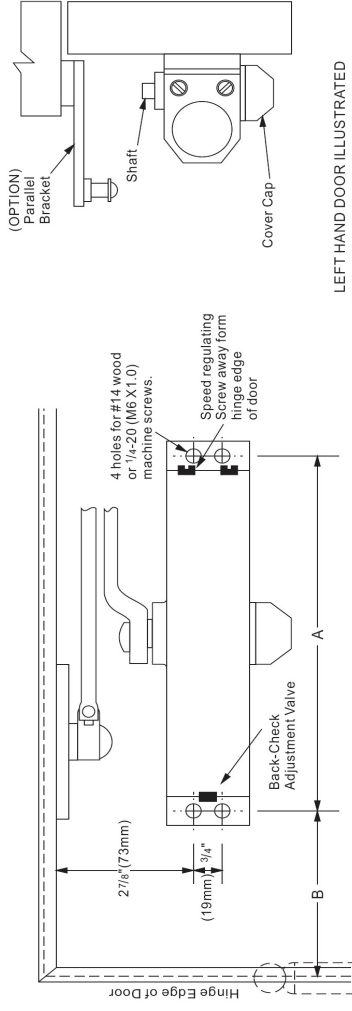
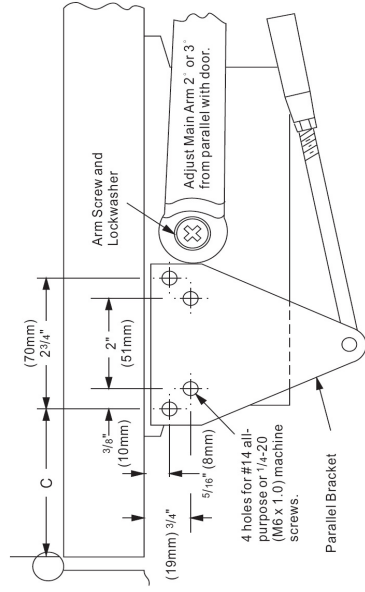


PARALLEL ARM INSTALLATION CLOSER MOUNTED ON DOOR ON PUSH SIDE

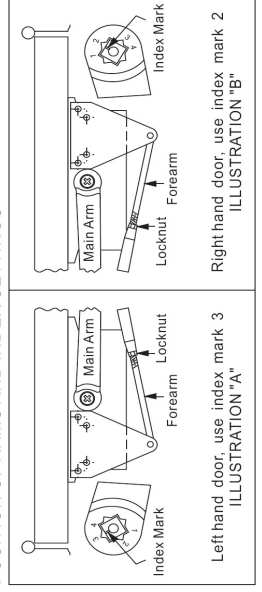
THIS TEMPLATE COVERS REGULAR PARALLEL ARM INSTALLATIONS TO 180° OPENINGS.



Closer size	FOR OPENING TO 120°			FOR OPENING 120°-180°		
	A	B	C	B	C	C
2	7 1/8" 187mm	8 3/4" 222mm	9 1/16" 230mm	7 3/8" 187mm	7 11/16" 195mm	7 11/16" 195mm
3	8 3/16" 208mm	8 3/8" 213mm	9 1/16" 230mm	7" 178mm	7 11/16" 195mm	7 11/16" 195mm
485	9 1/16" 230mm	7 15/16" 202mm	9 1/16" 230mm	6 9/16" 167mm	7 11/16" 195mm	7 11/16" 195mm



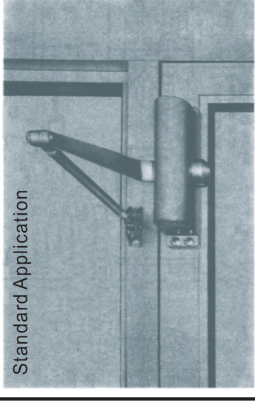
POSITION OF ARMS AND INDEX SETTINGS



Left hand door, use index mark 3 ILLUSTRATION "A"

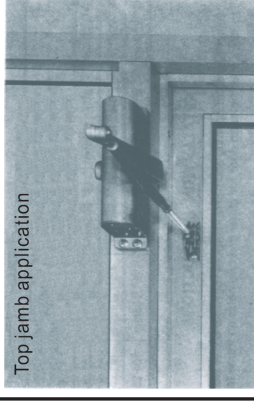
Right hand door, use index mark 2 ILLUSTRATION "B"

DUAL VALVES, "STANDARD", Preset & Adjustable "BACK-CHECK" SIZE 2, 3, 4 & 5 No Hold-Open SURFACE MOUNTED INSTALLATION INSTRUCTIONS



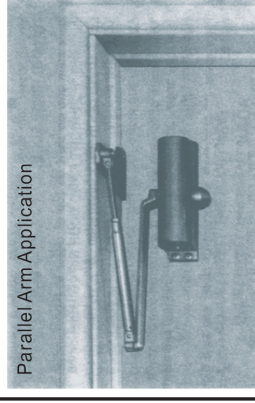
Standard Application

PAGE 2
STANDARD INSTALLATION
CLOSER MOUNTED ON DOOR
ON PULL SIDE



Top jamb application

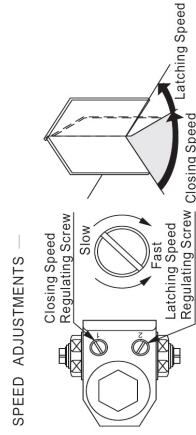
PAGE 3
TOP JAMB INSTALLATION
CLOSER MOUNTED ON TOP JAMB
ON PUSH SIDE OF DOOR



Parallel Arm Application

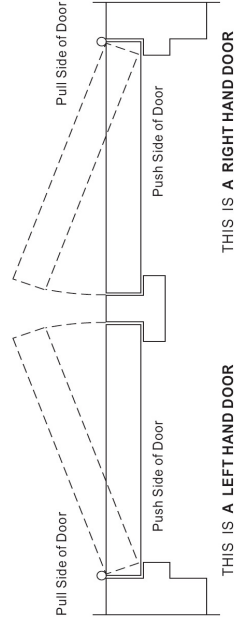
PAGE 4
PARALLEL ARM INSTALLATION
CLOSER MOUNTED OF DOOR
ON PUSH SIDE

ADJUSTMENT INSTRUCTIONS



BACK-CHECK ADJUSTMENT — (with B.C.) — is controlled by the adjustment valve (marked BC on the closer). BACK-CHECK is now set for a soft action. To INCREASE Back-check action turn valve CLOCKWISE. To DECREASE, or to TURN OFF Back-check action turn valve COUNTER CLOCKWISE.

CHART TO DETERMINE HAND OF DOOR

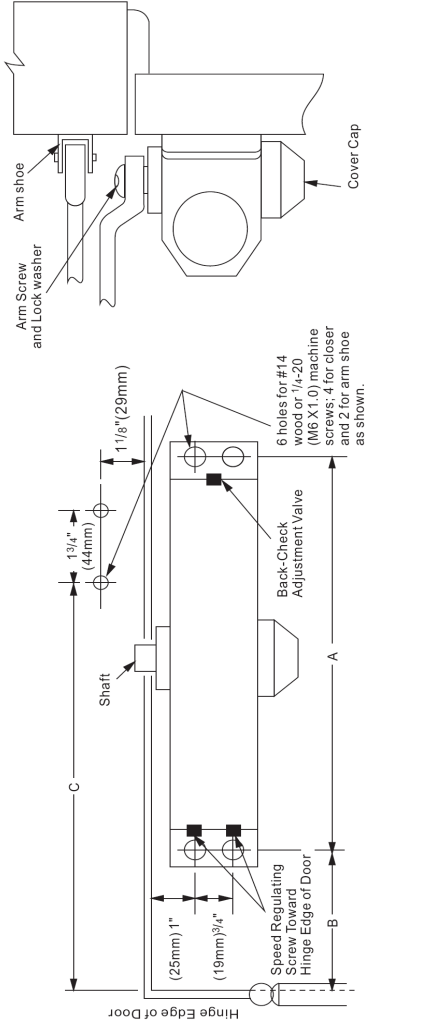


THIS IS A LEFT HAND DOOR

THIS IS A RIGHT HAND DOOR

STANDARD INSTALLATION CLOSER MOUNTED ON DOOR ON PULL SIDE

THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180° OPENINGS.



RIGHT HAND DOOR ILLUSTRATED
Same dimensions apply for Left Hand
Door measured from the hinge edge.

Closer size	FOR OPENING TO 120°			FOR OPENING 120° - 180°		
	A	B	C	A	B	C
2	7 ⁹ / ₁₆ " 187mm	6 ⁵ / ₁₆ " 160mm	12" 305mm	4 ³ / ₁₆ " 124mm	10" 254mm	10" 254mm
3	8 ⁹ / ₁₆ " 208mm	5 ¹ / ₁₆ " 151mm	12" 305mm	4 ¹ / ₂ " 114mm	10" 254mm	10" 254mm
4&5	9 ¹ / ₁₆ " 230mm	5 ¹ / ₂ " 140mm	12" 305mm	4 ¹ / ₁₆ " 103mm	10" 254mm	10" 254mm

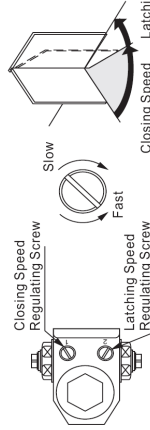
INSTALLATION INSTRUCTIONS

- Select degree of opening and use dimensions shown in above template to mark four holes on door for closer and two holes on frame for arm shoe.
- Drill pilot holes in door and frame for #14 wood screws or drill and tap for 1/4-20 (M6 x 1.0) machine screws.
- Mount closer on door WITH SPEED REGULATING SCREW TOWARD HINGE EDGE.
- Place main arm on shaft on top of closer at proper index mark as illustrated. FOR RIGHT HAND DOOR No. 4 (illustration "A"). FOR LEFT HAND DOOR No. 1 (illustration "B"). Tighten arm screw with lock washer securely.
- Attach the arm shoe of the forearm to the frame.
- Adjust length of forearm so when it is attached to main arm it will be at a right angle (90°) to door when door is closed and assemble at elbow then tighten locknut.
- Place cover cap over shaft at bottom of closer and turn slightly to secure.

ADJUSTMENT INSTRUCTIONS

POWER — Closing power has been set at factory for average conditions. If more closing power is required, move forearm from center hole in arm shoe to hole closest main arm. If less closing power is required, move forearm to hole farthest from main arm.

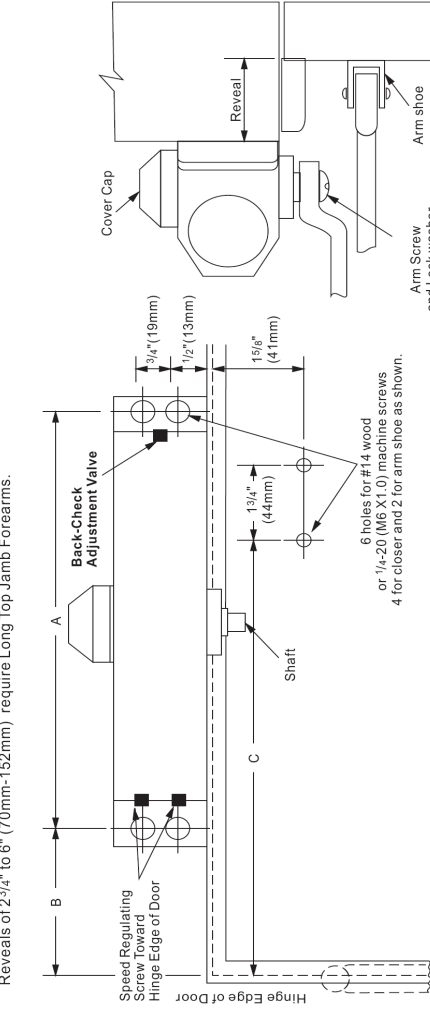
SPEED ADJUSTMENTS



BACK-CHECK ADJUSTMENT — (with B. C.) — is controlled by the adjustment valve (marked BC on the closer). BACK-CHECK is now set for a soft action. To INCREASE Back-check action turn valve COUNTERCLOCKWISE. To DECREASE, or to TURN OFF Back-check action turn valve COUNTERCLOCKWISE.

TOP JAMB INSTALLATION CLOSER MOUNTED ON TOP JAMB ON PUSH SIDE OF DOOR

THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180° OPENINGS.
Reveals of 2 3/4" to 6" (70mm-152mm) require Long Top Jamb Forearms.



LEFT HAND DOOR ILLUSTRATED
Same dimensions apply for Right Hand
Door measured from the hinge edge.

Closer size	FOR OPENING TO 120°			FOR OPENING 120° - 180°		
	A	B	C	A	B	C
2	7 ⁹ / ₁₆ " 187mm	6 ⁵ / ₁₆ " 160mm	11 ³ / ₄ " 298mm	4 ¹ / ₄ " 108mm	8 ³ / ₄ " 222mm	8 ³ / ₄ " 222mm
3	8 ⁹ / ₁₆ " 208mm	6 ¹ / ₁₆ " 154mm	11 ³ / ₄ " 298mm	3 ⁷ / ₁₆ " 98mm	8 ³ / ₄ " 222mm	8 ³ / ₄ " 222mm
4&5	9 ¹ / ₁₆ " 230mm	5 ⁵ / ₁₆ " 143mm	11 ³ / ₄ " 298mm	3 ⁷ / ₁₆ " 87mm	8 ³ / ₄ " 222mm	8 ³ / ₄ " 222mm

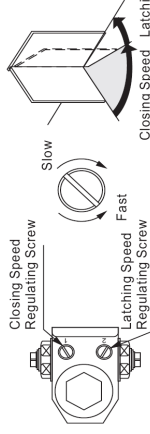
INSTALLATION INSTRUCTIONS

- Select degree of opening and use dimensions shown in above template to mark four holes on frame for closer and two holes on door for arm shoe.
- Drill pilot holes in door and frame for #14 wood screws or drill and tap for 1/4-20 (M6 X 1.0) machine screws.
- Mount closer on frame WITH SPEED REGULATING SCREW TOWARD HINGE EDGE.
- Place main arm on shaft on bottom of closer at proper index mark as illustrated. FOR LEFT HAND DOOR No. 1 (illustration "A"). FOR RIGHT HAND DOOR No. 4 (illustration "B"). Tighten arm screw with lockwasher securely.
- Attach the arm shoe of the forearm to the door.
- Adjust length of forearm so when it is attached to main arm it will be at a right angle (90°) to door when door is closed and assemble at elbow then tighten locknut.
- Place cover cap over shaft at top of closer and turn slightly to secure.

ADJUSTMENT INSTRUCTIONS

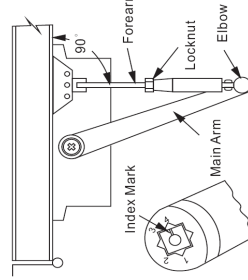
POWER — Closing power has been set at factory for average conditions. If more closing power is required, move forearm from center hole in arm shoe to hole closest main arm. If less closing power is required, move forearm to hole farthest from main arm.

SPEED ADJUSTMENTS

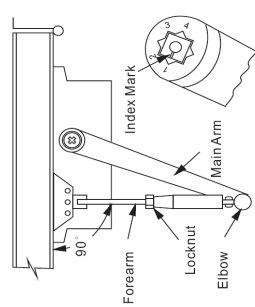


BACK-CHECK ADJUSTMENT — (with B.C.) — is controlled by the adjustment valve (marked BC on the closer). BACK-CHECK is now set for a soft action. To INCREASE Back-check action turn valve COUNTERCLOCKWISE. To DECREASE, or to TURN OFF Back-check action turn valve COUNTERCLOCKWISE.

POSITION OF ARMS AND INDEX SETTINGS

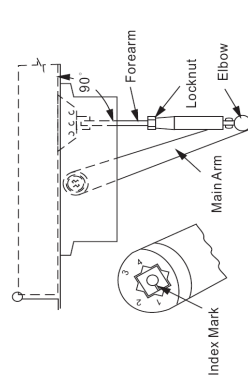


Right hand door, use index mark 4
ILLUSTRATION "A"

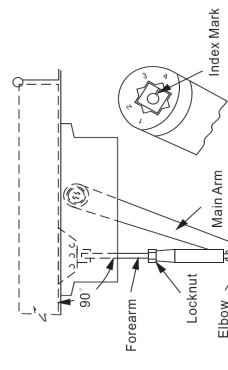


Left hand door, use index mark 1
ILLUSTRATION "B"

POSITION OF ARMS AND INDEX SETTINGS



Left hand door, use index mark 1
ILLUSTRATION "A"



Right hand door, use index mark 4
ILLUSTRATION "B"