# E100 FABRIC DOOR

(Motor operator & fullVisison panel)



### **PREFACE**

The main purpose of this manual is to assist with the installation and maintenance of your new **E100** *Fabric Door* system with the emphasis on proper installation procedures, safety of operation, and replacement parts list. While various construction and electrical procedures are outlined, please refer to particular codes for you area.

## **INTRODUCTION**

#### DOOR PARTS

The Shop Drawing on the following page shows the major components of the *E100 Fabric Door*. (For more detail, please refer to the parts list near the end of this manual.)

Please define all parts by the names shown on this drawing and throughout this manual. When technical information and or replacement parts are required, please provide the following data to ensure prompt and efficient service.

1) The **SERIAL NUMBER** of your door system 2) The **OPENING SIZE** (width x height) 3) The **TYPE & HANDING OF OPERATOR** (left or right) 4) The operator motor voltage



## **INSTALLATION INSTRUCTIONS**

#### **STEP "A" – PREPARATION OF THE DOOR OPENING**



Although the actual mounting procedures are different between steel and masonry walls common prerequisites are required for all door systems.

All door systems will require a certain amount of headroom and side room clearances. See Shop Drawing supplied with each door for specific details

All door systems must be mounted level. Draw a reference line at a distance equal to the overall height of the guide above the floor extending to the extremities of the side room clearances. Take extreme care to ensure that this line is straight and level because the entire door is positioned according to this reference line. A transit or water hose level is recommended.

All mounting surfaces must be flat and flush to each other.

#### **STEP "B" – INSTALLING THE DOOR GUIDES**



Regardless of which way **YOU** decide to attach the Guides to the existing wall (typical cross sections of Guide mounting suggestions are shown above), the Guides must be: **PERPENDICULAR** (90°) to the reference line within 1/4" along the complete height of the Guide. **PARALLEL** to each other within 1/4" along the complete height of the Guide.

**LEVEL** at the top of the Guide within 1/4" over the entire width of the door. The top of the guides must be at the reference line height (see illustration above). The Guide Opening Width (tip to tip) measurement can be found on the front cover page. (see illustration below for tip to tip location)



#### **STEP "C" – INSTALLING THE HEADER ASSEMBLY**



The Header Assembly should be hoisted into position with two (2) slings around the Curtain and Drive Barrel **ONLY.** *Extreme care must be taken to avoid damage to the Curtain and the Reversing Edge.* Once the door has been hoisted up into position, loosely bolt the Head Plates to the Guides using the four (4) bolts with flat washers, lock washers, and hex nuts which were supplied with door. The Header Assembly should be leveled (for guidance use the top of the Head Plates and the reference line). Tighten all four (4) mounting bolts. This may require final adjustment after the Curtain is hanging in the opening.

#### CAUTION!! DO NOT UNTIE THE ROPES FOR THE CURTAIN AT THIS TIME.

#### STEP "D" –INSTALLING THE DOOR OPERATOR



#### **STEP "E" – ADJUSTING THE CURTAIN**

The ropes keeping the Curtain wrapped on the Drive Barrel can now be removed only if Step "D" has been completed. After the ropes have been removed manually feed the Bottom Bar and Curtain into the top of the Guides and lower the door to the almost closed position.

The Drive Barrel must be centered at this time. To accomplish this, loosen the set screws in both of the Flanged Bearings on the Head Plates and shift the Drive Barrel into position. Check to ensure the Drive Barrel is centered by measuring the space between the inside of the Head Plate and the edge of the Drive Barrel. This distance should be equal at both ends of the Drive Barrel. Re-tighten all set screws so that the Drive Barrel can not shift at a later date.

The Arms on the Bottom Bar should be centered within the Guide's from side to side. If they aren't raise and or lower the Head Plates as necessary. Once the Bottom Bar is centered and the Curtain is hanging straight in the guides, tighten the Head Plate bolts. Return the door to the midway point.

#### **STEP "F" – CONNECTION OF THE REVERSING EDGE**



Attach the preassembled Reversing Switch Box to the Bottom Bar using the two (2) screws found inside the Switch Box. Attach the Coil Cord to the Bottom Bar using the Coil Cord Clip found inside the Switch Box. Connect the Coil Cord to the terminal strip located in the Control Panel.

Attach the coil cord strain relief to the coil cord strain relief bracket. The coil cord strain relief bracket is mounted at approximately half opening height. Use the existing guide bolts. Once the coil cord strain relief bracket is attached to the door feed the coil cord through the strain relief until there is enough coil cord for the bottom bar to travel the full opening height without restriction. See diagrams below.

Caution!! Too much slack in the coil cord may cause it to get caught or break the photocell beam and reverse the door. Too little slack in the coil cord may cause damage.

COIL CORD RESTRAINT INSTALLATION

#### **STEP "G" MOUNTING THE OPTIONAL PHOTOCELL**

The mounting procedures for both a thru beam photocell and reflective photocell are the same. For a thru beam photocell there will be a light source and a receiver. For a reflective photocell there will be a light source and a reflector. Preassemble the photocell and reflector to the brackets as illustrated below. The photocell mount attaches to the photocell bracket using the 1/4" bolts, flat washers, lock washers, and hex nuts supplied. The reflector mounts directly to the reflector bracket using the #10 screws and flanged lock nut supplied. All of the brackets mount to the guide the same way, using the existing guide bolts that are 25" up from the bottom of the guides. Remove the existing Guide Bolts and lock washers and place the bracket on the guide bolts and reinstall the Guide Bolts and lock washers that you just removed. Be sure to run the cord from the photocell through the supplied cord clip and attach the cord clip to the lower guide bolt as illustrated to keep the photocell cord secure. Adjust the alignment of the photocell as necessary and tighten all of the mounting hardware.



#### **STEP "H" – WIRING TO THE CONTROL PANEL**

#### Consult local electrical codes before proceeding with permanent installation.

#### WARNING!

Exercise caution when engaging the electric operator. The drive and limit chains are exposed and if turning could cause injury.

Wiring instructions can be found inside the Control Panel. Mount the Control Panel as required and connect the Control Panel to a properly grounded supply.

# **Trouble Shooting**

Although every situation that may occur cannot be anticipated the following trouble shooting guide covers some of the more common circumstances.

Problem	Possible Cause	Solution
Curtain Hangs up	-Guide gap is too narrow -Bottom Bar not centered between guides -Drive Barrel Shifted to one side -Guides installed incorrectly	-Check and adjust guide gap if necessary -Raise or lower one side of the header -Center drive barrel between head plates -Reinstall guides
Door does not operate electrically	-Blown Fuse -Tripped breaker -Tripped motor overload -Door disconnect turned off -Manual chain hoist not returning properly	-Check fuses and replace if necessary -Check circuit breaker in building - Reset overload -Turn on door disconnect -Reset Chain Hoist
Door reverses when closing	-Sensitivity on floor loop too high -Sensitivity on reversing edge too high -Coil cord tripping photocell -Photocells misaligned	-Adjust loop sensitivity -Adjust reversing edge sensitivity -Ensure coil cord can travel through full range of motion freely and adjust/trim if necessary -Realign photocells
Reversing edge does not reverse door	-Sensing tube is kinked -Sensitivity set too low -Hole in reversing edge -Wired incorrectly -Faulty switch -Faulty relay	-Check sensing tube for kinks in box and from box to reversing edge and replace if necessary -Increase sensitivity -Replace reversing edge - Trace wiring -Replace switch - Replace relay
Photocell does not reverse door	-Sensitivity set too low -Wired incorrectly	-Raise sensitivity -Trace wiring
Open button closes door/Close button opens door	-Phasing from incoming power is incorrect	-Reverse any two Motor Leads at the Motor (L1, L2, L3)
Motor starts up but door does not move/trips overload	-Brake is not releasing	-Check brake connections for loose wires and for correct wiring to terminals
Door slips when it stopsBrake swornAdjust and/or replace brake		
-Adjust and/or replace brake		

For further assistance call (905) 670 -1200

# MAINTENANCE & REPAIR

Due to the unique design features of your new *E-100 Fabric Door*, the need for continual maintenance normally associated with conventional door systems (i.e.: guide rollers, hinges, door tracks, etc.) is virtually eliminated. The limited maintenance procedures listed below, when completed as indicated, will assure many years of trouble free operation.

MAINTENANCE PROCEDURE	AFTER INITIAL 1 500 CYCLES	EVERY 25 000 CYCLES OR 3 MONTHS	EVERY 100 000 CYCLES OR 12 MONTHS	
LUBRICATION				
	DO NOT GREASE C	URTAINS OR GUIDES		
Flange Bearing (2)	No	No	Grease, one (1) shot	
Clutch	Check	Check	Check Level	
Brake	Check		(Check)	
ADJUSTMENTS				
(Check and adjust if necessary)				
Guide Opening – 7/8" +/- 1/16"	No	Yes	Yes	
All Fasteners – Tighten if necessary	Yes	Yes	Yes	
Limit Settings	Yes	Yes	Yes	
Brake Pad Wear	No	No	Yes	
Reversing Edge	Yes	Every Month	Yes	
Coil Cord (see below)	Yes	Yes	Yes	
(Check for proper operation & signs of damage)				

to travel the full opening height without restriction. Failure to do so could result in damage to the door.

#### IN CASE OF DOOR IMPACT

Prior to performing any repair to the door, **DISCONNECT ELECTRICAL POWER** to the door system. A close inspection of the Vision Panel Hinges, Bottom Bar and the Reversing Edge is necessary for any signs of damage. In addition to the procedures listed below, always check limit settings, adjust if necessary.

#### IF CURTAIN IS PULLED OUT OF GUIDES

#### TURN THE ELECTRICAL POWER SUPPLY TO THE DOOR OFF.

Place the disgorged end of the bottom bar to the front of the guide face. Reconnect the power. Cycle the door using the Operator being prepared to stop the door if it is not operating properly. Adjust the Limits if required.

#### DAMAGE TO THE BOTTOM BAR

#### TURN THE ELECTRICAL POWER SUPPLY TO THE DOOR OFF.

If the Bottom Bar is bent, remove and straighten it before commissioning the door for normal operation. If the Bottom Bar is bent beyond repair, a new Bottom Bar must be ordered and installed before the door can be recommissioned for normal operation.

#### **DAMAGE TO THE GUIDE**

The Guide must be straightened or replaced. The Guide Opening (the gap between the Back and Front Plates) must be 7/8" from top to bottom within 1/16" either way. If this cannot be achieved, new Guide parts must be ordered and installed before the door can be re-commissioned for normal operation.

#### SET REVERSING EDGE SWITCH SENSITIVITY



- 1. Connect an OHM meter to the two (2) silver terminals.
- 2. Turn the white nylon screw counter clockwise until the meter shows the resistance
- 3. Slowly turn the white screw clockwise until the meter shows resistance. This is a reference point.
- 4. Turn the white screw counter clockwise by 3 or 4 marks on the switch housing. This will register no resistance on the OHM meter and set the contact gap.
- 5. Replace the Switch Box Cover and test the door for proper operation.



PROCEDUI	ANCE RE	AFTER INITIAL 1 500 CYCLES	EVERY 25 000 0 OR 3 MON		EVERY 100 CYCLES OF MONTHS	R 12
LUBRICATION						
		DO NOT GREASE CU	URTAINS OR GU	IDES		
Flange Bearing (2)		No No		Grease, one (1) sh		) shot
Clutch		Check Check		Check Level		el
Brake		Check			(Check)	
ADJUSTME						
Check and adjust	st if necessary)					
Guide Opening – 7/8" +/- 1/16"		No	Yes		Yes	
All Fasteners necessary	– Tighten if	ten if Yes Yes			Yes	
Limit Setting		Yes	Yes		Yes	
Brake Pad W	ear	No	No		Yes	
Reversing Ed		Yes	Every Mor	ith	Yes	
Coil Cord (se		Yes	Yes		Yes	
Check for prope signs of damage)						
signs of damage		<u> </u>		I		
IEM NO.		.4		DESCRIP TION	PART NO.	NO. REQ D
1 1	Left Guide A	ssembly – Complete			1	each
		Left Front Plate)			1	each
e	Assembly – Complete			1	each	
2		t Right Front Plate)			1	each
3	Curtain – Cor	mplete ttom Bar Assembly – (specify ]	handina)		l 1	each each
		tiom Bar Assembly – (specify				eacn
					1	
		Bottom Bar only - non-handed	d)		1	each each
	(replacement (replacement	Bottom Bar only – non-handed t Reversing Edge – non-handed nt Bottom Bar Arm – includes 2	d) d)		1 1 2	each
	(replacement (replacement) (replacement)	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip)	d) d) 2 pcs/side)		1 1 2 1	each each each each
	(replacement (replacement (replacement (replacement	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem	d) d) 2 pcs/side) nbly)		1 1 2 1 1	each each each each each
5	(replacement (replacement (replacement (replacement Free End Hea	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha	d) d) 2 pcs/side) nbly)		1 1 2 1 1 1	each each each each each each
5	(replacement (replacement (replacement (replacement Free End Hea (replacement	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only)	d) d) 2 pcs/side) nbly) anding)		1 1 2 1 1 1 1 1 1	each each each each each
5	(replacement (replacement (replacement (replacement Free End Hea (replacement (replacement	Bottom Bar only – non-handed t Reversing Edge – non-handed t Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing)	d) d) 2 pcs/side) nbly) anding)		1 1 2 1 1 1 1 1 1 1	each each each each each each each
	(replacement (replacement (replacement (replacement Free End Hea (replacement (replacement Drive End Hea (replacement	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify I Drive End Head Bracket only)	d) d) 2 pcs/side) nbly) anding) ) handing)		1 1 2 1 1 1 1 1 1 1 1	each each each each each each each each
6	<ul> <li>(replacement (replacement</li> <li>(replacement</li> <li>(replacement</li> <li>Free End Heat</li> <li>(replacement</li> <li>(replacement</li> <li>Drive End Heat</li> <li>(replacement</li> <li>(replacement</li> <li>(replacement</li> <li>(replacement</li> </ul>	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify ha Drive End Head Bracket only) t Drive Barrel Flanged Bearing	d) d) 2 pcs/side) nbly) anding) ) handing)		1 1 2 1 1 1 1 1 1 1 1 1 1	each each each each each each each each
	<ul> <li>(replacement (replacement</li> <li>(replacement</li> <li>(replacement</li> <li>Free End Heat</li> <li>(replacement</li> <li>(replacement</li> <li>(replacement</li> <li>(replacement</li> <li>(replacement</li> <li>(replacement</li> <li>(replacement</li> <li>Orive Barrel</li> </ul>	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify I Drive End Head Bracket only) t Drive Barrel Flanged Bearing Assembly – Complete	d) d) 2 pcs/side) nbly) anding) ) handing)		1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	each each each each each each each each
6	(replacement (replacement (replacement (replacement Free End Hea (replacement (replacement Drive End Hea (replacement (replacement (replacement Drive Barrel (replacement	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify I Drive End Head Bracket only) t Drive Barrel Flanged Bearing Assembly – Complete Drive End Plug)	d) d) 2 pcs/side) nbly) anding) ) handing)		1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	each each each each each each each each
6 7	<ul> <li>(replacement (replacement</li> <li>(replacement</li> <li>(replacement</li> <li>Free End Heat</li> <li>(replacement</li> <li>(replacement</li> <li>Drive End Heat</li> <li>(replacement</li> </ul>	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify I Drive End Head Bracket only) t Drive Barrel Flanged Bearing Assembly – Complete Drive End Plug) t Free End Plug)	d) d) 2 pcs/side) nbly) anding) ) handing) ) g)		1 1 1 1 1 1 1 1 1 1 1 1 1 1	each each each each each each each each
6	<ul> <li>(replacement (replacement</li> <li>(replacement</li> <li>(replacement</li> <li>Free End Heat</li> <li>(replacement</li> <li>(replacement</li> <li>Drive End Heat</li> <li>(replacement</li> </ul>	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify ha Drive End Head Bracket only) t Drive Barrel Flanged Bearing Assembly – Complete Drive End Plug) t Free End Plug) t Free End Plug) odel M J H B – Complete (see	d) d) 2 pcs/side) nbly) anding) ) handing) ) g)		$ \begin{array}{c} 1\\ 1\\ 2\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\$	each each each each each each each each
6 7	<ul> <li>(replacement (replacement</li> <li>(replacement</li> <li>(replacement</li> <li>Free End Heat</li> <li>(replacement</li> <li< td=""><td>Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify I Drive End Head Bracket only) t Drive Barrel Flanged Bearing Assembly – Complete Drive End Plug) t Free End Plug)</td><td>d) d) 2 pcs/side) nbly) anding) ) handing) ) g)</td><td></td><td>1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td>each each each each each each each each</td></li<></ul>	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify I Drive End Head Bracket only) t Drive Barrel Flanged Bearing Assembly – Complete Drive End Plug) t Free End Plug)	d) d) 2 pcs/side) nbly) anding) ) handing) ) g)		1 1 1 1 1 1 1 1 1 1 1 1 1 1	each each each each each each each each
6 7 8	<ul> <li>(replacement (replacement</li> <li>(replacement</li> <li>(replacement</li> <li>Free End Heat</li> <li>(replacement</li> <li>(replacement</li> <li>Drive End Heat</li> <li>(replacement</li> &lt;</ul>	Bottom Bar only – non-handed t Reversing Edge – non-handed at Bottom Bar Arm – includes 2 Coil Cord c/w Clip) Reversing Edge Switch Assem ad Plate Assembly – (specify ha Free End Head Bracket only) Drive Barrel Flanged Bearing) ead Plate Assembly – (specify I Drive End Head Bracket only) t Drive Barrel Flanged Bearing Assembly – Complete Drive End Plug) t Free End Plug) t Free End Plug) odel M J H B – Complete (see eplacement parts)	d) d) 2 pcs/side) nbly) anding) ) handing) ) g)		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	each each each each each each each each

All E 100 door systems manufactured by Service Door Industries (SDI) are warranted

fromthedateofpurchaseagainstdefectsinmaterialandworkmashipasfollows: door system in general...One (1) year; and curtain (where applicable)...Two (2) year warranty against manufacturing defects.

If within this period of time any parts are found to be defective, new or remanufactured parts will be furbished free of charge, F.O.B. our plant in Mississauga, Ontario, Canada, provided that the recommended installation and maintenance procedures (as outlined in this Installation Instructions and Service Manual booklet) have been followed.

This Limited Warranty does not include replacement parts due to normal wear and tear, damage beyond the control of SDI (i.e.: damage in transit, impacts etc.).To validate your warranty the preventative maintenance schedule within this manual must be recorded and up to date.

This Warranty is limited, and in lieu of other warranties expressed Or implied. There is no expressed liability due on the part of the seller.

An authorized SDI distributor from whom the purchase was made must make warranty claims, and the defective parts returned for verification within 15 days prepaid to:

