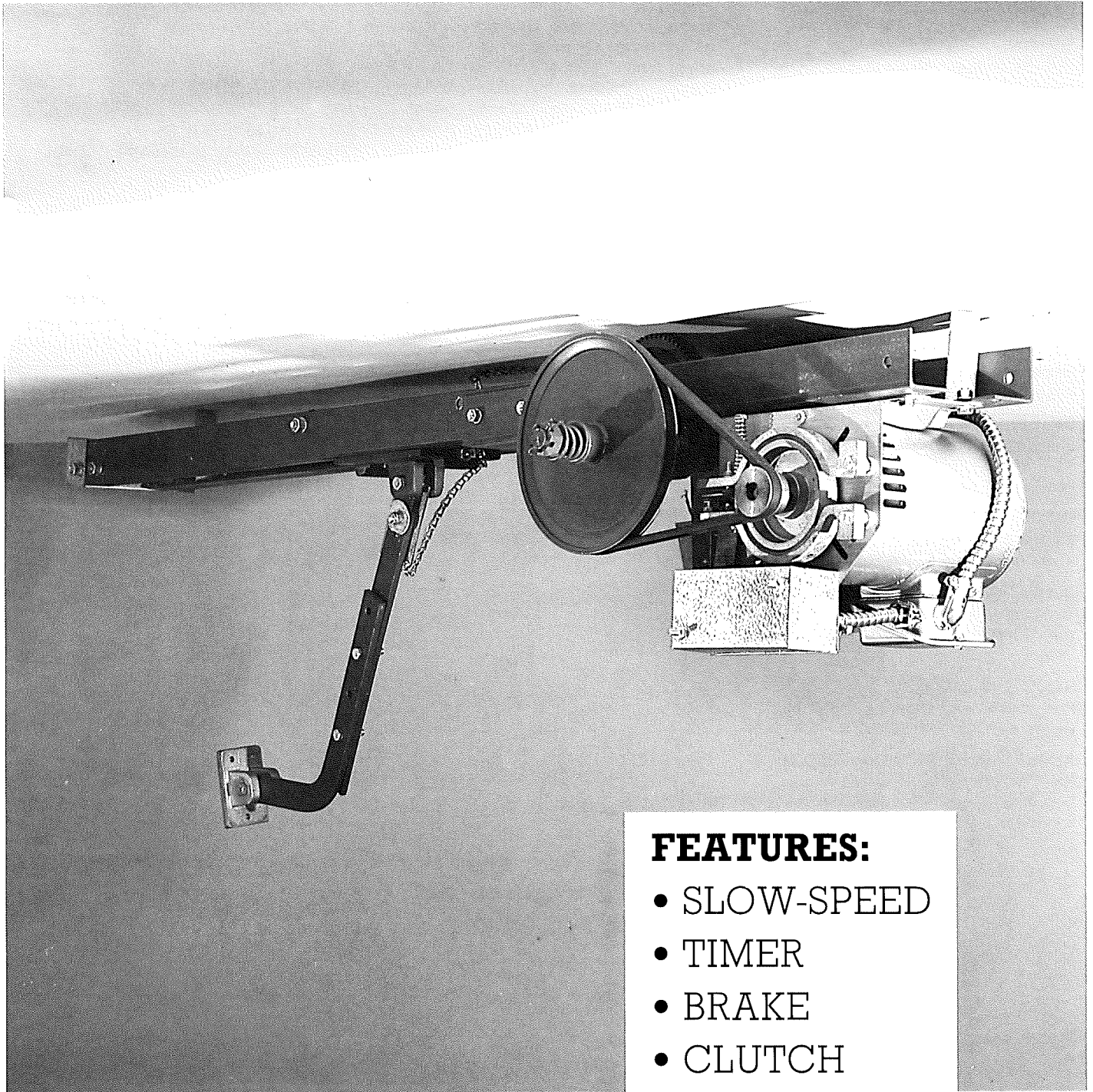


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**MODEL AMRA-ITBC  
APARTMENT HOUSE OPERATOR**

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**FEATURES:**

- SLOW-SPEED
- TIMER
- BRAKE
- CLUTCH



# MODEL AMRA-ITBC APARTMENT HOUSE OPERATOR

## GENERAL INFORMATION

### MOTOR

1/2 H.P., 1 phase, 115 volts, protected by thermal overload.

### BUTTON CONTROL

Door may be stopped in any position and next push of a single button starts door in opposite direction.

### WIRING

Accepts exit & safety loops, electric eyes, keyswitches, etc.

### AUTOMATIC REVERSE

If downward traveling door meets an obstruction, it will automatically reverse and stop at fully open position. This built-in, reversing, load-sensing device is easily adjusted without tools.

### DRIVE

Belt and chain for efficient long lasting quiet operation. Travelling carriage slides on dual heavy-angle tracks with #65 chain drive.

### DISCONNECT DEVICE

Equipped with a quick release arm for manual operation in case of power failure.

### SLOW SPEED

Incorporates a double reduction system to reduce the speed of the operator on solid pivot type doors.

### SOLENOID BRAKE

Prevents door from coasting and to help secure door in closed position.

### ADJUSTABLE FRICTION CLUTCH

Provides safety to operator and door throughout opening and closing cycles and is easily adjusted in field.

### TIMER

If door is closed, push of button starts door up for preset time 0.5 minutes. At the end of the preset time, door closes automatically.

If button is pressed when door is traveling downward, it will reverse to open position and reset timer. If door is in open position and button is pushed, timer is automatically reset for preset time. There will be no response if button is pressed when door is traveling upward.

### MAXIMUM SUGGESTED DOOR HEIGHT

(10'-0")

### HEADROOM

5 cm (2") minimum from door's highest arc of travel.

### BACKROOM

1.2 m (3'-8") plus door height.

### OPTIONAL

#### REVERSE MOUNT

Only 63.5 cm (2'-0") plus door height.

### HEVY DUTY MODIFICATION

# 41 Drive chain available.

## SPECIFICATIONS

### BUTTON CONTROL

Single. Momentary contact type, 24 volts.

### RELAY

Heavy duty latching type.

### OPERATOR CHASSIS

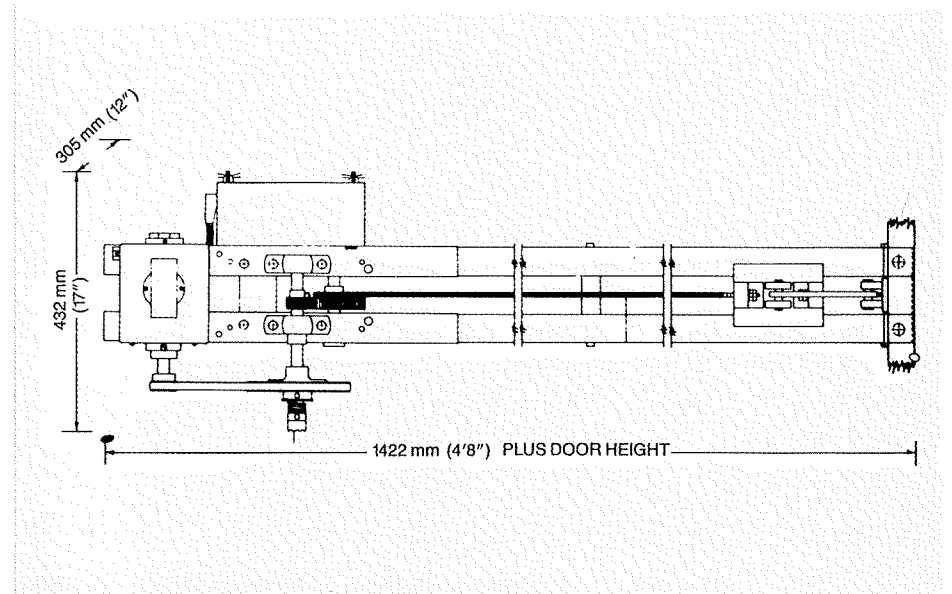
Made from 5 cm x 5 cm x 3.2 mm (2" x 2" x 1/8") steel angles reinforced with a steel channel bracket bolted together for greater strength.

### TROLLEY-TRACK

Made from 5 cm x 5 cm x 3.2 mm (2" x 2" x 1/8") steel angles. An idler riding on two flanged bearings affixed at center of rails prevents chain from rubbing together on 3.3 m (10'-0") doors.

### CONTROL BOX

Made from 1.27 mm (.050") steel with removable aluminium or steel cover.



#### OHIO

P.O. Box 160, Route 66 South  
Archbold, Ohio 43502  
Toll Free: 800-338-5399  
Telephone: 419-445-1010  
FAX: 419-446-2616

#### NEW JERSEY

25 McLean Boulevard  
Paterson, New Jersey 07544  
Toll Free: 800-234-5969  
Telephone: 201-278-5588  
FAX: 201-742-9832



**Napoleon/Lynx**  
Napoleon Spring Works Inc.  
A Lynx Company

#### GEORGIA

Stone Mountain Garage Door Products  
2395 Pleasantdale Road #7  
Doraville, Georgia 30340  
Toll Free: 800-235-7965  
FAX: 404-446-3569

#### CALIFORNIA

15801 Stagg Street  
Van Nuys, California 91406  
Toll Free: 800-369-6351  
Telephone: 818-908-9935  
FAX: 818-908-1151

## MODEL AMRAITBC

### TROLLEY TYPE APARTMENT HOUSE OPERATOR

Drawbar type opener designed for apartment house garage doors for use on high traffic sectional or solid pivot type doors. Equipped with terminal strip for radio control operation, single button control to open, close, reset, and reverse door when closing. Opener is shipped unassembled.  
Shipping weight 95 lbs.

The model AMRAITBC has a timing device which automatically closes the door after a preset time (0-5 min.), and automatically resets itself each time control is used or door is opened.

### FEATURES

**AUTOMATIC SAFETY REVERSE** - This built-in reverse device is standard on all AMRAITBC's. If the door is traveling downward and meets an obstruction, it will reverse to the open position.

**AUXILIARY WIRING** - Wired for an Auxiliary device to function as a safety control that will reset timer and reverse the door when activated during a closing cycle.  
May be wired for radio control and push button to override timer.  
May be used with horn and waring lights.

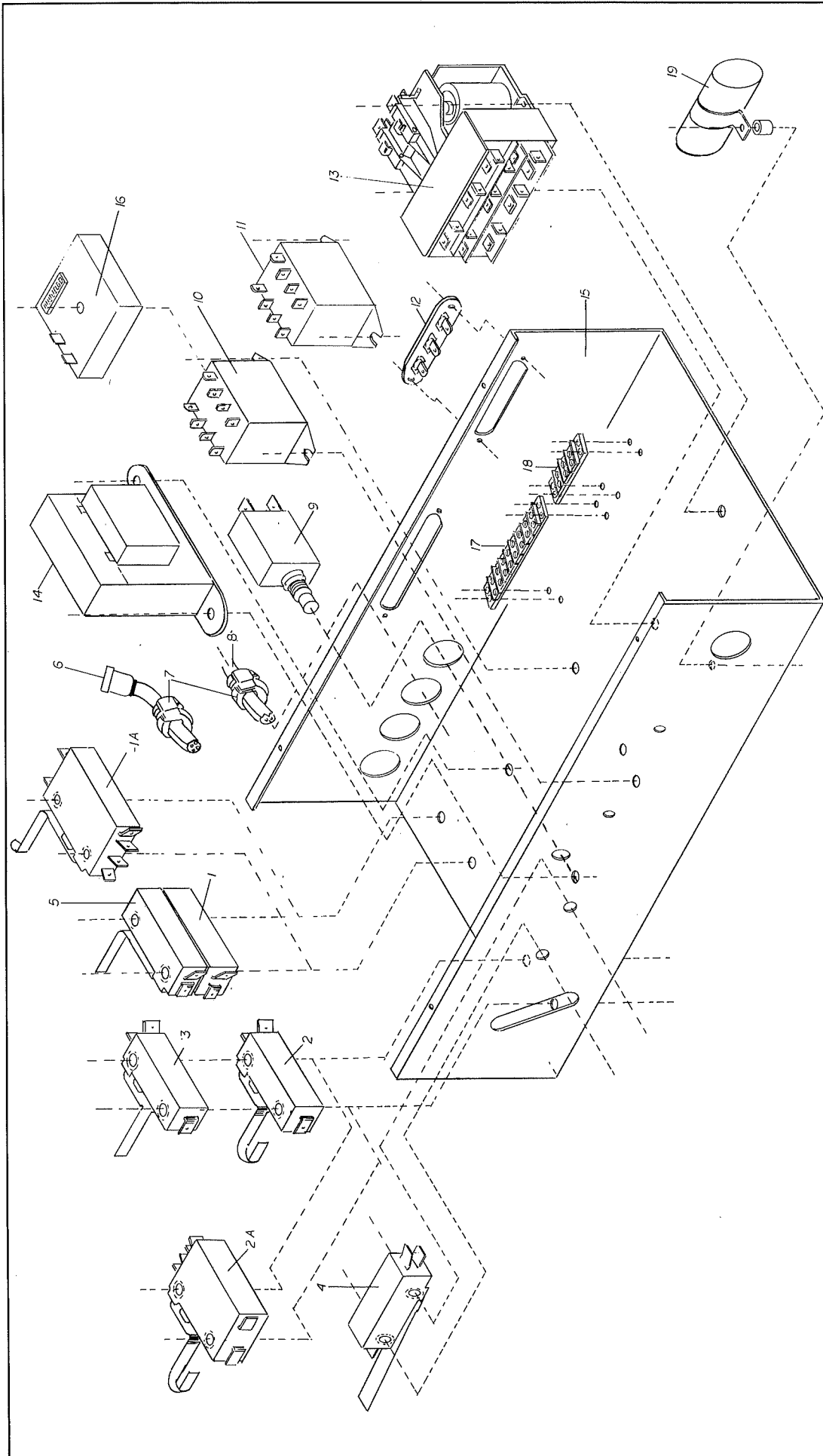
**RADIO CONTROL** - Pre-wired for radio control open cycle only.

MODEL	H.P.	VOLTAGE PHASE	MAXIMUM HEIGHT	MAXIMUM WEIGHT	LIST PRICE
AMRAITBC-211	1/2	115/1	9'	600	

### OPTIONS

OPTIONS	LIST
HEAVY DUTY #41 CHAIN AND SPROCKETS	
WIRED FOR TRAFFIC LIGHTS AND HORN	
WATERPROOF	

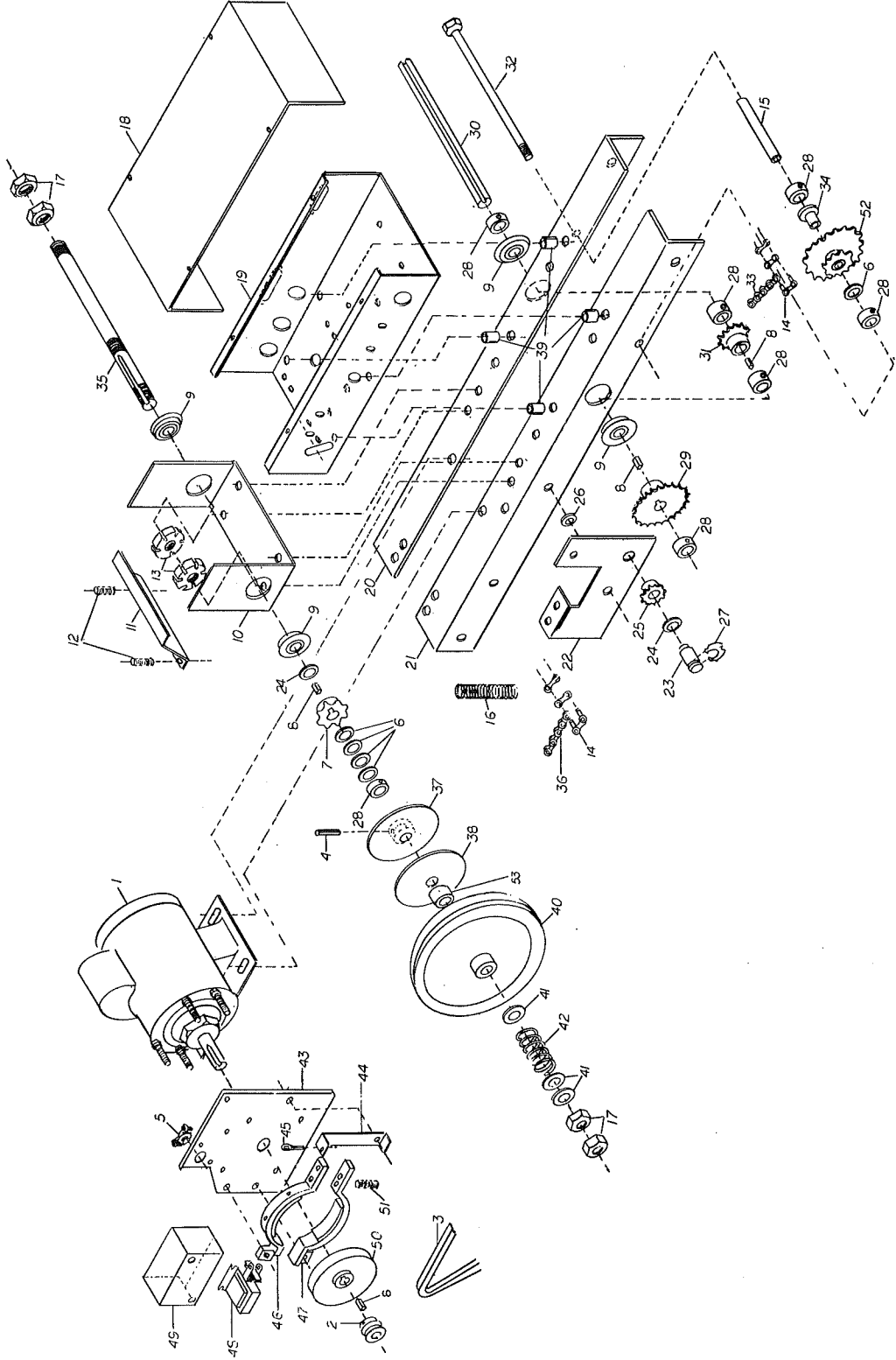
For entry/exit control devices see modifications page.



NAPOLEON LYNX CO. PAT. N.J.  
 MADE IN U.S.A.  
 MODEL NO. 93  
 M. SODDY  
 EXPLODED VIEW ELECTRICAL BOX MODELS  
 AL-DT-ATC-AMCA-AMCA-T-AMRA-TAMRAITBC  
 700094



NAPOLEON LYNX CO. PAT. N.J.  
 MODEL AMRAITBC  
 EXPLODED VIEW 700033



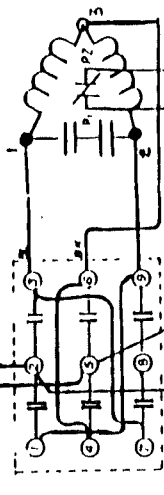
NAPOLEON / LYNX

MODEL AMRAITBC PARTS LIST FOR DRAWING #700033

4/1/99

REF #	DESCRIPTION	QTY.	LIST PRICE
1A	MOTOR, 102361 1/2HP 115V SINGLE PHASE IR LEESON	1	
2	MOTOR PULLEY 4L 2 X 5/8" BORE 3/16" KW	1	
3	V BELT 4L - 300	1	
4	ROLL PIN 1/4" X 1 1/4"	1	
5	STRAIGHT CONNECTOR 3/8"	1	
6	SPACER WASHER 5/8" I.D. X 1" O.D. X 1/8" THK.	5	
7	SPROCKET 48B9 X 5/8" BORE 3/16" KW	1	
8	KEY STOCK 3/16" X 3/16" X 1/2"	4	
9	FLANGED BALL BEARING 5/8" I.D. X 1 3/8" O.D.	4	
	UNIFRAME, ONE PIECE ASSEMBLY, (CONSISTS OF THE FOLLOWING PARTS)	1	
[10]	U - BRACKET	1	
[20]	FRAME ANGLE (RIGHT ) 2 X 2 X 24"	1	
[21]	FRAME ANGLE (LEFT) 2 X 2 X 24"	1	
11	RETAINING PLATE	1	
12	RETAINING PLATE SPRING 1/4" X 3/4"	2	
13	TRAVELING NUT 5/8 - 24	2	
14	CONNECTING LINK #65	2	
15	STEEL TUBING 3/8" I.D. X 5/8" O.D. X 6" LG.	1	
16	OVERLOAD SPRING 1/4" X 2 1/4"	1	
17	HEX JAM NUT 5/8 - 24	4	
18	ELECTRICAL BOX COVER	1	
19	ELECTRICAL BOX	1	
22	COMMERCIAL OVERLOAD PLATE	1	
23	5/8" STUD	1	
24	WASHER SPACER 5/8" I.D. X 1/16" THK	2	
25	SPROCKET 48B9 X 5/8" BORE	1	
26	1/4" SAE FLATWASHER	1	
27	RETAINING RING 5/8 - 3/16 KW	1	
28	COLLAR WITH SET SCREW 5/8"	7	
29	SPROCKET 48B21 X 5/8" BORE	1	
30	DRIVE SHAFT 5/8" X 8 3/8"	1	
31	SPROCKET (DRIVE) 48B10 X 5/8" BORE 3/16 KW	1	
32	THREADED ROD 3/8"-16 X 7" LG.	1	
33	#65 X 13 3/4" ROLLER CHAIN	1	
34	FLANGED BEARING 5/8 I.D. X 3/4" O.D. X 5/8"	1	
35	LIMIT SHAFT 5/8 - 24 X 13"	1	
36	#65 X 18" ROLLER CHAIN	1	
37	CLUTCH HUB 5/8"	1	
38	FIBER DISC 4" X 5/8"	1	
39	SPACER 1/4" I.D. X 1/2" O.D. X 9/16" LG. (NYLON)	4	
40	DRIVE PULLEY 4L - 8" X 7/8"	1	
41	SAE FLATWASHER 3/4"	3	
42	CLUTCH SPRING C - 192	1	
43	BRAKE PLATE	1	
44	BRAKE RELEASE LEVER	1	
45	COTTER PIN #8 X 1 1/2"	1	
46	BRAKE SHOE WITH LINING (TOP)	1	
47	BRAKE SHOE WITH LINING (BOTTOM)	1	
48	BRAKE SOLENOID 115V	1	
48A	BRAKE SOLENOID 220V	1	
49	ALUMINUM BRAKE COVER	1	
50	BRAKE DRUM 5/8" BORE	1	
51	BRAKE SPRING	1	
52	CLUSTER SPROCKET 48B20 / 48B9 X 3/4" BORE	1	
53	SLEEVE BEARING 5/8" I.D. X 7/8" O.D. X 7/8"	1	

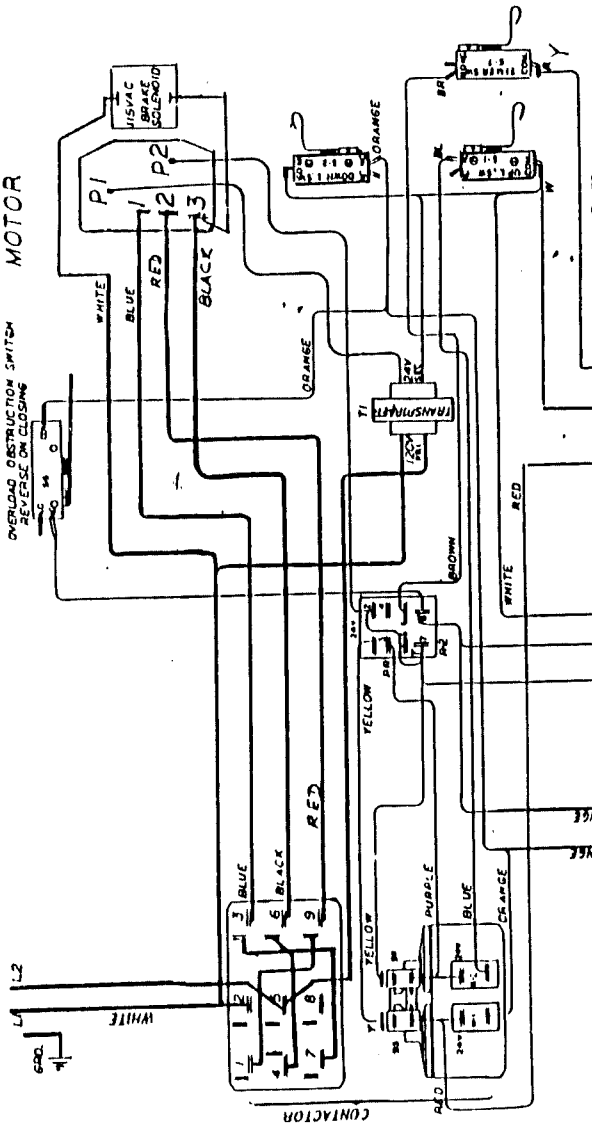
POWER LINE 120V 60HZ



LEESEON MOTOR

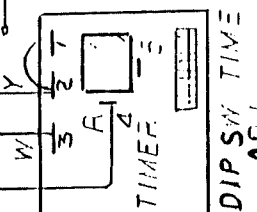
OVERLOAD OBSTRUCTION SWITCH  
REVERSE ON CLOSING

POWER LINE 120V 60HZ



SOLID STATE TIMER

- PART NO. COMPONENTS LIST
- 870001 S-1 OPEN LIMIT SWITCH SPDT
  - 870001 S-2 CLOSE LIMIT SWITCH SPDT
  - 870001 S-3 AUX HOLDING SWITCH NO
  - 870001 S-4 OBS OBSTRUCTION OVERLOAD SWITCH
  - 870001 S-5 CIRCUIT BREAKER
  - 870001 S-7 EXTRA SWITCH TO ACTIVATE TIMER SPDT
  - 870009 R-2 24VAC PILOT RELAY SPDT
  - 870009 K-1 CLOSE COIL 24VAC
  - 870009 K-2 OPEN COIL 24VAC
  - 870009 T-1 220V TAP TRANSFORMER
  - 870009 S-1 24VAC CONTACTOR S-D
  - 870008 B-1 BRAKE SOLENOID 115 VAC
  - 870001 T-1 TBI TERMINAL STRIP 3POLE
  - 870001 T-2 TIMER MODULE 24VAC



TO TREADLE  
ELECTRIC EYE  
LOOP DETECTOR  
REVERSE DOOR WHEN  
CLOSING  
USE TERMINALS 1 AND 2  
FOR SINGLE PUSH BUTTON

TO RADIO RECEIVER TO  
REVERSE DOOR WHEN  
CLOSING

WIRING DIAGRAM

NOTE - DIAGRAM SHOWS DEVICES IN THEIR DE-ENERGIZED POSITION

SCHEMATIC  
DIAGRAM

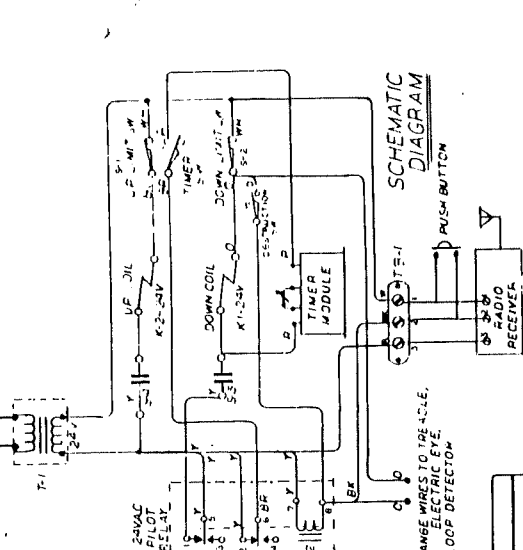
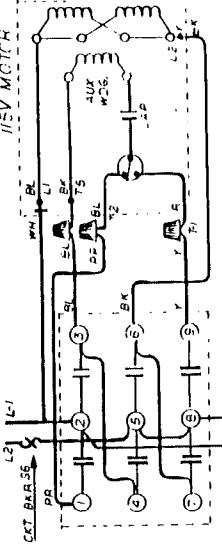
ORANGE WIRES TO TREADLE,  
ELECTRIC EYE,  
LOOP DETECTOR

700076-A 697

WIRING SCHEMATIC DIAGRAM	700076-A	697	700076
WIRING SCHEMATIC DIAGRAM	700076-A	697	700076
WIRING SCHEMATIC DIAGRAM	700076-A	697	700076
WIRING SCHEMATIC DIAGRAM	700076-A	697	700076



POWERLINE 120V 1PH60HZ



SCHEMATIC DIAGRAM

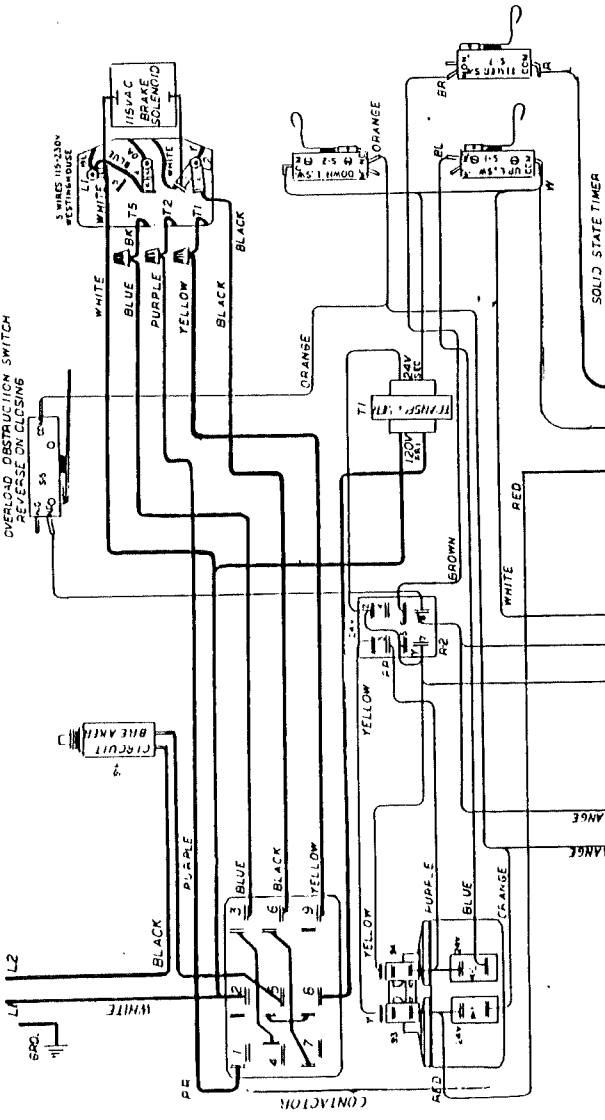
700005A G97

LYNX USA, INC.

WIRING SCHEMATIC DIAGRAM  
 ANIRAITB 120V 1PH 60HZ

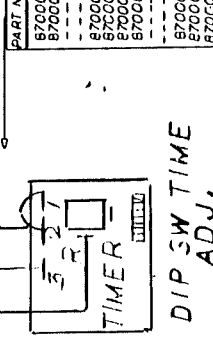
REV	DATE	BY	CHKD
1	11-27-77	WES	WES
2	11-27-77	WES	WES
3	11-27-77	WES	WES
4	11-27-77	WES	WES
5	11-27-77	WES	WES

POWER LINE 120V 1PH 60HZ.



WIRING DIAGRAM

- PART NO. COMPONENTS LIST
- 870001 S-1 OPEN - MIT SWITCH SPDT
  - 870001 S-2 CLOSE LIMIT SWITCH SPDT
  - 870001 S-3 AUX HOLDING SWITCH NO
  - 870001 S-4 OBSTRUCTION OVERLOAD SWITCH
  - 870001 S-5 CIRCUIT BREAKER
  - 870001 S-7 EXTRA SWITCH TO ACTIVATE TIMER SPDT
  - 870009 R2 24VAC PILT RELAY DPDT
  - 870009 K1 CLOSE COIL 24VAC
  - 870004 T1 120V-24V 25VA TRANSFORMER
  - 870005 24V RELE COIL 18 VA SD
  - 870006 WESTINGHOUSE MOTOR 372P571 1A
  - 870009 TBI TERMINAL STRIP 3POLE
  - 870001 TIMER MODULE 24VAC



T.C. TREADLE, LOOP DETECTOR TO REVERSE TIMER AND TO REVERSE COIL WHEN CLOSING. USE TERMINALS 1 AND 2 FOR SINGLE PUSH BUTTON

NOTE: DIAGRAM SHOWS DEVICES IN THEIR DE-ENERGIZED POSITION