ONE SOURCE. **ONE SOLUTION.**
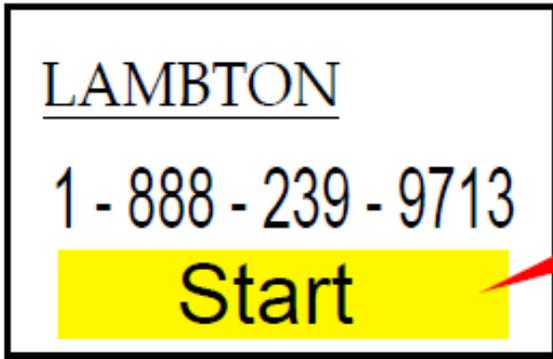
V 2010

Electric Controls for Turn-head or Single inlet Pendulum Distributor Installers Manual

Operation Manual   **Start Up Mode**

LAMBTON

1 - 888 - 239 - 9713

Start

This screen is the first screen that is displayed when the control unit is energized.
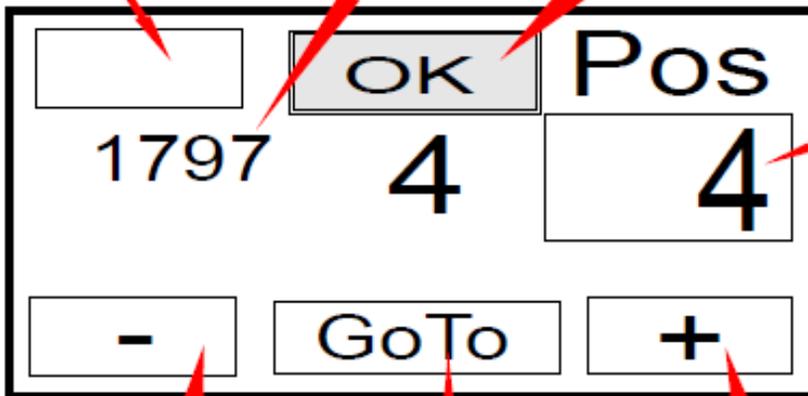
Press the **Start** button to get into operation mode

Encoder Value

Port Indicator
The distributor is in position if the OK, GoTo # and Pos # are the same

BACK
Return to start screen

OK   Pos

1797   4   4

Pos - Position
Indicating the current position of the Port

-     GoTo   +

Port Selection
Use the (+), (-) buttons to select port position
Note: While the unit is moving the screen will stay wait.

Port Selection
Use the (+), (-) buttons to select port position
Note: While the unit is moving the screen will stay wait.

GOTO
Advance the unit to select port.

Table of Contents

User Guide

This screen is the first screen that is displayed when the control unit is energized.

Press "**Start**"
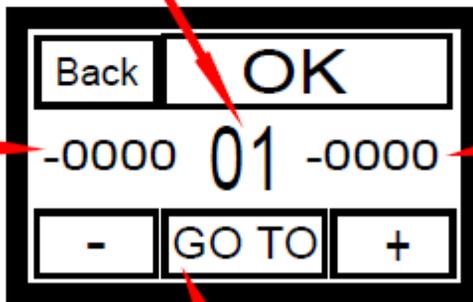
LAMBTON V2.2
1 - 888 - 239 - 9713
Start
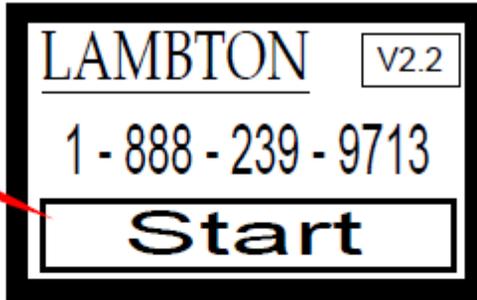
Actual Port Position

When "**Start"** is selected
this will screen appears

Assigned numbers for
current position of Port

Back OK

Current position
of arm

-0000 01 -0000

- GO TO +

Push " **–** " or " **+** " to select desired port,
then push "**GO TO"** this will start to move
to port position

If you see this screen
Remote Acc ON
The controller is receiving a
Remote Input Command

Remote
Acc ON

Errors guide

Overload Error
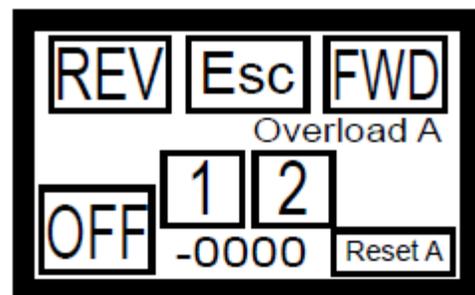Press **Reset** and **ECS**, if this continues
This could be one of two problems,
1 - motor seized or 2 - encoder failed
Step 1 test motor, check leg for physical obstructions
to motor, then push and hold **FRW** or **REV** to verify
motor is moving, if not then test encoder
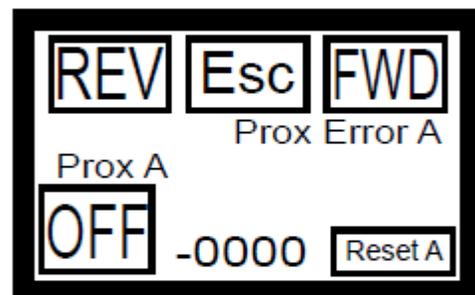Step 2 test encoder
Step 3 Check motor cables

```
REV  Esc  FWD
        Overload A
     1  2
OFF  -0000  Reset A
```

Prox Error
Confirm location of Prox, (visually inspect prox)
phyical confirm all positions
refer to page 9 for prox location.
In case of emergency unplug prox

```
REV  Esc  FWD
        Prox Error A
Prox A
OFF  -0000  Reset A
```

Cross Wire Error
If this error occurs during installation refer to page 6
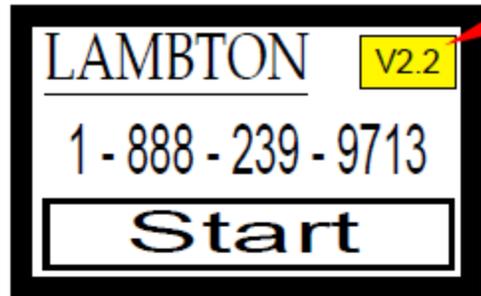if occurs after, test Finder Relay
physically confirm all positions
if cross wire has been corrected **OK** will appear while
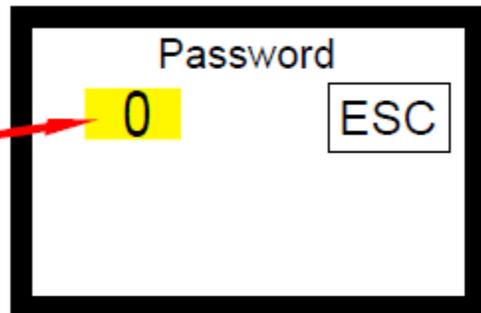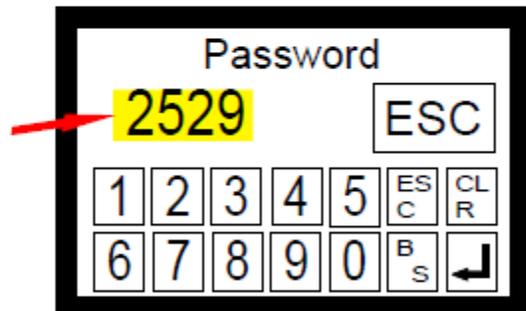your holding the **FRW** or **REV** Button

```
Cross Wire A Error  Esc
OK  Check Finder Relay
    56.32.9
REV  -0000  FWD
```
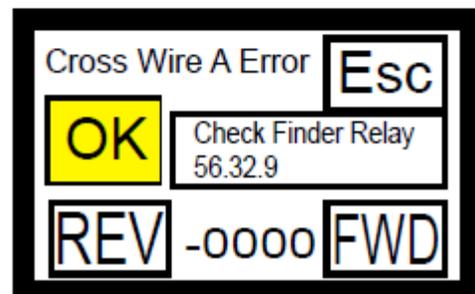
Installation Guide

Hidden Button

Press and hold top right for 4 seconds to get into the set up mode

LAMBTON	V2.2
1 - 888 - 239 - 9713	
Start	

Push on Numbers
Keypad will appear

Password

0   ESC

Enter setup password
2529

Password

2529   ESC

1	2	3	4	5	ESC	CLR
6	7	8	9	0	BS	↵

After entering password
2529 then press Enter

Password

2529   ESC

1	2	3	4	5	ESC	CLR
6	7	8	9	0	BS	↵
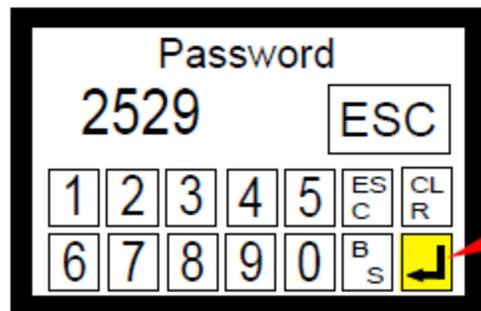
Setting up Number of Ports

Step 1
To set the number of ports
Press the **numbers** and a key pad
    will appear

ESC	Save A	Other

# of A Ports   Home Prox A

00   Ports

Step 2
Enter number of ports
then press "**Enter**" (↵)

```
7 8 9
4 5 6
1 2 3
0    ↵
```

08

Step 3
This screen appears next, we are
going to set the "**Home Prox A**"
position, press this button

**(Note that some models do
not include a proximity sensor
and rely only on the encoder
for positioning)**

ESC	Save A	Other

# of A Ports   Home Prox A

08   Ports
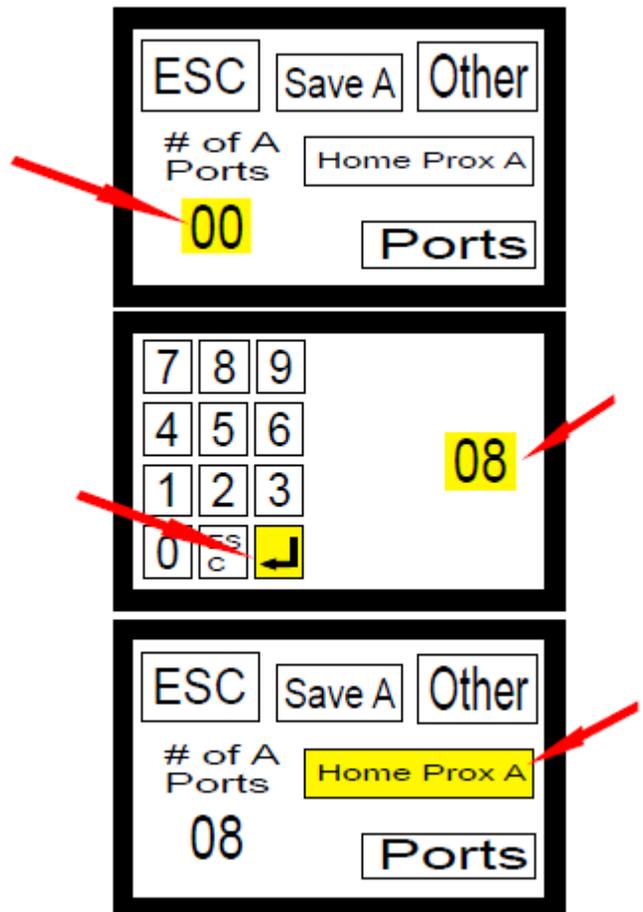
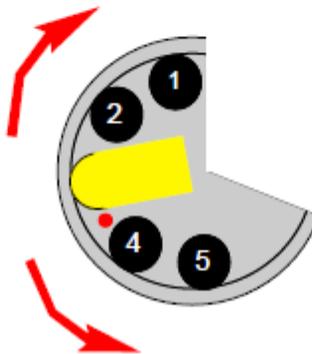# Setting up Port Positions

Step 5

This screen appears next
Don't press any buttons yet,
This next step requires two people
we are first going to check if the
motor and the encoder are wired
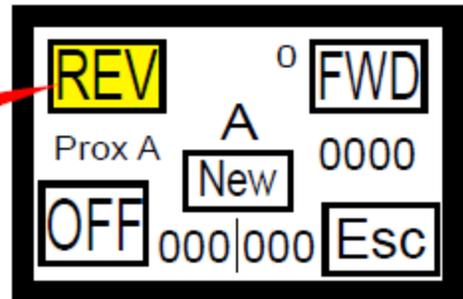correctly
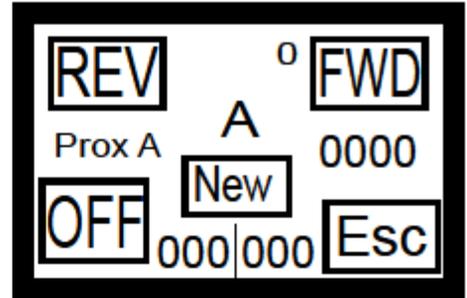
Motor Direction And Wiring

Step 6

The diagram to the right is the pendulum,
before beginning confirm that it has room
to move in both directions.

Motor Direction And Wiring

Step 7

If free from obstructions
Press "**REV"** briefly to confirm
proper direction, it should move
towards Port 1

Note: If the arm is moving in the opposite direction, (rev arm will move towards Port 1)
in the panel, cross motor leads (Finder Relay)
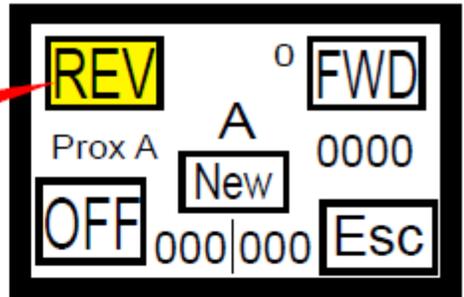then reconfirm proper direction.
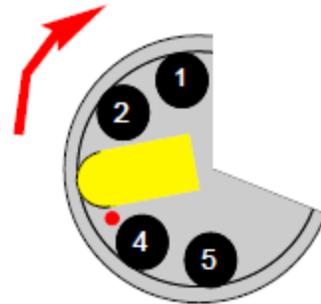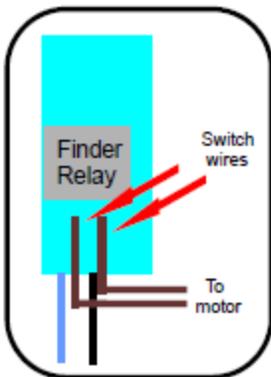
Cross Wire Error

If this error occurs during installation refer to page 5
if occurs after, test Finder Relay
physically confirm all positions
if cross wire has been corrected **OK** will appear while
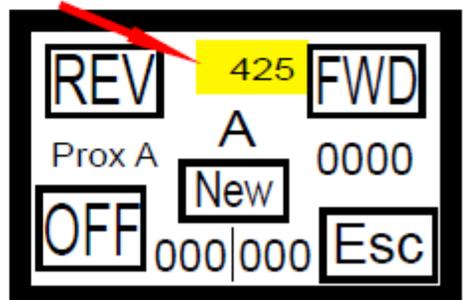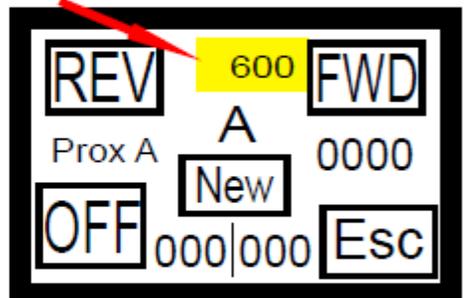your holding the **FRW** or **REV** Button
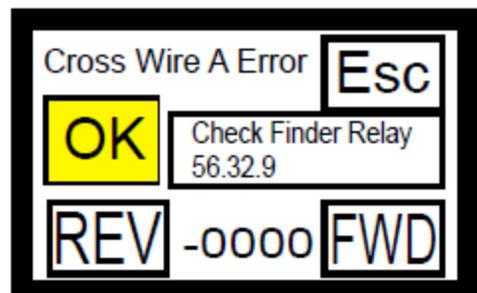
Encoder Values And Wiring

Step 8

Once motor is moving in the proper direction
and the arm is free from obstructions
Press "**REV"** briefly to confirm **Encoder values**
are **counting down**

REV   0 FWD
Prox A   A   0000
OFF 000|000 Esc

Note: If the Encoder Values is moving in the opposite
direction, in panel cross wires "**X0"** and "**X1"** then
reconfirm proper direction.

REV   600 FWD
Prox A   A   0000
OFF 000|000 Esc

3 High Terminal Blocks

Switch
wires

To
Encoder

REV   425 FWD
Prox A   A   0000
OFF 000|000 Esc
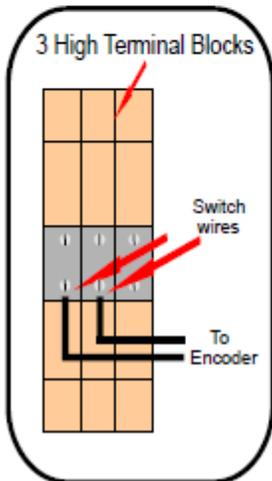
Setting up Port Positions
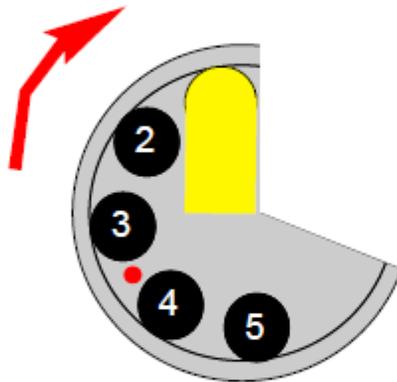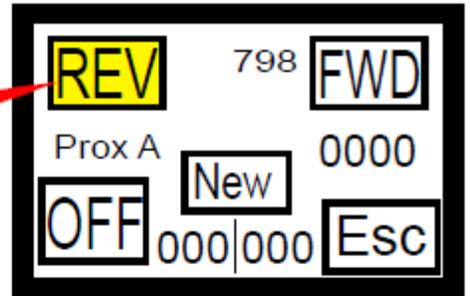
Step 9

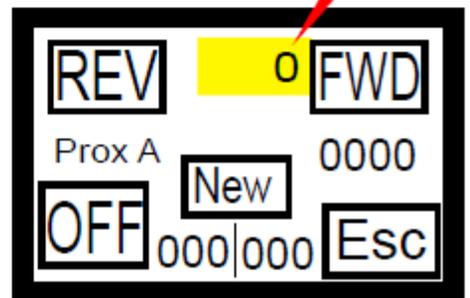Once Encoder is moving in the proper direction
and the arm is free from obstructions
Press "**REV"** so that the arm is aligned
with Port 1

```
REV      798  FWD
Prox A         0000
        New
OFF  000|000  Esc
```

```
REV       0  FWD
Prox A         0000
        New
OFF  000|000  Esc
```
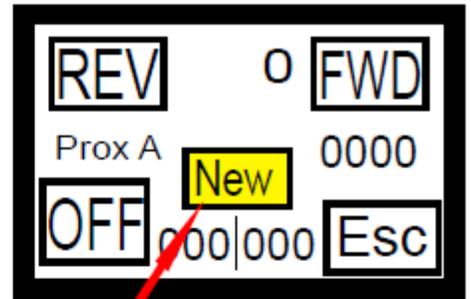
Step 10

Once the arm is aligned with Port 1
Then push and hold "**Reset Encoder"**
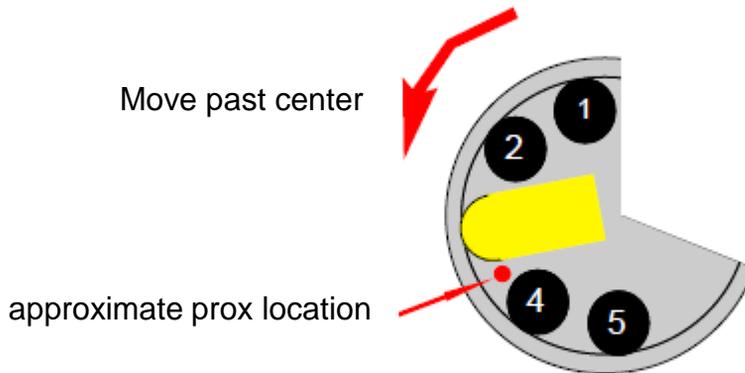Encoder values should go to zero

Setting up Home Prox Position

Step 11

Once encoder is reset to zero and aligned to Port 1
Then press and hold "**NEW"** until you pass the
prox position, this should be near the center of the
flatback unit.

REV	O	FWD
Prox A	New	0000
OFF	000|000	Esc

Move past center

approximate prox location

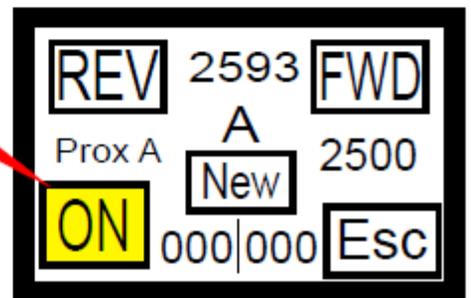**Some units have built in to the encoder
so there is no prox**

Note: When the arm passes over the prox the
"OFF" will change to "**ON"** while in front of the prox.

The home prox location numbers will have changed
in most cases, it will now have been updated.

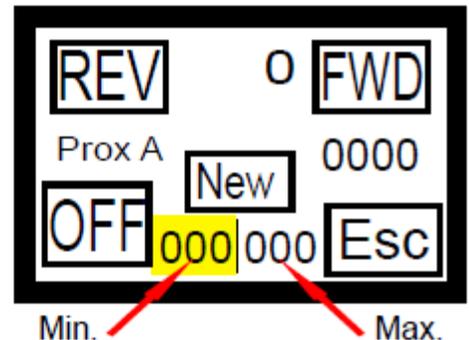| REV	2593	FWD
Prox A	A New	2500
ON	000|000	Esc

Please proceed to Step 12 on Page 10

Setting up Home Prox Window

Step 12

Contact Factory before proceeding with this step.
To set the **Prox Window**, notice the two number
displays, the numbers to the left are the Min. Window
to the right are the Max. Window

Press the " **Min. Number Pad**" on the left first

Step 13

This key pad appears when you push Min.
Number Pad
enter the new Min. Prox Window setting
  Then press "**Enter"** (⏎)
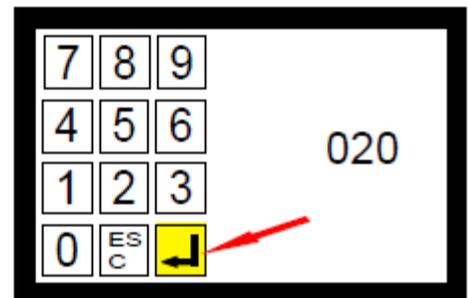
Prox Window

Factory setting for Min. window prox is 100
 and Max. is set at 200
For Example if the home Prox Position is 500
Min. window would be 400 and Max is 700

Setting up Port Positions

Encoder value
for Port

Port #

Esc -0000 < 01 >

Next Port #

0000

Move   -0000

REV   Set A   FWD

Encoder value
Current position

Manual Input
Encoder value
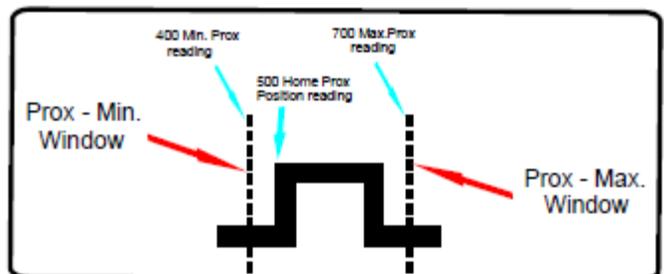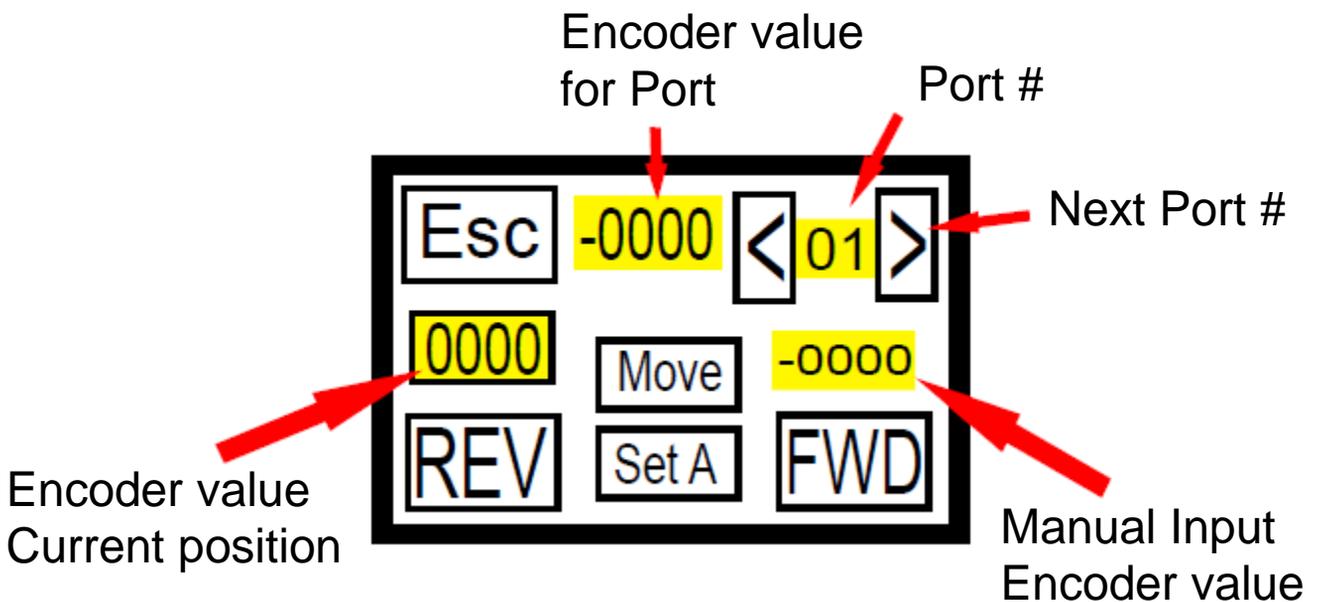
Setting up Port Positions

Step 1 Setting up Ports
Press "**Ports**"
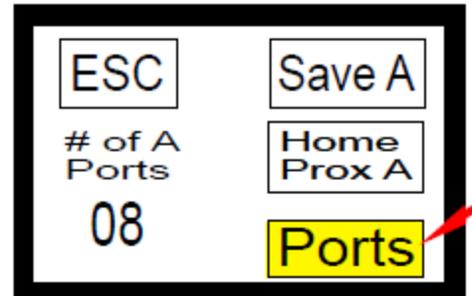
Step 2
To set the number of ports for A
Press the **numbers** and a key pad
will appear
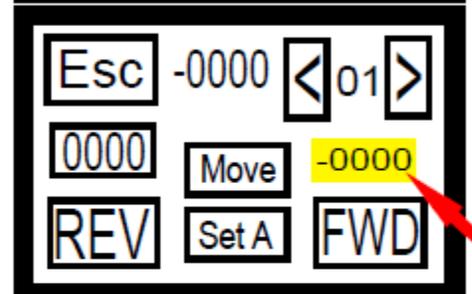
Step 3
Enter the Port 1 position
ex. 0000   Then press enter
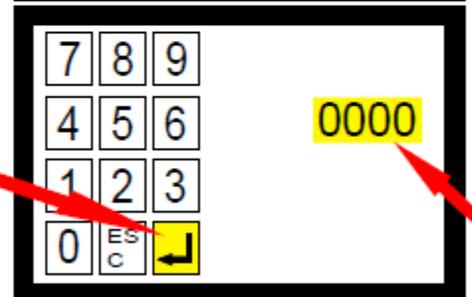
Step 4
Then press "**Set A"**
Now position **Port 1** has been
set to **0000**
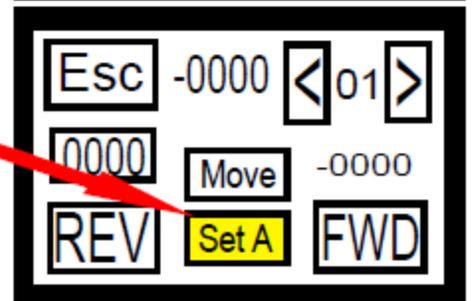
Setting up Port Positions

Step 5
Press **">"** to port # 2
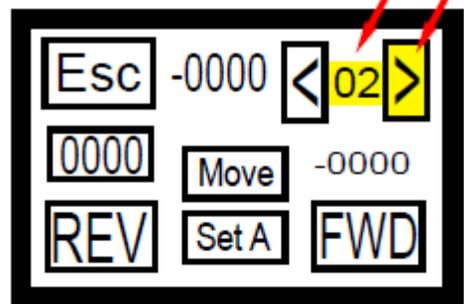
Step 6
Press **0000** a keypad will appear
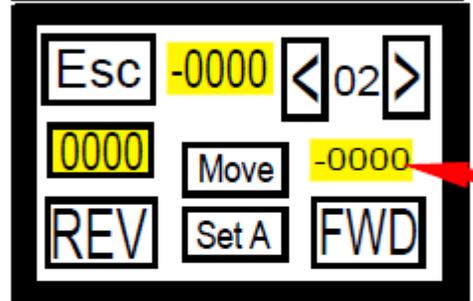
Step 7
Enter port position for
port number **2**
(Ex. 500) Then press ↵
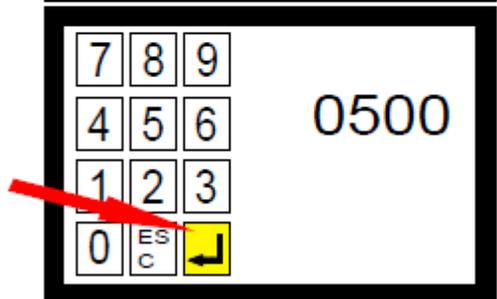
Step 8
Then press "**Set A**"
Now position **Port 1** has been
set to **0000**
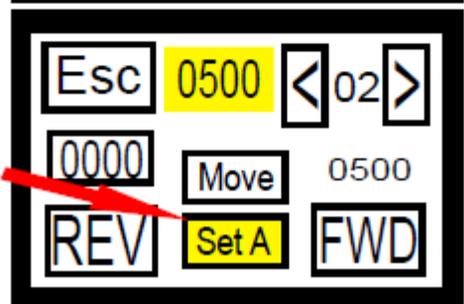
Repeat this process all ports and verify all ports

Setting up Port Positions

Step 9
Press "**ESC**"
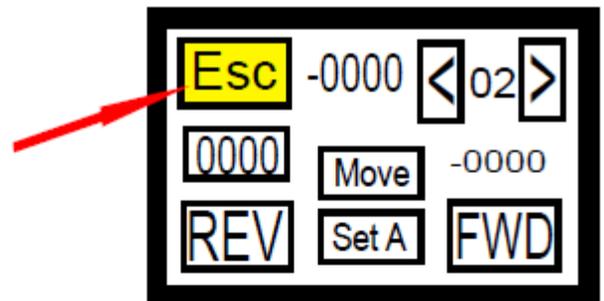
Step 10
Press "**Save A"**
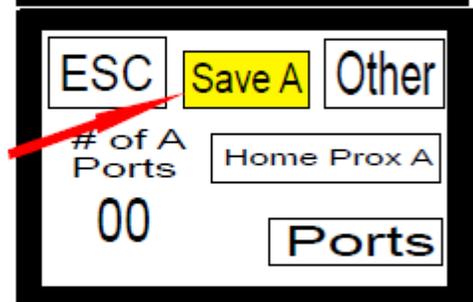
Step 11
Press "**ESC**"
test all positions
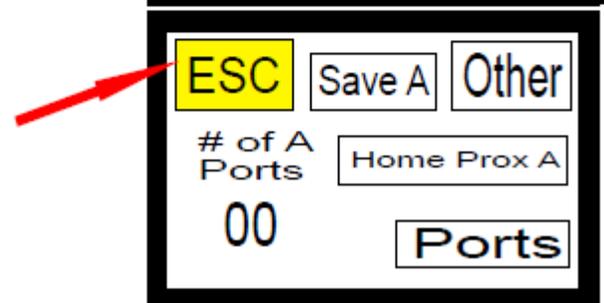
Encoder Values

Port Settings

Port #	Factory Default	Actual Encoder Value	User Assigned Port #
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

Main panel

Prox
Blue com
Brown 24V
Black Signal

1) COM (9)
2) 24VDC (10)
3) CH A (X0)
4) CH B (X1)
5) Prox Signal (X4)

Motor Cable 12 AWG 3

Encoder
White com
Brown 24Vdc
Green CH A
Gray CH B

Remote
Box

Encoder

Motor

Prox

Motor cable

NAME:	LAMBTON CONVEYOR	DATE:
SG-360-120-2013-V0.1		2013-01-01

N

WHITE
WHITE

F1
250AC
2A

E-STOP

L1 BLACK
A1 BLACK 16 AWG
AC1 BLACK
AC1 18 AWG

GRN

120/240 AC INPUT
IMO
DPS-1-018-24
24 DC POWER 18W

L — N

18 AWG — WHITE

GREEN
GRN

+ BROWN

Top of page 2
Power For PLC
24Vdc

− BLUE

GREEN
GRN

Top of page 2
Power For PLC
COM

AC1 18 AWG

120/240 AC INPUT
PANASONIC
FPX-C14R

L — N

18 AWG — WHITE

24V

0

PLC 24VDC NOT USED

F2
250AC
8A

A2 BLACK 16 AWG

AC2

KBMG-212D
120/240 VAC
MAX FUSE 20AMP

L1 — L2

16 AWG — WHITE

Drive A

M1 — A-M1 — XX — BLACK
M2 — A-M2 — XX — WHITE

90VDC 1/2HP

EN COM TACH +15 SIG -15

5K 10K

WHITE — CH0 (V) — COM3
BLACK — CH0 (COM)

BLUE — Y0 — PLC
BROWN — C0

XX — GREEN
GRN

BY:
SADHU GILL

24Vdc

COM

BROWN   BROWN

FPX-C14R

INPUTS

X0   ORANGE   XX   BROWN
                        CH A
                  XX   GREEN

Motor A
ENCODER

X1   ORANGE   CH B
                  XX   GRAY   WHITE   XX

RS232C

X2

X3

X4   ORANGE   XX   BLACK   PROX 1   BLUE   XX   Home-A

            XX   BROWN

X5

X6

BROWN

X7

COM

BROWN 24DC   DC1   BLUE

FPX-C14RS
OUTPUTS

C0   Y0

C1   Y1

C2   Y2

                      Y3

                      Y4

                      Y5

ORANG   5 V DC
BLACK

+   5 V DC   GT01 SCREEN
–   0V

NC

RED   SD   SD
GREEN   RD   RD

NC   RS232C

NC

SG

RS232C
Tool Port

24Vdc

COM

BROWN

+24

COM

AROMAT FP0-E16RS

INPUTS

X0	X20
X1	X21
X2	X22
X3	X23
X4	X24
X5	X25
X6	X26 N/A
X7	X27 N/A
COM	COM 0VDC

ALL INPUTS
24VDC
PNP or NPN
BINARY INPUT

X25 REMOTE GOTO POSITION LEG A (HOLD HIGHT FOR 2SEC).

OUTPUTS

Y0	Y20
Y1	Y21
Y2	Y22
Y3	Y23
Y4	Y24
Y5	Y25 A Inposition OK
Y6	Y26 N/A
Y7	Y27 ERROR
COM	COM
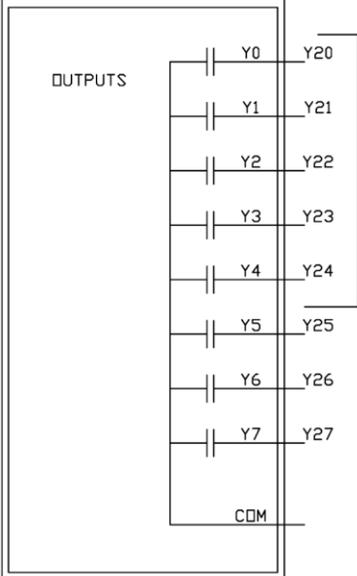
All outputs are
## Relays 250Vac 2amp

BINARY OUTPUTS

INSTRUCTION TO CHANGE AC LINE INPUT VOLTAGE TO 230VAC

115 VAC is the default setting from the factory. To change to 230VAC input voltage, follow the steps outlined below.

1. Locate J1A & J1B jumpers on the DC Drive

Open the small door on top of the drive (typical drive placement) to reveal the J1A & J1B jumpers. The door has a tab near the base of the drive that needs to be released in order to remove the door. If greater access is needed the face plate can also be removed.

DC Drive

J1A & J1B jumpers, shown in default 115VAC position.
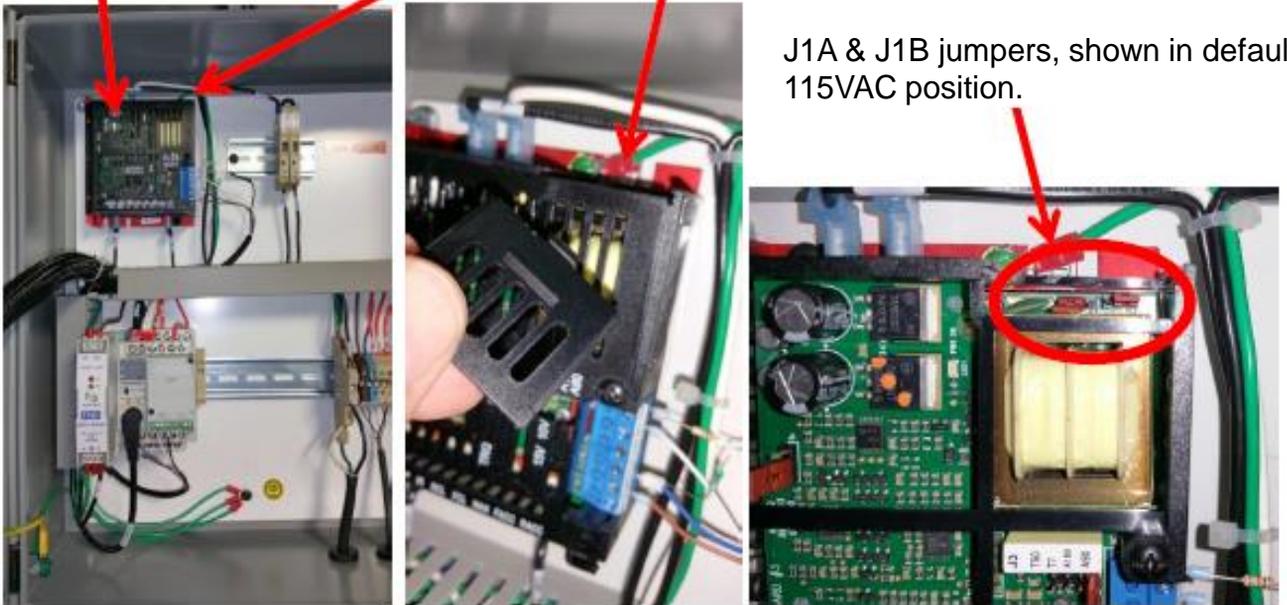
2. To change input voltage to 230VAC move both jumpers to the inside position, as shown below. No other changes are required.

115VAC JUMPER CONFIGURATION
(TYPICAL FACTORY DEFAULT SETTING)

230VAC JUMPER CONFIGURATION