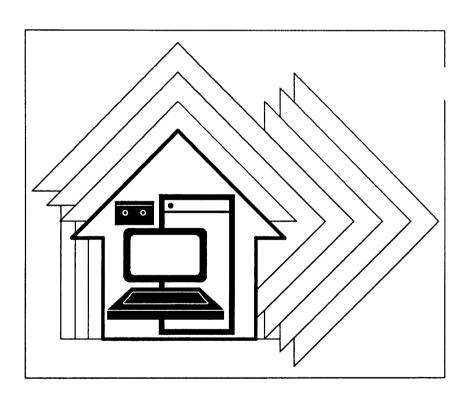
•		
	TERMINAL/PRINTER	
	INFORMATION	
	HALL THE TOTAL CONTROL OF THE TOTAL CONTROL OT THE TOTAL CONTROL OF THE	





TERMINAL/PRINTER INFORMATION

NOTICE TO U.S.A. USERS: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

NOTICE TO CANADIAN USERS: This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioéléctriques dépassant les limites applicables aux appareils numériques de la classe A préscrites dans le Réglement sur le brouillage radioéléctrique édicté par le ministere des Communications du Canada.

MANUAL REVISION HISTORY

Terminal/Printer Information (2557939-0001)

Original Issue	December	1988
Revision A	. February	1990
Revision B	August	1990

Copyright © 1988, 1990, Texas Instruments Incorporated. All Rights Reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Texas Instruments Incorporated.

RESTRICTED RIGHTS LEGEND

Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subdivision (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at 252.227-7013.

Texas Instruments Incorporated ATTN: Information Technology, M/S 2151 P.O. Box 149149 Austin, Texas 78714-9149

> Produced by the Publishing Center Texas Instruments Incorporated Information Technology Group Austin, Texas

ABOUT THIS MANUAL

Purpose

This manual provides setup data for Texas Instruments terminals and printers when used with Texas Instruments System 1000 Series, System 1500 computer systems. This manual supplements the installation and operation manuals provided with the individual terminals and printers.

Contents of This Manual

This manual contains information organized as follows:

Title Contents

Video Display Terminals

Section 1, VDT Information

Printers

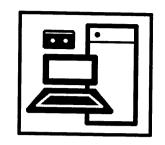
Section 1, Dot Matrix Printers Section 2, Laser Printers

References

The following documents are listed for reference information:

Title	TI Part Number
Introduction	2555463-0001
System Operation	2557949-0001
Computer System Site Preparation	2558023-0001
System Maintenance Terminal Operating Parameters	2558022-0001
Computer Enclosure Installation and Operation	2557942-0001
Peripheral Enclosure Installation and Operation	2557943-0001
System Board Installation and Operation	2557941-0001
Mass Storage Unit (MSU IIA) Installation and Operation	2557935-0001
WD1200 Disk Drive Installation and Operation	2557944-0001
Terminal Concentrator Installation and Operation	2557938-0001
Terminal/Printer Information	2557939-0001
Installation and Operation Appendixes	2557946-0001
DB380 Disk Drive Field Maintenance Supplement	2557953-0001
DB760 Disk Drive Field Maintenance Supplement	2555402-0001
CT150 Tape Drive Field Maintenance Supplement	2558007-0001
CT2000 Tape Drive Field Maintenance Supplement	2557951-0001
WD1200 Disk Drive Field Maintenance Supplement	2557952-0001

Title	TI Part Number
Computer Enclosure/Peripheral Enclosure Field Maintenance Supplement	2557961-0001
68030 Symmetric Processor Field Maintenance Supplement	2558002-0001
16/32-Megabyte Data Buffer Board Field Maintenance Supplement	2558003-0001
NUPI-2 Board Field Maintenance Supplement	2564103-0001
NuBus Systems System 1500 Field Maintenance Handbook	2549258-0001



VIDEO DISPLAY TERMINALS

CONTENTS

	Paragraph	Title	Page
1		VDT Information	
_	1.1	Introduction	1 1
	1.2	Receiving Your Equipment	1-1 1-2
	1.3	Unpacking and Inventory	1-2
	1.4	Communications Interfaces	1-2
	1.5	Reference Information	1-3
	1.6	Cabling Information	1-6
	1.7	Setup as a Data I/O Terminal	1-16
	1.8	Setup as the SMT	1-18
	Figure	Title	Page
TO!	4 4		
Figures	1-1	Typical Video Display Terminal	1-1
	1-2	Rear View of the 924 VDT	1-4
	1-3	Rear View of the 928 VDT	1-4
	1-4	Rear View of the 931 VDT	1-5
	1-5	Rear View of the 955 Workstation	1-5
	1-6	Typical VDT Cabling	1-6
	1-7	Model 924 VDT Cable Configurations (25-Pin Female	
	1.0	EIA Connector)	1-7
	1-8	Model 931 VDT Cable Configurations (25-Pin Female	
	4.0	EIA Connector)	1-8
	1-9	Model 928 and 955 Workstation Cable Configurations	
	4 40	(25-Pin Male EIA Connector)	1-9
	1-10	Model 928 VDT Cable Configurations (6-Pin MMJ Connector)	1-10
	1-11	Modem Cable Configurations (25-Pin Female EIA Connector)	1-11
	1-12	Typical VDT Setup Display (Model 924 Shown)	1-16
	Table	Title	Page
75. L.I.			
Tables	1-1	VDT Cable Configurations	1-12
	1-2	VDT Cables and Adapters	1-15
	1-3	VDT Default Setup Parameters for Data I/O Terminal	1-17
	1-4	VDT Default Setup Parameters for SMT Operation	1_12

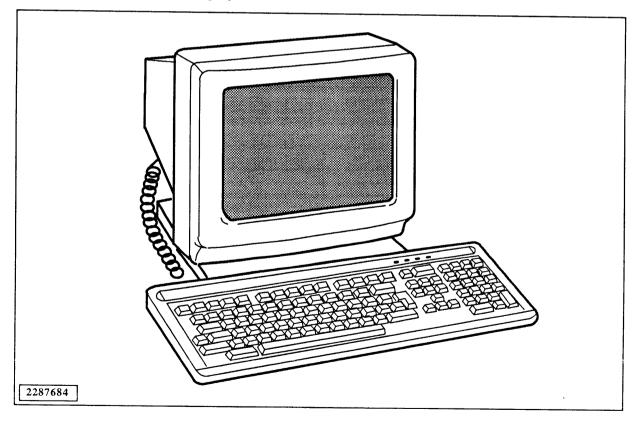
VDT INFORMATION

Introduction

1.1 This section provides installation and operation information for the video display terminals (VDTs) and modems used in the System 1500 and System 1505 type computer systems. These computers are members of the System 1000 Series of multiuser computer systems. A typical VDT is shown in Figure 1-1. This section is arranged under the following topics:

- Receiving your equipment
- Unpacking and inventory
- Communications interfaces
- Cabling the VDTs and modems
- VDT setup as a data I/O terminal
- VDT setup as the system maintenance terminal (SMT)

Figure 1-1 Typical Video Display Terminal



The VDT (used as a data I/O terminal) accepts and displays commands and data. The VDT (used as the SMT) monitors system self-tests, controls and monitors extended self-tests and diagnostics, and is the system boot terminal. This section provides cabling information for modems, the Models 924, 928, 931 VDTs, and the 955 workstation. Brief setup instructions are also provided for the VDTs.

Receiving Your Equipment

- 1.2 Before unpacking your VDT, perform the following steps:
- 1. Make sure that the driver has signed the delivery receipt before leaving your site. You need to retain the container, packing materials, and delivery receipt in the event of concealed damage or shortage.
- Visually inspect the shipping container for damage. If the shipping container is damaged, contact the carrier agent for instructions on filing a claim. The carrier, not Texas Instruments, is responsible for damage during shipment.
- 3. If the shipping container has significant damage, stop unpacking the system and contact the carrier agent. After the carrier agent inspects the damage, contact the Texas Instruments Field Service office to resolve all problems relating to damage before proceeding with the installation.
- 4. Note any problems, damage, or shortages that you discover on the delivery receipt or bill of lading.

Unpacking and Inventory

1.3 Texas Instruments VDTs are shipped in cardboard cartons with internal cushions to protect against mechanical shock. You will need a knife to cut the sealing tape on the carton. Open the top of the carton and remove the VDT instruction manual. Follow the unpacking instructions in the manual to finish unpacking the VDT.

Once you have unpacked the VDT and verified that there are no concealed damages, add the terminal description and part number to the system inventory sheets.

Communications Interfaces

- 1.4 The VDTs and modems can be connected to the system computers through any of the following input/output devices:
- Network terminal concentrators (NTC)
- Multidrop terminal concentrators (MTC)
- Eight-channel asynchronous option, adapter, and connector strip
- Eight-channel asynchronous option with modified modular jack (MMJ) connectors
- Four-channel asynchronous option and adapter
- Software protect adapter (SPA) when the VDT serves as the SMT
 - Local SMT (directly-connected) at 9600 bps
 - Remote SMT (via modems and telephone link) at 1200 bps

The system computer host communication ports support full-duplex, asynchronous serial transmission of ASCII data. The host communication ports conform to the EIA RS-232 and/or RS-423 standards. Data transmission rates can be set over a wide range, with 19,200 bps as the standard rate for use as a data I/O terminal. Hardware connections from the host to VDT use either RS-232 25-pin D connectors or 6-pin MMJ connectors.

VDT devices provided by Texas Instruments conform to ANSI X3.64-1979, American National Standard Additional Controls for Use with American National Standard Code for Information Interchange.

An auxiliary printer port on the VDTs uses an interface that is specific to the VDT. Refer to the VDT instruction manuals and to the printer information to determine how to set up the auxiliary port.

Reference Information

- 1.5 Refer to the documents listed below for more information on the installation and operation of the VDTs covered in this section. The rear view of each VDT is shown for reference in the associated illustrations.
- Model 924 Video Display Terminal User's Guide, TI part number 2544365-0001, (rear view shown in Figure 1-2)
- Model 928 Video Display Terminal User's Guide, TI part number 2561031-0001, (rear view shown in Figure 1-3)
- Model 931 Video Display Terminal General Description, TI part number 2229228-0001, (rear view shown in Figure 1-4)
- Model 955 Workstation User's Guide, TI part number 2552476-0001, (rear view shown in Figure 1-5)
- Terminal Concentrator Installation and Operation, TI part number 2557938-0001
- System Board Installation and Operation, TI part number 2557941-0001
- System 1505 Computer Installation and Operation, TI part number 2564903-0001

NOTE: The 928 VDT has two MMJ connector ports. The port selected for connection to the host computer is determined by the Host Port selection made during the Global Setup Menu of the 928 VDT. Port 1 is normally selected as the host computer port.

Figure 1-2

Rear View of the 924 VDT

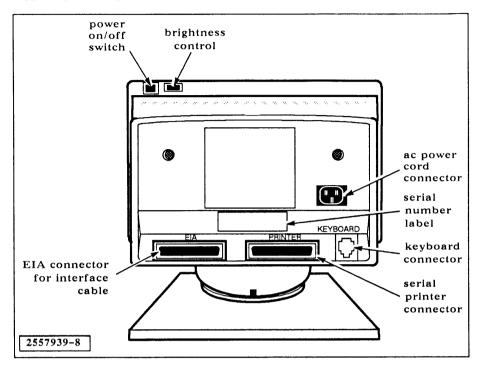


Figure 1-3

Rear View of the 928 VDT

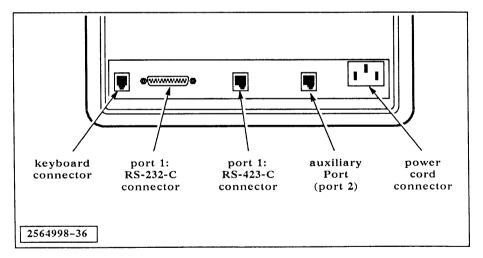


Figure 1-4

Rear View of the 931 VDT

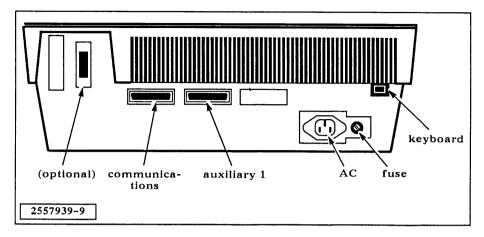
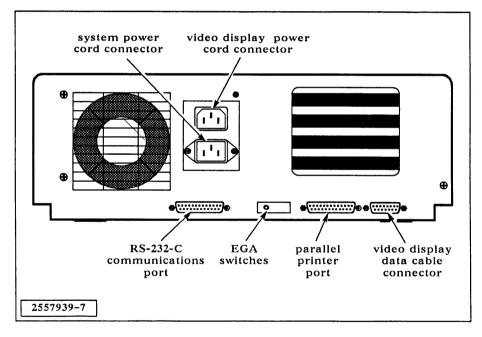


Figure 1-5

Rear View of the 955 Workstation



Cabling Information

- **1.6** Figure 1-6 shows a typical VDT cabling example. Detailed cable configurations are shown in the following illustrations:
- Figure 1-7, Model 924 VDT cable configurations (25-pin female EIA connector)
- Figure 1-8 Model 931 VDT cable configurations (25-pin female EIA connector)
- Figure 1-9, Models 928 VDT and 955 workstation cable configurations (25-pin male EIA connector)
- Figure 1-10, Model 928 VDT cable configurations (6-pin MMJ connector)
- Figure 1-11, Modem cable configurations (25-pin female EIA connector)

Table 1-1 provides configuration descriptions that are keyed to the individual cable configurations in the above illustrations.

NOTE: In this manual, the terms single-board computers (SBC) and multi-board computers (MBC) are used. SBC refers to System 1505 type computer chassis that do not have a backplane. MBC refers to computer chassis, such as the 7-slot and 16-slot type computer chassis, that have a backplane.

Figure 1-6 Typical VDT Cabling

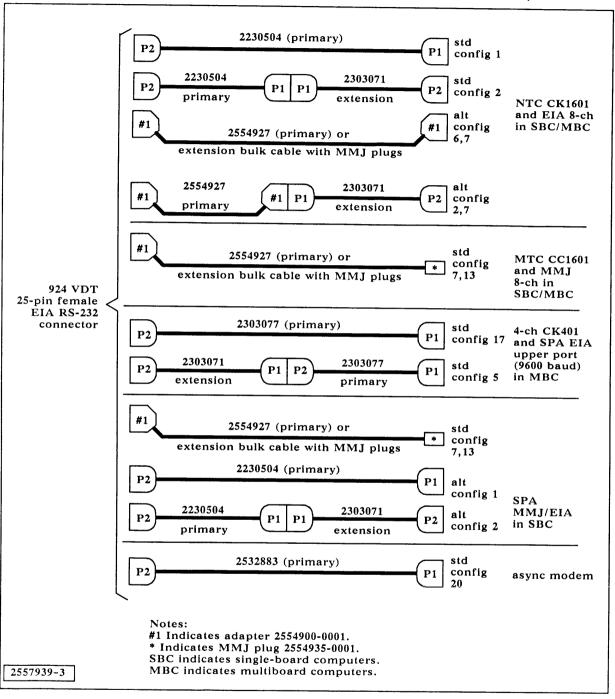


Figure 1-7 Model 924 VDT Cable Configurations (25-Pin Female EIA Connector)

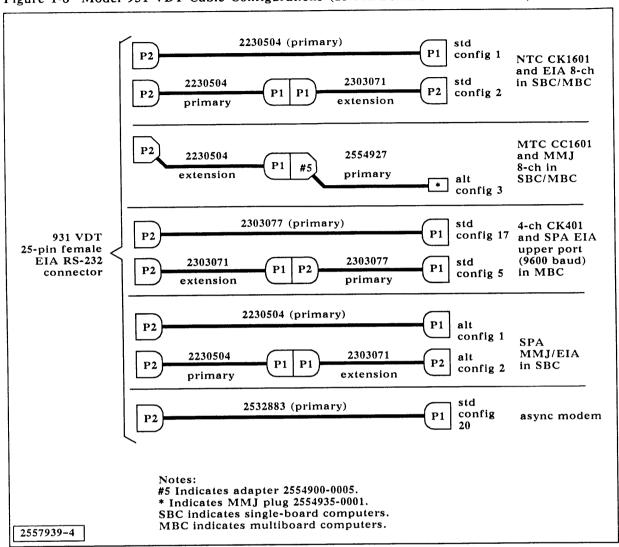


Figure 1-8 Model 931 VDT Cable Configurations (25-Pin Female EIA Connector)

Installation and Operation

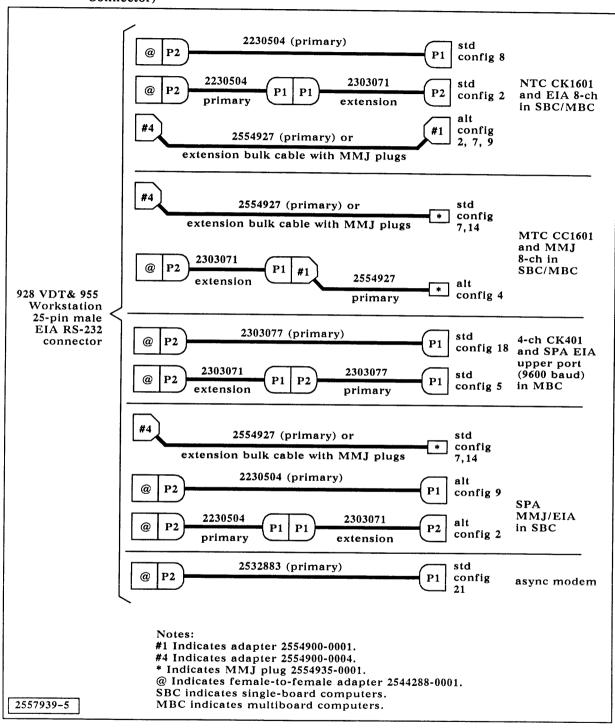


Figure 1-9 Model 928 VDT and 955 Workstation Cable Configurations (25-Pin Male EIA Connector)

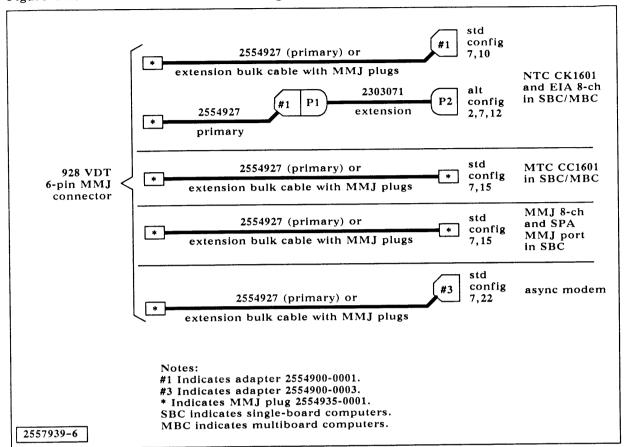


Figure 1-10 Model 928 VDT Cable Configurations (6-Pin MMJ Connector)

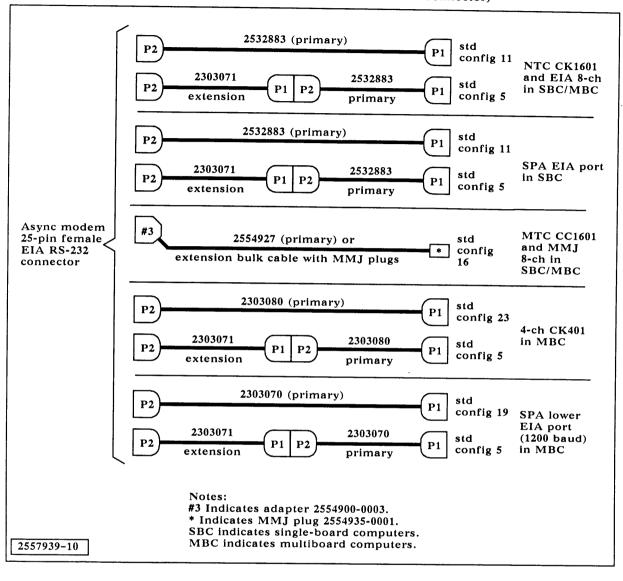


Figure 1-11 Modem Cable Configurations (25-Pin Female EIA Connector)

Table 1-1 describes the configuration of interface cables and adapters required to connect the VDTs to the host communication ports directly or through asynchronous EIA modems. The configuration numbers in the table identify cable combinations that use both standard and alternate combinations of cables and adapters.

In the case where both the host port and the VDT port have 25-pin EIA RS-232 connectors, the standard configuration uses cables with 25-pin EIA RS-232 connectors. When both the host port and the VDT have 6-pin RS-423 (MMJ) connectors, the standard configuration specifies cables with 6-pin RS-423 connectors.

The standard configuration specifies the optimum adapters and cables required to match the types of connectors on the host and VDT when the host and VDT have different type connectors.

The alternate cable configurations take advantage of the interchangability of RS-232 and RS-423 in complex environments where existing cables may be present, or existing VDTs are being connected to a new system. The alternate configuration may specify adapters which convert RS-232 connectors to RS-423 connectors so that the primary cable could be RS-423. In some installations, the RS-423 cable may be improper or may not meet certain building codes for routing through ceilings or walls. In this case, the alternate extension cable configuration specifies a mixture of both shielded RS-232 cables and RS-423 cables which can be used to meet these special requirements.

The 4-channel adapter and the MBC SPA have RS-232 ports implemented with 18-pin shielded connectors. Cables for both standard and alternate types use the same host cable. There is no standard configuration to connect a 6-pin RS-423 VDT to these ports.

The 928 VDT and the SBC SPA provide both RS-232 and RS-423 connectors. When connecting a remote SMT to the SPA via a modem, the baud rate must be 1200 baud. The SBC SPA has a jumper which must be set to select the baud rate between 9600 and 1200 baud. Refer to the appropriate SBC installation and operation manual for SBC SPA jumper configuration information. The MBC SPA has upper and lower ports. The lower port is 1200 baud; the upper port is 9600 baud.

When installing cables, make sure the cable connectors are securely inserted and fastened to their associated receptacles. The 25-pin cable connectors are secured by captive screws in the 25-pin cable connectors. The 6-pin MMJ connectors are secured when the connector is inserted into its receptacle and a click is heard.

Table 1-2 describes each cable and adapter specified for the VDTs.

Table 1-1	VDT	Cable	Configurations
Configurat	ion		

Configuration Number	Configuration Description
1	Connect an appropriate length of primary cable 2230504 between the system port and the VDT port. The cable end marked "System-P1" connects to the system port and the cable end marked "Peripheral-P2" connects to the VDT.
2	Connect appropriate length of extension cable 2303071 between the system port and the primary cable or adapter. The cable end with a male connector marked P2 connects to the system port and the cable end with a female connector marked P1 connects to the primary cable or adapter. The maximum length of the primary cable and extension cable 2303071 is 1000 feet.
3	When a plenum rated or shielded cable is needed between the primary MMJ cable and the VDT with a female connector, connect the female end of extension cable 2250504 (marked P1) to adapter 2554900-0005 and the male end of the cable (marked P2) to the 25-pin female VDT connector.
4	When a plenum rated or shielded cable is needed between the primary MMJ cable and the VDT with a male connector, connect the female end of extension cable 2303071 (marked P1) to adapter 2554900-0001 and the male end of the cable (marked P2) to the 25-pin female-to-female adapter 2544288-0001. Connect the adapter to 25-pin male VDT connector.

Table 1-1 VDT	Cable Configurations (Continued)
Configuration Number	Configuration Description
5	When an extension cable is needed between the 4-channel/SPA primary cable and the VDT or modem, connect the female end of extension cable 2303071 (marked P1) to the primary cable and the male end of the extension cable (marked P2) to the 25-pin female VDT connector, adapter, or modem.
6	Connect the male 25-pin connector of adapters 2554900-0001 (two adapters required) to the VDT and system ports. Connect the ends of MMJ cable 2554927 into the 6-pin connector of each adapter. Note that the MMJ cables do not have shielded signal conductors. Adapters 2554900 have noise suppression and transient protection circuits built in. Without noise and transient suppression, electromagnetic interference (EMI) may disrupt radio signals or cause data I/O errors. At this printing, VDE (a European regulatory agency) requires shielded cables.
7	Connect the appropriate length of bulk 6-conductor flat telephone cable 2554939 with MMJ plugs 2554935 in place of cable 2554927 in configurations 6, 9, 10, or 12 through 15. Bulk cable and MMJ plugs are available from TI. Refer to the MTC section in the <i>Terminal Concentrator Installation and Operation</i> manual, part number 2557938-0001, for information on using bulk 6-conductor flat telephone cable and MMJ plugs.
8	Connect an appropriate length of primary cable 2230504 between the system port and the VDT port using female-to-female adapter 2544288-0001. The cable end marked "System-P1" connects to the system port and the cable end marked "Peripheral-P2" connects to the female-to-female adapter. Connect the other end of the female-to-female adapter to the 25-pin male port of a VDT or PC.
9	Connect the male 25-pin connector of adapter 2554900-0001 to the system port and the female 25-pin connector of adapter 2554900-0004 to a VDT. Connect the ends of MMJ cable 2554927 into the 6-pin connector of each adapter. Note that the MMJ cables do not have shielded signal conductors. Adapters 2554900 have noise suppression and transient protection circuits built in. Without noise and transient suppression, EMI may disrupt radio signals or cause data I/O errors. At this printing, VDE requires shielded cables. Some cities require plenum-rated cables for routing through walls and plenums.
10	Connect the male 25-pin connector of adapter 2554900-0001 to the system port and then connect cable 2554927 between the adapter and the 6-pin MMJ port on the VDT.
11	Connect 10-foot primary cable assembly 2532883-0001 between the system 25-pin EIA RS-232 port and the modem.
12	Connect the male end (marked P2) of an appropriate length of extension cable 2303071 to the system port and the female end (marked P1) to the 25-pin connector on adapter 2554900-0001. Connect primary cable 2554927 between the MMJ connector on the adapter and the VDT.
13	Connect primary cable 2554927 to the MMJ connector on the system or MTC port and to the MMJ connector on adapter 2554900-0001. Connect the male 25-pin connector of the adapter to the VDT.

Configuration Number	Configuration Description
14	Connect primary cable 2554927 to the MMJ connector on the system or MTC port and to the MMJ connector on adapter 2554900-0004. Connect the female 25-pin connector on the adapter to the VDT.
15	Connect primary cable 2554927 to the MMJ connector on the system or MTC port and to the MMJ connector on the VDT.
16	Connect primary cable 2554927 to the MMJ connector on the system or MTC port and to the MMJ connector on adapter 2554900-0003. Connect the adapter to the 25-pin connector on the asynchronous EIA modem.
17	Connect the 18-pin connector (marked P1) of primary cable 2303077 to the system port or the upper 9600 baud port of the SPA and the 25-pin male connector (marked P2) to the VDT.
18	Connect the 18-pin connector (marked P1) of cable 2303077 to the system port or the upper 9600 baud port of the SPA and the 25-pin male connector (marked P2) to the female-to-female adapter 2544288-0001. Connect the female-to-female adapter to the VDT.
19	Connect the 18-pin connector (marked P1) of primary cable 2303070 to the system port or the lower 1200 baud port of the SPA and the 25-pin male connector (marked P2) to the async modem.
20	Connect primary cable 2532883 between the VDT port and the async modem.
21	Connect primary cable 2532883 between adapter 2544288 and the async modem. Connect the adapter to the 25-pin male connector on the VDT.
22	Connect primary cable 2554927 to the VDT port and to the MMJ connector on adapter 2554900-0003. Connect the 25-pin female connector on the adapter to the 25-pin connector on the asynchronous EIA modem.
23	Connect the 18-pin connector (marked P1) of cable 2303080 to the 4-channel board and the 25-pin connector (marked P2) to the async modem.

Table	1-2	VDT	Cables	and	Adapters
-------	-----	-----	--------	-----	----------

TI Part Number	Length (Approx.)	Description
2230504-0001 2230504-0002 2230504-0003	13 ft (4 m) 26 ft (8 m) 49 ft (15 m)	Cable assembly with a 25-pin, male, D-type connector on each end.
2303071-0001 2303071-0002 2303071-0003 2303071-0004 2303071-0005	20 ft (6 m) 50 ft (15 m) 100 ft (30 m) 200 ft (60 m) 10 ft (3 m)	Cable assembly with a 25-pin, male, D-type connector on one end and a 25-pin, female, D-type connector on the other end.
2303077-0001	30 ft (9 m)	Cable assembly with a 25-pin, male, D-type connector on one end and an 18-pin, female, angle-type block connector on the other end. Pin connections differ from cable 2303080.
2303080-0001	30 ft (9 m)	Cable assembly with a 25-pin, male, D-type connector on one end and an 18-pin, female, angle-type block connector on the other end. Pin connections differ from cable 2303077.
2532883-0001	10 ft (3 m)	Cable assembly with a 25-pin, male, D-type connector on each end.
2554927-0001	25 ft (7.5 m)	Cable assembly with a 6-pin, male, MMJ connector on each end.
2544288-0001		Adapter with a 25-pin, female, D-type connector on one end and a 25-pin, female, D-type connector on the other end.
2554900-0001 2554900-0003		Adapter with a 25-pin, male, D-type connector and a 6-pin, female, MMJ connector. Pin connections differ on the -0001 and -0003 adapters.
2554900-0004		Adapter with a 25-pin, female, D-type connector and a 6-pin, female, MMJ connector.
2554900-0005		Adapter with a 25-pin, female, D-type connector and a 6-pin, female, MMJ connector.

Setup as a Data I/O Terminal

1.7 Table 1-3 lists the setup parameters for a typical VDT used as a data I/O terminal. Figure 1-12 shows a typical VDT setup display for a Model 924 VDT. Refer to the applicable VDT instruction manual for details of the setup process.

Figure 1-12 Typical VDT Setup Display (Model 924 Shown)

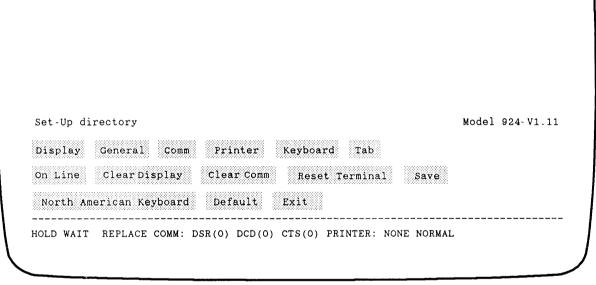


Table 1-3

VDT Default Setup Parameters for Data I/O Terminal

Parameter

Default Value

Display Setup:

Interpret/Display Controls
80/132 Columns
Auto-Wrap/No Auto-Wrap
Smooth/Jump Scroll
Normal/Reverse Video
Screen Saver/No Screen Saver
Cursor/No Cursor
Block/Underline Cursor Style
Steady/Blinking

Interpret Controls 80 Columns* Auto-Wrap* Smooth Scroll* Normal Video* Screen Saver* Cursor*

Block Cursor Style*
Steady*

General Setup:

Mode
User Features Locked/Unlocked
Keyboard Protection
New Line/No New Line
Numeric/Multiply/Divide Keypad

TI 924**, 7-bit control User Features Unlocked User Defined Keys Unlocked No New Line Numeric Keypad

Communications Setup:

Transmit=
Receive=
XOFF at 64/128
Bits, Parity/No Parity
1 Stop Bit/2 Stop Bits
Local Echo/No Local Echo
EIA Port, Modem Control/Data
Leads Only
Disconnect 2 s/60 ms Delay
Limited/Unlimited Transmit

Transmit=19200
Receive=Transmit
XOFF at 128
7 Bits, Odd Parity
1 Stop Bit
No Local Echo
EIA, Port, Modem Control

2 s

Unlimited Transmit, Limited

Printer Setup:

Speed=
Normal/Auto/Controller Print Mode
Bits, Parity/No Parity
1 Stop Bit/2 Stop Bits
Print Full Page/Scroll Region
Print Data Type
No Terminator/Terminator

Speed=9600 Normal Print Mode 7 Bits, Odd Parity 1 Stop Bit Print Full Page ASCII/U.K.

Keyboard Setup:

Break/No Break
Auto/No Auto Repeat
Keyclick/No Keyclick
Margin/No Margin Bell
Warning/No Warning Bell
Auto-Answerback/No
Auto-Answerback
Concealed

Break Auto Repeat* No Keyclick* No Margin Bell* Warning Bell*

No Auto-Answerback Not Concealed

Notes

- * These parameters can be set according to user preference.
- ** This parameter represents terminal native mode.

Setup as the SMT

1.8 Table 1-4 lists the setup parameters for a typical VDT used as the SMT. Refer to your VDT instruction manual for details of the setup process.

General diagnostic operating system (GDOS) software (release 2.1.0 or earlier) distributed with TI System V, release 2.2 and earlier, requires that the SMT operate in the TI-931 terminal mode. Later releases will allow the SMT to operate in its native mode rather than emulating a Model 931 terminal.

Table 1-4

VDT Default Setup Parameters for SMT Operation

Parameter

Default Value

Display Setup:

Interpret/Display Controls 80/132 Columns Auto-Wrap/No Auto-Wrap Smooth/Jump Scroll Normal/Reverse Video Screen Saver/No Screen Saver Cursor/No Cursor Block/Underline Cursor Style Steady/Blinking Interpret Controls 80 Columns* Auto-Wrap* Jump Scroll Normal Video* Screen Saver* Cursor* Block Cursor Style* Steady*

General Setup:

Mode User Features Locked/Unlocked Keyboard Protection New Line/No New Line Numeric/Multiply/Divide Keypad TI 931** 7-bit controls User Features Unlocked User Defined Keys Unlocked No New Line Numeric Keypad

Communications Setup:

Transmit=
Receive=
XOFF at 64/128
Bits, Parity/No Parity
1 Stop Bit/2 Stop Bits
Local Echo/No Local Echo
EIA Port, Modem Control/Data
Leads Only
Disconnect 2 s/60 ms Delay
Limited/Unlimited Transmit

Transmit=9600***
Receive=Transmit
XOFF at 128
7 Bits, Odd Parity
1 Stop Bit
No Local Echo
EIA, Port, Modem Control

Printer Setup:

Speed=
Normal/Auto/Controller Print Mode
Bits, Parity/No Parity
1 Stop Bit/2 Stop Bits
Print Full Page/Scroll Region
Print Data Type
No Terminator/Terminator

2 s Unlimited Transmit

Speed=9600***
Normal Print Mode
7 Bits, Odd Parity
1 Stop Bit
Print Full Page
ASCII/U.K.

Table 1-4

VDT Default Setup Parameters for SMT Operation (Continued)

Parameter	Default Value	
Keyboard Setup:		
Break/No Break Auto/No Auto Repeat Keyclick/No Keyclick Margin/No Margin Bell Warning/No Warning Bell Auto-Answerback/No	Break Auto Repeat* No Keyclick* No Margin Bell* Warning Bell*	
Auto-Answerback Concealed	No Auto-Answerback Not Concealed	

Notes:

^{*} These parameters can be set according to user preference.

^{** 931} mode is a requirement of GDOS supplied with TI System V, release 2.2 and lower. The terminal may be Model 931 or Model 924 in 931 emulation mode until the next release.

^{***} Select 1200 bps for remote SMT.

PRINTERS

CONTENTS

1		Paragraph	Title	Page
1.1	1		Dot Matrix Printers	
1.2 Dot-Matrix Printer Cables and Adapters 1-3		1.1	•	1_1
1.3 Reference Information		1.2	Dot-Matrix Printer Cables and Adapters	
1.4 Model 815 Printer Setup Data 1-6 1.5 Model 855/865 Printer Setup Data 1-8 1.6 Model 830/835 Printer Setup Data 1-9 1.7 Model 875/877 Printer Setup Data 1-11 1.8 Model 885 Printer Setup Data 1-11 1.8 Model 885 Printer Setup Data 1-12 1.9 Model 8900 Series Printer Setup Data 1-14 2.1 Model 8900 Series Printer Setup Data 1-14 2.2 Model 2015 Printer Setup Data 2-3 2.3 Models 2106, 2108, and 2115 Printer Setup Data 2-3 2.4 microLaser Models 210 and PS210 Printer Setup Data 2-8 Figure Title Page		=	Reference Information	
1.5 Model 830/855 Printer Setup Data 1-8 1.6 Model 830/835 Printer Setup Data 1-9 1.7 Model 875/877 Printer Setup Data 1-11 1.8 Model 885 Printer Setup Data 1-12 1.9 Model 88900 Series Printer Setup Data 1-12 1.9 Model 8900 Series Printer Setup Data 1-14 2.1 Model 8900 Series Printer Setup Data 1-14 2.2 Model 2015 Printer Setup Data 2-3 2.3 Models 2106, 2108, and 2115 Printer Setup Data 2-6 2.4 microLaser Models 210 and PS210 Printer Setup Data 2-8 Figure Title Page			Model 810 Printer Setup Data	
1.7 Model 875/877 Printer Setup Data			Model 855/865 Printer Setup Data	1-8
1.8 Model 885 Printer Setup Data 1-12 1.9 Model 8900 Series Printer Setup Data 1-14 2			Model 830/835 Printer Setup Data	1-9
1.9 Model 8900 Series Printer Setup Data 1-14			Model 885 Printer Setup Data	
2.1			Model 8900 Series Printer Setup Data	
2.1	2		Lacar Printers	
2.2 Model 2015 Printer Setup Data 2-3	-	2 1		
2.3 Models 2106, 2108, and 2115 Printer Setup Data 2-6			Model 2015 Printer Setup Date	
Figure Title Page			Models 2106, 2108, and 2115 Printer Setup Data	
Table Title Page			microLaser Models 210 and PS210 Printer Setup Data	
1-2 Model 8900 Series Setup and Testing Menus 1-15		Figure	Title	Page
1-2 Model 8900 Series Setup and Testing Menus 1-15	Figures	1-1	Typical Dot-Matrix Impact Printers	1.0
Table Title Page	8		Model 8900 Series Setup and Testing Menus	
Table Title Page		2-1	Typical Laser Printers	2-2
Tables 1-1 Dot-Matrix Impact Printers and Accessory Items 1-1 1-2 Serial Printer Cables and Adapters 1-3 1-3 Parallel Printer Cables 1-4 1-4 Description of Printer Cables and Adapters 1-4 1-5 Reference Documents 1-5 1-6 Model 810 Printer Pencil Switch Standard Settings 1-6 1-7 Model 810 Printer Pencil Switch Configurations 1-7 1-8 Model 810 Processor Board Jumper Chart 1-7 1-9 Model 855/865 Internal Setup Switches 1-8 1-10 Models 830/835, 875/877, 885, and 8920/8930 1-9 Installation Matrix 1-9 1-11 Model 830/835 Printer Initial Settings 1-10 1-12 Model 830/835 Printer Serial Interface Configurations 1-10		2-2	Model 2015 Laser Printer Switch Settings	
1-2 Serial Printer Cables and Adapters		Table	Title	Page
1-2 Serial Printer Cables and Adapters				
1-3 Parallel Printer Cables 1-4 1-4 Description of Printer Cables and Adapters 1-4 1-5 Reference Documents 1-5 1-6 Model 810 Printer Pencil Switch Standard Settings 1-6 1-7 Model 810 Printer Pencil Switch Configurations 1-7 1-8 Model 810 Processor Board Jumper Chart 1-7 1-9 Model 855/865 Internal Setup Switches 1-8 1-10 Models 830/835, 875/877, 885, and 8920/8930 1-9 1-11 Model 830/835 Printer Initial Settings 1-10 1-12 Model 830/835 Printer Serial Interface Configurations 1-10	Tables		Dot-Matrix Impact Printers and Accessory Items	1-1
1-4 Description of Printer Cables and Adapters 1-4 1-5 Reference Documents 1-5 1-6 Model 810 Printer Pencil Switch Standard Settings 1-6 1-7 Model 810 Printer Pencil Switch Configurations 1-7 1-8 Model 810 Processor Board Jumper Chart 1-7 1-9 Model 855/865 Internal Setup Switches 1-8 1-10 Models 830/835, 875/877, 885, and 8920/8930 1-9 1-11 Model 830/835 Printer Initial Settings 1-10 1-12 Model 830/835 Printer Serial Interface Configurations 1-10			Serial Printer Cables and Adapters	_
1-5 Reference Documents 1-5 1-6 Model 810 Printer Pencil Switch Standard Settings 1-6 1-7 Model 810 Printer Pencil Switch Configurations 1-7 1-8 Model 810 Processor Board Jumper Chart 1-7 1-9 Model 855/865 Internal Setup Switches 1-8 1-10 Models 830/835, 875/877, 885, and 8920/8930 1-9 1-11 Model 830/835 Printer Initial Settings 1-10 1-12 Model 830/835 Printer Serial Interface Configurations 1-10			Parallel Printer Cables	-
1-6 Model 810 Printer Pencil Switch Standard Settings 1-6 1-7 Model 810 Printer Pencil Switch Configurations 1-7 1-8 Model 810 Processor Board Jumper Chart 1-7 1-9 Model 855/865 Internal Setup Switches 1-8 1-10 Models 830/835, 875/877, 885, and 8920/8930 1-9 1-11 Model 830/835 Printer Initial Settings 1-10 1-12 Model 830/835 Printer Serial Interface Configurations 1-10			Description of Printer Cables and Adapters	
1-7 Model 810 Printer Pencil Switch Configurations 1-7 1-8 Model 810 Processor Board Jumper Chart 1-7 1-9 Model 855/865 Internal Setup Switches 1-8 1-10 Models 830/835, 875/877, 885, and 8920/8930 1-9 1-11 Model 830/835 Printer Initial Settings 1-10 1-12 Model 830/835 Printer Serial Interface Configurations 1-10			Madal 810 Private Paris I. G. and A.	
1-8 Model 810 Processor Board Jumper Chart 1-7 1-9 Model 855/865 Internal Setup Switches 1-8 1-10 Models 830/835, 875/877, 885, and 8920/8930 Installation Matrix 1-9 1-11 Model 830/835 Printer Initial Settings 1-10 1-12 Model 830/835 Printer Serial Interface Configurations 1-10			Model 810 Printer Pencil Switch Standard Settings	
1-9 Model 855/865 Internal Setup Switches				
1-10 Models 830/835, 875/877, 885, and 8920/8930 Installation Matrix				
1-11 Model 830/835 Printer Initial Settings			Models 830/835, 875/877, 885, and 8920/8930	
1-12 Model 830/835 Printer Serial Interface Configurations 1-10		1 1 4		
1-12 Model 830/833 Printer Serial Interface Configurations				
			Model 875/877 Printer Initial Settings	

Installation and Operation Printer iii

iv

Printer

Table	Title	Page
1-14	Model 875/877 Printer RS-232 Serial Interface	
1-14	Module Jumper Settings	1-11
1-15	Model 885 Printer Initial Configuration Codes	1-12
1-16	Model 885 Printer Configuration Code Definitions	1-12
1-17	Model 8900 Series Printer Initial Setup Information	1-14
2-1	Laser Printer Kits	2-1
2-2	Reference Documents	2-3
2-3	Model 2015 Installation Matrix	2-4
2-4	Models 2106, 2108, and 2115 Installation Matrix	2-6
2-5	Models 2106, 2108, and 2115 Setup Parameters	2-7
2-6	microLaser Models 210/PS210 Installation Matrix	2-8
2-7	microLaser Setup Parameters	2-9

Installation and Operation

DOT MATRIX PRINTERS

Introduction

1.1 All the dot-matix impact printers are listed in Table 1-1. The descriptions given in Table 1-1 indicate which printers operate in the serial and/or parallel modes. Figure 1-1 shows a general view of each type of dot-matrix impact printer.

NOTE: Printers 830, 835, 8920, and 8930 are only supported under UNIX™ 3.2.1 with updates for additional printer support from TI-CARESM and later UNIX releases.

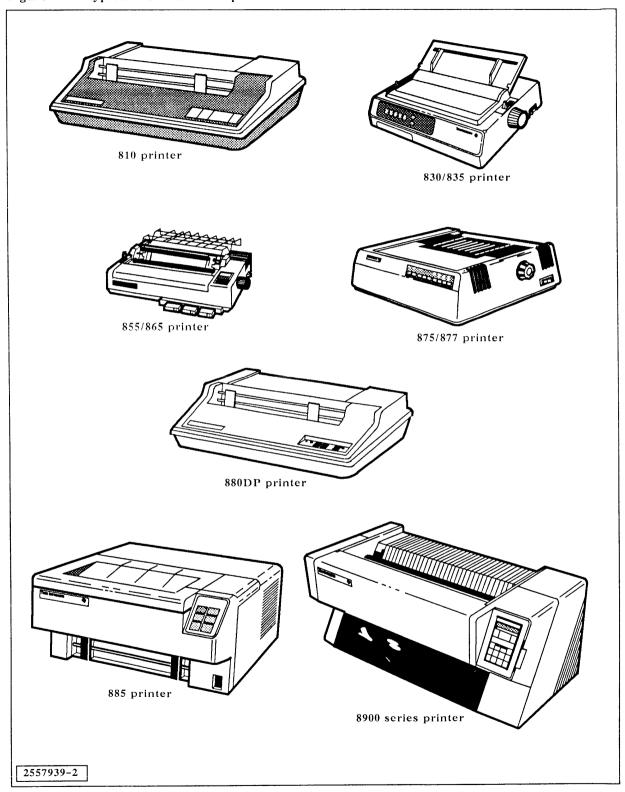
Table 1-1 Dot-Matrix Impact Printers and Accessory Items

TI Part Number	Description
2271899-0001	Model 810 Printer kit (with paper tray) (serial/parallel)
2569782-0001	Model 830 Serial Printer kit (serial/parallel)
2562932-0001	Model 830 Serial Printer pull tractor option
2569782-0002	Model 835 Printer kit (serial/parallel)
2562932-0002	Model 835 Printer pull tractor option
2562933-0001	Model 830/835 EIA-232 serial interface option
2233816-0001	Model 855 Printer kit (tractor model with paper tray) (serial only)
2233817-0001	Model 865 Printer kit (tractor model) (serial only)
2543897-0001	Model 875 Printer kit (tractor model) (serial/parallel)
2543898-0001	Model 877 Printer kit (tractor model) (serial/parallel)
2556340-0001	Model 880DP Printer kit (with paper tray) (serial/parallel)
0999841-0001	Model 810/880 Printer stand
0999839-0001	Model 810/880 Printer paper tray (stand mounted)
2569776-0001	Model 885 Parallel/Serial Printer kit (serial/parallel)
2569780-0001	Model 8920 Printer kit (serial/parallel)
2569780-0002	Model 8930 Printer kit (serial/parallel)
2557748-0001	Model 8920/8930 Printer stand kit
2557762-0001	Model 8920/8930 Printer paper tray (stand-mounted)

UNIX is a trademark of AT&T.

TI-CARE is a service mark of Texas Instruments Incorporated.

Figure 1-1 Typical Dot-Matrix Impact Printers



1-2 Printer Installation and Operation

Dot Matrix Printer Cables and Adapters 1.2 Table 1-2 summarizes the cable and adapter part numbers for the dot matrix printers that operate with serial I/O ports. Table 1-3 provides cable part numbers for the dot-matrix printers that operate in parallel mode through the parallel printer port.

Table 1-2 Serial Printer Cables and Adapters

	Cable and Adapter Part Numbers for Use With —						
Printer Model	Model 924	Model 931	CK401	CC805 CC1601/CK1601 NTC/CK801	CK802 CC801/CC802 MTC/Model 928		
810	2308663	2230504	2303080	2308663	2554927 2554900-2		
8301	2230504	2230504	2303077	2230504	2554927 2554900-1		
8351	2230504	2230504	2303077	2230504	2554927 2554900-1		
8552	2230504	2230504	2303080	2230504	2554927 2554900-1		
8652	2230504	2230504	2303080	2230504	2554927 2554900-1		
8753	2230504	N/A	2303077	2230504	2554927 2554900-1		
8773	2230504	N/A	2303077	2230504	2554927 2554900-1		
880DP	2230504	2230504	N/A	2230504	2554927 2554900-1		
885	2230504	2230504	2303077	2230504	2554927 2554900-1		
8920	2230504	2230504	2303077	2230504	2554927 2554900-1		
8930	2230504	2230504	2303077	2230504	2554927 2554900-1		

Notes:

¹ All 830/835 kits include the serial interface option board, part number 2562933-0001.

² All 855/865 kits include the parallel to serial adapter cable, part number 2222477-0002.

³ All 875/877 kits include the serial interface module, part number 2550261-0001.

Table 1-3 Parallel Printer Cables

	Cable Part N	umber for Use With —
Printer Models	CK301/CK202	CC301/CC202
810, 830, 835, 855, 865, 875, 877, 880, 885, 8920, 8930	2543872-0002	2223106-0001

Note:

The Model 810 printer must have the TI parallel option installed to operate with a parallel cable.

Table 1-4 Description of Printer Cables and Adapters

TI Part Number	Length (Approx.)	Description
2223106-0001	6 ft (1.8 m)	Cable assembly with a 25-pin, male, D-type connector on one end and a 36-pin, Centronics™-type interface connector on the other end.
2230504-0001 2230504-0002 2230504-0003	13 ft (4 m) 26 ft (8 m) 49 ft (15 m)	Cable assembly with a 25-pin, male, D-type connector on each end.
2303071-0001 2303071-0002 2303071-0003 2303071-0004 2303071-0005	20 ft (6 m) 50 ft (15 m) 100 ft (30 m) 200 ft (60 m) 10 ft (3 m)	Cable assembly with a 25-pin, male, D-type connector on one end and a 25-pin, female, D-type connector on the other end.
2303077-0001	30 ft (9 m)	Cable assembly with a 25-pin, male, D-type connector on one end and an 18-pin, female, angle-type block connector on the other end. Pin connections differ from cable 2303080.
2303080-0001	30 ft (9 m)	Cable assembly with a 25-pin, male, D-type connector on one end and an 18-pin, female, angle-type block connector on the other end. Pin connections differ from cable 2303077.
2308663-0001	13 ft (4m)	Cable assembly with a 25-pin, male, D-type connector on each end.
2532883-0001	10 ft (3 m)	Cable assembly with a 25-pin, male, D-type connector on each end.
2543872-0002	30 ft (9 m)	Cable assembly with a 36-pin, Centronics-type connector on one end and an 18-pin, female, angle-type block connector on the other end. For parallel printer data.
2554927-0001	25 ft (7.5 m)	Cable assembly with a 6-pin, male, MMJ connector on each end.
2554900-0001 2554900-0002		Adapter with a 25-pin, male, D-type connector and a 6-pin, male, MMJ connector. Pin connections differ on the -0001 and -0002 adapters.

Centronics is a trademark of Centronics Data Computer.

Reference Information 1.3 Table 1-5 provides part numbers and associated document titles for printers, terminals, and system level information that can be referenced as appropriate when using this section.

Table 1-5 Reference Documents

TI Part Number	Title and Sections of Interest
0994353-9701	Model 810 Printer Operator's Manual
2311356-9701	Model 810 Printer Installation and Operation
2562929-0001	Model 830/835 Operator's Manual
2562929-0001	Model 830/835 Technical Reference Manual
2225911-0001	Model 855 Printer Operator's Manual
2232822-0001	Model 855 Printer Technical Reference Manual
2249401-0001	Model 860 XL Printer User's Manual
2239405-0001	Model 865 Printer Operator's Manual
2239407-0001	Models 860/865 Printer Technical Reference Manual
2550268-0001	Model 875 Printer/Model 877 Printer User's Guide
2555210-0001	Models 875 and 877 Printers Installation Guide
2222627-0001	Models 880/880DP Printer Operator's Manual
2546046-0001	Model 885 Printer User's Guide
2555211-0001	Model 885 Printer Installation Guide
2557785-0001	Model 8900 Series Printer User's Guide
2557784-0001	Model 8900 Series Printer Technical Reference Manual
2557788-0001	Model 8900 Series Printer Maintenance Manual
2544365-0001	Model 924 Video Display Terminal User's Guide
2561031-0001	Model 928 Video Display Terminal User's Guide
2544365-0001	Model 931 Video Display Terminal General Description
2552476-0001	Model 955 Workstation User's Guide
2540558-0001	TI System V User's Reference — devadm(1T)
2540539-0001	TI System V Administrator's Guide — Configuring Devices, Printer Spooler System
2549448-0001	TI System V Release Information

Model 810 Printer Setup Data

1.4 Model 810 printers include an auxiliary control panel inside the access door, next to the operator control panel. A 7-section pencil switch, recessed in the auxiliary control panel, allows you to set up the basic communications parameters. Table 1-6 lists the standard settings, and Table 1-7 describes the meaning of each switch setting.

The Model 810 printer includes a processor board that includes jumpers to select parameters that should remain fixed for any given installation. Table 1-8 lists the jumper meanings and the standard jumper configurations.

Table 1-6

Model 810 Printer Pencil Switch Standard Settings				
Switches	Standard Position	Meaning		
1	On	4800 baud (Switches 1-3)		
2	Off			
3	On			
4	On	Even parity (Switches 4, 5)		
5	Off			
6	On	Auto line feed enabled		
7	On	Auto perforation skip disabled		

Table 1-7

Model 810 Printer Pencil Switch Configurations

1	Switches 2	3	Baud Rate
			Duda Rute
Off	Off	Off	110
On	Off	Off	150
Off	On	Off	300
On	On	Off	1200
Off	Off	On	2400
On	Off	On	4800 (standard)
Off	On	On	9600
On	On	On	Parallel

Switch	nes	
4	5	Parity
Off	Off	Ignore
On	On	Odd
On	Off	Even (standard)

Notes:

Switch 6: Off enables automatic line feed. On disables automatic line feed.

Switch 7: Off enables top-of-form automatic perforation skip. On disables top-of-form automatic perforation skip.

Table 1-8

Model 810 Processor Board Jumper Chart

Jumper	Function
E1-E2	Ignore delete
E2-E3*	Clear buffer on reception of DEL
E4-E5*	DNB DTR always ON when online
E5-E6	DTR goes low when busy
E7-E8	Reverse channel high when busy
E8-E9*	Reverse channel low when busy
E10-E11*	No line buffer option installed
E13-E14*	No line buffer option installed
E11-E12	Line buffer option installed
E13-E15	Line buffer option installed
E16-E17	DC1, DC3 disabled
E17-E18*	DC1, DC3 enabled
Note: * Standard	

Model 855/865 Printer Setup Data

1.5 Model 855 and Model 865 printers include an 8-section miniature switch located below the printhead carriage that allows you to set up the basic communications parameters. Table 1-9 describes the meaning of each switch setting.

For additional information, refer to the documents listed in Table 1-5.

Table 1-9 Model 855/865 Internal Setup Switches

Switch	Function				
			character length and parity for the printer as follows:		
1, 2					
	Switch 1 2		Interface Protocol		
	1		Interruce 1 100001		
	Off	Off	7-bit data, space parity		
	Off	On	7-bit data, odd parity		
	On	Off	7-bit data, even parity		
	On	On	8-bit data, no parity		
3	on carria	ge return. In th	ce switch 3 in the On position for automatic line feed ne Off position, line feed is not automatic.		
4	Data or sprinter in processing	the word proc	mode. Set switch 4 in the On position to place the essing mode, or in the Off position for the data		
5, 6, 7, 8	Baud rat	e/communicatio	ns protocol/interface selection:		

Switch		Baud					
5	6	7	8	Rate	Protocol	Port	
Off	Off	Off	Off	300	ready/busy	serial	
Off	Off	Off	On	300	DC1/DC3	serial	
Off	Off	On	Off	300	ETX/ACK	serial	
Off	Off	On	On	1200	ready/busy	serial	
Off	On	Off	Off	1200	DC1/DC3	serial	
Off	On	Off	On	1200	ETX/ACK	serial	
Off	On	On	Off	2400	ready/busy	serial	
Off	On	On	On	2400	DC1/DC3	serial	
On	Off	Off	Off	2400	ETX/ACK	serial	
On	Off	Off	On	4800	ready/busy	serial	
On	Off	On	Off	4800	DC1/DC3	serial	
On	Off	On	On	4800	ETX/ACK	serial	
On	On	Off	Off	9600	ready/busy	serial	
O11		=					

9600

9600

On

Off

On

Off

On

On

On

On

On

serial

serial

parallel

DC1/DC3

ETX/ACK

On

On

On

Model 830/835 Printer Setup Data $1.6\,\,$ Table 1-10 lists the cable numbers and recommended configurations for the Models 830/835 printers.

Table 1-10 Models 830/835, 875/877, 885, and 8920/8930 Installation Matrix

Interface	TI System V Config No. ¹	Cable No.2	Document
Multiboard Computers			
CK1601	1	2230504-0001	2540550 0001
CK16/V.35	1	2230504-0001	2540558-0001
CK801	1	2230504-0001	
CK401	1	2303077-0001	
CK301	$\overline{2}$	2543872-0001	
CK301/V.35	2	2543872-0002	
CK802	1	2554927-00014	
Single-Board Computers			
CC301	2	2222106 0001	
CC801	1	2223106-0001 2554927-0001 ⁴	
CC802	1	2554927-00014	
CC805	1	2230504-0001	
CC1601	1		
CC202	2	2230504-0001	
	2	2223106-0001	
Terminals			
TI 928 VDT	3	2554027 00014	0.5.4.004.0004
TI 924 VDT	3	2554927-00014	2561031-0001
TI 931 VDT	_	2230504-0001	2544365-0001
TI 955 parallel	4 (except 87x,83x, 89xx) 2	2230504-0001	2229228-0001
TI 955 serial	1	2223106-0001	2552476-0001
> 0 0 001141	1	2552571-0001 ³	

Notes:

Table 1-11 displays the recommended setup information for the Model 830/835 printers. The indicated settings are suggested as a starting point for initial system start-up. Users may want to select other settings to allow use of more complete character sets or otherwise adjust for their application. In all cases, the settings must be matched by parameter selections made during software configuration. Table 1-12 defines all the possible the configuration settings.

¹ See the applicable printer setup tables for the recommended configuration settings.

² Cables and adapters must be ordered separately.

³ Cables, part numbers 2230504-0001 and 2544288-0001, used together, are an acceptable alternate to cable, part number 2552571-0001.

⁴ Adapter, part number 2554900-0001, must connect between the MMJ cable and the printer.

For serial operation, the 830/835 printers must have the optional serial interface board, part number 2562933-0001, installed in the serial board slot at the rear of the printer. Printer kits 2569782 include the serial option and installation instructions. Before using the serial interface, make sure the parallel interface cable has been removed. Only one cable can be attached at a time. The printer auto-selects the interface to which a cable is attached.

Table 1-11	Model	830/835	Printer	Initial	Settings
-------------------	-------	---------	---------	---------	----------

		 Configuration Number 	rs ———
Setup/Test	1 (Serial)	2 (Parallel)	3 (924 and 928)
Baud rate	19200 bps	parallel	9600 bps
Protocol	XON/XOFF		XON/XOFF
Diagnostic test	No		No
Data bits	7		7
Parity	Odd		Odd
Busy line	DTR		DTR
DSR signal	Valid		Valid
DTR signal	Ready on power up		Ready on power up
Busy time	200 ms		200 ms

Table 1-12

Model 830/835 Printer Serial Interface Configurations			
Item	Available Settings		
Baud rate (bps)	19200, 9600, 4800, 2400, 1200, 600, 300		
Protocol	Ready/Busy, XON/XOFF		
Diagnostic test No, Yes			
data bits	8, 7		
Parity	None, Odd, Even		
Busy line	SSD-, SSD+, DTR, RTS		
DSR signal	Valid, Invalid		
DTR signal Ready on Power Up, Ready on Select			
Busy time 200 millisecond, 1 second			

Model 875/877 Printer Setup Data

1.7 Table 1-10 lists the cable numbers, documentation references, and recommended configurations for the Models 875/877 printers.

Table 1-13 displays the recommended initial setup parameters for the Models 875 and 877 printers in serial and parallel modes. The indicated settings are suggested as a starting point for initial system start-up. Users may want to select other settings to allow use of more complete character sets or otherwise adjust for their application. In all cases, the settings must be matched by parameter selections made during software configuration. The documentation column contains information references for system software and terminal firmware configuration.

Table 1-14 identifies the jumper settings required for the RS-232 Serial Interface module (serial operation only). The RS-232 Serial Interface module is installed in the same location as the Parallel Interface module after removal of the cartridge connector cover at the back left corner of the printer.

Table 1-13 Model 875/877 Printer Initial Settings

		— Configuration Numbers -		
Setup/Test	1 (Serial)	2 (Parallel)	3 (924 and 928)	
Baud Rate	19200 bps	parallel	9600 bps	
Data Bits	7		7	
Parity	Odd		Odd	
Auto Line Feed	Off		Off	
Busy Protocol	XON/XOFF		XON/XOFF	
Stop Bits	1		1	
CTS Signal Control	No		No	
DSR Signal Control	No		No	
DCD Signal Control	No		No	

Table 1-14

Model 875/877 Printer RS-232 Serial Interface Module Jumper Settings				
1	2			
2 to 3				
2 to 3	_			
1 to 2	_			
1 to 2				
	1 2 to 3 2 to 3 1 to 2	1 2 2 to 3 — 2 to 3 — 1 to 2 —		

Model 885 Printer Setup Data

 $1.8\,$ Table 1-10 lists the cable numbers and recommended configurations for the Models 885 printer.

Table 1-15 displays the recommended setup configuration codes for the Model 885 printer. The indicated settings are suggested as a starting point for initial system start-up. Users may want to select other settings to allow use of more complete character sets or otherwise adjust for their application. In all cases, the settings must be matched by parameter selections made during software configuration. Table 1-16 defines all the possible configuration codes.

Table 1-15 Model 885 Printer Initial Configuration Codes

		Configu	ıration Numbers	
Item	1 (Serial)	2 (Parallel)	3 (924 and 928)	4 (931 Only)
Baud rate	2A	parallel (COMM mode code 17)	28	28
Parity	35		35	35
COMM mode codes	13		13	14
Misc codes	81 83 9B		81 83 9B	81 9B

Table 1-16 Model 885 Printer Configuration Code Definitions

Configuration Code	Definition			
Communications	13 Full-duplex modem mode (Required for XON/XOFF)			
mode selection	14 Direct connection mode, pin 11 of serial interface ON for READY			
(one only)	15 Direct connection mode, pin 11 of serial interface OFF for READY			
	16 Current loop			
	17 Parallel interface			
	18 Communications controller interface (if installed)			
Baud rate	21 110 bits per second			
(one only)	22 200 bits per second			
(one only)	23 300 bits per second			
	24 600 bits per second			
	25 1200 bits per second			
	26 2400 bits per second			
	27 4800 bits per second			
	28 9600 bits per second			
	2A 19200 bits per second			

Configuration Code		Printer Configuration Code Definitions (Continued) Definition					
Parity							
selection (one only)		Data Bits	Parity Bits	Parity Format	Received Bits Checked		
•	31	7	1	Odd	No		
	32	7	1	Even	No		
	35	7	1	Odd	Yes		
	36	7	1	Even	Yes		
	37	7	1	Mark	No		
	38	7	1	Space	· -		
	39	8	0	Not Used	No		
	3A	8	1	Odd	No		
	3B	8	1	Even	Yes Yes		
National	41	United States					
language		France					
version		United Kingdom					
(one only)		Germany/Austria					
• •		Sweden/Finland					
		Denmark/Norway					
		47 Spain/Latin America					
		Switzerland	ica				
		Canadian French					
Miscellaneous	81	Evecute escape se	Guanaa				
codes		Execute escape se	quences	1			
(not limited)	84	Send DC1 when I	READY; DC3	when BUSY*			
(1997)							
		85 Do LF and CR on reception of CR					
		Print all control cl	iaracters				
	8A Enable BUSY on pin 20 (DTR) of RS-232 connector						
	8B Do CR after LF, VT, DC2						
	8C Enable vertical raster graphics						
	95 Manual tearoff; disable automatic 7-second delay						
	99 1	Enable horizontal	raster graphic	S			
	9A S	SO selects expand	ed print for o	ne line			
	9B I	Power-up on line					
	9C S	Select 256-byte in	put buffer				
Note:							

Installation and Operation

Note:
* DC1/DC3 is the same as XON/XOFF.

Model 8900 Series Printer Setup Data

1.9 Table 1-10 lists the cable numbers and recommended configurations for the Model 8900 Series printers.

Table 1-17 displays the recommended setup information for the Model 8900 Series printers. The indicated settings are suggested as a starting point for initial system start-up. Users may want to select other settings to allow use of more complete character sets or otherwise adjust for their application. In all cases, the settings must be matched by parameter selections made during software configuration. Figure 1-2 defines all the possible setup and testing configurations.

For additional setup information, refer to the applicable documents listed in Table 1-5.

Table 1-17 Model 8900 Series Printer Initial Setup Information

		— Configuration Numbers -		
Setup/Test	1 (Serial)	2 (Parallel)	3 (924 & 928)	
Interface baud rate	19200 bps	parallel	9600 bps	
Data bits	7		7	
Parity	Odd		Odd	
Flow control	ON/XOFF = ON		XON/XOFF = ON	
Connect	Direct: DTR: Ready		Direct: DTR: Ready	
Buffer size	32,000		32,000	

emul interface misc. setup/ test pro printer T1855 T1880 **Epson** optional hexdump mode port auto LF stat auto proc execute LF report mode CMDS WP yes off barber serial pole no no no on parallel auto auto CR ON LF LF \mathbf{CR} yes off option port no on no LF/CR ON CR slashed slashed O's O's yes off on CR W/LF VT DC2 ribbon bi-dir Z-axis pwrup char set **ASF** LCD lang idle dela type adj graphic online out-bsy off US ASCII adjust color adjust no adjust ENGLISH no yes **FRENCH** on GERMAN UK ENGLISH black FRENCH graphics yes no yes yes off ITALIAN SPANISH GERMAN JAPANESE NORWEGIAN on SPANISH SWISS SO-EXP SWEDISH FR CANADIAN PC1 PC2 NORDIC ISO 8859/1 **MULTI-**NATIONAL see note 2 flow buffer databits parity baudrate connect modem control none xon/xoff 4000 9800 direct (pin 20) 19200 odd 32000 off ready pin 11 high 256 300 even always on ready high mark 600 high ready xtx/ack 1200 space low 1. Shaded screens represent the default parameter settings see note 3 2. The CONNECT parameters in the INTERFACE submenu are not 2400 valid with optional communication interfaces. off MARK and SPACE parity checking are only valid for 8-bit 4800 communication. on 2557788-46 4. Epson is a trade mark of Seiko Epson Corporation.

Figure 1-2 Model 8900 Series Setup and Testing Menus

LASER PRINTERS

Introduction

2.1 Table 2-1 lists the Texas Instruments laser printers that can be used with your system. Figure 2-1 shows a general view of each type of laser printer.

All the printers print in the parallel mode when connected to the 3-channel CK301/CC301, CC202, or the V.35/parallel printer adapters. All the printers print in the serial mode when connected to the 4-channel CK401, the 8-channel CK801/CC801, the CC805, an attached printer to a video display terminal (VDT), a network terminal concentrator (NTC), or a multidrop terminal concentrator (MTC).

Table 2-1

Laser Printer Kits

TI Part Number	Description
2569781-0001 2569778-0001 2569779-0001 2569777-0001 2550484-0001	microLaser™ 210 Serial Page Printer(120-volt) OmniLaser™ 2108 Page Printer kit (35-font model) OmniLaser 2115 Page Printer kit (35-font model) OmniLaser 2015 Page Printer kit (13-font model) OmniLaser 2106 Page Printer kit (35-font model)

Note:

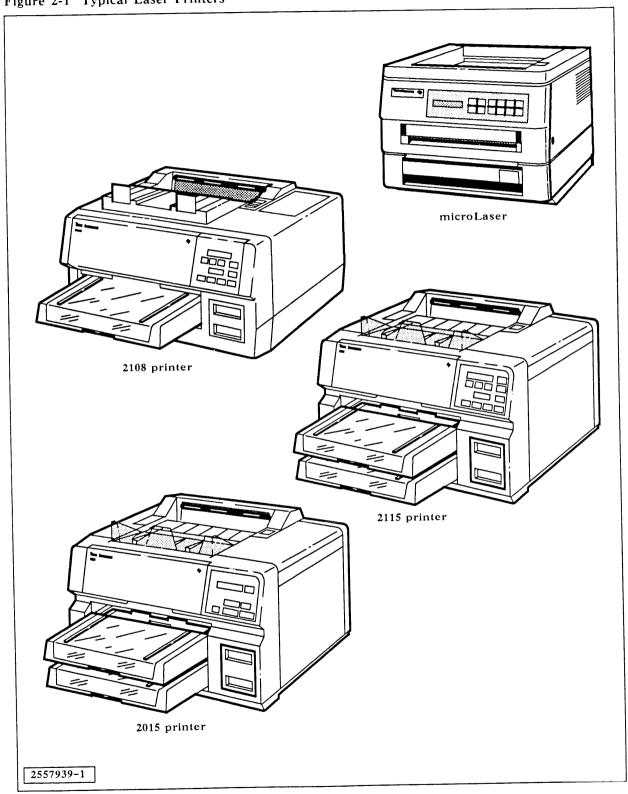
Options and consumable items for the laser printers can be purchased from TI Spare Parts.

NOTE: The microLaser printer is only supported under UNIX 3.2.1 with updates for additional printer support from TI-CARE and later UNIX releases.

Table 2-2 lists reference documents for all the laser printers, associated video display terminals (VDTs), and system level documents that have configuration information.

OmniLaser and microLaser are trademarks of Texas Instruments Incorporated.

Figure 2-1 Typical Laser Printers



Installation and Operation 2-2 Printer

Table 2-2 Reference	Documents
TI Part Number	Title and Sections of Interest
2539178-0001	OmniLaser 2015 Page Printer Operator's Manual
2546348-0001	OmniLaser 2108 Page Printer Operator's Manual
2550477-0001	OmniLaser 2106 Page Printer Operator's Manual
2546344-0001	OmniLaser 2115 Page Printer Operator's Manual
2555737-0001	microLaser 210 User's Manual
2559876-0001	microLaser 210 Technical Reference Manual
2549443-0001	Printer Models 2015, 2108, 2106, and 2115 Installation Guide
2540558-0001	TI System V User's Reference — devadm(1T)
2540539-0001	TI System V Administrator's Guide — Configuring Devices, Printer Spooler System
2549448-0001	TI System V Release Information
2243190-0001	Introduction to Explorer System — Printing files and screens
2549281-0001	Explorer Input/Output Reference — Printers
2544365-0001	924 Video Display Terminal User's Guide — Set-Up
2561031-0001	928 Video Display Terminal User's Guide — Set-Up
3330333	2 Set-Op

Model 2015 Printer Setup Data

2229228-0001

2.2 Table 2-3 lists cable numbers, documentation references, and recommended configurations for the Model 2015 printer. This data is extracted from a more extensive table in the installation guide.

931 Video Display Terminal User's Guide — Configuration

Figure 2-2 displays the recommended switch settings for the Model 2015 printer. The indicated settings are suggested as a starting point for initial system start-up. Users may want to select other settings to allow use of more complete character sets or otherwise adjust for their application. In all cases, the settings must be matched by parameter selections made during software configuration. The documentation column contains manual references for system software and terminal firmware configuration. For additional information, refer to the documents listed in Table 2-2.

The kit part number for the Model 2015 laser printer is 2569777-0001.

Installation and Operation Printer 2-3

Table 2-3 Model 2015 Installation Matrix

Interface	TI System V Config No. 1	Explorer™ Config No.	Cable No.2	Documents
Multiboard Computers			2220504 0001	2540558-0001
CK1601	1		2230504-0001	2340336-0001
CK16/V.35	1		2230504-0001	
CK801	1		2230504-0001	
CK401	1		2303077-0001	
CK301	2		2543872-0002	
CK301/V.35	2 2 1		2543872-0002	
CK802	1		2554927-00014	
Single-Board Computers			2222106 0001	
CC301	2		2223106-0001	
CC801	1		2554927-00014	
CC802	1		2554927-00014	
CC805	1		2230504-0001	
CC1601	1		2230504-0001	
CC202	2		2223106-0001	
Explorer Computers			2225641 0002	2243190-0001
SIB parallel		2	2235641-0002	2549281-0001
SIB serial		1	2535682-0001	2349261-0001
Terminals			2554027 00014	2561031-0001
TI 928 VDT	1		2554927-0001 ⁴	2544365-0001
TI 924 VDT	1		2230504-0001	2229228-0001
TI 931 VDT	6		2230504-0001	2552476-000
TI 955 parallel	2		2223106-0001	2332470-000.
TI 955 serial	1		2552571-0001 ³	

Notes:

¹ See Figure 2-2 for the recommended configuration settings.

² Cables and adapters must be ordered separately.

 $^{^3}$ Cables, part numbers 2230504-0001 and 2544288-0001, used together, are an acceptable alternate to cable, part number 2552571-0001.

⁴ Adapter, part number 2554900-0001, must connect between the MMJ cable and the printer.

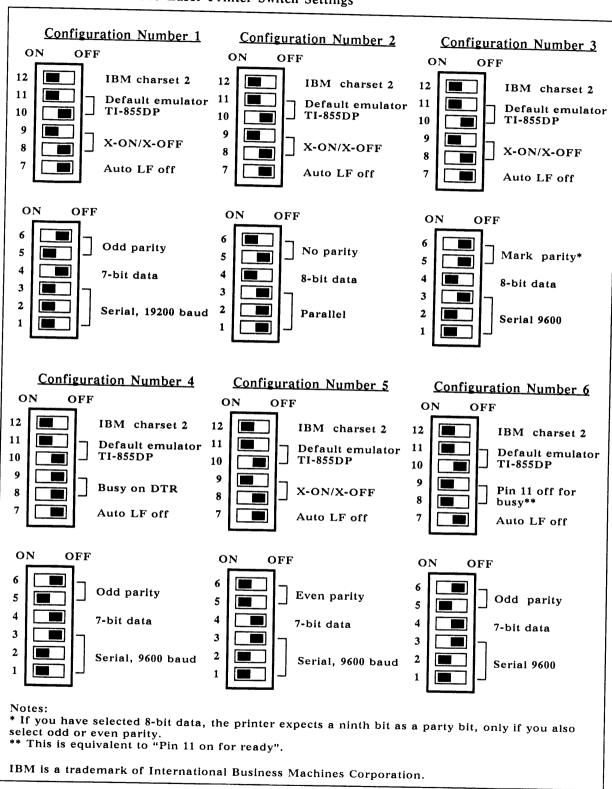


Figure 2-2 Model 2015 Laser Printer Switch Settings

Models 2106. 2108, and 2115 **Printer Setup** Data

2.3 Table 2-4 lists cable numbers, documentation references, and recommended configurations for the Models 2106, 2108, and 2115 laser printers. Kit part numbers for the laser printers are as follows:

- Model 2106, kit part number 2550484-0001
- Model 2108, kit part number 2569778-0001
- Model 2115, kit part number 2569779-0001

Table 2-4 Models 2106, 2108, and 2115 Installation Matrix

Interface	TI System V Config No. ¹	Explorer Config No.	Cable No.2	Documents
Multiboard Computers				
CK1601	1		2230504-0001	2540558-0001
CK16/V.35	1		2230504-0001	
CK801	1		2230504-0001	
CK401	1		2303077-0001	
CK301	2 2		2543872-0002	
CK301/V.35	2		2543872-0002	
CK802	1		2554927-00014	
Single-Board Computers				
CC301	2		2223106-0001	
CC801	1		2554927-00014	
CC802	1		2554927-00014	
CC805	1		2230504-0001	
CC1601	1		2230504-0001	
CC202	2		2223106-0001	
Explorer Computers				
SIB parallel		8	2235641-0002	2243190-0001
SIB serial		7	2535682-0001	2549281-0001
Terminals				
TI 928 VDT	1		2554927-00014	2561031-0001
TI 924 VDT	1		2230504-0001	2544365-0001
TI 931 VDT	6		2230504-0001	2229228-0001
TI 955 parallel	2		2223106-0001	2552476-0001
TI 955 serial	1		2552571-0001 ³	

Notes:

¹ See Figure 2-5 for the recommended configuration settings.

² Cables and adapters must be ordered separately.

³ Cables, part numbers 2230504-0001 and 2544288-0001, used together, are an acceptable alternate to cable, part number 2552571-0001.

⁴ Adapter, part number 2554900-0001, must connect between the MMJ cable and the printer.

Table 2-5 displays the recommended setup parameters for the Models 2106, 2108, and 2115 printers. The indicated settings are suggested as a starting point for initial system start-up. Users may want to select other settings to allow use of more complete character sets or otherwise adjust for their application. In all cases, the settings must be matched by parameter selections made during software configuration. The documentation column contains manual references for system software and terminal firmware configuration. For additional information, refer to the documents listed in Table 2-5.

Table 2-5 Models 2106, 2108, and 2115 Setup Parameters

	Configuration Number							
	1	2	3	4	5	6	7	8
Software Interface Settings			T					T
TI 855	X	X	X	x	x	$ \mathbf{x} $		
DP Mode	x	X	X	X	X	X		
PostScript (Batch)							X	X
Hardware Interface Settings								
Parallel		x						X
Serial RS-232-C	X		X	X	X	X	$ $ $ $	A
BAUD rate	19200		9600	9600	9600	9600	19200	
Data bits	7		8	7	7	7	8	
Stop bits	1	÷	1	1	1	1	1	
Parity	Odd		Mark*	Odd	Even	Odd	Space	
Flow Control								
X-ON/X-OFF	X		X		X		X	
Busy on DTR-Pin 20				X				
Pin 11 High (ON for ready)						X		
Pin 11 Low (OFF for ready)								
ETX-ACK								

Note:

^{*} If you have selected 8-bit data, the printer expects a ninth bit as a parity bit, only if you also select odd or even parity.

microLaser Models 210 and PS210 Printer Setup Data

2.4 Table 2-6 lists cable numbers, documents, references, and recommended configurations for the microLaser Models 210 and PS210 printers. Kit part numbers for the microLaser printers are as follows:

- Model 1210, kit part number 2569781-0001
- Model PS210, kit part number 2569781-0002

Table 2-6 microLaser Models 210/PS210 Installation Matrix

Interface	TI System V Config No. ¹	Explorer Config No.	Cable No.2	Documents
Multiboard Computers		_	2220504 0001	2540558-0003
CK1601	1		2230504-0001	2340336-000
CK16/V.35	1		2230504-0001	
CK801	1		2230504-0001	
CK401	1		2303077-0001	
CK301	2		2543872-0002	
CK802	1		2554927-00014	
Single-Board Computers				
CC301	2		2223106-0001	
CC801	1		2554927-00014	
CC802	1		2554927-00014	
CC805	1		2230504-0001	
CC1601	1		2230504-0001	
CC202	2		2223106-0001	
Explorer Computers				
SIB parallel		Not supported		
SIB serial		Not supported		
Terminals				
TI 928 VDT	1		2554927-00014	2561031-000
TI 924 VDT	1		2230504-0001	2544365-000
TI 931 VDT	Not supported	ł		
TI 951 VD1 TI 955 parallel	2		2223106-0001	2552476-000
TI 955 paraner	1		2552571-0001 ³	

Notes:

¹ See Figure 2-6 for the recommended configuration settings.

² Cables and adapters must be ordered separately.

³ Cables, part numbers 2230504-0001 and 2544288-0001, used together, are an acceptable alternate to cable, part number 2552571-0001.

⁴ Adapter, part number 2554900-0001, must connect between the MMJ cable and the printer.

Table 2-7 displays the recommended setup parameters for the Models 210 and PS210 microLaser printers. The indicated settings are suggested as a starting point for initial system start-up. Users may want to select other settings to allow use of more complete character sets or otherwise adjust for their application. In all cases, the settings must be matched by parameter selections made during software configuration. For additional information, refer to the documents listed in Table 2-2.

The serial interface option, part number 2555741-0001, must be installed to operate in the serial mode. Kit, part number 2569781, contains the serial option and instructions for installation.

Table 2-7

microLaser Setup Parameters				
Printer Setup Configuration	Configuration Number 1 2			
Emulation	HPII	HPII		
I/O	RS-232	Std-Parallel		
Baud rate	19200			
Data bits	7			
Parity	Odd			
Flow control X-on/X-off DTR Pin 11 EXT/ACK	Rbst Off High			
Miscellaneous Buffer size Busy Offline	4K Yes	4K		

Installation and Operation Printer 2-

Terminal/Printer Information Customer Response

Your comments and suggestions help us improve our products.

Your computer type	Date				
Your name					
Company name/department					
Telephone ()	Address				
City Stat	teZip				
ABOUT YOUR SYSTEM					
Size of memory (RAM) Other options					
Check if you have:					
☐ One diskette drive ☐ Two diske	ette drives Winchester disk				
YOUR RESPONSE CONCERNS Software Manual Did you run diagnostics? Yes No Error code or message	TI Part No Version No Serial No. (if any)				
YOUR COMMENTS If your comments concern a manual, please include a					
Have you attached additional comments? Yes	□ No Date received by TI				

FOLD



BUSINESS REPLY MAIL

FIRST-CLASS PERMIT NO. 7284 DALLAS, TX

POSTAGE WILL BE PAID BY ADDRESSEE

TEXAS INSTRUMENTS INCORPORATED INFORMATION TECHNOLOGY GROUP ATTN: SUSTAINING P.O. BOX 149149 M/S 2201 AUSTIN, TEXAS 78714-9149

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES



FOLD