

TECHNICAL BULLETIN

BENDIX G-15 ACCESSORIES

PR-1 PUNCHED TAPE READER

PTP-1 TAPE PUNCH

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PR-1
AUXILIARY PHOTO-ELECTRIC TAPE READER

Introduction

Accessory PR-1 is a bi-directional photo-electric paper tape reader which supplements the photo-reader in the G-15 Computer. Up to three PR-1 units can be added to the G-15 system. The auxiliary photo-readers are all under program control.

The PR-1 unit is a standard G-15 photo-reader mounted in a small cabinet for desk top operation.

Programming

The PR-1 accessories have the same paper tape capabilities as the photo-reader on the computer with the exception of loading the number track during warm-up. The photo-reader on the computer is the only one which loads the number track and the only one which is controlled by the "p" and "b" keys on the typewriter.

The PR-1 unit plugs into the "punched paper tape connector" on the rear panel of the computer. The unit which plugs into the computer is the "master" PR-1 unit. Each additional PR-1 unit plugs into a connector on the rear panel of the "master" PR-1 unit. The units which plug into the master PR-1 unit are designated as "subordinate" PR-1 units.

The auxiliary photo-readers are controlled by the standard photo-reader commands. The value of C in the command determines which auxiliary PR-1 is operated.

A command with a C value of 0 controls the photo-reader mounted on the computer. The first auxiliary photo-reader, the master, is selected by a command with a C value of 1. The second and third auxiliary photo-reader units, the subordinates, have a C value in the command of 2 and 3, respectively.

Command

Code

Read Punched Tape in Reader C	L ₂ N C 15 31
Reverse Punched Tape in Reader C	L ₂ N C 06 31

If the PR-1 unit is not connected to the computer, the command "L₅ N 5 15 31" causes the photo-reader on the computer to read tape and to automatically transfer Line 23 to Line 19.

If the PR-1 unit is connected to the computer, the automatic transfer of Line 23 to Line 19 for information read from the computer photo-reader may occur by using two commands. If the programmer gives a "L₅ N 5 14 31" command and immediately gives a "L₂ N 0⁵ 15 31" command, the computer will automatically transfer the contents of Line 23 to Line 19.

Test routines are available which check the operation of the PR-1 units.

Operation

The computer supplies the power necessary to operate the accessory. The PR-1 units operate in the same manner as the photo-reader on the computer.

A metal magazine with two reels contains the input tape. The magazine fits on the photo-reader and, during reading, tape passes from the lower reel, past a set of photo-electric diodes, and onto the upper reel.

The clamp handle on the PR-1 holds the magazine in place during operation. The photo-electric assembly moves when the clamp handle is lifted in order to facilitate insertion of the tape.

When putting punched tape on the reel of a magazine or on a tape rewind hub, attach the tape so that the narrow side, measured from the sprocket holes, is toward the computer. A Stop code should not be the first character on the tape.

A toggle switch to the left of the clamp handle controls the manual movement of tape on the photo-reader assembly. If in the Forward position, the tape is moved upward. In the Rewind position, the tape is run downward through the assembly. The Paper Tape switch on the base of the typewriter may be used to rewind tape only on the photo-reader on the computer.

The PR-1 units are turned off when the computer is turned off.

Description

The auxiliary photo-electric reader is 11 inches high, 10 inches wide, 15 inches deep and weighs 40 pounds. The cable length is 15 feet.

PTP-1
ACCESSORY HIGH SPEED PAPER TAPE PUNCH

Introduction

Accessory PTP-1 is a high speed, paper tape punch unit for use with the Bendix G-15 Computer. The PTP-1 punches 5-channel tape at a rate of 60 characters per second. The G-15 controls the operation of the PTP-1. Tape prepared by the PTP-1 may be read by the photo-reader on the computer or by either the PR-1 or PR-2 accessories.

Programming

The commands which operate the PTP-1 are single precision commands. The codes for the commands are:

Fast Punch Line 19	L ₅ N 2 03 31
Fast Punch Leader	L ₅ N 2 02 31

The "Fast Punch Line 19" command causes the contents of Line 19 to be punched until Line 19 is cleared. The punched information is in the "fast-out" format used with magnetic tape.

The fast-out format consists of only "digit", "stop" and "transfer Line 23 to 19" codes. All other format codes are eliminated.

The "Fast Punch Leader" command causes 2.9 inches of blank tape to be punched.

The programmer must not put either of the commands in word u7.

Operation

The PTP-1 derives power from the G-15 Computer. The unit plugs into the punched paper tape connector on the back of the computer. The PTP-1 has a connector in the rear in which either the PR-2 or PR-1 units may be connected.

To turn on the PTP-1, put the switch located on the left side of the front of the unit in the POWER ON position. Do not execute a command for 60 seconds after the power is turned on.

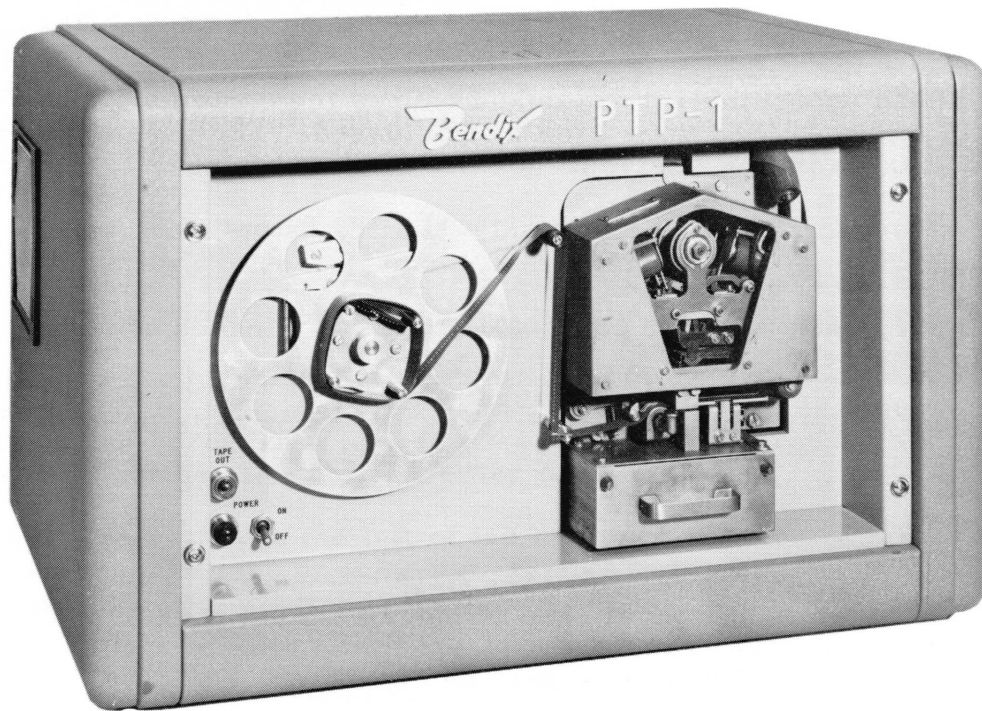
To turn off the PTP-1, place the power switch in the OFF position.

A test routine for the unit is available.

Tape Winding and Replacement

To put a new roll of tape in the unit, mount the reel of tape and run the tape counterclockwise from the reel through the tape guide and around the tape roller. Bring the tape down and under the lower roller, through the guide, punch block, feed wheel and tape tension lever. Rotate the punch mechanism until the tape is not in contact with the puncher.

To thread tape onto the take-up reel, feed the tape through the tape guide, over the brake roller lever and onto the reel studs. The reel rotates in a clockwise direction.



PTP-1 PAPER TAPE PUNCH

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