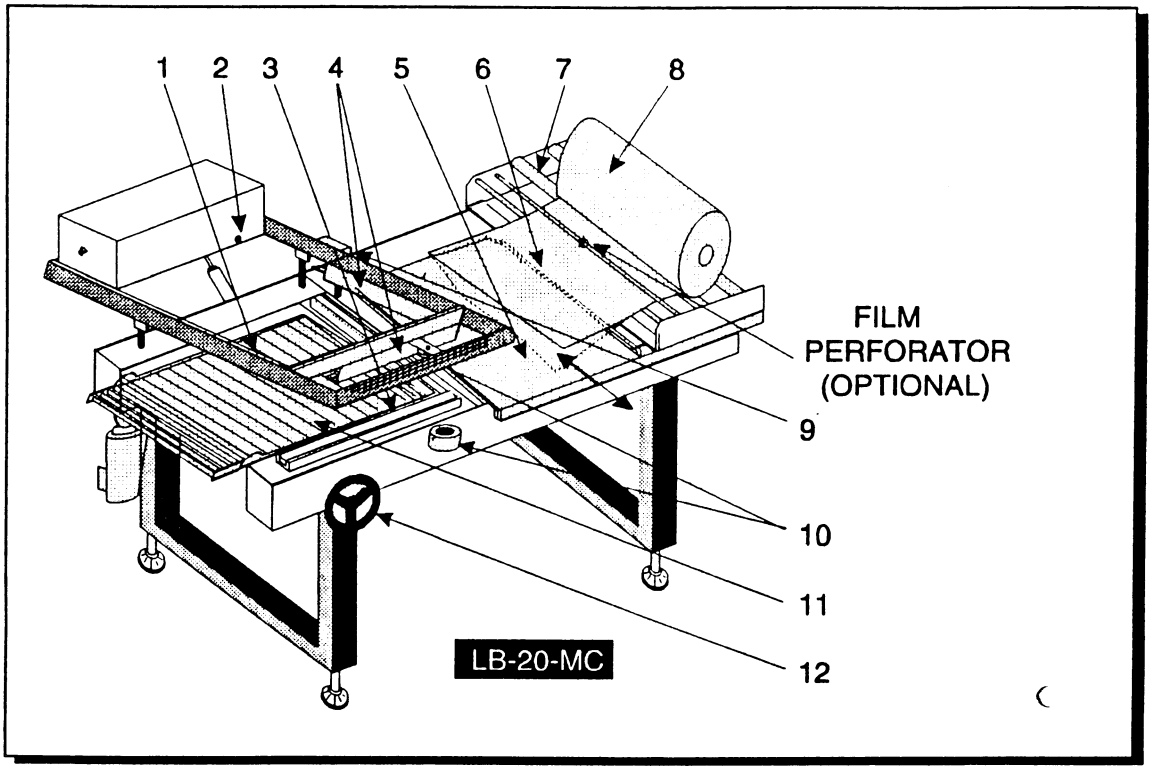


1 - Sealing Frame
2 - Sealing pad
3 - Front and side seals
4 - Loading plate
5 - Dispenser roller
6 - Roll of centre folded film
SL - Sealing light indicator

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

2. INSTALLATION AND FILM LOADING

Figure 2 : LB -20MC



1 - Sealing frame
2 - Sealing light indicator
3 - Sealing pad
4 - Front and side seals
5 - Loading plate
6 - Separating bar
7 - Dispenser roller
8 - Roll of centre folded film
9 - Plunger switch
10 - Magnet
11 - Conveyor
12 - Adjusting wheel

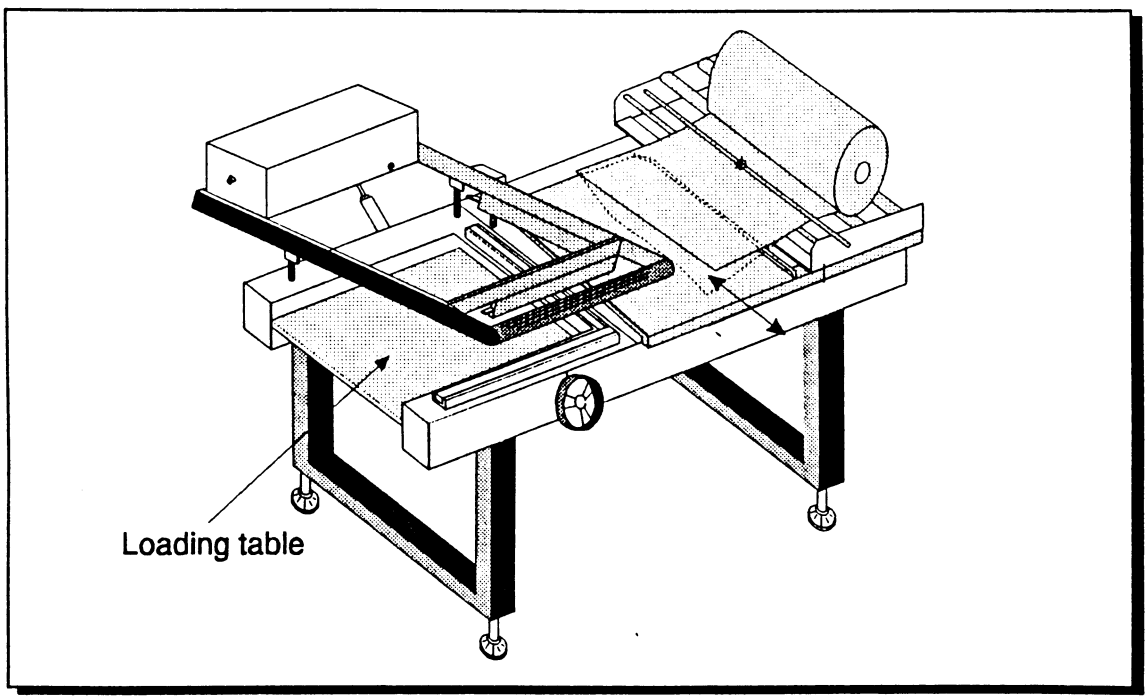


Figure 3 : LB -20

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

3. OPERATING INSTRUCTIONS

3.1. CONTROL PANELS :

Figure 4 : Control panels

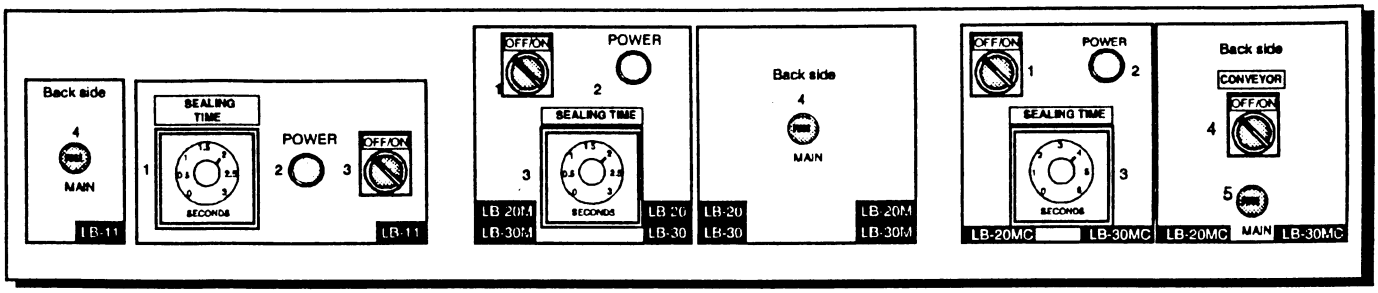


Table 3 : Legends

Index	Description for LB-11	Function	Indication or Position
1	SEALING TIMER	Timer for setting the sealing time	Setting time range : 0 -3 seconds
2	POWER *Light Indicator*	Indicates whether the Power is ON or OFF	Light is ON if Power is ON
3	OFF/ON *Switch*	Switch for power supply	Left - OFF, Right - ON
4	MAIN FUSE	Protection of el. circuit	Fuse 10 Amps

Index	Descr. LB-20, LB-20M, LB-30 & LB-30M	Function	Indication or Position
1	OFF/ON *Switch*	Switch for power supply	Left - OFF, Right - ON
2	POWER *Light Indicator*	Indicates whether the Power is ON or OFF	Light is ON if Power is ON
3	SEALING TIMER	Timer for setting the sealing time	Setting time range : 0 - 3 seconds
4	MAIN FUSE	Protection of el. circuit	Fuse 10 Amps

Index	Description for LB-20MC & LB-30MC	Function	Indication or Position
1	OFF/ON *Switch*	Switch for power supply	Left - OFF, Right - ON
2	POWER *Light Indicator*	Indicates whether the Power is ON or OFF	Light is ON if Power is ON
3	SEALING TIMER	Timer for setting the sealing time	Setting time range : 0 - 6 seconds
4	OFF/ON *Switch*	Switch for conveyor belt	Left - OFF, Right - ON
5	MAIN FUSE	Protection of el. circuit	Fuse 10 Amps

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

3. OPERATING INSTRUCTIONS

3.2. SETTING TABLE

Table 4 : Settings		RECOMMENDED INITIAL SETTING			FINAL SETTING
PVC, POLYOLEFIN & POLYPROPYLENE FILM	(µm)	15	19	25	
SEALING TIME	(sec)	1.0	1.5	1.5	

The settings from the table are recommended, or can be used as a starting point for your particular case.
If you are adjusting the settings according to your needs, make sure to record the settings after everything is done, so you can go back to the settings if required.

3.3. OPERATING PROCEDURE

3.3.1 OPERATING PROCEDURE *FOR :* LB-11, LB-20 AND LB-30 SYSTEMS

1. With the film between the seals (4) and sealing pad (3) pull down the sealing frame (1) and apply pressure to activate impulse switch. Maintain that pressure during the sealing time indicated to the operator by the sealing pilot light.

2. Lift the sealing frame (1) when the sealing light indicator (2) goes out. The film will be sealed across the width of the roll and along the front edge of the film.

3. Check seal strength and if necessary, repeat steps above but increase the timer setting minutely until a strong seal is achieved.

> **Note** : The sealing time should be kept as short as possible. This will result in maximised life of sealing wires, teflon tapes and sealing pads !

4. Seal the film behind, and at the front edge of the pack leaving approximately 30 to 40mm slack to perform the seal.

5. Place the product to be shrinkwrapped into the film (on the loading plate) and push into the corner of the film pocket which has been formed. Pull the pack under the sealing frame just inside the "L" shape.

> **Note** : It is wise to always pull the pack 30mm past the seal line. Put the pack down and slide back to the "L" corner, so there is no tension on the film surfaces as the seal is made.

6. Pass the sealed pack into the shrink tunnel to complete the shrink wrapping process.

3. OPERATING INSTRUCTIONS

WHEN SEALING PACKS ON LB-20 AND LB-30 SYSTEMS, lower the adjustable height sealing table so that the sealing line is positioned at approximately the centre of the pack height. This will result in a neater pack, using less film.

3.3.2 OPERATING PROCEDURE *FOR* LB-20MC, LB-20M AND LB-30MC, LB-30M

(M = Magnet & C = Conveyor)

1. With the film between the seals (4) and sealing pad (3) pull down the sealing frame (1) and apply pressure to activate plunger switch. The plunger switch will activate the electromagnet which will hold the sealing frame down during the sealing time indicated to the operator by the sealing pilot light (2).

2. After the sealing is finished when the sealing light indicator (2) goes out, the electromagnet will release the sealing frame (1). The film will be sealed across the width of the roll and along the front edge of the film. The sealing frame goes up, and conveyor is activated to take the pack to the shrink tunnel.

3. Check seal strength and if necessary, repeat steps above but increase the timer setting minutely until a strong seal is achieved.

> **Note** : The sealing time should be kept as short as possible. This will result in maximised life of sealing wires, teflon tapes and sealing pads!

4. Seal the film behind, and at the front edge of the pack leaving approximately 30 to 40mm slack to perform the seal.

5. Place the product to be shrinkwrapped into the film (on the loading plate) and push into the corner of the film pocket which has been formed. Pull the pack under the sealing frame just inside the "L" shape.

> **Note** : It is wise to always pull the pack 30mm past the seal line across and along the film. Put the pack down and slide back to the "L" corner, so there is no tension on the film surfaces as the seal is made.

6. Conveyor takes the sealed pack into the shrink tunnel to complete the shrink wrapping process.

*** For LB-20M & LB-30M operator manualy moves the pack into the shrink tunnel.**

> **Note** : The L-Bar system should be positioned at approximately the centre of the pack height. This will result in neater pack, using less film.

3.4. MECHANICAL PLUNGER SWITCH

- MECHANICAL PLUNGER SWITCH *(MPS)* is located on the L-Bar sealing frame. When the sealing L-Bar is in down position, *(MPS)* activates the timer which enables timed power supply to the sealing wire. When the sealing is finished the sealing L-Bar is lifted and *(MPS)* disables the power supply to the sealing wire.

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

4. MAINTENANCE AND CLEANING

Warning : Turn the power off !

- Clean the powder coated machine surfaces with a moist cloth periodically.

4.1. SEALING HEAD "PTFE" TAPES & HEAT WIRES

- Film residue will build up on the sealing wire and teflon tape. This can easily be removed by wiping with a Scotchbrite pad, toothbrush or similar.
- Infrequent cleaning of residues from sealing wire results in poor seals and can leave black carbon marks on the seal line when using P.V.C.

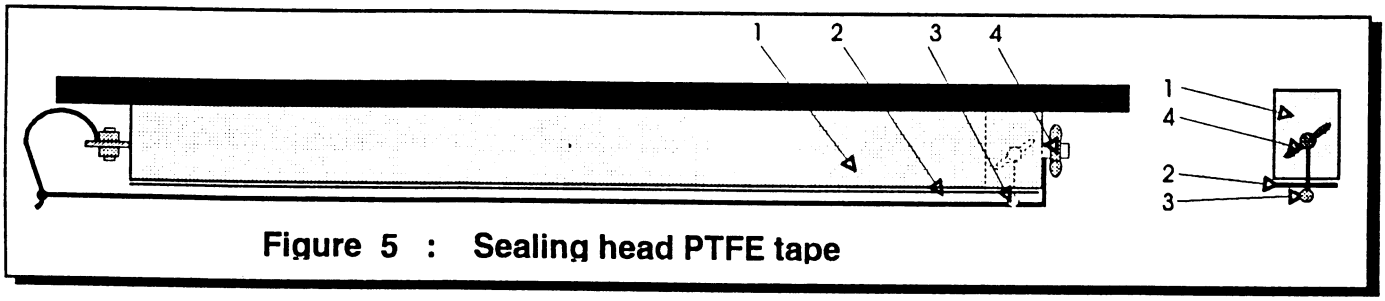


Figure 5 : Sealing head PTFE tape

1 - Sealing stamp body 2 - "PTFE" base strip 3 - Sealing wire 4 - Wing nut

- Check PTFE tapes and heat wires every week.
- Replace them if burnt or if they stop cutting.
- To replace the sealing wire - loosen the wing nut at the corner of the L-Bar, unwind the wire from the screw, then unhook the lug end from the spring terminal.
  Reverse the above instructions to install the new wire.

> **Note** : Ensure the tape extends past the end of the bar so the wire is not in contact with the metal bar.

To replace the top teflon follow the instructions for removing the sealing wire: Peel off the worn teflon. Clean the bar surface. Rub down the new teflon to the bar.

4.2. SEALING BOTTOM PAD & "PTFE" TAPE

- Check them every 6 months.
- Replace them when they are burnt or damaged.

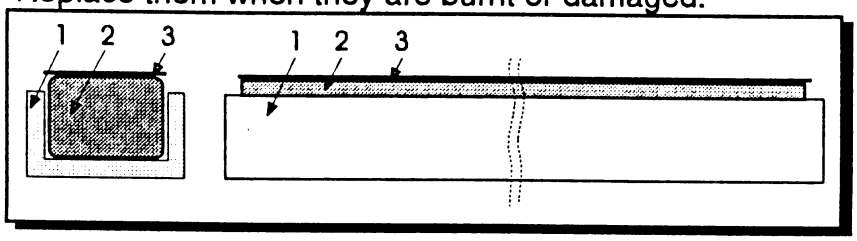


Figure 6 : Sealing bottom pad & PTFE tape

1 - Frame
2 - Neoprene sponge rubber
3 - "PTFE" tape

- Check compression pad for groove wear. If this is apparent, turn the pad over or replace.

4.3. CONVEYOR DRIVE BELT & GEAR BOX MOTOR BRUSHES

- Check them every 6 months.
- Lubricate the chain with grease

Tel: (02) 9452 3566 Fax: (02) 9452 3555

www.getpacked.com.au

5. POSSIBLE FAULTS

Table 5 : Troubleshooting

PROBLEM	POSSIBLE FAULTS	POSSIBLE SOLUTION
NO SEAL AT ALL	No power supply	• Switch on power • Check pilot light
	Blown fuse	Replace fuse
	Faulty timer	Replace timer
IMPROPER SEALING	Incorrect timer setting	Adjust the IC timer
	Dirty sealing wire	Clean of residue from wire
	Poor seal compression due to wear on pad	• Turn over the pad or replace • Maintain the pressure during sealing
	Sealing bar out of line with the compression pad	Adjust L- Bar pivot posts to reset L-Bar in parallel
SEALING WIRE KEEPS BREAKING	Inadequate cooling	Keep at least 1 second cooling time between each seal
	Too frequent operation	
	Groove wear/Excess seal time	Replace pad - reduce seal time
SEAL BURST OPEN	Envelope too tight against product	Allow more slack in film
	Dirty seal line	Clean wire
	Not enough heat in the wire	Check timer (Call service)
	Not enough pressure on seal	Add pressure
BLACK DEBRIS ON FILM SEAL	Burning of film chemical	Clean wire and teflon tape
	Common with P.V.C. film	Change film - (Call service) Increase seal time
WON'T SEAL WITHOUT EXCESSIVE PRESSURE ON L- BAR	Pressure switch not contacting	Adjust the pressure switch height so that contact is made as the L- Bar touches the compression pad

Tel: (02) 9452 3566 Fax: (02) 9452 3555
www.getpacked.com.au

6. SPARE PARTS LISTING

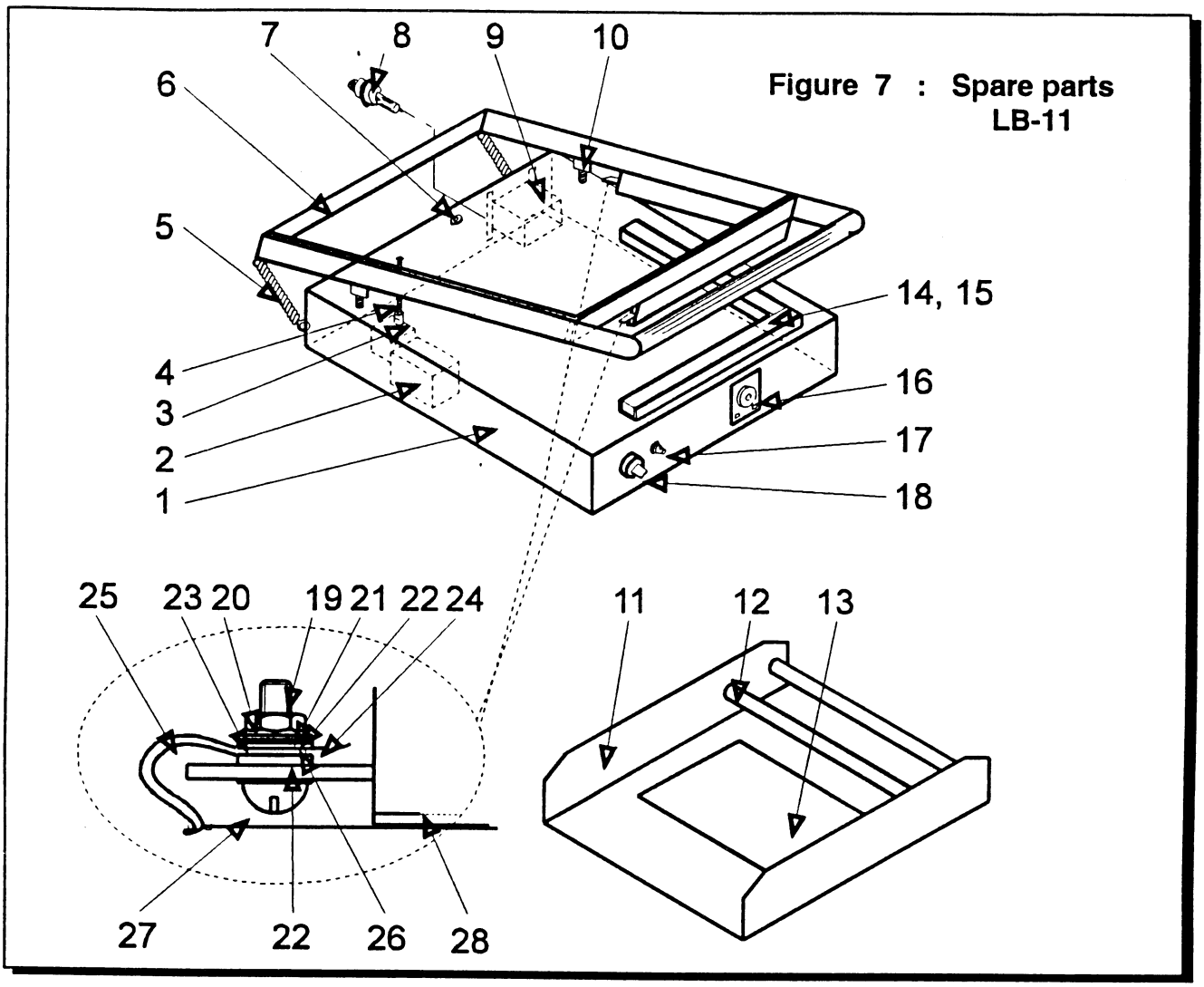


Figure 7 : Spare parts LB-11

Table 6 : Spare parts list for LB-11

S.NO	DESCRIPTION	S.NO.	DESCRIPTION
1	Body	15	I C timer
2	Contactor	16	Silicone sealing pad
3	Micro switch	17	Indicator lamp (power)
4	Micro switch actuating screw	18	Power On/Off switch
5	Handle retainer spring (2 Nos)	19	Screw
6	Handle	20	Nut
7	Indicator lamp (sealer)	21	Lock Washer
8	Fuse	22	Steel washer
9	Transformer	23	Fibre washer
10	Rod end bearings	24	Lug
11	Film dispenser	25	Spring terminal
12	Film supporting rollers	26	Bakelite washer
13	Divider plate	27	Sealing wire with lug
14	Aluminium channel	28	Teflon tape

6. SPARE PARTS LISTING

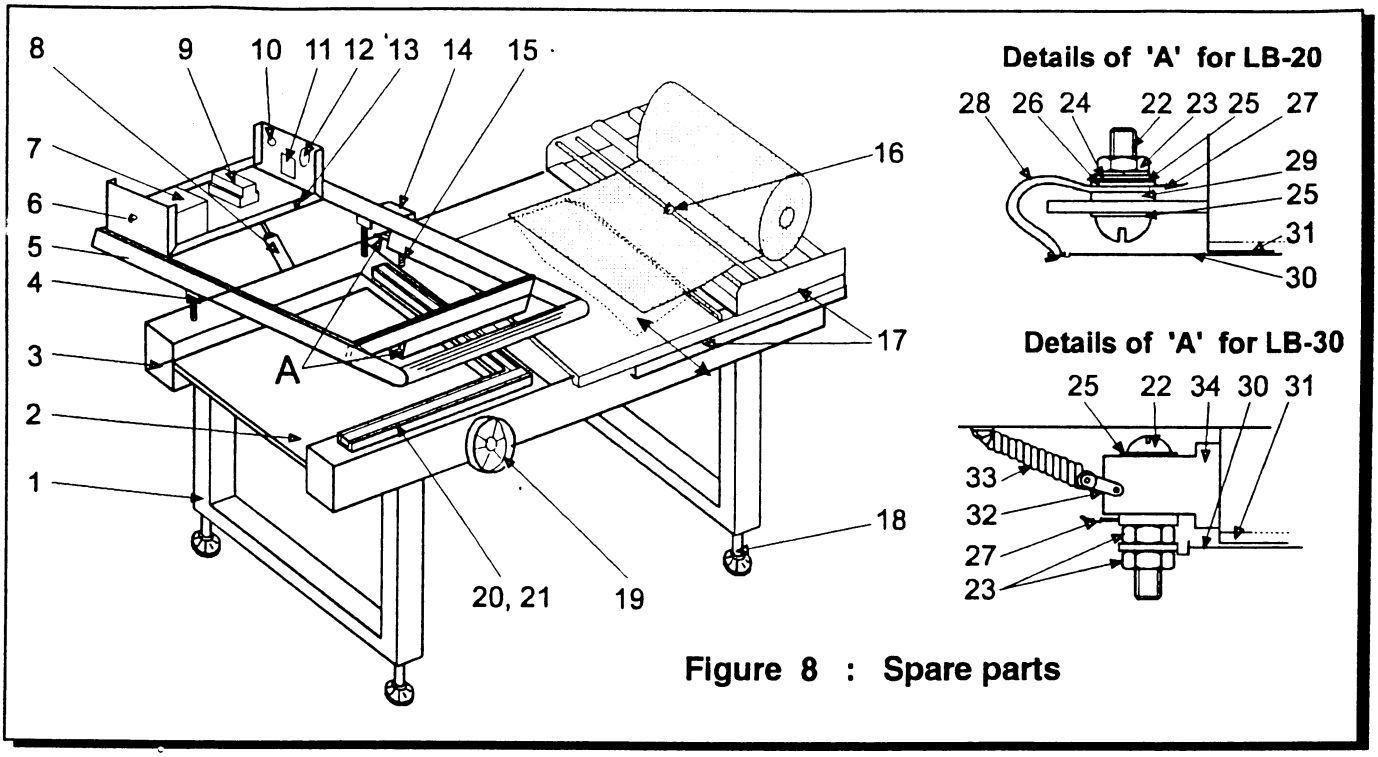


Figure 8 : Spare parts

Table 7 : Spare parts list

S.NO	DESCRIPTION	S.NO.	DESCRIPTION
1	Body legs	18	Leg feet
2	Adjustable height table	19	Table height adjusting wheel
3	Body frame	20	Aluminium channel
4	Rod end bearings	21	Silicone sealing pad
5	Sealer handle	22	Screw
6	Fuse	23	Nut
7	Transformer	24	Lock washer
8	Shock absorber	25	Steel washer
9	Contactor	26	Fibre washer
10	Indicator lamp (power)	27	Lug
11	I C timer	28	Spring terminal
12	Power On/Off switch	29	Bakelite washer
13	Indicator lamp (sealer)	30	Sealing wire
14	Micro switch	31	Teflon tape
15	Micro switch actuating screw	32	Chain link
16	Film perforator roller	33	Spring
17	Film dispenser / Feed table	34	Bakelite block