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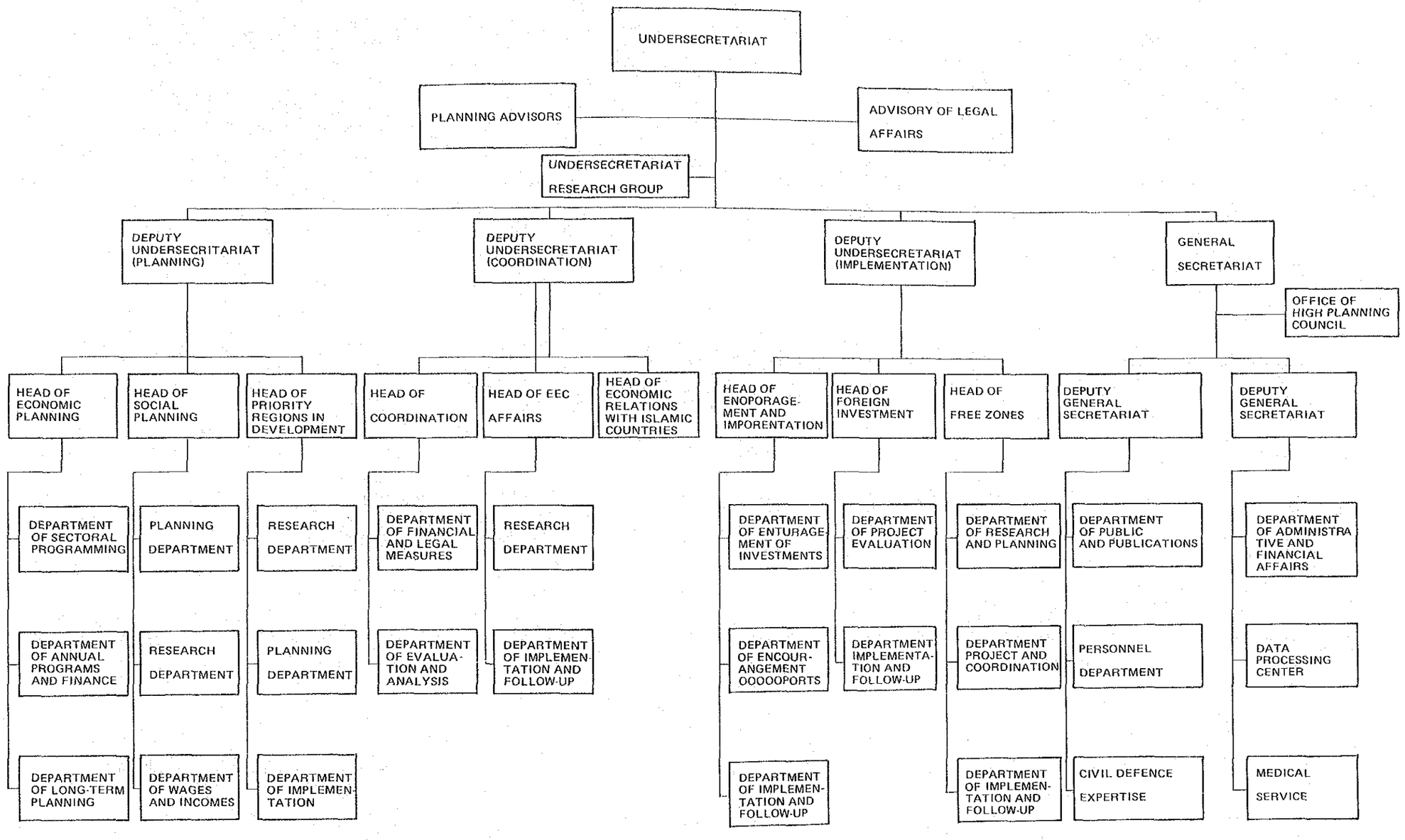
T1)

STATE PLANNING ORGANIZATION



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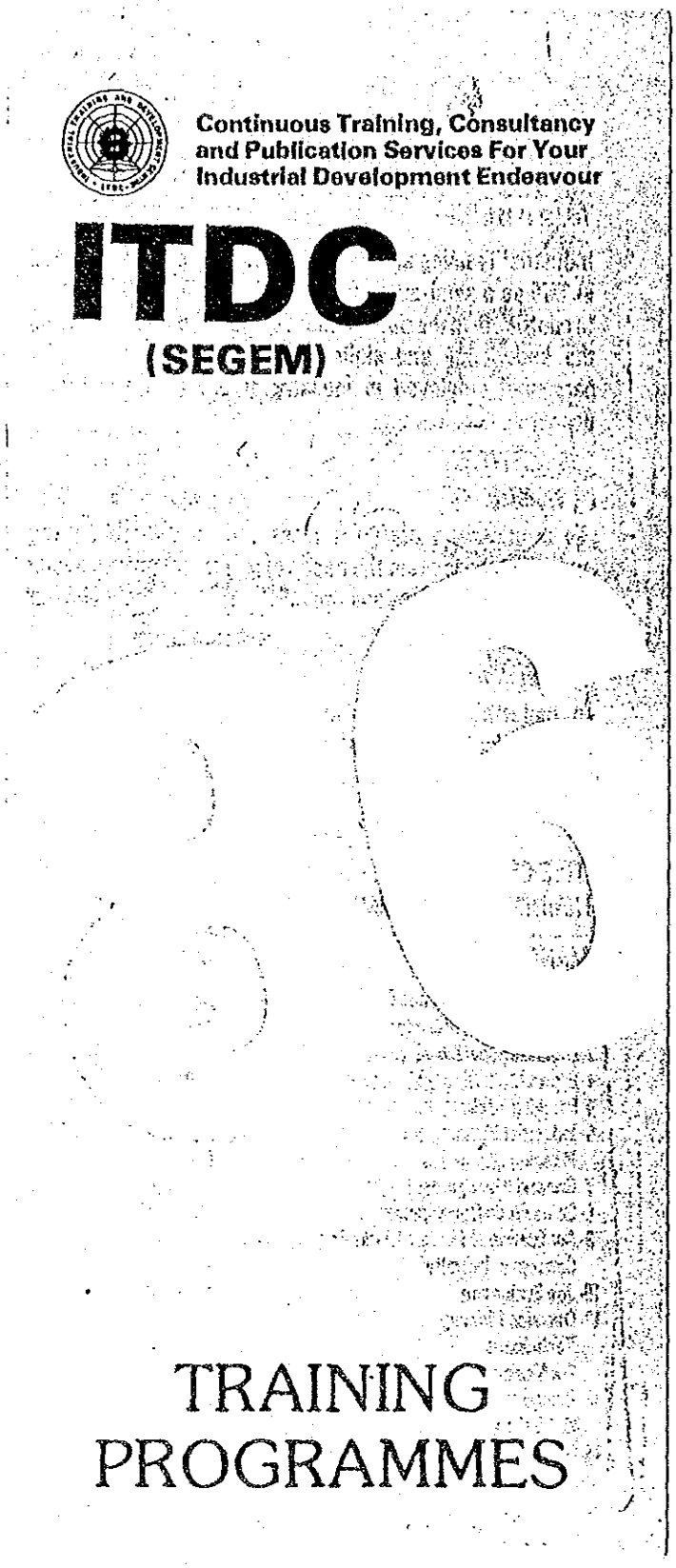
Continuous Training, Consultancy
and Publication Services For Your
Industrial Development Endeavour
ITDC
(SEGEM)
TRAINING
PROGRAMMES

ITDC

INDUSTRIAL TRAINING AND DEVELOPMENT CENTRE
Selanik Cad. No. 16, Yenişehir / ANKARA
Tel: 31 11 15 (4 lines)

Industrial Training and Development Centre (ITCD) founded in 1978 as a semi-autonomous public organization in order to contribute to the development of the industry by providing the knowledge and skills to technical and managerial personnel employed in industry in order to accelerate economic development

ITS ACTIVITES

– *Training*

To arrange and design in-plant and on-the-job training programmes to meet the needs of public and private sector industrial organizations parallel to the technological innovations

– *Consultancy*

To undertake missions in order to find solutions to the technical, managerial and training problems of the organizations.

TITLE OF THE TRAINING PROGRAMMES

MANAGEMENT	MONTHS
1- Cost Management and Control	November
2- Organizational Behavior	April-May-Oct.
3- Organizational Development	Febr.-April-May
4- Export Marketing Mgt.	November
5- Planning Techniques	April
6- Industrial Planning and Planning Strategies	May
7- General Management	November
8- Sales Force Development	March.-May.-Sept.
9- Application of Modern Marketing Concept in Industry	April-October
10- Job Evaluation	May-Sept-Oct.
11- Decision Making Techniques For Managers	October
12- Occupational Health and Safety	October
13- Norm Position and its Techniques	Sept.-December
COMPUTER	
14- Computer for Executives	March
15- Beginning Computer Systems	April
16- Computer Programming	May
PRODUCTION MANAGEMENT	
17- Maintenance Planning	March-October
18- Work Study	May
19- Quality Control and Planning	March-May.-Nov.
20- Production Planning and Control	October
21- Quality Circles	December
22- Materials Management	November
INSPECTION AND CONTROL	
23- Defect Evaluation on Ultrasonic Testing of Weld Beads	May.-October
24- Non-Destructive Testing of Weld Beads	Sept.-Oct.
25- Ultrasonic Testing of Weld Beads	June
26- Radiographic Testing of Weld Beads	September
27- Casting Defects and Remedies	November
28- Mechanical and Optical Inspection of Non-ferrous Materials	November
29- Quality Control Techniques in Beverage	February
30- Quality Control Techniques in Canning Industry	December
MANUFACTURING TECHNOLOGY	
31- Metal Cutting Tools	March-Nov.
32- Gas Metal Arc Welding Techiques	June-Sept.
33- Welding Techniques	March-Aprril-May.
34- TIG Plasma Arc Welding	April-Sept.
35- MIG-MAG Arc Welding	Oct.-November
36- CAD/CAM	Sept.-Oct.
37- Powder Metallurgy and Machine Parts Production.	May.-June
HYDRAULICS-PNEUMATICS	
38- Industrial Hydraulics	Marh-May.-Oct. Nov

39- Mineral Oils and Lubrication Technology	April-June Nov.-December
40- Pneumatic Systems	March-April-Sept.

MACHINE DESIGN

41- Die-Making Technology and Design	February-June
42- Roller Bearings	June-December

PROCESS DESIGN

43- Selection and Design of Heat Exchanger	May.-Oct
44- Bulk Solids Handling	March
45- Size Reduction (Crushing Grinding and Sieving	Sept.-Dec.

HVAC SYSTEMS AND ENERGY

46- Solar Energy Systems and Application on Heating	April-May.-July
47- The Selection of Industrial Fand and System Design	June
48- Industrial Dust and Gas Elimination	May.-June July
49- Modern Fire Extinguishing Systems project Design	May.-Sept.
50- Energy Saving Iron and Steel Industry	March
51- Refrigeration Techniques Course for Technicians	October

CORROSION

52- General Corrosion	November
53- Inhibitors Selection in Corrosion Prevention	December
54- Cathodic Protection in Vessels and Marine Construction	September
55- Cathodic Protection in Under Ground Structures	December
56- Zinc and Cadmium Coating	October
57- The Corrosion Resistance of Stainless Steel in Mineral Acids	June
58- Organic Coating	May.-Oct.
59- Industrial Paints and Test Methods	May.-Nov

ENVIRONMENTAL ENGINEERING

60- Industrial Noise Control	May.-Nov.
61- Waste Water Standarts	May.
62- Industrial Waste Treatment	June
63- Environmental Impact Assessment	November
64- Air Pollution and Control	October
65- Industrial Water Treatment	April-Nov.
66- Cooling Water Treatment	October

FOOD TECHNOLOGY

67- Flour Technology	May.-Nov
68- Bread Technology	October
69- Meet Products	March-June
70- Sea Products Processing	September
71- Fruit Juices Clarification	September
72- Fumigation of Agricultral Products	Apr.-June-October
73- Cold Storage of Agricultural Products	May
74- Drying and Fümigation of Agricultural Products	November

ELECTRICAL PROTECTION

75- Explosion Protected Electrical Equipment	Sept.-Nov.
76- Electric Motors Repairing and Maintenance	March-June
77- Protection of HV and LV Systems Protection Relays	April-May-June July-Oct. Oct.-Nov.

INDUSTRIAL ELECTRIC AND ELECTRONICS

78- Speed Control of DC and AC Motors	September
79- Power Electronis and Applications	March
80- Reactif Power Compensation in Industry	March
81- Micropocessor Applications in Industry	May
82- Laser Technology and Application in Industry	July
83- Radio-Communication and Applications	July

84- Basic Electric-Electronics for Mechanical Engineers	October

AUTOMATIC AND NUMERIC CONTROL

85- NC/CNC Machine Tools	December
86- Cam Design for Automatically Machine Tools	May
87- Instrumental Pneumatic and Control	May
88- Industrial Automatic Control and Measurement Technigues	May.-Dec.
89- Digital Control Techniques	August-Oct. November

FOUNDRY TECHNOLOGY

90- Investment Casting Technology	May
91- Spheroidal Cast-Iron Technology	September
92- Gray Cast-Iron Technology	October
93- Technology of Production of Steel Castings.	May.
94- Induction Melting Techn.	June
95- Casting Design Technology	May
96- Computer Application in Casting Industry	December

NON-FERROUS MATERIALS

97- Copper Metalurgy-Industrial Applications and Technical Developments	March
98- Aluminium Materials in Industry (Casting, Welding, Heat-Treatment)	October

ROLLING

99- Roll Selection	February
100- Pass Design for Alloyed Rods	September
101- Pass Design for Section	December

MATERIAL SELECTION AND PRODUCTION

102- Standarts and Selection of Steels	June
103- Properties and Industrial Applications of Engineering Stells	November
104- Refractory Materials	October
105- Ferrous Alloys for Wear Resistance and Their Selection.	September

HEAT TREATMENT TECHNOLOGY

106- Heat Treatment of High Speed Tool Steels	April
107- Surface Hardening of Steels	June-Oct.
108- Heat Treatment Salts	November
109- Fundamentals of Heat Treatment of Steels	December

TEXTILE INDUSTRY

110- Conditioning in cotton Industry	April
111- Leather Treatment Technology	June

TRAINING

112- Training for Training Staff	March-Arpil-September
113- Training for Trainers	March-April April-Nov.
114- In-Service Training for ITOC	January
115- Maulding Materials and Testing Methods in Foundry	April
116- Testing Procedures of Mechanical Properties in Metals	May
117- Sealing Elements Applications	May
118- Applied Radiography in Industry	May
119- Wastewater Treatment of Leather Industry	May
120- Desing of Penstocks	September

ITDC

TRAINING, FOR THE PURPOSES OF

- DEVELOPING NEW SKILLS AND KNOWLEDGE,
- IMPROVING QUALITY,
- SAVING TIME, MATERIAL AND MONEY,
- INCREASING PRODUCTIVITY,
- REDUCING WASTE ACCIDENTS AND PERSONNEL TURNOWER,
- ENSURING INSTITUTIONAL SURVIVAL AND GROWTH,

IS AT YOUR SERVICE

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T 3)

ISTANBUL TECHNICAL UNIVERSITY

İ. T. Ü.

BRIEF HISTORY, DEPARTMENTS
AND PROGRAMS

ISTANBUL TECHNICAL UNIVERSITY

Istanbul Technical University (I.T.Ü.) the oldest technical institution in the Middle East emerged in 1773. Courses in the institution were first designed to meet the technical needs of the Turkish Navy, then it attained a civil character in 1883 and finally became a University in 1944. I.T.Ü. evolved after 1944 and became one of the leading technical institutions of education and research in the Middle East.

Today, the Total Student Enrollment is over 18.000 students. The faculties, institutes and schools established by I.T.Ü. are as follows: Faculties which offer programs of undergraduate study and research, 3 institutes which offer programs at graduate level, a Conservatory of Turkish Music, 2 schools of vocational studies. The Foreign Language and History Department, The Physical Education Department and The Department of Fine Arts Constitude the other three.

About 500 Faculty members are of the academic rank of professor, associate professor and assistant professor, 72 percent hold doctorate degrees from I.T.Ü. and 10 percent have obtained their degrees from the universities abroad. The four year undergraduate program of study and research is administered in 32 departments of engineering and architecture at the end of which the Bachelor's degree is granted. The Master's degree and Doctor's degree are granted to those who follow the graduate programs of study.

The academic year is made up of three terms; the autumn, winter and summer terms. The first two last 15 weeks. The summer term is when the students do their practical training.

The University has four campuses in Istanbul and a campus in Adapazarı, a city within a hundred mile distance. The Taşkışla, Gümüşsuyu and Maçka Campuses are within the city limits (In the Center of Istanbul.) The main campus Ayazağa is ten miles away from the center and encompasses approximately 258 ha which provides sufficient space for the future physical facilities.

DEPARTMENTS OFFERING BACHELOR'S DEGREES :

A — Faculty of Civil Engineering :
- Civil Engineering
- Geodesy and Photogrammetry
- Enviromental Engineering

B — Faculty of Electrical and Electronics Engineering :
- Electronics and Telecommunication Engineering
- Electrical Engineering
- Computer and Control Engineering

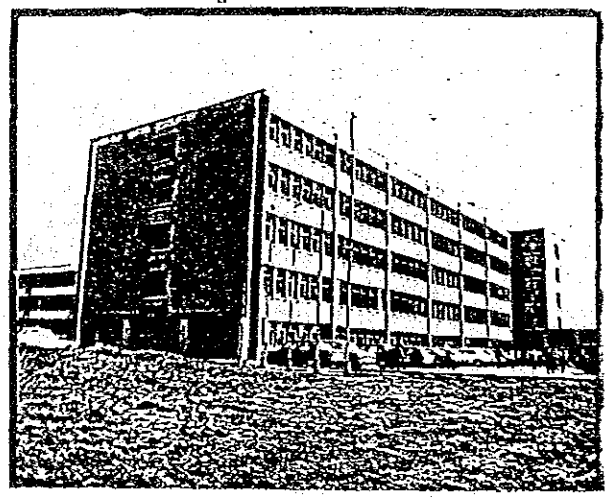
C — Faculty of Chemical Metallurgical Engineering :
- Chemical Engineering
- Metallurgical Engineering

D — Faculty of Arts and Sciences :
- Mathematics Engineering
- Physics Engineering
- Chemistry
- Engineering Sciences

E — Faculty of Aeronautics and Astronautics :
- Aeronautical
- Meteorological Engineering
- Space Sciences and Technology

at Ayazağa Campuses.

F — Faculty of Architecture :
- Urban and Regional



G — Faculty of Naval Architecture and Ocean Engineering :
Naval Architecture
Ocean Engineering
at Taşkışla Campus.

H — Faculty of Mining Engineering :
Mining Engineering
Geological Engineering
Geophysical Engineering
Petroleum Engineering

I — Faculty of Management Engineering :
Industrial Engineering
Management Engineering
at Maçka Campus.

J — Faculty of Mechanical Engineering :
Mechanical Engineering
Textile Engineering
at Gümüşsuyu Campus.

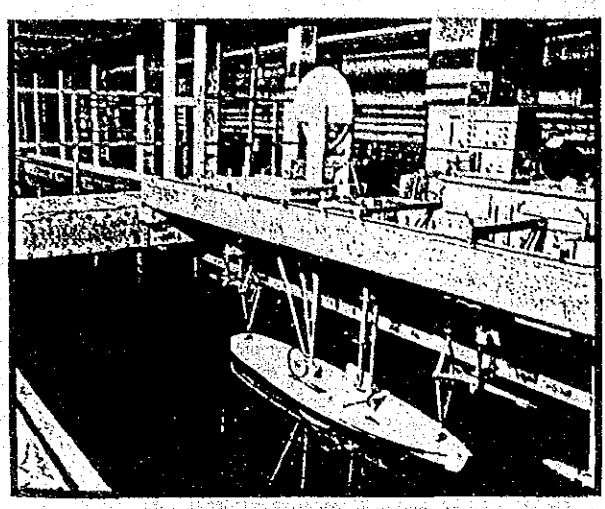
K — Faculty of Engineering Sakarya :
Civil Engineering
Mechanical Engineering
Industrial Engineering
Electrical Engineering
Metallurgical Engineering

UNDERGRADUATE STUDY

The Engineering Faculties at İ.T.Ü. include 31 disciplines. The undergraduate program extends over a period of four years after which the Bachelor's degree is offered.

The entrance requirements to the University is controlled by the Student and Placement Center (Board) (Ö.S.Y.M.) Ankara. For the candidate, Turkish or Foreigner the main requirement to apply for the entrance exam conducted by Ö.S.Y.M. is either to be a graduate of High School (Lise) or to be a senior in High School. Information about the test and the applications can be obtained from the following addresses. "Öğrenci Seçme ve Yerleştirme Merkezi Ö.S.Y.M. YÖS Bilkent, Ankara, Turkey."

The deadline for application is December 1 Students applying from another University can be admitted to İ.T.Ü. if the respective faculty of İ.T.Ü. is satisfied with the records and credits of the applicant.



GRADUATE STUDY

Approximately 2000 students follow the graduate programs offered at İ.T.Ü. If they are sucessful in these studies, they are awarded with the Master of Science and Doctor of Philosophy degrees.

In the first year of the graduate Study. The Foreign Language School of İ.T.Ü. offers intensive courses for students with little English proficiency.

Graduation from an accredited institution the İ.T.Ü. gives the student assurance that his diploma and credits will be recognised for admission to advanced study at graduate level. The graduate programs are supervised by the following institutes :

A — Institute of Science and Technology
B — Institute of Social Sciences
C — Institute of Nuclear Energy

MASTER'S DEGREE

The Master's Degree is granted to qualified students who have successfully completed at least 3 full semesters of their advanced study. Candidates are required to submit a thesis, based on research and to pass a comprehensive exam.

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy (Ph. D.) is conferred on candidates by the İ.T.Ü. senate who have demonstrated high attainment in a special field of science and technology.

Candidates for the doctorate should pass a qualification examination and present an acceptable dissertation embodying the results of original research.

A candidate ordinarily is expected to devote two or more academic years to graduate study. An applicant for the program must hold a Master of Science Degree from an accredited University.

INSTITUTES THAT OFFER GRADUATE PROGRAMS AT THE M.S. M.A. AND Ph. D. LEVELS

INSTITUTE OF SCIENCE AND TECHNOLOGY

Department of Electrical Engineering and Electronics

- Electrical Power Systems
- Control and Computer
- Electronics and Communication

Department of Naval Architecture and Ocean Engineering

- Naval Architecture
- Ocean Engineering

Department of Aeorospace Sciences

- Aeorospapce
- Meteorology

Department of Managerial Science

- Industrial Engineering
- Engineering Management

Department of Basic Sciencies

- System Analysis
- Mathematics
- Mechanics
- Physics
- Chemistry

Department of Chemistry and Metallurgy

- Metallurgical Engineering
- Extractive Metallurgy
- Material Science and Engineering
- Chemical Technologies
- Unit Operation, Unit Processes
- Thermodynamics and Reactor design

Department of Architecture - Urban Planning

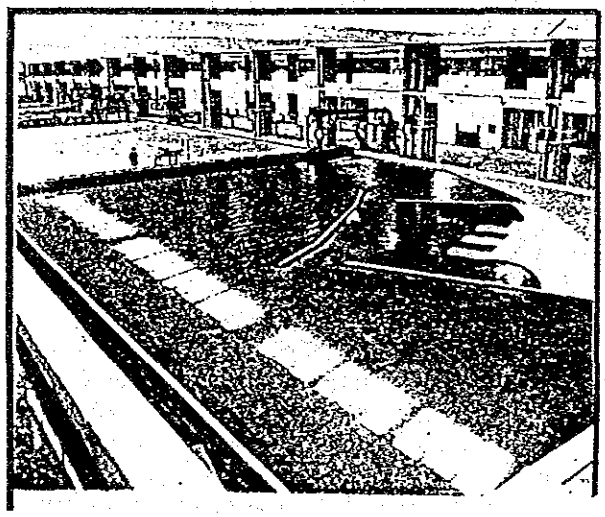
- Architectural Design
- Building Science
- Restoration
- History of Architecture
- Urban Planning

Department of Mining

- Mining Engineering
- Geophysical Engineering
- Geological Engineering
- Petroleum Engineering

Department of Mechanical Engineering

- Energy
- Design Engineering
- Materials and Manufacturing



Department of Civil Engineering

Structural Eng., Hydraulics Eng., Transportation Eng.
Environmental Engineering
Geodasy and Photogrametry

INSTITUTE FOR NUCLEAR ENERGY

Nuclear Science
Nuclear Technology
Nuclear Applications

INSTITUTE FOR SOCIAL SCIENCES

Fine Arts

Music
Visual and Environmental Arts

Social Sciences

History of Art

Business Administration and Economics

Business Administration
Economics

APPLICATION AND RESEARCH CENTERS OF İ.T.Ü.

İ.T.Ü. has numerous special laboratories to facilitate research in the fields of science and engineering.

The physical facilities of I.T.Ü. are: a computer center, well-equipped laboratories in the fields of aeronautical, chemical, civil, mechanical, metallurgical, electrical engineering, naval architecture and ocean

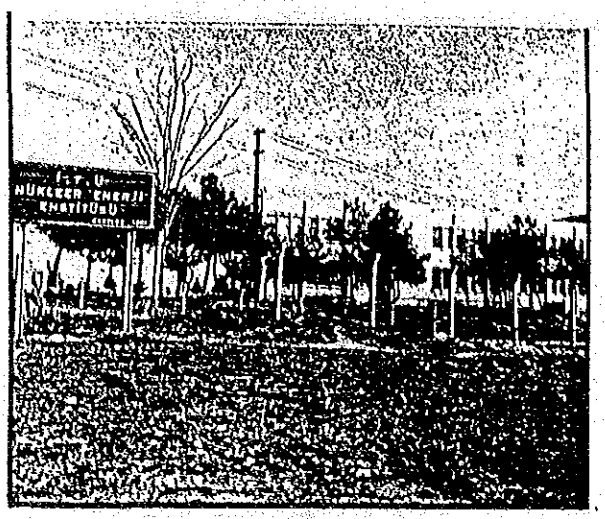
The University Library holds 300.000 volumes, and 915 current journals and it is part of the Higher Education Institution Library system which maintains a collection of more than 18.000 journals.

In order to contribute more to Turkish Industry 9 research centers were established in 1985.

Applied Research Centers Organize and back the academic departments in carring out their research programs.

The research centers are as follows :

I — Machine Design and Construction Research Center.
II — Energy Sciences and Technology Research Center.



III — Material Sciences and Technology Research Center.
IV — Transportation and Vehicles Research Center.
V — Earth Sciences and Resources Center.
VI — Environment and City Planning Research Center.
VII — Hydraulics, Ocean Sciences and Marine Technology Research Center.
VIII — Electronics and Control Systems Research Center.
IX — Building and Earthquake Research Center.

Also, there are four research units on the specific fields.

a — Research Center of History of Science and Technology.
b — Research Center of Ceramic.
c — Research Center of Bio-Engineering
d — Research Center of Naval and Oceanagraphy

HOUSING, DINING, TUITION

İ.T.Ü. offers no housing on its campus right now.

But it is possible to find private rooms and flats and boarding houses located near the campus or in the city.

All of the students can have lunch in the University cafeterias at reasonable prices. The tuition and fees of the courses are determined each year. The tuition varies depending upon the nature of the program chosen. Generally the tuition of the foreigners ranges from 100 to 600 dollars. İ.T.Ü. does not provide financial aid.

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Telex : 28 186 ITU - TR

Telefax : 176 17 34

September 1986

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T E L R A

CONTENTS :

Telra Television Radio Industry and Trading Co. Inc. was founded in December, 1972, within the structure of Profilo Holding, Turkey's leader in the field of electrical household appliances.

With the purpose of meeting the TV buyer demand increasing with the gradual countrywide diffusion of the TV broadcasting which had started in Turkey in the 1970's, and that of enabling economies in foreign exchange, Telra went into production with a large capacity shortly after its foundation.

Through its cooperation with world-famous foreign companies, each known for the novelties they bring to the world's electronic industry and for the quality of the goods they produce, Telra filled a large gap in the Turkish electronic industry.

In order to use the minimum quantity of imported material in the production, Elaks Electronic Parts Industry Co. Inc. was founded through large investments.

Telra, who started its production with black/white televisions, rapidly increased its product range parallel to modifications in the consumer demand, and distributed its products and after-sales services all over the country in an active way with a contemporary marketing concept.

Having proved the quality of its products within the country and taking into consideration the requests coming from abroad, Telra made itself accepted also in overseas markets where international competition is dense.

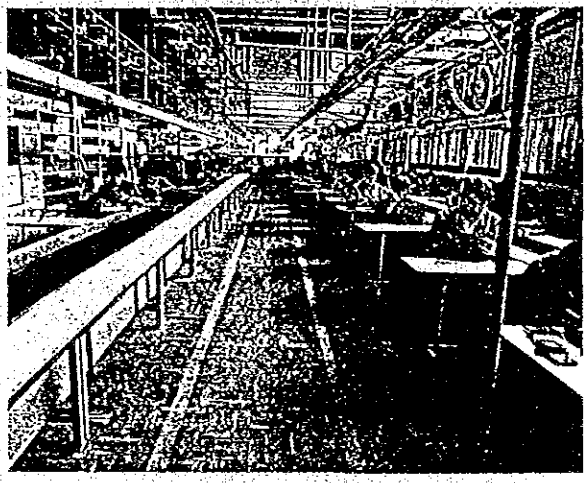
Telra who succeeded in becoming the leader in its field shortly after its foundation through the novelties it brought to Turkey, the quality of its products, its production capacity and contemporary marketing concept, pursues uninterruptedly and densely its future-oriented and long-range research, development and investment activities. The whole work of Telra, yesterday's and today's leader, is destined also for tomorrow's leadership.

Production

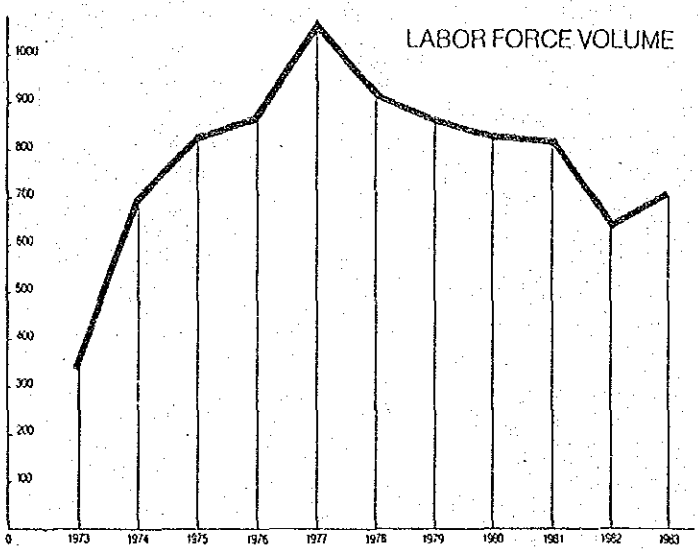
With an annual production capacity of 170,000 televisions, 22,800 video tape recorders and 30,000 radio cassettes, Telra carries out its production in a covered space of 35,000 square meters.

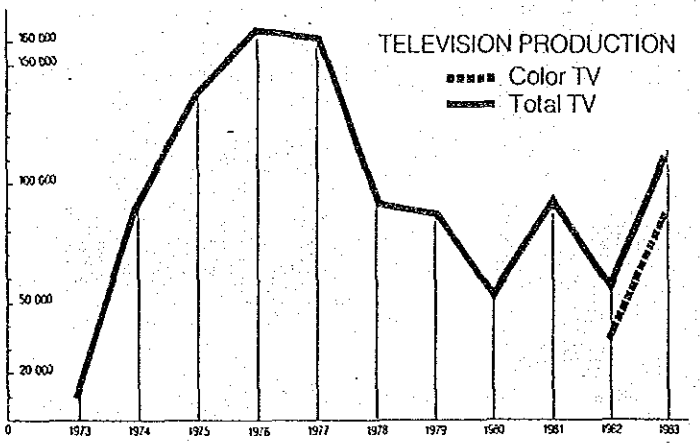
The production is realized with the latest production techniques necessitating minimum handling, automation, and equipped with material and finished product carrying systems with automatic conveyors and elevators and running roller line systems.
A great variety of components used in the production of televisions (such as electronic, mechanic, plastic and cabin) are produced in its own facilities, and only raw materials such as plastic, steel sheet and pressed wood are purchased from outside (from the market).

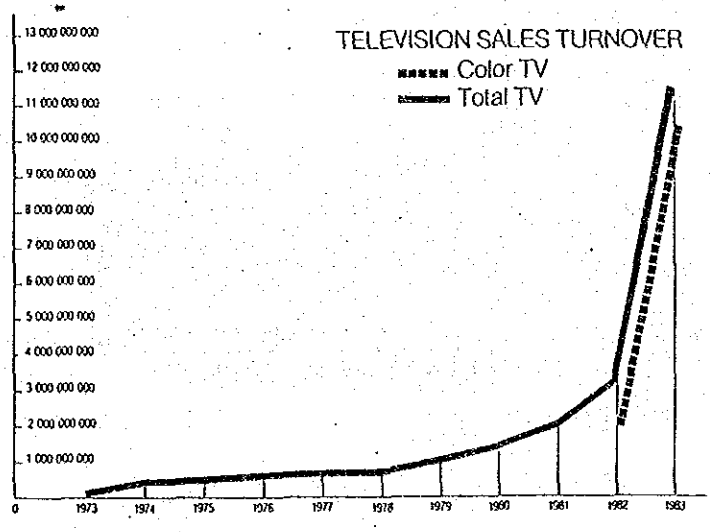
Sub-assemblies prepared in PCB (printed circuit board), chassis, semi-block, paint shop, cabin and tube assemblying groups are supplied to the final assembly line with the above mentioned automation techniques.
Their assembly and electrical connections being accomplished, televisions are subjected to a life test in the aging room for minimum 24 hours at 50°C. Following the application of this obligatory test, the televisions are re-adjusted and distributed to the market after last control.



TELRA With Graphs







The History of Telra and the "Premieres"

• April, 1973 :
Agreement signed with the Japanese Matsushita Company.

• November, 1973 :
Telra starts production with National 24" TV, the "Speed-O-Vision" superiority in television is brought to Turkey.

• September, 1974 :
20" TV, production, with National 20" TV, which is the production of the first portable TV in Turkey.

• July, 1975 :
Production of National 12" TV, which is the production of the first 12" screen TV in Turkey.

• September, 1975 :
Re-organizing research and development activities, rendering them more functional.

• June, 1977 :
With the increase of the component production, foundation of Elaks Electronic Parts Industry. Components such as transformers, condensers, potentiometers, loudspeakers, TV channel selector units and tuners produced by Elaks, meet Telra's requirements as well as the demand emanating from domestic and foreign TV manufacturers.

• June, 1977 :
Commencement of export-oriented TV production, realization of first TV exports from Turkey with the Luxor brand 12" and 17" TV (Sweden).

• June, 1978
Technology sale in the field of TV production, as a result of the importance given to research and development activities and the knowledge accumulation of past years, transfer of technology related to TV production to some TV manufacturers was realized.

• July, 1981 :
Production of 20" color TV, with Telra 20" TV, the realization of the first color TV production in Turkey.

• October, 1981 :
Foundation of Telsantaş Electronic Transmission Systems Industry and Trading Co. Inc., with the purpose of bringing contemporary solutions to Turkey's communication problems, the commencement of Electronic

Automatic Telephone Switchboards production activities.

• April, 1982 :
Agreement signed with the world-famous Saba firm.

• May, 1982 :
Color TV exportation, with 20" CTV, realization of the first color TV exportation from Turkey.

• June, 1982 :
As a result of the cooperation with Saba, commencement of the production of the Saba brand color TV with 26".

• September, 1982 :
Commencement of video production, realization of the first video production in Turkey.

• September, 1982:
Agreement signed with the world-famous Sony firm.

• January, 1983 :
As a result of the cooperation with Sony, realization of the production of 20" Sony Color TV and of the first Trinitron TV production in Turkey.

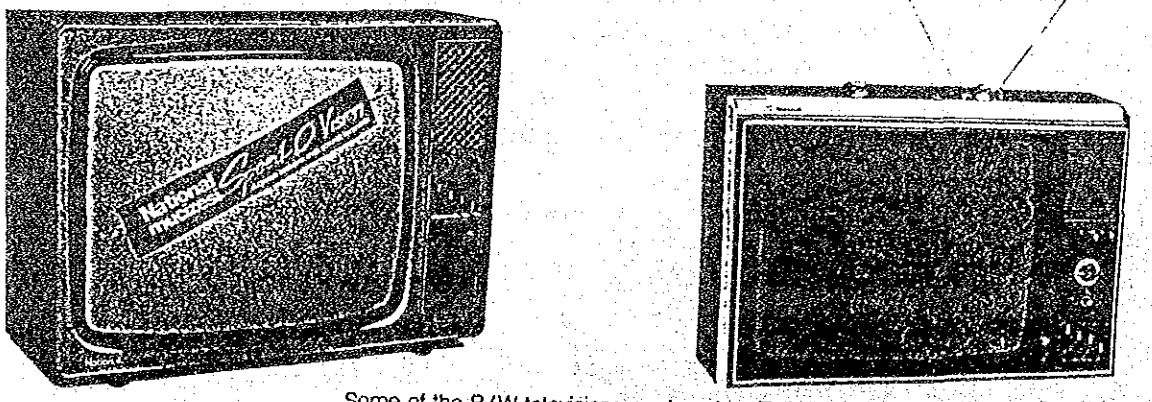
• May, 1983 :
Sony brand video production, for the first time in Turkey, the production of Beta system VTR, as Sony "Betamax" with the largest utilization field all over the world and in Turkey.

• December, 1983 :
Radio-cassette production, the production start of the Sony brand portable, stereo radio-cassette.

As a result of cooperation and successful technology transfer from Matsushita, Saba and Sony firms in fields of engineering, design and production methods, Telra realized the production of the following goods:

National 24"	B/W TV
National 20"	B/W TV
National 12"	B/W TV
AEG 24"	B/W TV
AEG 20"	B/W TV
Telra 17"	B/W TV
Telra 12"	B/W TV
Sony 20"	Color TV
Sony 22"	Color TV
Saba 22"	Color TV
Saba 26"	Color TV
Profilo 20"	Color TV
Profilo 22"	Color TV

Sony Video Tape Recorder (SL-C6E)
Sony Video Tape Recorder (SL-T6PS)
Sony Video Tape Recorder (SL-T20ME)
Sony Radio Cassette
Profilo Radio Cassette
Profilo Walkman
Sony Compact Disc Player
Sony Videotape Video Projection System
Sony "Betamovie" Video Camera

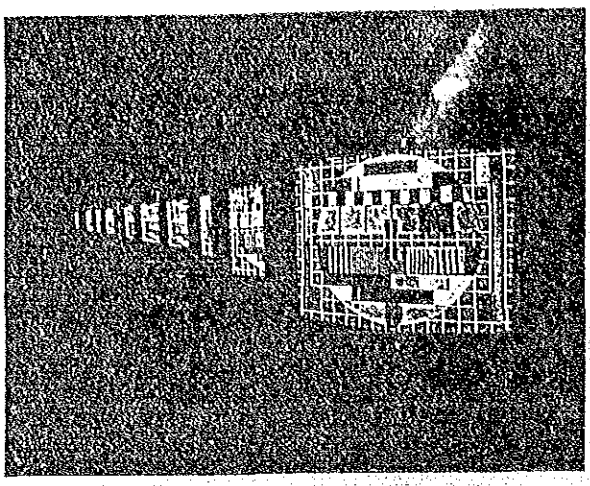


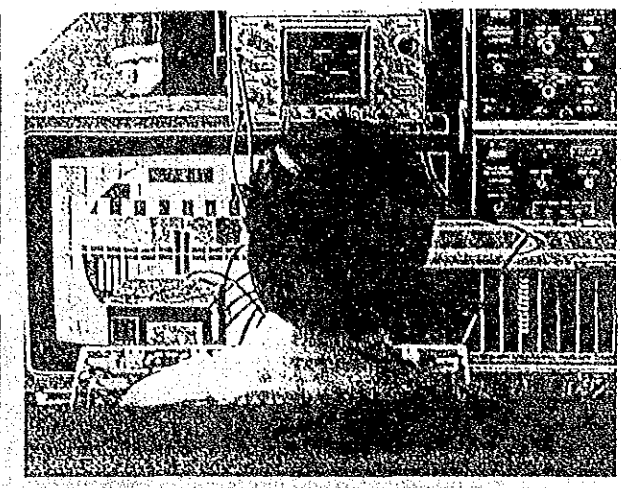
Some of the B/W televisions produced by Telra

Research and Development

Having adopted as fundamental basis the application of the latest technology in electronic industry, Telra attaches extreme importance to research and development activities. In its laboratories equipped with the most advanced instruments, it carries out, with its extensive staff of experts, the following steps:

- Carrying out the market research for a new product and consequently determining the quantity which should figure in feasibility calculations,
- Preparing project feasibilities,
- Preparing the prototype of the new product and consequently, carrying out detail work on it,
- Determining the domestic-imported materials situation of projects in compliance with the country's possibilities both technological and in other fields,
- Investigating import resources of projects,
- According to results obtained for domestic resource materials, following developments until the delivery to the plant,
- Carrying out with production departments, all the technical coordination required for the manufacture of the product at the last phase of projects,
- Improving existing models in such a way to make them more interesting, beautiful, economic and useful, and even adapting novelties in accordance with the contemporary fashion concept,
- Contacting various import resources of existing models, and consequently, looking for resources of less expensive and more reliable materials in order to economize foreign exchange,
- By following new technologies, designing new products in compliance with the country's conditions, carrying out their application and planning,
- Taking care of electronic, mechanical and other technical on-problems which may appear during the manufacture, examining and solving them,
- By closely following the production technology, whenever necessary, selecting machinery, equipment and measuring instruments, and bringing them to start their operation at the plant.



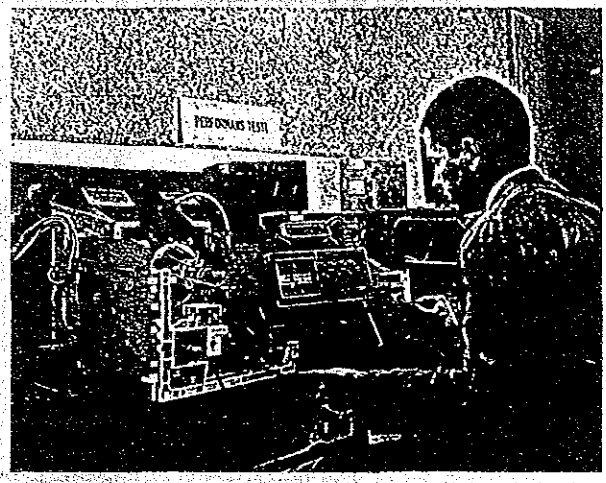


Quality Control

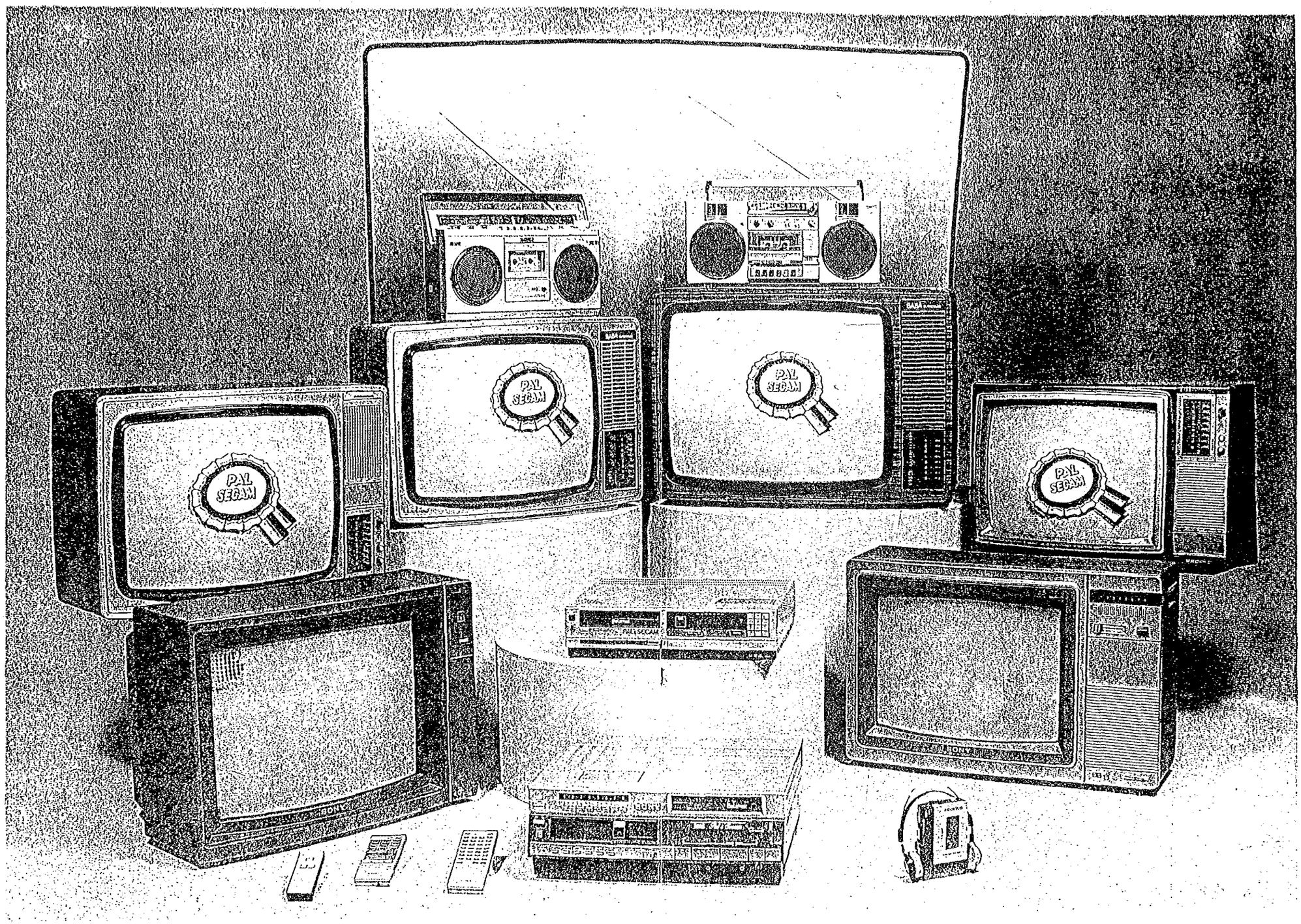
A quality control system in compliance with Japanese and European standards is carried out at many phases ranging from the introduction of domestic and imported materials one-by-one into the plant, to their departure from the factory in semi-finished or finished form. During the application of this system, through the utilization of the sampling method according to the American "MIL" standards at various phases, products which are found not to be at the desired quality level are not permitted to reach the client.

The quality control group which consists of materials inlet, component and semi-product sections and electronic laboratory, together with finished product manufacture and outlet sections, utilizes at all quality control phases, apparatuses and methods which comply with latest techniques.

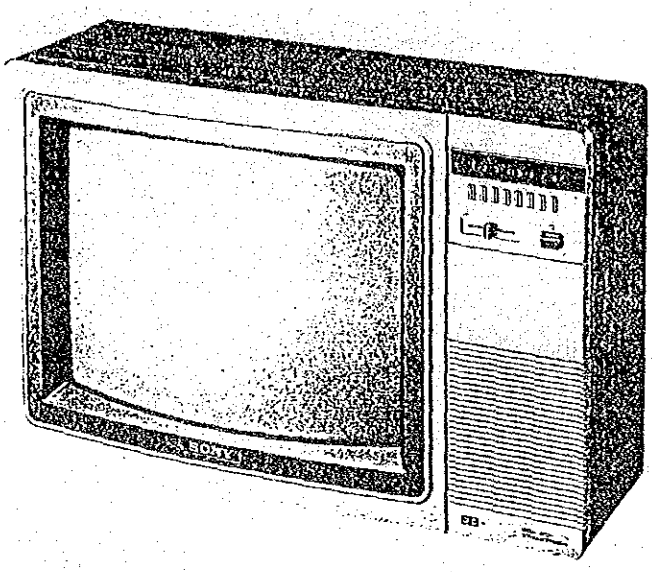
The compliance with required standards of ten thousands of material lots consisting of approximately 3000 types of materials coming from nearly 115 sub-contractors, is examined at materials inlet control, and they are accepted or refused accordingly. During this time, the manufacture of molds related to new projects is being pursued and the first sample approvals are carried out.



During the production of televisions, at many points, careful studies with respect to electrical performance, mechanical robustness, client security and aestetic view, and systematic laboratory and life tests are carried out. Moreover, each day, televisions, manufactured in determined quantities in compliance with "MIL" standards and packed, are subjected to sampling control. Once finished products have been forwarded to the market, inspectors of quality control visit dealers and servicing agents at different localities of Turkey and check matters related to packing and transportation.


PAL SECAM
PAL SECAM
PAL SECAM
PAL SECAM

SONY



SONY 20"
KV-2020 EX

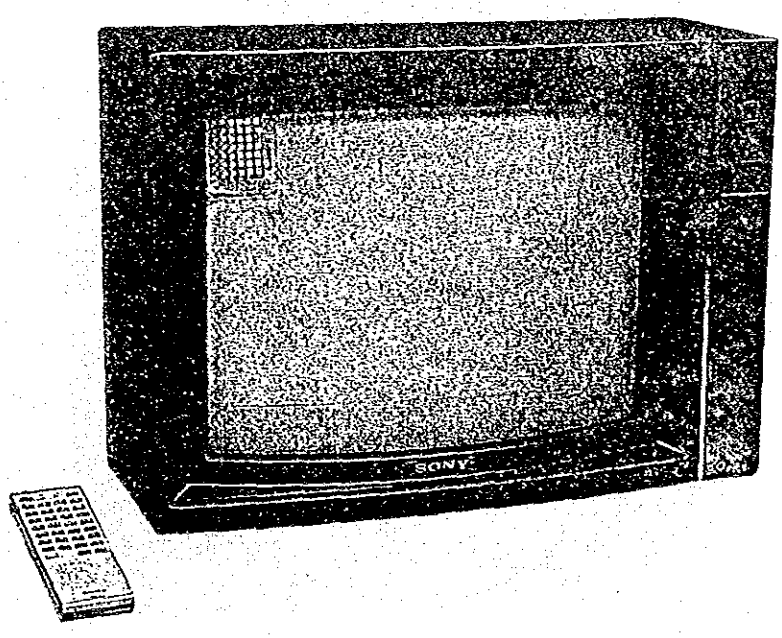
With this television, we can clearly see the superiority of the Trinitron technology that Sony offers to the world. We may summarize the technical superiority and features of this product, which will complete the aesthetics of your room with its design as follows:

- With the Trinitron technology, high-contrast, high-resolution, sharp pictures with natural colors may be obtained.
- With its wide operating voltage range, your television can operate between 90 volts to 250 volts without any regulator.
- With its soft-touch buttons, it provides the possibility of easily selecting pre-programmed channels.
- It provides easy tuning with the AFT (Automatic Fine tuning) button.
- It has the "Econoquick" system which enables to obtain quick picture from a cold start.
- Since it has the earphone jacks, it enables private listening of the television without disturbing the others.
- The television where the bases of the Japanese design, namely, more reliability, easier maintenance and high quality concepts meet, is the Sony KV-2020 EX color television.

SONY 22"
KV-2212 EX

The 22" Sony television KV-2212EX, product of research and technological developments, has the above-mentioned features of the 20" Sony television. Other features of it may be enumerated as follows:

- Remote control: Owing to this characteristic, it enables, from a distance, power on and off functions of the television, channel selection, and color, contrast and sound controls.
- With an optional external loudspeaker, it is possible to receive stereo broadcasting.
- With Automatic Tuning System, it is possible to tune easily 29 programs to various channels and set them in the memory.
- It has an advantage in addition to other televisions, such as bass and treble control.
- It is possible to select automatically both PAL and SECAM broadcasting.
- All controls are set in a cabin under a lid in the upper part of the television.
- During general defects of the product, in order to protect the television, the automatic protector circuit interrupts the power and indicates the serviceman, on the control indicator surface, that the television is under protection.

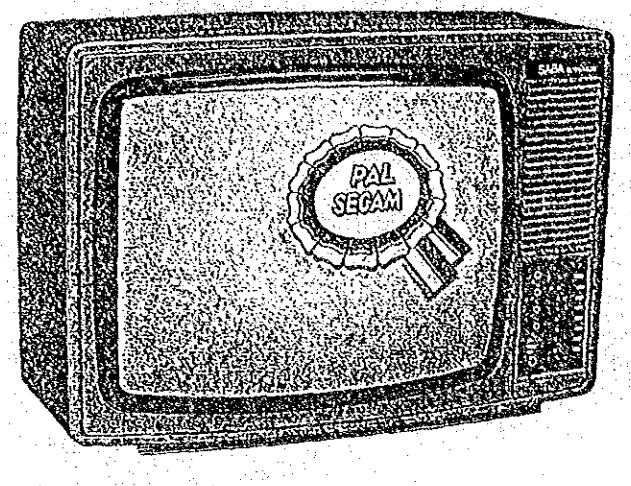


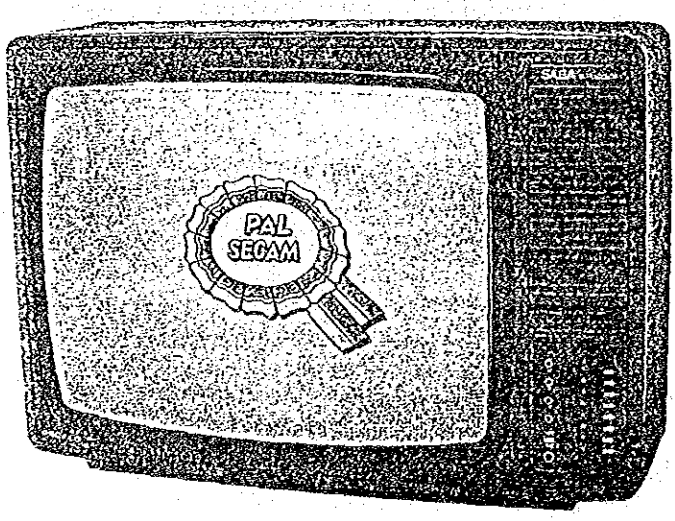
SABA

SABA 22"
T56S25

This is a series of products which contain all the novelties of the semi-conductive technology, and, when in the future, the micro-computer and teletext system will be part of our daily life, will give the possibility of integrating with the television.

- It has a powerful, high-quality sound output.
- Whenever necessary, with an external loudspeaker, it gives the possibility of listening to stereo broadcasting.
- For its utilization together with micro-computers and teletext, it has the necessary connection sockets.
- As the start point of design had been energy saving, its power consumption is economic.
- It has the connection socket necessary for the tape-recording of the desired parts of music. The same outlet is used also for the earphone jack connection.



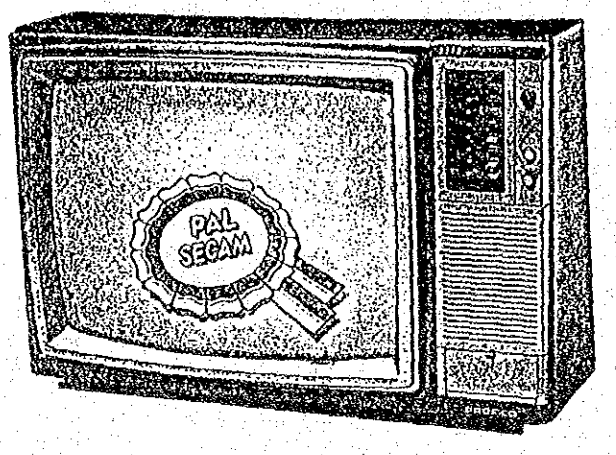


SABA 26"
T67S25

All features designed for 22" television are valid also for this television. In addition to its utilization at home, it is also convenient for café-shops, hospitals and various clubs.

- It has a powerful and high-quality sound output.
- Whenever necessary, with an external loudspeaker, it gives the possibility of listening to stereo broadcasting.
- For its utilization together with micro-computers and teletext, it has the necessary connection sockets.
- As the start point of design had been energy saving, its power consumption is economic.
- It has the connection socket necessary for the tape-recording of the desired parts of music. The same outlet is used also for the earphone jack connection.

PROFİLO



PROFILO 20"
CX-508LE

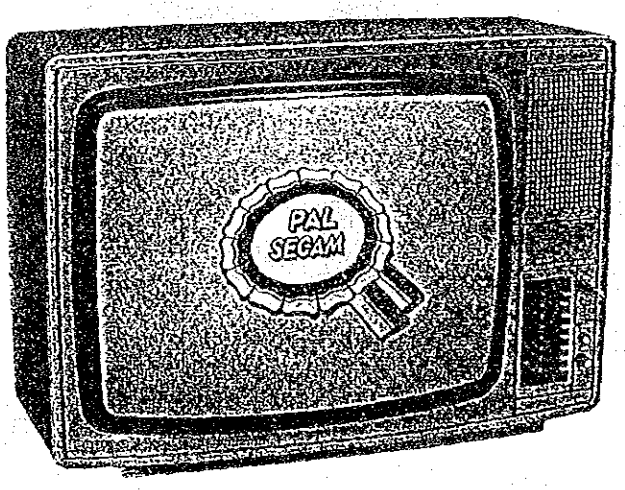
Important features of this television, which is a common product of the Japanese-South Korean technology, are as follows:

- The main body is plastic.
- It has an elegant push-button with 8 programs.
- It has the possibility of automatically selecting PAL/SECAM and NTSC systems currently utilized over the world.
- Having opened a different era in the picture tube technology, it gives the possibility of obtaining high-contrast and sharp color pictures.
- This television, designed by taking advantage of today's conditions, can operate with minimum energy consumption both with 110V AC and 220V AC without necessitating any mechanical modification.

PROFILO 22"
CX-568LE

Important features of this television, which is a common product of the Japanese-South Korean technology, are as follows:

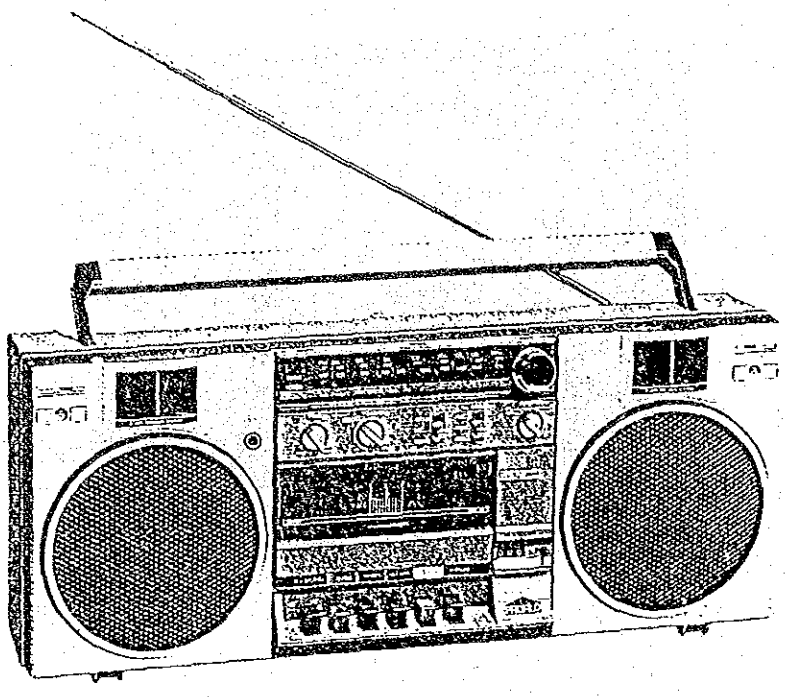
- The main body is wooden.
- It has the possibility of automatically selecting PAL/SECAM and NTSC systems currently utilized over the world.
- It gives a very good picture compared to similar televisions.
- This television, designed by taking advantage of today's conditions, can operate with minimum energy consumption both with 110V AC and 220V AC without necessitating any mechanical modification.

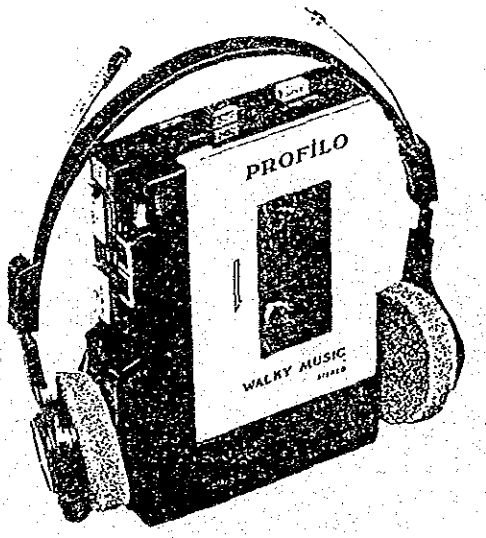


PROFILO

PROFILO
Radio-Cassette
ST-F57L

This product is a ST-F57L model and a radio-cassette combination. With its microphones, it has the possibility of stereo recording. It has a music output power of 2x5 Watts. It has a tweeter system (4 loudspeakers). It is a radio receiver with its radio part having FM, MW and LW channels. It has the stereo-mono selector key. It operates both with AC current or batteries.





PROFILO Walkman

This is a mini stereo cassette player with a rather high sound quality, operating with 3x1.5V batteries or with a 4.5V adaptor, having earphones. The earphone impedance may vary between 8 and 300 Ohms. The sound frequency channel is 40-12,000 Hz. It has a maximum outlet power of 2x20 mW. With the double stereo sockets on it, it displays the particularity of being listened to simultaneously by two people. Its light weight, high quality, performance and easy utilization constitute the fundamental features which influence its being sought after.

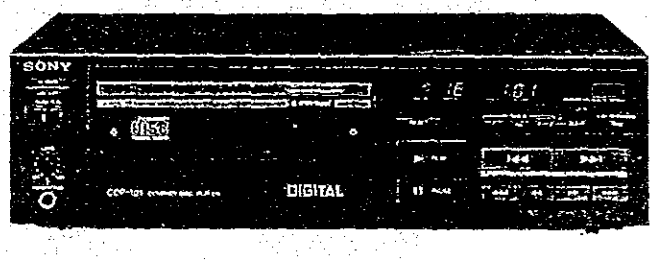
SONY

SONY Radio-Cassette CFS-45L

CFS-45L is one of the compact radio-cassette of Sony family. It can operate both with batteries and alternative current. It can perform all sorts of recording with the on-mounted microphones. With the double loudspeaker on the product, a power output of 2x7 Watts can be obtained. Additional external loudspeakers can be added, and it can be listened to with earphone jacks. The radio section of the product is a stereo receiver which has FM, MW, LW and SW bands. In addition to all these features, the Sony brand is the guarantee for this product.

SONY Compact Disc Player CDP-101

This system which avoids the pin contact with discs and which operates with laser rays has opened a new era. It is the result of research studies on volume reduction and performance increase. It is a compact product with total micro-processor control. 5-20 KHz. frequency range and 2V rms output. It enables a very high-quality music by reading with laser the discs recorded with the digital technology on a special recording disc. The micro processor control provides the product with the possibility of fast forward and rewind search, forward and backward record skipping or listening to recordings between two programmed periods. All controls are obtained also with soft touch key. Earphone output level control can be performed and there exists the pause control which maintains the product at the desired point ready to operate again. The product can also be remote-controlled.

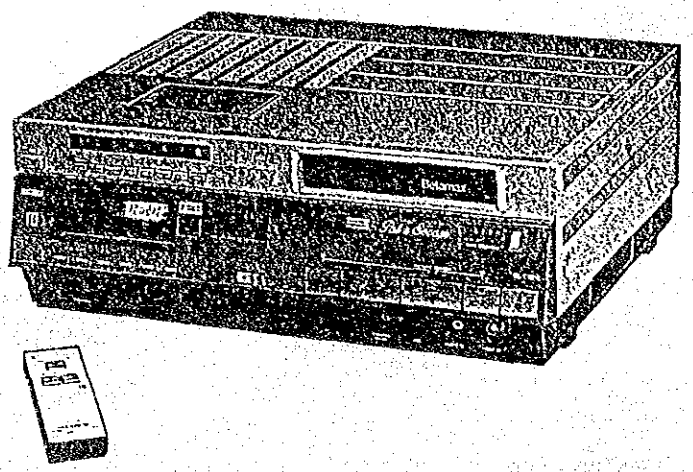


SONY

SONY Video Tape Recorder SL-T6PS

SL-T6PS, a product of the Sony family, is one of the most advanced models of Beta System. As it was designed to be together with cameras and television sets, this video tape recorder has the following characteristics:

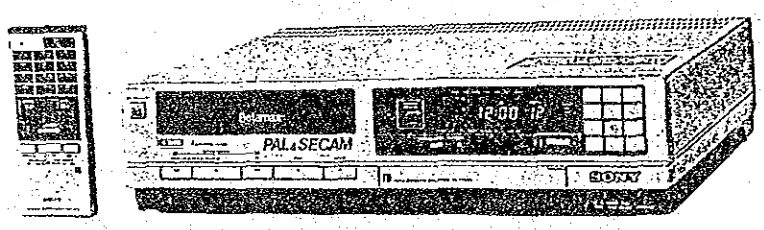
- Its digital clock is hour-minute-and-second-adjusted.
- Necessary connections and adjustments have been rendered easy and practical.
- It is possible to set the video receiver to 8 different programs.
- Fast scanning forward and rewind picture search and still picture are possible.
- With the programming possibilities existing on the product, it gives you the possibility of recording when you are not at home.
- It is possible to connect it with cameras of Sony series.
- This product can operate with PAL and SECAM systems.
- It has a remote control system enabling the remote control of the VTR within a distance of 10 meters.
- This product has the RF outlet in addition to picture and sound outlets.



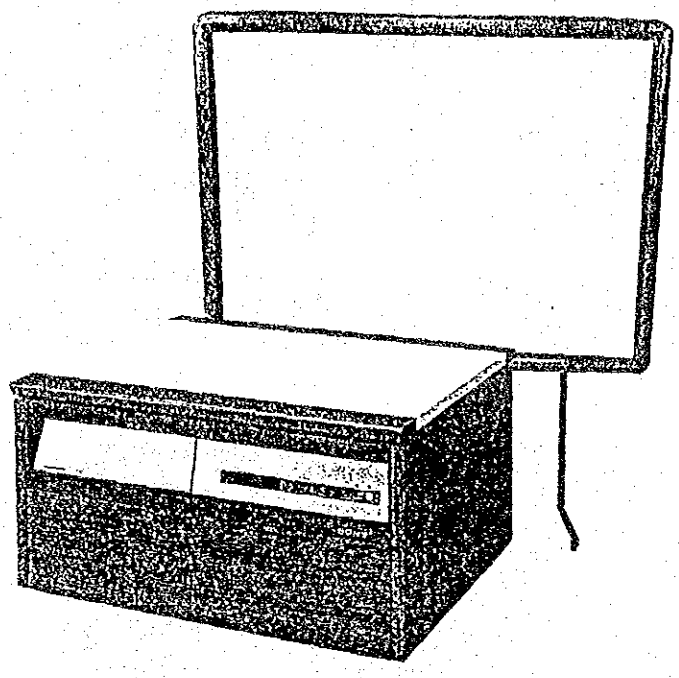
SONY Video Tape Recorder SL-T20ME

The basic characteristics of this video tape recorder, a new product of Sony formed with Sony's high-quality systems, are the following:

- The front-loading operation exists.
- It operates with the two color systems (PAL system, SECAM I system and SECAM II system). Owing to this feature, it gives the possibility of watching cassettes pre-recorded in French SECAM standard as well.
- It is capable of fast scanning picture search. That is, while pressing fast forward or rewind button, it enables to watch pictures on TV screen at a speed 9 times the normal. However with this feature, fast picture scanning is without sound.
- It has a wireless remote control. This remote control has the following features:
  - Fast scanning picture search.
  - Still picture.
  - Channel selection.
  - Record.
  - Play.
  - Fast forward and rewind.
  - Power on/off and stop functions.
- It can select channels with 12 push-buttons.
- It can be programmed for one week.
- It has an automatic voltage system (110-240V AC, 50-60 Hz).



SONY



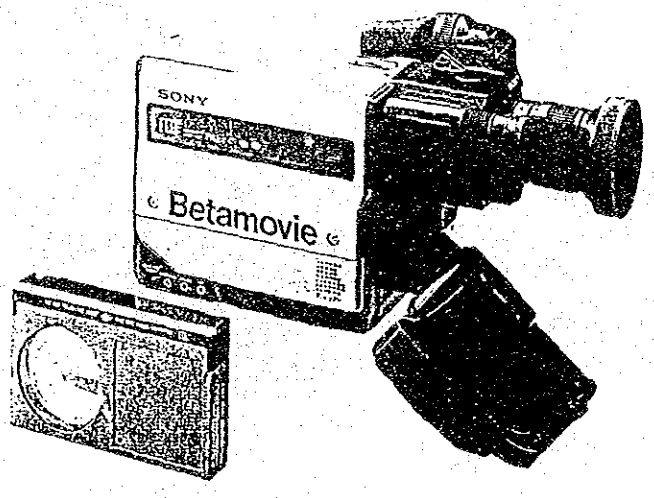
SONY Videoscope Video Projection System

This is a projection system with a giant 72" screen which enables collective watching. It is a projection system which operates through the 3-tube/3-lens system. It can operate with three systems (PAL/SECAM/NTSC). It can also be operated with remote control. It also has the feature of operating with the Cable-TV (the broadcasting system with cable being currently developed in the world) system, it is possible to watch it from a 45° angle. To obtain a better picture quality together with videocassettes, the system is operated by using video and sound outlets instead of the RF outlet of the videocassette. To obtain decorative harmony with the room, the projection unit is designed to be used as a coffe-table.

SONY "Betamovie" Video Camera

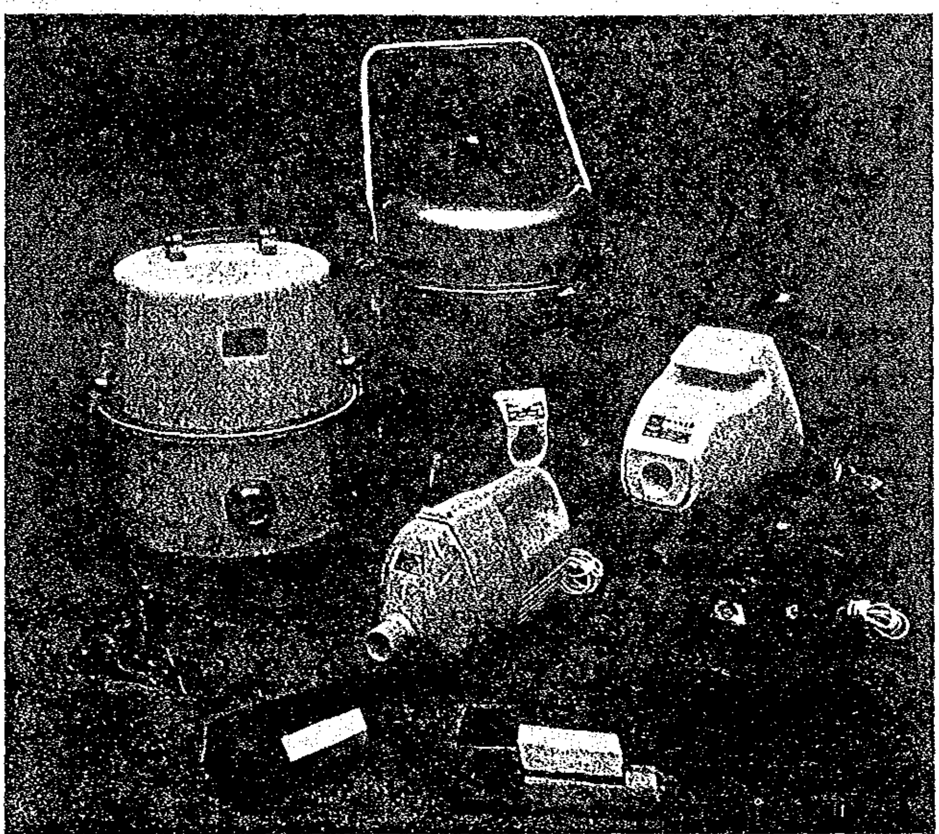
This is an important complementary of the video system. With this camera, weighing approximately 2.5 kg, it is possible to proceed to high-quality recording in any desired place with a portable basis. The fact that the cassette can be recorded by placing it within the camera brings comfort and facility of utilization. This is the fundamental feature of Betamovie. As in recording systems of the Sony family, this product has also been manufactured with the Beta system. Important accessories of the Betamovie are:

- AC adaptor,
- Adaptor cable enabling it to be used with car battery,
- Remote control with cable,
- Supporting pedestal,
- Feed bell, and
- Battery box.



中　　国
(71)　注冊　商标 快樂牌
HAPPY BRAND

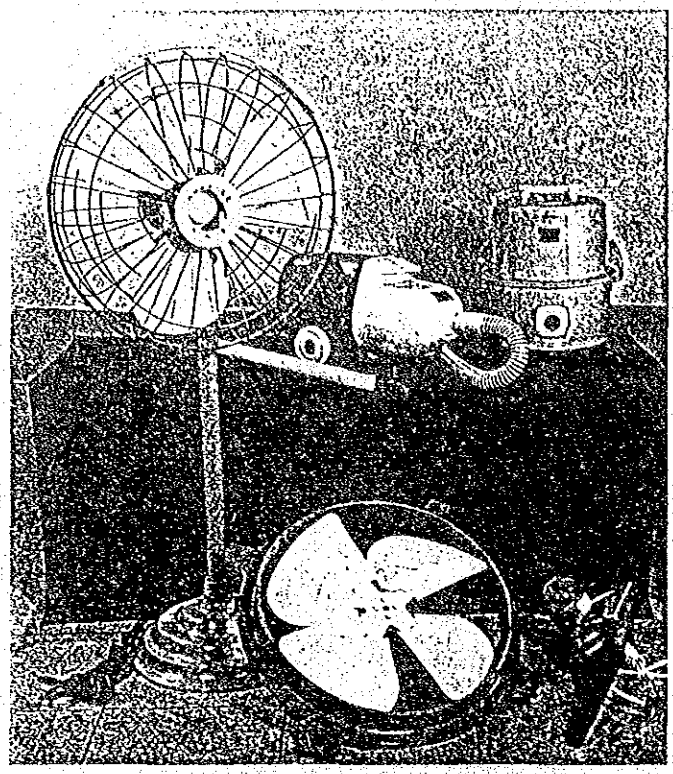
電動真空吸塵器
ELECTRIC VACUUM CLEANER



上海電器三廠
Shanghai Third Electric Apparatus Works
The People's Republic of China

上海電器三廠

Shanghai Third Electric Apparatus Works



歷史悠久，品種繁多，
交貨迅速，歡迎洽購！

Long Manufacturing History, Great Product Varieties,
Prompt Delivery, Orders Are Welcome!

上海電器三廠是全國第一家生產吸塵器的專業廠，具有近二十年的生產經驗，備有八十年代先進技術和裝備。吸塵器是現代化的清潔衛生工具，適用於家庭、賓館、研究所、電子計算機房、圖書館、醫院等處使用。

本廠生產的"快樂牌"吸塵器品種多，規格全，有3 w，200W，400W，600W，800W，850W，1000W等。

歡迎國內外用戶選用 "快樂牌" 吸塵器。

Shanghai Third Electric Apparatus Works is the first domestic specialized manufacturer of vacuum cleaners with about 20 years' experiences and 1980's advanced technology and equipments. It is engaged in the production of various kinds of electric vacuum cleaners, which are modern cleaning tools and suitable for families, guesthouses, research institutes, document reference rooms, computer rooms, libraries, hospitals, etc.

"HAPPY" brand vacuum cleaners from the works are featured by great varieties and complete specifications, including 3W, 200W, 400W, 600W, 800W, 850W, 1000W, etc.

Domestic and foreign customers are welcome to order our "HAPPY" brand vacuum cleaners.

VH-03型微型吸塵器
Model VH-03 Mini Dust Arrestor

3 W微型吸塵器用於清除呢絨製品上的塵埃，如呢帽，呢服，毛毯，毛料，床單等。

The Mini Dust Arrestor designed in a power of 3W is adaptable to cleaning out dusts on woolen goods such as woolen hat, coating and suiting, blanket, cloth, sheet, etc.

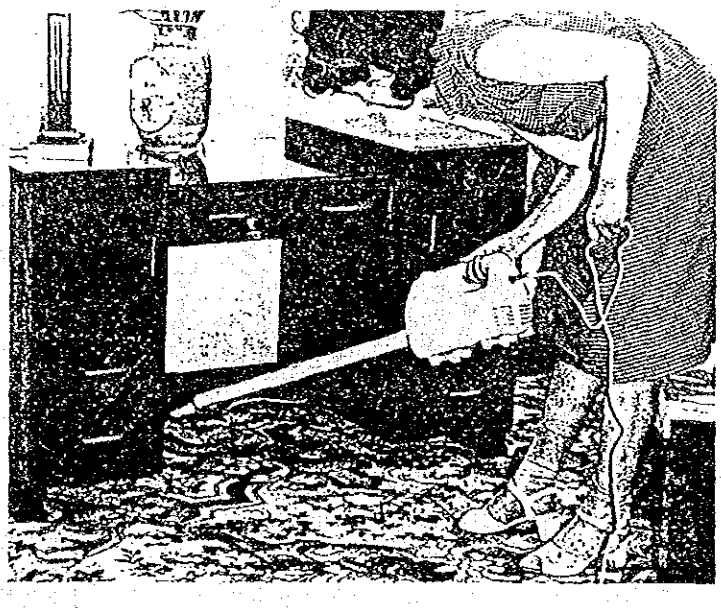
VX-20型
携帶式吸塵器
Model VX-20
Portable Vacuum Cleaner

200W吸塵器具有小型，輕巧，携帶方便，結構簡單等優點。

電　　源：220伏，50周
最大真空度：大於400毫米水柱
輸入功率：200瓦

The vacuum cleaner is designed in a power of 200W, featuring compact dimensions, light weight, easy portability and simple structure.

Power Supply: 220V, 50Hz
Max. vacuum: ≥400mm H_2O
Input power: 200W



裝上各種不同的附件，VX-20型携帶式吸塵器可用於多種用途。

When attached with different interchangeable parts, Model VX-20 Portable Vacuum Cleaner finds wide applications.

VX-20型携帶式吸塵器

Model VX-20 Portable Vacuum Cleaner

用於吸窗簾，牆角之灰塵。

Model VX-20 Portable Vacuum Cleaner is used to arrest the dusts on window curtains or in wall corners.

VX-20型携帶式吸塵器

Model VX-20 Portable Vacuum Cleaner

用於清除床單，被褥，毛毯上的塵埃。

Model VX-20 Portable Vacuum Cleaner is used to clean away the dusts on sheet, bedding and woolen blanket.

VX-20型携帶式吸塵器
Model VX-20 Portable Vacuum Cleaner

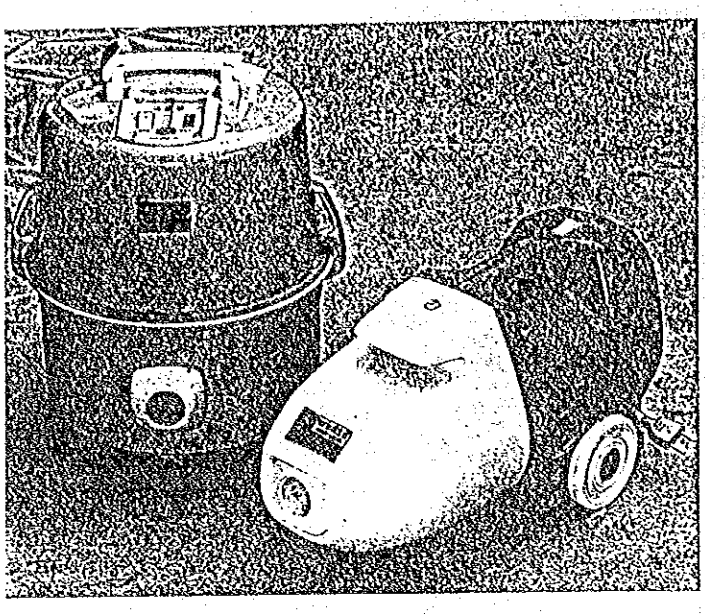
用於清除沙發上的塵埃。

Model VX-20 Portable Vacuum Cleaner is used to clean out the dusts on the sofa.

VX-20型携帶式吸塵器
Model VX-20 Portable Vacuum Cleaner

正在清潔酒櫥，食品柜。

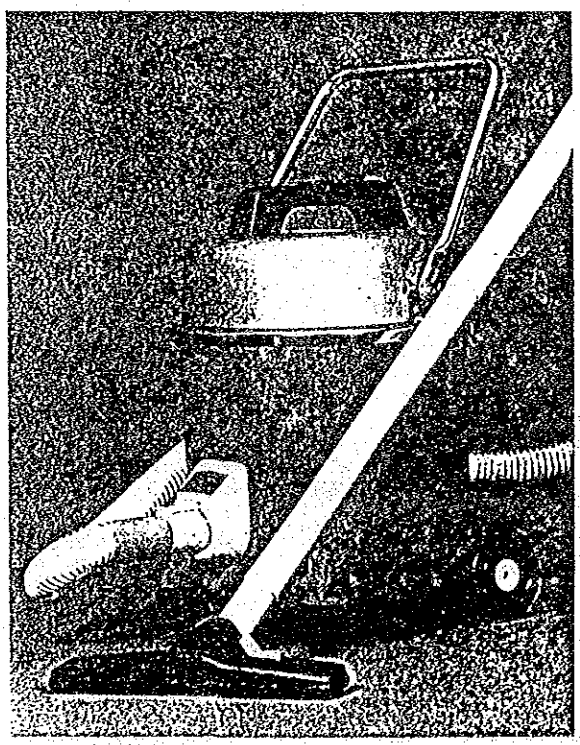
Model VX-20 Portable Vacuum Cleaner is being used to clean the wine cabinet and food counter.



V3-85型
850瓦功率吸塵器
Model V3-85 Vacuum Cleaner
VW2-80型
800瓦功率吸塵器
Model VW2-80 Vacuum Cleaner

V3-85型850瓦功率吸塵器和VW2-80型800瓦功率吸塵器。

Model V3-85 Vacuum Cleaner is designed in 850W, while Model VW2-80 Vacuum Cleaner with a power in 800W.



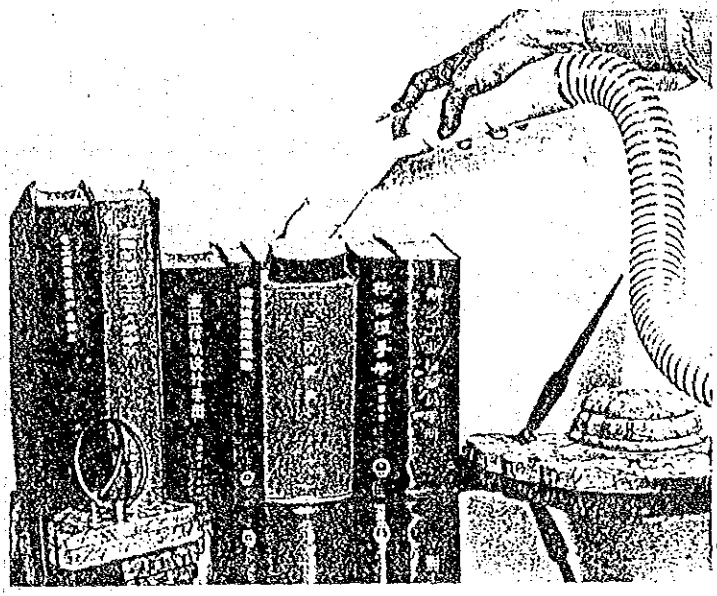
V5-100型吸塵器
Model V5-100 Vacuum Cleaner

該吸塵器具有高吸塵力，並且噪音低，使用可靠，適用於工廠，商店，實驗室及其他需要吸塵處。

輸入功率：1000瓦
最大真空度：大於2000毫米水柱
風　　量：大於3.0米^3/分

The vacuum cleaner features high dust arresting capacity, low noise and reliable performance. It is suitable for cleaning out dusts in factories, guesthouses, stores, laboratories, etc.

Input power: 1000W
Max. vacuum: ⩾2000mm H_2O
Blowing rate: ⩾3.0 m^3/min.



眞空吸塵器
Vacuum Cleaner

正用於清除書籍及文具上的灰塵。

The vacuum cleaner is being used to clean out dusts on the books and stationary.

眞空吸塵器
Vacuum Cleaner

正用於清潔地毯，房間等。

The vacuum cleaner is being used to clean the carpet and room, etc.

各類產品的技術規格
Technical Specifications
For Various Kinds of Products from the Works

品名 Designation	型號 Model	電壓（伏） Voltage (V)	功率（瓦） Power (W)	最大眞空度（毫米水柱） Max. Vacuum (mm H_2O)	風量（米³/分） Blowing Rate (m^3/min.)
吸塵器 Vacuum Cleaner	VH-03				
吸塵器 Vacuum Cleaner	VX-20	220	200	⩾ 400	⩾ 0.8
吸塵器 Vacuum Cleaner	V2-40	220	400	> 900	> 1.25
吸塵器 Vacuum Cleaner	V4-60	220	600	> 1700	> 2.3
吸塵器 Vacuum Cleaner	VW2-80	220	800	> 1800	> 1.8
吸塵器 Vacuum Cleaner	V3-85	220	850	> 2000	> 1.9
吸塵器 Vacuum Cleaner	V5-100	220	1000	> 2000	> 3.0
吹塵器 Dust Blower	VC1-4	220	400	700	1.9
排風扇 Ventilation Fan	FTA-50	380	300		95
落地扇 Stand Fan	FTS-50	380	320		300
採樣機 Air Sampler	CYQ-60	220	600		1.5

上海電器三廠製造
地址：中國上海延長路汪家弄35號
電話：665947、574879×879
電報：5210 上海

Manufacturer:
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