

DW08 I/O conversion panel

July 1, 1971

DW08

Digital's DW08 Conversion panel enables any PDP-8/E computer to economically communicate with I/O devices of opposite logic levels. The DW08 contains its own integral power supply and takes up only 5-1/4 inches in height in a standard 19 inch rack.

DW08A

The DW08 Positive-to-Negative Bus Converter accepts the positive I/O bus of a PDP-8/L, PDP-8/I with a KA8/I or PDP-8/e and KA8/E, KD8/E option. Outputs consist of a Negative Bus, as well as a continuation of the Positive Bus. Positive Bus signal levels are defined as high (+3 volts) and low (0 volts); Negative Bus signals are defined as high (0 volts) and low (-3 volts). The name bus denotes a combination of input (received by the computer) and output (sent by the computer) signals.

The Positive Bus (with TTL logic levels of 0 volts and +3 volts) inputs on five M904 cable connectors at locations A01 to A05. The continued positive bus outputs on five M903 or M904 cable connections at locations B01 to B05. Input level conversion produces a high level out (0 volts) for a high level in (+3 volts); and a low level out (-3 volts) for a low level in (0 volts). Certain timing signals used on PDP-8/E computers (BIOP1, BIOP2, BIOP4, BTS3 (1), BTS 1 (1), and B INITIALIZE are clamped and inverted before level conversion. (See Fig. 1)

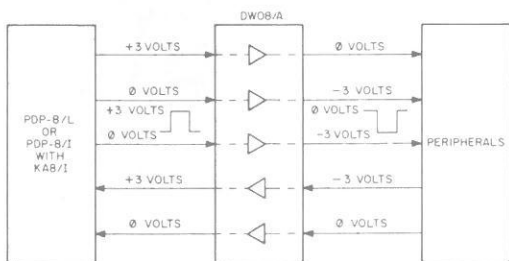


Fig. 1 DW08/A conversion levels

The Negative Bus inputs and outputs on eleven WO11 or WO31 cable connections at location A13 to A23. Input signals to the computer on the Negative Bus are level converted to produce a low level out (0 volts) on the Positive Bus for a high level in (0 volts) and a high level out (+3 volts) for a low level in (-3 volts). (See Fig. 1)

DW08B

The DW08B Negative-to-Positive Bus Converter is for

use on the Negative Bus PDP-8/I only. Negative Bus output levels of 0 volts and -3 volts are converted to +3 volts and 0 volts respectively. Input signals to the computer on the Positive Bus are level converted to produce a low level out (-3 volts) for a high level in (+3 volts) and a high level out (0 volts) for a low level in (0 volts). Certain timing signals used on the PDP-8/I (BIOP1, BIOP2, BIOP4, BTS 3 (1), BTS 1 (1), and B INITIALIZE are clamped and inverted before level conversion. (See Fig. 2)

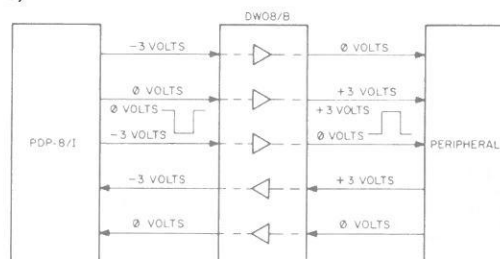


Fig. 2 DW08/B conversion levels

The Negative Bus inputs on eleven WO11 or WO31 cable connectors at locations A01 to A11. The continued Negative Bus outputs on similar cable connectors at locations B01 to B11. The Positive Bus outputs on five M903 or M904 cable connectors at locations A20 to A24.

cable lengths

Delays occur within the DW08A unit due to level conversion, which effects the maximum length of the I/O buses of the PDP-8/I, PDP-8/L or PDP-8/E. The effective I/O cable length consumed by the DW08A is 10 feet, which must be subtracted from the maximum permissible bus lengths from the PDP-8/I, PDP-8/L or PDP-8/E to the farthest device on the converted bus.

specifications

Dimensions:

5 1/4" high for 19" mounting.
A cabinet depth of 15" is required because of the power supply.

AC Input:

120 VAC or 240 VAC $\pm 10\%$,
50 Hz to 60 Hz

Power Consumption:

115 watts

Heat Dissipation:

300 BTU/hour

Weight:

20 lbs.

MAIN OFFICE AND PLANT

146 Main Street, Maynard, Massachusetts, U.S.A. 01754 • Telephone: From Metropolitan Boston: 646-8600 • Elsewhere: (617)-897-5111
TWX: 710-347-0212 Cable: DIGITAL MAYN Telex: 94-8457

UNITED STATES

MID-ATLANTIC — SOUTHEAST (cont.)

ATLANTA
2815 Clearview Place, Suite 100,
Atlanta, Georgia 30340
Telephone: (404)-458-3133/3134/3135 TWX: 810-757-4223

KNOXVILLE
5731 Lyons View Pike, S.W., Knoxville, Tenn. 37919
Telephone: (615)-588-6571 TWX: 810-583-0123

CENTRAL
REGIONAL OFFICE:
1850 Frontage Road, Northbrook, Illinois 60062
Telephone: (312)-498-2500 TWX: 910-686-0655

PITTSBURGH
400 Penn Center Boulevard
Pittsburgh, Pennsylvania 15235
Telephone: (412)-243-9404 TWX: 710-797-3657

CHICAGO
1850 Frontage Road, Northbrook, Illinois 60062
Telephone: (312)-498-2500 TWX: 910-686-0655

ANN ARBOR
230 Huron View Boulevard, Ann Arbor, Michigan 48103
Telephone: (313)-761-1150 TWX: 810-223-6053

INDIANAPOLIS
21 Beachway Drive — Suite G
Indianapolis, Indiana 46224
Telephone: (317)-243-8341 TWX: 810-341-3436

MINNEAPOLIS
Suite 111, 8030 Cedar Avenue South,
Minneapolis, Minnesota 55420
Telephone: (612)-854-6562/3-4-5 TWX: 910-576-2818

CLEVELAND
Park Hill Bldg., 35104 Euclid Ave.
Willoughby, Ohio 44094
Telephone: (216)-946-8484 TWX: 810-427-2608

ST. LOUIS
Suite 110, 115 Progress Pky., Maryland Heights,
Missouri 63043
Telephone: (314)-872-7520 TWX: 910-764-0831

DAYTON
3101 Kettering Blvd., Dayton, Ohio 45439
Telephone: (513)-299-7377 TWX: 810-459-1676

MILWAUKEE
Suite 107, 2825 N. Mayfair Rd., Milwaukee, Wis. 53222
Telephone: (414)-453-3400 TWX: 910-262-1199

DALLAS
8855 North Stemmons Freeway
Dallas, Texas 75247
Telephone: (214)-638-4880 TWX: 910-861-4000

INTERNATIONAL

GERMANY

Digital Equipment GmbH
MUNICH
8 Muenchen 13, Wallensteinplatz 2
Telephone: 0811-35031 Telex: 524-226

COLOGNE
5 Koeln, Bismarckstrasse 7,
Telephone: 0221-522181 Telex: 888-2269
Telegram: Flip Chip Koeln

FRANKFURT
6078 Neu-Isenburg 2
Am Forsthaus Gravenbruch 5-7
Telephone: 06102-5526 Telex: 41-76-82

HANNOVER
3 Hannover, Podbielskistrasse 102
Telephone: 0511-69-70-95 Telex: 922-952

ENGLAND
Digital Equipment Co., Ltd.
U.K. HEADQUARTERS

Arkwright Road, Reading, Berks.
Telephone: 0734-583555 Telex: 84327

READING
The Evening Post Building, Tessa Road
Reading, Berks.

BIRMINGHAM
29/31, Birmingham Road, Sutton Coldfield, Warwicks.

MANCHESTER
13 Upper Precinct, Walkden, Manchester
Manchester, England M25AZ
Telephone: 061-790-8411 Telex: 668666

LONDON
Bilton House, Uxbridge Road, Ealing, London W.5.
Telephone: 01-579-2334 Telex: 22371

NETHERLANDS

THE HAGUE
Digital Equipment N.V.
Sir Winston Churchilllaan 370
Rijswijk/The Hague, Netherlands
Telephone: 070-995-160 Telex: 32533

BELGIUM
BRUSSELS
Digital Equipment N.V./S.A.
108 Rue D'Arlon
1040 Brussels, Belgium
Telephone: 02-139256 Telex: 25297

SWEDEN
Digital Equipment Aktiefbolag

STOCKHOLM
Vretenvagen 2, S-171 54 Solna, Sweden
Telephone: 98 13 90 Telex: 170 50
Cable: Digital Stockholm

CENTRAL (cont.)

HOUSTON
3417 Milam Street, Suite A, Houston, Texas 77002
Telephone: (713)-524-2961 TWX: 910-881-1651

WEST

REGIONAL OFFICE
Western Regional Office
1400 Terra Bella
Mountain View, California 94040
Telephone: (415)-964-6200 TWX: 910-373-1266

ANAHEIM
801 E. Ball Road, Anaheim, California 92805
Telephone: (714)-776-6932/8730 TWX: 910-591-1189

WEST LOS ANGELES
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Telephone: (213)-479-3791/4318 TWX: 910-342-6999

SAN DIEGO
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SAN FRANCISCO
1400 Terra Bella
Mountain View, California 94040
Telephone: (415)-964-6200 TWX: 910-373-1266

OAKLAND
7850 Edgeware Drive
Oakland, California 94621
Telephone: (415)-635-5453/7830 TWX: 910-366-7238

ALBUQUERQUE
6303 Indian School Road, N.E.
Albuquerque, N.M. 87110
Telephone: (505)-296-5411/5428 TWX: 910-989-0614

DENVER
2305 South Colorado Blvd., Suite #5
Denver, Colorado 80222
Telephone: (303)-757-3332/758-1656/758-1659
TWX: 910-931-2650

SEATTLE
1521 130th N.E., Bellevue, Washington 98005
Telephone: (206)-454-4058/455-5404 TWX: 910-443-2306

SALT LAKE CITY
431 South 3rd East, Salt Lake City, Utah 84111
Telephone: (801)-328-9838 TWX: 910-925-5834

PHOENIX
307 E. Southern Ave., Tempe, Arizona 85281
Telephone: (602)-967-1618 TWX: 910-950-4691

PORTLAND
13015 Southwest Pacific Highway, Tigard, Ore. 97223
Telephone: (503)-639-8632/8864 TWX: 910-458-8792

SWITZERLAND

Digital Equipment Corporation S.A.
GENEVA
81 Route De L'Aire
1211 Geneva 26, Switzerland
Telephone: 42 79 50 Telex: 22 683

ZURICH
Digital Equipment Corporation SA
Scheuchzerstrasse 21
8006 Zurich, Switzerland
Telephone: 01-367623 Telex: 56059

ITALY

Digital Equipment S.p.A.
MILAN
Corso Garibaldi 49, 20121 Milano, Italy
Telephone: 872 748 694 394 Telex: 33615

AUSTRALIA

Digital Equipment Australia Pty. Ltd.
SYDNEY
75 Alexander St., Crows Nest, N.S.W. 2065, Australia
Telephone: 439-2566 Telex: AA20740
Cable: Digital, Sydney

MELBOURNE
60 Park Street, South Melbourne, Victoria, 3205
Telephone: 69-6142 Telex: AA30700

WESTERN AUSTRALIA
643 Murray Street
West Perth, Western Australia 6005
Telephone: 21-4993 Telex: AA92140

BRISBANE
139 Merivale Street, South Brisbane
Queensland, Australia 4101
Telephone: 44047 Telex: AA40616

PHILIPPINES

Stanford Computer Corporation
P.O. Box 1608
416 Dasmarias St., Manila
Telephone: 49-68-96 Telex: 742-0352

JAPAN

TOKYO
Rikel Trading Co., Ltd. (sales only)
Kozato-Kaikan Bldg.
No. 18-14, Nishishimbashi 1-chome
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Digital Equipment Corporation International
Kowa Building No. 17, Second Floor
2-7 Nishi-Azabu 1-Chome
Minato-Ku, Tokyo, Japan
Telephone: 404-5894/6 Telex: TK-6428

NORTHEAST

REGIONAL OFFICE
15 Lunda Street, Waltham, Massachusetts 02154
Telephone: (617)-891-1030/1033 TWX: 710-324-6919

WALTHAM
15 Lunda Street, Waltham, Massachusetts 02154
Telephone: (617)-891-6310/6315 TWX: 710-324-6919

CAMBRIDGE/BOSTON
899 Main Street, Cambridge, Massachusetts 02139
Telephone: (617)-491-6130 TWX: 710-320-1167

ROCHESTER
130 Allens Creek Road, Rochester, New York 14618
Telephone: (716)-461-1700 TWX: 710-599-3211

CONNECTICUT
1 Prestige Drive, Meriden, Conn. 06450
Telephone: (203)-237-8441/7466 TWX: 710-461-0054

MID-ATLANTIC — SOUTHEAST

REGIONAL OFFICE:
U.S. Route 1, Princeton, New Jersey 08540
Telephone: (609)-452-2940 TWX: 510-685-2338

NEW YORK
95 Cedar Lane, Englewood, New Jersey 07631
Telephone: (201)-871-4984, (212)-594-6955, (212)-736-0447
TWX: 710-991-9721

NEW JERSEY
1259 Route 46, Parsippany, New Jersey 07054
Telephone: (201)-335-3300 TWX: 710-987-8319

PRINCETON
U.S. Route 1
Princeton, New Jersey 08540
Telephone: (609)-452-2940 TWX: 510-685-2338

LONG ISLAND
1919 Middle Country Road
Centerach, L.I., New York 11720
Telephone: (516)-585-5410/5413 TWX: 510-228-6505

PHILADELPHIA
Station Square Three, Paoli, Pennsylvania 19301
Telephone: (215)-647-4900/4410 Telex: 510-668-8395

WASHINGTON
Executive Building
6811 Kenilworth Ave., Riverdale, Maryland 20840
Telephone: (301)-779-1600/752-8797 TWX: 710-826-9662

DURHAM/CHAPEL HILL
2704 Chapel Hill Boulevard
Durham, North Carolina 27707
Telephone: (919)-489-3347 TWX: 510-927-0912

ORLANDO
Suite 232, 6990 Lake Ellenor Drive, Orlando, Fla. 32809
Telephone: (305)-851-4450 TWX: 810-850-0180

CANADA

Digital Equipment of Canada, Ltd.
CANADIAN HEADQUARTERS
150 Rosamond Street, Carleton Place, Ontario
Telephone: (613)-257-2615 TWX: 610-561-1651

OTTAWA
120 Holland Street, Ottawa 3, Ontario
Telephone: (613)-725-2193 TWX: 610-562-8907

TORONTO
230 Lakeshore Road East, Port Credit, Ontario
Telephone: (416)-278-6111 TWX: 610-492-4306

MONTREAL
9675 Cote de Liesse Road
Dorval, Quebec, Canada 760
Telephone: 514-636-9393 TWX: 610-422-4124

EDMONTON
5531 - 103 Street
Edmonton, Alberta, Canada
Telephone: (403)-434-9333 TWX: 610-831-2248

VANCOUVER
Digital Equipment of Canada, Ltd.
2210 West 12th Avenue
Vancouver 9, British Columbia, Canada
Telephone: (604)-736-5616 TWX: 610-929-2006

ARGENTINA

BUENOS AIRES
Coasin S.A.
Virrey del Pino 4071, Buenos Aires
Telephone: 52-3185 Telex: 012-2284

VENEZUELA

CARACAS
Coasin S.A. (Sales only)
Apartado 50939
Salana Grande No. 1, Caracas
Telephone: 72-9637 Cable: INSTRUVEN

CHILE

SANTIAGO
Coasin Chile Ltda. (sales only)
Casilla 14588, Correo 15, Santiago
Telephone: 396713 Cable: COACHIL

EUROPEAN HEADQUARTERS

Digital Equipment Corporation International-Europe
81 Route De L'Aire
1211 Geneva 26, Switzerland
Telephone: 42 79 50 Telex: 22 683

FRANCE

Equipment Digital S.A.R.L.
PARIS
327 Rue de Charenton, 75 Paris 12 ME, France
Telephone: 344-76-07 Telex: 21339