The **BP Family** of Power Failure Transfer Units

About Power Failure Transfer

Power failure transfer (PFT) equipment is an integral part of a complete telecommunications system. When PBX or related communications system operation is disturbed, PFT equipment provides an important link to and from the outside world. System disruptions can occur due to commercial power failures or system hardware or software malfunctions. In addition to these unexpected events, PFT equipment serves an important role during system test, maintenance, and upgrade periods.

The concept of power failure transfer is straightforward. PFT units are installed at the communications system site, along with a PBX, ACD, or other specialized system. Selected central office trunks are connected to the communications system via ports on the PFT units. During normal operation, the PFT equipment remains "invisible," routing the

trunks to the system. In the event of a system malfunction, the trunks are rerouted to singleline telephones (or other alternate equipment). On-site personnel use the single-line telephones to receive incoming calls and place outgoing calls. Calls to emergency services can be originated and essential calls can be answered. Important business can continue while system problems are being addressed.

GORDON KAPES INC.

The BP Family of Power Failure Transfer Products

The BP family of products from Gordon Kapes, Inc. delivers power failure transfer capability for loop start and ground start central office trunk circuits. Four units are available, matching the needs of a wide range of applications.

The BP-1A is used with loop start trunks and the BP-2A is used with ground start trunks. The BP-4A and BP-5A can accommodate loop or ground start trunks. Each unit's distinctive features allow you to select the one that precisely fits your application.

Units can be selected to be compatible with PBX systems from virtually every manufacturer, including AT&T, ROLM, Mitel, NEC, Northern Telecom, and Siemens. All the BP units can be powered with 24Vac, -24Vdc, or -48Vdc. There are no switches to set or straps to cut. The units automatically adjust for the power that is connected.



Each unit contains a unique circuit that provides a time delay between restoration of power and the PFT circuits returning to the normal mode. The timer, adjustable from 1 to 15 minutes, ensures that the communications system can completely reset prior to the PFT unit leaving the transfer mode.

Contained in each unit is one or more transfer control lines. These inputs let operating status signals from the associated system place the BP unit in the transfer mode. The contact input transfer control line allows connection of a normally open (not shorted) or normally closed (shorted) contact. The logic input allows connection of a logic level signal. The BP-5A's re-operate input is provided for use with some systems from AT&T.

The BP-2A, BP-4A, and BP-5A all contain special delay transfer circuits. These ensure that when units go from the transfer mode to the normal mode, a call in progress is not disconnected.

All BP units feature fast and simple installation. Each is enclosed in a wall-mount cabinet and interconnects using standard telephone cabling. Groups of similar PFT units can be easily configured to allow additional PFT channels.

For installer convenience, all BP units can be ordered individually or as a kit. The kit contains the selected BP unit along with a 24Vac Class 2 power transformer and connecting cable. We encourage you to contact Gordon Kapes, Inc. technical support if you require additional information or would like to review application specifics.



The figure above depicts a BP-2A Power Failure Transfer Unit connected with a PBX telephone system. During normal operation, central office ground start trunks are routed to trunk ports on the PBX system. During power failure transfer operation, the BP-2A routes the trunks to single-line telephones. Contained in the BP-2A are eight loop start to ground start converter circuits. The converters serve an important function, eliminating the need to install mechanical ground start push buttons on each telephone. With the converters, the single-line telephones will automatically draw central office dial tone when taken off hook.

Note that both the PBX station ports and single-line telephones are connected via the BP-2A. This allows the single-line telephones to serve double duty. During normal operation, the station ports are connected to the station telephones. During transfer operation, the station telephones are connected to the selected central office trunks. The PBX shown in the example provides an alarm contact. This allows a PBX alarm indication to place the BP-2A in the transfer mode.

	BP-1A	BP-2A	BP-4A	BP-5A
Number of PFT circuits	8	8	4	5
Compatible with loop start trunks	•		•	•
Compatible with ground start trunks		•	•	•
Automatic loop to ground start converters		•	•	•
Delay transfer circuitry		•	•	•
Power restore delay timer	•	•	•	•
Contact transfer control input	•	•	•	•
Logic transfer control input	•	•	•	•
Re-op control input				•
Manual transfer switch	•	•	•	•
Auxiliary relay contact	•	•	•	•
LED status indicators	•	•	•	•
Universal powering (24Vac, -24Vdc, or -48Vdc operation)	•	•	•	•
Self-contained, wall-mount unit	•	•	•	•
FCC registered	•	•	•	•
UL Listed		•	•	•

Feature-by-Feature Comparison Chart of BP PFT Products