



Security and Safety

ADA Entrance Accessibility

- ◆ Objective 1 - Latch requirements for an opening
- ◆ Objective 2 - Characteristics of a clear opening
- ◆ Objective 3 - Opening force requirements for an opening
- ◆ Objective 4 - Closing speed requirements for a door
- ◆ Objective 5 - Identify the need for an automated opening
- ◆ Objective 6 - Minimum speed requirements for an auto operator door





ADA Entrance Accessibility



Codes, regulations, and applications as they pertain to builders hardware and **HEALTH, WELFARE, and SAFETY** of building occupants.



ADA



WHY IS IT IMPORTANT TO YOU?



Common Complaints

"I can't eat at that restaurant."

" I can't see a movie at that theater."

"I can't check into that hotel."

"I can't shop at that store."

"I can't use that restroom."

"I can't take that cruise."

"I can't communicate with that police officer."

" I can't use the Internet "

"I can't take classes at that school."

"I can't be treated at that hospital."



ADA Facts



**IT'S NOT JUST THE RIGHT
THING TO DO, IT'S THE LAW!**



“Within 27 years, the population age of 65+ years will increase +60% & 1-in-5 adults will be 65+ years”

Source: The Aging States Project Study

“Businesses have had 13 years to meet the ADA's requirements. There's no longer an excuse for violations at this time”

*National Organization on Disabilities (N.O.D.),
President Alan A. Reich*



ADA Facts

Being ADA compliant is good business—20% of Americans are disabled and the number of roving “professional plaintiffs” will only grow. An ADA access lawsuit could cost you \$10,000-\$100,000 or more (settlements average \$45,000+ in some areas); why risk that exposure?



Why Is ADA Important To You?



- ◆ It is a Federal Civil Rights LAW!
 - Signed into law July 26, 1990
 - Enforced by the Dept. of Justice
- ◆ Over 54 Million Americans with Disabilities
- ◆ Thousands of Lawsuits Filed
- ◆ Millions of \$\$\$\$\$\$ Awarded



Reasons to Comply

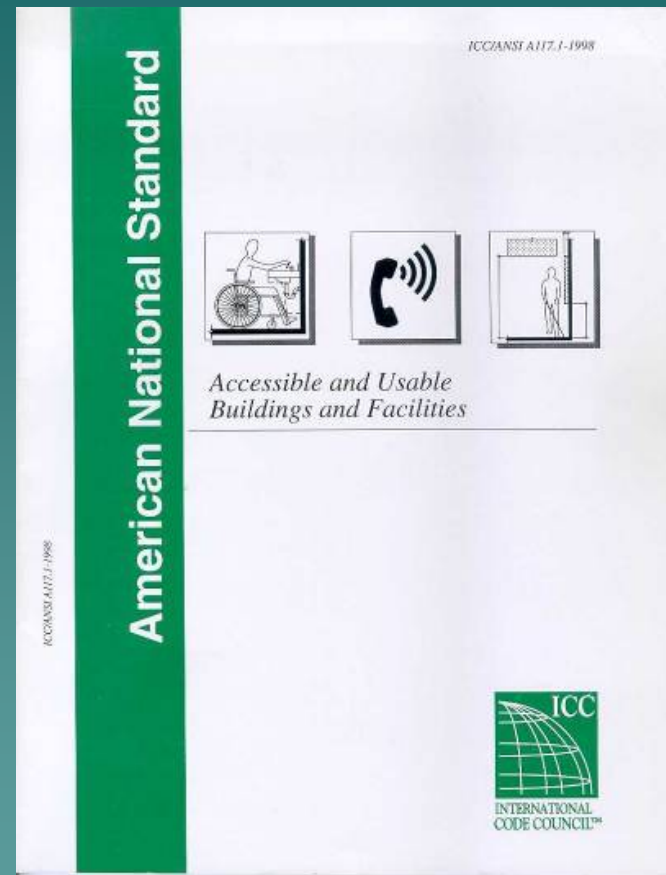
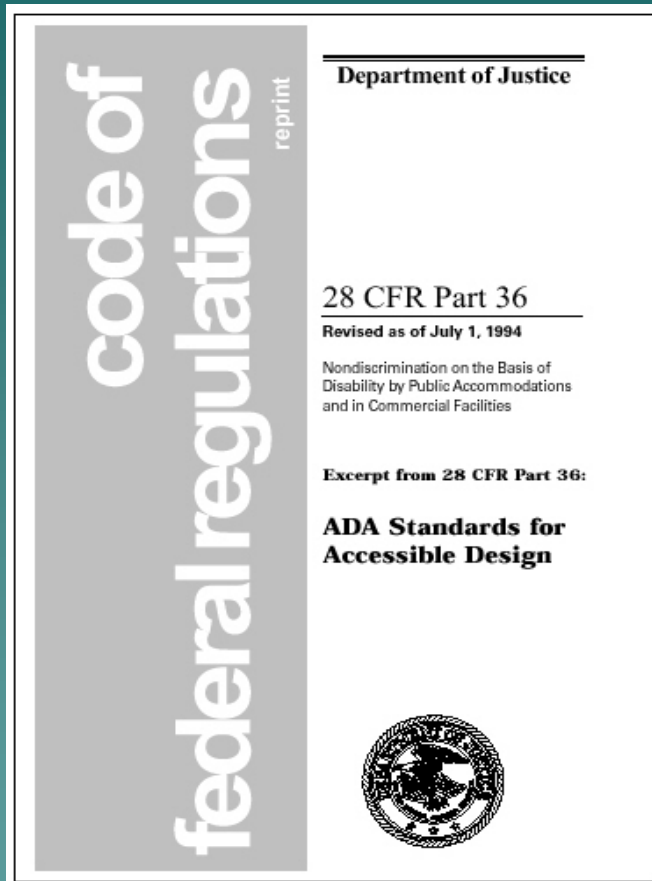
“EEOC SETTLES ADA LAWSUIT FOR \$220,000
AGAINST MAJOR ARKANSAS AUTO DEALERSHIP”

“Justices side with disabled in lawsuit issue”

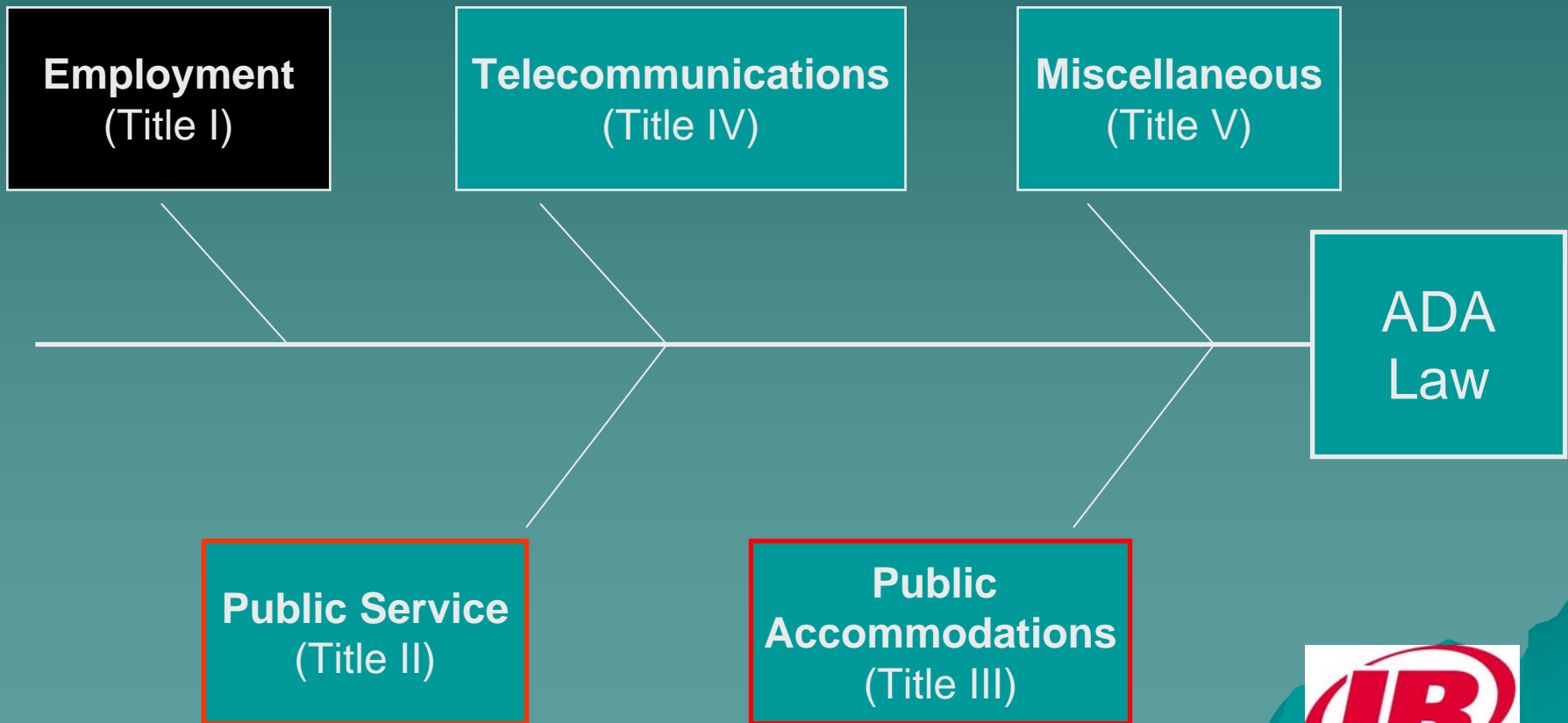
“Disabled win victory in ruling over access to government buildings”



Standards



ADA Category Overview





What is the Intent of Title III?

Essentially, owners of certain types of buildings must remove barriers and provide people with disabilities with access equal to, or similar to, that available to the general public.



ADA Accessibility Spaces

Getting To The Building

- Parking -
- Ground Surfaces
- Curb Ramps -
- Accessible Routes

Getting In The Building

- Exterior Openings -
- Opening Hardware
- Opening Dimensions -
- Threshold Surfaces
- Opening Forces -

Accessible Elements & Spaces

Alarm / Emergency communication

- Telephones -
- Signage -
- Seating -
- Mirrors
- Windows -
- Toilets / Urinals
- Hand rails / Grab Bars -
- Lavatory Fixtures
- Water coolers / fountains -
- Sinks / showers / tubs

Moving Around The Building

- Stairs -
- Ramps
- Elevators -
- Building Elements
- Chair Lifts -
- Personal Care Areas
- Interior Openings -
- Allowable Space

Using The Building Elements



Six Things You Need to Know About ADA Accessibility

- ◆ Objective 1 - Latch requirements for an opening
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Objective One

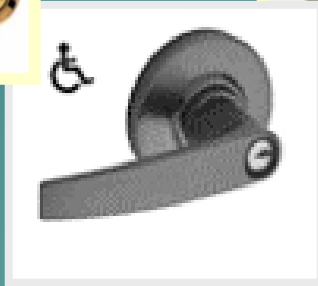


Describe the Latch Requirements



Latch Requirements

Which group of locks does not meet ADA?



ADA Compliant

**NOT ADA
Compliant**



Latch Requirements

- ◆ Easy to grasp with one hand
- ◆ No twisting wrist

LEVERS
or Push Pull

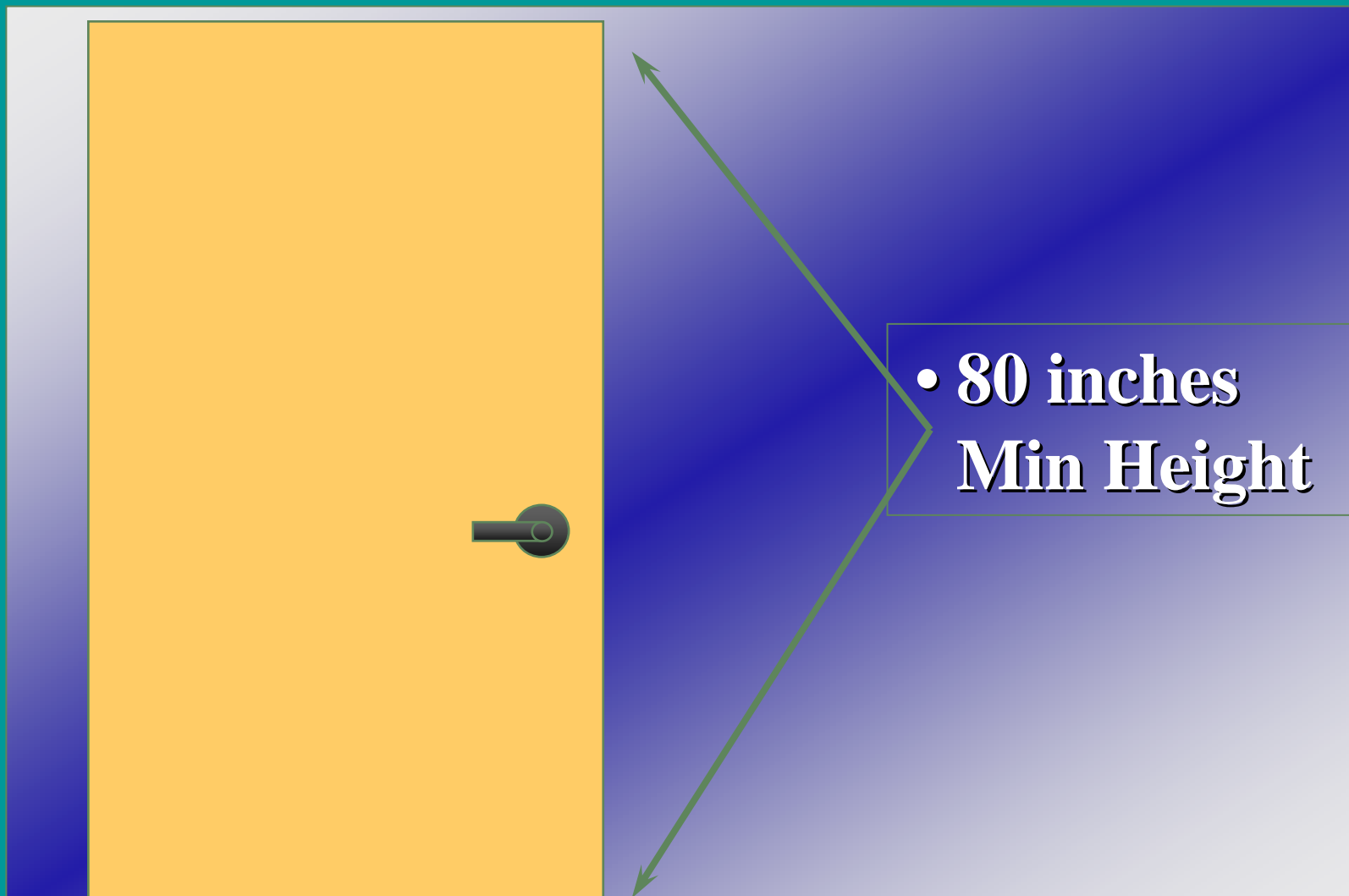


Objective Two

Describe the
Characteristics
of a
Clear Opening



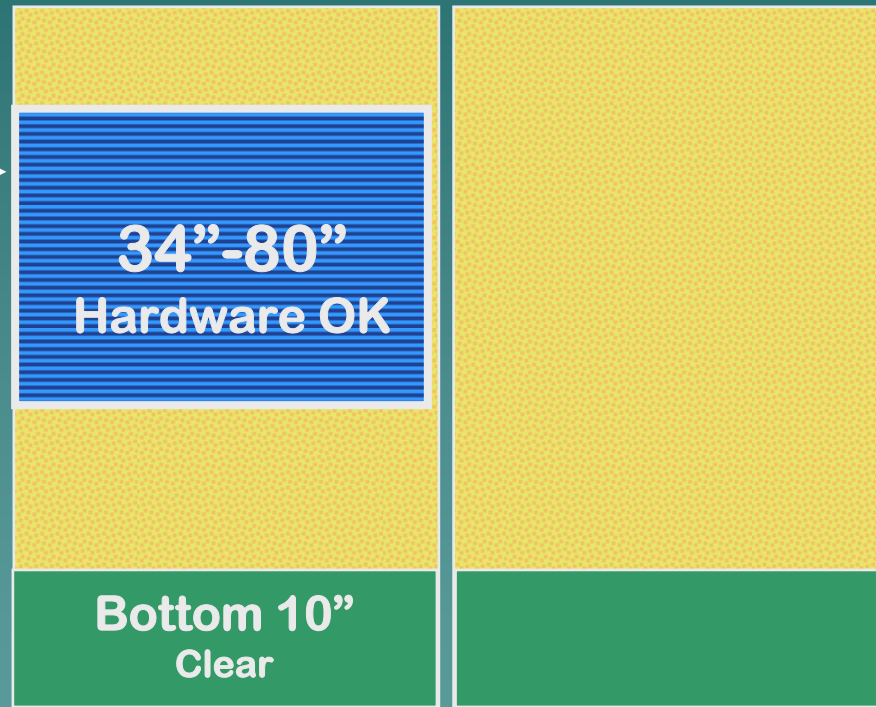
Clear Opening



Clear Opening

◆ Hardware Location

◆ Clear Bottom



Note: Exit Device not affected if mounted above 34"



Clear Opening



◆ Thresholds

- 1/2 inch Maximum TOTAL
- 1/4 inch increment



◆ Elevation

- Extend out equal to door width

◆ Maneuvering Area



Objective Three



Describe the Opening Force Requirements



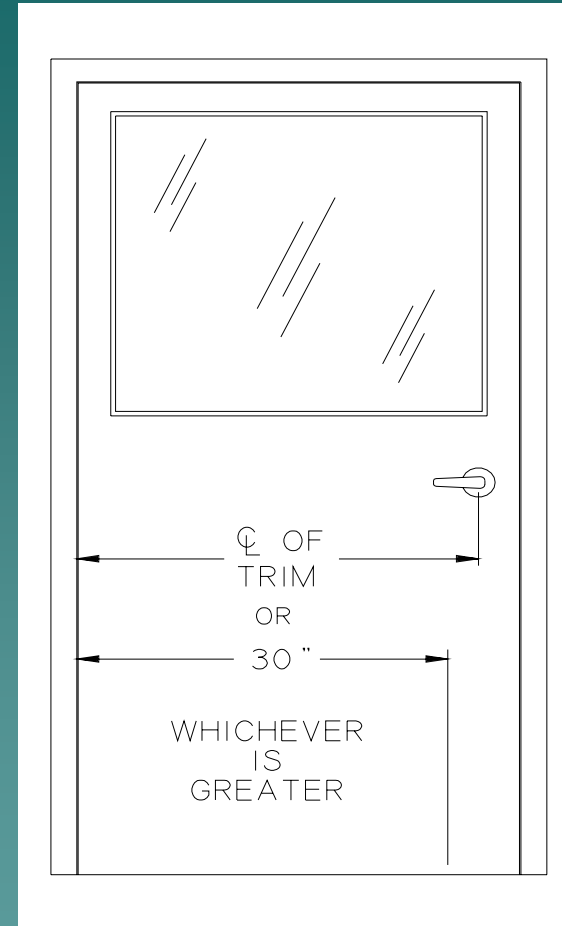
Opening Force Requirements



Opening Force Requirements

ADA

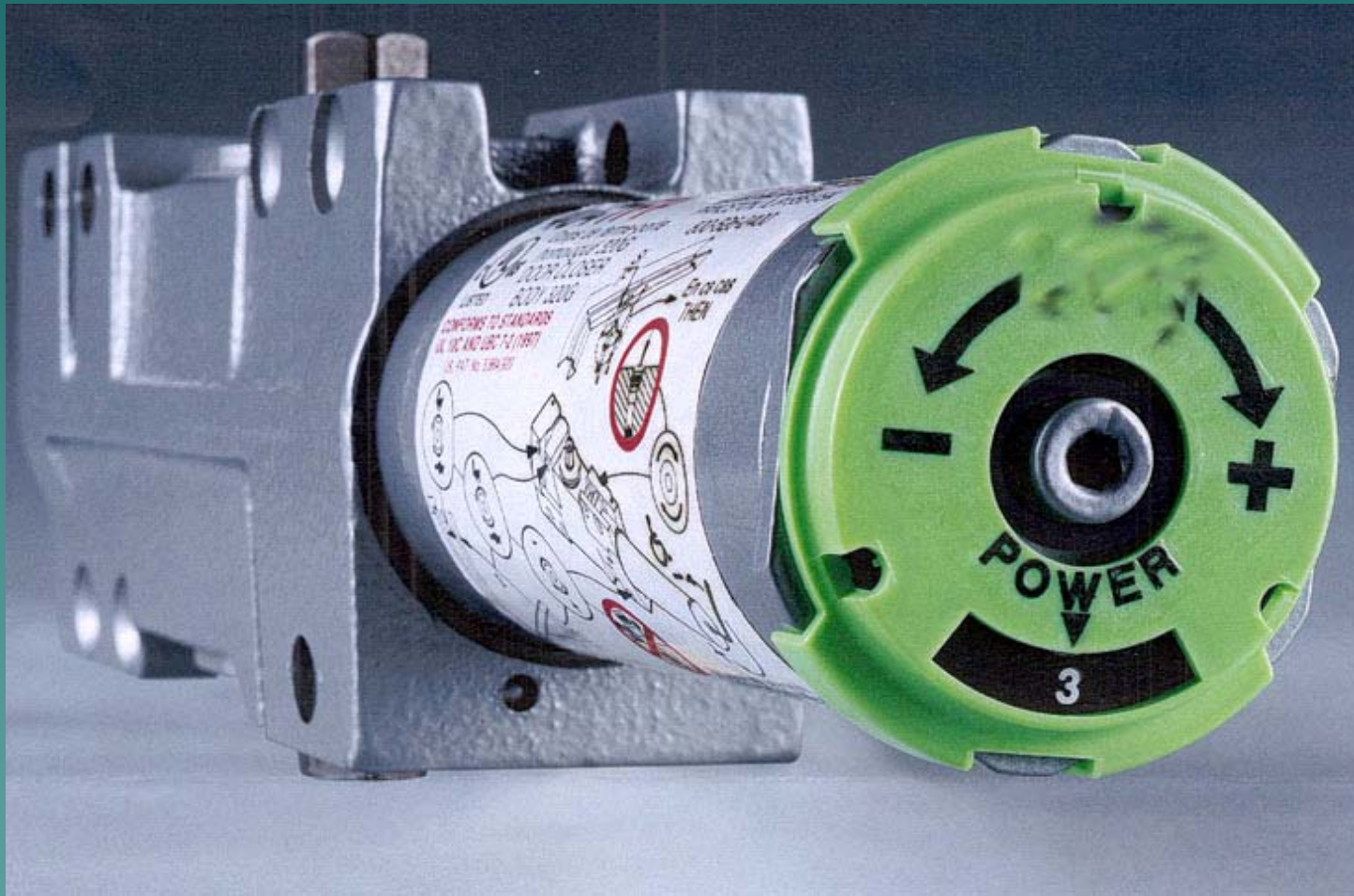
- Measure 30" from Hinge or Centerline of Trim, whichever is greater
- Open to 3" out of latch, apply gauge, then open to 70° (recommended not required)



Mechanical Door Closers



Adjust to a Size 1



Objective Four



Identify the Closing Speed Requirements

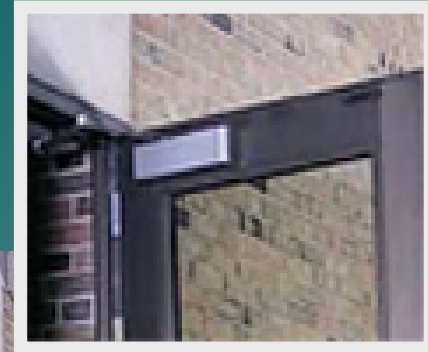


Closing Speed Requirements

ADA Accessibility Guidelines 4.13.10

- Sweep period – 3 seconds minimum
 - from an open position of 70 degrees to a point 3 inches from the latch
 - Measured to the leading edge of the door
- Delayed action is not a code requirement

**Minimum
of 3 sec.**



Limitations of manual door closers

5 lbs. Opening force = 3 lbs. Closing force

- Weather-stripping
- Stack pressures
- Windy Conditions
- Door and Frame misalignment
- Hinge Bind
- Threshold rub
- Latch bolt alignment



Objective Five



**Identify the Need
for an Automated
Opening**



DOES THE ADA LAW REQUIRE THE USE OF OPERATORS?

YES or NO?

Answer: NO

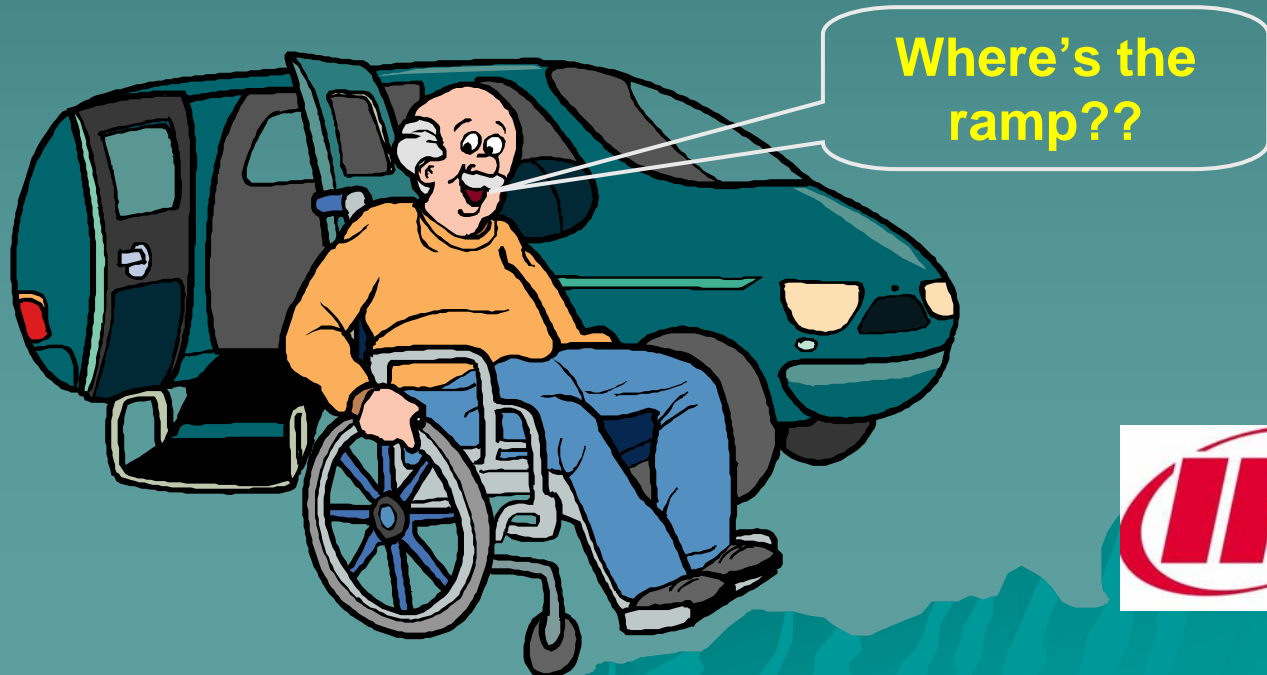


*However, what are the 4
expectations of the disabled as they
approach a building ?*



1. An Accessible Path to the Building

“Accessible handicapped parking must be located on the shortest accessible route to the accessible entrance.”



2. An Accessible Path into the Building

Where's the button??

What are the disabled looking for as they are approaching the entrance?



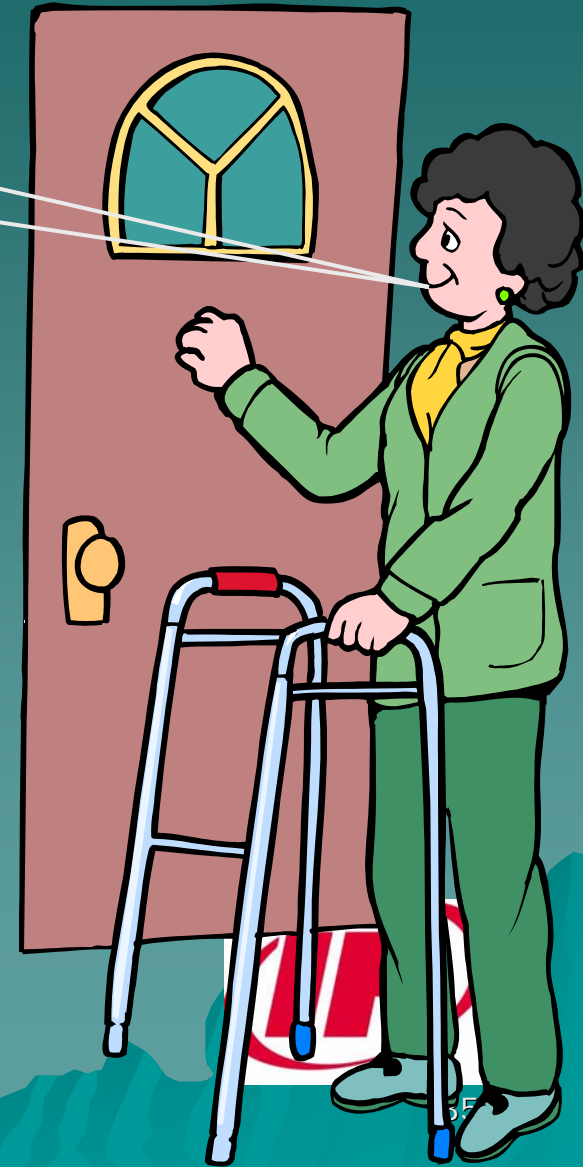
3. An Accessible Path throughout the Building



4. An Accessible Path out of the Building

Where's the button??

What are the disabled looking for as they are approaching the exit?



Objective Six



Identify the Minimum Speed Requirements for an Automatic Door



Minimum Speed Requirements



- **Low Energy Vs. High Energy (Swing)**
 - **Low energy operators**
 - ◆ Types used for handicap entrances, etc.
 - ◆ No guard rails or safety mats needed
 - **High energy operators (Swing)**
 - ◆ Types used in Supermarkets
 - ◆ Guard rails or safety mats Required



Minimum Speed Requirements

Low Energy

- 3 seconds to backcheck & 4 seconds to fully open
- No more than 15 lbs. of force to stop door movement
- Does not require guard rails, safety mats, canceling scanners
- Must comply with ANSI/BHMA A156.19

High Energy (Swing)

- 1.5 seconds to backcheck
- No more than 40 lbs. of force to stop door movement
- Requires guard rails, safety mats, canceling scanners
- Must comply with ANSI/BHMA A156.10



A156.19 Function Requirements



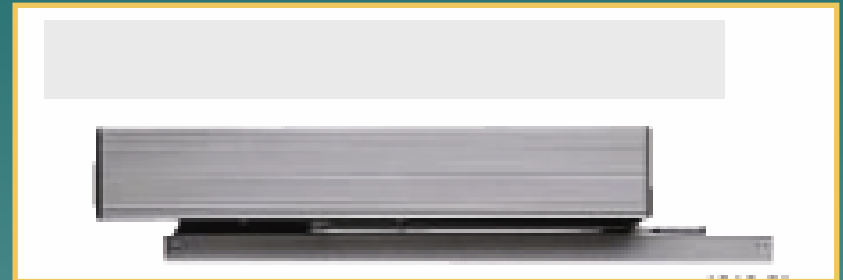
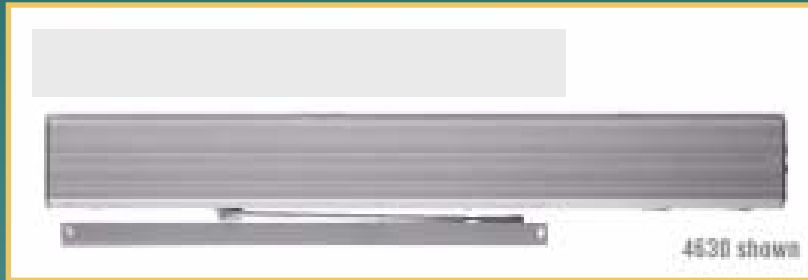
Low Energy:

- ◆ Must remain fully open for at least 5 seconds
- ◆ Minimum closing time
 - from 90° to 10° minimum of 3 seconds
 - from 10° to fully closed minimum of 1.5 seconds
- ◆ In event of failure
 - less than 15 lbf. to release latch
 - less than 30 lbf. to put door in motion
 - less than 15 lbf. to fully open door
- ◆ Signage visible from either side of the door.
- ◆ 300,000 cycles



Low Energy Power Operators

Electro-hydraulic



Electro-mechanical



Electromechanical Heavy Duty



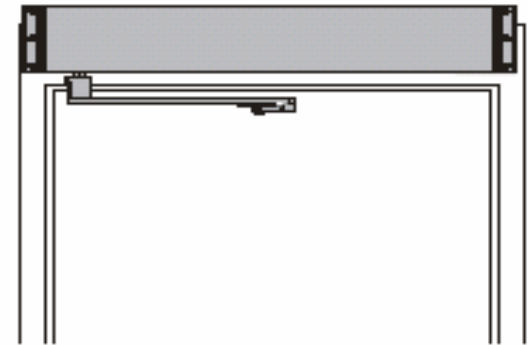
Primarily Automatic Openings



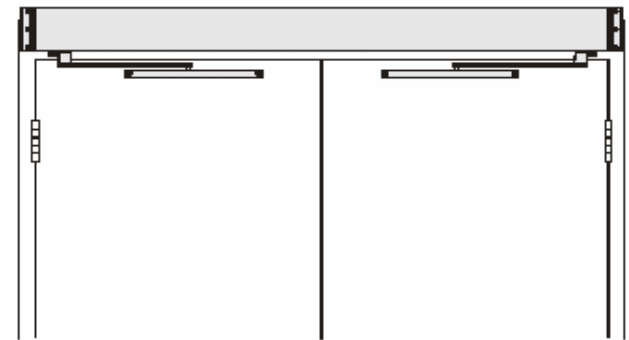
Electromechanical – Heavy Duty

- ◆ Power Boost™
- ◆ 10 million cycles vs. ANSI 300K
- ◆ Adjustable opening force & speed
- ◆ Full automation & sensing
- ◆ Overhead concealed
- ◆ Full length cover option
- ◆ Auto reverse on open & close
- ◆ Alternate action
- ◆ Reduced opening force

SINGLE DOOR, SURFACE MOUNT (PUSH)
OFFSET PIVOT/BUTT HINGE



OPERATOR MOUNTS
INDEPENDENT PAIR, SURFACE MOUNT
*PULL SIDE
PUSH SIDE
DOUBLE EGRESS



*PULL SIDE mount shown

Applications

- ◆ Main entrance/Exterior door (product that exceeds 300,000 ANSI std.)
- ◆ High use/High abuse openings
- ◆ Motion Sensor Activation
- ◆ Hospital Corridors
- ◆ Nursing Homes



Electrohydraulic



Primarily Manual Openings



Electrohydraulic-Heavy Duty

- ◆ Digital Control Suite
- ◆ Utilizes a 10 Million Cycle Heavy Duty Door Closer
- ◆ On-Board Diagnostics
- ◆ Built-in Power Supply
- ◆ Plug-and-Play Connections
- ◆ No-Destruct Feature
- ◆ 3 million cycles vs. ANSI 300K



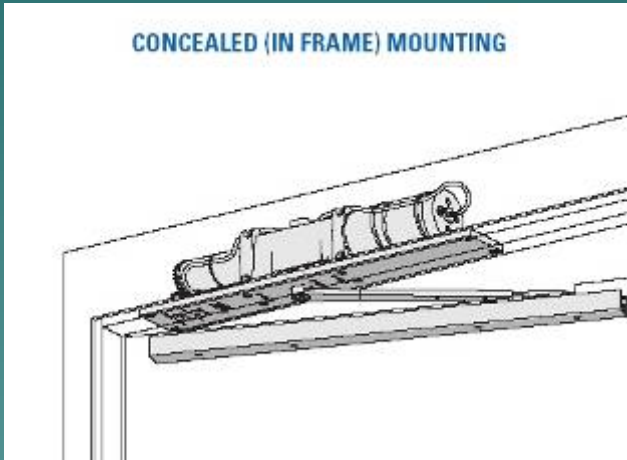
Applications

- ◆ Main Entrance/Exterior Door – Primarily manual traffic
- ◆ Push Button Activation
- ◆ High use/High abuse openings
- ◆ Schools
- ◆ Retail
- ◆ Restrooms

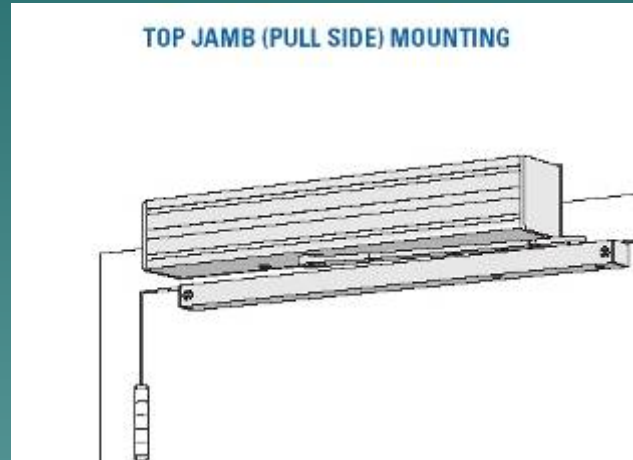


Electrohydraulic, Pneumatic System

CONCEALED (IN FRAME) MOUNTING



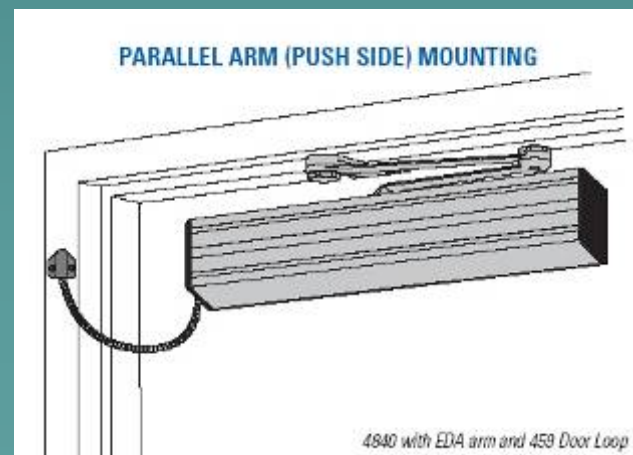
TOP JAMB (PULL SIDE) MOUNTING



TOP JAMB (PUSH SIDE) MOUNTING



PARALLEL ARM (PUSH SIDE) MOUNTING



4840 with EDA arm and 459 Door Loop



Pneumatic System

- ◆ Quiet
- ◆ Explosive environment
- ◆ Multi-door solution
- ◆ Wind conditions
- ◆ Manual operation
- ◆ Blow-open for smoke evacuation systems



Electromechanical Standard Duty



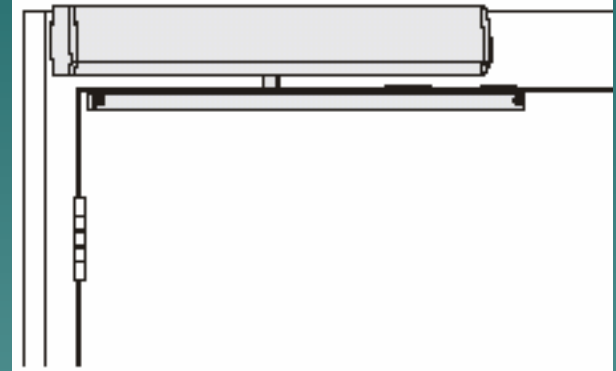
Primarily Automatic Opening



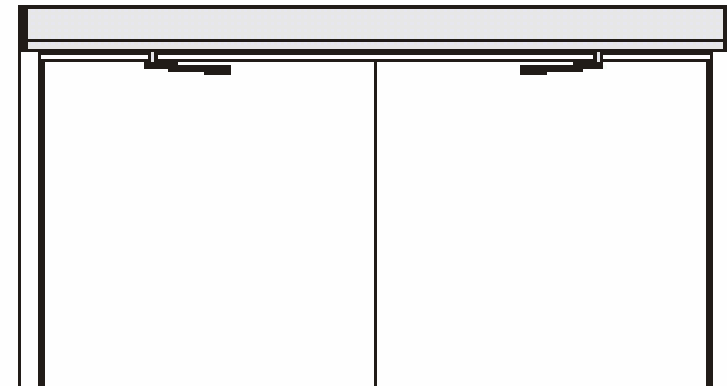
Primarily Automatic Opening

- Full length cover option
- Premium control box option
 - Power supply powers E.S., Mag. Locks, motion detectors
 - Power Boost™
- Non-handed

SINGLE DOOR, SURFACE MOUNT (PULL)
OFFSET PIVOT/BUTT HINGE



PAIR DOOR, SURFACE MOUNT (PUSH)
OFFSET PIVOT/BUTT HINGE



Summary

- ◆ Enabling Objectives

- ◆ Objective 1 - Describe latch requirements for an opening
- ◆ Objective 2 - Identify the characteristics of a clear opening
- ◆ Objective 3 - Describe the opening force requirements for an opening
- ◆ Objective 4 - Identify closing speed requirements for a door
- ◆ Objective 5 - Identify the need for an automated opening
- ◆ Objective 6 - Identify minimum speed requirements for an auto operator door



What is important to the building owner?

◆ Accessibility

- Public accommodation
- Meeting the needs of the disabled

◆ Compliance

- Code
- Law

◆ Security

- Controlled Access
- Accountability

◆ Safety

- Doors & hardware working properly
- Proper hardware on each opening



The Cost of Not Complying

Several local business owners could end up closing their restaurants or pay out hundreds of thousands of dollars to make repairs and settle with a wheelchair-bound man who calls himself "The Sheriff."



ADA lawsuits flood courts

"The Sheriff" strikes again

The wheelchair-bound man suing hundreds of businesses in California for not being compliant with the Americans with Disabilities Act (ADA) has now served dozens of lawsuits to business owners in one Central Coast town.

ADA Lawsuits in South Florida

ADA Suits Close Another Beloved Eatery

A Florida-advocacy group for disabled persons has filed three lawsuits this week against businesses in two Maryland cities for alleged non-compliance with the Americans with Disabilities Act.



Remember, it's against the law to Discriminate

