

Optional Item: Key Interlock Scheme

Reference Figure 7 - available upon special order. Available in various sizes and materials. For further information, contact Powercon Corporation, Sales Department.

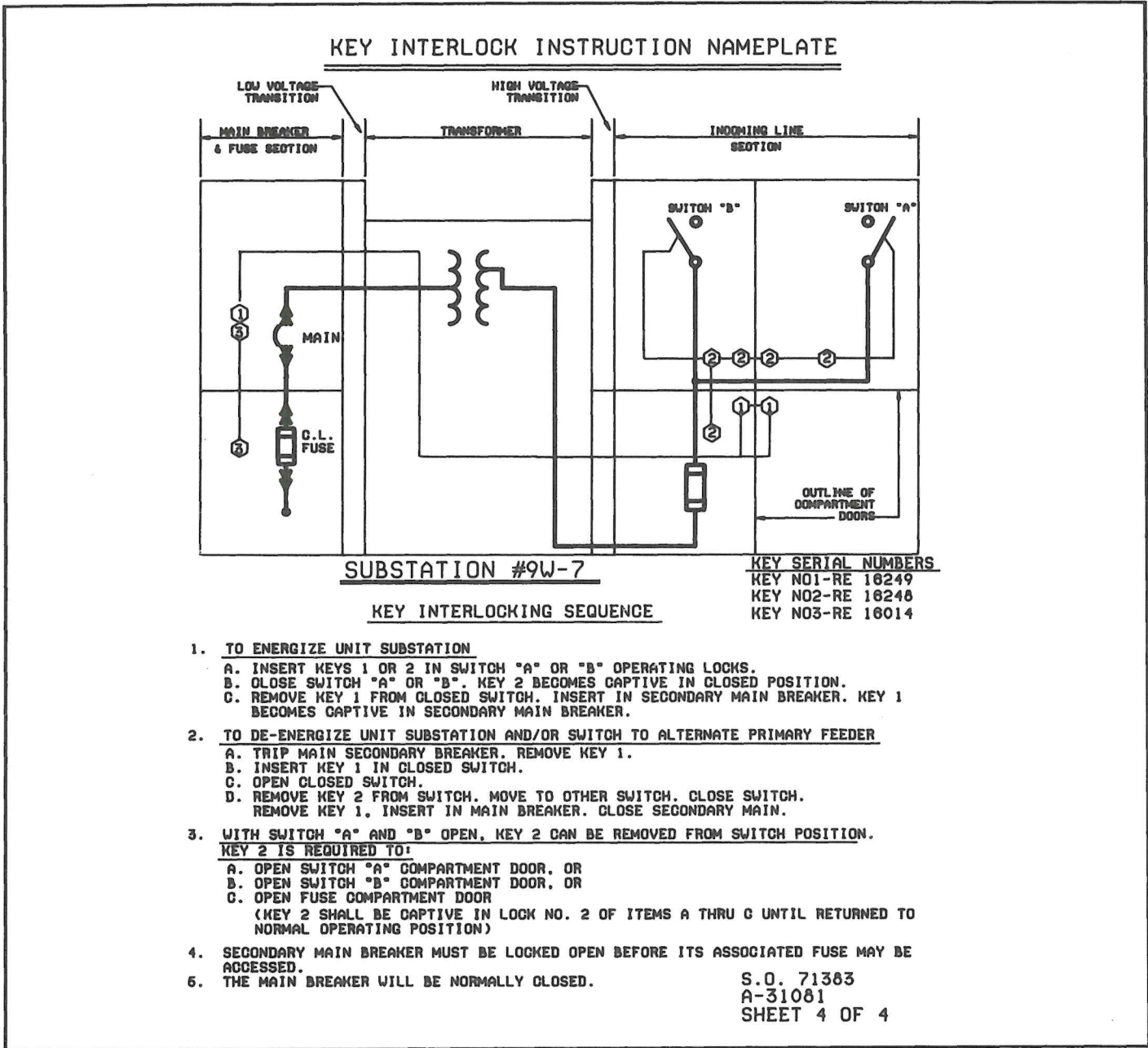


Figure 7: Typical Key Interlock Scheme



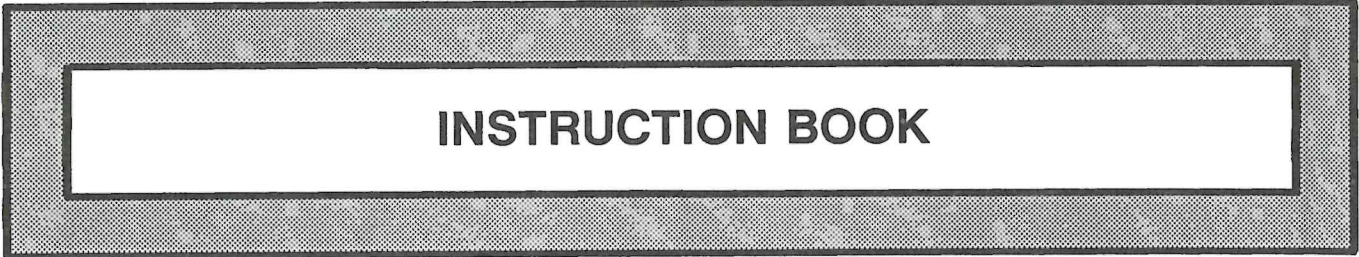
Baltimore: 410-551-6500  
Washington: 301-621-7400  
TOLL FREE: 1-800-638-5055  
FAX#: 410-551-8451

P.O. Box 477  
1551 Florida Avenue  
Severn, Maryland 21144

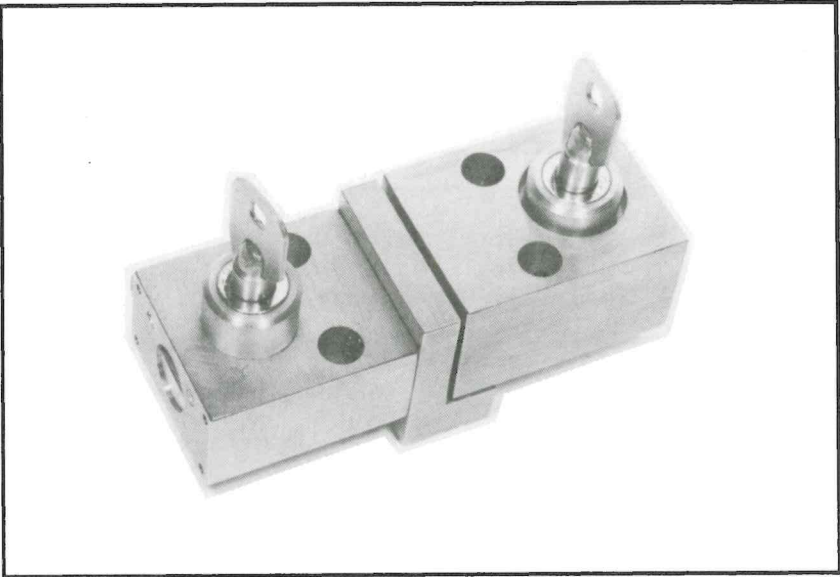


Mk. 9

9/11/89 PCIB-1036  
Supersedes PCIB-1030  
Key Interlock Systems



KEY INTERLOCK SYSTEMS



Special "PD" Interlock with "PF" Interlock

WARNING

FOLLOW THE SAFETY INSTRUCTIONS AND WARNINGS THROUGHOUT THIS BOOK. FAILURE TO DO SO CAN RESULT IN DAMAGE TO PROPERTY, PERSONAL INJURY OR DEATH.

IN ADDITION TO THE PERSONNEL PROTECTION PRECAUTIONS AS OUTLINED WITHIN, REFER TO ANSI Z244.1 1982 ENTITLED:  
PERSONNEL PROTECTION  
LOCKOUT/TAGOUT OF ENERGY SOURCES  
MINIMUM SAFETY REQUIREMENTS

These instructions may not cover all details or variations in equipment, nor provide for every possible contingency encountered. Should further information be desired or should specific problems arise which are not covered sufficiently, the matter should be referred to the POWERCON CORPORATION.





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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_

Reference: \_\_\_\_\_  
PO: \_\_\_\_\_  
SO: \_\_\_\_\_  
Duplicate Key(s): \_\_\_\_\_  
Additional Keylock(s) \_\_\_\_\_

Dear Sir:

Your order for duplicate key(s), additional keylocks for the expansion of existing interlock system, and/or replacement keylocks, requires up to clarify the our position regarding Powercon Key Interlock Systems.

These systems operate in a predetermined sequence. Duplicate key(s) provide a means to defeat this sequential operation. Accordingly, before we can comply with your order, we must have your acknowledgement of the potential hazards arising from the use of a duplicate key(s) for existing interlocking systems including additions to same associated with expansion/additions of key interlocks, and your agreement to defend, indemnify and hold harmless Powercon Corporation for any claim, demand, suit, loss or damage recovered from Powercon Corporation, by reason of any damage to property including loss of use thereof; or injury, including death sustained by any person arising out of the use of a duplicate key(s) to defeat the system.

Please indicate your agreement by signing and returning this letter. Upon receipt of this letter bearing your signature, we will enter your order for prompt shipment.

Acknowledged and Agreed:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Sincerely Yours,  
POWERCON CORPORATION



#### LIMITED WARRANTY

Powercon warrants that the equipment we deliver will be of the kind and quality described in the order or contract and will be free of defects in workmanship and material. Should any failure to conform to this warranty appear within one year after date of shipment, Powercon shall, upon prompt notification thereof and substantiation that the equipment has been stored, installed, operated and maintained in accordance with Powercon recommendations and standard industry practice, correct such nonconformities, at its option, either by repairing any defective part or parts or by supplying a repaired or replacement part or parts F.O.B. factory. However, if Powercon has installed the equipment or furnished field engineering services with respect to its installation, and provided such installation has not been delayed by the Purchaser, said one year shall run from the completion of the installation. The total warranty period shall not exceed 18 months from the date of shipment in any case.

In no event shall Powercon be responsible for providing working access to the defect, including the removal, disassembly, replacement or reinstallation of any equipment, materials, or structures to the extent necessary to permit Powercon to perform its warranty obligations, or transportation costs to and from the Powercon factory or repair facility. The conditions of any tests shall be mutually agreed upon and Powercon shall be notified of, and may be present at, all tests that may be made.

THE WARRANTIES SET FORTH IN THIS PROVISION ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE AND ALL WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE), EXCEPT OF TITLE AND AGAINST PATENT INFRINGEMENT. The remedies provided above are the Purchaser's sole remedies for any failure of Powercon to comply with its obligations. Correction of any nonconformity in the manner and for the period of time provided above shall constitute complete fulfillment of all the liabilities of Powercon whether the claims of the Purchaser are based in contract, in tort (including negligence) or otherwise with respect to or arising out of the equipment furnished hereunder.

#### WARRANTY IMPLEMENTATIONS AND CONDITIONS

On those occasions where service help is required, the Powercon Corporation should be notified at once through its Service Department. No charges or expenses should be incurred except as authorized by the Corporation in writing. Making unauthorized corrections or doing unauthorized work voids this Warranty and renders reimbursement impossible.

At times, the Powercon Corporation may request labor and/or material services from you. At our option we will provide competent supervision who will authorize such services by signing the Time Sheets of the people involved. No reimbursement can be made without signed Time Sheets.

The services rendered must be of the type and quality satisfactory to the Powercon Corporation, and we reserve the right to reject any and all such services.

The above in no way prejudices the right of the Powercon Corporation to correct, as stipulated in the Warranty, any problems that may occur in equipment manufactured by the Powercon Corporation.

Figure 5: Duplicate Key(s)/Additional Keylock (s)Authorization Form



## KEY INTERLOCK SYSTEMS

### Application

An interlock systems is a series of key interlocks applied to associated equipment in such a manner, as to allow operation of the equipment only in prearranged sequence.

Interlocks are applicable to practically any field wherein human life or property is endangered, by an improper operation or improper sequence of operations.

Importance of Interlocking - Interlocks are an important element of the safety system. They are an important item in present day management because of the general desire to provide safe working conditions. Increasing safety legislation and a reduction of insurance rates when safety devices are used - are added incentives for the use of interlocks.

### Definition

An interlock is a device applied to, two or more moveable parts, preventing or allowing a movement of one part, only when another part is locked in it's predetermined position.

### Fundamental Requirements for Interlocks

There are three fundamental conditions to be met in a satisfactory interlock. It must be:

- Positive in Action

The interlock must normally make the controlled equipment absolutely inoperative at all times.

- Simple

The interlock must be a simple auxiliary device easily installed and also easily and quickly operated.

- Inexpensive

The interlock must be relatively inexpensive in proportion to the equipment protected so that it's use may be justified.

### General Information

The Powercon Key Interlock System is a simple, easy method of applying individual key interlock units and assemblies to electrical switchgear assemblies requiring operation in a predetermined sequence.

### Construction of Interlocks and Assemblies

The interlock housings are made of high strength aluminum alloy and are designed for mounting with 3/8" bolts. The locking bolt is 5/8" diameter high strength aluminum alloy.

The lock is a special 7-pin tumbler lock, simple and rugged in construction. The lock housing is 7/8" diameter. The key has an ample finger grip of distinctive pattern. The lock number is stamped on the face of the lock and also on the key. It is a serial number applying to the lock combination and is used as a record for possible replacement and extension of systems.

All Powercon Key Interlocks can be provided with spst, spdt or dpdt switches - as required. Additional information on these interlocks is available upon request.

Multiple type interlocks can be provided for all of the Powercon Key Interlock Systems.

Optional plastic weatherproof covers of specially formulated materials are available. They are designed for close fitting requirements and to eliminate dust and moisture.

Special type interlocks can be designed to meet your requirements.

### Service and Maintenance

Under normal conditions, interlocks should not require any maintenance service. However, if service should be required contact Powercon Corporation.

In case of any defective interlocks or keys, the Powercon Corporation should be notified immediately. The following information should be readily available:

- Lock Number - From Face of Lock
- Shop Order Number, Switchgear Manufacturer's Name & Equipment Serial Number
- Specific Requirements on which interlock is applied
- Specific trouble experienced

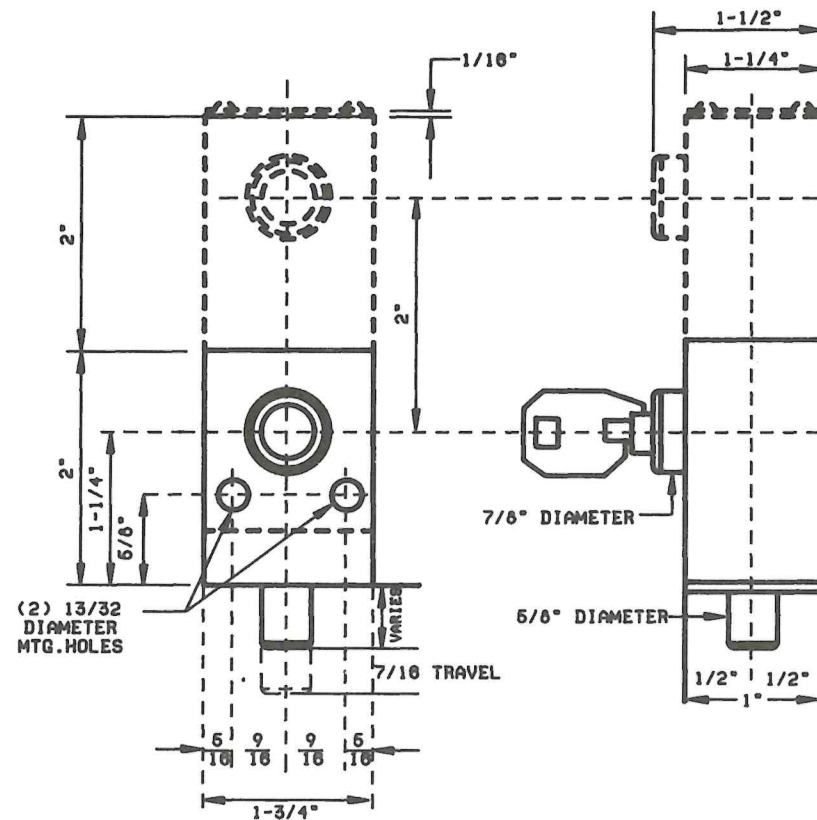


Figure 2: Type "PF" Interlock - 7/16" Travel

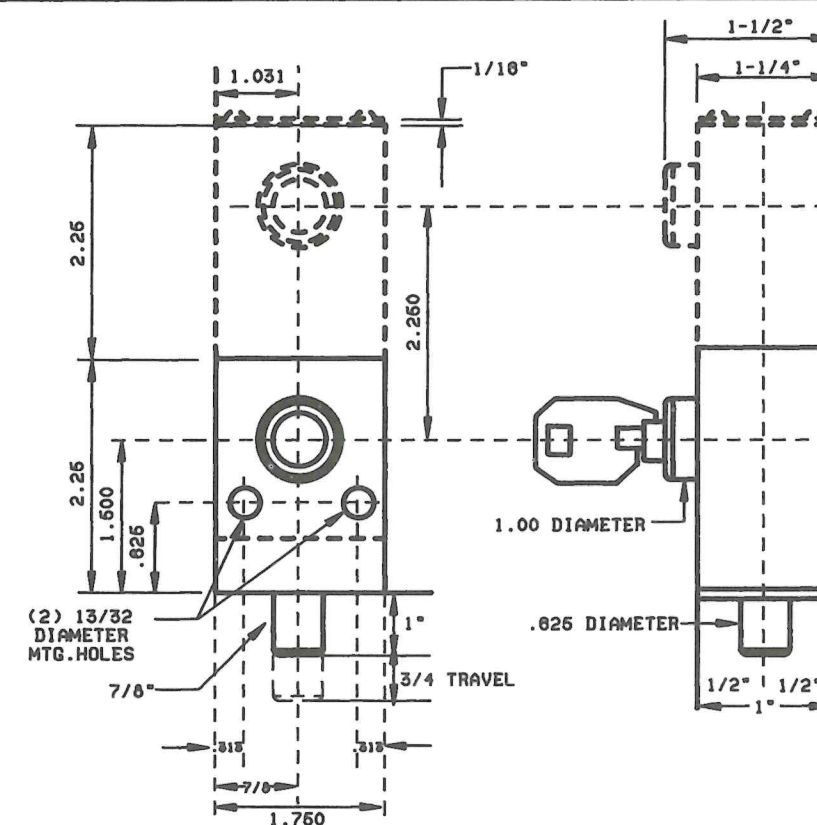


Figure 3: Type "PF" Interlock - 3/4" Travel