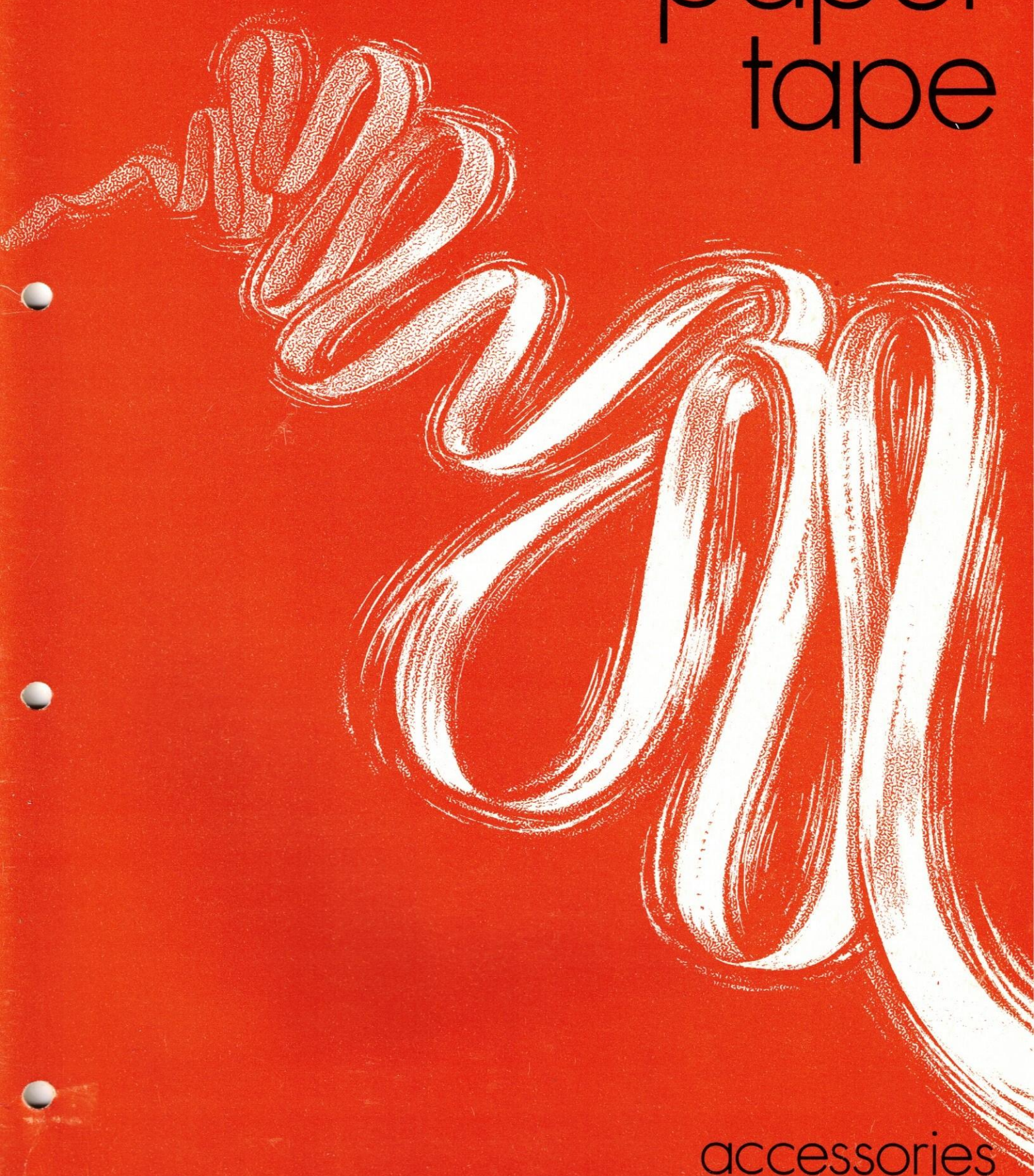# using paper tape

accessories

Information for tape users

Check the punching

Every tape should be checked to see that width and hole positions are within standard tolerances. This can be done quickly and accurately using the RC Paper Tape Gauge.

Identify all tapes

Identify the tape before punching with a serial number that indicates the total number of tapes in the file, for example, 2/14. Use a stamp and ink rather than gummed labels. If the tape is not marked with arrows, then identify the start and end of tape as well.

Start and end with blank tape

All tapes should start and end with about 1.2 meters of blank tape, blank tape feed, or tape feed (see illustration) to permit use of the RC 2100 Automatic Tape Winder.

Wind the tape properly

When the tape has been punched, wind it — beginning at the end — in a tight, even roll on a cardboard core (inner diameter 51 mm). Do not affix the end of the tape to the core with gummed tape or the like.

If the roll is loose, hold the core firmly in one hand, pull the tape taut with the other, and wind up the slack. If the roll is uneven, lay it on a flat surface and pat it a few times Use of the RC Electric Tape Winder will make the whole job a lot easier.

Don't use too big a roll

Avoid punching a number of tapes on one big roll. Reading and operation are most reliable when rolls with a diameter of about 15 cm are used.

Splice with care

Worn or damage tapes must be repaired. When splicing a tape, take care that both ends meet exactly and do not overlap. Tapes can be mended perfectly and fast with the RC Paper Tape Splicer and special pre-punched splicing tape.

Avoid paper clips etc.

Use a rubber band to hold the roll when it has been wound — not paper clips, gummed tape, and the like.

Store paper tape properly

Paper tapes, whether new or punched, are best kept where the relative humidity is about 65 percent. Avoid exposure to direct sunlight or heat from radiators and office machines. Never keep paper tape in boxes that absorb moisture.

Electric Tape Winder

The RC Electric Tape Winder provides high-speed winding of 5, 6, 7, and 8 track paper tapes on cardboard cores. Its specially constructed motor has maximum torque when started, and its winding speed can be varied from 0 to 2400 revolutions/minute by manual braking.

The winder disc, which can accomodate rolls of tape up to 20 cm in diameter, is mounted at an angle so that the operator easily can observe the tape during winding.

The hub on the winder disc is fitted with three ball-locks; besides holding the core in place, they enable it to slide round to prevent tape damage should the tape become too taut.

The winder can stand securely on a table or shelf without being clamped.

Dimensions:	24✕22✕11 cm.
Weight:	5.3 kg.
Color:	bluish gray.
Disc Diameter:	20 cm.
Hub Diameters:	51 mm.
Power:	50 Hz, 115 or 220 V AC, 24 W.

Paper Tape Splicer
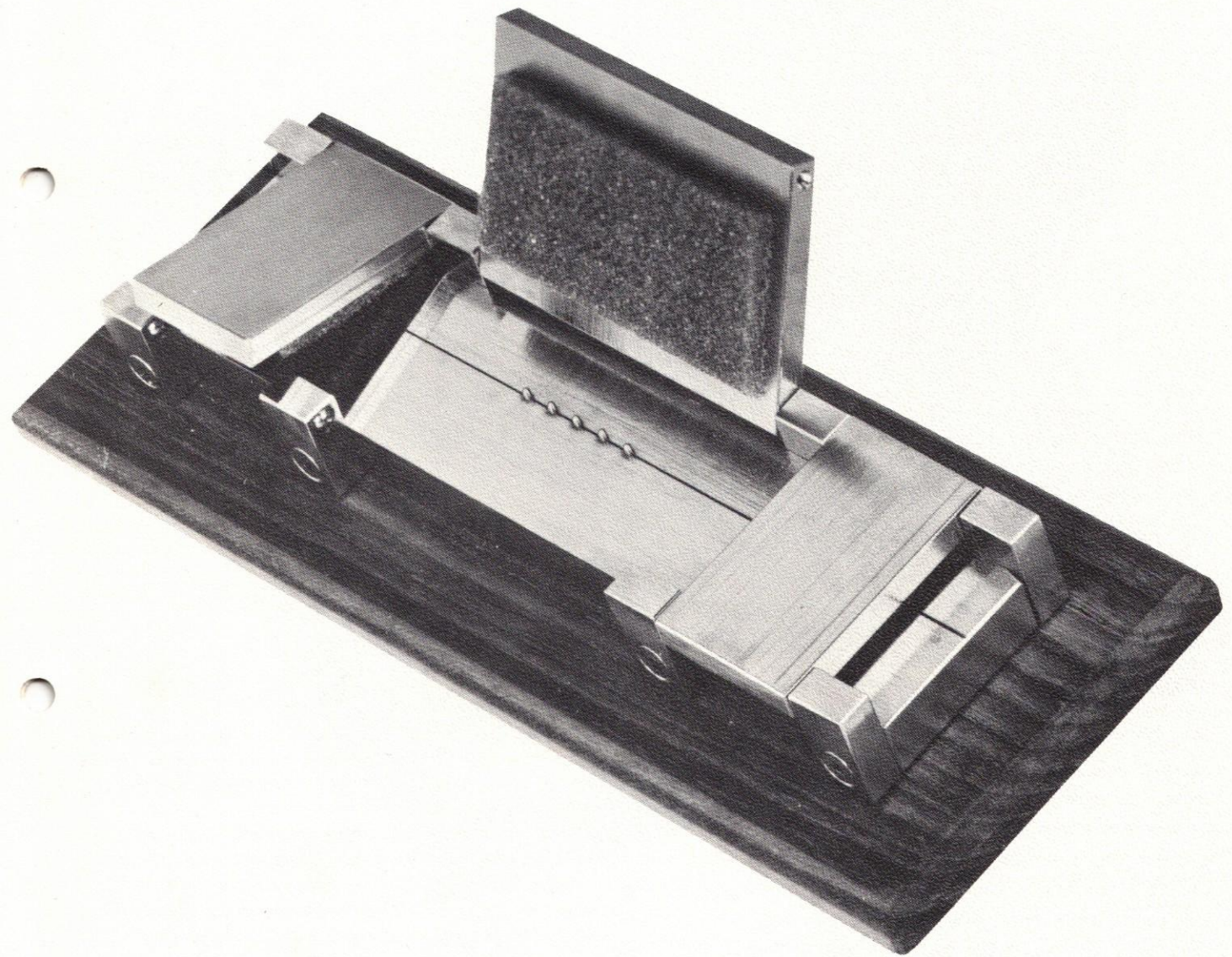
The RC Paper Tape Splicer provides perfect splicing of 5, 7, and 8 track tapes. No characters can be lost despite possible variations in the distance between individual characters.

The part of the tape to be spliced is simply placed in the middle of the splicing block, while the rest is positioned with the feed holes over the guide pins and the engraved line on the block. The outer plates shut to hold the tape in position.

A piece of splicing tape (pre-punched gummed paper tape or self-adhesive tape) is then placed over the part to be spliced. Shutting the middle plate affixes it.

Dimensions: 18×7×3 cm
Weight: 0.7 kg.

Carrousel Punch

The RC Carrousel Punch provides fast, easy, and in-expensive punching of 8 character paper tape in conformity with ASCII code.

The desired character is selected on a code disc and punched by pressing it. The disc contains 70 pre-coded ASCII characters as follows:

A B C D E F G H I J K L M N O P Q

R S T U V W X Y Z

1 2 3 4 5 6 7 8 9 0

= + - × / ! < > & @ $ # % ! ? "

. , ; : . ( )

SP CR LF HT FF CRTA CRTX BELL XOFF XON ESC

The disc also includes 10 codes for punching feed hole, all holes, and channels 1 to 8.

Each channel can be punched individually, making it possible by means of backspacing to create any existing code. **Code discs with other pre-coded characters are available on request.**

The tape can be inserted sideways, enabling codes to be punched anywhere on the roll. The tape is advanced and the feed holes are punched automatically. The beginning and the end of the tape are indicated by an arrow-shaped tear-off.

Size: 15×17×5 cm.
Weight: 1.8 kg.
Color: bluish gray.

Loading Unpunched Paper Tape

Open the disc by means of the lock on the front of the punch. Lift up the tear-off plate and insert the tape under the punch mechanism and over the pin wheel.

Position the tape correctly in relation to the pin wheel and the tape guides, shut the tear-off plate, and lock the disc.

Select the Tape Feed code on the disc. Punch feed holes until proper spacing is achieved. The punch is now ready to punch characters.

Correcting Paper Tape

When a tape requires correction, position it so that the erroneous character is in front of the index mark by the punch mechanism.

Important

Chads must be emptied from the receptacle under the punch to avoid damage to the punch mechanism.

Mechanical Punch

The RC Mechanical Punch provides accurate and convenient punching of 5 and 8 track paper tapes. The keys of the punch correspond to tape tracks, beginning with the least significant bit at the right. As each track can be punched individually, it is possible to create any existing code.

The tape employed must have pre-punched feed holes. It can be inserted either from the leading end or sideways, so that codes can be punched anywhere on the tape roll. The beginning and end of tape are indicated by an arrow-shaped tear-off.

Punching RC 3000 Catalog Tapes

Since the tape is advanced manually by turning a knob, the operator himself can determine how many stages he will use to punch a given bit-pattern. The knob also serves to indicate whether multiples of 32 characters have been punched, for use in preparing catalog tapes for the RC 3000 Converter.
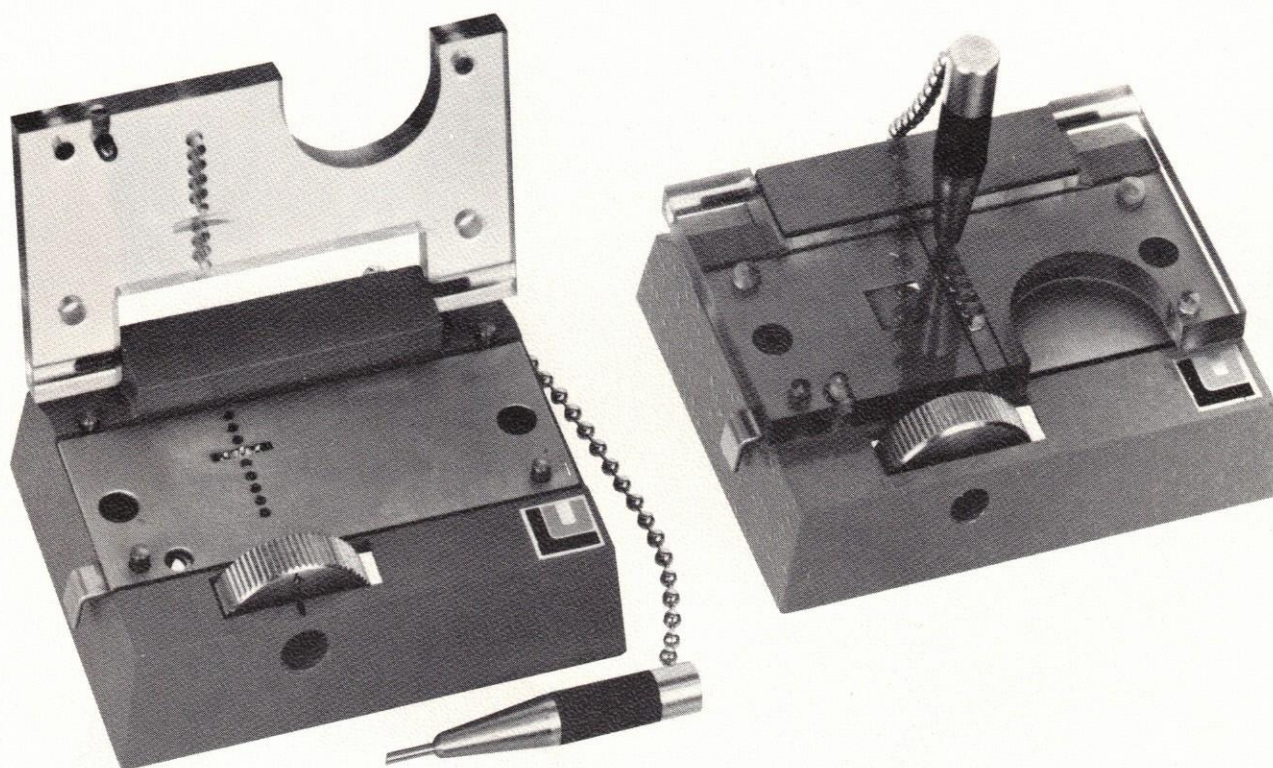
Dimensions: 19✕22✕6 cm
Weight: 2.1 kg
Color: bluish gray

Minipunch 8 and 6

RC Minipunch 8 permits accurate and convenient manual punching of 5, 7, and 8 track paper tapes in accordance with ISO, DIN, ECMA, USAS, BS, and similar standards.

Tracks can be punched individually, making it possible to create any existing code. Each character is visible through the transparent lid that holds the tape. A feed knob advances the tape in steps of one character by means of a cog wheel, and gives modulo 16 indication of the number of characters punched. The cog wheel is aligned with the eight punching holes in the lid, so that displacement between the feed hole and the code holes to be punched is eliminated.
The tape employed must have prepunched feed holes. It can be inserted sideways, enabling codes to be punched anywhere on the tape roll.

Size: 65×82×26 mm.
Weight: 200 g.
Color: bluish gray.

RC Minipunch 6 permits accurate and convenient manual punching of 6 track paper tape in accordance with the Olivetti standard.

Tracks can be punched individually, making it possible to create any existing code. Each character is visible through the transparent lid that holds the tape. The tape is advanced by turning a feed knob. Engraved lines indicate the minimum spacing between characters in accordance with the Olivetti standard.

The tape can be inserted sideways, enabling codes to be punched anywhere on the tape roll.

Size: 65×82×26 mm.
Weight: 200 g.
Color: bluish gray.

Paper Tape Gauge
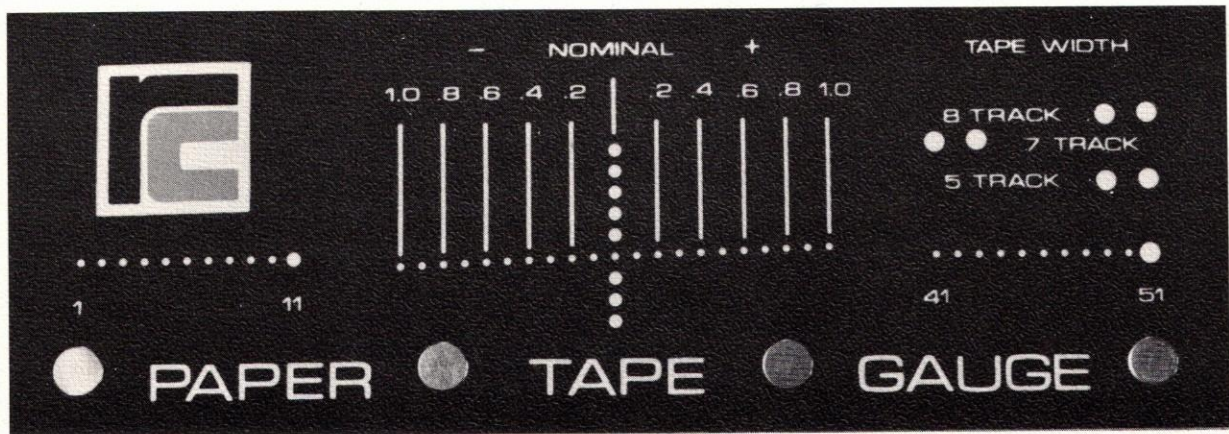
The RC Paper Tape Gauge provides quick, easy, and accurate checking of 5, 7, and 8 track paper tapes. Checks include tape width, transversal position and alignment, and longitudinal spacing. The gauge conforms to such standards as DIN, ISO, ECMA, USAS, and BS.

Tape Width

The gauge checks whether tape width is within the tolerances allowed.

Longitudinal Spacing

The gauge checks whether longitudinal deviation for 10 and 50 spaces is within the tolerances allowed.

Transversal Position and Alignment

The gauge checks the relation of feed holes to code holes and reference edge, indicating deviations of incorrect tapes in tenths of a millimeter.

Size: 52×148×2 mm
Weight: 25 gr

The RC Paper Tape Gauge

Tape Width

This check indicates whether the width of a 5 track tape is within 17.40 ±0.08 mm, a 7 track tape within 22.22 ±0.08 mm, and an 8 track tape within 25.40 ±0.08 mm.

Press the reference edge of the tape gently against the four tape guides.

A correct tape must touch one of the tolerance spots for 5, 7, or 8 track tape but not the other. If the tape touches neither spot, it is too narrow, i.e. outside the minus tolerance. If the tape touches both spots, it is too wide, i.e. outside the plus tolerance.

Transversal Position of Feed Holes

This check indicates the position of the feed holes in accordance with the reference edge (9.96 ±0.10 mm).

Press the reference edge gently against the four tape guides.

By moving the tape sideways, find the spot in the line from − 1.0 via NOMINAL to +1.0 that is in the center of a feed hole. The selected spot indicates the position of the feed holes in accordance with the reference edge. Deviations from the nominal distance (9.96 mm) are indicated for each tenth of a millimeter.

A correct tape must correspond to one of the three spots marked − 0.1 mm, NOMINAL, or +0.1 mm.

Transversal Alignment

This check is possible only if the Transversal Position of Feed Holes is correct.

One can check whether the angle of the reference edge and the row of code holes is a right angle, whether the distance between code holes and feed holes is n×2.54 mm, and whether the alignment of the row is correct.

Press the reference edge gently against the four tape guides.

By moving the tape sideways, place the NOMINAL spot in the center of a feed hole. The row of code hole spots should now be in the center of the code holes, if the tape is correctly punched. No tolerances are indicated on the gauge.

Longitudinal Spacing

This check indicates the spacing between feed holes (2.54 mm) and cumulative spacing error tolerances after 10 spaces (±0.25 mm) and after 50 spaces (±0.65 mm).

Place the tape with spot 1 in the center of a feed hole. Align the tape in accordance with spots 1–10, NOMINAL, and spots 42–51. These spots should now be in the center of the feed holes. A slight deviation is allowed, but neither feed hole 11 nor feed hole 51 may exceed the limits of the corresponding tolerance spots.

If one of these two feed holes exceeds the left-hand side of the spot, the spacing is too short, i.e. outside the minus tolerance. If the right-hand side of the spot is exceeded, the spacing is too long, i.e. outside the plus tolerance.

Specifications for 5, 7, and 8 Track Paper Tapes

A   tape width (8 track)
A_1 tape width (7 track)
A_2 tape width (5 track)
B   distance from reference edge to center of feed holes (7 and 8 track)
B_1 distance from reference edge to center of feed holes (5 track)
C   spacing from center to center of adjacent feed holes
C_1 cumulative spacing error for 10 spaces
C_2 cumulative spacing error for 50 spaces
D   distance from center of feed holes to code holes

All dimensions are in mm.

1 inch = 25.40 mm.

	RC GAUGE		DIN 66016 (VORNORM)		ISO 1671 (DRAFT)		ECMA (DRAFT)		USAS X 3.18 USAS X 3.19		BS 3880	
A	25.40	0.08	25.40	0.08	25.40	0.08	25.40	0.05	25.40	0.08	25.40	0.05
A_1	22.22	0.08	−		−		−		−		22.22	0.05
A_2	17.40	0.08	17.40	0.08	−		17.46	0.05	17.42	0.08	17.45	0.05
B	Nominal 9.96		9.96	0.10	9.96	0.10	9.96	0.10	9.96	0.10	9.96	0.08
B_1	Nominal 9.96		9.96	0.25	−		9.96	0.10	9.96	0.07	9.96	0.08
C	2.54		2.54	0.05	2.54	0.075	2.54	0.075	2.54	0.08	2.54	0.08
C_1		0.25		0.25		0.25		0.25		0.25		0.25
C_2		0.65		0.90		0.63	−			0.63	−	
D	n×2.54		n×2.54	0.05	n×2.54	0.05	n×2.54	0.05	n×2.54	0.05	n×2.54	0.05

RC A/S REGNECENTRALEN