Full Line Catalog



## Corporate Capabilities

## Application Engineering

- Application Engineers with a combined 65 years of experience
- Unmatched ability to suggest proper foot control for customers' needs
- Second to none in offering custom products
- Daily interface between customers and vendors
- Agency expertise (UL, CSA, CE, WEEE, RoHS, FDA)


## Customer Service

- Customer Service Representatives with a combined 55 years of experience
- Estimated 110,000 hours of direct interface with customers
- Servicing accounts worldwide
- Defined and dedicated territories to establish a rapport with the customer
- Direct human interface
- Real time data availability
- Most technical questions are answered on your first call


## Information Systems (IT)

- 4 MIS Technicians with more than 90 years of combined experience
- 2 IT programmers
- 1 MIS Manager
- 1 Graphic Design/PC Programmer
- Custom Web design for ease of browsing \& navigation
- Ability to generate product sheets for customers in PDF or hardcopy formats
- Custom E.R.P. System (Mfg. software)
- Fully integrated system which provides timely delivery and instant answers


## Engineering

- Approximately 170 years of Engineering experience accounted for
- 1 Software Engineer
- 1 Senior Design Engineer
- 2 Mechanical Engineers
- 1 Draftsman
- 2 Document Control personnel
- 1 Component Compliance Engineer
- 1 Project Leader
- 2 Electrical Technician
- 1 Engineering Manager
- Maintenance of approximately 12,000 drawing library, ISO documentation \& Work Procedures
- Leaders of product enhancement projects
- Direct customer and Engineering interface (if required)
- Custom designing to satisfy customer needs
- UL, CSA, CE certification for LINEMASTER ${ }^{\circ}$ product
- FDA approval for IR Wireless products
- RoHS Compliant

> "Linemaster Switch Corporation's mission is to provide a superior foot switch at an affordable price without compromise."

## Manufacturing

- Manufacturing Managers with a combined 50 years of manufacturing experience
- 50,000 sq. foot facility under one roof
- Certified Training; verified through training matrix
- Currently 1.5 running shifts; 3 shift potential (growth potential)
- Label Department
- Custom labeling
- Majority of standard labeling done in-house
- Ability to produce serial and barcode labels
- Cord Department
- Custom cable assembly design (specific per customer requirements)
- EPTAC certified (solder)
- Completely lead free solder
- In-house molding capabilities (grommets/phone plugs)
- Drill Department
- Secondary machining
- Automated multi-head drilling capability
- C.N.C. machine centers
- Paint Department
- In-house paint shop
- Custom colors available
- Textured finishes available
- Durable water base paint
- Conveyer belt oven bakes on paint in less than 1 hour
- Assembly
- 5 operating cells by switch family, potential of 15
- First piece inspection on all items for maximum quality
- Light duty assembly
- Long term experienced employees
- Strategically placed departments for proper work flow

Quality

- Quality department consists of 7 people (2 Quality Engineers and 1 Quality Manager)
- 66 years of combined experience
- ISO 9001 Certified since 1997 (continuous certification)
- FDA audit for IR Wireless product
- CSA, UL, TUV, CE, VDE audits of LINEMASTER ${ }^{\circ}$ product
- On-site water testing (submersion) lab - hypot immersion testing
- Handles semi-annual ISO audits and various customer audits
- Internal Audits performed throughout the year to monitor quality
- Automated testing machines assures reliability
- Capable of performing full dimensional inspections
- Calibration of all testing and measuring tools yearly
- Highly recognized for quality product by top OEMs
- RoHS compliant on all standard products
- Completely compliant per the WEEE Directive
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# Symbols Used In This Catalog 



MEDIUM DUTY


Rocker Switch
Left / Right


Rocker Switch
Heel / Toe


## Custom Medical OEM Switches

That custom foot switch you need may already have been designed. Illustrated are but a few of the custom foot switches we have manufactured to meet the specific needs of the Original Equipment Manufacturer. Whether you are looking for a standard model or a custom foot switch designed to your specifications,
be sure to contact LINEMASTER.. Let us know the details of your foot switch specifications for a prompt quotation. Remember, our many years of experience in designing and making foot switches, will save you time and money and avoid costly design pitfalls.


## Custom Industrial OEM Switches

Special variations are only available to the Original Equipment Manufacturer (O.E.M.) in production quantities. Specials are made to the O.E.M.'s specifications, and orders for specials are accepted on a direct basis only. Any modification to a standard item, however slight, i.e. minus the nameplate, would be considered a special.

We offer custom cordset service, so that we can provide a complete foot control assembly to the
O.E.M.'s specifications. Special paint finishes, nameplates, mounting provisions and packaging are some of the options available to the O.E.M.

If a REPLACEMENT FOOT CONTROL assembly (Special) is required for a particular piece of equipment, we would suggest that direct contact be made with the O.E.M. for replacements, as all specials are made on a proprietary basis.


## Special Variations - Original Equipment Manufacturers

Special Variations are only available to the Original Equipment Manufacturer (O.E.M.) in production quantities. Specials are made to the O.E.M.'s specifications, and orders for specials are accepted on a direct basis only. Any modification to a standard catalog item, however slight, i.e. minus the nameplate, would be considered a special.

We offer custom cordset services, so that we can provide a complete foot control assembly to the O.E.M's specifications. Special paint finishes, nameplates, mounting provisions and packaging are some of the options available to the O.E.M.

If a O.E.M. REPLACEMENT FOOT CONTROL assembly is required for a particular piece of equipment, we would suggest that direct contact be made with the O.E.M. for replacements, as all specials are made on a proprietary basis.

## MULTIPLE LISTING-O.E.M.

All LINEMASTER ${ }^{\oplus}$ foot switches are UL Listed, CSA Certified or UL Recognized Components. Under UL and CSA Multiple Listing Programs, it is possible for the O.E.M. to include the UL or CSA insignias on their own nameplate. Please contact the factory for details.

## CE MARKING

Many of our foot switches are or, with modifications, can be CE Marked to meet the EC Low Voltage Directive. We are working with Underwriters Laboratories, TUV Product Service and TUV ESSEN to meet the needs of our customers requiring CE Marking to specific EN standards. Our foot switches are considered general use devices and see a wide variety of end uses. To this end we have an on-going long term project with UL to investigate our entire product line to various EN Standards.

It should be noted; a foot switch that is to be attached to a finished product by the Original Equipment Manufacturer need not be CE Marked. According to the U.S. Department of Commerce, we can ship our foot switches to the European Community provided the following declaration is made on the shipping documents: "These components are intended exclusively for an industrial assembly operation for incorporation in apparatus."

FDA
Many of our foot switches are used on a wide variety of medical device products. The FDA considers the foot switch to be a component and not an accessory when used with the manufacturer's finished medical device.

UL
Underwriters Laboratories
UL (Underwriters Laboratories, Inc.): Standards agency and testing laboratory for the United States. UL also has some limited involvement in international certifications.

RoHS
RoHS - Restriction of Hazardous Substances

## WEEE

WEEE - Waste Electrical and Electronic Equipment
PRIVATE LABELING
With this option, the O.E.M. can order foot switches with a nameplate which is identical to our standard nameplate except the customer name and address would replace the LINEMASTER name and address. All other information would remain the same.

CUSTOM NAMEPLATE SERVICE-O.E.M.
Special nameplates and custom WARNING labels are available to the O.E.M. as part of a special foot switch assembly or as separate items.
GOLD ALLOY CONTACTS-O.E.M.
In most applications that required a foot operated switch, our customers have found that one of our standard basic models have met their needs. In those special design applications that require a special foot control with gold alloy contacts, we can offer the O.E.M. a basic snap switch with SPDT gold alloy contacts rated 1 Amp 125 VAC in most of our foot switch housings. The use of this basic gold alloy snap switch, would delete all agency approvals where noted. Before a decision is made to specify gold alloy contacts, we would suggest that a standard foot switch model be evaluated in the particular application.

MULTI PEDAL CONTROLS-O.E.M.
Many of our basic foot switch models can be mounted in combinations to provide multi function foot controls. Several of the more commonly required dual models are offered as standard twin units and are shown in the catalog and listed in the price sheet. Other multi pedal combinations are available to the O.E.M. on special order, in production quantities. Please refer to the back cover of the catalog for some representative examples. Up to eight DPDT functions can be incorporated in a single assembly.

CUSTOM CORDSET SERVICE-O.E.M.
Custom cordsets are available to the O.E.M. as part of a complete foot switch assembly or as separate items. LINEMASTER is a UL Recognized and CSA Certified source for Wiring Harnesses and Processed Wire.

## MATERIAL SAFETY DATA SHEETS-MSDS

LINEMASTER ${ }^{\text {® }}$ products do not require Material Safety Data Sheets.

## ENVIRONMENTAL PERFORMANCE

In addition to the familiar NEMA, UL and CSA enclosure types, LINEMASTER ${ }^{\oplus}$ offers a variety of standard foot switches that meet IEC 529, Type IP68 and/or IEC 60601-2-2, Section 44, Subparagraph aa requirements for protection against access to and the entrance of foreign objects and water to the electrical switching elements and connections. This is accomplished by either sealing the enclosure or the switching element itself.

Virtually all of our foot switch families can be constructed to accommodate these requirements as a special variation for the O.E.M.

## Application Cross Reference

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## USE OF FOOT CONTROLS ON MACHINERY LACKING EFFECTIVE POINT OF OPERATION SAFEGUARDS CAN CAUSE SERIOUS INJURY TO THE OPERATOR.

Foot controls should only be used where "Point of Operation" and "Pinch Point" guarding devices have been properly installed and are utilized so that it is IMPOSSIBLE for the operator's hands or fingers to remain within the point of operation during the machine cycle.

POINT OF OPERATION-The point or area of the machine or equipment where the work piece or material is actually positioned and work is being performed during any process such as cutting, shearing, punching, forming, welding, riveting, assembling, etc.

PINCH POINT-Any point at which it is possible for a portion of the body to be caught and injured between moving machine or equipment or work piece parts.

IT IS THE RESPONSIBILITY OF THE USER to determine the suitability of a foot control for the user's intended use and to determine that the foot control chosen by the user and wring up and installation of same will comply with all Federal, State and Local safety and health regulations and codes.

Due to the unlimited variety of business equipment, instruments, machines and vehicles on which our foot switches are used, the thousands of standards, and customers' varying interpretations of the standards covering these applications, it is impossible for LINEMASTER ${ }^{\circ}$ personnel to be experts on standards and requirements for all these products. We offer over 150 stock foot switch models and guards plus a large variety of specials which are made to customer specifications. We can advise you what is available in our foot switch line and you can examine models to see what meets your needs. We believe our customers' engineering departments should be the qualified experts in their own product field and know what specifications or details they may require in a foot switch for their equipment. If one of our stock models meets their needs, they can specify it, or possibly ask for a modification of a stock model if that is required.

SHOULD YOU HAVE ANY QUESTIONS OR IF ANY OF THE ABOVE WARNING IS UNCLEAR, PLEASE CALL LINEMASTER ${ }^{\circ}$ SWITCH CORPORATION.

LINEMASTER SWITCH CORPORATION reserves the right to discontinue or change specifications, designs or materials, without notice consistent with sound engineering principles and modern practices.

## Corporate History

The roots of LINEMASTER ${ }^{\circledR}$ extend back to the great depression of the 1930's. With a generous gift of $\$ 500.00$ from his Aunt, and a business machinery loan from the Reynolds Company in Providence, RI, Albert Simonds, incorporated the Simonds Machine Company in Southbridge, Massachusetts in 1937. From this modest beginning, he produced the Lensmaster optical machinery line to grind lenses of all sizes. As his business grew, he found a need for a good, reliable foot switch to operate his equipment that required the operator to maintain hands-free capability at all times. Consequently, he invented the foot switch, and LINEMASTER was born. His first foot switch, the Senior, came to fruition through the sale of Al's optical machinery to a company called New Era in Chicago. The management of a tool shop in the same building saw it and asked if they could acquire some of those switches. This request was forwarded back to Al at Lensmaster, and the ball began to roll.

The Second World War interrupted the growth of Lensmaster and delayed the development of LINEMASTER; however, in the early 1940's, the Junior and Duplex models were added to the Senior family and expanded Al's offerings. The housings of the switches were made of cast iron manufactured by the Connecticut Foundry and the interior switching mechanisms were designed and developed by Arrow-Hart \& Hegeman of Hartford, CT. The Treadlite, Compact and Electro-Lok followed in rapid succession at the close of the war and Mr. Simonds felt that LINEMASTER ${ }^{\circ}$ was now capable of its own business destiny. Lensmaster was growing quickly and LINEMASTER ${ }^{\circ}$ needed to move to a quieter, more desirable location. When AI Simonds married Nancy B. Blakely in Woodstock, CT during November 1951, they started to look for a future home for LINEMASTER ${ }^{\circ}$ in the Woodstock area. Bald Hill Acres was available and on April 11, 1952 was purchased as their home, office and manufacturing facility. On May 1, 1952, Linemaster Switch Corporation was officially established as a privately owned and operated manufacturing facility in the state of Connecticut. Soon the Simonds family needed additional space and added the first of many structures to the small wooden carriage house on the property. The mansion remained Al's and Nancy's home and office until 1964.

LINEMASTER ${ }^{\circ}$ acquired the components for the assembly operation from other small companies in the area. Connecticut manufacturers were favored, however, firms throughout the country aided the growth of LINEMASTER ${ }^{\circ}$.

During the ' 50 's, additional models were added to the foot switch family. Led by the burly Hercules, an onslaught of different designs and application specific switches were introduced to the American public. The Nautilus,

Cadet, Clipper, Executive and Deluxe models, to name a few, increased the company's core product line. To this day, most remain the bread and butter of Linemaster Switch Corporation. Al Simonds' untimely death in 1966 left the company with a strong legacy that its employees have maintained. His wife, Nancy, who had been very active in the business since 1942 at Simonds Machine, became President and Treasurer and has carried on in the same manner until her retirement in 2002. Their daughter, Nancy Iris, has held many key positions with the company.

Joseph Carlone joined LINEMASTER ${ }^{\circ}$ as Vice President/General Manager in April 1996, bringing to the company his knowledge and experience in manufacturing. He was named President in 1998, and is responsible for the engineering enhancements and cutting edge technologies that ensure Linemaster's continued growth and integrity. Mr. Carlone purchased Linemaster Switch Corporation in June 2002 and takes great pride in guiding "America's Foot Switch Leader" into the new millennium.

The growth of LINEMASTER ${ }^{\circ}$ and its facilities is the story of a small business success that has repeated itself many times across America. Small business is the backbone of American industry that fires the ingenuity in all of us. Over the decades, LINEMASTER ${ }^{\circ}$ has continued to grow while remaining faithful to its original small company focus of service, quality and integrity. America's Foot Switch Leader offers a complete range of electric, air-powered and variable speed foot switches. Today, the manufacturing facility is situated in the heart of the 91 acres that is still referred to as Bald Hill and has expanded to over 50,000 square feet. It produces over 200 standard catalog items featuring heavy, medium and light-duty switches. These switches are found in industrial, medical and commercial based applications of all types worldwide.

LINEMASTER ${ }^{\circ}$ has become the foot switch of choice to those who require exceptional quality and engineered technologies that are uncommon and not standard. The changing needs of our customers have brought LINEMASTER ${ }^{\circ}$ to new levels, embracing new technologies such as solid modeling design and stereo lithography. LINEMASTER ${ }^{\circ}$ is currently able to design and test new foot switches in only a fraction of the time it took LINEMASTER ${ }^{\circ}$ in the past. New models such as the Air Seal, Atlas and Aquiline are examples of foot controls designed to meet tomorrow's standards today. LINEMASTER ${ }^{\circ}$ looks forward with great enthusiasm to the challenges of the new millennium, striving always to provide excellent service and uncompromising quality in its 50 year old tradition.

## NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13

## CSA ENCLOSURE 2, 4 \& 13

## EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard



## Features \& Benefits:

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw


## Options:

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the " O " shield
- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Gated Models available for additional protection (See "Hercules Anti-Trip - Gated..." on pages 12 \& 13 for details)
- Twin and triple models available - Special Order

| Size (HxWxD): | $4.80 \times 5.88 \times 9.00 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN $\mathbf{~} \mathbf{0 0 5 2 9}$ <br> Degree frotection | CATALOG <br> NUMBER | DESCRIPTION | STAGE | CIRCUIT |  | FORM |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| ELECTRICAL |  |  |  |  |  |  |  |
| RATINGS |  |  |  |  |  |  |  |

${ }^{1}$ One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.0. Circuit long before you would remake a N.C. Circuit in a $511-B 2$. ${ }^{2}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

## Hercules Anti-Trip - O Shield

NEMA Type 2, 4 \& 13
UL ENCLOSURE 2, 4 \& 13
CSA ENCLOSURE 2, 4 \& 13
EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight

ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:



- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw


## Options:

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the "O" shield
- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Gated Models available for additional protection (See "Hercules Anti-Trip - Gated..." on pages 12 \& 13 for details)
- Twin and triple models available - Special Order

| SIZE (HxWxD): | $5.31 \times 5.88 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| WEIGHT: | 8.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c\|c\|c\|} \text { EN } 60529 \\ \text { Degree of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (5) (14) (1). | IP56 | 511-BO | Momentary | SINGLE | SPDT | C | 20 A 125-250 VAC <br> 1 H.P. 125-250 VAC <br> Heavy Pilot Duty 250 VAC Max. |
| (5) (17) (1). | IP56 | 511-B2O ${ }^{1}$ | Momentary | SINGLE | DPDT | C |  |
| (5) (17) (6). | IP56 | 511-B2OA | Momentary | TWO | SPDT | C |  |
| (4) (1). | IP56 | 511-B3O | Momentary | SINGLE | SPDT DB ${ }^{2}$ | Z | $\begin{aligned} & 15 \text { A 125-250 VAC } \\ & \text { 1/2 H.P. } 125 \text { VAC } \\ & 1 \text { H.P. } 250 \text { VAC } \\ & \text { Heavy Pilot Duty } 250 \text { VAC Max. } \end{aligned}$ |
| (14) (1). | IP56 | 511-B4O ${ }^{1}$ | Momentary | SINGLE | DPDT DB ${ }^{2}$ | Z |  |
| (4) (1). | IP56 | 511-B4OA | Momentary | TWO | SPDT DB ${ }^{2}$ | Z |  |

${ }^{1}$ One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.O. Circuit long before you would remake a N.C. Circuit in a $511-B 2$. ${ }^{2}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

## NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13

CSA ENCLOSURE 2, 4 \& 13
EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order

- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw


## Options:

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the " O " shield
- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Gated Models available for additional protection (See "Hercules Anti-Trip - Gated..." on pages 12 \& 13 for details)
- Twin and triple models available - Special Order

| SIZE (HxWxD): | $5.78 \times 6.03 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| WEIGHT: | 8.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | $\begin{array}{\|c\|c\|} \hline \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (5) (1L) (1). | IP56 | 511-BOX | Momentary | SINGLE | SPDT | C | 20 A 125-250 VAC <br> 1 H.P. 125-250 VAC <br> Heavy Pilot Duty 250 VAC Max. |
| (5) (1L) (1). | IP56 | 511-B2OX ${ }^{1}$ | Momentary | SINGLE | DPDT | C |  |
| (5) (1L) (1). | IP56 | 511-B2OXA | Momentary | TWO | SPDT | C |  |
| (14) (1) | IP56 | 511-B3OX | Momentary | SINGLE | SPDT DB ${ }^{2}$ | Z | $\begin{aligned} & 15 \text { A 125-250 VAC } \\ & \text { 1/2 H.P. } 125 \text { VAC } \\ & 1 \text { H.P. } 250 \text { VAC } \\ & \text { Heavy Pilot Duty } 250 \text { VAC Max. } \end{aligned}$ |
| (11) ( $\mathrm{SP}^{5}$ | IP56 | 511-B4OX ${ }^{1}$ | Momentary | SINGLE | DPDT DB ${ }^{2}$ | Z |  |
| (1+) (1). | IP56 | 511-B4OXA | Momentary | TWO | SPDT DB ${ }^{2}$ | Z |  |

${ }^{1}$ One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.0. Circuit long before you would remake a N.C. Circuit in a $511-\mathrm{B} 2$. ${ }^{2}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

## Hercules Anti-Trip - Gated O Shield

NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13 <br> CSA ENCLOSURE 2, 4 \& 13 <br> EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight <br> ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order
- Painted Alert Orange

- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw


## Options:

" Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the "O" shield

- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Twin and triple models available - Special Order

| SIZE (HxWxD): | $5.38 \times 6.00 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| WEIGHT: | 8.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

## SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | EN 60529 <br> Degree of Protection | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (\%) (4L) (1). | IP56 | 511-BG | Momentary | SINGLE | SPDT | C | $\begin{aligned} & 20 \text { A 125-250 VAC } \\ & 1 \text { H.P. 125-250 VAC } \\ & \text { Heavy Pilot Duty } 250 \text { VAC Max. } \end{aligned}$ |
| (5) (4L) (1). | IP56 | 511-B2G ${ }^{1}$ | Momentary | SINGLE | DPDT | C |  |
| (5) (1L) (1). | IP56 | 511-B2GA | Momentary | TWO | SPDT | C |  |
| (1+) (f). | IP56 | 511-B3G | Momentary | SINGLE | SPDT DB ${ }^{2}$ | Z | $\begin{aligned} & 15 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125 \text { VAC } \\ & 1 \text { H.P. } 250 \text { VAC } \end{aligned}$$\text { Heavy Pilot Duty } 250 \text { VAC Max. }$ |
| (14) (1) ${ }^{\text {a }}$ | IP56 | 511-B4G ${ }^{1}$ | Momentary | SINGLE | DPDT DB ${ }^{2}$ | Z |  |
| (1+) (1). | IP56 | 511-B4GA | Momentary | TWO | SPDT DB ${ }^{2}$ | Z |  |

[^0] ${ }^{2}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

## NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13

CSA ENCLOSURE 2, 4 \& 13
EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight ADVANCED DESIGN HELPS PREVENT ACCIDENTAL ACTUATION

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Special AirVal models available to the O.E.M. on special order

- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:

- Heavy duty foot switch features an anti-trip treadle mechanism that helps prevent accidental actuation through unintentional stepping on foot treadle
- Switch operation requires that the latch trip lever be released prior to depressing the foot treadle as in-line foot pressure is applied to the latch trip lever located at the rear of the foot treadle
- Smooth trip lever release and treadle depression motion results in good rate of operation
- Dual treadle return springs and latching mechanism
- Anti-skid rubber feet and 3 holes for rigid mounting to floor or equipment
- All Models have a neoprene Cover Gasket plus O-Rings on the Actuating shaft and separate ground screw


## Options:

" Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" $(19.1 \mathrm{~mm})$ opening height as compared to the " O " shield

- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Twin and triple models available - Special Order

| SIZE (HxWxD): | $6.06 \times 6.03 \times 9.125 \mathrm{In}$. |
| :--- | :--- |
| WEIGHT: | 8.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | EN 60529 Degree of Protection | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (5) (1+) (1). | IP56 | 511-BOXG | Momentary | SINGLE | SPDT | C | 20 A 125-250 VAC 1 H.P. 125-250 VAC Heavy Pilot Duty 250 VAC Max. |
| (5) (1+) (1). | IP56 | 511-B2OXG ${ }^{1}$ | Momentary | SINGLE | DPDT | C |  |
| (t) (1L) (1). | IP56 | 511-B2OXGA | Momentary | TWO | SPDT | C |  |
| (1+) (1). | IP56 | 511-B3OXG | Momentary | SINGLE | SPDT DB ${ }^{2}$ | Z | $\begin{aligned} & 15 \text { A 125-250 VAC } \\ & \text { 1/2 H.P. } 125 \text { VAC } \\ & 1 \text { H.P. } 250 \text { VAC } \\ & \text { Heavy Pilot Duty } 250 \text { VAC Max. } \end{aligned}$ |
| (17) (1) ${ }^{\text {a }}$ | IP56 | 511-B4OXG ${ }^{1}$ | Momentary | SINGLE | DPDT DB ${ }^{2}$ | Z |  |
| (1+) (1). | IP56 | 511-B4OXGA | Momentary | TWO | SPDT DB ${ }^{2}$ | Z |  |

${ }^{1}$ One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.0. Circuit long before you would remake a N.C. Circuit in a $511-\mathrm{B} 2$. ${ }^{2}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

## Hercules - No Shield

## NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13

CSA ENCLOSURE 2, 4 \& 13

## EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight <br> NO SHIELD

## Materials of Construction:

- Treadle, cover and housing constructed from cast iron for strength and durability
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:



- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

" Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional $3 / 4$ " ( 19.1 mm ) opening height as compared to the "O" shield

- Special Dual $1 / 2$ "-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M on special order
- Special Twin models available to the O.E.M. on special order
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)


|  |  |
| :--- | :--- |
| Size (HxWxD): | $3.16 \times 4.06 \times 8.38 \mathrm{In}$. |
| Weight: | 8.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

| AGENCY APPROVALS | EN 60529 Degree of Protection | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1+) (1). | IP56 | 531-SWN | Momentary | Single | SPDT | C | 20 A 125-250 VAC 1 H.P. 125-250 VAC Heavy Pilot Duty 250 VAC Max. |
| (1+) (1). | IP56 | 571-DWN | Maintained | Single | SPDT | C |  |
| (1+) (1). | IP56 | 532-SWN | Momentary | Single | DPDT | C |  |
| (17) (1). | IP56 | 572-DWN | Maintained | Single | DPDT | C |  |
| (14) (1). | IP56 | 533-SWN | Momentary | Single | TPDT | C |  |
| (14) (S)- | IP56 | 573-DWN | Maintained | Single | TPDT | C |  |
| (14) (1). | IP56 | 534-SWN | Momentary | Two | SPDT | C |  |
| (14) (1). | IP56 | 574-DWN | Maintained | Two | SPDT | C |  |
| (14) (6) | IP56 | 535-SWN | Momentary | Three | SPDT | C |  |
| (14) (1) | IP56 | 575-DWN | Maintained | Three | SPDT | C |  |
| (14) (18. | IP56 | 536-SWN | Momentary | Single | SPDT DB ${ }^{1}$ | Z | 15 A 125-250 VAC 1/2 H.P. 125 VAC 1 H.P. 250 VAC Heavy Pilot Duty 250 VAC Max. |
| (17) (1). | IP56 | 576-DWN | Maintained | Single | SPDT DB ${ }^{1}$ | Z |  |
| (1+2) (1). | IP56 | 537-SWN | Momentary | Single | DPDT DB ${ }^{1}$ | Z |  |
| (14) (S). | IP56 | 577-DWN | Maintained | Single | DPDT DB ${ }^{1}$ | Z |  |
| (1+) (1). | IP56 | 538-SWN | Momentary | Two | SPDT DB ${ }^{1}$ | Z |  |
| (1+) (1) | IP56 | 578-DWN | Maintained | Two | SPDT DB ${ }^{1}$ | Z |  |

'DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line

## NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13

## CSA ENCLOSURE 2, 4 \& 13

## EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight

## STANDARD FULL SHIELD

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:



- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

- Oversize " O " and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" (19.1 mm) opening height as compared to the "O" shield
- Special Dual $1 / 2$ "-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- AirVal models are available (See "Hercules - Pneumatic AirVal" on page 53 for details)
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

| Size (HxWxD): | $4.37 \times 5.88 \times 9.00 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |


$\triangle$ WWARNING SEE PRODUCT WARNING ON PAGE 8

| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGENCY APPROVALS | $\underset{\text { Degree of Protection }}{\text { EN } 60529}$ | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| (11) (1). | IP56 | 531-SWH | Momentary | Single | SPDT | C | 20 A 125-250 VAC 1 H.P. 125-250 VAC Heavy Pilot Duty 250 VAC Max. |
| (14) (1). | IP56 | 571-DWH | Maintained | Single | SPDT | C |  |
| (11) (1). | IP56 | 532-SWH | Momentary | Single | DPDT | C |  |
| (11) (1). | IP56 | 572-DWH | Maintained | Single | DPDT | C |  |
| (12) (1). | IP56 | 533-SWH | Momentary | Single | TPDT | C |  |
| (1) (1). | IP56 | 573-DWH | Maintained | Single | TPDT | C |  |
| (11) (6). | IP56 | 534-SWH | Momentary | Two | SPDT | C |  |
| (11) (1). | IP56 | 574-DWH | Maintained | Two | SPDT | C |  |
| (11) (1). | IP56 | 574-DWHA ${ }^{1}$ | See Foot Note | Two | SPDT | C |  |
| (11) (1) | IP56 | 574-DWHD ${ }^{2}$ | See Foot Note | Two | SPDT | C |  |
| (1/) (1). | IP56 | 535-SWH | Momentary | Three | SPDT | C |  |
| (11) (1). | IP56 | 575-DWH | Maintained | Three | SPDT | C |  |
| (14) (1). | IP56 | 575-DWHA ${ }^{3}$ | See Foot Note | Three | SPDT | C |  |
| (14) (1). | IP56 | 536-SWH | Momentary | Single | SPDT DB ${ }^{4}$ | Z | 15 A 125-250 VAC 1/2 H.P. 125 VAC 1 H.P. 250 VAC Heavy Pilot Duty 250 VAC Max. |
| (1/) (1). | IP56 | 576-DWH | Maintained | Single | SPDT DB ${ }^{4}$ | Z |  |
| (11) (6). | IP56 | 537-SWH | Momentary | Single | DPDT DB ${ }^{4}$ | Z |  |
| (11) (1). | IP56 | 577-DWH | Maintained | Single | DPDT DB ${ }^{4}$ | Z |  |
| (17) (14. | IP56 | 538-SWH | Momentary | Two | SPDT DB ${ }^{4}$ | Z |  |
| (12) (14. | IP56 | 578-DWH | Maintained | Two | SPDT DB ${ }^{4}$ | Z |  |
| (17) (1). | IP56 | 578-DWHA ${ }^{1}$ | See Foot Note | Two | SPDT DB ${ }^{4}$ | Z |  |
| (14) (1). | IP56 | 578-DWHD ${ }^{2}$ | See Foot Note | Two | SPDT DB ${ }^{4}$ | Z |  |

${ }^{11}$ st stage Maintained 2nd stage Momentary. ${ }^{2}$ st stage Momentary 2nd stage Maintained. ${ }^{31}$ st stage Maintained 2nd \& 3rd stage Momentary. ${ }^{4}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

## Hercules - 0 Shield

## NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13

## CSA ENCLOSURE 2, 4 \& 13

## EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight

 "O" SHIELD
## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:



- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

" Oversize" 0 " and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional $3 / 4$ " ( 19.1 mm ) opening height as compared to the " O " shield

- Special Dual $1 / 2$ "-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

| Size (HxWxD): | $5.03 \times 5.88 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c\|} \hline \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (H) (1). | IP56 | 531-SWHO | Momentary | Single | SPDT | C | 20 A 125-250 VAC <br> 1 H.P. 125-250 VAC <br> Heavy Pilot Duty 250 VAC Max. |
| (1+) (18) | IP56 | 571-DWHO | Maintained | Single | SPDT | C |  |
| (1+) (18) | IP56 | 532-SWHO | Momentary | Single | DPDT | C |  |
| (1+2) (1). | IP56 | 572-DWHO | Maintained | Single | DPDT | C |  |
| (1+) (18. | IP56 | 533-SWHO | Momentary | Single | TPDT | C |  |
| (1+1) (f) | IP56 | 573-DWHO | Maintained | Single | TPDT | C |  |
| (17) (1) | IP56 | 534-SWHO | Momentary | Two | SPDT | C |  |
| (14) (18. | IP56 | 574-DWHO | Maintained | Two | SPDT | C |  |
| (14) (1). | IP56 | 574-DWHOA ${ }^{1}$ | See Foot Note | Two | SPDT | C |  |
| (1+) (f) | IP56 | 574-DWHOD ${ }^{2}$ | See Foot Note | Two | SPDT | C |  |
| (1+) (1). | IP56 | 535-SWHO | Momentary | Three | SPDT | C |  |
| (14) (1). | IP56 | 575-DWHO | Maintained | Three | SPDT | C |  |
| (17) (1). | IP56 | 575-DWHOA ${ }^{3}$ | See Foot Note | Three | SPDT | C |  |
| (17) (1) ${ }^{\text {P }}$ | IP56 | 536-SWHO | Momentary | Single | SPDT DB ${ }^{4}$ | Z | 15 A 125-250 VAC $1 / 2$ H.P. 125 VAC 1 H.P. 250 VAC Heavy Pilot Duty 250 VAC Max. |
| (1+) (1). | IP56 | 576-DWHO | Maintained | Single | SPDT DB ${ }^{4}$ | Z |  |
| (17) (1) | IP56 | 537-SWHO | Momentary | Single | DPDT DB ${ }^{4}$ | Z |  |
| (14) (1). | IP56 | 577-DWHO | Maintained | Single | DPDT DB ${ }^{4}$ | Z |  |
| (1+) (1)- | IP56 | 538-SWHO | Momentary | Two | SPDT DB ${ }^{4}$ | Z |  |
| (1L) (1) | IP56 | 578-DWHO | Maintained | Two | SPDT DB ${ }^{4}$ | Z |  |
| (17) (1). | IP56 | 578-DWHOA ${ }^{1}$ | See Foot Note | Two | SPDT DB ${ }^{4}$ | Z |  |
| (14) (1). | IP56 | 578-DWHOD ${ }^{2}$ | See Foot Note | Two | SPDT DB ${ }^{4}$ | Z |  |

${ }^{11}$ st stage Maintained 2nd stage Momentary. ${ }^{2} 1$ st stage Momentary 2nd stage Maintained. ${ }^{3}$ 1st stage Maintained 2 nd \& 3rd stage Momentary. ${ }^{4}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

## NEMA Type 2, 4 \& 13

## UL ENCLOSURE 2, 4 \& 13

## CSA ENCLOSURE 2, 4 \& 13

## EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight "OX" SHIELD

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

- Oversize " O " and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional $3 / 4$ " ( 19.1 mm ) opening height as compared to the " O " shield
- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Special Twin models available to the O.E.M. on special order
- Potentiometer models are available (See "Hercules -Potentiometer" on pages 61-64 for details)
- RF Wireless models are available (See "RF Wireless Hercules" on pages 68 for details)
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

| Size (HxWxD): | $5.78 \times 6.03 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c\|c\|} \hline \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1+) (S). | IP56 | 531-SWHOX | Momentary | Single | SPDT | C | 20 A 125-250 VAC 1 H.P. 125-250 VAC Heavy Pilot Duty 250 VAC Max. |
| (17) (1). | IP56 | 571-DWHOX | Maintained | Single | SPDT | C |  |
| (14) (1) | IP56 | 532-SWHOX | Momentary | Single | DPDT | C |  |
| (17) (1). | IP56 | 572-DWHOX | Maintained | Single | DPDT | C |  |
| (14) (1) | IP56 | 533-SWHOX | Momentary | Single | TPDT | C |  |
| (14) (1) | IP56 | 573-DWHOX | Maintained | Single | TPDT | C |  |
| (14) (1). | IP56 | 534-SWHOX | Momentary | Two | SPDT | C |  |
| (14) (1) | IP56 | 574-DWHOX | Maintained | Two | SPDT | C |  |
| (14) (1). | IP56 | 574-DWHOXA ${ }^{1}$ | See Foot Note | Two | SPDT | C |  |
| (14) W- | IP56 | 574-DWHOXD ${ }^{2}$ | See Foot Note | Two | SPDT | C |  |
| (14) (1). | IP56 | 535-SWHOX | Momentary | Three | SPDT | C |  |
| (17) (1). | IP56 | 575-DWHOX | Maintained | Three | SPDT | C |  |
| (17) (18. | IP56 | 575-DWHOXA ${ }^{3}$ | See Foot Note | Three | SPDT | C |  |
| (14) (T). | IP56 | 536-SWHOX | Momentary | Single | SPDT DB ${ }^{4}$ | Z | $\begin{aligned} & 15 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125 \text { VAC } \\ & 1 \text { H.P. } 250 \text { VAC } \\ & \text { Heavy Pilot Duty } \\ & 250 \text { VAC Max. } \end{aligned}$ |
| (17) (1). | IP56 | 576-DWHOX | Maintained | Single | SPDT DB ${ }^{4}$ | Z |  |
| (1+) (1). | IP56 | 537-SWHOX | Momentary | Single | DPDT DB ${ }^{4}$ | Z |  |
| (17) (1). | IP56 | 577-DWHOX | Maintained | Single | DPDT DB ${ }^{4}$ | Z |  |
| (14) (1) | IP56 | 538-SWHOX | Momentary | Two | SPDT DB ${ }^{4}$ | Z |  |
| (17) (1). | IP56 | 578-DWHOX | Maintained | Two | SPDT DB ${ }^{4}$ | Z |  |
| (17) (18. | IP56 | 578-DWHOXA ${ }^{1}$ | See Foot Note | Two | SPDT DB ${ }^{4}$ | Z |  |
| (14) (1). | IP56 | 578-DWHOXD ${ }^{2}$ | See Foot Note | Two | SPDT DB ${ }^{4}$ | Z |  |

${ }^{1} 1$ st stage Maintained 2nd stage Momentary. ${ }^{2} 1$ st stage Momentary 2 nd stage Maintained. ${ }^{3} 1$ st stage Maintained 2 nd \& 3rd stage Momentary. ${ }^{4}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

NEMA Type 1, 2, 4, 6, 6P \& 13
UL ENCLOSURE 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
IEC 60601-2-2

## Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

## Materials of Construction:

- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard


## Features \& Benefits:



- Protected by a strong cast iron cover
- Developed for worldwide application
- Snap action - SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts - available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts - NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the "O" shield
- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available - Special Order

| Size (HxWxD): | $3.50 \times 4.29 \times 8.55 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 4.50 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c\|} \text { EN } \\ \text { Degre of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | IP68 | 936-SWN | Momentary | SPDT-SNAP ACTION |  | $\begin{aligned} & \text { A300, Q300: } \\ & \text { Ith =10A (AC) } \end{aligned}$ |
|  | IP68 | 936-SWNBM | Momentary | SPDT-SLOW ACTION BBM ${ }^{1}$ |  | AC15: $\mathrm{Ue}=240 \mathrm{~V} ; \mathrm{le}=3 \mathrm{~A}$ |
| -(14) ${ }^{\text {us }}$ () C | IP68 | 936-SWNMB | Momentary | SPDT-SLOW ACTION MBB ${ }^{2}$ |  | $\begin{aligned} & \mathrm{Ue}=120 \mathrm{~V} ; \mathrm{le}=6 \mathrm{~A} \\ & \mathrm{DC} 13: \end{aligned}$ |
| -(4)us C $\epsilon$ | IP68 | 937-SWN | Momentary | DPDT-SNAP ACTION |  | $\begin{aligned} & \mathrm{Ue}=120 \mathrm{~V} ; \mathrm{le}=0.55 \mathrm{~A} \\ & \mathrm{Ue}=24 \mathrm{~V} ; \mathrm{le}=2.5 \mathrm{~A} \end{aligned}$ |

NEMA Type 1, 2, 4, 6, 6P \& 13
UL ENCLOSURE 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
IEC 60601-2-2

## Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

## Materials of Construction:

- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard



## Features \& Benefits:

- Protected by a strong cast aluminum Shield
- Developed for worldwide application
- Snap action - SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts - available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts - NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

" Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the "O" shield

- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available - Special Order

$\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 <br> Degre of Protection | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT |  | FORM |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |

NEMA Type 1, 2, 4, 6, 6P \& 13
UL ENCLOSURE 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
IEC 60601-2-2

## Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

## Materials of Construction:

- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard



## Features \& Benefits:

- Protected by a strong cast aluminum Shield
- Developed for worldwide application
- Snap action - SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts - available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts - NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

" Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the "O" shield

- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available - Special Order


| Size (HxWxD): | $5.37 \times 5.88 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 4.50 lbs. |



## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c} \text { EN } 60529 \\ \text { Degree of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - (1) us (0) ( $\epsilon$ | IP68 | 936-SWHO | Momentary | SPDT-SNAP ACTION |  | $\begin{aligned} & \text { A300, Q300: } \\ & \text { Ith }=10 A \quad \text { (AC) } \end{aligned}$ |
|  | IP68 | 936-SWHOBM | Momentary | SPDT-SLOW ACTION BBM ${ }^{1}$ |  | AC15: <br> $\mathrm{Ue}=240 \mathrm{~V}$; $\mathrm{le}=3 \mathrm{~A}$ |
| - (1) us (1) $(6$ | IP68 | 936-SWHOMB | Momentary | SPDT-SLOW ACTION MBB ${ }^{2}$ |  | $\mathrm{Ue}=120 \mathrm{~V} ; \mathrm{le}=6 \mathrm{~A}$ \|DC13: |
| c (1) ${ }^{\text {us }}$ C $\epsilon$ | IP68 | 937-SWHO | Momentary | DPDT-SNAP ACTION |  | $\begin{aligned} & \mathrm{Ue}=120 \mathrm{~V} ; \mathrm{le}=0.55 \mathrm{~A} \\ & \mathrm{Ue}=24 \mathrm{~V} ; \quad \mathrm{le}=2.5 \mathrm{~A} \end{aligned}$ |

NEMA Type 1, 2, 4, 6, 6P \& 13
UL ENCLOSURE 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
IEC 60601-2-2

## Driptight • Dusttight • Watertight • Oiltight DEVELOPED FOR WORLDWIDE APPLICATIONS

## Materials of Construction:

- Treadle and housing constructed from cast aluminum for environmental durability
- Painted Alert Orange
- Single PG 16 threaded conduit entry is standard


## Features \& Benefits:



- Protected by a strong cast aluminum Shield
- Developed for worldwide application
- Snap action - SPDT and DPDT with forced disconnect (positive break) on NC contacts
- Slow action mechanism with forced disconnect on the NC contacts - available as SPDT make before break or break before make
- Direct PLC interface compatible (two-circuit bifurcated contact single-pole versions)
- Galvanically isolated bifurcated contacts - NO and NC circuits can be wired to different loads and polarities
- 3 holes provided for rigid mounting to the floor or equipment


## Options:

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional 3/4" ( 19.1 mm ) opening height as compared to the "O" shield
- 3/4-14 N.P.T. also available as standard for select models
- U.S. and other international conduit sizes and side entry available to the OEM on special order
- Side entry PG16 threaded conduit entry available
- Twin and triple models available - Special Order

| Size (HxWxD): | $6.12 \times 6.03 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 4.50 lbs. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| AGENCY APPROVALS | $\underset{\text { Degree of Protection }}{\text { EN } 60529}$ | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| c(11) us (1) $(6$ | IP68 | 936-SWHOX | Momentary | SPDT-SNAP ACTION |  | $\begin{aligned} & \text { A300, Q300: } \\ & \text { Ith = 10A } \quad(A C) \end{aligned}$ |
| c (11) us (e) ( | IP68 | 936-SWHOXBM | Momentary | SPDT-SLOW ACTION BBM ${ }^{1}$ |  | AC15: $U e=240 \mathrm{~V} ; \mathrm{le}=3 \mathrm{~A}$ |
|  | IP68 | 936-SWHOXMB | Momentary | SPDT-SLOW ACTION MBB ${ }^{2}$ |  | $\begin{aligned} & \mathrm{Ue}=120 \mathrm{~V} ; \mathrm{le}=6 \mathrm{~A} \\ & \mathrm{DC} 13: \end{aligned}$ |
| - (1) ${ }^{\text {us }}$ C $\epsilon$ | IP68 | 937-SWHOX | Momentary | DPDT-SNAP ACTION |  | $\begin{aligned} & \mathrm{Ue}=120 \mathrm{~V} ; \mathrm{le}=0.55 \mathrm{~A} \\ & \mathrm{Ue}=24 \mathrm{~V} ; \quad \mathrm{le}=2.5 \mathrm{~A} \end{aligned}$ |
| ${ }^{\text {'Break Before Make }}{ }^{2}$ ²ake Before Break |  |  |  |  |  |  |

## Explosion Proof - Industrial 500

## CLASS I, DIVISION 1, Group D

CLASS II, DIVISION 1, Group F \& G
CLASS I, ZONE 1, GROUP IIA
NEMA Type 2, 7D \& 9F
UL ENCLOSURE 2
EN 60529 Degree of Protection IP41

## EQUIPMENT FOR HAZARDOUS LOCATIONS

## Materials of Construction:

- Aluminum full guard with integral base plate painted Alert Orange
- All models supplied with a $3 / 4$ "-14 N.P.T. threaded rigid metal conduit entry and mounting provisions in the base plate
- Integral handle for ease of moving


## Features \& Benefits:

- Non sparking cast aluminum housing
- 4 holes provided for rigid mounting to floor or equipment
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time


## Options:

- Waterproof model available under "600 Series" (See "Explosion Proof - Industrial 600" on page 23 for details)
- Medical Explosion-proof models available (See "Explosion Proof - Medical..." on pages $24 \& 25$ for details)

| Size (HxWxD): | $4.38 \times 11 \times 10.25 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 7.75 Ibs. |


$\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c\|} \hline \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| c(1).us | IP41 | 592-EX | Single Pedal / Momentary | SPDT | C | 15 A 125 VAC 10 A 250 VAC |
| c(4) us | IP41 | 594-EX | Single Pedal / Momentary | DPDT | C | 3/4 H.P. 125 VAC <br> 1 H.P. 250 VAC |
| c(4) us | IP41 | 597-EX | Two Pedal / Momentary | Each Pedal SPDT | C | 3 A 28 VDC <br> Heavy Pilot Duty 250 VAC Max. |

## Explosion Proof - Industrial 600

CLASS I, DIVISION 1, Group D
CLASS II, DIVISION 1, Group F \& G
CLASS I, ZONE 1, GROUP IIA
NEMA Type 2, 3, 4, 6, 6P, 13, 7D \& 9F
UL ENCLOSURE 2, 3, 4, 6, 6P, 7, 9 \& 13
EN 60529 Degree of Protection IP68
Meets IEC 60601-2-2

## Driptight • Dusttight • Watertight • Oiltight EQUIPMENT FOR HAZARDOUS LOCATIONS



## Materials of Construction:

- Aluminum full guard with integral base plate painted Alert Orange
- Integral handle for ease of moving
- All models supplied with a 3/4"-14 N.P.T. threaded rigid metal conduit entry and mounting provisions in the base plate
- Industrial Explosion Proof foot switch Series 600 offers added environmental protection against water and oil, through the addition of sealing O-rings on the pivot rod and between the cover and base
- This is accomplished by increasing the thickness of the housing walls, without negating the integrity of the metal to metal contact required to qualify as explosion proof



## Features \& Benefits:

- Non sparking cast aluminum housing
- 4 holes provided for rigid mounting to floor or equipment
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time


## Options:

- Medical Explosion-proof models available (See "Explosion Proof - Medical..." on pages 24 \& 25 for details)


| Size (HxWxD): | $4.38 \times 11 \times 10.25 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | EN 60529 Degree of Protection | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| c (4) us | IP68 | 602-EX | Single Pedal / Momentary | SPDT | C | $\begin{aligned} & 15 \text { A } 125 \text { VAC } \\ & 10 \mathrm{~A} 250 \mathrm{VAC} \end{aligned}$ |
| © (14) us | IP68 | 604-EX | Single Pedal / Momentary | DPDT | C | $\begin{aligned} & 3 / 4 \text { H.P. } 125 \text { VAC } \\ & 1 \text { H.P. } 250 \text { VAC } \end{aligned}$ |
| ©(1) us | IP68 | 607-EX | Two Pedal / Momentary | Each Pedal SPDT | C | 3 A 28 VDC Heavy Pilot Duty 250 VAC Max. |

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## Explosion Proof - Medical 500

MEDIUM DUTY

## CLASS I, DIVISION 1, Group C \& D

## CLASS I, ZONE 1, Group IIA \& IIB

NEMA Type 7C
EN 60529 Degree of Protection IP41

## EQUIPMENT FOR HAZARDOUS LOCATIONS

## Not For Use In Industrial Applications

## Materials of Construction:

- Aluminum base plate with nonskid conductive rubber base pad
- Both models prewired with potted connector MS-3102R-18-4PW
- Two pedal model wired with an electrical interlock and supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time
- Foot switch painted black
- Integral handle for ease of moving


## Features \& Benefits:

- Non sparking cast aluminum housing
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time
- Two pedal models prewired with electrical interlock


## Options:



- Use mating connector MS-3106A-18-4SW, plus strain relief clamp MS-3057-10 or 10A
- Mating connector with cable clamp available from LINEMASTER ${ }^{\circ}$. Order as Catalog Number LSC-835
- Industrial Explosion-proof models available (See "Explosion Proof - Industrial..." on pages 22 \& 23 for details)


| Size (HxWxD): | $4.38 \times 9.75 \times 10.00 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 6.50 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\underset{\text { Degree of Protection }}{\text { EN } 60529}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | WIRED | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| c (1) us ( $\epsilon$ | IP41 | 591-EX | Single Pedal / Momentary | SPDT | C | Pin A-Normally Open B-Common C-Normally Closed D-Ground |  |
| - (17) us $<\in$ | IP41 | 596-EX | Two Pedal / Momentary | Each Pedal SPNO | A | Pin A-Normally Open (Left Pedal) B-Common C-Normally Open (Right Pedal) <br> D-Ground | $\begin{aligned} & 5 \text { A 125-250 VAC } \\ & 3 \text { A } 28 \text { VDC } \end{aligned}$ |

## CLASS I, DIVISION 1, Group C \& D

CLASS I, ZONE 1, Group IIA \& IIB
NEMA Type 7C
EN 60529 Degree of Protection IP68

## Meets IEC 60601-2-2

## EQUIPMENT FOR HAZARDOUS LOCATIONS

## Not For Use In Industrial Applications

## Materials of Construction:

- Medical Explosion Proof foot switch Series 600 is a UL Listed construction that allows the addition of sealing O -rings on the pivot rod and between the base and cover
- This is accomplished by increasing the thickness of the housing wall, without negating the integrity of the metal to metal contact required to qualify as explosion proof
- Aluminum baseplate with non-skid conductive rubber basepad
- Footswitch painted black
- Integral handle for ease of moving


## Features \& Benefits:

- Non sparking cast aluminum housing
- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time
- Two pedal models prewired with electrical interlock



## Options:

- Use mating connector MS or CA-3106F-18-4SW-(A105)-(F74)* which includes cable clamp, or CA-06R-18-4SW-(A105)-(F74)* which includes cable clamp
- Mating connector with cable clamp available from LINEMASTER. Order as Catalog Number LSC-575-24
- Industrial Explosion-proof models available (See "Explosion Proof - Industrial..." on pages 22 \& 23 for details)



## Classic IV - Linear

## NEMA Type 1, 2, 4, 6, 6P \& 13

UL ENCLOSURE 1, 2, 4, 6, 6P \& 13
CSA ENCLOSURE 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
Meets IEC 60601-2-2
Driptight • Dusttight • Watertight • Oiltight COMPACT \& WATERPROOF DESIGN


## Materials of Construction:

- One Piece Cast Aluminum Housing Single Stage Momentary Contact
- Aluminum baseplate on unguarded models
- Single Pedal $1 / 2^{\prime \prime}-14$ N.P.T. Threaded Conduit Opening is Standard
- Twin Pedal 3/4"-14 N.P.T. Threaded Conduit Opening is Standard


## Features \& Benefits:

- No dead spot in switch actuation
- Hall Effect sensor for high reliability

- Non-Skid Feet To Minimize Movement
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once
- 4 holes provided for rigid mounting to floor or equipment


## Options:

- Upto two pushbutton switches possible
- Mode change switch
- Custom switch colors available
- Custom labeling \& silkscreening available
- Protective bag for easy clean-up


| Single |  |
| :--- | :--- |
| Size (HxWxD): | $2.50 \times 4.19 \times 7.00 \mathrm{In}$. |
| Weight: | 1.75 lbs. |
| Twin | $2.5 \times 7.40 \times 7.00 \mathrm{In}$. |
| Size (HxWxD): | 3.63 Ibs. |
| Weight: |  |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | $\begin{gathered} \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{gathered}$ | CATALOG NUMBER | DESCRIPTION | TYPE | CIRCUIT | ELECTRICAL RATING |
| Please Contact LINEMASTER ${ }^{\ominus}$ for additional Information 1-860-974-1000 |  |  |  |  |  |  |
| (14) (1). | IP68 | (Single Model) | Momentary | Unguarded | Linear | Input voltage 5-15 VDC (Other voltages available) |
| (14) (1). | IP68 | (Twin Model) | Momentary | Unguarded | Linear |  |

NEMA Type 1, 2, 4, 6, 6P \& 13

## UL ENCLOSURE 1, 2, 4, 6, 6P \& 13

CSA ENCLOSURE 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
Meets IEC 60601-2-2

## Driptight • Dusttight • Watertight • Oiltight GUARDED, COMPACT \& WATERPROOF DESIGN



## Materials of Construction:

- One Piece Cast Aluminum Housing Single Stage Momentary Contact
- Aluminum baseplate on unguarded models
- Single Pedal $1 / 2^{\prime \prime}-14$ N.P.T. Threaded Conduit Opening is Standard
- Twin Pedal 3/4"-14 N.P.T. Threaded Conduit Opening is Standard


## Features \& Benefits:

- Non-Skid Feet To Minimize Movement
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once

- 4 holes provided for rigid mounting to floor or equipment
- Heavy Gauge Steel Full Guard painted Alert Orange Covering Entire Foot Switch


## Options:

- Linear (Hall Effect) mode models available


| Single |  |
| :--- | :--- |
| Size (HxWxD): | $4.50 \times 6.00 \times 7.00 \mathrm{In}$. |
| Weight: | 6.00 lbs. |
| Twin | $4.50 \times 11.00 \times 7.00 \mathrm{In}$. |
| Size (HxWxD): | 10.00 lbs. |
| Weight: |  |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c} \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | TYPE | CIRCUIT | FORM | ELECTRICAL RATING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (17) (1) | IP68 | 88SH1-05 | Momentary | Guarded | SPDT | C | 16A 125-250 VAC <br> 1/2 H.P. 125-250 VAC <br> 250 VAC Maximum |
| (17) (18) | IP68 | 88SH2-05 | Momentary | Guarded | DPDT | C |  |
| (11) (1). | IP68 | TWIN 88SH1-05 | Momentary | Guarded | Each Pedal SPDT | C |  |
| (17) (1) | IP68 | TWIN 88SH2-05 | Momentary | Guarded | Each Pedal DPDT | C |  |

## Classic IV - No Guard

## NEMA Type 1, 2, 4, 6, 6P \& 13

## UL ENCLOSURE 1, 2, 4, 6, 6P \& 13

CSA ENCLOSURE 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
Meets IEC 60601-2-2
Driptight • Dusttight • Watertight • Oiltight COMPACT \& WATERPROOF DESIGN


## Materials of Construction:

- One Piece Cast Aluminum Housing Single Stage Momentary Contact
- Aluminum baseplate on unguarded models
- Single Pedal $1 / 2^{\prime \prime}-14$ N.P.T. Threaded Conduit Opening is Standard
- Twin Pedal 3/4"-14 N.P.T. Threaded Conduit Opening is Standard


## Features \& Benefits:

- Non-Skid Feet To Minimize Movement
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once
- 4 holes provided for rigid mounting to floor or equipment


## Options:

- Linear (Hall Effect) mode models available (See "Classic IV Linear" on page 26 for details)
- Heavy Gauge Steel Full Guard painted Alert Orange Covering Entire Foot Switch Available (See "Classic IV - Guarded" on page 27 for details)


| Single |  |
| :--- | :--- |
| Size (HxWxD): | $2.50 \times 4.19 \times 7.00 \mathrm{In}$. |
| Weight: | 1.75 lbs. |
| Twin | $2.5 \times 7.40 \times 7.00 \mathrm{In}$. |
| Size (HxWxD): | 3.63 lbs. |
| Weight: |  |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |  |
| AGENCY APPROVALS | $\begin{gathered} \text { EN } 60529 \\ \text { Degree of Protection } \end{gathered}$ | CATALOG NUMBER | DESCRIPTION | TYPE | CIRCUIT | FORM | ELECTRICAL RATING |
| (14) (1) | IP68 | 88SN1-05 | Momentary | Unguarded | SPDT | C | 16A 125-250 VAC 1/2 H.P. 125-250 VAC 250 VAC Maximum |
| (14) (1) | IP68 | 88SN2-05 | Momentary | Unguarded | DPDT | C |  |
| (41) (1) | IP68 | TWIN 88SN1-05 | Momentary | Unguarded | Each Pedal SPDT | C |  |
| (41) (1) | IP68 | TWIN 88SN2-05 | Momentary | Unguarded | Each Pedal DPDT | C |  |

NEMA Type 1, 2, 4 \& 13
UL ENCLOSURE 1, 2, 4 \& 13
CSA ENCLOSURE 1, 2, 4 \& 13
EN 60529 Degree of Protection IP56

## Driptight • Dusttight • Watertight • Oiltight MEDIUM DUTY COMPACT DESIGN

## Materials of Construction:

- Cast aluminum body and treadle with steel base plate and nonskid base pad
- Single 3/4"-14 N.P.T. threaded conduit entry is standard


## Features \& Benefits:

- All models single stage momentary contact
- 2 holes provided for rigid mounting to floor or equipment


## Options:

- Special threaded conduit entry available to the O.E.M. on special order (Dual / Metric)
- Single/Dual 1/2 In. -14 NPT threaded conduit entry
- Metric threaded conduit entry


| No Shield |  |
| :--- | :--- |
| Size (HxWxD): | $2.25 \mathrm{In} . \times 3.50 \times 6.20 \mathrm{In}$. |
| Weight: | 1.50 Ibs. |
| Shielded | Size (HxWxD): |
| Weight: | $2.19 \mathrm{In} . \times 5.90 \times 7.25 \mathrm{Ibs}$. |

AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c\|c\|c\|} \text { EN } 60529 \\ \text { Degree of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (14) (6). | IP56 | 78SN1 | Momentary | SPDT | C | 20 A 125-250 VAC 1 H.P. 125-250 VAC Heavy Pilot Duty 250 VAC Max. |
| (12) (1) | IP56 | 78SN2 | Momentary | DPDT | C |  |
| (12) (1) | IP56 | 78SH1 | Momentary / Shielded | SPDT | C |  |
| (12) (1) | IP56 | 78SH2 | Momentary / Shielded | DPDT | C |  |

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## COMPACT DESIGN

## Materials of Construction:

- Cast aluminum body painted black
- Cast aluminum treadle and base plate with nonskid base pad
- Internal strain relief clamp accepts a wide range of cable sizes


## Features \& Benefits:

- Single stage momentary contact
- Clean lines and compact design with a modest cost
- Versatility of this model makes it ideal for O.E.M. devices


## Options:

- Special threaded conduit entry available to the O.E.M. on special order. (Dual / Metric)

- Custom cordsets and modifications are available to the O.E.M. on special order
- Also available in Solid State (Hall Effect) format on special order. Contact office for specifications
- AirVal models available (See "Classic - Pneumatic AirVal" on page 57 for details)
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

| Size (HxWxD): | $1.75 \times 3.25 \times 5.25 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.13 lbs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | EN 60529 Degree of Protection | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\circ}{ }^{\text {u }}$ | IP20 | 77SN1 | Momentary | SPDT | C | $\begin{array}{\|l} \text { 15A 125-250 VAC } \\ 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{array}$ |

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## VARIABLE SPEED COMPACT DESIGN

## Materials of Construction:

- Cast aluminum body painted black
- Cast aluminum treadle and base plate with nonskid base pad
- Internal strain relief clamp accepts a wide range of cable sizes
- Designed to control small fractional horsepower Universal AC/DC motors
- Half wave in the variable speed portion and full wave at full speed
- Long treadle travel provides for very smooth, controlled speed changes
- Full motor speed is realized when the treadle is depressed fully, and stops when the treadle is released


## Features \& Benefits:



- Single stage momentary contact
- Versatility of this model makes it ideal for O.E.M. devices
- Clean lines and compact design with a modest cost
- When the 77SN7A is used, just plug cord from the motor into receptacle of series plug, and plug series plug into 125 VAC wall outlet


## Options:

- Custom cordsets and modifications are available to the O.E.M. on special order.
- Also available in Solid State (Hall Effect) format on special order. Contact office for specifications
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

| Size (HxWxD): | $1.75 \times 3.25 \times 5.25 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.13 lbs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8 SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 <br> Degree of Protection | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL <br> RATINGS |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |
| © UL) us | IP20 | 77SN7A 1 | Momentary |  | 6A 125 VAC |  |

' 6 ft . 18/3 cord and 3 prong series plug. Green lead grounded.

MEDIUM DUTY
EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## LOW POWER COMPACT DESIGN

## Materials of Construction:

- Cast aluminum body painted black
- Cast aluminum treadle and base plate with nonskid base pad
- Internal strain relief clamp accepts a wide range of cable sizes


## Features \& Benefits:

- Single stage momentary contact
- Versatility of this model makes it ideal for O.E.M. devices
- Clean lines and compact design with a modest cost
- When the 77SN7A is used, just plug cord from the motor into receptacle of series plug, and plug series plug into 125 VAC wall outlet



## Options:

- Custom cordsets and modifications are available to the O.E.M. on special order.
- Also available in Solid State (Hall Effect) format on special order. Contact office for specifications
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)


#### Abstract

THE CLASSIC REED IS A LOW POWER DEVICE AND MUST BE USED ONLY IN THOSE APPLICATIONS WHERE SUITABLE DESIGN CONSTRAINTS AND SAFETY PRECAUTIONS ARE MET. CONTACT PROTECTION IS RECOMMENDED IF INDUCTIVE OR HIGH VOLTAGE LOADS ARE SWITCHED. PROPER SNUBBER NETWORKS ARE REQUIRED. HIGH INRUSH CURRENT, DAMAGING TO THE CONTACTS MAY BE PRESENT WHEN SWITCHING TUNGSTEN FILAMENT BULBS OR THROUGH WIRE OF SUFFICIENT LENGTH TO INTRODUCE STORED CAPACITANCE.


| Size (HxWxD): | $1.75 \times 3.25 \times 5.25 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.13 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{c} \pi^{\circ}$ | IP20 | 77SN9P ${ }^{1}$ | Momentary | SPST-N.O. Grounded | A | $\begin{array}{\|l} 500 \text { MA } \\ 120 \text { VAC } \\ 100 \text { VDC } \\ 10 \text { Watts Max. } \end{array}$ |

MEDIUM DUTY

NEMA TYPE 1, 2, 4, 6, 6P \& 13
UL Enclosure 1, 2, 4, 6, 6P \& 13
EN 60529 Degree of Protection IP68
Meets IEC 60601-2-2

## Dusttight • Watertight • Oiltight • Corrosion Resistant MILITARY GRADE DESIGN

## Materials of Construction:

- Rugged aluminum casting is painted gray
- Piston type actuator sealed with O-rings
- $1 / 2$ "-14 N.P.T. threaded conduit entry.


## Features \& Benefits:

- Electrical contacts are sealed in a "well"
- Corrosion resistant housing \& components
- 3 mounting holes provided for rigid mounting to floor or equipment


## Options:

- Non-skid basepads available
- Custom colors - Special Order

| Size (HxWxD): | $2.25 \times 4.28 \times 7.00 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 2.50 lbs. |


| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | $\begin{gathered} \text { EN } 60529 \\ \text { Degree of Protection } \end{gathered}$ | CATALOG NUMBER | DESCRIPTION | NATIONAL STOCK NUMBER | CIRCUIT | FORM | ELECTRICAL RATINGS |
| © (1) us | IP68 | WP-541-SC | Momentary | 5930-00-833-7090 | SPDT | C | 20 A 125-250 VAC 1 H.P. 125-250 VAC 10 A 28 VDC $1 / 2$ A 125 VDC $1 / 4$ A 250 VDC |
| ${ }^{\text {c }} \mathrm{HV}_{\text {us }}$ | IP68 | WP-541-DC | Maintained | 5930-004-2132-17 | SPDT | C | $\begin{aligned} & 15 \text { A } 125 \text { VAC } \\ & 10 \text { A } 250 \text { VAC } \end{aligned}$ |

## Clipper - Single

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Splash Resistant • Corrosion Resistant (Available) MEDIUM DUTY GENERAL PURPOSE DESIGN

## Materials of Construction:

- Constructed of Cast Iron for long life
- Non-skid base pad
- Adjustable Strain relief connector
- Durable black finish
- Model 632-DA can be used to control lighting
- Model 638-S features a cast aluminum housing painted Alert Orange with a splash resistant interior switch



## Features \& Benefits:

- Proven Reliability
- All maintained models offer "Push On-Push Off" action that insures long trouble-free performance
- 2 holes provided for rigid mounting to floor or equipment


## Options:

- The wide treadle models offer a large seven inch target for the operator's foot (See "Clipper - Twin \& Wide Treadle" on page 35 for details)
- Available protective vinyl cover that can be applied over our Clipper. This boot is available only in bright orange, and provides additional protection to the foot switch from limited amounts of liquid, dust, dirt, mud and snow (See "Accessories - Protective Boot" on page 77 for details)

- AirVal models available (See "Clipper - Pneumatic AirVal" on page 54-55 for details)
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

| Size (HxWxD): | $1.50 \times 3.50 \times 4.50 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 2.25 Ibs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\underset{\text { Degree of Protection }}{\text { EN }} 60529$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (5) (1) (1) C $¢$ | IP20 | 632-S | Momentary | SPDT | C | $\begin{aligned} & 20 \text { A } 125-250 \text { VAC } \\ & 1 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| (11) (1). | IP20 | 632-SC3 ${ }^{1}$ | Momentary | SPST Wired N.O. | A | $\begin{aligned} & 15 \text { A } 125 \text { VAC } \\ & 3 / 4 \text { H.P. } 125 \text { VAC } \end{aligned}$ |
| (11) (1) $C \in$ | IP20 | 632-SC36 ${ }^{4}$ | Momentary | SPST Wired N.O. | A | $\begin{aligned} & 10 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| (11) (1). | IP20 | 632-DC3A ${ }^{1}$ | Maintained | SPST Wired N.O. | C | $\begin{aligned} & 15 \text { A } 125 \text { VAC } \\ & 3 / 4 \text { H.P. } 125 \text { VAC } \end{aligned}$ |
| (14) $(\epsilon$ | IP20 | 633-S | Momentary | SPDT DB ${ }^{3}$ | Z | $\begin{aligned} & 20 \text { A } 125-250 \mathrm{VAC} \\ & 3 / 4 \text { H.P. } 125 \mathrm{VAC} \\ & 1 \text { H.P. } 250 \mathrm{VAC} \end{aligned}$ |
| ${ }_{c} \mathrm{NN}_{\mathrm{us}}$ ( $\epsilon$ | IP20 | 635-S | Momentary | DPDT | C | 15 A 125 VAC |
| ${ }_{c} \mathbf{N H}_{u s}$ ( $\epsilon$ | IP20 | 636-S | Two Stage Momentary | Each Stage SPDT | C | 1/2 H.P. 125-250 VAC |
| (5) (1+) (1) C $¢$ | IP20 | 632-DA | Maintained | SPDT | C | $\begin{array}{\|l\|} \hline 20 \text { A } 125 \text { VAC } \\ 10 \text { A } 250 \text { VAC } \\ 1 \text { 1/2 H.P. } 120-240 \text { VAC } \\ \hline \end{array}$ |
| ${ }_{c} \mathbf{N H}_{u s}$ ( $\epsilon$ | IP20 | 634-DA | Maintained | DPDT | C | $\begin{aligned} & 10 \text { A } 125-250 \text { VAC } \\ & 1 / 8 \text { H.P. } 125 \text { VAC } \\ & 1 / 4 \text { H.P. } 250 \text { VAC } \end{aligned}$ |
| ${ }_{c} \mathrm{NH}_{\mathrm{us}}$ ( $\epsilon$ | IP20 | 638-S | Momentary | SPDT | C |  |
| c (1) us $<\epsilon$ | IP21 | 638-SC38 ${ }^{2}$ | Momentary | SPDT Wired N.O. | A | $1 / 2$ H.P. 125-250 VAC |

${ }^{1}$ Supplied with 8 ft . 14/3 cord and 3 prong series plug. Green lead grounded. ${ }^{2}$ Supplied with $8 \mathrm{ft} .16 / 3$ cord, wired N.O. with green lead grounded.
${ }^{3}$ DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line. ${ }^{4}$ Supplied with 6 ft . $18 / 3 \mathrm{cord}$.

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Splash Resistant (Available)

MEDIUM DUTY GENERAL PURPOSE DESIGN

## Materials of Construction:

- Constructed of Cast Iron for longlife
- Non-skid base pad

- Adjustable Strain relief connector
- Durable black finish
- Model 632-DA can be used to control lighting
- Model 638-S features a cast aluminum housing painted Alert Orange with a splash resistant interior switch


## Features \& Benefits:

- Proven Reliability
- All maintained models offer "Push On-Push Off" action that insures long trouble-free performance
- Wide Treadle Models have 2 holes provided for rigid mounting to floor or equipment
- Twin Models have 4 holes provided for rigid mounting to floor or equipment
- Divider Bar on Twin Models aids in Reducing Accidental Operation of Multiple Pedals at Once



## Options:

- The wide treadle models offer a large seven inch target for the operator's foot
- Aluminum housing available for Twin Models
- AirVal models available (See "Clipper Twin \& Wide Treadle - Pneumatic AirVal" on page 54-55 for details)
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)



## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

| AGENCY APPROVALS | $\underset{\text { Degree of Protection }}{\text { EN }} 60529$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (11) (1). $C \in$ | IP20 | TWIN 632-S | Twin / Momentary | Each Side SPDT | C | $\begin{aligned} & 20 \text { A 125-250 VAC } \\ & 1 \text { H.P. 125-250 VAC } \end{aligned}$ |
| ${ }_{c} \mathrm{TN}_{\text {us }}(\epsilon$ | IP20 | TWIN 635-S | Twin / Momentary | Each Side DPDT | C | $\begin{aligned} & 15 \text { A } 125 \text { VAC } \\ & 10 \text { A } 250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| (s) (1) (1) C $¢$ | IP20 | 642-S | Wide Treadle / Momentary | SPDT | C | $\begin{aligned} & 20 \text { A 125-250 VAC } \\ & 1 \text { H.P. 125-250 VAC } \end{aligned}$ |
| c (1) us ( $\epsilon$ | IP20 | 643-S | Wide Treadle / Momentary | SPDT DB ${ }^{1}$ | Z | 20 A 125-250 VAC $3 / 4$ H.P. 125 VAC 1 H.P. 250 VAC |
| ${ }^{6} 9 N_{\text {us }}(\epsilon$ | IP20 | 645-S | Wide Treadle / Momentary | DPDT | C | 15 A 125 VAC |
| ${ }_{c} \boldsymbol{N H}_{\text {us }}(\epsilon$ | IP20 | 646-S | Wide Treadle / Momentary 2-Stage | Each Stage SPDT | C | $\begin{aligned} & 10 \text { A } 250 \text { VAC } \\ & 1 \text { ¹/2 H.P. 120- } 240 \text { VAC } \end{aligned}$ |
| (s) (1+) (1) C $¢$ | IP20 | 642-DA | Wide Treadle / Maintained | SPDT | C | $\begin{aligned} & 20 \text { A } 125 \text { VAC } \\ & 10 \text { A } 250 \text { VAC } \\ & 11 / 2 \text { H.P. } 120-240 \text { VAC } \end{aligned}$ |

[^1]
## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Splash Resistant (Available)

LOW PROFILE ERGONOMIC DESIGN

## Materials of Construction:

- Constructed of cast aluminum cover and base
- Provided with a reversible strain relief clamp that accommodates a wide range of cable sizes
- Painted black


## Features \& Benefits:

- The low, sleek styling of this model reduces operator fatigue

- Nonskid base pads

Options:

- 24 " wide version available on special order
- AirVal Models available on special orders

| Size (HxWxD): | $1.25 \times 3.25 \times 5.50 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.00 lbs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | $\begin{array}{\|c\|c\|c\|} \hline \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| c (1) us $<\in$ | IP20 | 121-S | Momentary | SPDT | C | $\begin{aligned} & 20 \text { A } 125-250 \text { VAC } \\ & 1 \text { H.P. 125-250 VAC } \end{aligned}$ |
| ${ }_{c} \mathrm{NH}_{\text {us }}$ ( $\epsilon$ | IP20 | 124-S | Momentary | DPDT | C | $\begin{array}{\|l} \hline 15 \text { A } 125-250 \text { VAC } \\ 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{array}$ |

MEDIUM DUTY

EN 60529 Degree of Protection IP20 (IP68 Upon Request)
Waterproof (Available)
LARGE LOW PROFILE ERGONOMIC DESIGN

## Materials of Construction:

- Constructed of Cast Aluminum
- Painted gray


## Features \& Benefits:

- The parabolic curvature of the cover makes the Deluxe easy to operate without fatigue
- Full nonskid base pad


## Options:

- Twin and triple models available - special order
- Guarding available for Twin \& Triple models

| Size (HxWxD): | $1.75 \times 4.75 \times 5.50 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.00 lbs. |



## ! WhRNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | EN 60529 Degree of Protection | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{c} \mathrm{TN}_{\text {us }}$ | IP20 | 81-S | Momentary | SPDT | C | $\begin{aligned} & 10 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| $\mathrm{c}^{10}$ | IP20 | 85-S | Two Stage Momentary | Each Stage SPDT | C |  |

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## LARGE LOW PROFILE MULTI-FUNCTION DESIGN

## Materials of Construction:

- Cover is molded from medium gray high impact polymeric material
- Base and treadles are made of a die cast zinc
- The cover tapers close to the floor in the front with a full five inches between the side treadle bars
- A Non-skid base pad provides a secure placement
- This multi-pedal foot switch should be considered when function, good looks and economy are required
- It incorporates a unique building block approach that allows the use of up to four basic SPDT snap switches
- SPECIAL VARIATIONS are available to the O.E.M. Special modifications include custom cordsets, nameplates, two stage operation, non operative cover, special circuits and a special translucent molded vinyl cover for added environmental protection against limited amounts of water and dirt

- Switch cover actuates separate function


## Features \& Benefits:

- Treadles are made of a die cast metal
- The cover tapers close to the floor in the front with a full five inches between the side treadle bars
- A Non-skid base pad provides a secure placement
- Supplied with internal adjustable Strain Relief for cord


## Options:

- SPECIAL VARIATIONS are available to the O.E.M. Special modifications include custom cordsets, nameplates, two stage operation, non operative cover, special circuits and a special translucent molded vinyl cover for added environmental protection against limited amounts of water and dirt
- Available protective vinyl cover that can be applied over our Deluxe II. This cover is available only in Semi-clear, and provides additional protection to the foot switch from limited amounts of liquid, dust, dirt, mud and snow


The translucent vinyl cover is made by a dip molding process. Minor cosmetic imperfections and blemishes are inherent in dip molded parts and must be expected. However, the basic environmental protection afforded is not affected.

| Size (HxWxD): | $1.75 \times 6.85 \times 5.68 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 2.00 lbs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | EN 60529 | CATALOG NUMBER | DESCRIPTION | PEDALS | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| c ${ }^{\circ}{ }_{\text {us }}(6$ | IP20 | 68-S3 | Dual Treadle / Momentary | 2 Pedals plus Cover | SPDT | C | $\begin{aligned} & 10 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| ${ }_{c} \mathbb{N O}_{\text {us }}(\epsilon$ | IP20 | 68-S3N | Dual Treadle / Momentary | 2 Pedals ${ }^{1}$ | SPDT | C |  |
| c ${ }_{\text {Nus }}$ C $\epsilon$ | IP20 | 68-S4N | Dual Treadle / Momentary | 2 Pedals ${ }^{1}$ | DPDT | C |  |
|  | IP20 | 68-S2 | Single Treadle / Momentary | 1 Pedal plus Cover | SPDT | C |  |

[^2]
## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

971-SWNO210 \& 971-SWNO210A are NEMA Type 1, 4X, 6 \& 6P - UL Enclosure 1, 4X, 6 \& 6P, and IP68

## Watertight • Corrosion Resistant (Available) VERSATILE COMPACT DESIGN

## Materials of Construction:

- SPDT, DPDT, Two-Stage, Momentary Operation
- Rustproof and corrosion proof polymeric material
- Raised ribs on treadle for positive traction during operation
- Integrated adjustable strain relief clamp accommodates cord sizes from . 250 Dia. to .400 Dia.


## Features \& Benefits:

- Flame retardant to $94-\mathrm{VI}$
- Maximum versatility, total performance
- Non-skid base pad


Options:

- Custom colors, and color matching available with quantity orders
- Private Labeling
- Accessory base units available for configurations using multiple switches
- Stainless steel full guard (single) 522-K26 available (See "Accessories - Guards" on page 77 for details)
- Supplied With Series Plug (See "Stock Cordsets with Molded Plug" on page 79 for details) unless otherwise noted
- Special variations built to functional customers' specifications are available on special order. Custom paint finishes, cordsets, nameplates and multi-pedal versions are available. Please contact LINEMASTER ${ }^{\circledR}$ for additional information
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

| Polymeric - Single |  |
| :--- | :--- |
| Size (HxWxD): | $1.16 \times 3.44 \times 4.00 \mathrm{In}$. |
| Weight: | 3.60 oz. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|c} \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | COLOR | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{C} \mathrm{~N}_{\text {us }}$ ( $\epsilon$ | IP20 | 971-S | Polymeric / Momentary | Dark Gray | SPDT | C | $\begin{aligned} & 15 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| ${ }^{\text {c }} \mathrm{M}_{\text {us }}$ ( $\epsilon$ | IP20 | 971-SA | Polymeric / Momentary | Light Gray | SPDT | C |  |
| ${ }^{\text {c\% }}$ | IP20 | 971-SB | Polymeric / Momentary | Blue | SPDT | C |  |
| ${ }_{\text {c }} \mathrm{NH}_{\text {us }}$ ( $\in$ | IP20 | 971-SO | Polymeric / Momentary | Orange | SPDT | C |  |
| ${ }_{c} \mathrm{~N}_{\text {us }}$ ( $\epsilon$ | IP20 | 971-SY | Polymeric / Momentary | Yellow | SPDT | C |  |
| ${ }^{\text {c }}$ ¢ $\mathrm{N}_{\text {us }}(\epsilon$ | IP20 | 974-S | Polymeric / Momentary | Dark Gray | DPDT | C | $\begin{aligned} & 15 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| ${ }^{\text {c }}$ N ${ }_{\text {us }}$ ( $\epsilon$ | IP20 | 974-SA | Polymeric / Momentary | Light Gray | DPDT | C |  |
| ${ }_{c} \mathrm{NH}_{\text {us }}$ ( $\epsilon$ | IP68 | 971-SWNO210 ${ }^{1}$ | Polymeric / Momentary | Dark Gray | SPST Wired N.O. | A | 3 A 25 VAC |
| ${ }_{c} \mathrm{~N}_{\text {us }}$ ( $\epsilon$ | IP68 | 971-SWNO210A ${ }^{1}$ | Polymeric / Momentary | Light Gray | SPST Wired N.O. | A |  |
| c (H) us ( $\epsilon$ | IP20 | 971-SC26 ${ }^{2}$ | Polymeric / Momentary | Dark Gray | SPDT Wired N.O. | A | $\begin{aligned} & 10 \text { A 125-250 VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
| c (H) us ( $\epsilon$ | IP20 | 971-SC26A ${ }^{2}$ | Polymeric / Momentary | Light Gray | SPDT Wired N.O. | A |  |

${ }^{1}$ Meets IP68 \& is supplied with 10 ft . 18/2 cord without plug.
${ }^{2}$ Supplied with 6 ft . $18 / 2$ cord without plug.

## Aquiline ${ }^{\ominus}$ Maintained - Polymeric

EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Corrosion Resistant

VERSATILE COMPACT DESIGN

## Materials of Construction:

- SPST, Maintained Operation
- Rustproof and corrosion proof reinforced polymeric material
- Raised ribs on treadle for positive traction during operation
- Integrated adjustable strain relief clamp accommodates cord sizes from . 250 Dia. to .400 Dia.


## Features \& Benefits:

- Flame retardant to 94-VI
- Maximum versatility, total performance
- Non-skid base pad
- 2 holes provided for rigid mounting to Floor or equipment


## Options:



- Custom colors, and color matching available with quantity orders
- Private Labeling
- Accessory base units available for configurations using multiple switches
- Stainless steel full guard (single) 522-K26 available (See "Accessories - Guards" on page 77 for details)
- Supplied With Series Plug (See "Stock Cordsets with Molded Plug" on page 79 for details) unless otherwise noted
- Special variations built to functional customers' specifications are available on special order. Custom paint finishes, cordsets, nameplates and multi-pedal versions are available. Please contact LINEMASTER ${ }^{\circledR}$ for additional information
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

| Polymeric - Single |  |
| :--- | :--- |
| Size (HxWxD): | $1.16 \times 3.44 \times 4.00 \mathrm{In}$. |
| Weight: | 3.60 oz. |



|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | $\begin{array}{\|c\|c\|c\|c\|c\|} \text { E } \\ \text { Degre of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | COLOR | CIRCUIT | FORM | ELECTRICAL RATINGS |
| ${ }_{\text {c }}{ }^{\text {us }}$ ( $¢$ | IP20 | 971-DJ | Polymeric / Maintained | Black | SPST-NO | A |  |
| ${ }^{\text {c }}$ (9) ${ }_{\text {us }}$ | IP20 | 971-DC3J ${ }^{1}$ | Polymeric / Maintained | Black | SPST-NO | A | 12 |
| c) $_{\text {us }}(\epsilon$ | IP20 | 971-DC26J ${ }^{2}$ | Polymeric / Maintained | Black | SPST-NO | A | 1/2 H.P. 125 VAC |
| c) $_{\text {c }}$ us $¢$ | IP20 | 971-DC28J3 | Polymeric / Maintained | Black | SPST-NO | A |  |
| 'Supplied with 8 ft . $14 / 3$ cord with 3 prong series plug (Restricts use of foot switch assembly to 125 VAC Only). Plastic model is not grounded. ${ }^{2}$ Supplied with 6 ft . $14 / 2$ cord, no ground. ${ }^{3}$ Supplied with $8 \mathrm{ft} .14 / 2$ cord, no ground. |  |  |  |  |  |  |  |

## EN 60529 Degree of Protection IP20

## VERSATILE COMPACT DESIGN

## Materials of Construction:

- SPDT, DPDT, Two-Stage, Momentary or Maintained Operation
- Rustproof and corrosion proof cast zinc cover and formed steel base
- Raised ribs on treadle for positive traction during operation
- Integrated adjustable strain relief clamp accommodates cord sizes from . 250 Dia. to .400 Dia.


## Features \& Benefits:

- Maximum versatility, total performance
- Non-skid base pad
- 2 holes provided for rigid mounting to Floor or equipment

- Twin model has Electrical Interlock feature


## Options:

- Custom colors, and color matching available with quantity orders
- Private Labeling
- Accessory base units available for configurations using multiple switches
- Stainless steel full guard (single) 522-K26 available (See "Accessories - Guards" on page 77 for details)
- Supplied With Series Plug (See "Stock Cordsets with Molded Plug" on page 79 for details) unless otherwise noted
- Special variations built to functional customers' specifications are available on special order. Custom paint finishes, cordsets, nameplates and multi-pedal versions are available. Please contact us for additional information
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

| Single |  |
| :--- | :--- |
| Size (HxWxD): | $1.09 \times 3.44 \times 3.99 \mathrm{In}$. |
| Weight: | 13 oz. |
| Twin | $1.25 \times 7.547 \times 5.562$ |
| Size (HxWxD): | 2.5 Ibs. |
| Weight: |  |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |  |
| AGENCY APPROVALS |  | CATALOG NUMBER | DESCRIPTION | COLOR | CIRCUIT | FORM | ELECTRICAL RAT- INGS |
| ${ }_{\text {c¢ }}^{\text {vis }}$ ( $¢$ | IP20 | 971-DJM | Die Cast Zinc / Maintained | Black | SPST-NO | A |  |
| ${ }^{\text {c90 }}$ | IP20 | 971-DC3JM ${ }^{1}$ | Die Cast Zinc / Maintained | Black | SPST-NO | A | 12 A |
| ${ }_{\text {c }}{ }^{\text {us }}$ ( $¢$ | IP20 | 971-DC36JM ${ }^{2}$ | Die Cast Zinc / Maintained | Black | SPST-NO | A | 1/2 H.P. 125 VAC |
| ${ }^{\text {c¢ }}$ us ${ }_{\text {c }}(\epsilon$ | IP20 | 971-DC38JM ${ }^{3}$ | Die Cast Zinc / Maintained | Black | SPST-NO | A |  |
| ${ }^{\text {c\% }}$ us C $\epsilon$ | IP20 | 971-SM | Die Cast Zinc / Momentary | Black | SPDT | C |  |
| $\mathrm{c}^{\text {¢ }}$ us ( $\epsilon$ | IP20 | 972-S | Die Cast Zinc / Momentary 2-Stage | Black | SPDT Each Stage | C | 15 A 125-250 VAC <br> 1 I H. P. 125-250 VAC |
|  | IP20 | 974-SM | Die Cast Zinc / Momentary 2-Stage | Black | DPDT Each Stage | C |  |
| c © ${ }^{\text {us }}$ ( $\epsilon$ | IP20 | TWIN 971-SMC48 ${ }^{4}$ | Die Cast Zinc / Momentary | Black | SPDT Wired N.O. | A | $\begin{array}{\|l\|} \hline 13 \text { A } 125-250 \mathrm{VAC} \\ 1 / 2 \text { H.P. } 125-250 \mathrm{VAC} \\ \hline \end{array}$ |

${ }^{1}$ 'Supplied with 8 ft . 14/3 cord with 3 prong series plug (Restricts use of foot switch assembly to 125 VAC Only). Plastic model is not grounded.
${ }^{2}$ Supplied with 6 ft . 14/3 cord, grounded. ${ }^{3}$ Supplied with 8 ft . 14/3 cord, grounded. ${ }^{4}$ Supplied with 8 ' $16 / 4$ cord without plug. Green lead grounded.

## EN 60529 Degree of Protection IP20

## Splash Resistant (Available Momentary Only) VERSATILE COMPACT DESIGN

## Materials of Construction:

- Steel housing is painted Black
- Metal Mounting Plate spot welded to base on 491-SC36MP
- Twin Baseplate formed from cast aluminum

- The two pedal model is supplied with a divider bar between pedals which helps prevent accidental operation of both pedals at one time


## Features \& Benefits:

- Momentary \& Maintained Models Non-Skid base pad for secure placement
- Compact in size and light in weight
- Supplied with internal adjustable strain relief
- Built for long life
- 2 Mounting Holes for Rigid Mounting to Floor or Equipment


## Options:

- Rectangular mounting bracket is available for Compact models on special order. Bracket
 comes spot-welded to switch base and has two clearance holes for mounting
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)
- Airval models available (See "Compact Pnuematic Airval" on page 56 for details)

| Single |  |
| :--- | :--- |
| Size (HxWxD): | $2.88 \times 2.50 \times 1.13 \mathrm{In}$. |
| Weight: | 7.00 oz. |
| Twin |  |
| Size (HxWxD): | $6.00 \times 2.89 \times 1.44 \mathrm{In}$. |
| Weight: | 1.25 lbs. |
| Mounting Bracket Model |  |
| Size (HxWxD): | $2.88 \mathrm{In} . \times 3.50 \times 1.29 \mathrm{In}$. |
| Weight: | 8.00 oz. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | $\begin{array}{\|c\|} \hline \text { EN } 60529 \\ \text { Degre of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| ${ }_{c} \mathrm{NH}_{\text {us }}$ (1/b. $(\epsilon$ | IP20 | 491-S | Single / Momentary | SPDT | C | $\begin{aligned} & 10 \text { A } 125-250 \mathrm{VAC} \\ & 1 / 2 \mathrm{H} . \mathrm{P} .125-250 \mathrm{VAC} \end{aligned}$ |
| (11) (1) $(\epsilon$ | IP20 | 491-SC364 | Single / Momentary | SPDT Wired N.O. | A |  |
| c $\boldsymbol{N}_{\text {us }}$ (14. | IP20 | 491-SC3 ${ }^{3}$ | Single / Momentary | SPDT Wired N.O. | A |  |
| ${ }_{c} \boldsymbol{N H}_{\text {us }}$ ( $\epsilon$ | IP20 | 492-S | Single / Momentary | SPDT | C | $\begin{aligned} & 20 \text { A } 125-250 \text { VAC } \\ & 1 \text { H.P. 125-250 VAC } \end{aligned}$ |
|  | IP20 | TWIN 491-S | Twin / Momentary | SPDT - Each Side | C | 10 A 125-250 VAC $1 / 2$ H.P. 125-250 VAC |
| (11) (1) $(\epsilon$ | IP20 | 491-SC36MP4 | Single / Momentary with Mounting Plate | SPDT Wired N.O. | A |  |

${ }^{1}$ Supplied with 6 ft . $16 / 3$ cord with 3 prong series plug. Green lead grounded. ${ }^{2}$ Supplied with 6 ft . $18 / 3$ cord without plug. Green lead grounded. ${ }^{3}$ Supplied with 8 ft . $16 / 3$ cord with 3 prong series plug. Green lead grounded. ${ }^{4}$ Supplied with 6 ft . 16/3 cord without plug. Green lead grounded.

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Splash Resistant (Available)

## LIGHT DUTY COMPACT DESIGN

## Materials of Construction:

- Strong steel housing is painted black
- Two single models mounted on a steel base
- A divider bar between pedals which helps prevent accidental operation of both switches at one time
- All wiring between the two switches is concealed


## Features \& Benefits:

- Nonskid base pad
- Designed to give a long economical service life
- Only one cord is brought out the right side eliminating the need for wire junctions \& reducing wiring costs


## Options:

- Triple Models Available
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

- Rectangular mounting bracket is available for Hi-Treadlite models on special order
- Bracket comes spot-welded to switch base and has two clearance holes for mounting


| Single |  |
| :--- | :--- |
| Size (HxWxD): | $1.37 \times 2.625 \times 3.56 \mathrm{In}$. |
| Weight: | 10 oz. |
| Twin |  |
| Size (HxWxD): | $1.50 \times 5.44 \times 3.56 \mathrm{In}$. |
| Weight: | 1.5 lbs. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | $\begin{gathered} \text { EN } 60529 \\ \text { Degree of Protection } \end{gathered}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| ${ }_{c} \mathbf{H N}_{\text {us }}$ ( $\epsilon$ | IP20 | HT-52-S | Momentary | SPDT | C | $\begin{aligned} & 20 \text { A } 125-250 \mathrm{VAC} \\ & 1 \text { H.P. } 125-250 \mathrm{VAC} \end{aligned}$ |
| - © ${ }^{\text {dus }}$ ( $\epsilon$ | IP20 | HT-52-SC36 ${ }^{1}$ | Momentary | SPST Wired N.O. | A | 10 A 125-250 VAC <br> $1 / 2$ H.P. 125 VAC <br> 1 H.P. 250 VAC |
| (12) $C \epsilon$ | IP20 | TWIN HT-52-S | Momentary | SPDT - Each Side | C | $\begin{aligned} & 20 \text { A } 125-250 \mathrm{VAC} \\ & 1 \text { H.P. } 125-250 \mathrm{VAC} \end{aligned}$ |
| 'Supplied with 6 ft . $16 / 3$ cord with 3 prong series plug. Green lead grounded. |  |  |  |  |  |  |

## Treadlite II

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Driptight • Dusttight • Watertight (Available)

## COMPACT VERSATILE LOW PROFILE DESIGN

## Materials of Construction:

- Steel housing is painted black
- Two single models mounted on a twin base plate with wiring channel
- A divider bar between pedals which helps prevent accidental operation of both switches at one time


## Features \& Benefits:

- Incorporates a positive over center rocker type action
- Nonskid base pad and foot treadle pad
- 2 Holes provided for rigid mounting to floor or equipment
- The low profile and light pressure required to operate reduces operator fatigue


## Options:

- Special Twin, Triple \& Quad baseplates with wiring channel available on special order
- Stainless Steel Model Available (See Treadlite II - Stainless Steel" on page 45 for details)
- Mounting Plate Available
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

THE T-91-PS and T-91-PSNC ARE LOW POWER DEVICES AND MUST BE USED ONLY IN THOSE APPLICATIONS WHERE SUITABLE DESIGN CONSTRAINTS AND SAFETY PRECAUTIONS ARE MET.

| Single |  |  |  |
| :---: | :---: | :---: | :---: |
| Size (HxWxD): | $1.00 \times 2.63 \times 3.50 \mathrm{ln}$. |  |  |
| Weight: | 7 oz . |  |  |
| Twin with Wire Channel |  | Twin Without Wire Channel (Not Shown) |  |
| Size (HxWxD): | $1.38 \mathrm{In} . \times 7.94 \times 5.56$ | Size (HxWxD): | $1.48 \times 6.12 \times 3.56 \mathrm{In}$. |
| Weight: | 4.00 lbs . | Weight: | 1.5 lbs. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| AGENCY APPROVALS | $\begin{array}{\|c\|} \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| ${ }_{c} \boldsymbol{N S}_{\text {us }}$ (1). $(\epsilon$ | IP20 | T-91-S | Single / Momentary | SPDT | C | 15 A 125-250 VAC |
|  | IP20 | TWIN T-91-S9 | Single / Momentary | SPDT Each Side | C | /2 H.P. 125-250 VAC |
| (14) (4). $C \in$ | IP20 | T-91-SC36 ${ }^{1}$ | Single / Momentary | SPDT Wired N.O. | A |  |
| (D) $C \in$ | IP20 | T-91-SCEA ${ }^{7}$ | Single / Momentary | SPDT Wired N.O. | A | $1 / 2 \text { H.P. } 125-250 \text { VAC }$ |
| (14) (1). $C \in$ | IP20 | T-91-SC36A ${ }^{2}$ | Single / Momentary | SPDT Wired N.O. | A | $\begin{aligned} & 15 \text { A 125-250 VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |
|  | IP20 | T-91-SC3 ${ }^{4}$ | Single / Momentary | SPDT Wired N.O. | A | $\begin{aligned} & 10 \text { A } 125 \text { VAC } \\ & 1 / 2 \text { H.P. } 125 \text { VAC } \end{aligned}$ |
| (1).C $\epsilon$ | IP20 | T-91-SC3A ${ }^{5}$ | Single / Momentary | SPDT Wired N.O. | A | $\begin{aligned} & 15 \text { A } 125 \text { VAC } \\ & 1 / 2 \text { H.P. } 125 \text { VAC } \end{aligned}$ |
| ${ }_{c} \mathrm{TN}_{\text {us }}$ ( $\epsilon$ | IP20 | T-91-PS ${ }^{6}$ | Single / Momentary | SPDT Wired N.O. | A |  |
| ${ }_{c} \mathrm{~N}_{\text {us }}$ C 6 | IP20 | T-91-PSNC ${ }^{6}$ | Single / Momentary | SPDT Wired N.C. | B | Class 2 Circuits Only |
| (D) $C \in$ | IP20 | T-91-SCE ${ }^{8}$ | Single / Momentary | SPDT Wired N.O. | A | 16 A 125-250 VAC |
|  | IP20 | T-91-SE | Single / Momentary | SPDT | C | 1/2 H.P. 125-250 VAC |
| (14) (6). $C \in$ | IP20 | TWIN T-91-SC48 ${ }^{3}$ | Twin / Momentary | SPDT Wired N.O. Both Sides | A | $\begin{aligned} & 13 \text { A } 125-250 \text { VAC } \\ & 1 / 2 \text { H.P. } 125-250 \text { VAC } \end{aligned}$ |

${ }^{1}$ Supplied with 6 ft . 18/3 cord without plug. Green lead grounded. ${ }^{2}$ Supplied with $6 \mathrm{ft} .14 / 3$ cord without plug. Green lead grounded. ${ }^{3}$ Two T-91-S models mounted on a common steel baseplate, with a wiring channel \& supplied with $8 \mathrm{ft} .16 / 4$ cord without plug, Green lead grounded. ${ }^{4}$ Supplied with 6 ft . 18/3 cord with 3 prong series plug. Green lead grounded. ${ }^{5}$ Supplied with $8 \mathrm{ft} .14 / 3$ cord with 3 prong series plug. Green lead grounded. ${ }^{6}$ Supplied with $8 \mathrm{ft} .22 / 1$ audio cable with 2 contact .250 diameter phone plug, not grounded. ${ }^{7}$ Supplied with 2 meter 18/3 cord with brown, blue \& green/yellow leads. ${ }^{8}$ Supplied with 2 meter 14/3 cord ${ }^{9}$ Two T-91-S models mounted on common cast aluminum base, no wiring Channel

## EN 60529 Degree of Protection IP68

NEMA Type 1, 4X, 6, \& 6P IP68
UL Enclosure 1, 4X, 6, \& 6P

## Driptight • Dusttight • Watertight • Corrosion Resistant (Available) COMPACT VERSATILE LOW PROFILE DESIGN

## Materials of Construction:

- Stainless Steel housing with brushed finish


## Features \& Benefits:

- Nonskid base pad and foot treadle pad
- The low profile and light pressure required to operate reduces operator fatigue


## Options:



- Stainless Steel Full Guard Available (See "Accessories - Guards" on page 77 for details)

| Size (HxWxD): | $.85 \times 2.63 \times 3.50 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 oz. |



## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 <br> degre of Protection | CATALOG <br> NUMBER | IP68 | T-91-SWANOS |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |

[^3]${ }^{2}$ Supplied with 8 ft . 18/3 cord and 3 -prong series plug, green lead grounded.
${ }^{3}$ Supplied with 8 ft . 18/3 cord without plug, green lead grounded.

LIGHT DUTY
NEMA Type 2, 4, 6 \& 6P
EN 60529 Degree of Protection IP68

## Meets IEC 60601-2-2

## Driptight • Dusttight • Watertight

HIGH IMPACT LOW PROFILE OMNI-DIRECTIONAL DESIGN

## Materials of Construction:

- Actuation from any direction with moderate pressure
- The cover and base is molded in a high impact polymeric compound
- Base includes mounting provisions


## Features \& Benefits:

- Low profile to aide in elimination of fatigue
- A nonskid base pad
- Wired normally open, no ground


## Options:

- Stainless Steel Weight Plate Available
- Custom Cable Available
- Available in RED in Production Quantities

| Size (HxWxD): | $1.00 \times 3.50 \times 4.13 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 9.00 oz. |



## ^WWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 <br> Degre of Protection | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL <br> RATINGS |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |
| c UL Us | IP68 | D41-SNO28' | Momentary | SPST Wired N.O. | A | 5 A Resistive 125 VAC 28 VDC <br> 3 A General Purpose 125 VAC |

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Splash Resistant (Available)

## LARGE LOW PROFILE OMNI-DIRECTIONAL DESIGN

## Materials of Construction:

- Round Nickel Chrome Cover
- Heavy Gauge Steel Base plate
- Stain resistant black nitrile Nonskid Base Pad
- The cable shroud provides additional flex protection for the cable


## Features \& Benefits:

- Designed for long life use

- Operates From Any Direction with moderate pressure
- Extended cable Flex Protection
- Cable shroud provides additional flex protection for tubing
- The internal reversible cable clamp accepts a wide range of cable sizes


## Options:

- Custom paint finish available on cover
- AirVal models available (See "Premier - Pneumatic AirVal" on page 52 for details)

| Size (Dia. $\times \mathrm{H}$ ): | $5.75 \times 1.44 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.75 Ibs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 <br> Degre of Protection | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL <br> RATINGS |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |
| c ULUS C | IP20 | P32-S | Momentary | SPDT | C | 20 A 125-250 VAC <br> 1 H.P. 125-250 VAC |
| c ULUS C | IP20 | P31-SC361 | Momentary | SPDT Wired N.O. | A | 10 A 125-250 VAC <br> $1 / 2 ~ H . P . ~ 125-250 ~ V A C ~$ |

${ }^{1}$ Supplied with 6 ft . 18/3 cord without plug. Green lead grounded.

## Gem-V \& Gem-VK

NEMA Type 2 UL ENCLOSURE 2 (VK ONLY)

## EN 60529 Degree of Protection IP21 (IP68 Upon Request)

## Driptight • Dusttight (VK ONLY) Corrosion Resistant COMPACT OMNI-DIRECTIONAL DESIGN

## Materials of Construction:

- Mounted in a chrome plated heavy zinc die cast housing
- A full nonskid base pad
- A special vinyl cover gives added environmental protection against limited amounts of water and dirt
- The dip molded cover is bonded to the vinyl base pad of the foot switch


## Features \& Benefits:

- Features a round black actuating cap
- Moderate pressure from any direction operates the switch
- Standard models supplied with cordset
- Wired normally open and grounded
- Ease of operation with foot or hand
- The cable entry boot is clinched tight to the cordset


## Options:

- Special paint finish available
- Silk Screening available
- Special single wiring channel with or without side protectors available
- Twin version available
- European type foot switch is offered pre wired with 3 conductor cordset having brown, blue and green/yellow colored leads. It is a momentary contact and wired normally open with green/ yellow lead grounded to switch base

| V Series |  |
| :--- | :--- |
| Size (Dia. $\times \mathrm{H}$ ): | $3.81 \times 1.22 \mathrm{In}$. |
| Weight: | 1.00 lbs. |
| VK Series |  |
| Size (Dia. $\times \mathrm{H}$ ): | $4.00 \times 1.38 \mathrm{In}$. |
| Weight: | 1.5 Ibs. |



## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN $\mathbf{0 0 5 2 9}$ <br> degre of Protection | CATALOG <br> NUMBER | IP21 | GEM-VK3 1 | DESCRIPTION | CIRCUIT |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |

${ }^{1}$ Supplied with 6 ft . 18/3 cord and 3 prong series plug. Green lead grounded. ${ }^{2}$ Supplied with 6 ft . 18/3 cord without plug. Green lead grounded.
Supplied with 2 meter $18 / 3$ brown, blue \& green/yellow leads.

EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Motion Control Device <br> ROCKER ACTION LOW PROFILE DESIGN

## Materials of Construction:

- Cover is a medium gray Die Cast Zinc material
- Mechanical Interlock-prevents both circuits from being operated at the same time
- Operates on the teeter-totter principle

Pressure on one side opens or closes line, release of pressure returns switch to normal off position, pressure on other side opens or closes circuit, independent of first

## Features \& Benefits:

- Non-skid Base pad
- Both sides can be wired normally open or normally closed
- All wiring connections are made internally with only a single cord being brought out
- Eliminates costly harness assemblies
- Offers real economy


## Options:

- Twin, Triple, Quad \& Quint versions available
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)


| Size (HxWxD): | $1.625 \times 4.28 \times 4.75 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.25 Ibs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 <br> Degre of Protection | CATALOG <br> NUMBER | IP20 | 72 | DESCRIPTION | CIRCUIT |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |

## EN 60529 Degree of Protection IP20

## Motion Control Device

ROCKER ACTION COMPACT DESIGN

## Materials of Construction:

- Steel Housing
- Black finish
- Mechanical Interlock-prevents both circuits from being operated at the same time
- Operates on the teeter-totter principle

Pressure on one side opens or closes line, release of pressure returns switch to normal off position, pressure on other side opens or closes circuit, independent of first

## Features \& Benefits:

- Non-skid Base pad
- Both sides can be wired normally open or normally closed
- All wiring connections are made internally with only a single cord being brought out
- Eliminates costly harness assemblies
- Offers real economy


## Options:

- Twin version available
- Multiple cable entry locations available
- Mounting provisions can be added
- Custom labeling
- Splash resistant interior switch available

| Size (HxWxD): | $1.21 \times 2.75 \times 5.00 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 10 oz. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{array}{\|l\|l\|} \text { EN } 60529 \\ \text { Degre of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\circ} \mathrm{NH}$ | IP20 | L-2-S | Momentary | SPDT Each Side | C | $\begin{array}{\|l\|} \hline 10 \mathrm{~A} 125-250 \mathrm{VAC} \\ 1 / 2 \text { H.P. } 125-250 \mathrm{VAC} \end{array}$ |

## EN 60529 Degree of Protection IP20

## UL avalable on Special Orders

## Motion Control Device <br> HEAL-TO-TOE ROCKER ACTION DESIGN

## Materials of Construction:

- Die cast Aluminum housing
- Black finish
- Mechanical Interlock-prevents both circuits from being operated at the same time
- Operates on the teeter-totter principle

Pressure on one side opens or closes line, release of pressure returns switch to normal off position, pressure on other side opens or closes circuit, independent of first

## Features \& Benefits:

- Non-skid Base pad

- Housing is pivoted in the center for easy heal-toe operation
- Both sides can be wired normally open or normally closed
- All wiring connections are made internally with only a single cord being brought out
- Adjustable strain relief connector that accommodates a wide range of cable sizes
- Eliminates costly harness assemblies
- Offers real economy


## Options:

- DPDT Available on Special Orders

| Size (HxWxD): | $2.09 \times 3.50 \times 8.31 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.75 Ibs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | EN 60529 <br> Degree of Protection | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL <br> RATINGS |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |
| N/A | Momentary | SPDT Each Side | C | 15 A 125-250 VAC <br> $1 / 2$ H.P. $125-250 ~ V A C ~$ |  |  |

## Premier - Pneumatic AirVal

## Variable Pneumatic Control

## LARGE LOW PROFILE OMNI-DIRECTIONAL DESIGN

Materials of Construction:

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.
- Round nickel chrome cover


## Features \& Benefits:

- Designed for long life operation
- Two-Way models do not exhaust back pressure
- Stain resistant black nitrile Non-skid Base Pad
- Operates from any direction
- Extended tubing flex protection
- Cable shroud provides additional flex protection for tubing


## Options:

- Special paint finish available

COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE MAXIMUM LINE PRESSURE UP TO 150 P.S.I.

| Size (DiaxH): | $5.75 \times 1.44 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.75 Ibs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | CATALOG NUMBER | DESCRIPTION | AIR FLOW AT 100 P.S.I. | EXHAUST AT 100 P.S.I. | OPERATING FORCE | $\begin{aligned} & \text { PORTS 1/8-27 } \\ & \text { N.P.T. } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N/A | 3P-30A2-S | 3-Way Momentary | 30 C.F.M. | 25 C.F.M. | 8 to 22 Pounds | Inside Housing |

## Maintained/Momentary Pneumatic Control <br> LARGE INDUSTRIAL DESIGN

## Materials of Construction:

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.
- Robust cast iron housing


## Features \& Benefits:

- Designed for long life operation
- Two-Way models do not exhaust back pressure
- Full shield covering treadle
- 3 Holes provided for rigid mounting to floor or equipment


## Options:

- Hercules AirVal also available as a 3-way in either single or 2-stage versions on special order
- 2 Stage models available
- Momentary and maintained versions available

COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE.
MAXIMUM LINE PRESSURE UP TO 150 P.S.I.

| Size (HxWxD): | $4.37 \times 5.87 \times 9.00 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.75 Ibs. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | CATALOG NUMBER | DESCRIPTION | $\begin{aligned} & \text { AIR FLOW AT } \\ & 100 \text { P.S.I. } \end{aligned}$ | $\begin{aligned} & \text { EXHAUST } \\ & \text { AT } 100 \text { P.S.I. } \end{aligned}$ | OPERATING FORCE | $\begin{aligned} & \hline \text { PORTS } 1 / 8-27 \\ & \text { N.P.T. } \\ & \hline \end{aligned}$ |
| N/A | $4 \mathrm{H}-3 \mathrm{OH} 2-\mathrm{SH}$ | 4-Way Momentary | 30 C.F.M. | 25 C.F.M. | 19 Pounds | Exterior Housing |
| N/A | $4 \mathrm{H}-3 \mathrm{OH} 2-\mathrm{DH}$ | 4-Way Maintained | 30 C.F.M. | 25 C.F.M. | 19 Pounds | Exterior Housing |

## Clipper -Single - Pneumatic AirVal

MEDIUM DUTY

## Variable/Momentary Pneumatic Control MEDIUM DUTY GENERAL PURPOSE DESIGN

## Materials of Construction:

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Operating temperature $0^{\circ}$ to $131^{\circ} \mathrm{F}\left(-18^{\circ}\right.$ to $\left.+55^{\circ} \mathrm{C}\right)$
- Rugged Cast Iron Housing


## Features \& Benefits:

- Designed for long life operation
- Nonskid Base Pad
- Two-Way models do not exhaust back pressure

- Plunger can be depressed flush with valve body without damage to valve
- Standard 18-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.
- 2 holes provided for rigid mounting to floor or equipment


## Options:

- 2-way, 3-way and 4-way models available
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)


## AWARNING <br> COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE. <br> MAXIMUM LINE PRESSURE UP TO 150 P.S.I.

| 2-Way and 3-Way |  |
| :--- | :--- |
| Size (HxWxD): | $1.78 \times 3.45 \times 4.56 \mathrm{In}$. |
| Weight: | 2.50 Ibs. |
| 4-Way |  |
| Size (HxWxD): | $1.78 \times 3.45 \times 4.56 \mathrm{In}$. |
| Weight: | 3.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | CATALOG <br> NUMBER | DESCRIPTION | AIR FLOW AT <br> 100 P.S.I. | EXHAUST <br> AT 100 P.S.I. | OPERATING <br> FORCE | PORTS 1/8-27 <br> N.P.T. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| N/A | 2C-30A2-S | 2-Way Momentary | 30 C.F.M. | 25 C.F.M. | 10 Pounds | Interior Housing |
| N/A | 3C-30A2-S | 3-Way Momentary | 30 C.F.M. | 25 C.F.M. | 10 Pounds | Interior Housing |
| N/A | 4C-30F2-S | 30 C.F.M. | 25 C.F.M. | 19 Pounds | Exterior Housing |  |

## Variable/Momentary Pneumatic Control <br> MEDIUM DUTY GENERAL PURPOSE DESIGN

## Materials of Construction:

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side

- Air exhausts around plunger
- Operating temperature $0^{\circ}$ to $131^{\circ} \mathrm{F}\left(-18^{\circ}\right.$ to $\left.+55^{\circ} \mathrm{C}\right)$
- Rugged Cast Iron Housing


## Features \& Benefits:

- Designed for long life operation
- Nonskid Base Pad
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.


## Options:

- Variable available on Special Order
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE.
MAXIMUM LINE PRESSURE UP TO 150 P.S.I.

| Twin |  |
| :--- | :--- |
| Size (HxWxD): | $1.87 \times 8.38 \times 4.54 \mathrm{In}$. |
| Weight: | 4.75 Ibs. |
| Wide Treadle | $1.78 \times 7.00 \times 4.56 \mathrm{In}$. |
| Size (HxWxD): | 3.25 Ibs. |
| Weight: |  |



## Compact - Pneumatic AirVal

## Momentary Pneumatic Control

VERSATILE COMPACT DESIGN
Materials of Construction:

- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Strong Steel Housing


## Features \& Benefits:

- Nonskid Base Pad
- Designed for long life operation
- Two-Way models do not exhaust back pressure
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.


## Options:



- Twin Version Available
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE.
MAXIMUM LINE PRESSURE UP TO 150 P.S.I.

| Single |  |
| :--- | :--- |
| Size (HxWxD): | $1.28 \times 2.74 \times 2.88 \mathrm{In}$. |
| Weight: | .50 lbs. |
| Twin | $1.47 \times 6.00 \times 2.88 \mathrm{In}$. |
| Size (HxWxD): | 1.50 lbs. |
| Weight: |  |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | CATALOG <br> NUMBER | DESCRIPTION | AIR FLOW AT <br> 100 P.S.I. | EXHAUST <br> AT 100 P.S.I. | OPPRATING <br> FORCE | PORTS 1/8-27 <br> N.P.T. |
| N/A | 2B-30A2-S | Single 2-Way Momentary | 30 C.F.M. | 25 C.F.M. | 7 Pounds | Exterior Housing |
| N/A | 3B-30A2-S | Single 3-Way Momentary | 30 C.F.M. | 25 C.F.M. | 7 Pounds | Exterior Housing |
| N/A | TWIN 3B-30A2-S | 3-Way Momentary Each Side | 30 C.F.M. | 25 C.F.M. | 7 Pounds | Exterior Housing |

## Classic - Pneumatic AirVal

## Variable/Momentary Pneumatic Control

## LONG TREADLE THROW DESIGN

## Materials of Construction:

- Variable Flow design
- Internal Valve is constructed of a Non-Ferrous body, Stainless steel plunger and Teflon coated buna-N O-rings
- Air flows when plunger is depressed, stops flowing when plunger is released and exhausts back pressure on output side
- Air exhausts around plunger
- Versatility And Good Looks
- Cast Aluminum Housing


## Features \& Benefits:

- Nonskid Base Pad
- Designed for long life operation
- Two-Way models do not exhaust back pressure
- Plunger can be depressed flush with valve body without damage to valve
- Standard 1/8-27 N.P.T. input and output ports
- Filtered and lubricated air supply is required for best operation
- Line pressure up to 150 P.S.I.


## Options:

- 2-way, 3-way \& Variable
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

COMPRESSED AIR IS POWERFUL - ALWAYS USE CARE.
MAXIMUM LINE PRESSURE UP TO 150 P.S.I.

| Size (HxWxD): | $1.68 \times 3.25 \times 5.39 \mathrm{In}$. |
| :--- | :--- |
| Weight: | Weight: 1.13 lbs. |




## EN 60529 Degree of Protection IPXX Master Actuator

## EN 60529 Degree of Protection IP00 Snap Switch

Momentary/Maintained AirSwitch • Isolated Electric Snap Switch COMPACT VERSATILE DESIGN

## Materials of Construction:

- Strong Steel Housing
- Long Life Air bulb actuator mounted in Housing
- Remotely located air operated Electric Snap Switch
- Supplied with a 10 foot $1 / 8$ " ID PVC tubing connecting the foot pedal to the remote air switch

- The tubing is connected at the foot switch end using a molded on strain relief grommet providing superior pull out protection
Features \& Benefits:
- Remote switch equipped with a 9/16" U.N.F. bulkhead mount
- Available in either momentary or maintained SPDT versions
- Provides versatility in applications
- Isolating the electrically live snap switch from the floor
- Offers environmental protection from short or shock
- 2 holes provided for rigid Mounting to floor or equipment


## Options:

- Momentary or Maintained models available
- Mounting Plate Available
- Black tubing available
- Twin model available on special order
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)

| Size (HxWxD): | $1.28 \times 2.74 \times 2.88 \mathrm{In}$. |
| :--- | :--- |
| Weight: | .50 lbs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY APPROVALS | $\begin{gathered} \text { EN } 60529 \\ \text { Degree of Protection } \end{gathered}$ | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT | FORM | OPERATING TEMPERATURE RANGE | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{c} \mathrm{M}_{\text {us }}$ ( $\epsilon$ | IP XX | 41SH12 | Momentary | SPDT | C | $10^{\circ} \mathrm{F}$ to $120^{\circ} \mathrm{F}^{1}$ | $\begin{aligned} & 20 \text { A } 125-250 \text { VAC } \\ & 1 \text { H.P. } 125 \text { VAC } \\ & 2 \text { H.P. } 250 \text { VAC } \end{aligned}$ |
| $\left.c^{*}\right)_{\text {us }}$ ( $\epsilon$ | IP XX | 41DH12 | Maintained |  |  |  |  |

${ }^{1}$ The operating temperature range will vary with different lengths of tubing. Please consult the factory for details.

## EN 60529 Degree of Protection IPXX Master Actuator

 EN 60529 Degree of Protection IP00 Snap Switch
## Momentary/Maintained AirSwitch • Isolated Electric Snap Switch ERGONOMIC VERSATILE DESIGN

## Materials of Construction:

- Molded PVC bulb
- Designed with isolated electrical airswitch
- Combines a foot operated air bulb and a remotely located electric snap switch
- Brass fittings
- Actuating Bulb supplied with two grommet mounting holes (Standard Only)


## Features \& Benefits:

- Easy to operate by hand or foot
- Up to 30 foot range using PVC tubing
- Isolates operation from electrically live switch
- Offers environmental protection from short or shock
- Designed for long life trouble free operation
- Simple field replacement of components
- Application versatility
- Ease of interfacing


## Options:

- Air foot switches are also available in the Premier and Dolphin housings, as well as, a hand operated version
- Aluminum Baseplate
- DPDT Model available
- Clear reinforced tubing available


| Actuating Bulb |  |
| :--- | :--- |
| Size (HxWxD): | $1.26 \times 4.59 \times 2.77 \mathrm{In}$. |
| Weight: | .20 lbs. |
| Actuating Hand Bulb |  |
| Size (HxWxD): | $1.20 \times 2.12 \times 1.75 \mathrm{In}$. |
| Weight: | .15 lbs. |
| Snap Switch |  |
| Size (HxWxD): | $1.00 \times .78 \times .50 \mathrm{In}$. |
| Weight: | .15 lbs. |



| $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |  |
| AGENCY APPROVALS |  | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | OPERATING TEMPERATURE RANGE | ELECTRICAL RATINGS |
| ${ }_{c} \mathrm{TN}_{\text {us }} \mathrm{C} \epsilon$ | N/A | 81SH12 | Standard Momentary | SPDT | C | $10^{\circ} \mathrm{F}$ to $120^{\circ} \mathrm{F}^{2}$ | 20 A 125-250 VAC <br> 1 H.P. 125 VAC <br> 2 H.P. 250 VAC |
| ${ }_{c} \boldsymbol{H}_{\text {us }}(\epsilon$ | N/A | 81DH12 | Standard Maintained |  |  |  |  |
| ${ }_{c} \times \mathrm{N}_{\text {us }} \mathrm{C} \epsilon$ | N/A | PBSH12 ${ }^{1}$ | Hand Bulb Momentary | SPDT | C | $10^{\circ} \mathrm{F}$ to $120^{\circ} \mathrm{F}^{2}$ | 20 A 125-250 VAC <br> 1 H.P. 125 VAC <br> 2 H.P. 250 VAC |
| ${ }^{\text {'Special Order Only }}{ }^{\text {The }}$, operating temperature range will vary with different lengths of tubing. Please consult the factory for details. |  |  |  |  |  |  |  |

## AC Variable Speed Control

LIGHT DUTY

## EN 60529 Degree of Protection IP20

## Rustproof • Corrosion Resistant SPEED CONTROL DEVICE

## Materials of Construction:

- Optional SPDT auxiliary off/on switch
- Supplied with dual cordsets, single series plug or custom modified for the O.E.M.
- Polymeric material will not rust or corrode


## Features \& Benefits:

- Variable control of small fractional horsepower Universal AC/DC motors only, leaving hands free
- Half wave in the variable speed mode, full wave at full speed
- Standard color is black; custom colors may be quoted on large O.E.M. orders
- 2 holes provided for rigid mounting to floor or equipment


## Options:

- Steel Weight plate available
- Heavy gauge steel guard available (See "Accessories - Guards" on page 76 \& 77 for details)


| Size (HxWxD): | $2.25 \times 4.00 \times 6.34 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 1.21 lbs. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |
| AGENCY APPROVALS | $\underset{\text { Degree of Protection }}{\text { EN }} 60529$ | CATALOG <br> NUMBER | DESCRIPTION | CORDSET(S) | ELECTRICAL RATINGS |
| ${ }^{(1)}$ U us | IP20 | 980-SC3 | Momentary | 6' 18/3 SVT with 3-prong plug 1' 18/3 SVT with mating receptacle | 6 A 125 VAC |
| $\mathrm{c}(\mathrm{U} \text { us }$ | IP20 | 981-SC36 | Momentary | 6' 18/3 SVT with outer jacket stripped back 1' 18/3 SVT with outer jacket stripped back | 4 A 250 VAC |

## NEMA Type 1, 2, 4 \& 13

## EN 60529 Degree of Protection IP56 (IP68 Upon Request)

## Driptight • Dusttight • Watertight • Oiltight <br> NO SHIELD

## Materials of Construction:

- Treadle, cover and housing constructed from cast iron for strength and durability
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed

- Auxiliary switch contact rated at 15 Amps 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke


## Features \& Benefits:

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want


## Options:

- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with $5,000 \mathrm{Ohm}$ or $10,000 \mathrm{Ohm}$ values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

| Size (HxWxD): | $3.16 \times 4.06 \times 8.38 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| Replace xx in Catalog Number with value of Potentiometer in Ohms. (i.e. 500-N-5K) |  |  |  |  |  |  |
| AGENCY APPROVALS | $\left\lvert\, \begin{array}{c\|} \text { EN } 60529 \\ \text { Degre of Protection } \end{array}\right.$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| ${ }^{\text {cTi }}$ | IP56 | 500-N-xx | Momentary | - | - |  |
| $\mathrm{c}^{7} \mathrm{~N}_{\text {us }}$ | IP56 | 500-AN-xx | Momentary | 1 Auxiliary SPDT Contact | C | 15A 125-250 VAC |

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## Hercules - Potentiometer - Full Shield

NEMA Type 1, 2, 4 \& 13

## EN 60529 Degree of Protection IP56 (IP68 Upon Request)

## Driptight • Dusttight • Watertight • Oiltight <br> STANDARD FULL SHIELD

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in
 selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed
- Auxiliary switch contact rated at 15 Amps 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke


## Features \& Benefits:

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want


## Options:

- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with $5,000 \mathrm{Ohm}$ or $10,000 \mathrm{Ohm}$ values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

| Size (HxWxD): | $4.37 \times 5.88 \times 9.00 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



| AWARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| Replace xx in Catalog Number with value of Potentiometer in Ohms. (i.e. 500-H-5K) |  |  |  |  |  |  |
| AGENCY APPROVALS | EN 60529 <br> Degree of Protection | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| c ${ }^{-1}$ | IP56 | 500-H-xx | Momentary | - | - |  |
| $\mathrm{c}^{-1}$ | IP56 | 500-AH-xx | Momentary | 1 Auxiliary SPDT Contact | C | 15A 125-250 VAC |
| $\mathrm{c}^{-1}$ | IP56 | 500-A2H-xx | Momentary | 2 Auxiliary SPDT Contacts | C | 15A 125-250 VAC |
| $\mathrm{c}^{-1}$ | IP56 | 500-A3H-xx | Momentary | 3 Auxiliary SPDT Contacts | C | 15A 125-250 VAC |

## NEMA Type 1, 2, 4 \& 13

## EN 60529 Degree of Protection IP56 (IP68 Upon Request)

## Driptight • Dusttight • Watertight • Oiltight <br> OVERSIZED SHIELD

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed
- Auxiliary switch contact rated at 15 Amps 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke


## Features \& Benefits:

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want


## Options:

- Special Dual $1 / 2^{\prime \prime}-14$ N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with $5,000 \mathrm{Ohm}$ or $10,000 \mathrm{Ohm}$ values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

| Size (HxWxD): | $5.03 \times 5.88 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



| \WARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |  |  |
| Replace xx in Catalog Number with value of Potentiometer in Ohms. (i.e. 500-HO-5K) |  |  |  |  |  |  |
| AGENCY APPROVALS | $\begin{array}{\|c\|} \hline \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| cㅈNus | IP56 | 500-HO-xx | Momentary | - | - |  |
| crios | IP56 | 500-AHO-xx | Momentary | 1 Auxiliary SPDT Contact | C | 15A 125-250 VAC |

## Hercules - Potentiometer - OX Shield

NEMA Type 1, 2, 4 \& 13

## EN 60529 Degree of Protection IP56 (IP68 Upon Request)

## Driptight • Dusttight • Watertight • Oiltight <br> EXTRA OVERSIZED SHIELD

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange
- Single 3/4"-14 N.P.T. threaded conduit entry is standard
- This switch is designed for use with variable speed motor drives and is available in selected 2 watt linear values
- Depressing the treadle rotates the potentiometer from zero to the selected maximum resistance shown below
- The treadle is spring loaded and returns to the normal position when the foot pressure is removed
- Auxiliary switch contact rated at 15 Amps 125-250 VAC can be added to the control
- The switch will operate at the beginning of the treadle stroke
- Up to 3 SPDT switches can be added and adjusted for operation at any point of the treadle stroke


## Features \& Benefits:

- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- 3 holes provided for rigid mounting to the floor or equipment
- Specify the maximum resistance you want


## Options:

- Special Dual $1 / 2$ "-14 N.P.T. threaded conduit entry and metric sizes available to the O.E.M. on special order
- Hercules foot operated potentiometers are available with $5,000 \mathrm{Ohm}$ or $10,000 \mathrm{Ohm}$ values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing
- Hercules models available with cast aluminum base and covers (except unshielded cover which is gray iron)

| Size (HxWxD): | $5.78 \times 6.03 \times 9.13 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.00 lbs. |



## AWARNING SEE PRODUCT WARNING ON PAGE 8

SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)
Replace xx in Catalog Number with value of Potentiometer in Ohms. (i.e. $500-\mathrm{HOX}-5 \mathrm{~K}$ )

| AGENCY APPROVALS | $\begin{array}{\|c\|} \hline \text { EN } 60529 \\ \text { Degree of Protection } \\ \hline \end{array}$ | CATALOG NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{\mathrm{c}} \mathrm{N}_{\text {us }}$ | IP56 | 500-HOX-xx | Momentary | - | - |  |
| c ${ }^{\text {N }}$ | IP56 | 500-AHOX-xx | Momentary | 1 Auxiliary SPDT Contact | C | 15A 125-250 VAC |

## Varior - Potentiometer

## EN 60529 Degree of Protection IP20

## Variable Control Potentiometer LONG TREADLE THROW LARGE FOOTPRINT DESIGN

## Materials of Construction:

- Steel housing electro-coated black finish
- Complete with full treadle pad and nonskid base pad
- Spring return pedal action on momentary models
- Adjustable friction pad design on maintained models
- Maximum resistance must be specified when ordering


## Features \& Benefits:

- Retrofits most welding equipment with a simple receptacle selection
- For environments where a non-watertight housing is suitable
- 2 holes provided for rigid mounting to floor or equipment
- Heel rest offered on "OH" models


## Options:



- Custom cable lengths available
- Varior foot operated potentiometers are available with 5,000 Ohm or 10,000 Ohm values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing.


## ESAB•HOBART•LINCOLN•MILLER WELDING EQUIPMENT REPLACEMENT FOOT CONTROLS

| Standard |  |
| :--- | :--- |
| Size <br> $(H x W x D): ~$ | $4.17 \times 4.50 \times 9.71 \mathrm{In}$. |
| Weight: | 4.00 lbs. |
| Industrial |  |
| Size <br> $(H x W x D): ~$ | $4.20 \times 4.50 \times 11.90 \mathrm{In}$. |
| Weight: | 4.00 lbs. |



NOTE: Contact LINEMASTER ${ }^{\circ}$ for replacement foot controls for your ESAB', Hobart', Lincoln ${ }^{\circ}$ or Miller ${ }^{\circ}$ welding equipment.

| - ${ }^{\text {WWARNING SEE PRODUCT WARNING ON PAGE } 8}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below) |  |  |  |  |
| Replace xx in Catalog Number with value of Potentiometer in Ohms. (i.e. 09ASXP-5K) |  |  |  |  |
| AGENCY APPROVALS | $\underset{\text { Degree of Protection }}{\text { EN }} 60529$ | CATALOG NUMBER | DESCRIPTION | CORDSET |
| ${ }_{\text {c }} \mathrm{N}_{\text {us }}$ | IP20 | 09ASXP-xx | Momentary | g. Wired three leads |
| c ${ }^{\circ}$ | IP20 | 09ARXU-xx | Maintained | potentiometer and green lead to ground. |
| c ${ }^{\text {N }}$ | IP20 | 09ASAC-xx | Momentary |  |
| $\mathrm{cNO}^{\circ}$ | IP20 | 09ARAC-xx | Maintained | operate at the beginning of treadle stroke and wired N.O. Three leads to |
| ${ }_{\mathrm{c}} \mathrm{N}_{\text {us }}$ | IP20 | OHASAC-xx | Momentary |  |
| c ${ }^{\circ}$ | IP20 | OHASAA-1K | Momentary | Supplied with $25^{\prime} 18 / 6$ cordset with 14 pin plug compatible with Hobart $\&$ Miller ${ }^{\circ}$ |
| c $\mathrm{N}_{\text {us }}$ | IP20 | OHASAB-10K | Momentary | Supplied with 25' $18 / 6$ cordset with 6 pin plug compatible with Lincoln ${ }^{\circ}$ |
| c ${ }^{\circ}$ | IP20 | OHASAD-10K | Momentary | Supplied with $30^{\prime} 18 / 6$ cordset with 14 pin plug compatible with ESAB ${ }^{\circ}$ |

## Throttle Controls - Assemblies \& Enclosures

EN 60529 Degree of Protection

## Electronic Throttle Control

 CUSTOM APPLICATION SPECIFIC DESIGN
## Materials of Construction:

- Steel housing electro-coated black finish
- Weather Resistant Components
- Complete with full treadle pad and nonskid base pad
- Spring return pedal action on momentary models
- Adjustable friction pad design on maintained models
- Maximum resistance must be specified when ordering
- Custom Mounting Configurations
- Custom Arm Configurations
- Custom Linkage Configurations


## Features \& Benefits:

- Retrofit installations
- For environments where a non-watertight housing is suitable
- Rigid mounting to floor or equipment
- Heel rest offered


## Options:

- Auxiliary Switch(es) Available
- Rotary Potentiometer Available
- Hall Effect Circuit output available

- Custom cable lengths available
- Varior foot operated potentiometers are available with $5,000 \mathrm{Ohm}$ or $10,000 \mathrm{Ohm}$ values. Other potentiometer values are available upon request or by special order. Please contact the office for availability and pricing

Introducing LINEMASTER ${ }^{\circ}$ Throttle Controls. There are numerous applications for these controls, including use in various types of electric vehicles where accurate control of speed is required. LINEMASTER ${ }^{\circledR}$ offers a rugged construction for long life, ergonomic friendly designs and ease of operation. If you have an application that requires a throttle control, please contact our Customer Service Department for details.

| Assemblies |  |
| :--- | :--- |
| Size (HxWxD): | Application Specific |
| Weight: | Application Specific |
| Enclosures |  |
| Size (HxWxD): | $4.20 \times 4.50 \times 11.90 \mathrm{In}$. |
| Weight: | 4.00 lbs |

## AWARNING SEE PRODUCT WARNING ON PAGE 8

This device is of an application specific design. Please Contact LINEMASTER ${ }^{\circledR}$ for additional Information 1-860-974-1000

## EN 60529 Degree of Protection IP20 (IP68 Upon Request)

## Driptight • Dusttight • Watertight • Rust Proof • Corrosion Resistant SMALL LIGHTWEIGHT LOW PROFILE DESIGN

## Materials of Construction:

- Cover \& Base formed from Light Gray (PMS 427C) ABS Polymeric Material
- Non-glare finish
- Silver Alloy contacts
- SPDT, DPDT, Two-Stage, Momentary Operation
- Integrated adjustable strain relief clamp accommodates cord sizes from . 250 Dia. to . 400 Dia


## Features \& Benefits:

- Maximum versatility, total performance in a small package
- Rustproof and corrosion Resistant
- Mounting holes provided for rigid mounting to floor and or equipment
- Non-Skid Feet
- Raised Dimples on treadle for positive traction during operation
- 10A $125-250$ VAC rating
- Designed to meet UL, CSA \& CE requirments


## Options:

- Custom colors and color matching available with quantity orders
- Fully submersible in water (IP68 Only)
- Twin \& Triple models available
- Accessory base units available for configurations using multiple switches
" Heavy gauge steel guard available (See"Accessories - Guards" on page 76 \& 77 for details)
- Custom connectivity options including Universal Serial Bus (USB)
- Custom cabeling available
- 3A 125-250 VAC \& 5A 125-250 VAC ratings available

| Single |  |
| :--- | :--- |
| Size (HxWxD): | $1.05 \times 2.50 \times 3.48 \mathrm{In}$. |
| Weight: | 3.7 oz. |
| Twin |  |
| Size (HxWxD): | $2.0 \times 11.75 \times 6.0 \mathrm{In}$. |
| Weight: | 3.25 lbs. |
| Triple |  |
| Size (HxWxD): | $2.5 \times 17.0 \times 6.0 \mathrm{In}$. |
| Weight: | 11 lbs. |



| $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| This device is of an application specific design. Please Contact LINEMASTER ${ }^{\circ}$ for additional Information: 1-860-974-1000 |  |  |  |  |  |  |
| AGENCY <br> APPROVALS | $\begin{array}{\|c\|c\|} \text { Eegre of Protection } \end{array}$ | CATALOG <br> NUMBER | DESCRIPTION | CIRCUIT | FORM | ELECTRICAL RATINGS |
| ${ }_{c} \mathrm{HN}_{\text {us }}$ ( $\epsilon$ | IP20 | SL1-S | Single Pedal/Momentary | SPDT | C |  |
| ${ }_{c}$ ¢ $_{\text {us }}$ ( $\epsilon$ | IP20 | SL2-S | Single Pedal/Momentary | SPDT - 2 Stage | C | 10A 125-250 VAC |
| ${ }_{\mathrm{c}} \mathrm{YN}_{\text {us }}$ ( $\epsilon$ | IP20 | SL4-S | Single Pedal/Momentary | DPDT | C |  |
| ${ }_{c} \mathrm{M}_{\text {us }} \mathrm{C} \epsilon$ | IP68 | SL1-SWBNO210 ${ }^{1}$ | Single Pedal/Momentary | SPDT | C |  |
| ${ }_{c} \boldsymbol{N}_{\text {us }}(\epsilon$ | IP68 | SL2-SWBNO410² | Single Pedal/Momentary | SPDT - 2 Stage | C |  |
| ${ }_{\text {c }} 7 \mathrm{~N}_{\text {us }}$ C $\epsilon$ | IP68 | SL4-SWANO410 ${ }^{2}$ | Single Pedal/Momentary | DPDT | C | 3A 125-250 VAC |
| ${ }_{c} \mathrm{MN}_{\text {us }} \mathrm{C} \epsilon$ | IP68 | SL4-SWBNO3103 | Single Pedal/Momentary | DPDT | C |  |
| ${ }_{\text {c }} 7 \mathrm{~N}_{\text {us }}$ C $\epsilon$ | IP68 | SL4-SWBNO410² | Single Pedal/Momentary | DPDT | c | 5a $125-2 s 0 \mathrm{vac}$ |
| 1 Supplied with 10 ft ., 2 conductor, 18 awg cord 2 Supplied with $10 \mathrm{ft}, 4$ conductor, 18 awg cord 3 Supplied with 10 ft , 3 conductor, 18 awg cord |  |  |  |  |  |  |

## RF Wireless Hercules

## EN 60529 Degree of Protection IP68

FCC

## Driptight • Dusttight • Watertight • Oiltight

## Materials of Construction:

- Treadle and housing constructed from cast iron for strength and durability
- Protected by a strong cast aluminum Shield
- Painted Alert Orange


## Features \& Benefits:

- Removes clutter of wires under foot


OX Shield model

- IP68 fully submersible in water
- Rugged cast metal enclosure has sufficient weight to keep the switch from sliding when being operated
- All models have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw
- In all Maintained Contact models the release is accomplished by simply pressing the latch with a light forward movement of the toe. The release is placed under the Full Shield so falling objects cannot easily release it
- Heavy duty weather resistant construction for harsh environments
- Momentary actuation Contacts: single pole, single throw, up to 16 amp service
- Available in up to 3 switch functions
- Multiple systems may be used in the same vicinity at the same time
- 40 foot range of RF Transmission
- 250 hours of battery life at $50 \%$ duty cycle
- 3 (AA) batteries required for Transmitter
- 3 holes provided for rigid mounting to the floor or equipment
- Available for US and European service

Options:

- Oversize "O" and "OX" Shield models accept oversized safety shoes and metatarsal foot guards. The "OX" Shield has an additional $3 / 4$ " ( 19.1 mm ) opening height as compared to the " O " shield

Introducing LINEMASTER's RF Wireless Hercules foot switch. LINEMASTER ${ }^{\circ}$ offers the RF Wireless Hercules as a application specific design. If you have an application that requires a throttle control, please contact our Customer Service Department for details.

| FULL COVER GUARD MODEL |  |
| :--- | :--- |
| Size (HxWxD): | $4.37 \mathrm{in} \times 5.88 \mathrm{in} \times 9.00$ in |
| Weight: | 8.00 lbs. |
| OVERSIZED COVER GUARD MODEL |  |
| Size (HxWxD): | 5.03 in. $\times 5.88$ in. $\times 9.13 \mathrm{in}$. |
| Weight: | 8.00 lbs. |
| OX COVER GUARD MODEL |  |
| Size (HxWxD): | 5.78 in. $\times 6.03 \mathrm{in} . \times 9.13 \mathrm{in}$. |
| Weight: | 8.00 lbs. |



AWARNING SEE PRODUCT WARNING ON PAGE 8
SPECIFICATIONS (Special variations are available to the O.E.M. on special order on the models listed below)

| AGENCY <br> APPROVALS | $\begin{array}{\|c} \text { EN } 60529 \\ \text { Degree of Protection } \end{array}$ | CATALOG NUMBER | DESCRIPTION | STAGE | CIRCUIT | FORM | $\begin{aligned} & \text { ELECTRICAL } \\ & \text { RATINGS } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

[^4]
## Infrared Wireless Digital - Single

## NEMA Type

Classified to IEC/UL 60601.1
Classified to Can/CSA C22.2 No. 60601.1
EN 60529 Degree of Protection IP68 (Transmitter Only)
EN 60529 Degree of Protection IPX1 (Receiver Only)
Meets EMC Directive EN60601-1-2
Food \& Drug Administration (FDA) 510K Clearance

## Driptight • Dusttight • Watertight • Oiltight • Rust Proof • Corrosion Resistant DIGITAL IR WIRELESS DEVICE



## Materials of Construction:

- Switch Functions: Maximum combinations of 5
- Up to 4 systems can be operating at the same time in the same room
- Mode change switch available
- Transmitter battery life: 200 hours @ 50\% duty cycle typical
- Power Consumption (Transmitter): Stand-by 100ua
- Standard Power Requirements (Receiver): 6VDC @ 200ma (other voltages optional)
- Transmitter low battery indicator
- Receiver output: SPST relay, 0.5 amp contacts; SPDT relays optional
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Protective Dual Layer Signal eliminates cross talk


## Features \& Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required - plug and go
- Submersible transmitter for easy cleaning


## Options:



- Protective bag available for easy clean-up

- Battery Powered Receiver optional


PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

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\WWARNING SEE PRODUCT WARNING ON PAGE }
This device is of an application specific design. Please Contact LINEMASTER }\mp@subsup{}{}{\circledR}\mathrm{ for additional Information: 1-860-974-1000
```


## Infrared Wireless Digital - Twin

NEMA Type
Classified to IEC/UL 60601.1
Classified to Can/CSA C22.2 No. 60601.1
EN 60529 Degree of Protection IP68 (Transmitter Only)
EN 60529 Degree of Protection IPX1 (Receiver Only)
Meets EMC Directive EN60601-1-2
Food \& Drug Administration (FDA) 510K Clearance

## Driptight • Dusttight • Watertight • Oiltight • Rust Proof • Corrosion Resistant DIGITAL IR WIRELESS DEVICE

## Materials of Construction:

- Switch Functions: Maximum combinations of 5
- Up to 4 systems can be operating at the same time in the same room
- Mode change switch available
- Transmitter battery life: 200 hours @ 50\% duty cycle typical
- Power Consumption (Transmitter): Stand-by 100ua
- Standard Power Requirements (Receiver): 6VDC @ 200ma (other voltages optional)
- Transmitter low battery indicator
- Receiver output: SPST relay, 0.5 amp contacts; SPDT relays optional
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Protective Dual Layer Signal eliminates cross talk


## Features \& Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required - plug and go
- Submersible transmitter for easy cleaning


## Options:

- Protective bag available for easy clean-up

- Battery Powered Receiver optional


| Transmitter (Switch) |  |
| :--- | :--- |
| Size (HxWxD): | $3.07 \times 14.00 \times 10.00 \mathrm{In}$. |
| Weight: | 5.50 Ibs. with batteries |
| Receiver (A/C) | $2.75 \times 5.00 \times 3.50 \mathrm{In}$. |
| Size (HxWxD): | .45 Ibs. |
| Weight: |  |
| Receiver (D/C) | $5.50 \times 5.25 \times 4.50 \mathrm{In}$. |
| Size (HxWxD): | 1.7 lbs. |
| Weight: |  |



PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

This device is of an application specific design. Please Contact LINEMASTER ${ }^{\circledR}$ for additional Information: 1-860-974-1000

## NEMA Type <br> Classified to IEC/UL 60601.1 <br> Classified to Can/CSA C22.2 No. 60601.1 <br> EN 60529 Degree of Protection IP68 (Transmitter Only) <br> EN 60529 Degree of Protection IPX1 (Receiver Only) <br> Meets EMC Directive EN60601-1-2 <br> Food \& Drug Administration (FDA) 510K Clearance



## Driptight • Dusttight • Watertight • Oiltight • Rust Proof • Corrosion Resistant DIGITAL IR WIRELESS DEVICE

## Materials of Construction:

- Switch Functions: Maximum combinations of 5
- Up to 4 systems can be operating at the same time in the same room
- Mode change switch available
- Transmitter battery life: 200 hours @ 50\% duty cycle typical
- Power Consumption (Transmitter): Stand-by 100ua
- Standard Power Requirements (Receiver): 6VDC @ 200ma (other voltages optional)
- Transmitter low battery indicator

- Receiver output: SPST relay, 0.5 amp contacts; SPDT relays optional
- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Protective Dual Layer Signal eliminates cross talk


## Features \& Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required - plug and go
- Submersible transmitter for easy cleaning


## Options:



- Protective bag available for easy clean-up
- Battery Powered Receiver optional


PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

[^5]
## Infrared Wireless Linear - Single

NEMA Type

## Classified to IEC/UL 60601.1

Classified to Can/CSA C22.2 No. 60601.1
EN 60529 Degree of Protection IP68 (Transmitter Only)
EN 60529 Degree of Protection IPX1 (Receiver Only) Meets EMC Directive EN60601-1-2

## Driptight • Dusttight • Watertight • Oiltight

 LINEAR IR WIRELESS DEVICE
## Materials of Construction:



- Switch Functions: Maximum combinations of 5, up to 3 linear and 3 digital switch functions
- Up to 4 systems can be operating at the same time in the same room
- Transmitter battery life: 150-200 hours @ 50\% duty cycle typical
- Power Consumption (Transmitter): Stand-by 250ua
- Standard Power Requirements (Receiver): 12VDC @ 200ma
- Transmitter low battery indicator
- Uses industry standard AA Alkaline batteries
- Range: Typically 40 feet
- Linear receiver output voltage is customer specified with 12 VDC maximum output (other voltages optional)

- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Exceptional linear control - smooth and responsive
- New custom designed foot pedal
- Uses Hall Effect sensors: High reliability, No mechanical interface, High linearity, No dead spots
- Submersible transmitter for easy cleaning
- Eliminates the need for cords
- Retro-fits most existing equipment
- No product calibration required - plug and go


## Features \& Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required - plug and go
- Submersible transmitter for easy cleaning

Options:

- Protective bag available for easy clean-up

| Transmitter (Switch) |  |
| :--- | :--- |
| Size (HxWxD): | $3.07 \times 8.09 \times 8.93 \mathrm{In}$. |
| Weight: | 3.70 Ibs. with batteries |
| Receiver | $2.75 \times 5.00 \times 3.50 \mathrm{In}$. |
| Size (HxWxD): | .45 Ibs. |
| Weight: |  |



PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

This device is of an application specific design. Please Contact LINEMASTER ${ }^{\circledR}$ for additional Information: 1-860-974-1000

## Infrared Wireless Linear - Twin

## NEMA Type

## Classified to IEC/UL 60601.1

Classified to Can/CSA C22.2 No. 60601.1
EN 60529 Degree of Protection IP68 (Transmitter Only)
EN 60529 Degree of Protection IPX1 (Receiver Only)
Meets EMC Directive EN60601-1-2

## Driptight • Dusttight • Watertight • Oiltight LINEAR IR WIRELESS DEVICE



## Materials of Construction:

- Switch Functions: Maximum combinations of 5, up to 3 linear and 3 digital switch functions
- Up to 4 systems can be operating at the same time in the same room
- Transmitter battery life: 150-200 hours @ 50\% duty cycle typical
- Power Consumption (Transmitter): Stand-by 250ua
- Standard Power Requirements (Receiver): 12VDC @ 200ma
- Transmitter low battery indicator
- Uses industry standard AA Alkaline batteries
- Range: Typically 40 feet
- Linear receiver output voltage is customer specified with 12VDC maximum output (other voltages optional)
- Receiver switch activation indicator(s)

- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Exceptional linear control - smooth and responsive
- New custom designed foot pedal
- Uses Hall Effect sensors:

High reliability, No mechanical interface, High linearity, No dead spots

- Submersible transmitter for easy cleaning
- Eliminates the need for cords
- Retro-fits most existing equipment
- No product calibration required - plug and go


## Features \& Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required - plug and go
- Submersible transmitter for easy cleaning


## Options:

- Protective bag available for easy clean-up

| Transmitter (Switch) |  |
| :--- | :--- |
| Size (HxWxD): | $3.07 \times 14.00 \times 10.00 \mathrm{In}$. |
| Weight: | 5.5 Ibs. with batteries |
| Receiver | $2.75 \times 5.00 \times 3.50 \mathrm{In}$. |
| Size (HxWxD): | .45 Ibs. |
| Weight: |  |



PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

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AWARNING SEE PRODUCT WARNING ON PAGE }
This device is of an application specific design. Please Contact LINEMASTER }\mp@subsup{}{}{\circledR}\mathrm{ for additional Information: 1-860-974-1000
```


## Infrared Wireless Linear - Triple

NEMA Type

## Classified to IEC/UL 60601.1

Classified to Can/CSA C22.2 No. 60601.1
EN 60529 Degree of Protection IP68 (Transmitter Only)
EN 60529 Degree of Protection IPX1 (Receiver Only)
Meets EMC Directive EN60601-1-2

## Driptight • Dusttight • Watertight • Oiltight LINEAR IR WIRELESS DEVICE



## Materials of Construction:

- Switch Functions: Maximum combinations of 5, up to 3 linear and 3 digital switch functions
- Up to 4 systems can be operating at the same time in the same room
- Transmitter battery life: 150-200 hours @ 50\% duty cycle typical
- Power Consumption (Transmitter): Stand-by 250ua
- Standard Power Requirements (Receiver): 12VDC @ 200ma
- Transmitter low battery indicator
- Uses industry standard AA Alkaline batteries
- Range: Typically 40 feet
- Linear receiver output voltage is customer specified with 12VDC maximum output (other voltages optional)

- Receiver switch activation indicator(s)
- Non Line-of-Sight Multi-Directional infrared transmission, 360 degree coverage
- Exceptional linear control - smooth and responsive
- New custom designed foot pedal
- Uses Hall Effect sensors: High reliability, No mechanical interface, High linearity, No dead spots
- Submersible transmitter for easy cleaning
- Eliminates the need for cords
- Retro-fits most existing equipment
- No product calibration required - plug and go


## Features \& Benefits:

- 40 foot range typical
- Uses industry standard AA Alkaline batteries
- Eliminates the need for cords
- Retrofits most existing equipment
- No product calibration required - plug and go
- Submersible transmitter for easy cleaning


## Options:

- Protective bag available for easy clean-up

| Transmitter (Switch) |  |
| :--- | :--- |
| Size (HxWxD): | $3.07 \times 20.50 \times 11.00 \mathrm{In}$. |
| Weight: | 7.5 Ibs. with batteries |
| Receiver | $2.75 \times 5.00 \times 3.50 \mathrm{In}$. |
| Size (HxWxD): | .45 Ibs. |
| Weight: |  |



PLASMA VIDEO DISPLAYS CAN SERIOUSLY AFFECT THE OPERATION OF THIS DEVICE. PLASMA VIDEO DISPLAYS CAN INCREASE THE SWITCH ACTIVATION TIMES SIGNIFICANTLY OR PREVENT SWITCH OPERATION ALTOGETHER. DO NOT USE IN THE VICINITY OF PLASMA VIDEO DISPLAYS.

## $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8

This device is of an application specific design. Please Contact LINEMASTER ${ }^{\circledR}$ for additional Information: 1-860-974-1000

## Accessories - Shields

## FULL SHIELD

CATALOG NUMBER: 534-Z24

- Cast Aluminum Alloy construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Entire foot switch is covered
- Accepts wide range of foot switch models

| Size (HxWxD): | $4.33 \times 5.91 \times 8.72 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 2 lb. |



## "O" SHIELD <br> CATALOG NUMBER: 534-A25

- Cast Aluminum Alloy construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Entire foot switch is covered
- Accepts wide range of foot switch models

| Size (HxWxD): | $4.97 \times 5.91 \times 8.72 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 2.25 lb. |



## "OX" SHIELD <br> CATALOG NUMBER: 534-B25

- Cast Aluminum Alloy construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Entire foot switch is covered
- Accepts wide range of foot switch models

| Size (HxWxD): | $5.78 \times 5.91 \times 8.72 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 2.50 lb. |



Accessories - Awareness Cover

## AWARENESS COVER <br> CATALOG NUMBER: 522-U37

- Alerts you to the location of the foot switch
- Watch for tripping hazards
- Accepts wide range of foot switch models
- Resistant to impact
- Ergonomic design to accommodate most footwear
- Non-corrosive material
- Exceptional value and quality
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Opening is large and easy to access
- Versatile and Lightweight
- Entire foot switch is covered

| Size (HxWxD): | $5.72 \times 6.05 \times 5.28 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 8.5 oz. |



## Accessories - Guards

## FULL GUARD

CATALOG NUMBER: 522-B14

- Heavy gage rolled steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models


| Size (HxWxD): | $4.5 \times 6.0 \times 6.0 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 4 lbs. |



## FULL TWIN GUARD <br> CATALOG NUMBER: 522-B12

- Heavy gage rolled steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate most footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models


| Size (HxWxD): | $4.5 \times 11.0 \times 6.0 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 7 lbs. |



## SINGLE OVERSIZED GUARD CATALOG NUMBER: 522-F28

- Heavy gage rolled steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate protective footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet

- Entire foot switch is covered
- Accepts wide range of foot switch models

| Size (HxWxD): | $6.25 \times 6.0 \times 6.0 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 5 lbs. |



## OVERSIZED TWIN GUARD <br> CATALOG NUMBER: : 522-D28

- Heavy gage rolled steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate protective footwear
- Standard color is high visibility alert orange
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models

| Size (HxWxD): | $6.25 \times 11.0 \times 6.0 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 7 lbs. |



## Accessories - Guards

## FULL GUARD STAINLESS STEEL

CATALOG NUMBER: 522 - K26

- Heavy gage Brushed Stainless Steel and welded construction
- Resistant to impact
- Opening designed to easily accommodate protective footwear
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models



## MEDICAL GUARD

## CATALOG NUMBER: 997-Z26

- Cast Aluminum Housing with steel base plate construction
- Resistant to impact
- Opening designed to easily accommodate protective footwear
- Special variations available in production quantities
- Complete with non-skid feet
- Entire foot switch is covered
- Accepts wide range of foot switch models


| Size (HxWxD): | $5.5 \times 5.0 \times 5.85 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 3 lbs. |

## Accessories - Protective Boot

## PROTECTIVE BOOT

CATALOG NUMBER: 522-N30

- Plastisol PVC material in bright orange
- Easy to apply over Clipper \& Clipper 88 foot switches.
- No special tools required
- Prevents materials in wet or dirty environments from entering the housing
- Not available for wide-treadle models.
- Note: Requires Modification when used with Full Guard. Please contact factory for details.


| Size (HxWxD): | $2.07 \times 4.74 \times 3.64 \mathrm{In}$. |
| :--- | :--- |
| Weight: | 3.1 oz. |

## Cord Information

Custom cordset service is a specialty at LINEMASTER ${ }^{\circ}$, that is offered to the Original Equipment Manufacturer on a direct basis. Special cordsets are available to the O.E.M. as a separate item or as part of a complete foot switch assembly.

LINEMASTER ${ }^{\circ}$ will manufacture special cordsets to the Original Equipment Manufacturer's specifications. Whether it be with one of our molded-on plugs or an attached type connector by another manufacturer, we will be happy to submit a quotation. We will also use any cable, as specified by the customer. If you have requirements for a special cordset, please consider LINEMASTER ${ }^{\circ}$ as your source and give us your complete specifications.

The selection of an interfacing connector should not precede the selection of the cable. The abuse factor may require that a heavier cable construction type be selected that can be accommodated in a desired interfacing connector. A small
size connector may be desirable, but not at the price of unnecessary field problems due to an unsuitable cable selection.

Another design consideration is that the cable be provided with a suitable strain reliefwherethecableenters thefootswitch housing. For most non-watertight applications, LINEMASTER ${ }^{\circ}$ offers a high quality, molded on, cable strain relief grommet. When adjustable, two screw, cable clamps are used, a flexible bushing can be added over the cable, when required to give added cable strain relief or flex protection. In watertight applications, a properly sized, watertight, cable strain relief connector should be specified to maintain the integrity of the watertight seal where the cable enters the foot switch housing.

| Cord Type | Jacket Material | AWG Size | Electrical <br> Rating In <br> Amperes | UL/CSA <br> Dia. Range (IN) | Applications |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 300 Volt | SJT-plastic SJO-neoprene SJTO-plastic | 18-2 | 10 | .280-. 315 | Sound equipment, small motors, tools, medical \& dental equipment, office machines, tape recorders, and other small appliances. Widely used on foot switches. <br> SJO (Neoprene) or SJTO (Plastic) cord is used where cord must resist oil, acid, and grease. |
|  |  | 18-3 | 10 | . $300-.335$ |  |
|  |  | 18-4 | 7 | . $325-365$ |  |
|  |  | 16-2 | 13 | . $305-340$ |  |
|  |  | 16-3 | 13 | . $325-.360$ |  |
|  |  | 16-4 | 10 | . $350-.395$ |  |
| 300 Volt | SVT-plastic SVO-neoprene SVTO-plastic | 18-2 | 10 | .220-. 255 | Office equipment (dictating machines) and other light duty requirements. SVO (Neoprene) or SVTO (Plastic) cord is used where cord must resist oil, acid, and grease. |
|  |  | 18-3 | 10 | .230-. 265 |  |
|  |  | 18-4 | 7 | .250-. 290 |  |
| 600 Volt | ST-plastic SO-neoprene STO-plastic | 18-2 | 10 | . $340-385$ | Heavy duty service when subjected to extra hard usage, heavy tools, medical \& dental equipment, and other heavy duty applications. <br> SO (Neoprene) or STO (Plastic) cord is used where cord must resist oil, acid, and grease. <br> Note: ST (Plastic) cord is slightly smaller in diameter than SO (Neoprene) or S (Rubber) cord. |
|  |  | 18-3 | 10 | . $360-.400$ |  |
|  |  | 18-4 | 7 | . $385-.430$ |  |
|  |  | 16-2 | 13 | . $365-.410$ |  |
|  |  | 16-3 | 13 | . $385-.430$ |  |
|  |  | 16-4 | 10 | . $410-.460$ |  |
|  |  | 14-2 | 18 | . $495-.550$ |  |
|  |  | 14-3 | 18 | . $520-.575$ |  |
|  |  | 14-4 | 13 | .560-. 620 |  |

## Stock Cordsets with Molded Plug

Do you want to receive your LINEMASTER ${ }^{\circ}$ foot switch complete with a cordset attached?

Do you have a requirement for a special cordset assembly?

Custom cordset service is a specialty at LINEMASTER ${ }^{\circ}$, that is offered to the Original Equipment Manufacturer on a direct basis. Special cordsets are available to the O.E.M. as a separate item or as part of a complete foot switch assembly.

LINEMASTER ${ }^{\circ}$ will manufacture special cordsets to the Original Equipment Manufacturer's specifications. Whether it be with one of our molded-on plugs or an attached type connector by another manufacturer, we will be happy to submit a quotation. We will also use any cable, as specified by the customer. If you have requirements for a special cordset, please consider LINEMASTER ${ }^{\circ}$ as your source and give us your complete specifications.

The selection of an interfacing connector should not precede the selection of the cable. The abuse factor may require that a heavier cable construction type be selected that can be accommodated in a desired interfacing connector. A small size connector may be desirable, but not at the price of unnecessary field problems due to an unsuitable cable selection.

Another design consideration is that the cable be provided with a suitable strain relief where the cable enters the foot switch housing. For most non-watertight applications, LINEMASTER ${ }^{\circ}$ offers a high quality, molded on, cable strain relief grommet. When adjustable, two screw, cable clamps are used, a flexible bushing can be added over the cable, when required to give added cable strain relief or flex protection. In watertight applications, a properly sized, watertight, cable strain relief connector should be specified to maintain the integrity of the watertight seal where the cable enters the foot switch housing.

| Bold Copy Indicates Stock Item |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Catalog Number | Lgth <br> (ft.) | Gauge | Material | Color | Max. <br> Cable <br> Dia. (IN) | Compatible Socket |
|  | (1).51 | SF-524-M | 6 | 18-3 | SJT | Black | . 314 | Any Standard 3 <br> Prong <br> 125 VAC Wall Receptacle |
|  |  | SF-515-P34 | 8 | 18-3 | SJT |  | . 312 |  |
|  |  | SF-536-P | 8 | 16-3 | SJT |  | . 331 |  |
|  |  | SF-522-Q17 | 8 | 14-3 | SJT |  | . 355 |  |
|  |  | SF-965-J | 8 | 22-1 | PVC <br> Jacket Shielded Audio | Black | . 315 | Any Standard 2 <br> Contact <br> . 250 dia. <br> Miniature phone plug receptacle |
|  |  | SF-515-D16 | 8 | 22-1 | PVC <br> Jacket Shielded Audio | Black | . 150 | Any Standard 2 <br> Contact <br> . 140 dia. <br> Miniature phone plug receptacle |
|  |  | SF-515-A10 | 8 | 22-1 | PVC <br> Jacket Shielded Audio | Black | . 150 | Any Standard 2 <br> Contact .097 dia. <br> Miniature phone plug receptacle |
| 1 Denotes Angle Bracket Mounting <br> 2 Denotes Flat Plate Mounting |  |  |  |  |  |  |  |  |

## IP Ratings

EN 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e. tools, dust, fingers) and moisture. This classification system utilizes the letters "IP" ("Ingress Protection") followed by two or three digits. (A third digit is sometimes used. $A n$ " $x$ " is used for one of the digits if there is only one class of protection; i.e. IPX4 which addresses moisture resistance only.)

## Degrees of Protection - First Digit

The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.

0 No special protection
1 Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50 mm in diameter.
2 Protection against fingers or other object not greater than 80 mm in length and 12 mm in diameter.
3 Protection from entry by tools, wires, etc., with a diameter of thickness greater than 1.0 mm .
4 Protection from entry by solid objects with a diameter or thickness greater than 1.0 mm
5 Protection from the amount of dust that would interfere with the operation of the equipment.
6 Dust tight.

## Degrees of Protection - Second Digit

The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)

0 No special protection
1 Protection from dripping water.
2 Protection from vertically dripping water.
3 Protection from sprayed water.
4 Protection from splashed water.
5 Protection from water projected from a nozzle
6 Protection against heavy seas, or powerful jets of water.
7 Protection against immersion.
8 Protection against complete, continuous submersion in water. Submersion depth and time must be specified by the end user. The requirement must be more onerous than IP67

## The IP Code Symbols

The chart at the right illustrates the use of special symbols in the IP classification system. In the "1st digit" column, not the grid-like symbols net to numbers 5 and 6 . In the " 2 nd digit" column numbers 3-8 are symbolized by teardrop shaped symbols, sometimes enclosed in a box or a triangle, sometimes unenclosed (\#7-8). These symbols can be placed on equipment to illustrate the IP protection provided.


## AGENCY MARKINGS \& APPROVALS

$\left.\begin{array}{l|l|l|} & \begin{array}{l}\text { Country } \\ \text { Description }\end{array} \\ \hline \text { SEV Accepted } \\ \text { Schweizerischer Electrotechnischer Verein (SEV) is the certification agency for Switzerland. } \\ \text { The recognized association for Swiss standards is the Swiss Standards Association (SEV). The SEV has adopted IEC standards } \\ \text { almost without exception. The SEV mark molded into a plug or connector indicates that a product has been tested and } \\ \text { approved for use in Switzerland. All products to be sold in Switzerland must bear this mark. }\end{array}\right\}$

## Glossary of Terms

| Circuit | British Main Wiring Name | American <br> Main <br> Wiring <br> Name | Description | Symbol | $\begin{aligned} & \text { IEC } \\ & 60617 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SPST | One Way | Two Way | Single Pull Single Throw <br> A simple on-off switch: The two terminals are either connected together or not connected to anything. |  | $\bigcirc$ |
| SPDT | Two Way | Three Way | Single Pull Double Throw <br> A simple changeover switch: C (Common) is connected to L1 or to L2. |  |  |
| DPST | Double Pole | Double Pole | Double Pull Single Throw Equivalent to two SPST switches controlled by a single mechanism |  |  |
| DPDT |  |  | Double Pull Double Throw <br> Equivalent to two SPDT switches controlled by a single mechanism: <br> A is connected to B and D to E , or A is connected to C and D to F . |  | $\gamma^{\hat{3}}$ |
| TPDT |  |  | Triple Pull Double Throw |  |  |
| Switches with larger numbers of poles or throws can be described by replacing the "S" or "D" with a number or in some cases the letter T (for triple). |  |  |  |  |  |


| EXAMPLE OF CIRCUIT DESCRIPTIONS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CIRCUIT | TREADLE UP | TREADLE DOWN | CIRCUIT | TREADLE UP | TREADLE DOWN |
| SPDT | $\longrightarrow$ | $\bigcirc$ | SPDT DB <br> (Double Break) | $\bullet 1$. | $\div \quad$ - |


| Term | Description |
| :--- | :--- |
| DB | Double Break |
| NC | Normally Closed <br> In normally closed (N.C) contact blocks, the contacts are "at rest" in the closed (on) position, allowing current to pass through. The contacts open <br> only when the plunger goes down and separates them. |
| NO | Normally Open <br> Normally open (N.O) means that contacts are "at rest" in the open (off) position, and current does not pass through. The contacts close only when <br> the plunger goes down and forces them together. |
| MBB | Make before Break <br> In a multi-throw switch, the new contact is made before the old contact is broken. This is known as make-before-break, and ensures that the <br> moving contact never sees an open circuit. |
| BBM | Break before Make <br> In a multi-throw switch, the old contact is broken before the new one is made. This is known as break-before-make, and ensures that the two <br> fixed contacts are never shorted to each other. |
| Hall Effect Sensor | A Hall Effect sensor is a transducer that varies its output voltage in response to changes in magnetic field. Hall sensors are used for proximity <br> switching, positioning, speed detection, and current sensing applications. |
| Maintained | Press - on, Press again - off. When a maintained action switch is actuated, the contacts move to transfer the circuits to the second set of contacts. <br> No change takes place with the contacts when the operator removes his or her foot even though the actuator, treadle or cover, has returned to <br> the original position. When the operator actuates the switch a second time, the contacts returns to the original position. |
| Momentary | Press - on, release - off. When a momentary action switch is actuated, the actuating device, treadle or cover, and contacts move to transfer the <br> circuits to a second set of contacts. When the actuating force is removed, the actuating device and the contacts return to the original position. |
| Reed Switch | The reed switch is an electrical switch operated by an applied magnetic field. It was invented at Bell Telephone Labs in 1936 by W. B. Elwood. It <br> consists of a pair of contacts on ferrous metal reeds in a hermetically sealed glass envelope. The contacts may be normally open, closing when a <br> magnetic field is present, or normally closed and opening when a magnetic field is applied. |
| Variable | The present popular usage of the term potentiometer (or'pot' for short) describes an electrical device which has a user-adjustable resistance. <br> Usually, this is a three-terminal resistor with a sliding contact in the center (the wiper). If all three terminals are used, it can act as a variable <br> voltage divider. If only two terminals are used (one side and the wiper), it acts as a variable resistor. |

## COMMITMENT TO QUALITY



## MISSION STATEMENT

Linemaster Switch Corporation's mission is to provide a superior foot switch at an affordable price without compromise.

## QUALITY POLICY

Linemaster Switch Corporation's goal is to bring high quality reliable products to market that will earn customer loyalty. We will accomplish this through our commitment to the following quality goals and objectives:

- Ensure products meet or exceed their internal and external requirements.
- Continually monitor the quality of our customer interactions, with the intent to improve our customer's total experience.
- Establish and maintain quality requirements for the supplier, partners, and contractors and hold them accountable to comply.
- To comply with global and regulatory requirements that are applicable; and
- To add value and growth for the corporation, community and to our customers.
Linemaster's management is responsible for providing leadership to ensure that our policy and objectives are conveyed, understood and implemented throughout the organization.


## COMMITMENT STATEMENT

Linemaster is committed to continuously improving the effectiveness of the quality management system through the establishment and monitoring of relevant quality goals and metrics throughout the organization. We will strive for the improvement of product quality, the reduction in quality cost, and the increase in productivity and efficiency. Basic principle is that all departments and individuals have responsibilities in ensuring that their job is done correctly and the product is built right the first time and every time thereafter. Our program emphasizes preventive efforts and systems
We endorse the concepts, policies, and elements described in the system, and will monitor the performance throughout the organization and through periodic reviews of the quality management system by Linemaster management.
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[^0]:    ${ }^{1}$ One pole of these models has an adjustable actuating mechanism that enables you to make or break one pole before the other. EXAMPLE: You can break the N.O. Circuit long before you would remake a N.C. Circuit in a $511-B 2$.

[^1]:    'DB Double Break models must be wired to equal voltage sources and the same polarity. The loads should be on the same sides of the line.

[^2]:    Cover non-operative with side treadle bars active.

[^3]:    Supplied without cordset.

[^4]:    This device is of an application specific design. Please Contact LINEMASTER ${ }^{\otimes}$ for additional Information 1-860-974-1000

[^5]:    $\triangle$ WARNING SEE PRODUCT WARNING ON PAGE 8
    This device is of an application specific design. Please Contact LINEMASTER ${ }^{\circledR}$ for additional Information: 1-860-974-1000

