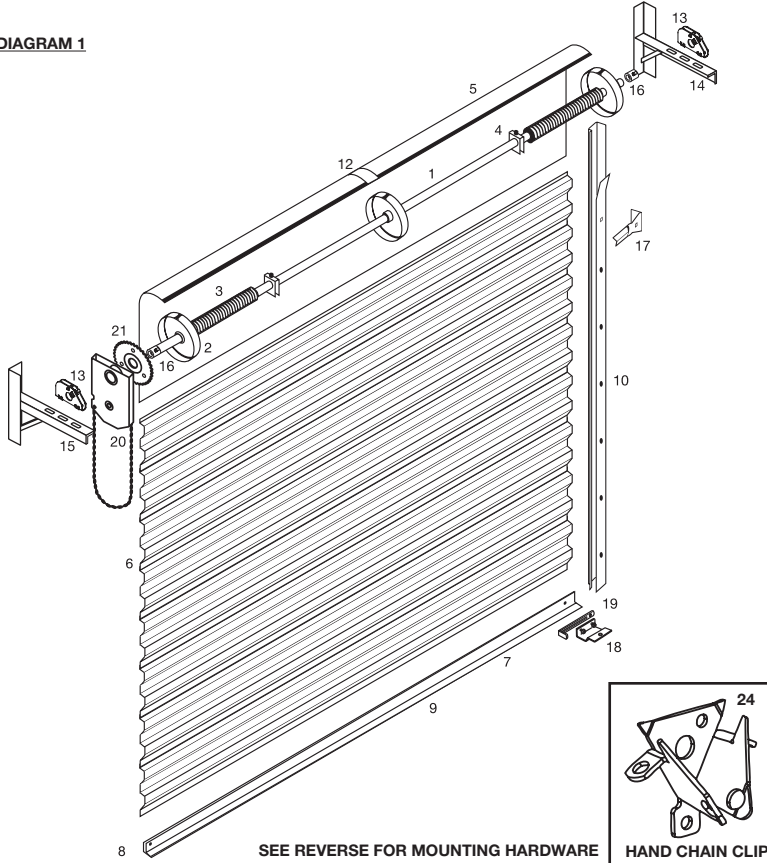


Installation Instructions Model 190 Economy Commercial Rolling Sheet Door

IMPORTANT REMARKS

THIS PAMPHLET IS DESIGNED TO ASSIST IN THE INSTALLATION OF THE ASTA MODEL 190 ECONOMY COMMERCIAL DOOR. SAFETY IS FOREMOST. INSTALLATION SHOULD BE EXECUTED BY QUALIFIED DOOR PROFESSIONALS. INSPECT ALL OF THE SHIPPED PARTS AND ACCOUNT FOR EVERYTHING BEFORE COMMENCING ANY WORK. FOR QUESTIONS AND TECHNICAL ASSISTANCE, CONTACT ASTA CUSTOMER SUPPORT AT (770) 974-2600.

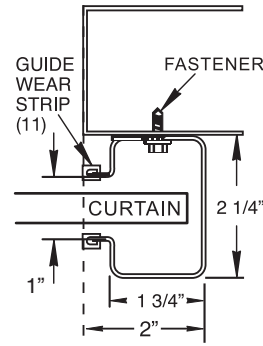
DIAGRAM 1



SEE REVERSE FOR MOUNTING HARDWARE

HAND CHAIN CLIP

GUIDE DETAIL
DIAGRAM 2



STEEL OR WOOD
CONCRETE OR MASONRY

DIAGRAM 3

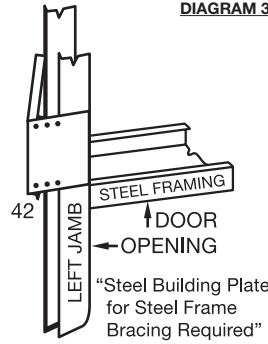
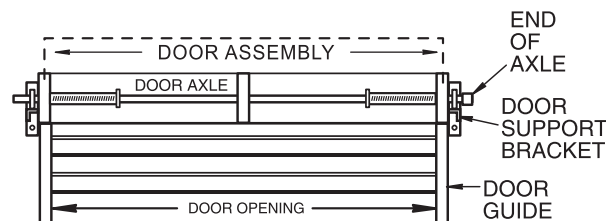
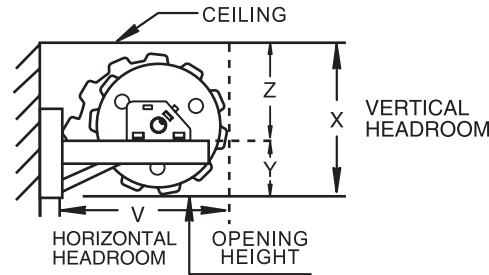


DIAGRAM 4



WARNING

MOVING DOOR can cause serious injury or death. Keep clear of opening while door is moving.



SAFETY INSTRUCTIONS

1. Do Not stand or walk under moving door. Keep door in full view and free of obstructions while operating.
2. Do Not allow children to operate the door.
3. Repairs or adjustments should be made by a trained service person using proper tools and instructions.
4. To avoid injury, do not put fingers between door and guides.
5. Read owner's manual for your door and operator for more information.

CAUTION: USE CORRECT LIFTING PROCEDURES AND EQUIPMENT DURING INSTALLATION OF THIS PRODUCT TO AVOID INJURY OR DAMAGE.

CAUTION: DO NOT REMOVE THE PLASTIC WHICH HOLDS THE DOOR IN A ROLL. YOU WILL BE TOLD AT A LATER TIME WHEN TO REMOVE IT. NO GUARANTEE WILL BE GIVEN OR RESPONSIBILITY ACCEPTED BY THE MANUFACTURER IF THE DOOR IS NOT INSTALLED AS INSTRUCTED. FOR PROPER OPERATION, FOLLOW THE INSTRUCTIONS AS GIVEN. PLEASE REVIEW ALL THE STEPS BEFORE BEGINNING.

STEP #1 - VERIFY OPENING

- A. VERIFY OPENING WIDTH AND HEIGHT TO MATCH THE DOOR YOU ARE PREPARING TO INSTALL.
- B. VERIFY PROPER HEADROOM AND SIDEROOM CLEARANCE (SEE DIAGRAM #4).
- C. VERIFY JAMBS ARE PLUMB.
- D. VERIFY HEADER AND FLOOR ARE LEVEL.

STEP #2 - INSTALL BRACKETS

- A. VERIFY MINIMUM HEAD ROOM REQUIREMENT (DIMENSION "X") IF SUFFICIENT, LOWER BRACKET UNTIL "Z" DIMENSION IS OBTAINED. IF BRACKET IS LOWERED MORE THAN 2" THE OPENING HEIGHT WILL BE REDUCED. THE GUIDE HEIGHT SHOULD BE REDUCED ACCORDINGLY (SEE DIAGRAM 4).
- B. MARK HORIZONTAL AND VERTICAL LOCATION OF SUPPORT BRACKET. USE A WATER LEVEL OR TRANSIT TO MAKE SURE BRACKETS ARE LEVEL. THE DOOR MUST BE LEVEL.
- C. DRILL HOLES AND FASTEN BRACKETS WITH APPROPRIATE WALL FASTENERS REQUIRED TO OBTAIN SOLID MOUNTING. USE THROUGH BOLTS (NOT PROVIDED) ON SOFT BLOCK OR BRICK. TWO FASTENERS PER BRACKET ARE SUFFICIENT.

OPENING HEIGHT	X	Y	Z	V
UP TO 8'	16"	7-1/2"	8-1/2"	17"
UP TO 10'	18"	8-1/2"	9-1/2"	18"
UP TO 12'	20"	10"	10"	19"

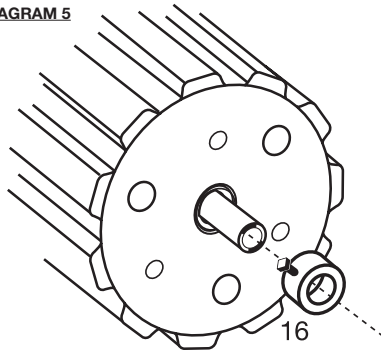
SIDE ROOM	DRIVE SIDE	NON-DRIVE SIDE
NON-WINDLOAD		
BACK OF GUIDE	2"	2"
OUTSIDE OF BRACKET	6-3/4"	4-1/8"
END OF AXLE	7-1/2"	7-1/2"
WINDLOAD		
BACK OF GUIDE	2-3/8"	2-3/8"
OUTSIDE OF BRACKET	6-3/4"	4-1/2"
END OF AXLE	7-1/2"	7-1/2"

PARTS LIST - USE ASTA DOOR PARTS ONLY - ALL OTHERS SHALL VOID WARRANTY			
1	VARIABLES	DOOR AXLE - 1" GALVANIZED	22 420106-1 ROLLER CHAIN PACK (#41)
2	220325-1	9-1/2" DRUM W/ BEARING	23 730805-1 3/8"-16 X 2-3/4" HEX HEAD BOLT
3	VARIABLES	SPRING(S)	24 420300-1 HAND CHAIN CLIP
4	230002-1	SPRING CLAMP ASSEMBLY - 1"	25 750103-1 3/8" FLAT WASHER
5	VARIABLES	TOPSHEET - GALVANIZED	26 750203-1 3/8" LOCK WASHER
6	VARIABLES	CORRUGATED SHEET	27 730804-1 3/8"-16 X 3/4" HEX HEAD BOLT
7	VARIABLES	BOTTOM ANGLE 16 GA (12 GA) GALVANIZED	28 420210-1 1/4"-20 LOCK NUT
8	VARIABLES	BOTTOM ANGLE RETAINER - ALUMINUM	29 420212-1 1/4"-20 X 1/2" CARRIAGE BOLT
9	270201-1	BOTTOM BULB ASTRAGAL	30 420213-1 1/4"-20 X 1" CARRIAGE BOLT
10	VARIABLES	DOOR GUIDE 18 GA (14 GA) GALVANIZED	31 750101-1 1/4" FLAT WASHER
11	259998-1	DOOR GUIDE WEARSTRIP	32 740102-1 5/16"-18 HEX NUT
12	260012-1	FELT STRIP - 1"	33 730399-1 #14-1/4" X 3/4" HEX HEAD TEK SCREW
13	420110-1	AXLE SUPPORT - 1"	34 740103-1 3/8"-16" HEX NUT
14	310200-1	COMMERCIAL SUPPORT BRACKET (RH)	35 730102-1 3/8"-16 X 1-1/4" HEX HEAD BOLT
15	310300-1	COMMERCIAL SUPPORT BRACKET (LH)	36 760204-1 1/4" X 1-1/4" HEX HEAD TAPCON SCREW
16	420209-1	SET COLLAR - 1" W/ 5/8" SET SCREW	37 760102-1 1/2" X 2-1/4" SLEEVE ANCHOR
17	420204-1	REMOVABLE HEADSTOP	38 730400-1 1/4" X 1" LAG SCREW
18	280301-1	LIFT CLIP - DOOR STOP	39 730401-1 3/8" X 3" LAG SCREW
19	280104-1	SLIDE BOLT LOCK	40 760206-1 #14-1/4" X 1" PANCAKE HEAD TEK SCREW
20	420109-1	4:1 CHAIN HOIST ASSEMBLY- 1" AXLE	41 760207-1 1/4" X 1-1/4" FLAT HEAD TAPCON SCREW
21	460632-1	DRIVE SPROCKET 1-41B36 EXTENDED	42 310400-1 STD. STEEL MOUNTING BRACKETS (PAIR)

STEP #3 - CHAIN HOIST INSTALLATION

- SLIDE 1" SET COLLARS (16) OVER AXLE ON EACH END OF DOOR. MAKE SURE DOOR IS CENTERED ON AXLE AND TIGHTEN SET SCREWS TO POSITION COLLAR SECURELY AGAINST BEARING ON EACH END DRUM (SEE DIAGRAM 5).
- INSTALL DRIVE SPROCKET (21) ON PREFERRED SIDE USING 3/8" X 2-3/4" HEX HEAD BOLTS (SEE DIAGRAM 6).
- SLIDE POCKET WHEEL ASSEMBLY ONTO DOOR AXLE AND ALIGN SPROCKETS PARALLEL TO EACH OTHER.
- CONNECT DRIVE CHAIN (22) AROUND BOTH SPROCKETS USING MASTER LINK PROVIDED.
- AFTER DOOR TENSION HAS BEEN ADJUSTED (STEP 9) TIGHTEN SET SCREWS ON POCKET WHEEL ASSEMBLY. IF FURTHER ADJUSTMENT IS NEEDED, SET SCREWS MUST BE LOOSENED FOR ADJUSTMENT AND RETIGHTENED.

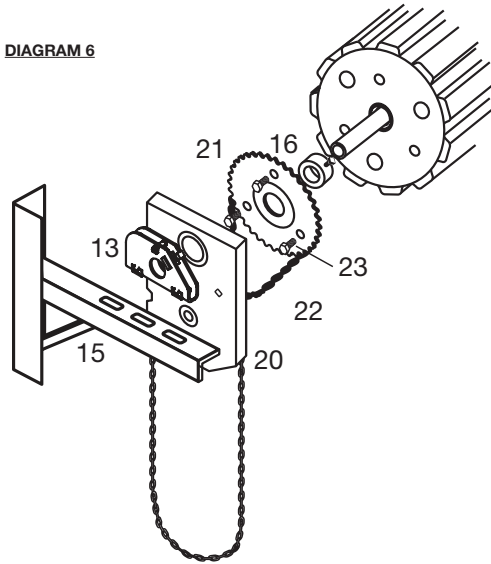
DIAGRAM 5



STEP #4 - POSITION DOOR ASSEMBLY ON SUPPORT BRACKETS

- SLIDE AXLE SUPPORTS OVER AXLE ON EACH END OF DOOR. POSITION DOOR ASSEMBLY ONTO SUPPORT BRACKETS. CENTER DOOR IN OPENING AND ALIGN AXLE SUPPORTS WITH BRACKETS AS SHOWN (SEE DIAGRAM 7).
- FASTEN AXLE SUPPORTS TO SUPPORT BRACKETS USING TWO - 3/8" X 3/4" HEX HEAD BOLTS (27), TWO - 3/8" LOCK WASHERS (26) AND TWO - 3/8" FLAT WASHER (25) PER SIDE (SEE DIAGRAM 8).
- TIGHTEN THE SET SCREWS ON EACH AXLE SUPPORT **NOTE: MINIMUM 40 LBS. TORQUE TO PROPERLY SECURE HARDWARE.**

DIAGRAM 6



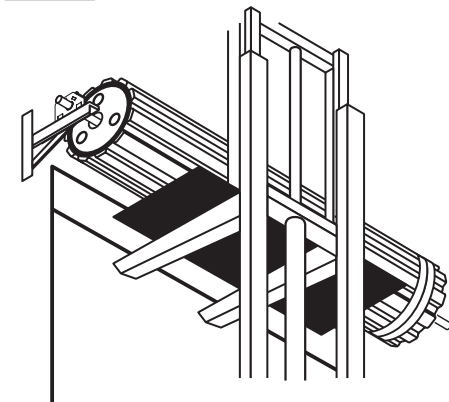
STEP #5 - INSTALL HEADSTOPS

- ONCE YOU HAVE DOOR SECURELY FASTENED TO THE SUPPORT BRACKETS, INSTALL THE HEADSTOPS TO THE GUIDES USING THE 1/4 - 20 X 1/2" CARRIAGE BOLTS (29) AND 1/4"-20 LOCK NUTS (28) PROVIDED (SEE DIAGRAM 8).

STEP #6 - INSTALL DOOR GUIDES

- VERIFY GUIDES ARE PLUMB, ATTACH TO WALL WITH APPROPRIATE FASTENERS PROVIDED.
- GUIDES SHOULD BE INSTALLED AT DOOR CURTAIN WIDTH + 1" FOR NON-WINDLOCK DOOR AND CURTAIN WIDTH + 1 3/4" FOR WINDLOCK DOOR MODELS. DIMENSION IS MEASURED FROM BACK TO BACK OF EACH GUIDE.
- ATTACH ONE FASTENER AT TOP & BOTTOM OF EACH GUIDE TO HOLD IN PLACE.

DIAGRAM 7



STEP #7 - PRETENSION DOOR

- ROTATE DOOR TOWARD THE OPENINGS 2 TURNS (SEE DIAGRAM 9).
- WARNING: HOLD ONTO DOOR TO PREVENT COUNTER-ROTATION.** CUT THE PLASTIC HOLDING THE DOOR IN A ROLL AND PULL DOOR DOWN INTO THE GUIDES WELL PAST THE HEADSTOPS.

DIAGRAM 8

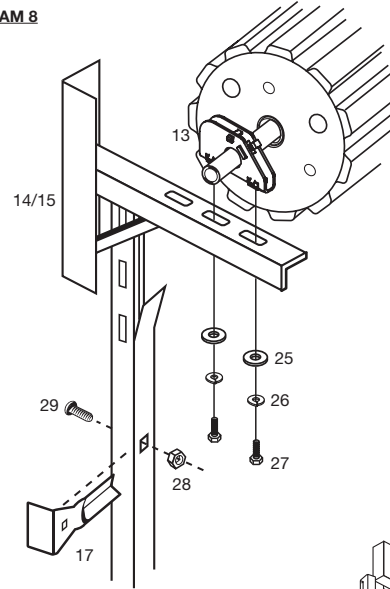


DIAGRAM 9

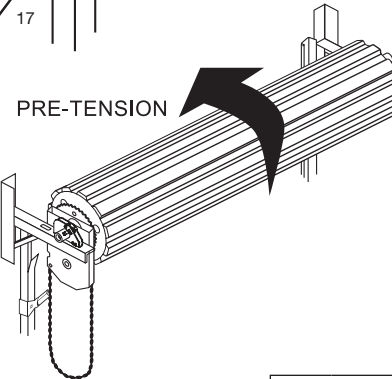


DIAGRAM 10

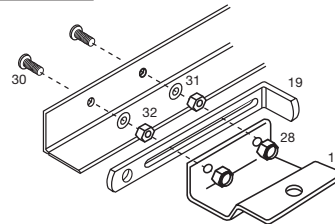
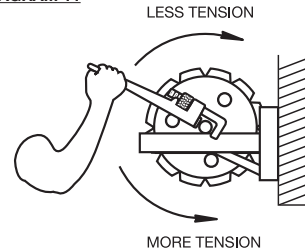


DIAGRAM 11



STEP #8 - INSTALL BOTTOM BAR HARDWARE

- INSTALL DOOR STOPS (18) AND THE SLIDE BOLT LOCKS (19) USING TWO - 1/4 - 20 X 1" CARRIAGE BOLTS (30), 1/4" FLAT WASHER (31), 5/16" HEX NUT (32) AND 1/4"-20 LOCK NUT (28) PER SIDE (SEE DIAGRAM 10).
- ELECTRICALLY OPERATED DOORS REQUIRE DOOR STOPS (18) ONLY TO BE INSTALLED UNLESS ELECTRICAL INTERLOCKS ARE USED IN CONJUNCTION WITH SLIDE BOLT LOCKS.

STEP #9 - CHECK DOOR OPERATION FINISH GUIDE INSTALLATION

- RAISE AND LOWER DOOR TO TEST FOR PROPER BALANCE. **WARNING: MAKE SURE DOOR IS IN THE FULLY OPEN POSITION PRIOR TO MAKING ADJUSTMENTS.**
- IF DOOR IS HARD TO OPEN BUT EASY TO CLOSE, INCREASE SPRING TENSION.
- IF DOOR IS EASY TO OPEN BUT HARD TO CLOSE, DECREASE SPRING TENSION.
- TO ADJUST TENSION - RAISE DOOR TO ENGAGE DOOR STOPS AND HEADSTOPS. FOR EXTRA SECURITY, TIE ROPE AROUND DOOR COIL. YOU WILL NEED TWO PEOPLE TO ADJUST DOOR TENSION PROPERLY.
- EACH PERSON SHOULD FIRMLY PLACE A PIPE WRENCH ON AXLE AS SHOWN (SEE DIAGRAM 11). LOOSEN AXLE SUPPORT SET SCREWS AND PULL DOWN FOR MORE TENSION OR RAISE UP FOR LESS TENSION. RETIGHTEN ALL SET SCREWS.
- TIGHTEN SET SCREWS ON POCKET WHEEL CHAIN HOIST ASSEMBLY.
- RAISE AND LOWER DOOR TO CHECK FOR PROPER BALANCE.
- IF BALANCE AND OPERATION WITHIN DOOR GUIDES IS ACCEPTABLE, RAISE DOOR TO FULLY OPEN POSITION AND COMPLETE INSTALLATION OF REMAINING GUIDE FASTENERS TO THE WALL (JAMB).
- FOR NON-WINDLOAD DOORS THE REQUIRED GUIDE FASTENER FREQUENCY IS ONE IN THE BOTTOM AND TOP HOLES AND 24" ON CENTER OTHERWISE. FOR WINDLOAD DOORS THE FREQUENCY IS 12" ON CENTER.

TRACK & BRACKET MOUNTING HARDWARE

NON-WINDLOAD DOORS				
REF.	STEEL	PART #	DESCRIPTION	QTY.
33	GUIDE	730399-1	#14 -1/4" X 3/4" HEX HEAD TEK SCREW	12
35	SUPPORT BRACKET	730102-1	3/8-16 X 1-1/4" HEX HEAD BOLT	4
25	SUPPORT BRACKET	750103-1	3/8" FLAT WASHER	8
26	SUPPORT BRACKET	750203-1	3/8" LOCK WASHER	4
34	SUPPORT BRACKET	740103-1	3/8"-16 HEX HEAD NUT	4
CONCRETE			DESCRIPTION	QTY.
36	GUIDE	760204-1	1/4" X 1-1/4" HEX HEAD TAPCON SCREW	12
37	SUPPORT BRACKET	760102-1	1/2" X 2-1/4" SLEEVE ANCHOR	4
WOOD			DESCRIPTION	QTY.
38	GUIDE	730400-1	1/4" X 1" LAG SCREW	12
39	SUPPORT BRACKET	730401-1	3/8" X 3" LAG SCREW	4
25	SUPPORT BRACKET	750103-1	3/8" FLAT WASHER	4
WINDLOAD DOORS				
STEEL	PART #	DESCRIPTION		QTY.
40	GUIDE	760206-1	#14 -1/4" X 1" PANCAKE HEAD TEK SCREW	20
35	SUPPORT BRACKET	730102-1	3/8-16 X 1-1/4" HEX HEAD BOLT	4
25	SUPPORT BRACKET	750103-1	3/8" FLAT WASHER	8
26	SUPPORT BRACKET	750203-1	3/8" LOCK WASHER	4
34	SUPPORT BRACKET	740103-1	3/8"-16 HEX HEAD NUT	4
CONCRETE			DESCRIPTION	QTY.
41	GUIDE	760207-1	1/4" X 1-1/4" FLAT HEAD TAPCON SCREW	20
37	SUPPORT BRACKET	760102-1	1/2" X 2-1/4" SLEEVE ANCHOR	4



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