

JUNIOR QUARTZ COMPUTER T 2

PRINTING CLOCK

MODEL T 2 - 12 BIRD

MAKROLON CASE

CAN BE USED ON ITS OWN AND IN CONJUNCTION WITH
THE APPROVED DATA PRINTER.

BATTERIES SUPPLIED WITH T 2 WILL LAST FOR 10 YEARS

L.C.D. DISPLAY GIVES TIME AND WILL DISPLAY ALL DATA
SIMPLY BY PRESSING THE READ KEY.

NOTE: THIS CLOCK IS EQUIPPED WITH SENSITIVE
ELECTRONIC COMPONENTS. ANY REPAIRS MUST
ONLY BE MADE BY AN APPROVED ENGINEER.

OPENING AND CLOSING THE RECORDER

THE LOCKING DEVIIZE ON THE JUNIOR QUARTZ COMPUTER T 2 CAN BE OPENED AT ANY TIME:

TURN LEVER 1 TOWARDS THE LEFT, THE LOCK CAN ONLY BE CLOSED WHEN THE DRUM 2 IS IN THE 'S' POSITION (START) BY TURNING THE LEVER TOWARDS THE RIGHT.

TAKE CARE WHEN OPENING THE JUNIOR QUARTZCOMPUTER T 2 ALL INFORMATION STORED IN THE MEMORY IS AUTOMATICALLY DELETED - WITH THE EXCEPTION OF THE TIME, DATE AND REFERENCE NUMBER.

WHEN CLOSING THE UNIT, THE EXACT TIME AND DATE ARE FILED IN THE MEMORY.

PLUNGER

TO RECORD; PRESS THE PLUNGER RIGHT DOWN AND ALLOW IT TO RETURN TO ITS ORIGINAL POSITION.

THIS IS VERY IMPORTANT AS THE PLUNGER MAY JAM IF IT DOES NOT REACH THE BOTTOM AND TOP POSITIONS PROPERLY EACH TIME.

THE SAME APPLIES, IF THE PLUNGER IS OPERATED TO RETURN THE DRUM TO THE 'S' (START) POSITION.

L.C.D. DISPLAY

THE L.C.D. DISPLAY ON THE T 2 SHOWS THE ACTUAL TIME AT ANY MOMENT.

THE WORD 'TIME' APPEARS WHEN THE TIME IS DISPLAYED.

THE FIRST TWO DIGITS INDICATE THE HOURS
THE MIDDLE TWO DIGITS INDICATE THE MINUTES
THE LAST TWO DIGITS INDICATE THE SECONDS

WHEN THE TIME IS SET THE WORDS 'TIME SET' APPEARS.

WHEN THE DATE IS SET THE WORDS 'SET DATE' APPEARS.

TIME 18:04:55

READ KEY

THE READ KEY (BOTTOM RIGHT-HAND SIDE OF THE CASING) HAS A DOUBLE FUNCTION. WHEN THE TIMER IS CLOSED (WHICH IS USUALLY THE CASE) THE READ KEY IS USED TO DISPLAY DATA ON THE L.C.D. DISPLAY

WHEN THE LOCK IS OPEN, THE KEY ACTS AS FUNCTION KEY D.

OUTPUT/CONNECTION

THE DIN 5 OUTPUT-CONNECTION IS ON THE LEFT HAND SIDE OF THE JUNIOR QUARTZCOMPUTER T 2.

THE OUTPUT ALLOWS THE USER TO TRANSMIT THE DATA STORED IN THE COMPUTER MEMORY TO THE INTERFACE AND THE PRINTER.

THIS CONNECTION IS FOR OUTPUT ONLY, I.E. IS NOT AN INPUT

FUNCTION KEYS

WHEN THE TIMER IS OPEN 3 KEYS CAN BE SEEN.

THESE ARE THE 'FUNCTION KEYS'.

WE WILL CALL THE TOP KEY: FUNCTION KEY A

WE WILL CALL THE MIDDLEY KEY: FUNCTION KEY B

WE WILL CALL THE BOTTOM KEY: FUNCTION KEY C

IF THE TIMER IS OPEN (THE LOCK IS TURNED LEFT) THE READ KEY ON THE FRONT BECOMES FUNCTION KEY D.

DRUM

THE DRUM APERTURE IS LOCATED AT THE TOP OF THE TIMER.

ACCORDING TO THE REGULATIONS OF THE COUNTRY THE DRUM IS PROVIDED WITH OR WITHOUT COVER-FLAPS FOR RECORDING WITH OR WITHOUT THIMBLES.

IN ANY CASE, THE PLUNGER MUST NOT BE PRESSED IF THE RING OR THIMBLE IS NOT COMPLETELY IN THE DRUM CAGE.

USING THE FUNCTION KEYS - SETTING THE TIME

THE 4 FUNCTION KEYS ARE ACTIVE IF THE LOCK IS RELEASED, I.E. TURNED COMPLETELY TO THE LEFT.

IF THE TIME HAS TO BE CHANGED IT IS NECESSARY TO RE-SET IT. THIS IS DONE WITH KEYS A, B, C AND D.

KEY A: PRESS THIS TO CHANGE THE TIME. THE L.C.D. DISPLAY WILL NOW READ 'TIME SET'.

KEY B: PRESS THIS TO SET THE HOURS

KEY C: PRESS THIS TO SET THE MINUTES

KEY D: (ON THE FRONT OF THE TIMER). PRESS THIS TO STOP THE CLOCK AND THE SECONDS READ 00 AUTOMATICALLY.

KEY D: PRESS THIS A SECOND TIME TO START THE CLOCK AGAIN.

IMPORTANT

KEY B (HOURS) AND C (MINUTES) ARE ONLY ACTIVE IF THE CLOCK IS OPERATING. THEY ARE NOT ACTIVE IF THE CLOCK HAS STOPPED, I.E. IF THE SECONDS READ 00.

EACH TIME YOU JUMP THE 24 HOURS READING, THE DATE WILL ALSO JUMP A DAY.

WHEN YOU PRESS A KEY, THE FIGURES WILL START TO RUN MORE QUICKLY AFTER 4 DIGITS. THIS ALLOWS THE TIMER TO BE SET QUICKLY.

WHEN SETTING, SET THE MINUTES FIRST, THEN THE HOURS AND THEN THE SECONDS.

WHEN YOU HAVE SET THE TIME, CLOSE THE TIMER.

SETTING THE DATE

SETTING THE DATE, I.E. MONTH, DAY AND YEAR. THE JUNIOR QUARTZCOMPUTER T 2 HAS THE DATE AND YEAR IN THE PROGRAMME. THE COMPUTER HAS BEEN PROGRAMMED FOR 100 YEARS, INCLUDING LEAP YEARS.

THEREFORE THERE WILL BE NO NEED TO CHANGE IT PROVIDED THAT THE TIMER IS USED PROPERLY. THE DATE IS SET AS FOLLOWS:

OPEN THE JUNIOR QUARTZCOMPUTER T 2 AND LEAVE THE LOCK OPEN.

KEY B: PRESS THIS KEY TO SET THE DATE; THE L.C.D. DISPLAY THEN READS 'SET DATE' AUTOMATICALLY.

KEY B: PRESS THIS KEY AGAIN TO SET THE MONTHS

KEY C: PRESS THIS KEY TO SET THE DAYS

KEY D: (ON THE FRONT OF THE TIMER). PRESS THIS KEY TO SET THE YEAR.

WHEN YOU HAVE SET THE DATE, CLOSE THE TIMER.

IMPORTANT

THE DATE IS SET ACCORDING TO THE AMERICAN METHOD, I.E. MONTH, DAY YEAR.

EXAMPLE: 24TH MAY, 1987 = 05 (MAY) 24 (DAY) 87(YEAR)
061287 = JUNE 12TH, 1987 OR 12TH JUNE.1987
113087 = 30TH NOVEMBER 1987

SETTING THE JUNIOR QUARTZCOMPUTER T 2

THE T 2 CAN BE SET QUICKLY AND EASILY:

CHECK WHETHER THE TIME IS CORRECT

CHECK WHETHER THE DATE IS CORRECT BY PRESSING FUNCTION
KEY 'B'

CLOSE THE TIMER

IF NECESSARY, CHECK THE RECORDING MECHANISM WITH THE
PLUNGER. COMPLETE ONE REVOLUTION OF THE DRUM.

OPEN THE TIMER AND SET THE DRUM TO THE 'S' (START)
POSITION.

CLOSE THE TIMER AND SEAL THE LOCK ACCORDING TO
REGULATIONS (TIGHTEN THE SEALING WIRE SO THAT THE LOCK
CANNOT BE OPENED WITHOUT CUTTING THE WIRE).

THE T 2 IS NOW SET.

RECORDING THE DEPARTURE

ONCE THE CLOCK HAS BEEN SET YOU CAN RECORD THE
DEPARTURE.

AS THE CLOCK OPERATES WHEN RECORDING THE DEPARTURE,
IT IS ESSENTIAL THAT THE DEPARTURE IS RECORDED AT THE
PRECISE MOMENT.

ONCE THE DEPARTURE HAS BEEN RECORDED, YOU CAN CHECK IT
BY PRESSING THE READ KEY 'D' ON THE FRONT. THE
L.C.D. DISPLAY WILL READ 00 (FOR SETTING) FOLLOWED BY
THE TIME AT WHICH THE RECORDING WAS MADE.

WE RECOMMEND MAKING A PRINTOUT TO CHECK THE RECORDER
AND FOR EVIDENCE OF WHEN THE TIMER WAS SET AND CLOSED.
THESE TIMES MUST TALLY WITH THOSE ON THE RETURN STRIP.

RECORDING

PIGEONS MAY ONLY BE RECORDED ON A TIMER WHICH IS
SEALED AND THEREFORE SET.

WHEN MAKING A RECORDING, YOU MUST REMEMBER TO PUSH THE
PLUNGER RIGHT DOWN AND TO LET IT RISE UP AGAIN
COMPLETELY BEFORE MAKING ANOTHER RECORDING.

READING THE RECORDINGS

PRESS THE READ KEY (FUNCTION KEY 'D' ON THE FRONT OF THE TIMER) ONCE AND ALL THE INFORMATION WILL BE DISPLAYED AUTOMATICALLY ON THE L.C.D. DISPLAY, INCLUDING THE DEPARTURE.

00 (= DEPARTURE) + TIME

01 (= CAGE 1) + TIME

02 (= CAGE 2) + TIME

ETC.

EACH TIME WILL BE DISPLAYED ON THE L.C.D. DISPLAY FOR A FEW SECONDS AND THE DISPLAY WILL JUMP AUTOMATICALLY TO THE ACTUAL TIME AFTER THE LAST ONE.

PRESS THE READ KEY (ONCE) ANY TIME YOU WANT TO SEE THE RECORDINGS.

RECORDINGS CAN BE MADE AT ANY TIME, I.E. EVEN IF THE DISPLAY IS SHOWING DETAILS OF THE PIGEONS RECORDED.

PRINTING OUT OF THE DATA

IMPORTANT

NEVER OPEN THE LOCK BEFORE PRINTING OUT

AFTER THE RETURN RECORDING, THE T 2 IS CONNECTED TO THE DATAPRINTER, THE INTERFACE OR THE INTERFACE-COMPUTER ACCORDING TO THE CASE.

THIS ALLOWS DATA TO BE PRINTED OUT OR TRANSMITTED DIRECTLY TO A COMPUTER.

IT SHOULD BE REMEMBERED THAT THE T 2 IS THE ONLY TIMER WHICH CAN BE CONNECTED TO A COMPUTER IN ORDER TO PROCESS ALL THE DATA REQUIRED FOR THE RESULT QUICKLY. THE TIMER IS CONNECTED BY THE DIN-5 OUTPUT ON THE SIDE OF THE TIMER.

BEFORE CONNECTING, CHECK WHETHER THE L.C.D. DISPLAY IS SHOWING THE ACTUAL TIME AND NOT THE RECORDINGS. THEN PRESS THE READ KEY 'D'. THE L.C.D. DISPLAY WILL SHOW 'P' FOLLOWED BY 'S'. ALL THE DATA WILL NOW BE PRINTED OUT:

MONTH, DATE AND ACTUAL TIME OF PRINTOUT
SERIAL NUMBER OF THE TIMER FOLLOWED BY THE CURRENT YEAR
MONTH, DATE AND TIME WHEN CLOSED
MONTH DATE AND TIME WHEN SET, (DEPARTURE) MARKED 00
MONTH, DATE AND TIME OF EACH PIGEON, STARTING WITH
01, 02, 03 ETC.
MONTH DATE AND TIME OF THE RETURN RECORDING.

REMOVING THE RINGS FROM THE DRUM

ONLY OPEN THE T 2 AFTER PRINTING - OTHERWISE ALL DATA IS DELETED AUTOMATICALLY WHEN THE TIMER IS OPENED.

OPEN THE LOCK AND OPERATE THE PLUNGER UNTIL THE DRUM IS IN THE 'S' (START) POSITION.

CLOSE THE LOCK AGAIN AND OPERATE THE PLUNGER TO REMOVE THE RINGS.

WHEN ALL THE RINGS HAVE BEEN REMOVED, OPEN THE LOCK TO RESET THE DRUM TO THE 'S' (START) POSITION AND CLOSE THE LOCK AGAIN.

MAINTENANCE

THE T 2 HAS BEEN DESIGNED FOR MINIMUM MAINTENANCE AND LONG LIFE. THE FOLLOWING INSTRUCTIONS SHOULD BE OBSERVED TO KEEP THE TIMER IN GOOD CONDITION:

NEVER REMOVE THE INTERNAL SEALS
NEVER GREASE THE PLUNGER OR OTHER PARTS WITH 'OIL' OR 'GRAPHITE'.
PROTECT THE TIMER FROM DUST AND MOISTURE AS MUCH AS POSSIBLE.

RECOMMENDATIONS

IF THE TIMER IS NOT WORKING CORRECTLY, CHECK THE FOLLOWING POINTS:

<u>FAULT</u>	<u>POSSIBLE CAUSE</u>	<u>REMEDY</u>
NO PRINTOUT OR PRINTOUT INCOMPLETE	DIN-5 CABLE DEFECTIVE	REPLACE CABLE
PLUNGER JAMMED	LOCK INCORRECTLY POSITIONED	RE-POSITION LOCK
	PLUNGER NOT OPERATED CORRECTLY	RAISE PLUNGER
PLUNGER STIFF	PLUNGER NO LONGER STRAIGHT	STRAIGHTEN WITH A HAMMER
	DRUM TOO DIRTY	REMOVE DIRT.

IF TOO MUCH DIRT HAS ACCUMULATED AROUND THE DRUM AND THE PLUNGER IS TOO STIFF, ONLY AN AUTHORISED REPAIR ENGINEER IS ALLOWED TO OPEN THE T 2 TO MAKE THE REPAIRS.

IMPORTANT: THE ELECTRONICS WILL CEASE FUNCTIONING IF OPENED.

ADVICE

A FEW TIPS WHICH WILL ENSURE THAT YOUR T 2 FUNCTIONS PERFECTLY:

ALWAYS CLOSE THE TIMER ON CAGE 'S' (START)

WHEN RECORDING, PRESS THE PLUNGER RIGHT DOWN AND RAISE IT UP AGAIN COMPLETELY BEFORE MAKING A RECORDING.

PUT THE TIMER AWAY WITH THE LOCK CLOSED

WHEN OPENED, ALL THE DATA IS DELETED, THEREFORE ALWAYS PRINT OUT THE INFORMATION STORED IN THE MEMORY BEFORE OPENING THE TIMER.

READ THE INSTRUCTIONS BEFORE USING THE TIMER

STORE THE TIMER SO THAT IT IS PROTECTED FROM DUST AND DAMP

CONTACT YOUR DISTRIBUTOR FOR MAINTENANCE SERVICE

NEVER REMOVE THE SEALS

CONTACT YOUR DISTRIBUTOR FOR ANY INFORMATION YOU MAY REQUIRE.

TECHNICAL SPECIFICATIONS

SUPPLY	:	3.6V/6AH LITHIUM BATTERY
CONSUMPTION	:	27 uA
DISPLAY	:	LCD
QUARTZ FREQUENCY	:	32.768 KHz
PROCESSOR	:	SINGLE CHIP CMOS PROCESSOR
OUTPUT	:	SYNCHRONISED SERIAL OUTPUT FOR DATAPRINTER INTERFACE AND INTERFACE COMPUTER.
DETECTION	:	AUTOMATIC DETECTION OF PRINTER, INTERFACE CONNECTION ETC.
SERIAL NUMBER	:	PUNCHED, NOT DEFORMABLE
RECORDING	:	CLOSURE + DEPARTURE + MAXIMUM OF 22 RECORDINGS
WEIGHT	:	QC 15 APPROX. 860 GR. QC 24 APPROX. 1160 GR.
DIMENSIONS	:	180(H) x 155 (L) x 80(D)MM
ACCESSORIES	:	NONE FOR USE

PART NAMES

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