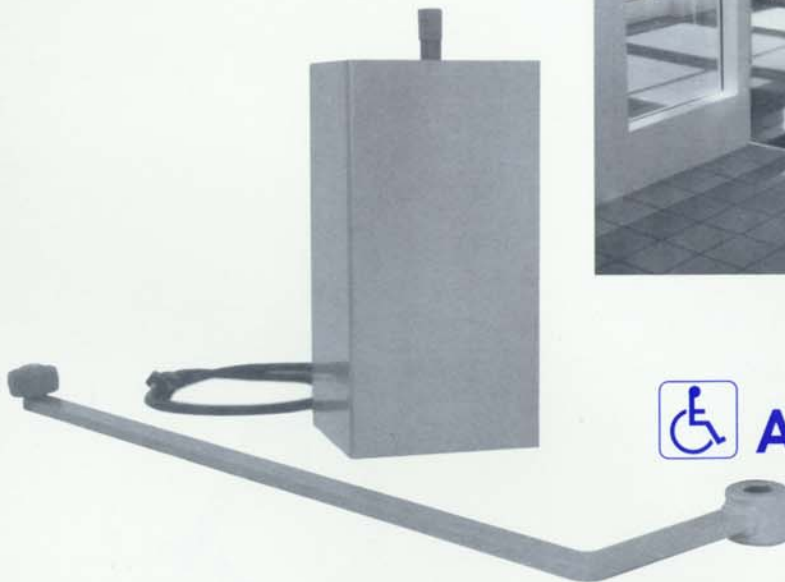




Door Motion Technologies[®], Inc.

DuraSwing[™] MK IV

*High Performance
True On-Demand
Low Energy
Door Operator*



ADA Product

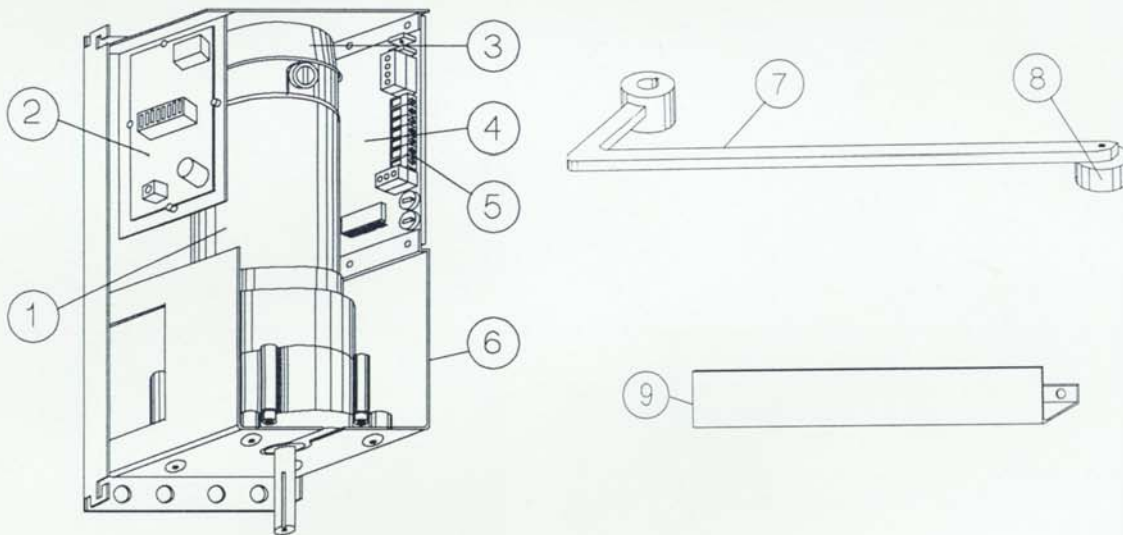
Elegant Door Control Solutions

DMT Tel: 800 291 1561 Fax: 616 327 6158 www.doormotion.com

DMT DuraSwing™ MK IV • Heavy Duty •

DuraSwing™ MK IV: GENERAL DESCRIPTION

This swing door operator is ideal for retrofit or new construction, and will automate all exterior or interior swing doors up to 4.0' in width, including plate-glass frameless doors. This jam-mount door operator will work with most existing closers. The operators actuator arm does not connect to the door and only receives wear-and-tear when it is activated. This *true on-demand* system also does not add resistance to normal door operation. The system consists of three modular components for easy installation and service: **A:** a microprocessor based motor and accessory control board, **B:** a drive assembly consisting of a 3" diameter DC motor with a *permanently lubricated and sealed gear box*, and **C:** a wireless control receiver for easy and convenient push-button actuation. This operator is equipped with an accessory module which provides a terminal bus bar, control and power supply for an electric lockstrike or magnetic lock. Also provided are card reader or keypad trigger inputs. For full automatic operation, contacts and sensor power supply are available. A typical installation can be finished in *one hour* by one person. This operator complies with ADA/BHMA low-energy door operator requirements, and also has been tested to exceed **1 MILLION** full-load cycles.



CALL-OUT LEGEND

1. Gearhead Motor
2. Wireless Receiver
3. Motor Encoder (Rev Monitor)
4. Motor Control Board
5. Sensor/Access Control Module
6. Rigid, All-Steel Construction
7. Door Control Arm (C.R. Steel)
8. Urethane Roller
9. Inswing Roller Track (option)
10. Durable Powder Coat Finish



• Full-Time or On-Demand Door Operator •

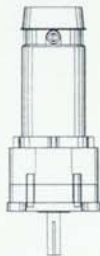
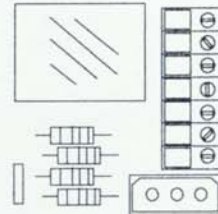
Microprocessor Based Motor Control System.

This state-of-the-art motor control system is the heart of the DS MK IV. It uses a computer chip to monitor door position continuously by processing motor position data transmitted from the encoder attached to the motor. This data (or feedback) includes speed, resistance and time. The SafeTek™ algorithm then processes this information to detect obstructions and environmental variables (such as wind & door system characteristics). The control program is self-adjusting, so there are few set-up controls: Door Open Angle (60 to 120 degrees); Hold Open Time (5 to 45 seconds) and Force Limit, which adjusts the operator to initial door system characteristics. The SafeTek™ program can distinguish a human "obstruction" from a gust of wind, which means the door will stop when encountering a 15 lb. resistance yet will open through windy conditions. Additionally, if a person causes the door to stop, the door will stall and the program will wait 3.5 seconds, then continues its opening cycle to full open. If the person is still obstructing the door, the program will sense the 2nd stall, then it will close the door. Upon activation, power ramp-up provides a "soft start" to extend the life of door system components.



Automatic Sensor and Access Control Module.

Integrated with the motor control system is a complete sensor and access control terminal block and relay module, designed to make easy work of combining various types of sensor triggers for full automatic operation. There is also an inhibit override, in case two persons approach the door from opposite directions. Included are various inputs, outputs and delay to facilitate operation of electric lockstrikes, magnetic locks, card readers, keypads and other types of security/access control systems, including fire alarm circuits. Additionally, there is a 24VDC power take-off sufficient for many commercial electric lockstrikes, magnetic locks and other accessories.

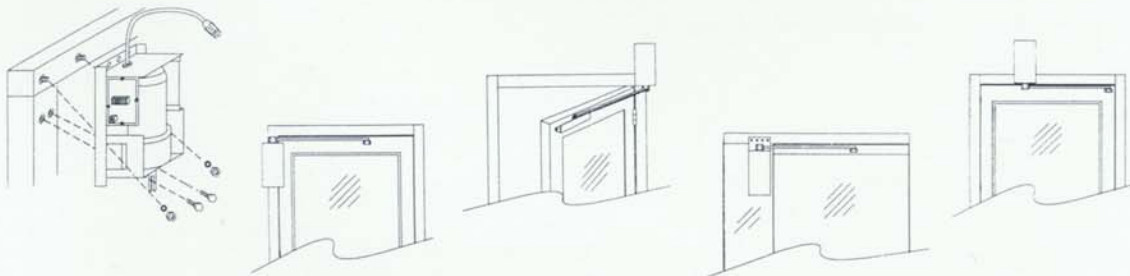


Integral Heavy-Duty Gearhead Motor.

The large 3" DC motor is coupled to an *all-steel geartrain* (no plastic gears) which is permanently lubricated and sealed in an aluminum casting. This provides a long, maintenance-free life of smooth operation. Tested beyond *1 Million Cycles*, it carries a 3 year limited warranty. The High-torque DC motor requires a lower gear ratio than most and only adds a minimal 2 lbs. of internal resistance when the door is operating manually. Also, violent door abuse is less likely to damage the gear train. The enclosed gearbox has the added benefit of permanent lubrication and quiet operation and no routine maintenance is required. Should repair become necessary, the compact, clean drive system takes 10 minutes to remove or replace.

Easy Installation with Maximum Applications Flexibility.

Field experience has shown that all too frequently, the application at hand has unexpected variables. The DuraSwing™ MK IV is unique in that its design allows for **9 distinctly different installation types**, with multiple variations of each type, which allows for virtually universal installation capability. This unique characteristic makes the MK IV a preferred unit for difficult applications. The typical installation will take **1 person 1 hour** to complete, with only a modest requirement of mechanical experience with common tools.

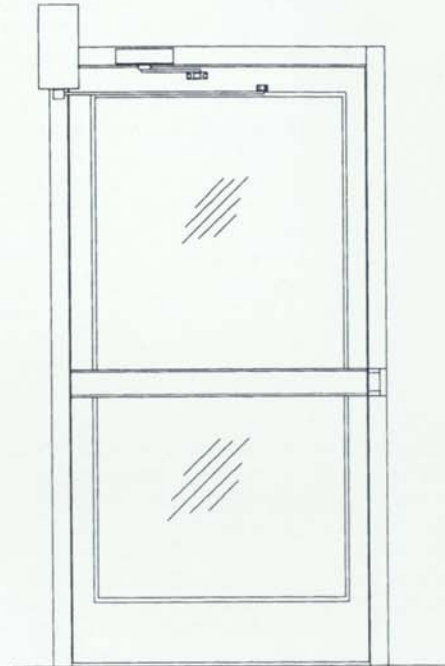


- Standard
- Zero Header Clearance
- Inswing/Outswing
- Frameless All-Glass
- Balance Doors
-

• Full Function • High Performance • Jam Mount •

Operator Features & Benefits

- Choice of *on demand* or *automatic* operation.
- Rugged - does not require a clutch system to protect the gearbox. (1/10th H.P. motor)
- Works with any existing closer.
- Non-Handed.
- Will invert for zero-header clearance applications.
- Push-open or pull-open operations.
- No maintenance required.
- Access control and sensor ready (24VDC @ 1/3A, contacts.)
- Does not require external safety devices.
- Quiet, smooth & efficient.
- True microprocessor motor control.
- Exclusive SafeTek™ safety control program.
- Available in standard and custom powder coated finishes.
- Wireless operation standard.
- Push and go operation.
- Power open/power close option (residential model only)
- One person, one hour installation.
- Three Year limited warranty.
- CSA/NRTL listed.



For full specifications, phone or fax request to DMT for prompt reply.

LIMITED WARRANTY:

3 YEARS on motor, geartrain and chassis components.
1 YEAR on all electronics. (Call for full specifics.)

ACCESSORIES



DM P3 - Frame switch



DM P2 - Direct-wire wall switch



DM P6 - 4" Round wall Switch



DM P5 - Keychain transmitter



DM P1 - Wireless wall switch



DM IR50C - Infra-red sensor



DM P4 - Hand-held transmitter