

HEWLETT  PACKARD

OPERATING AND SERVICE MANUAL

12925A

PAPER TAPE READER SUBSYSTEM

(FOR THE HP 2100-SERIES COMPUTER SYSTEMS)



Options Covered

This manual covers option 015 in addition to the standard HP 12925A Paper Tape Reader Subsystem.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

HP 12925A PAPER TAPE READER SUBSYSTEM

GENERAL DESCRIPTION

The HP 12925A Paper Tape Reader Subsystem consists of all the equipment and software required to provide paper-tape-reading capability for the HP 2100-Series Computer Systems. Subsystem components consist of a tape reader and accessories, an interface PCA, an interface cable, an interface test connector, and requisite software which includes diagnostics.

The subsystem read rate is 500 characters per second. Tape composition can be any diffuse material with less than 60 percent transmissivity. The standard subsystem has 115-volt, 60-hertz power requirements while option 015 has 230-volt, 50-hertz power requirements. Additional details regarding the performance and capabilities of subsystem components are provided in the operating and service manuals supplied with the subsystem.

EQUIPMENT SUPPLIED

The following components and documentation are supplied with the subsystem:

- HP 2748B Tape Reader.
- HP 12597A-002 Tape Reader Interface Kit.
- *HP 2748B Tape Reader Operating and Service Manual*, part no. 02748-90032.
- *HP 12597A-002 Tape Reader Interface Kit Operating and Service Manual*, part no. 12597-90022.

ACCESSORIES

The following accessories are provided with each tape reader:

- Power cable.
- Rack-mounting kit.

OPTIONS

Option 015 is for 230-volt, 50-hertz operation.



SALES & SERVICE OFFICES

UNITED STATES

ALABAMA
8290 Whitesburg Dr. S.E.
P.O. Box 4207
Huntsville 35802
Tel: (205) 861-4591
TWX: 810-726-2204
Medical Only
278 W. Valley Ave.
Room 302
Birmingham 35209
Tel: (205) 879-2081/2

ARIZONA
2336 E. Magnolia St.
Phoenix 85034
Tel: (602) 244-1361
TWX: 910-951-1331
2424 East Aragon Rd.
Tucson 85706
Tel: (602) 889-4661

ARKANSAS
Medical Service Only
Little Rock 72205
Tel: (501) 664-8773

CALIFORNIA
1430 East Orangethorpe Ave.
Fullerton 92631
Tel: (714) 870-1000
TWX: 910-592-1288

3939 Lankershim Boulevard
North Hollywood 91604
Tel: (213) 877-1282
TWX: 910-499-2170

6305 Arizona Place
Los Angeles 90045
Tel: (213) 849-2511
TWX: 910-328-6147

Los Angeles
Tel: (213) 776-7500
3093 Scott Boulevard
Santa Clara 95050
Tel: (408) 249-7000
TWX: 910-338-0518

Ridgcrest
Tel: (714) 446-6165
2220 Watt Ave.
Sacramento 95825
Tel: (916) 482-1483
TWX: 910-767-2092

9606 Aero Drive
P.O. Box 23333
San Diego 92123
Tel: (714) 279-3200
TWX: 910-335-2000
Calculators Only
601 California St.
San Francisco 94108
Tel: (415) 989-8470

COLORADO
5600 South Ulster Parkway
Englewood 80110
Tel: (303) 771-3455
TWX: 910-935-0705

CONNECTICUT
12 Lunar Drive
New Haven 06525
Tel: (203) 389-6551
TWX: 910-465-2029

FLORIDA
P.O. Box 24210
2806 W. Oakland Park Blvd.
Ft. Lauderdale 33307
Tel: (305) 731-2020
TWX: 910-555-4099

Jacksonville
Medical Service Only
Tel: (904) 725-6333
P.O. Box 13910
6177 Lake Elton Dr.
Orlando 32809
Tel: (305) 659-2900
TWX: 810-850-0113

21 East Wright St.
Suite 1
Pensacola 32501
Tel: (904) 434-3081

GEORGIA
P.O. Box 28234
450 Interstate North
Atlanta 30328
Tel: (404) 434-0000
TWX: 810-766-4890

HAWAII
2875 So. King Street
Honolulu 96814
Tel: (808) 955-4455

ILLINOIS
5500 Howard Street
Skokie 60076
Tel: (312) 677-0400
TWX: 910-223-3613

St. Joseph
Tel: (217) 469-2133

INDIANA
7301 North Shadeland Ave.
Indianapolis 46250
Tel: (317) 842-1000
TWX: 810-260-1796

IOWA
1902 Broadway
Iowa City 52240
Tel: (319) 338-9466
Night: (319) 338-9467

KANSAS
Derby
Tel: (316) 267-3655

LOUISIANA
P.O. Box 840
3239 Williams Boulevard
Kenner 70062
Tel: (504) 721-6201
TWX: 810-955-5524

KENTUCKY
Medical-Calculator Only
8003 Troutwood Court
Louisville 40291
Tel: (502) 426-4341

MARYLAND
6707 Whitestone Road
Baltimore 21207
Tel: (301) 944-5400
TWX: 710-862-9157

4 Choke Cherry Road
Rockville 20850
Tel: (301) 948-6370
TWX: 710-828-9685

710-828-0487
P.O. Box 1648
2 Choke Cherry Road
Rockville 20850
Tel: (301) 948-6370
TWX: 710-828-9684

MASSACHUSETTS
32 Hartwell Ave.
Lexington 02173
Tel: (617) 861-8960
TWX: 710-326-6904

MICHIGAN
23855 Research Drive
Farmington 48024
Tel: (313) 476-6400
TWX: 810-242-2900

MINNESOTA
2400 N. Prior Ave.
Roseville 55113
Tel: (612) 636-0700
TWX: 910-563-3734

MISSISSIPPI
Jackson
Medical Service Only
Tel: (601) 982-9363

MISSOURI
11131 Colorado Ave.
Kansas City 64137
Tel: (816) 763-8000
TWX: 910-771-2087

148 Weldon Parkway
Maryland Heights 63043
Tel: (314) 567-1455
TWX: 910-764-0830

NEBRASKA
11902 Elm Street
Suite 4C
Omaha 68144
Tel: (402) 333-6017

NEW JERSEY
W. 120 Century Rd.
Paramus 07652
Tel: (201) 265-5000
TWX: 710-990-4951

NEW MEXICO
P.O. Box 11634
Station E
11300 Lomas Blvd., N.E.
Albuquerque 87123
Tel: (505) 292-1330
TWX: 910-989-1185

156 Wyatt Drive
Las Cruces 88001
Tel: (505) 526-2485
TWX: 910-983-0550

NEW YORK
6 Automation Lane
Computer Park
Albany 12205
Tel: (518) 458-1550
TWX: 710-441-8270

Calculators Only
1251 Avenue of the Americas
Floor 32 - Suite 3296
New York City 10020
Tel: (212) 265-5575

New York City
Manhattan, Bronx
Contact Paramus, NJ Office
Tel: (201) 265-5000
Brooklyn, Queens, Richmond
Contact Woodbury, NY Office
Tel: (516) 921-0300

201 South Avenue
Poughkeepsie 12601
Tel: (914) 454-7330
TWX: 510-248-0012

39 Saginaw Drive
Rochester 14623
Tel: (716) 473-9500
TWX: 510-253-5981

5658 East Molloy Road
Syosset 11711
Tel: (516) 455-2486
TWX: 710-541-0482

1 Crossways Park West
Woodbury 11797
Tel: (516) 921-0300
TWX: 510-221-2168

NORTH CAROLINA
P.O. Box 5188
1923 North Main Street
High Point 27262
Tel: (919) 885-8101
TWX: 510-926-1516

OHIO
16500 Sprague Road
Cleveland 44130
Tel: (216) 243-7300
Night: 243-7305
TWX: 810-423-9431

330 Progress Rd.
Dayton 45449
Tel: (513) 859-8202
TWX: 810-459-1925
1041 Kingsmill Parkway
Columbus 43229
Tel: (614) 436-1041

OKLAHOMA
P.O. Box 32008
Oklahoma City 73132
Tel: (405) 721-0200
TWX: 910-830-6862

OREGON
17890 SW Boones Ferry Road
Tualatin 97062
Tel: (503) 620-3350
TWX: 910-467-8714

PENNSYLVANIA
111 Zeta Drive
Pittsburgh 15238
Tel: (412) 782-0400
Night: 782-0401
TWX: 710-795-3124

1021 8th Avenue
King of Prussia Industrial Park
King of Prussia 19406
Tel: (215) 265-7000
TWX: 510-660-2670

SOUTH CAROLINA
6941-D N. Trenholm Road
Columbia 29260
Tel: (803) 782-6493

TENNESSEE
Memphis
Medical Service Only
Tel: (901) 274-7472

Nashville
Medical Service Only
Tel: (615) 244-5448

TEXAS
P.O. Box 1270
201 E. Arapahoe Rd.
Richardson 75080
Tel: (214) 231-6101
TWX: 910-867-4723

P.O. Box 27409
6300 Westpark Drive
Suite 100
Houston 77027
Tel: (713) 781-6000
TWX: 910-881-2645
205 Billy Maize Road
San Antonio 78226
Tel: (512) 424-8247
TWX: 910-811-1111

UTAH
2630 South Main Street
Salt Lake City 84115
Tel: (801) 487-1115
TWX: 910-925-5681

VIRGINIA
Medical Only
P.O. Box 12778
No. 7 Koger Exec. Center
Suite 212
Norfolk 23502
Tel: (804) 487-1226/7

P.O. Box 9854
2914 Hungary Springs Road
Richmond 23228
Tel: (804) 285-3417
TWX: 710-956-2157

WASHINGTON
Bellevue Office Bldg.
1203 - 14th SE
Bellevue 98004
Tel: (206) 454-3871
TWX: 910-443-2446

WEST VIRGINIA
Medical Analytica Co.
Charleston
Tel: (304) 345-1642

WISCONSIN
9431 W. Beant Road
Suite 117
Milwaukee 53227
Tel: (414) 541-0556

FOR U.S. AREAS NOT LISTED:
Contact the regional office nearest you: Atlanta, Georgia
North Hollywood, California
Rockville, Maryland
Skokie, Illinois
Their complete addresses are listed above.

***Service Only**

CANADA

ALBERTA
Hewlett-Packard (Canada) Ltd.
11748 Kingsway Ave.
Edmonton T5C 0A5
Tel: (403) 452-3670
TWX: 610-831-2431
Hewlett-Packard (Canada) Ltd.
915-42 Avenue S.E. Suite 102
Calgary T2G 1Z1
Tel: (403) 287-1672

BRITISH COLUMBIA
Hewlett-Packard (Canada) Ltd.
637 E. Cordova Street
Vancouver V6A 3R2
Tel: (604) 254-0531
TWX: 610-922-5059

MANITOBA
Hewlett-Packard (Canada) Ltd.
513 Century St.
St. James
Winnipeg R3H 0L8
Tel: (204) 786-7581
TWX: 610-871-3531

NOVA SCOTIA
Hewlett-Packard (Canada) Ltd.
800 Windmill Road
Dartmouth B3C 1L1
Tel: (902) 469-7820

ONTARIO
Hewlett-Packard (Canada) Ltd.
1785 Woodward Dr.
Ottawa K2C 0P9
Tel: (613) 226-6530
TWX: 610-922-8968
Hewlett-Packard (Canada) Ltd.
6877 Goreway Drive
Mississauga L4V 1L9
Tel: (416) 678-9430
TWX: 610-492-4246

QUEBEC
Hewlett-Packard (Canada) Ltd.
275 Hymus Blvd.
Pointe Claire H9R 1G7
Tel: (514) 687-4532
TWX: 610-922-3092
TLX: 05-821521 HPCL

Hewlett-Packard (Canada) Ltd.
2376 Galvani Street
Ste-Foy G1N 4G4
Tel: (418) 688-8710

FOR CANADIAN AREAS NOT LISTED:
Contact Hewlett-Packard (Canada) Ltd. in Mississauga

CENTRAL AND SOUTH AMERICA

ARGENTINA
Hewlett-Packard Argentina
S.A. Cel.
Lavalle 1171-3° Piso
Buenos Aires
Tel: 35 0436 35-0627 35-0341
Telex: 012-1009
Cable: HEWPACK ARG

BOLIVIA
Stambuk & Mark (Bouvia) Ltda.
Av. Mariscal Santa Cruz 1342
La Paz
Tel: 40626 53163 52421
Telex: 3560014
Cable: BUKMAR

BRAZIL
Hewlett-Packard Do Brasil
I.E.C. Ltda.
Rua Frei Caneca 1 152-Bela Vista
01307-São Paulo-SP
Tel: 288-71-11 287-81-20
287-61-93
Telex: 309151/2/3
Cable: HEWPACK São Paulo

Hewlett-Packard Do Brasil
I.E.C. Ltda.
Praça Dom Feliciano, 78-8°
andar (Sala 806/8)
9000-Porto Alegre-RS
Tel: 25-84-70-DDD (0512)
Cable: HEWPACK Porto Alegre
Hewlett-Packard Do Brasil
I.E.C. Ltda.
Rua Siqueira Campos, 53. 4°
andar Copacabana
2000-Rio de Janeiro-GB
Tel: 257-80-94-DDD (021)
Telex: 2100 79 HEWPACK
Cable: HEWPACK
Rio de Janeiro

CHILE
Calcagni y Metcalfe Ltda.
Calle Lira 81, Oficina 5
Casilla 2118
Santiago, 1
Tel: 398613
Cable: CALMET

COLOMBIA
Instrumentación
Henrik A. Langebaek & Kier S.A.
Carrera 7 No. 48-59
Apartado Aéreo 6287
Bogotá, D.E.
Tel: 45-78-06 45-55-46
Cable: AARIS Bogotá
Telex: 444000INSTCD

COSTA RICA
Científica Costarricense S.A.
Apartado Postal 689
San José
Tel: 21-86-13
Cable: GALGUR San José

GUATEMALA
IPESA
Avenida La Reforma 3-48
Zona 9
Guatemala
Tel: 63627 64786
Telex: 4192 TELTRO GU

MEXICO
Hewlett-Packard Mexicana.
S.A. de C.V.
Torres Adalfo No. 21, 11° Piso
Col. del Valle
Mexico 12, D.F.
Tel: (905) 543-42-32
Telex: 017-74-507
Hewlett-Packard Mexicana.
S.A. de C.V.
Ave. Constitución No. 2184
Monterrey, N.L.
Tel: 48-71-32 48-71-84

Nicaragua
Roberto Terán G.
Apartado Postal 689
Edificio Terán
Managua
Tel: 3451 3452
Cable: ROTERAN Managua

PANAMA
Electrónica Balboa, S.A.
P.O. Box 4929
Calle Samuel Lewis
Ciudad de Panama
Tel: 64-2700
Telex: 3431103 Curunda
Canal Zone

Cable: ELECTRON Panama
PARAGUAY
Z.J. Melamed S.R.L.
Division: Aparatos y Equipos
Medicos
Division: Aparatos y Equipos
Socromicos y de
Investigación
P.O. Box 676
Chile 482, Edificio Victor
Asunción
Tel: 4-5069 4-6272
Cable: RAMEL

PERU
Corporación Electro Médica S.A.
Ave. Enrique Candia 312
San Isidro
Casilla 1030
Lima
Tel: 22-3900
Cable: ELMED Lima

PUERTO RICO
San Juan Electronics Inc.
P.O. Box 5167
Ponce de Leon 154
Pda 3-PIA de Tierra
San Juan 00906
Tel: (809) 725-3342 722-3342
Cable: SATRONICS San Juan
Telex: SATRON 3450 332

URUGUAY
Pablo Ferrando S.A.
Comercial e Industrial
Avenida Italia 2877
Casilla de Correo 370
Montevideo
Tel: 40-3102
Cable: RADIUM Montevideo

VENEZUELA
Hewlett-Packard de Venezuela
C.A.
Apartado 50933
Edificio Segre
Tercera Transversal
Los Ruices Norte
Caracas 137
Tel: 35-00-11
Telex: 21-16 HEWPACK
Cable: HEWPACK Caracas

FOR AREAS NOT LISTED. CONTACT:
Hewlett-Packard
Inter-Américas
3200 Highway Ave.
Palo Alto, California 94304
Tel: (415) 493-1501
TWX: 910-373-1263
Cable: HEWPACK Palo Alto
Telex: 034-8300 034-8493

EUROPE

AUSTRIA
Hewlett-Packard Ges m b H
Handelskass 52/3
P.O. Box 7
A-1205 Vienna
Tel: (0222) 33 66 06 to 09
Cable: HEWPAK Vienna
Telex: 75923 hewpak a

BELGIUM
Hewlett-Packard Benelux
S.A./N.V.
Avenue de Col-Vert, 1.
(Groenkraaglaan)
B-1170 Brussels
Tel: (02) 672 22 40
Cable: PALOBEN Brussels
Telex: 23 494 paloben bru

DENMARK
Hewlett-Packard A/S
Ostvej 52
DK-3450 Birkerød
Tel: (01) 81 66 40
Cable: HEWPAK AS
Telex: 166 40 hp as
Hewlett-Packard A/S
Naveren 1
DK-8500 Silkeborg
Tel: (06) 82 71 66
Telex: 166 40 hp as
Cable: HEWPAK AS

FINLAND
Hewlett-Packard Oy
Nahkahuusuntie 5
P.O. Box 6
SF-00211 Helsinki 21
Tel: 6923031
Cable: HEWPAK OY Helsinki
Telex: 12-15363

FRANCE
Hewlett-Packard France
Quartier de Courtabouff
Boite Postale No. 6
F-91401 Orsay
Tel: (1) 907 78 25
Cable: HEWPAK Orsay
Telex: 60048
Hewlett-Packard France
Agence Régionale
Chemin des Mouilles
Boite Postale No. 12
F-69130 Ecullly
Tel: (78) 33 81 25
Cable: HEWPAK Ecullly
Telex: 31 617
Hewlett-Packard France
Agence Régionale
Zone Aéronautique
Avenue Clément Ader
F-31770 Colomiers
Tel: (61) 78 11 55
Telex: 51957

Hewlett-Packard France
Agence Régionale
Centre d'avalon générale
F-13721 Aéroport de
Marseille
Tel: (91) 89 12 36
TWX: 41770 F
Hewlett-Packard France
Agence Régionale
63, Avenue de Rochester
F-35000 Rennes
Tel: 74912 F
Telex: 74 912 F

Hewlett-Packard France
Agence Régionale
74, Allée de la Robertsau
F-67000 Strasbourg
Tel: (88) 35 23 20/21
Telex: 89141
Cable: HEWPAK STRBG

Hewlett-Packard France
Agence Régionale
Centre Vauban
F-67000 Strasbourg
Tel: (88) 35 23 20/21
Telex: 89141
Cable: HEWPAK STRBG
Medical Calculator Only
Hewlett-Packard France
Agence Régionale
Centre Vauban
201, rue Colbert
Entrée Az
F-59000 Lille
Tel: (20) 51 44 14

GERMAN FEDERAL REPUBLIC
Hewlett-Packard GmbH
Vertriebszentrale Frankfurt
Bernstrasse 117
Postfach 560 140
D-6000 Frankfurt 56
P.O. Box 6
Tel: (0611) 50 04-1
Cable: HEWPAKSA Frankfurt
Telex: 41 32 49 fra
Hewlett-Packard GmbH
Technisches Büro Böblingen
Herrenbergerstrasse 110
D-7030 Böblingen, Württemberg
Tel: (07031) 66 72 87
Cable: HEPAK Böblingen
Telex: 72 65 739 bbn
Hewlett-Packard GmbH
Technisches Büro Düsseldorf
Voegelsanger Weg 38
D-4000 Düsseldorf
Tel: (0211) 63 80 31/5
Telex: 85/86 533 hppd d
Hewlett-Packard GmbH
Technisches Büro Hamburg
Wendensstrasse 23
D-2000 Hamburg 1
Tel: (040) 24 13 93
Cable: HEWPAKSA Hamburg
Telex: 21 63 032 hpph d

Hewlett-Packard GmbH
Technisches Büro München
Unterhachinger Strasse 28
ISAR Center
D-8012 Ottobrunn
Tel: (089) 601 30 61/7
Telex: 52 49 85
Cable: HEWPAKSA München
(Wast Berlin)
Hewlett-Packard GmbH
Technisches Büro Berlin
Keith Strasse 2-4
D-1000 Berlin 30
Tel: (030) 24 90 86
Telex: 18 34 05 hppb d

Hewlett-Packard GmbH
Technisches Büro Hannover
Mellendorfer Strasse 3
D-3000 Hannover-Kleefeld
Tel: (0511) 55 60 46
Telex: 092 3259
Hewlett-Packard GmbH
Technisches Büro Nürnberg
Hersbruckerstrasse 42
D-8500 Nürnberg
Tel: (0911) 57 10 68
Telex: 623 860
Hewlett-Packard GmbH
Technisches Büro München
Unterhachinger Strasse 28
ISAR Center
D-8012 Ottobrunn
Tel: (089) 601 30 61/7
Telex: 52 49 85
Cable: HEWPAKSA München

(Wast Berlin)
Hewlett-Packard GmbH
Technisches Büro Berlin
Keith Strasse 2-4
D-1000 Berlin 30
Tel: (030) 24 90 86
Telex: 18 34 05 hppb d

GREECE
Kostas Karayannis
18, Ermou Street
GR-Athens 126
Tel: 3230-303 Sales/SVC
3230-305 Adm. Order Proc.
Cable: RAKAR Athens
Telex: 21 59 62 kkar gr
Hewlett-Packard S.A.
Mediterranean & Middle East
Operations
35 Kolokotroni Street
Platia Kefallariou
GR-Kifissia-Athens
Tel: 808037, 8080359,
8080429, 8018693
Telex: 21 6588
Cable: HEWPAKSA Athens

Analitical Only
"INTECO" G. Papathanassiou & Co.
Marni 17
GR - Athens 103
Cable: INTEKNA
Telex: 21 5329 INTE GR
Medical Only
Technomed Hellas Ltd
52, Skoula Street
GR - Athens 135
Tel: 626 972
Cable: ETALAK Athens
Telex: 21-4693 ETAL GR

IRELAND
Hewlett-Packard Ltd.
King Street Lane
Winnesh, Wokingham
GB-Berkshire RG11 5AR
Tel: Wokingham 784774
Telex: 847178/848179
Hewlett-Packard Ltd.
"The Grattans"
Stamford New Road
GB-Altrincham, Cheshire
Tel: (061) 928-9021
Telex: 668068

ITALY
Hewlett-Packard Italiana S.p.A.
Via Ameglio Vespucci 2
I-20124 Milan
Tel: (2) 6251 (10 lines)
Cable: HEWPAKIT Milan
Telex: 32046
Hewlett-Packard Italiana S.p.A.
Via Pietro Maroncelli 40
(ang. Via Visentin)
I-35100 Padova
Tel: 66 40 62/66 31 88
Telex: 32046 via Milan

Medical Only
Hewlett-Packard Italiana S.p.A.
Via Medaglia d'Oro, 2
I-56100 Pisa
Tel: (050) 2 32 04
Telex: 32046 via Milan
Hewlett-Packard S.A.
Via G. Armetini 10
I-00143 Rome-Eur
Tel: (6) 591254/5
Telex: 61514
Cable: HEWPAKIT Rome
Hewlett-Packard Italiana S.p.A.
Via San Quintino, 46
I-10121 Turin
Tel: 53 82 64/54 84 68
Telex: 32046 via Milan

Medical/Calculators Only
Hewlett-Packard Italiana S.p.A.
Via Principe Nicola 43 G/C
I-95126 Catania
Tel: (095) 370505
Hewlett-Packard Española S.A.
Milanesado 21-23
E-Barcelona 17
Tel: (3) 203 6200 (5 lines)
Telex: 52603 hpe e
Hewlett-Packard Española S.A.
Av Ramon y Cajal, 1
Edificio Sevilla I, planta 9ª
E-Sevilla
Tel: 64 44 54/58

LUXEMBURG
Hewlett-Packard Benelux
S.A./N.V.
Avenue de Col-Vert, 1.
(Groenkraaglaan)
B-1170 Brussels
Tel: (02) 672 22 40
Cable: PALOBEN Brussels
Telex: 23 494

NETHERLANDS
Hewlett-Packard Benelux N.V.
Weerdestein 117
P.O. Box 7825
NL-Amsterdam, 1011
Tel: (020) 5411522
Cable: PALOBEN Amsterdam
Telex: 13 215 hpe nl

NORWAY
Hewlett-Packard Norge A/S
Nyevien 13
Box 149
N-1344 Naahom
Tel: (02) 53 83 60
Telex: 16621 hpnas n

POLAND
Analytical/Medical Only
Hewlett-Packard
Warsaw Technical Office
Spitalna 1
00-120 Warsaw
Tel: 268031
Telex: 812453

PORTUGAL
Teletra-Empresa Técnica de
Equipamentos Eléctricos S.a.r.l.
Rua Rodrigo da Fonseca 103
P.O. Box 2531
P-Lisbon 1
Tel: (19) 68 60 72
Cable: TELETRA Lisbon
Telex: 12598
Mundinter
Intercomércio Mundial de Comércio
S.A. Avenida Antonio Augusto
de Aguiar 138
P.O. Box 2781
P-Lisbon
Tel: (19) 53 21 31/7
Cable: INTERCAMBIO Lisbon

SPAIN
Hewlett-Packard Española, S.A.
Jeréz No. 3
E-Madrid 16
Tel: (1) 458 26 00 (10 lines)
Telex: 23515 hpe
Hewlett-Packard Española, S.A.
Milanesado 21-23
E-Barcelona 17
Tel: (3) 203 6200 (5 lines)
Telex: 52603 hpe e
Hewlett-Packard Española, S.A.
Av Ramon y Cajal, 1
Edificio Sevilla I, planta 9ª
E-Sevilla
Tel: 64 44 54/58

Hewlett-Packard Española S.A.
Edificio Alba II 7º B
E-Bilbao
Tel: 23 83 06/23 82 06
Calculators Only
Hewlett-Packard Española S.A.
Alvaro Bazén, 12
(Edificio Luz)
E - Valencia - 10
Tel: 60 42 00
SWEDEN
Hewlett-Packard Sverige AB
Nyevien 13
Box 149
N-1344 Naahom
Tel: (02) 53 83 60
Telex: 16621 hpnas n

SWEDEN
Hewlett-Packard Sverige AB
Nyevien 13
Box 149
N-1344 Naahom
Tel: (02) 53 83 60
Telex: 16621 hpnas n

SWITZERLAND
Hewlett-Packard (Schweiz) AG
Zürcherstrasse 20
P.O. Box 64
CH-8952 Schlieren Zurich
Tel: (01) 98 18 21
Cable: HPAC CH
Telex: 53933 hpag
Hewlett-Packard (Schweiz) AG
9, chemin Louis-Pictet
CH-1214 Vernier-Geneva
Tel: (022) 41 49 50
Cable: HEWPAKSA Geneva
Telex: 27 333 hpsa ch

TURKEY
Telekom Engineering Bureau
Saglik Sok No 15.1
Ayvaspa-Beylik
P.O. Box 437 Beyoglu
TR-Istanbul
Tel: 49 40 40
Cable: TELEMATON Istanbul

UNITED KINGDOM
Hewlett-Packard Ltd.
King Street Lane
Winnesh, Wokingham
GB-Berkshire RG11 5AR
Tel: Wokingham 784774
Telex: 847178/848179
Hewlett-Packard Ltd.
"The Grattans"
Stamford New Road
GB-Altrincham, Cheshire
Tel: (061) 928-9021
Telex: 668068

Hewlett-Packard Ltd.
c/o Makro
South Service Wholesale Centre
Amber Way
Halesowen Industrial Estate
GB-Halesowen, Worcs
Tel: Birmingham 7860
Hewlett-Packard Ltd.
4th Floor
Wedge House
799, London Road
GB-Thornthorn Heath CR4 6XL,
Surrey
Tel: (01) 684 0105
Telex: 946825
Hewlett-Packard Ltd.
c/o Makro
South Service Wholesale Centre
Wear Industrial Estate
Washington
GB-New Town, County Durham
Tel: Washington 464001 ext 57-58
Hewlett-Packard Ltd.'s registered
address for V.A.T. purposes
only
70, Finsbury Pavement
London, EC2A1SX
Registered No 690597

USSR
Hewlett-Packard USSR
c/o Commercial Office
American Embassy (Box M)
A-1091 Vienna, Austria
Tel: 221-7971
Telex: 7825 hewpak SU

YUGOSLAVIA
Iskra-Standard-Hewlett-Packard
Topska 58/3
61000 Ljubljana
Tel: 315-979 321-674
Telex: 31300

**SOCIAL COUNTRIES
PLEASE CONTACT:**
Hewlett-Packard S.A.
7, rue du Bois-du-Lan
P.O. Box 349
CH-1217 Meyrin 1 Geneva
Switzerland
Tel: (022) 41 54 00
Cable: HEWPAKSA Geneva
Telex: 2 24 86

AFRICA, ASIA, AUSTRALIA

ANGOLA
Teletra
Empresa Técnica de
Equipamentos
Eléctricos, S.A.R.L.
R. Barbosa Rodrigues, 42-1ºDT
Caixa Postal: 6487-Luanda
Tel: 35515 6
Cable: TELETRA Luanda

AUSTRALIA
Hewlett-Packard Australia
Pty. Ltd.
31-41 Joseph Street
Blackburn, Victoria 3130
Tel: 89-6351, 89-6306
Telex: 31-024
Cable: HEWPAKO Melbourne
Hewlett-Packard Australia
Pty. Ltd.
31 Bridge Street
Pymble,
New South Wales, 2073
Tel: 449-6566
Telex: 21561
Cable: HEWPAKO Sydney
Hewlett-Packard Australia
Pty. Ltd.
97 Churchill Road
Prospect 5082
South Australia
Tel: 44 8151
Cable: HEWPAKO Adelaide
Hewlett-Packard Australia
Pty. Ltd.
141 Shirling Highway
Claremont, W.A. 6010
Tel: 86-5455
Telex: 93859
Cable: HEWPAKO
Hewlett-Packard Australia
Pty. Ltd.
121 Wollongong Street
Fyshwick, A.C.T., 2609
Tel: 95 3733
Hewlett-Packard Australia
Pty. Ltd.
5th Floor
Teachers Union Building
495-499 Boundary Street
Spring Hill, 4000 Queensland
Tel: 29-1544
Telex: AA-42133

CEYLON
United Electronics Ltd
P.O. Box 681
60, Park St
Colombo 2
Tel: 26696
Cable: HOTPOINT Colombo

CYPRUS
Kyprionics
19 Gregorios & Xenopoulos Rd.
P.O. Box 1152
CY-Nicosia
Tel: 45628/29
Cable: KYPRONICS PANOEHIS

HONG KONG
Schmidt & Co. (Hong Kong) Ltd.
P.O. Box 297
Connaught Centre
39th Floor
Connaught Road, Central
Hong Kong
Tel: 240168, 232735
Telex: HK4766
Cable: SCHMIDTCO Hong Kong

INDIA
Blue Star Ltd.
Kastun Buildings
Jamsheji Tata Rd
Bombay 400 020
Tel: 29 50 21
Telex: 3751
Cable: BLUEFROST
Blue Star Ltd.
Sahas
414/2 Vir Savarkar Marg
Prabhadewi
Bombay 400 025
Tel: 45 78 87
Telex: 4093
Cable: FROSTBLUE
Blue Star Ltd.
Band Box House
Prabhadewi
Bombay 400 025
Tel: 45 73 01
Telex: 3751
Cable: BLUESTAR
Blue Star Ltd.
141 Shirling Highway
Claremont, W.A. 6010
Tel: 86-5455
Telex: 93859
Cable: HEWPAKO
Hewlett-Packard Australia
Pty. Ltd.
97 Churchill Road
Prospect 5082
South Australia
Tel: 44 8151
Cable: HEWPAKO Adelaide
Hewlett-Packard Australia
Pty. Ltd.
141 Shirling Highway
Claremont, W.A. 6010
Tel: 86-5455
Telex: 93859
Cable: HEWPAKO
Hewlett-Packard Australia
Pty. Ltd.
121 Wollongong Street
Fyshwick, A.C.T., 2609
Tel: 95 3733
Hewlett-Packard Australia
Pty. Ltd.
5th Floor
Teachers Union Building
495-499 Boundary Street
Spring Hill, 4000 Queensland
Tel: 29-1544
Telex: AA-42133

INDONESIA
BERCA Indonesia P.T.
P.O. Box 496
1st Floor J1, Cikini Raya 61
Jakarta
Tel: 56038, 40369, 49886
Telex: 2893 Jakarta

IRAN
Multi Corp International Ltd.
Avenue Soraya 130
P.O. Box 1212
IR-Tehran
Tel: 83 10 35-39
Cable: MULTICORP Tehran
Telex: 2893 mci tn

ISRAEL
Electronics & Engineering
Div. of Motorola Israel Ltd.
17 Aminadav Street
Tel-Aviv
Tel: 36841 (3 lines)
Cable: BASTEL Tel-Aviv
Telex: 33569

JAPAN
Yokogawa-Hewlett-Packard Ltd.
Ohashi Building
1-59-1 Yoyogi
Shibuya-ku, Tokyo
Tel: 03-370-2281/92
Telex: 232-2024YHP
Cable: YHPMARKET TOK 23-724
Yokogawa-Hewlett-Packard Ltd.
Nisei Ibaragi Bldg
2-2-8 Kasuga
Ibaragi-Shi
Osaka
Tel: (0726) 23-1641
Telex: 5332-385 YHP OSAKA
Yokogawa-Hewlett-Packard Ltd.
Nakamo Building
No. 24 Kamisazima-cho
Nakamura-ku, Nagoya City
Tel: (052) 571-5717

Blue Star Ltd.
1-1-117/1
Sarquni Devi Road
Secunderabad 500 003
Tel: 7 63 91, 7 73 93
Cable: BLUEFROST
Telex: 459
Blue Star Ltd.
23/24 Second Line Beach
Madras 600 001
Tel: 23954
Telex: 379
Cable: BLUESTAR
Blue Star Ltd.
Nathraj Mansions
2nd Floor Bistapur
Jammehpur 831 001
Tel: 38 04
Cable: BLUESTAR
Telex: 240

KENYA
Technical Engineering Services
P.O. Box 18311
Nairobi, Kenya
Cable: PROTON

KOREA
American Trading Company
Korea
I.P.O. Box 1103
Oae Kyung Bldg., 8th Floor
107 Sejong-Ro,
Chongro-Ku, Seoul
Tel: (4 lines) 73-8924-7
Cable: AMTRACO Seoul

KUWAIT
Al-Khaldiya Trading &
Contracting Co.
Al Soor Street
Michaan Bldg. No. 4
Kuwait
Tel: 42 99 10
Cable: VISCOUNT

LEBANON
Constantin E. Macnids
Gemmeceus Street 34
P.O. Box 7213
RI-Beirut
Tel: 220846
Telex: 2114 Leb
Cable: ELECTRONUCLEAR Beirut

MALAYSIA
MECOMB Malaysia Ltd.
2 Lorong 13/6A
Section 13
Petaling Jaya, Selangor
Cable: MECOMB Kuala Lumpur

MOZAMBIQUE
A.N. Gonçalves, Lda
162, 1º Apt. 14 Av. D. Luis
Caixa Postal 107
Lourenco Marques
Tel: 27091, 27114
Telex: 6-203 Negon Mo
Cable: NEGON

Yokogawa-Hewlett-Packard Ltd.
Tanigawa Building
2-24-1 Tsuruya-cho
Kanagawa-ku
Yokohama, 221
Tel: 045-312-1252
Telex: 382-3204 YHP YOK
Yokogawa-Hewlett-Packard Ltd.
Mito Mitsui Building
1-4-73 San-no-maru
Mito, 310
Tel: 0292-25-7470
Yokogawa-Hewlett-Packard Ltd.
Inoue Building
1348-3, Asahi-cho, 1-chome
Atsugi, 243
Tel: 0462-24-0452

NEW ZEALAND
(N.Z.) Ltd.
94-96 Dixon Street
P.O. Box 9443
Courtenay Place,
Wellington
Tel: 59 559
Cable: HEWPAK Wellington
Hewlett-Packard (N.Z.) Ltd.
Pakuranga Professional Centre
267 Pakuranga Highway
Box 51092
Pakuranga
Tel: 589-651
Cable: HEWPAK, Auckland
Analytical/Medical Only
Dental & Medical Supply Co. Ltd.
Scientific Division
79 Carlton Gore Road
Newmarket
P.O. Box 1234
Auckland
Tel: 75-289
Cable: DENTAL Auckland

NIGERIA
The Electronics
Instrumentation Ltd.
N68/770 Oyo Road
Oluseun House
P.M.B. 5402
Ibadan
Tel: 22325
Cable: THEITEIL Ibadan
The Electronics Instrumenta-
tions Ltd. (TEIL)
16th Floor Cocoa House
P.M.B. 5402
Ibadan
Tel: 22325
Cable: THEITEIL Ibadan

PAKISTAN
Mushko & Company, Ltd.
Oosman Chambers
Abdullah Haroon Road
Karachi 3
Tel: 511027, 512927
Cable: COOPERATOR Karachi
Mushko & Company, Ltd.
38B, Satellite Town
Rawalpindi
Tel: 41924
Cable: FEMUS Rawalpindi

PHILIPPINES
Electromex, Inc.
5th Floor, Amalgamated
Development Corp. Bldg.
Ayala Avenue, Makati, Rizal
C.P.O. Box 1028
Makati, Rizal
Tel: 86-18-87, 87-76-77
Cable: ELEMEX Manila

SINGAPORE
Mechanical & Combustion
Engineering Company Pte.,
Ltd.
10/12 Jalan Kiang
Redhill Industrial Estate
Singapore 3
Tel: 847151 (7 lines)
Cable: MECOMB Singapore
Hewlett-Packard Singapore
(Pte.) Ltd.
Blok 2, 6th FLOOR, Jalan
Bukit Merah
Redhill Industrial Estate
Alexandra P.O. Box 87,
Singapore 3
Tel: 633022
Telex: HPSG RS 21486
Cable: HEWPAK, Singapore

SOUTH AFRICA
Hewlett-Packard South Africa
(Pty.) Ltd.
Hewlett-Packard House
Daphne Street, Wendywood
Sandton, Transvaal 2001
Tel: 802-1040
Telex: SA43-4782JH
Cable: HEWPAK
Hewlett-Packard South Africa
(Pty.) Ltd.
Breechle House
Bree Street
Cape Town
Tel: 2-6941/2/3
Cable: HEWPAK Cape Town
Telex: 0006 CT
Hewlett-Packard South Africa
(Pty.) Ltd.
641 Ridge Road, Durban
P.O. Box 37099
Overport, Durban, 4067
Tel: 88-0102
Telex: 6-7954

TAIWAN
Hewlett-Packard Taiwan
39 Chung Shao West Road
Sec. 1 Overseas Insurance
Corp. Bldg 7th Floor
Taipei
Tel: 389160/1, 2
Telex: 1PB24 HEWPAK
Cable: HEWPAK Taipei
Hewlett-Packard Taiwan
38, Po-Ai Lane, San Min Chu,
Kaohsiung
Tel: 297319
THAILAND
UNIMESA Co., Ltd.
Elson Research Building
Bangkok Sukhumvit Ave.
Bangkok
Tel: 523287, 930338
Cable: UNIMESA Bangkok

UGANDA
Uganda Tele-Electric Co., Ltd.
P.O. Box 4449
Kampala
Tel: 57279
Cable: COMCO Kampala

VIETNAM
Pennisular Trading Inc
P.O. Box H-3
216 Hien-Vuong
Saigon
Tel: 20-805, 93398
Cable: PENTRA, SAIGON 242

ZAMBIA
R.J. Tibury (Zambia) Ltd.
P.O. Box 2792
Lusaka
Zambia, Central Africa
Tel: 73793
Cable: ARJAYTEE, Lusaka

**MEDITERRANEAN AND
MIDDLE EAST COUNTRIES
NOT SHOWN PLEASE CONTACT:**
Hewlett-Packard S.A.
Mediterranean and Middle
East Operations
35, Kolokotroni Street
Platia Kefallariou
GR-Kifissia-Athens
Telex: 21-6588
Cable: HEWPAKSA Athens

OTHER AREAS NOT LISTED, CONTACT:
Hewlett-Packard
Export Trade Company
3200 Hillview Ave.
Palo Alto, California 94304
Tel: (415) 493-1501
TWX: 910-373-1267
Cable: HEWPAK Palo Alto
Telex: 034-8300, 034-8493



MANUAL PART NO. 12925-90001
MICROFICHE PART NO. 12925-90002

PRINTED IN U.S.A.