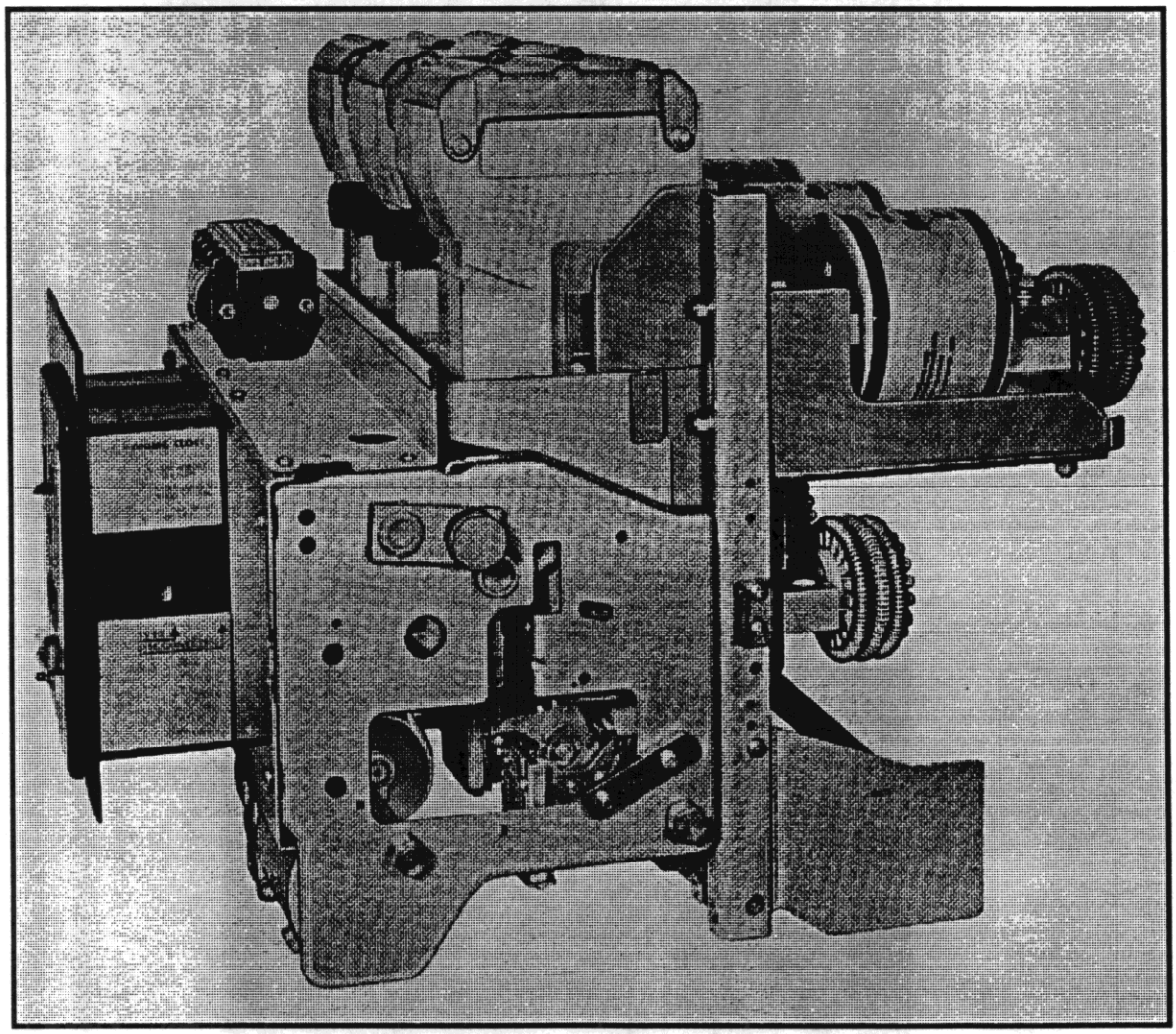
IB 6.1.2.7-3

Installation/Maintenance Instruction

Low-Voltag
Power Circuit Breaker

K-Don® -600 thru 1600 and 600S thru 1600S Fused Circuit Breakers

Drawout Switchboard Mounted



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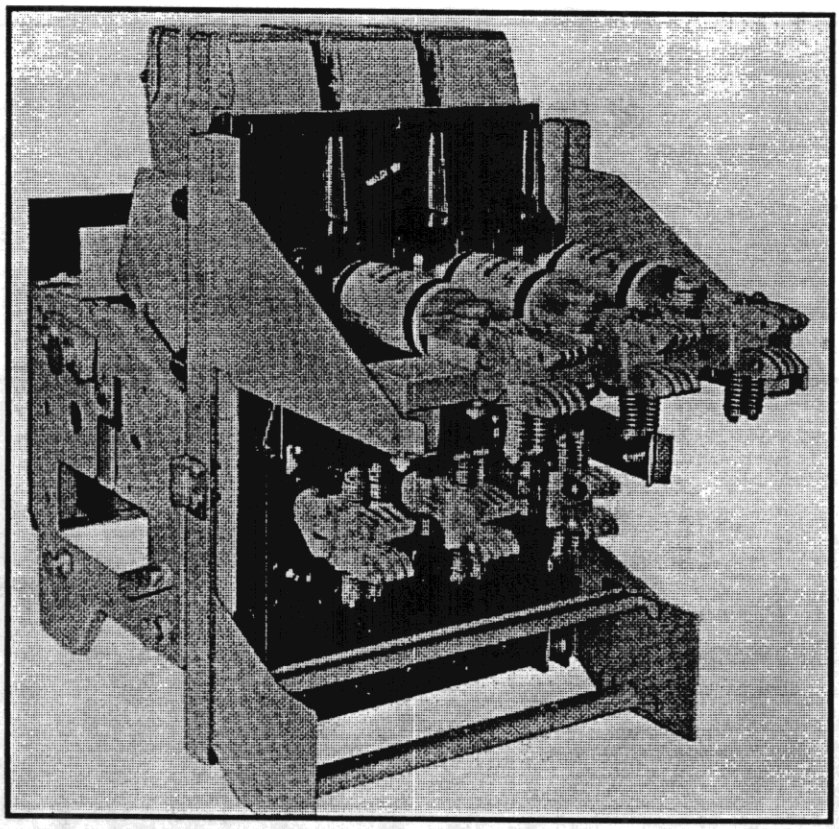

Figure 1

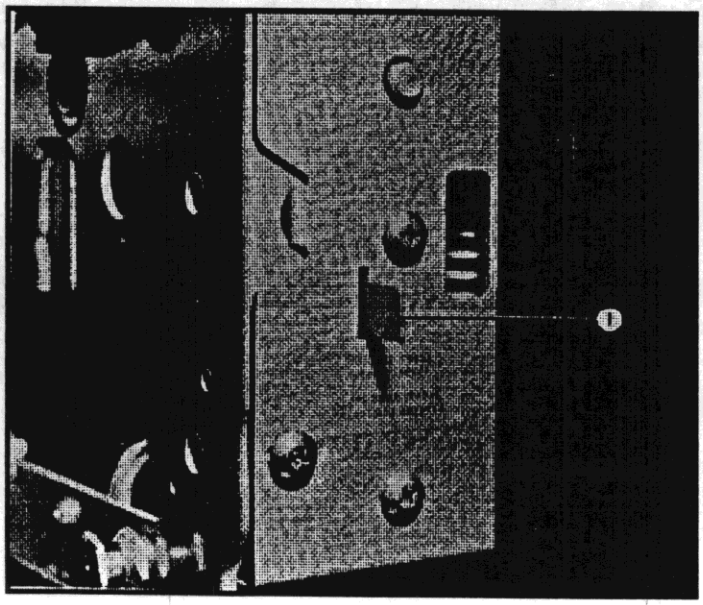

Figure 2

INTRODUCTION

These fused circuit breakers are assemblies of the basic K-Line® circuit breakers with the addition of integral current-limiting fuses and an open-fuse-trip device to provide a coordinated protective device. The K-Don® circuit breakers are supplied in drawout arrangement only and should never be used in stationary mounting.

All instructions pertaining to installation operation and maintenance of basic K-Line circuit breakers also apply to the K-Don circuit breakers.

CURRENT-LIMITING FUSES (See Fig. 11)

The current-limiting fuses normally mounted on the K-Don circuit breaker are a special type Gould-Shawmut with the continuous current rating dependent on the coordination between the fuses the direct-acting trip device and the other protected equipment. The maximum continuous current rating of the fuses is limited as noted on the circuit-breaker nameplate.

When a fault occurs to open a fuse or fuses, the K-Don circuit breaker will automatically open by operation of the open-fuse-trip device.

When a fuse or more than one fuse has opened it is recommended that all three fuses be replaced regardless of apparent condition because the time-current characteristic of an unopened fuse could be affected and thus system coordination would be affected.

To replace the fuses, the circuit breaker should be withdrawn from its compartment and conveniently located so that the fuses are readily accessible. Fuse replacement is a simple mechanical procedure; the one basic requirement is that the bolts should be retightened to a torque value of 45-50 ft /lbs.

NOTE: When replacing the fuses, do not remove the wires from the open-fuse-trip device. If it is necessary to check individual fuse continuity, the fuses must be removed from the circuit breaker to isolate the fuse from the paralleled coil of the device.

Replacement fuses MUST be the current-limiting type are to be the Gould-Shawmut Special Purpose Type 5 UL listed, of the same continuous current rating as pr ously installed so that coordination is not affected. other type fuse, even if modified for mounting, will necessarily provide proper coordination and protectio

OPEN-FUSE-TRIP DEVICE

The open-fuse-trip device supplied on 3-pole circuit br ers provides automatic opening of the circuit breaker w one or more fuses open.

The device consists of three voltage coils with one wired in parallel with each fuse. The coils operate on voltage produced by the fuse during interruption and ca mechanical tripping of the circuit breaker.

When the open-fuse-trip device operates an indicato Fig 2) will extend through the front of the mechar mounting plate providing indication that the circuit bre has opened due to fuse operation. This is visible only the door open. The automatic trip indicator on the escu eon will also have extended, providing visible exte indication of automatic opening. If the automatic trip inc tor is extended but the open-fuse-trip device indicat not, then the circuit breaker opened from direct-acting device operation because of a small overload which dic open the fuses.

If the open-fuse-trip device indicator is extended, the ci breaker will be held in the trip-free position so that it ca be reclosed. If the indicator is inadvertently reset anc circuit breaker reclosed before the fuses are replaced circuit breaker will safely open again when there is current (this practice is not recommended).

After the fuses have been replaced and the fault remo both trip indicators should be pushed in to reset the cir breaker mechanism. The fused circuit breaker may the closed and service resumed.

The design of the open-fuse-trip device is such tha maintenance or adjustment is necessary on this devic its normal operating life.

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