CRAY T3D™ Multiple-cabinet Air-cooled Document Map, Bibliography, and Index

HR-04073

Cray Research, Inc.

Record of Revision

REVISION DESCRIPTION

April 1994. Original printing.

Copyright © 1994 by Cray Research, Inc. This manual or parts thereof may not be reproduced in any form unless permitted by contract or by written permission of Cray Research, Inc.

Autotasking, CF77, CRAY, Cray Ada, CRAY Y-MP, CRAY-1, HSX, SSD, UniChem, UNICOS, and X-MP EA are federally registered trademarks and CCI, CFT, CFT2, CFT77, COS, CRAY APP, CRAY C90, CRAY C90D, Cray C++ Compiling System, CRAY EL, Cray NQS, CRAY S-MP, CRAY T3D, CRAY X-MP, CRAY XMS, CRAY-2, Cray/REELlibrarian, CRInform, CRI/*Turbo*Kiva, CSIM, CVT, Delivering the power . . ., DGauss, Docview, EMDS, IOS, ND Series Network Disk Array, Network Queuing Environment, Network Queuing Tools, OLNET, RQS, SEGLDR, SMARTE, SUPERCLUSTER, SUPERLINK, Trusted UNICOS, and UNICOS MAX are trademarks of Cray Research, Inc.

Fluorinert is a trademark of 3M. NetBlazer and Telebit are trademarks of the Telebit Corporation.

Requests for copies of Cray Research, Inc. publications should be directed to:

CRAY RESEARCH, INC. Distribution 2360 Pilot Knob Road Mendota Heights, MN 55120 800-284-2729 extension 35907

Comments about this publication should be directed to:

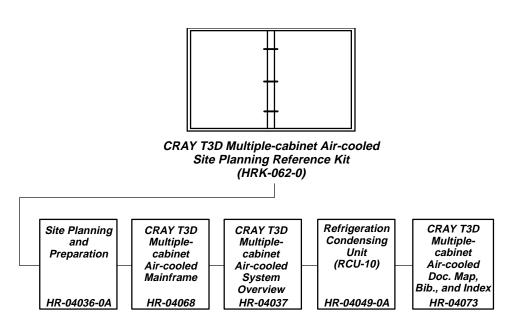
CRAY RESEARCH, INC. Hardware Publications and Training 890 Industrial Blvd. Chippewa Falls, WI 54729

DOCUMENT MAPS

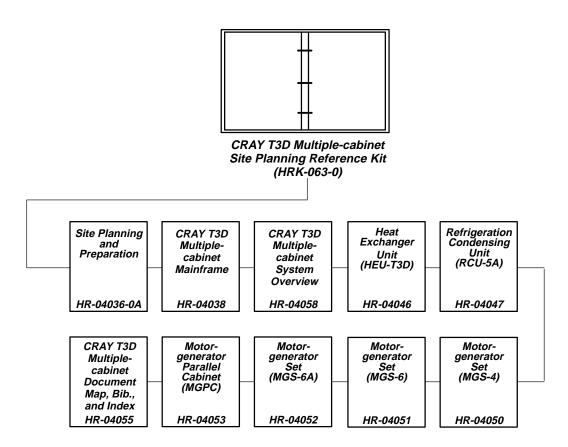
This *CRAY T3D Multiple-cabinet Air-cooled Site Planning Reference Kit* is composed of several individual packets (modules) of site planning information. Modularization provides the following advantages to Cray Research and to the Cray Research customer.

- Provides product-specific information to the customer sooner
- Provides the ability to customize books according to site configurations
- Avoids duplication of information and the necessity of updating entire books
- Reduces resources and time required to produce the documentation

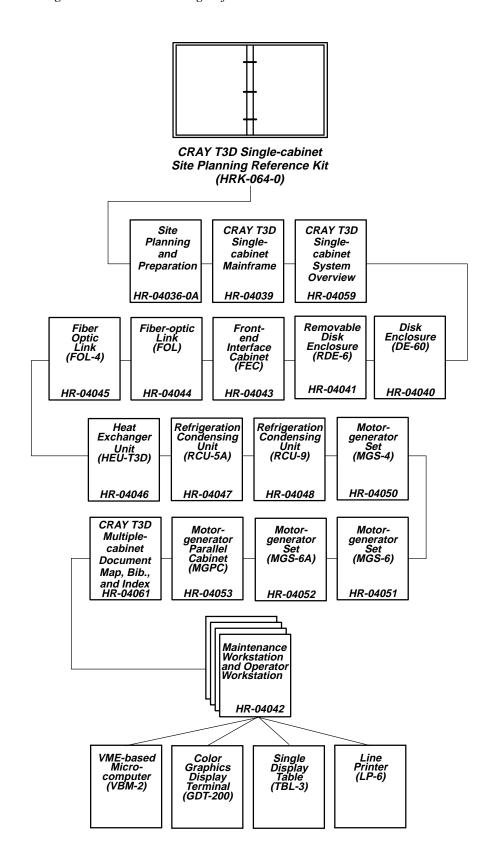
The following diagram illustrates the contents of the CRAY T3D Multiple-cabinet Air-cooled Site Planning Reference Kit.



Cray Research also supplies site planning reference kits for CRAY T3D multiple-cabinet systems and for the CRAY T3D single-cabinet systems. The following diagram illustrates the contents of the *CRAY T3D Multiple-cabinet Site Planning Reference Kit*.



The following diagram illustrates the contents of the *CRAY T3D* Single-cabinet Site Planning Reference Kit.



BIBLIOGRAPHY

Cray Research, Inc. Customer Publications

Submit orders for Cray Research, Inc. publications to the following address, or telephone 800-284-2729, extension 35907.

Cray Research, Inc.
Distribution
2360 Pilot Knob Road
Mendota Heights, MN 55120

e-mail address: orderdsk@cray.com

Principles of Computer Room Design, Cray Research publication number HR-04013.

This manual describes computer room design principles to help computer room facility managers prepare, inspect, and maintain a stable, problem-free environment. Information on computer room and raised-floor construction, system cooling, environmental control, fire and lightning protection, power, and grounding is also discussed.

Safe Use and Handling of Fluorinert Liquids, Cray Research publication number HR-00306.

This manual is written for Cray Research, Inc. customers and field engineers whose Cray Research computer systems use Fluorinert liquid. This manual also describes the Material Safety Data Sheets (MSDS) and explains the significance of using Fluorinert liquid or any other chemical.

Cray Research, Inc. Site Engineering Documents

Submit orders for Cray Research, Inc. Site Engineering documents to the following address, or telephone 800-284-2729, extension 62820.

Cray Research, Inc. Site Engineering 1620 Olson Drive Chippewa Falls, WI 54729

e-mail address: cfsite@cray.com

Equipment Grounding for Cray Research, Inc. Computer Systems, Site Engineering document number 10658002.

This document describes the equipment grounding requirements for Cray Research computer equipment.

Forklift Size Requirements for the Handling of Cray Research Equipment, Site Engineering document number 10658374.

This document provides forklift requirements and recommendations for the safe handling of Cray Research computer equipment.

Refrigeration Piping and Component Installation Requirements, Site Engineering document number 10650228.

This document describes the installation and component requirements for Cray Research refrigerant-cooled computer systems.

Vibration and Shock Limits for Installed Computer Systems, Site Engineering document number 10658300.

This document identifies the limits of vibration and shock levels an installed Cray Research computer system can tolerate.

Water Quality Requirements, Site Engineering document number 10658280.

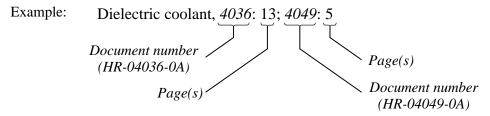
This document identifies the cooling water quality requirements for a Cray Research computer system.

INDEX

This index refers to the following modular documents:

HR-04036-0A, Site Planning and Preparation
HR-04037, CRAY T3D Multiple-cabinet Air-cooled System Overview
HR-04049-0A, Refrigeration Condensing Unit (RCU-10)
HR-04068, CRAY T3D Multiple-cabinet Air-cooled Mainframe

The italicized four-digit numbers (40xx) designate the documents that contain the referenced information.



Α

Access
loading dock, 4037: 2
route, 4037: 2–3
site requirements, 4036: 4–5
Air quality
computer room, 4036: 11
and site evaluation, 4036: 4
support equipment room, 4036: 11
Air-cooled system. See Cooling systems and site planning; Cooling unit

C

Cable length restriction, 4037: 4–5. See also Specifications
Checklist, site readiness, 4037: 10–12
Circuit breakers, 4037: 6–8
Computer room. See also Floor design, 4036: 5
equipment placement, 4036: 14

Configuration. See also Shipping configuration RCU-10, 4049: 5 system, 4037: 4-5 Cooling systems and site planning, 4037: 9 Cooling unit, 4049: 2–6 chassis illustrated, 4049: 3 connectors (couplings), 4037: 9 operating modes, 4049: 6 power, 4037: 3 power wiring specifications, 4037: 8 shipping configuration, 4049: 4 specifications, 4049: 2 Cooling water and site evaluation, 4036: 4 supply, 4036: 13–14; 4037: 9 Cutouts. See Floor: cutouts

D

Delivery, system and support equipment, 4036: 2–3. See also Loading docks Dewpoint, computer room, 4036: 11 Dielectric coolant, 4036: 13; 4049: 5. See also Floor

E

Electrical requirements. *See* Power Electrostatic discharge (ESD), *4036*: 12 Environment computer room, *4036*: 10–11 support equipment room, *4036*: 11

F

Floor

cutouts, 4036: 15; 4068: 6–9 loading, access requirements, 4037: 2 plans, 4036: 14–15; 4068: 4, 7–9 preparation, MFC, 4068: 6–9 raised, computer room, 4068: 6–9 static dissipation, 4036: 15 Flow rate, cooling water, 4036: 14; 4037: 9 Fluorinert liquid. See Dielectric coolant Frequency. See Power Furniture, office, 4036: 6, 7

G

Grounding equipment, 4036: 12

Н

Hose, routing. *See* Floor Humidity computer room, *4036*: 10 support equipment room, *4036*: 11

ı

Installation overview, 4036: 2–3

L

Lines. *See* Floor Loading docks, *4036*: 4–5; *4037*: 2

M

Mainframe. See MFC
Meetings, site planning, 4036: 2
MFC, 4068: 2–3. See also Floor
illustrated, 4068: 3
power, 4037: 3
power wiring specifications, 4037: 8
shipping configuration, 4068: 5
specifications, 4068: 2
Modem, 4036: 7–10
specifications, 4036: 8
Modes, cooling unit operating, 4049: 6

N

NetBlazer, 4036: 9-10

C

Office requirements, 4036: 5–7

P

Pedestals, floor, 4068: 6
Power, 4037: 3–4. See also Specifications cooling unit, 4037: 3
fluctuations, 4037: 3
mainframe, 4037: 3
and site evaluation, 4036: 4
wiring, 4037: 6–8
Pressure
cooling water, 4037: 9
drop values, 4036: 14
release valves, 4049: 5
relief vent line, 4037: 9

R

Raised floor. *See* Floor RCU-10. *See* Cooling unit Refrigerant. *See* Dielectric coolant Repair shop requirements, *4036*: 6–7

S

Safety-ground system, 4036: 12 Separation limits, equipment, 4036: 14; *4037*: 4–5 Shipping configuration. See also **Specifications** cooling unit, 4049: 4 MFC, 4068: 5 Signal reference grid, 4036: 12 Site access. See Access Software installation, 4036: 3 **Specifications** cooling unit, 4049: 2 environmental, 4036: 10-11 MFC, 4068: 2 modem, 4036: 8 NetBlazer, 4036: 10 power wiring, 4037: 8 raised floor, 4068: 6-9

telephone, 4036: 8 Static dissipation, 4036: 12

Т

Telebit NetBlazer, 4036: 9–10
Telephone. See Modem
Temperature
computer room, 4036: 10
cooling water, 4036: 14; 4037: 9
support equipment room, 4036: 11
Tests, post-installation, 4036: 3

V

Valves, pressure-relief (RCU-10), 4049: 5 Vibration damage, 4037: 3 and site evaluation, 4036: 4 Voltage. See Power; Specifications

W

Water-cooled system. See Cooling systems and site planning; Cooling unit Wiring. See Power: wiring