KOGANEI

DTRB Editor, Support Software
for *Creceed* Cell Master

Koganei Desktop Robot

DTRBP-SW-HTC

Owner's Manual   Ver.1.0

Contents

Chapter 1

Installation Guide

1. Introduction

Thank you for purchasing DTRB Editor, support software for Koganei's Cell Master DTRB series. Please read this manual carefully before using the software. Take great care when using the software, and always operate it in the proper manner. Refer to this manual along with the documentation that came with the Cell Master main unit and various other units.

1-1   Notes

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1-2   What Is DTRB Editor?

The support software DTRB Editor enables you to edit program, parameter, pallet, and offset data on your PC while in offline mode. It also enables you to transfer edited data once you have connected your PC to the Cell Master. Other capabilities include saving data, reediting saved data, and confirming the current position and external I/O state of the Cell Master.

1-3   What Is Included in the Package?

● Setup CD-R ···1 piece
● Setup Manual ··1 piece
● This instruction manual ·····································1 piece
(PDF file on the setup CD-R)

*The setup CD-R includes support software for the former product DTR (DTRP-SW-HTC). Refer to the instruction manual for DTRBP-SW-HTC when using it.

1-4   System Requirements

■ PC environment
　・Operating system
　　Windows 95 (Service Pack 1 or later), Windows 98, Windows Me,
　　Windows 2000, or Windows XP

　・Computer system
　　Main unit:　　　　　　　PC featuring a Pentium processor
　　Memory:　　　　　　　　At least 32 MB available
　　Hard disk space:　　　At least 50 MB available
　　Video monitor:　　　　800 × 600 or better (1024 × 786 or better recommended)
　　CD drive:　　　　　　　CD-ROM drive
　　Serial port:　　　　　　RS-232C (EIA-232D)

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1-5   Cable Connections

Serial cable
　D-sub 9-pin cross cable (female to female):　　　Use when connecting DTRB to a D-sub 9-pin connector.

　D-sub 25-pin cross cable (female to female):　　　Use when connecting DTRB to a D-sub 25-pin connector.

Serial cable connection diagrams

Connecting DTRB to a D-sub 9-pin connector

D-sub 9-pin (female) on DTRB		D-sub 9-pin (female) on PC	
Pin no.	Signal name	Pin no.	Signal name
2	RXD	2	RXD
3	TXD	3	TXD
5	GND	5	GND
7	RTS	7	RTS
8	CTS	8	CTS
		6	DSR
		1	DCD
		4	DTR

Connecting DTRB to a D-sub 25-pin connector
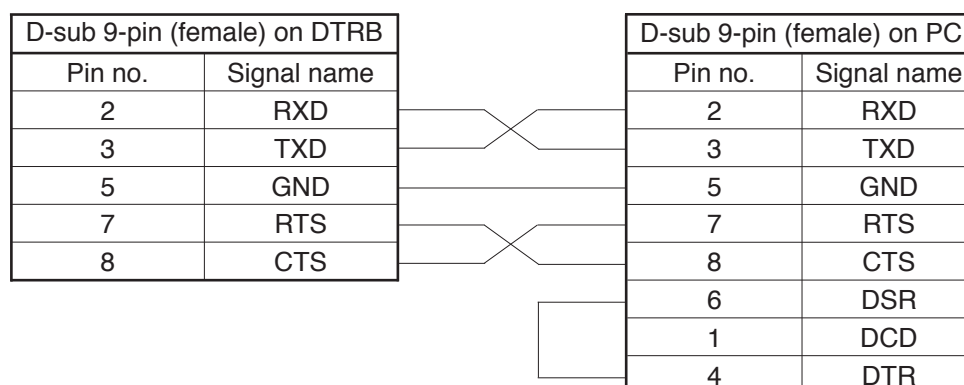
| D-sub 9-pin (female) on DTRB		D-sub 25-pin (female) on PC	
Pin no.	Signal name	Pin no.	Signal name
2	RXD	2	TXD
3	TXD	3	RXD
5	GND	7	GND
7	RTS	4	RTS
8	CTS	5	CTS
		6	DSR
		8	DCD
		20	DTR
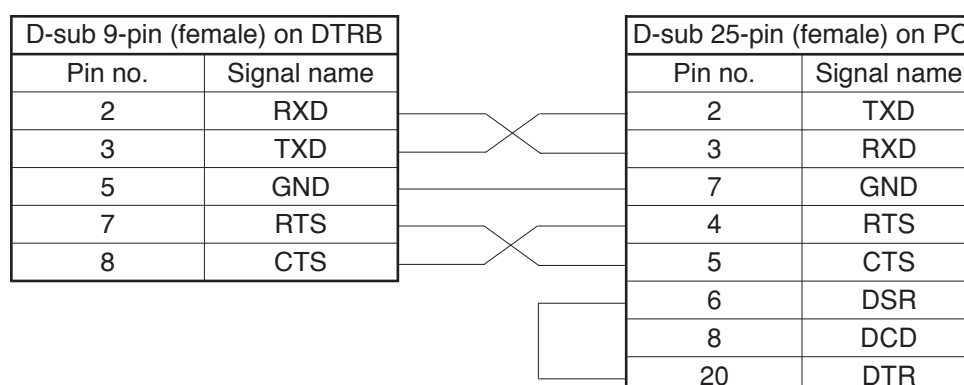
1-6   Installing the Program

This section will describe the installation procedure when the CD-ROM drive is drive E. If your CD-ROM drive is not drive E, substitute the drive name for your CD-ROM drive whenever you see "drive E."
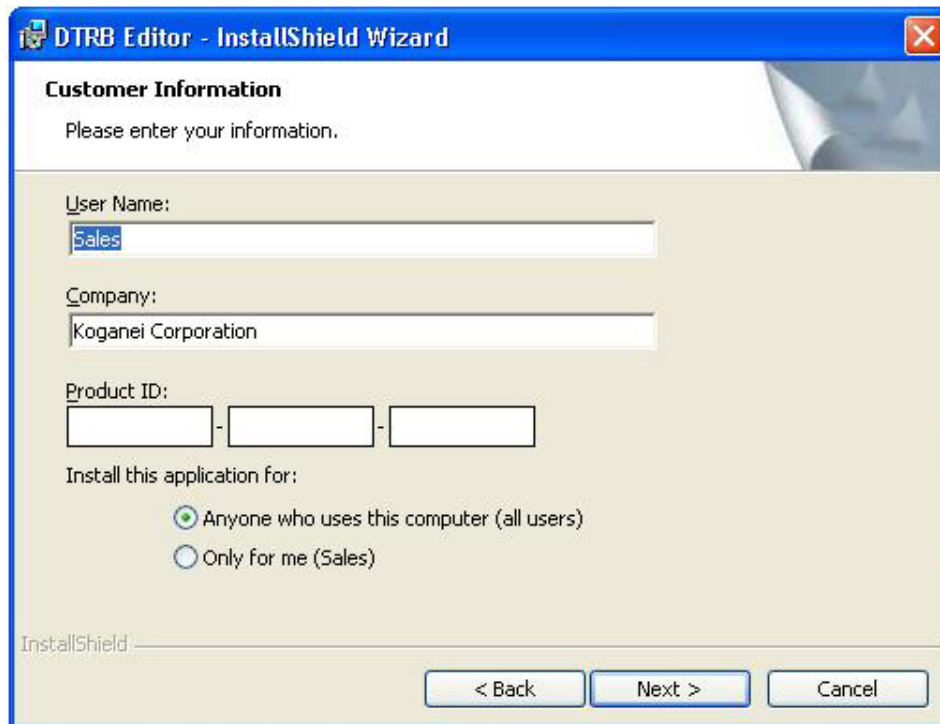
1. On the Windows taskbar, click the **Start** button and then click **Run**. In the Run dialog box that appears, type **E:\DTRB-e\setup.exe** and then click **OK**.
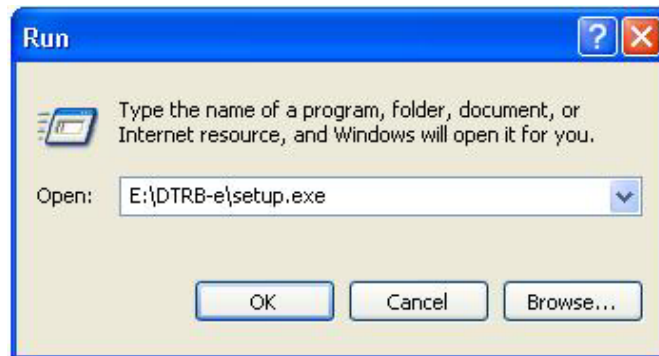
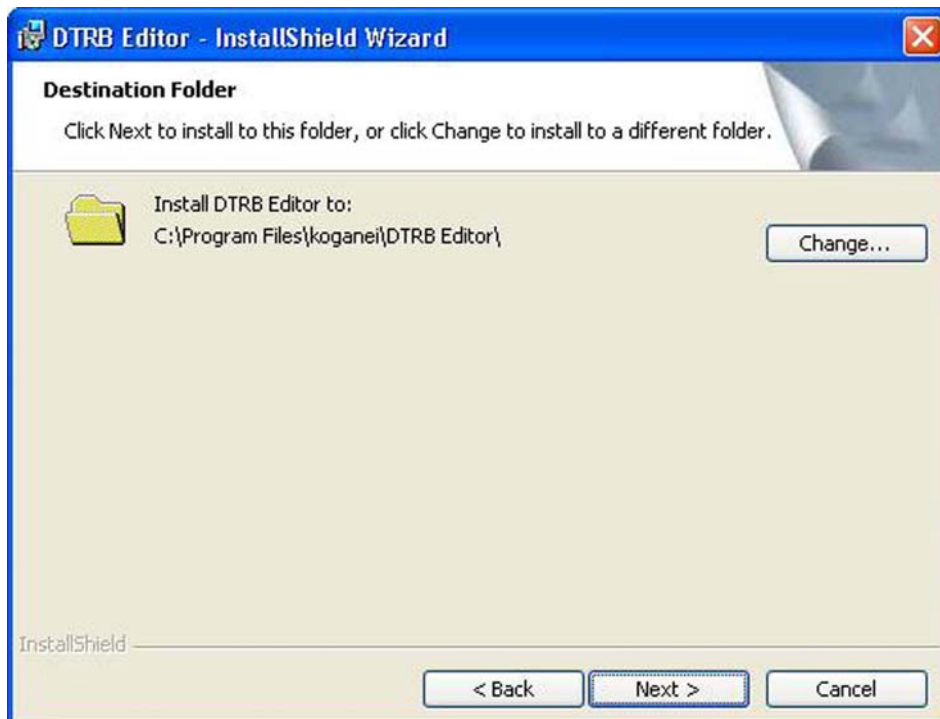2. Follow the instructions that appear and then click **Next**.
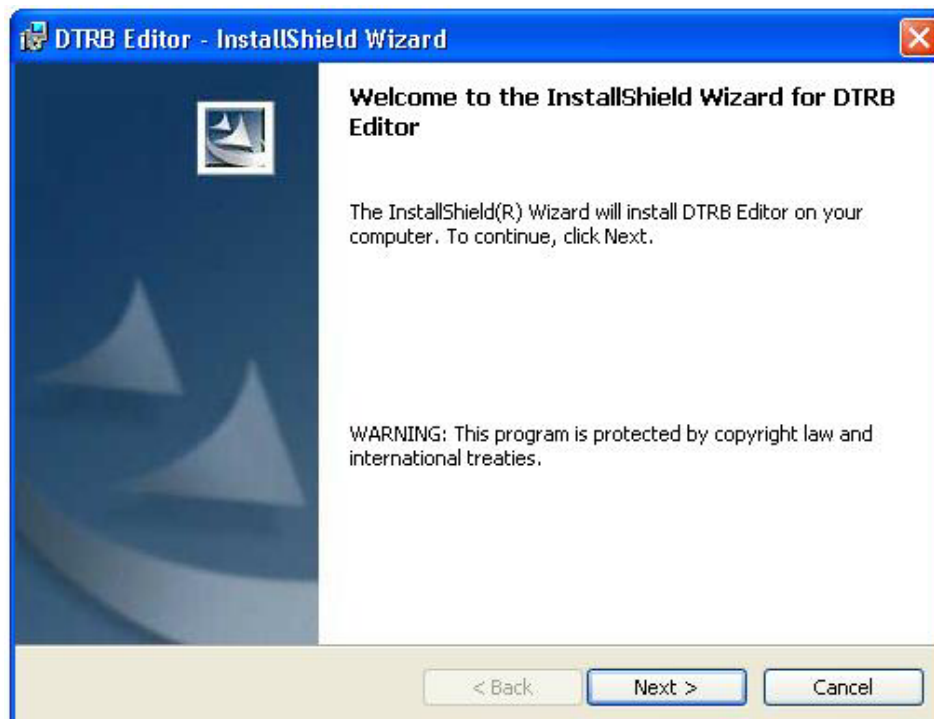
3. Enter your user name, company name, and product ID, follow the instruc-tions that are displayed, and then click **Next**.

4. The InstallShield Wizard will start copying files. When completed, select the installation directory (folder) and then click **Next**. The default installation directory is C:\Program Files\koganei\DTRB Editor\. To install to a different directory, click **Change** and then specify the directory you want.

5. The InstallShield Wizard will start copying files. The completion window will appear when installation completes. Click **Finish** to exit the wizard.
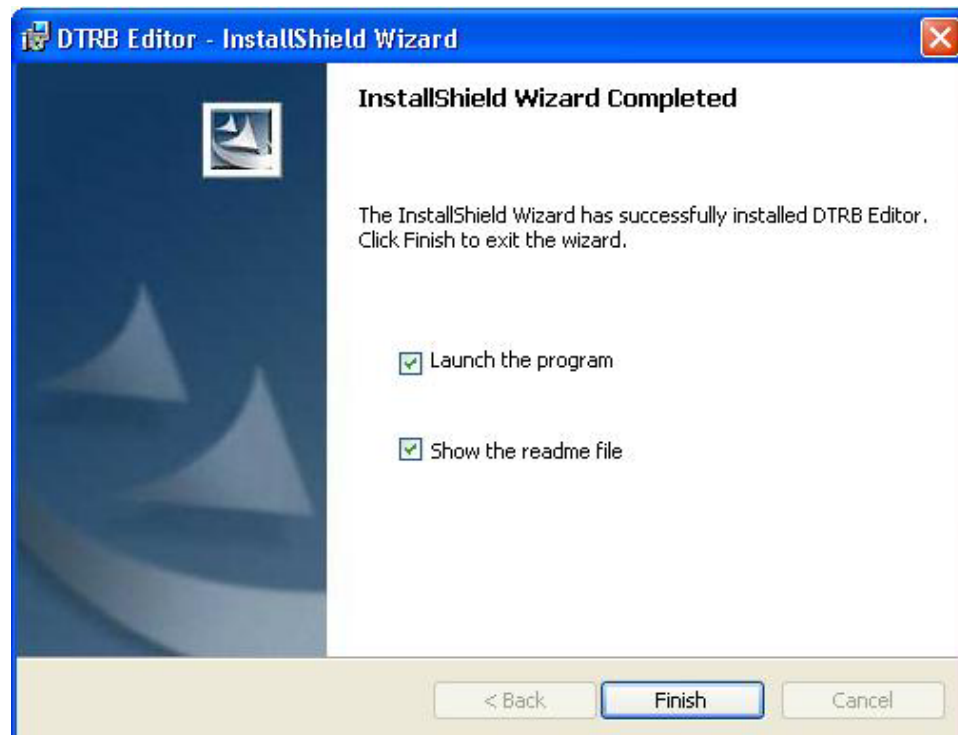

6. This completes installation. Once the installation window closes, wait a moment and then remove the CD-R from the drive.

1-7   Uninstalling the Program

1. On the Windows taskbar, click the **Start** button, point to **Settings**, and then click **Control Panel**. In the Control Panel, double-click **Add or Remove Programs**.

2. Click **Change or Remove Programs**, select DTRB Editor, and then click **Remove**.
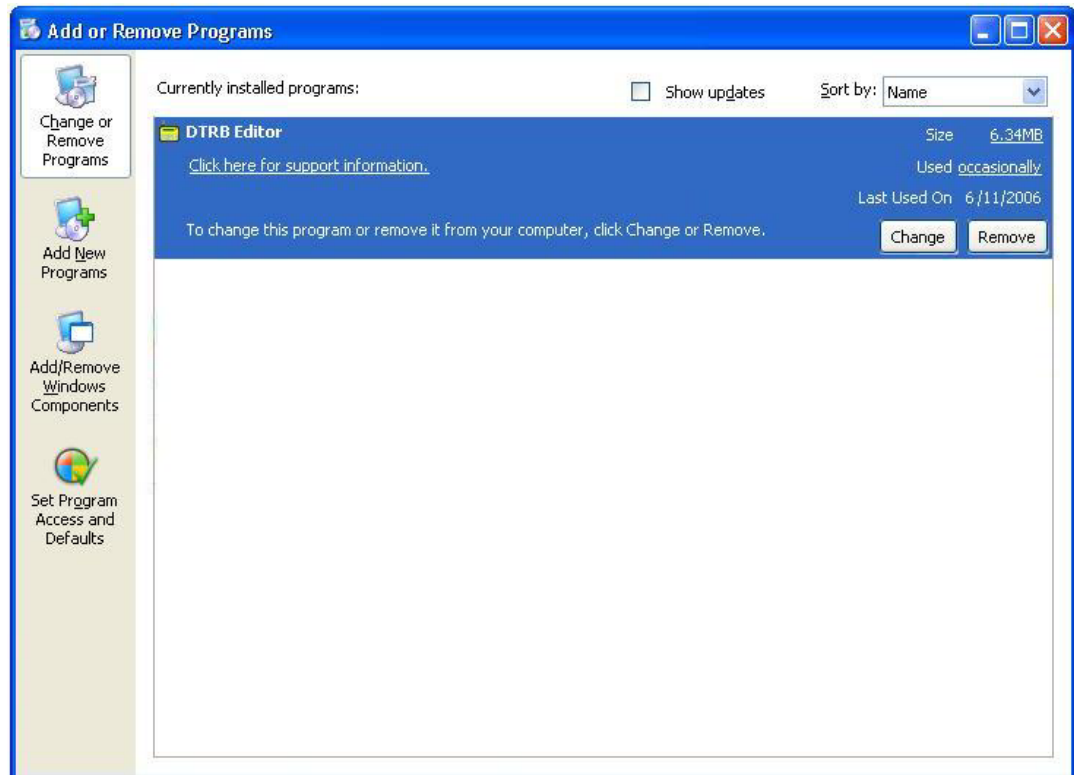
3. In the Add or Remove Programs confirmation dialog box, click **Yes**.
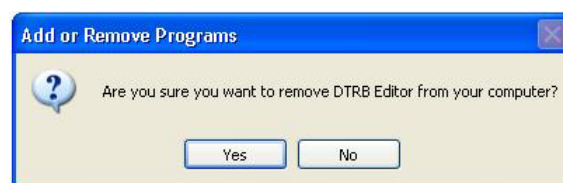
4. Once the program files have been deleted, click **Finish** to exit the wizard.
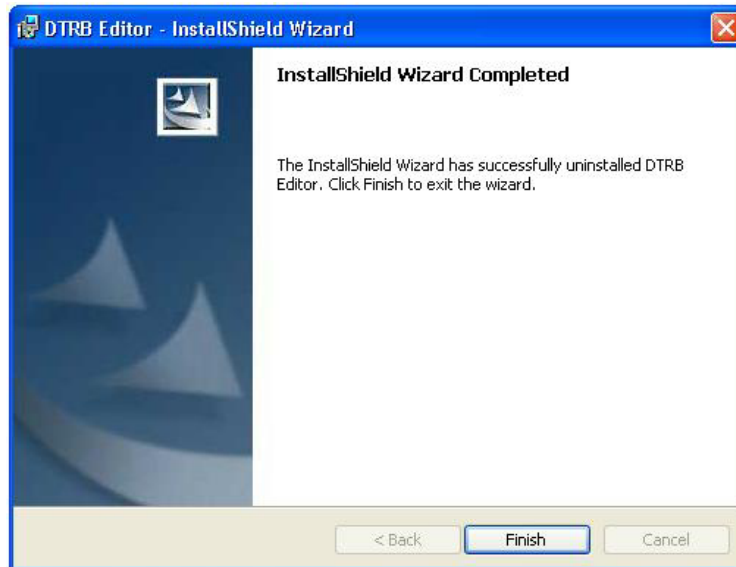
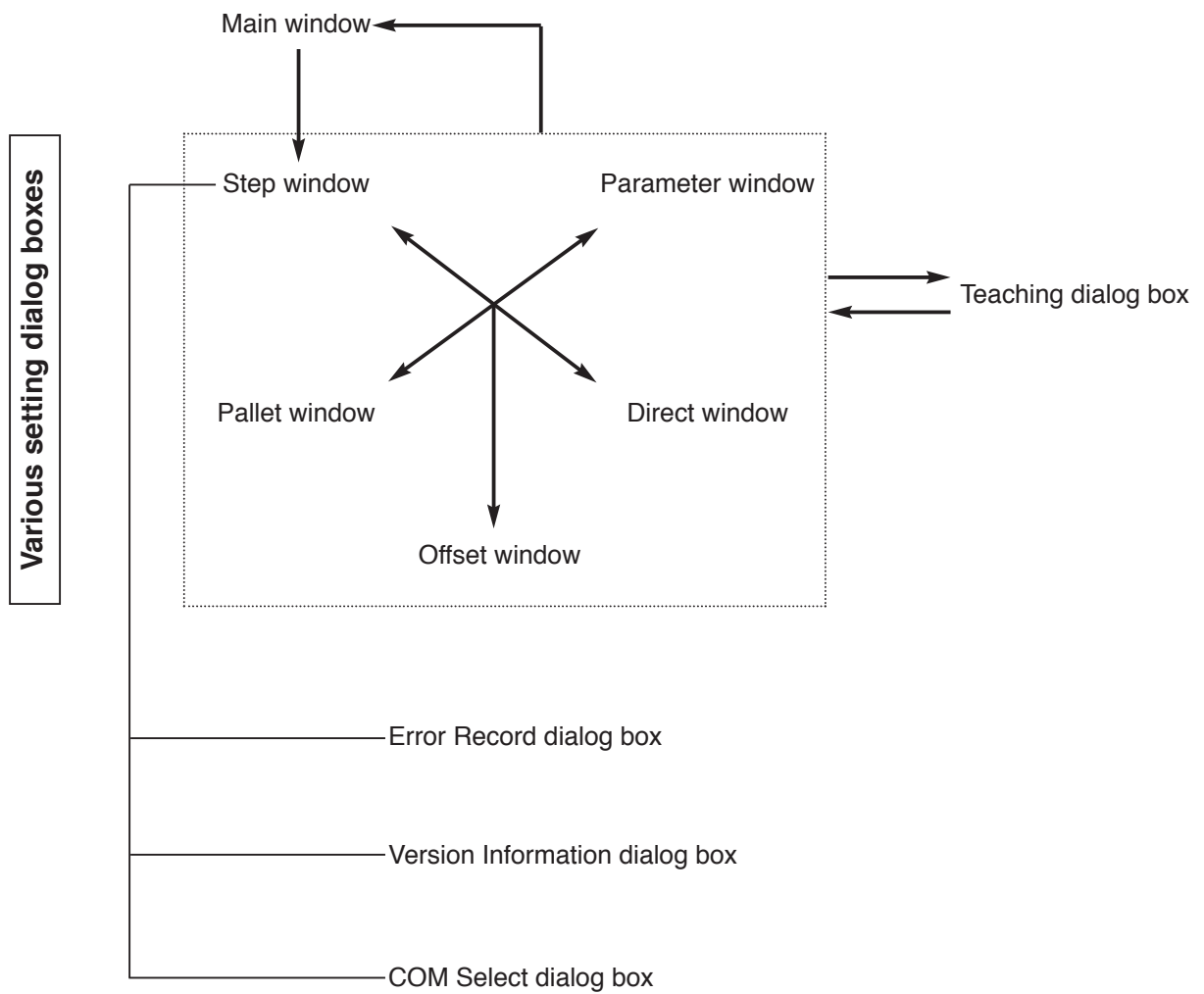## 1-8   Starting and Quitting

How to start the program

On the Windows taskbar, click the **Start** button, point to **Programs**, and then select **DTRB Editor** from the DTRB Editor program group. The main window appears when the program starts.

How to quit the program

Click the Close button ❌ on the upper right of the main window.
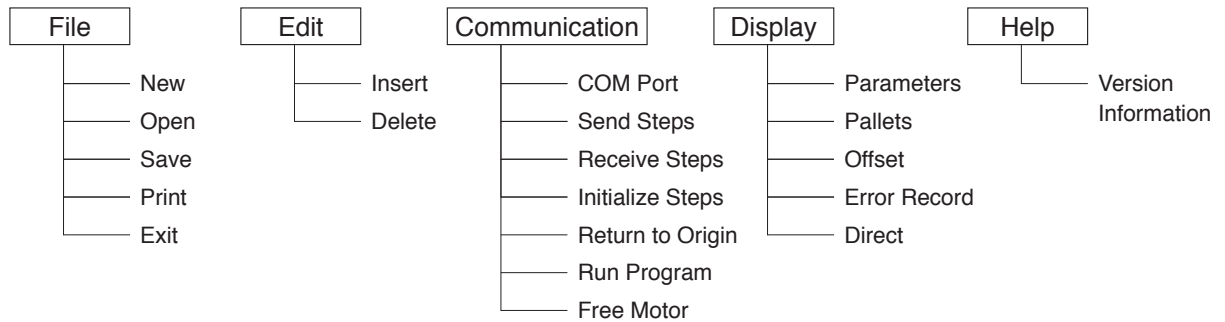
Chapter 2

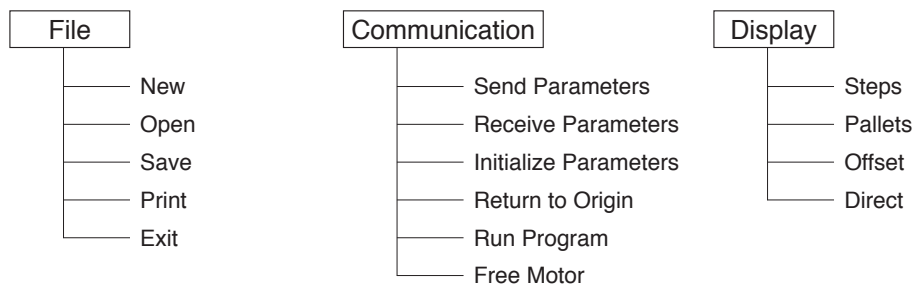# Menu Hierarchy

2-1   Overall Flow

```
                                    Main window ◄─────────┐
                                         │                │
                                         ▼                │
         ┌ · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ┐
         ·                                                                 ·
    │    · Step window                    Parameter window                ·
    │    ·       ↖                           ↗                            ·
    V    ·         ↖                       ↗                              ·        ──────► Teaching dialog box
a   a    ·           ↖                   ↗                                ·
r   r    ·             ↖               ↗                                  · ◄──────
i   i    ·               ↘           ↙   ↓                                ·
o   o    ·             ↙               ↘                                  ·
u   u    · Pallet window                 Direct window                   ·
s   s    ·                                                                ·
         ·                    ↓                                           ·
d   s    ·                 Offset window                                  ·
i   e    ·                                                                ·
a   t    └ · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ┘
l   t
o   i
g   n
    g
b
o    ───────────────── Error Record dialog box
x
e    ───────────────── Version Information dialog box
s
     ───────────────── COM Select dialog box
```

Various setting dialog boxes

2-2   Menu Hierarchy

Main window

Displays the version of the support software. Clicking **Start DTRB Editor** displays the Main Step window. The menu hierarchy in the window is as follows.
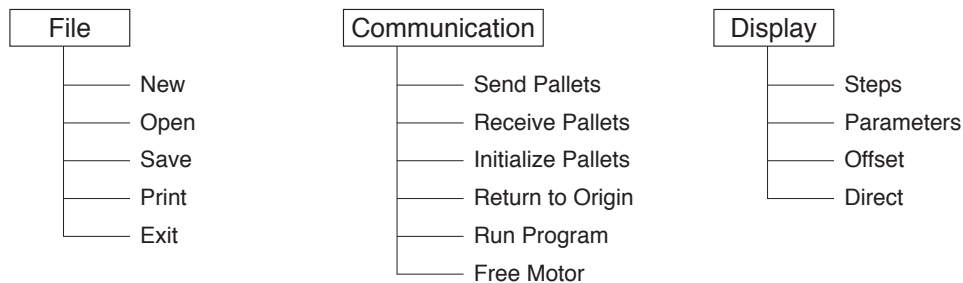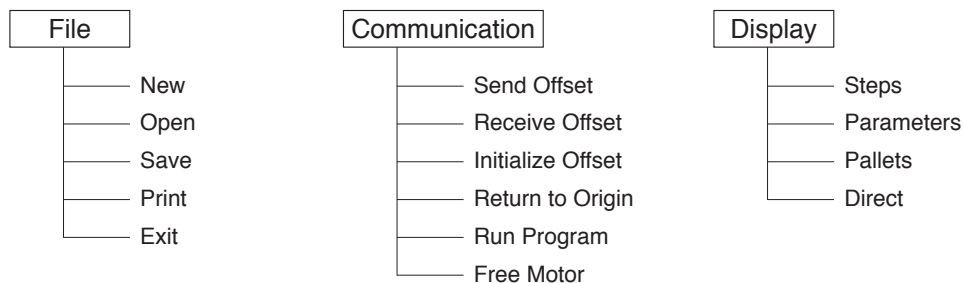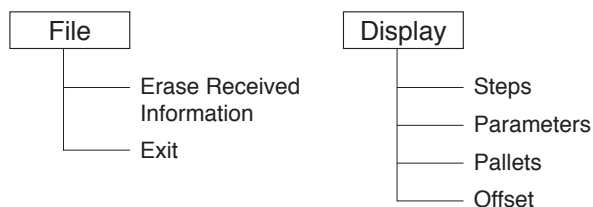
Main Step window

File	Edit	Communication	Display	Help
New	Insert	COM Port	Parameters	Version Information
Open	Delete	Send Steps	Pallets	
Save		Receive Steps	Offset	
Print		Initialize Steps	Error Record	
Exit		Return to Origin	Direct	
		Run Program		
		Free Motor		

Parameter window

File	Communication	Display
New	Send Parameters	Steps
Open	Receive Parameters	Pallets
Save	Initialize Parameters	Offset
Print	Return to Origin	Direct
Exit	Run Program	
	Free Motor	

Pallet window

File	Communication	Display
New	Send Pallets	Steps
Open	Receive Pallets	Parameters
Save	Initialize Pallets	Offset
Print	Return to Origin	Direct
Exit	Run Program	
	Free Motor	

Offset window

File	Communication	Display
New	Send Offset	Steps
Open	Receive Offset	Parameters
Save	Initialize Offset	Pallets
Print	Return to Origin	Direct
Exit	Run Program	
	Free Motor	

Direct window

File	Display
Erase Received Information	Steps
Exit	Parameters
	Pallets
	Offset

Memo

Chapter 3
Basic Operations/Screen Descriptions

3-1   Operation Procedure

This section describes the basic operation procedure for the program.

1. Once the program starts, click **Start DTRB Editor** in the main window.
2. To change the communication port, run the program in offline mode and then set the communication port you want by selecting **COM Port** on the **Communication** menu. (The port will be set to COM1 by default at startup.)
3. Open the Parameter window by selecting **Parameters** on the **Display** menu.
4. Set parameters and then send them by selecting **Send Parameters** on the **Communication** menu.
5. Open the Step window by selecting **Step** on the **Display** menu.
6. Create step information and then send it by selecting **Send Steps** on the **Communication** menu.
7. Select **Return to Origin** on the **Communication** menu to perform the return to origin.
8. After the return to origin completes, select **Run Program** on the **Communication** menu to run the program.

3-2   Main Window

This is the main window for the software. Clicking **Start DTRB Editor** commences communications between the DTRB and your PC.

No.	Name	Description
①	**Start DTRB Editor** button	Starts the DTRB Editor support software. This puts the software in online mode and occupies the COM port.

* To quit this software, click the Close button ❌ on the upper right of the main window.

3-3   Main Step Window

3-3-1 Step Operations
This window is for editing steps for running a program.

No.	Name	Description
①	Menu bar	Displays the names of top-level menus. There are 5 menus organized by function.
		File • New: Deletes existing settings then initializes new file settings in the window. • Open: Reads settings from a saved file type (*.stp, *.csv, *.crd) and displays them in the window. • Save: Saves settings displayed in the window to a file type (*.stp, *.csv). • Print: Prints the data displayed in the window. • Exit: Closes the window.
		Edit • Insert: Inserts the selected range onto the window. • Delete: Deletes the selected range from the window.

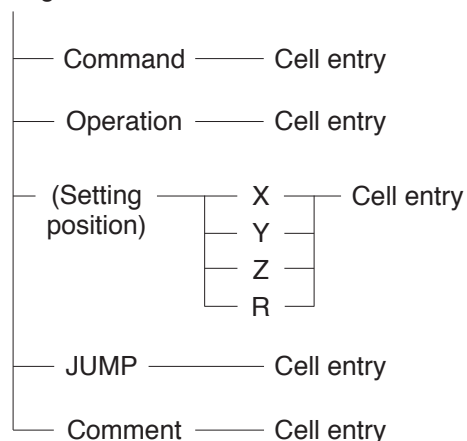| No.	Name	Description
①	Menu bar	Communication • COM Port: Sets the communication port to use. • Send Steps: Sends the selected step range to DTRB. • Receive Steps: Receives the selected step range from DTRB. • Initialize Steps: Initializes the current program. • Return to Origin: Returns the robot to the origin. • Run Program: Runs the program. • Free Motor: Stops the program and cuts off motor energization.
		Display • Parameters: Switches to the window for setting parameter data. • Pallets: Switches to the window for setting pallet data. • Offset: Switches to the window for setting offset data. • Error Record: Displays the Error Record dialog box. • Direct: Switches to the window for direct commands.
		Help • Version Information: Displays version information for DTRB and the support software.
②	Toolbar	Provides buttons that function as shortcuts for frequently used commands. New Open Save Print Send Receive Initialize Return to Origin Start Operation Free Motor Move to Display Acquire Program No. Initial Screen Error Record
		Online ⇔ Offline mode button Set the editor to Offline mode if you want to edit in offline mode. Make sure to reactivate Online mode to enable communication.
③	Send/Receive Range	Specifies the range for sending/receiving steps. The wider the receiving range, the longer data transfer will take, so we recommend that you select a range before receiving data. When sending data, blank rows will delete steps in the DTRB main unit.
④	Step editing area	Sets operation commands. Enter settings such as speed and position here. See Section 3-3-2.

Note: The Pgm No. displayed when reading data indicates the state of the rotary switch. If the Pgm No. has been changed by turning the rotary switch, make sure that you perform return to origin. If you do not perform return to origin, the Pgm No. stays the same as it was before the switch was turned.

3-3-2 Step Editing Area

This section describes data entry and editing.

Settings

- Command —— Cell entry
- Operation —— Cell entry
- (Setting position) —— X / Y / Z / R —— Cell entry
- JUMP —— Cell entry
- Comment —— Cell entry
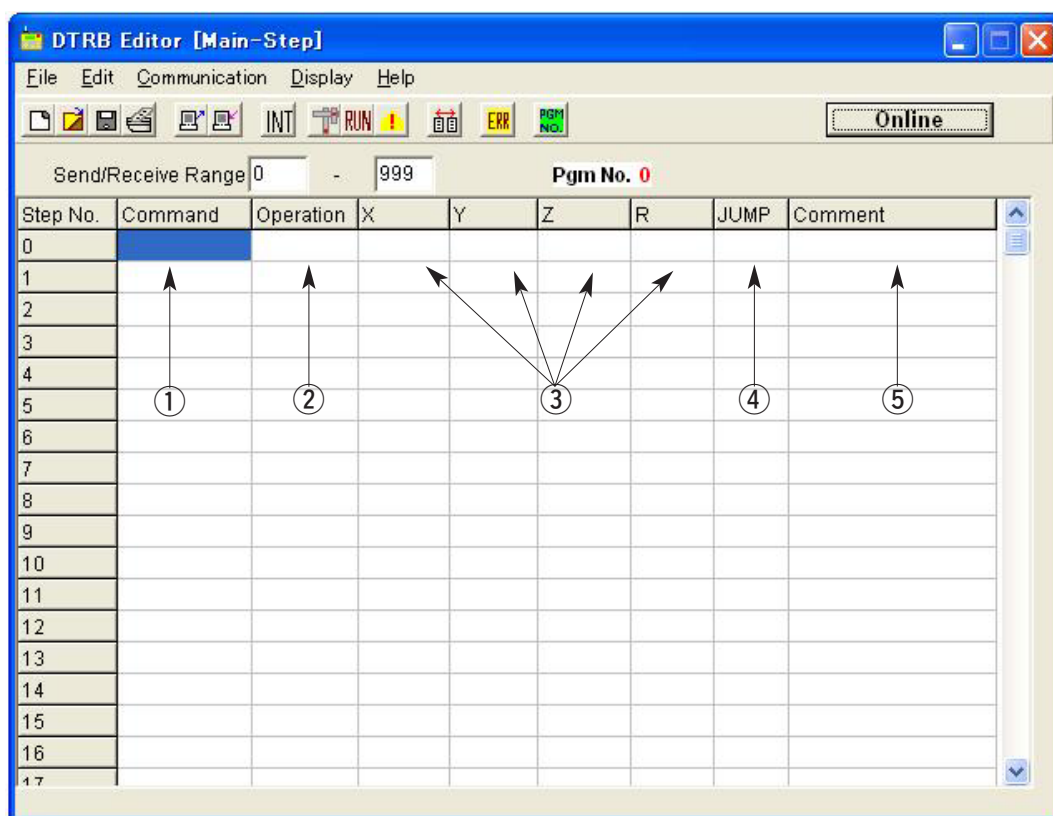
Cells in which point data can be entered

Command	Operation	Setting position	JUMP	Comment
POI	Entry OK	Entry OK [Note 1]	Entry not OK	Entry OK
LIN	Entry OK	Entry OK [Note 2]	Entry not OK	Entry OK
SEQ	Entry OK	Entry not OK	Entry OK [Note 3]	Entry OK
CIR	Entry OK	Entry OK	Entry not OK	Entry OK
PAL	Entry OK	Entry not OK	Entry not OK	Entry OK
END	Entry OK	Entry not OK	Entry not OK	Entry OK

Notes: 1. Entry not OK in Operation 3＊＊, 4＊＊, and 5＊＊.
2. Entry not OK in Operation 1＊＊ and 200.
3. Entry not OK in Operation 1＊＊, 2＊＊, 3＊＊, 4＊＊, 916, and 917.

Remark: While entry is actually possible in cells labeled as entry not OK, a data error will result when the program is sent.
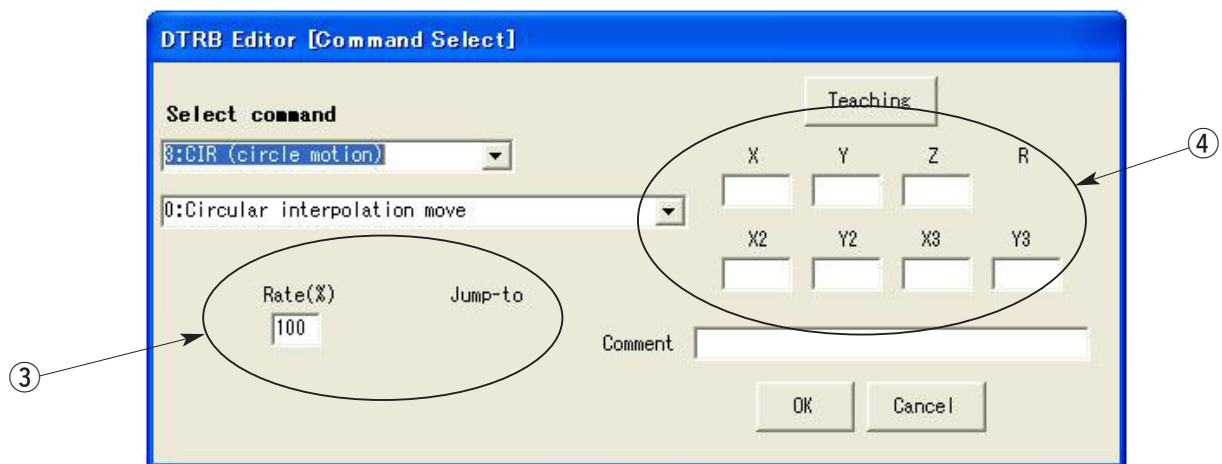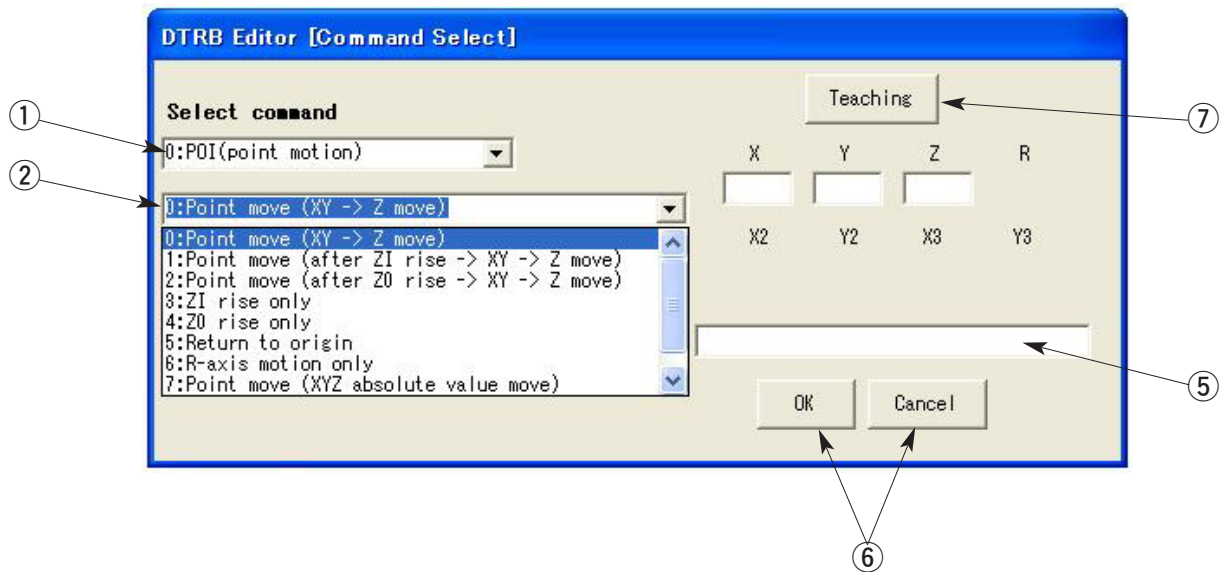
● About copying, pasting, inserting blank rows, and deleting

The range of Entry OK cells that were dragged and dropped will be the range on which editing, such as copying, are performed. Be aware that it is not the location selected by moving the cursor with the keyboard's cursor keys.

No.	Name	Operation method	Remark
①	Command	• There are 6 commands. [Entry method] 1) Direct entry in the setting area Enter a command directly in the Command cell. 2) Simple entry See Section 3-3-3.	Commands: • POI (Point operation) • LIN (Linear interpolation) • CIR (Circular operation) • PAL (Pallet operation) • SEQ (Sequence command) • END (End command)

②	Operation	• There are several types of operations for each command.
		[Entry method]
		1) Direct entry in the setting area
		  Enter values directly in the Operation cell.
		2) Simple entry
		  See Section 3-3-3.
			Setting input range:
			See the instruction manual for the DTRB main unit.

③	Setting position (X, Y, Z, R)	• Enter the position of the movement destination for the command requiring input of the setting position.
		[Entry method]
		1) Direct entry in the setting area
		  Enter values directly in the setting position cells.
		2) Simple entry
		  See Section 3-3-3.
			Setting input range:
			Do not enter a value greater than the software limit (parameter). Such values can be sent, but they will result in a limit-over error if the program runs.

④	Jump	• Enter the step number of the jump destination for Jump cell information. Only enter a number here in the case of the jump command of the SEQ (sequence operation) command.
		[Entry method]
		1) Direct entry in the setting area
		  Enter a value directly in the Jump cell.
		2) Simple entry
		  See Section 3-3-3.
			Setting input range:
			0 to 999

⑤	Comment	• Enter comments when necessary.
		[Entry method]
		1) Direct entry in the setting area
		  Enter a comment directly in the Comment cell.
		2) Simple entry
		  See Section 3-3-3.
			Setting input range:
			Enter up to 128 single-byte characters per cell.
			Note:
			Comments are not sent.

3-3-3   Simple Entry of Steps

This section describes the simple entry of steps. A command description will be displayed when you use this dialog box, and only the items that need to be entered will appear. The dialog box for the simple operation of steps (Command Select) appears when you double-click the step editing area.

No.	Name	Operation method	Remark
①	Command selection box	Select a command from the box.	
②	Operation selection box	Operations suitable for the command selected in ① above will be displayed. Select the operation you want to run.	
③	Speed I/O port, Timer, Jump destination, Selected text	Enter values of the operation speed, I/O port, timer, and jump destination.	These items will only be displayed for commands for which they need to be entered.
④	Setting position	Enter the setting position. Displayed split in two levels in the case of circular operation.	The setting position will only be displayed for commands for which it needs to be entered.
⑤	Comment	Enter a comment.	Entry range: Enter up to 128 single-byte characters per cell.
⑥	**OK** and **Cancel** buttons	OK: Writes the entered settings to the step editing area. Cancel: Closes the Command Select dialog box without inputting the entered settings.	
⑦	**Teaching** button	Select if you want to decide points by teaching. Clicking this button proceeds to the Teaching dialog box. When proceeding to the dialog box, a selection dialog will appear asking whether to start moving.	Note: See Section 3-14 "Teaching Dialog Box."

The basic operation procedure for the Command Select dialog box is described below.
1. In the step editing area, double-click the row of the step number you want to enter.
2. Select a command from the command selection box ①.
3. Select an operation from the operation selection box ②.
4. If the items indicated by ③ appear, enter values of the speed, I/O port, and jump destination, according to dialog box instructions.
5. If the item indicated by ④ appears, set the movement distance. (Click **Teaching** if you want to decide the position by teaching.)
6. Enter a comment in the box indicated by ⑤ as necessary.
7. Clicking **OK** ends command entry.

3-4   Parameter Window

3-4-1   Parameter Editing Dialog Box

This section describes operations in the Parameter editing dialog box.

① → (Menu bar)
② → (Toolbar)
③ → (Value column)

DTRB Editor [Parameter]

File   Communication   Display

Prm No.	Parameter's Name	Unit	Input range	Initial value	Value
0	Robot number		10 - 32	22	22
1	Designate origin return		0 - 3	3	3
2	Designate a starting point		0 - 3	3	3
3					
4	Virtual origin point	mm	-999.99 - 999.99	0.00	0.00
5					
6	X stroke (+ software limit)	mm	0 - 999.99	200.00	200.00
7	Y stroke (+ software limit)	mm	0 - 999.99	200.00	200.00
8	Z stroke (+ software limit)	mm	0 - 999.99	50.00	50.00
9	R stroke (+ software limit)	mm	0 - 999.99	200.00	200.00
10	X stroke (- software limit)	mm	0 - -999.99	-5.00	-5.00
11	Y stroke (- software limit)	mm	0 - -999.99	-2.00	-2.00
12	Z stroke (- software limit)	mm	0 - -999.99	-5.00	-5.00
13	R stroke (- software limit)	mm	0 - -999.99	-5.00	-5.00
14	X lead	mm	1 - 99	6.00	6.00
15	Y lead	mm	1 - 99	6.00	6.00
16	Z lead	mm	1 - 99	2.00	2.00
17	R lead	mm	1 - 99	6.00	6.00
18	X accelerate	sec	0.1 - 10	0.1	0.1
19	Y accelerate	sec	0.1 - 10	0.1	0.1
20	Z accelerate	sec	0.1 - 10	0.1	0.1
21	R accelerate	sec	0.1 - 10	0.1	0.1
22	X maximum speed	mm/s	1 - 200	200.00	200.00
23	Y maximum speed	mm/s	1 - 200	200.00	200.00

Online

No.	Name	Description
①	Menu bar	Displays the names of top-level menus. There are 3 menus organized by function.
		File
		• New: Deletes existing settings then initializes new file settings in the window.
		• Open: Reads settings from a saved file type (*prm, *csv, *crd) and displays them in the window.
		• Save: Saves settings displayed in the window to a file type (*prm, *csv).
		• Print: Prints the data displayed in the window.
		• Exit: Closes the window.
		Communication
		• Send Parameters: Sends the parameter data displayed in the window to DTRB.
		• Receive Parameters: Receives parameter data from DTRB.
		• Initialize Parameters: Initializes the current parameter data. See Section 3-4-2.
		• Return to Origin: Returns the robot to the origin.
		• Run Program: Runs the program.
		• Free Motor: Stops the program and cuts off motor energization.

No.	Name	Description
①	Menu bar	Display • Steps: Switches to the window for setting step data. • Pallets Switches to the window for setting pallet data. • Offset: Switches to the window for setting offset data. • Direct: Switches to the window for direct commands.
②	Toolbar	Provides buttons that function as shortcuts for frequently used commands. New ☐ Open ☑ Save 💾 Print 🖨 Send 🖳 Receive 🖳 Initialize INT Return to Origin Start Operation RUN Free Motor ⚠ ZI Teach ZI Move to Initial Screen
		Online ⇔ Offline mode button Set the editor to Offline mode if you want to edit in offline mode. Make sure to reactivate Online mode to enable communication.
③	Parameter editing area	An area for entering parameter values. It is possible to enter values exceeding the specification range, but they will result in a data error when sending them as they are.

Notes: 1. If you have changed the lead, the top speed will be 70 mm/s in the case of lead 2. Parameters cannot be sent if a value higher than 70 mm/s is entered in that case.
2. Clicking **ZI Teach** proceeds to the Teaching dialog box. When proceeding to the dialog box, a selection dialog box will appear asking whether to start ZI movement. (See Section 3-14 "Teaching Dialog Box".)

3-4-2 Parameter Initialization Dialog Box

This section describes the dialog box for initializing parameters.
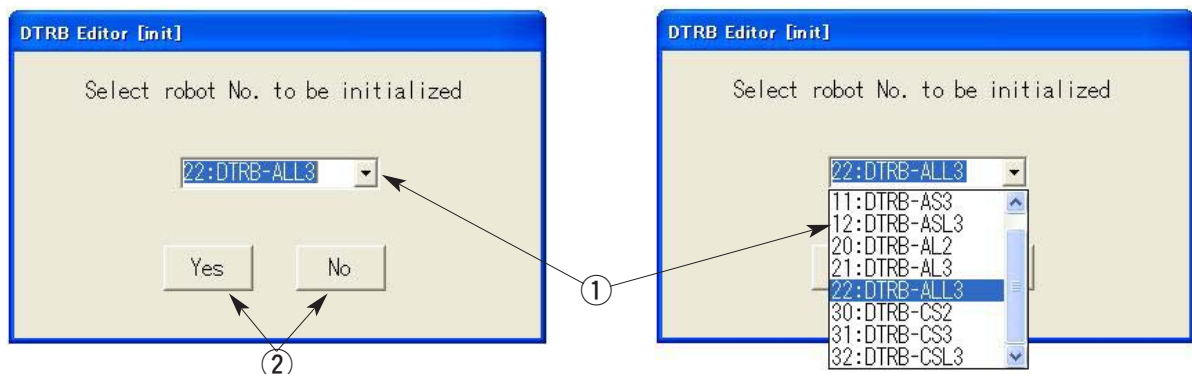
No	Name	Description
①	Selection box for robot number	Selects the robot number to be initialized.
②	**Yes** and **No** buttons	**Yes**: Starts initialization. **No**: Cancels initialization.

3-5 Pallet Window
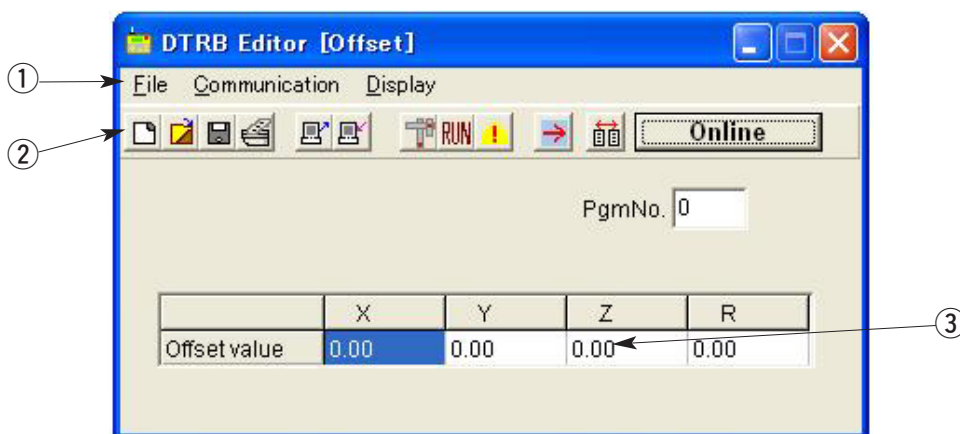
This section describes operations in the Pallet window.

No.	Name	Description
①	Menu bar	Displays the names of top-level menus. There are 3 menus organized by function.
		File
		• New: Deletes existing settings then initializes new file settings in the window.
		• Open: Reads settings from a saved file type (*plt, *csv, *crd) and displays them in the window.
		• Save: Saves settings displayed in the window to a file type (*plt, *csv).
		• Print: Prints the data displayed in the window.
		• Exit: Closes the window.
		Communication
		• Send Pallets: Sends the pallet data displayed in the window to DTRB.
		• Receive Pallets: Receives pallet data from DTRB.
		• Initialize Pallets: Initializes pallet data.
		• Return to Origin: Returns the robot to the origin.
		• Run Program: Runs the program.
		• Free Motor: Stops the program and cuts off motor energization.
		Display
		• Steps: Switches to the window for setting step data.
		• Parameters: Switches to the window for setting parameter data.
		• Offset: Switches to the window for setting offset data.
		• Direct: Switches to the window for direct commands.

No.	Name	Description
②	Toolbar	Provides buttons that function as shortcuts for frequently used commands.
		New Open Save
		Print Send Receive
		Return to Origin Start Operation RUN Free Motor
		Select Teaching Move to Initial Screen
		Online ⇔ Offline mode button
		Set the editor to Offline mode if you want to edit in offline mode. Make sure to reactivate Online mode to enable communication.
③	Pallet editing area	An area for entering pallet data. It is possible to enter values exceeding the specification range, but they will result in a data error when sending them as they are.

Note: Clicking **Select Teaching** proceeds to the Teaching dialog box. When proceeding to the dialog box, a selection dialog box will appear asking whether to start movement. (See Section 3-14 "Teaching Dialog Box".)

3-6   Offset Window

This section describes operations in the Offset window.

No.	Name	Description
①	Menu bar	Displays the names of top-level menus. There are 3 menus organized by function.
		File
		• New: Deletes existing settings then initializes new file settings in the window.
		• Open: Reads settings from a saved file type (*off, *csv, *crd) and displays them in the window.
		• Save: Saves settings displayed in the window to a file type (*off, *csv).
		• Print: Prints the data displayed in the window.
		• Exit: Closes the window.

No.	Name	Description
①	Menu bar	Communication • Send Offset: Sends the offset data displayed in the window to DTRB. • Receive Offset: Receives offset data from DTRB. • Initialize Offset: Initializes offset data. • Return to Origin: Returns the robot to the origin. • Run Program: Runs the program. • Free Motor: Stops the program and cuts off motor energization. Display • Steps: Switches to the window for setting step data. • Parameters Switches to the window for setting parameter data. • Pallet: Switches to the window for setting pallet data. • Direct: Switches to the window for direct commands.
②	Toolbar	Provides buttons that function as shortcuts for frequently used commands. New Open Save Print Send Receive Return to Origin Start Operation Free Motor Select Teaching Move to Initial Screen Online ⇔ Offline mode button Set the editor to Offline mode if you want to edit in offline mode. Make sure to reactivate Online mode to enable communication.
③	Offset editing area	An area for entering offset data. It is possible to enter values exceeding the specification range, but they will result in a data error when sending them as they are. Blank cells will also result in a data error.

Note: See Section 3-13 "Offset Teaching Setting Dialog Boxes" for information on teaching selection.

3-7   Direct Window

3-7-1   Window Operations
This section describes operations in the Direct window.

No.	Name	Description
①	Menu bar	Displays the names of top-level menus. There are 2 menus organized by function.
		File • Erase Received Information: Erases the received information that is displayed. • Exit: Closes the window.
		Display • Steps: Switches to the window for setting step data. • Parameters: Switches to the window for setting parameter data. • Pallets: Switches to the window for setting pallet data. • Offset: Switches to the window for setting offset data.
②	Toolbar	Provides buttons that function as shortcuts for frequently used commands. Erase Received Information 🔲 Move to Initial Screen 📇
		Online ⇔ Offline mode button Set the editor to Offline mode if you want to edit in offline mode. Make sure to reactivate Online mode to enable communication.
③	Command area	An area for using various communication commands and monitoring. See Section 3-7-2.
④	Received Information	Displays received information.

Note: If communication is not possible, click **Cancel** or switch the editor to Offline mode.

3-7-2   Command Operations

This section describes the operations of the various command buttons.

No.	Name	Operation method	Remark
①	Communication command buttons	There are 18 command buttons. Pressing each button sends its associated communication command.	For more information on the various communication commands, see the instruction manual for the DTRB main unit.

②	Teaching buttons	Performs teaching for the X, Y, Z, and R axes. Select a movement method from among 1, 2, and 3 on the left side and then click a command button.
		1: Quantitative Movement[Notes 1, 2]
		  (Travels with quantitative movement when clicked.)
		2: Slow Movement[Note 2] (Moves while the button is pressed and stops when it is released.)
		3: Fast Movement[Note 2] (Moves while the button is pressed and stops when it is released.)
		Notes: 1. The movement distance is selectable using parameters.
		  2. The movement speed is selectable using parameters.
			Stop it by using the **STOP** button or software limit.
			
			After stopping in teaching movement, the current position will be displayed in the monitor field.

③	DO forced output	The external output port can be forced to output. The command will be sent when you click the port number for which you want to turn external output on/off. While light blue: Sending external output ON command. While red: Sending external output OFF command.	External output has the following states: Red: ON Light blue: OFF
④	**Start Monitor** button	Monitors current states. See Section 3-7-3.	
⑤	**STOP** button **MSTOP** button **Cancel** button	• Clicking **STOP** stops teaching operation. It is also possible to click this button to temporarily stop a program while it is running. • Clicking **MSTOP** stops the motor and places it in motor free state. • Clicking **Cancel** frees the editor from the communication state and places it in offline mode. Click it when a communication error occurs, such as when a cable is disconnected.	

3-7-3   Start Monitor Button Operation

This section describes the monitor. The monitor displays the current position, current step number being executed, and the current I/O state.

No.	Name	Operation method	Remark
①	**Start Monitor** button	Clicking the button starts the monitor for displaying the current position, current step number being executed, and the current I/O state. To close the monitor, do any of the following: • Click the **Cancel** button. • Select **Display** from menu bar. • Click the Close button ✖. • Select **Exit** on the **File** menu. • Change from Online to Offline mode. In addition, clicking a command button closes the monitor and sends its associated command. External output has the following states: Red: ON Light blue: OFF	Caution: Please note that the monitor sends commands one after the other, so the state displayed in the monitor will not be in realtime.

3-8   COM Select Dialog Box

This section describes the COM Select dialog box. Select the communication port on your computer.
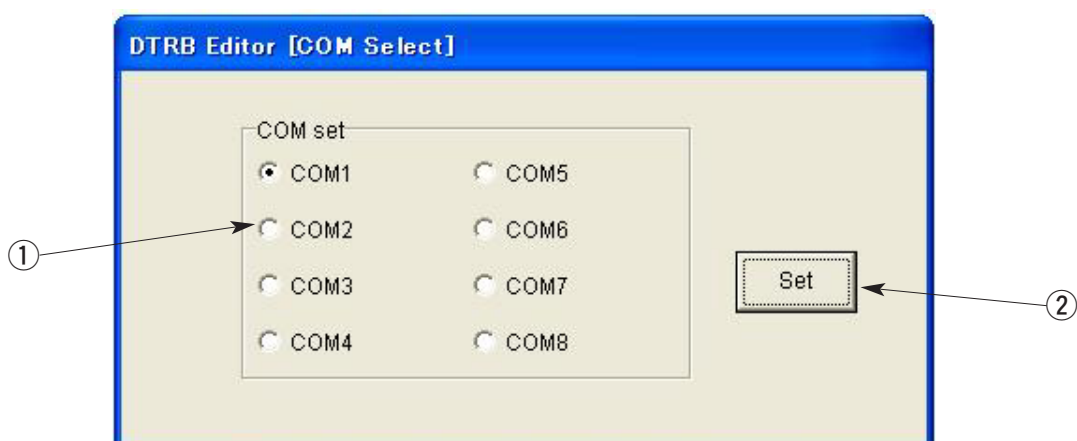
No.	Name	Description
①	COM setting menu	Select the communication port to use.
②	**Set** button	After selecting a COM port, click **Set** to confirm it.

3-9   Version Information Dialog Box

This section describes the Version Information dialog box. This dialog box displays the version number of the main unit and support software.
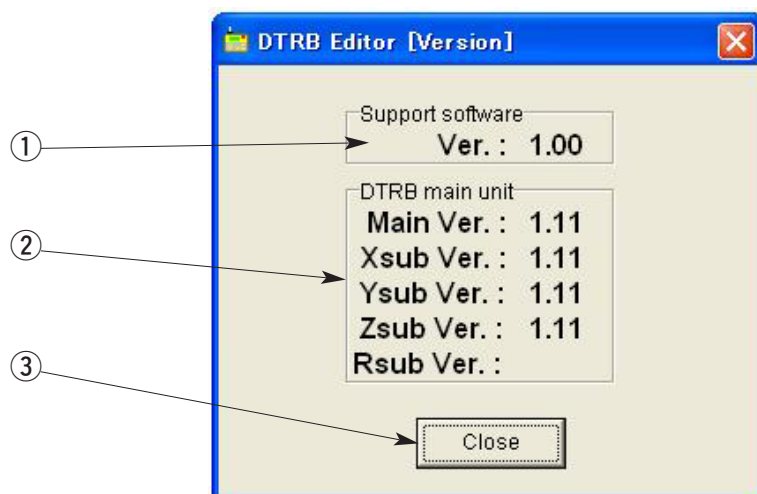
No.	Name	Description
①	Support Software version information	Displays the version of the support software. The version of the support software will be displayed when in offline mode or communication is not possible.
②	DTRB Main Unit version information	Displays version information for only the axis in use specified by parameters.
③	**Close** button	Closes the dialog box.

3-10 Error Record Dialog Box

This section describes the Error Record dialog box. This dialog box displays the last 16 errors.
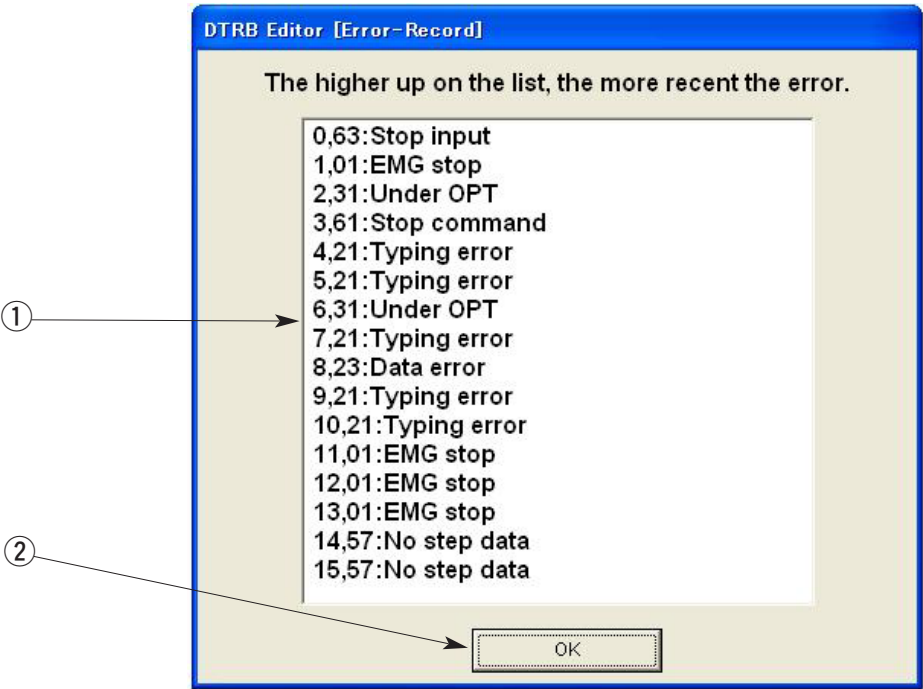
No.	Name	Description
①	Error record	Displays the last 16 errors. (When there are less than 16, OK will be displayed at the end.)
②	**OK** button	Closes the dialog box.

3-11 Operating and Transferring Dialog Boxes

This section describes the Operating and Transferring dialog boxes for stopping operation and data transfer, respectively.
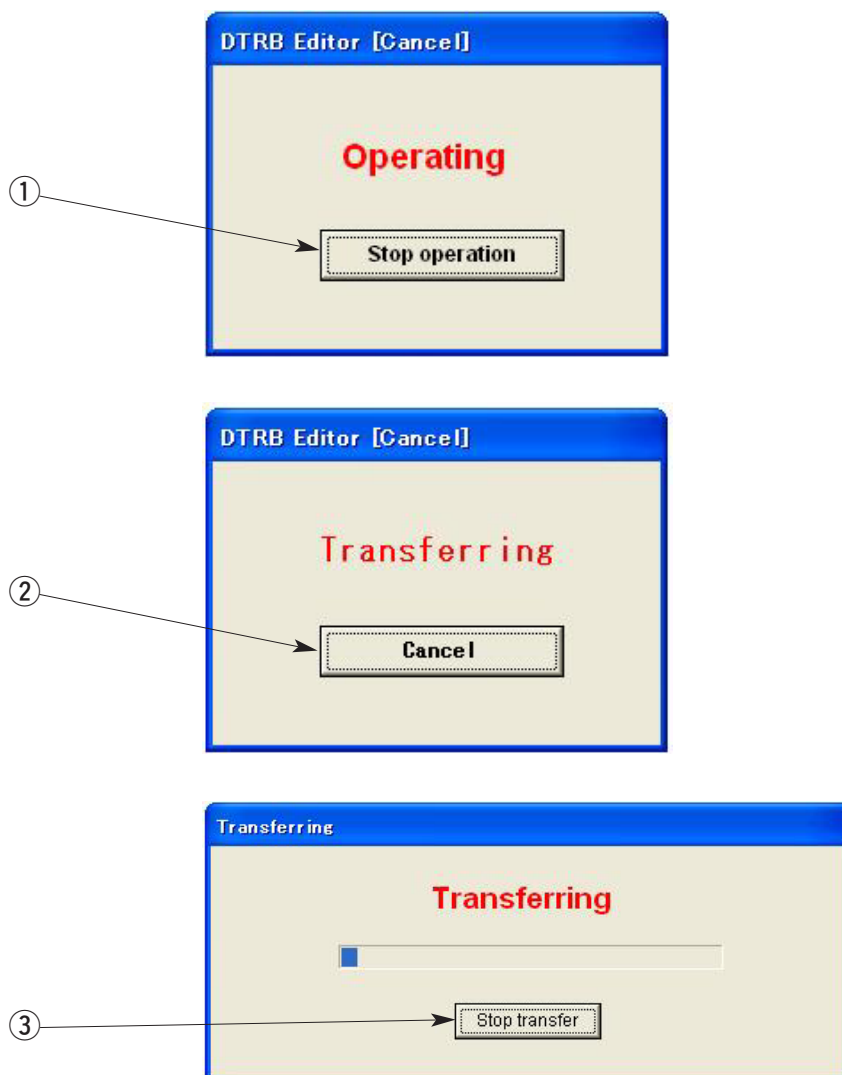
No.	Name	Description
①	**Stop operation** button	Sends the @MSTOP command and closes the dialog box. Click this button to stop operation. This dialog box closes when operation is stopped.
②	**Cancel** button	Click this button when communication is no longer possible or you want to stop transmission. This dialog box closes when data transfer is stopped.
③	**Stop transfer** button	Stops data transfer, places the editor in offline mode, and closes the dialog box. Click this button when communication is no longer possible or you want to stop transmission. This dialog box closes when data transfer is stopped.

3-12 Error Display Dialog Box

This section describes the Error Display dialog box. This dialog box appears when an error occurs while sending commands and transferring data.
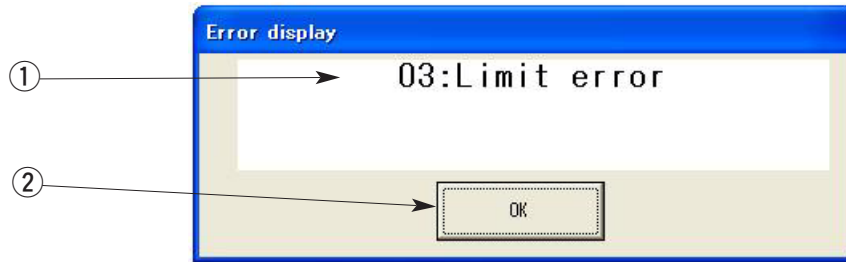
No.	Name	Description
①	Error display	Displays the error that occurred.
②	**OK** button	Closes the dialog box.

3-13 Offset Teaching Setting Dialog Boxes

The current program number is always written when performing offset teaching.

With offset teaching, certain position data of the step or pallet is assumed to be the center position, and the distance moved by teaching from that 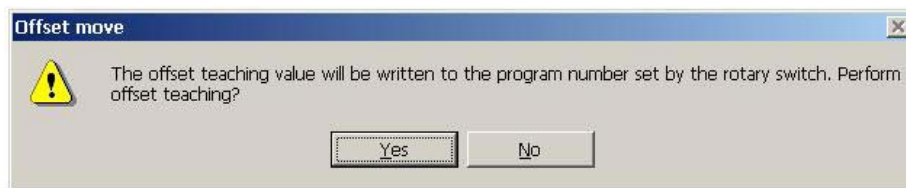position will be the offset value. Therefore, select using the step number that will be the center. For pallets, offset teaching is possible only for pallet numbers within the program.
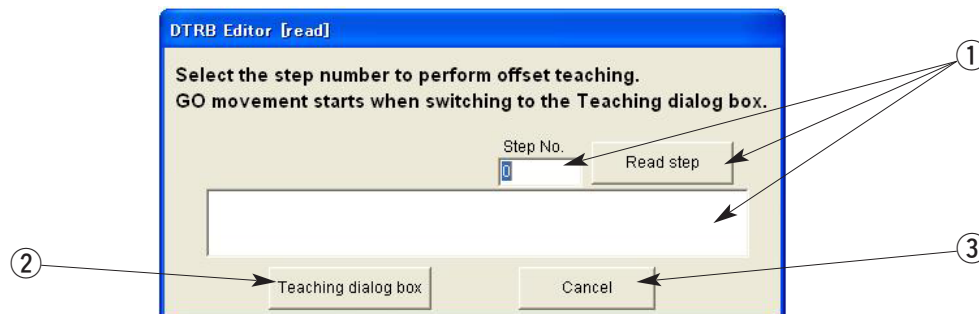
No.	Name	Description
①	**Read step** button	Sets the step for starting GO movement. Click **Read step** to check the step information.
②	**Teaching dialog box** button	Starts GO movement to the specified step. After movement, the Teaching dialog box in section 3-14 will appear. If an error occurs during movement, the editor will return to the Offset window.
③	**Cancel** button	Returns to the Offset window.

3-14 Teaching Dialog Box

This section describes the Teaching dialog box where you can set points and pallet data by teaching movement. Please note that when it is an offset operation, the difference from the entered data will be the offset value, so the displayed position (current position) and the offset value will differ.

No.	Name	Operation method	Remark
①	Teaching buttons	Performs teaching for the X, Y, Z, and R axes. Select a movement method from among 1, 2, and 3 on the left side and then click a command button. 1: Quantitative Movement[Notes 1, 2] 　(Travels with quantitative movement when clicked.) 2: Slow Movement[Note 2] 　(Moves while the button is pressed and stops when it is released.) 3: Fast Movement[Note 2] 　(Moves while the button is pressed and stops when it is released.) Notes: 1. The movement distance is selectable using parameters. 　　　　2. The movement speed is selectable using parameters.	Stop it by using the **STOP** button or software limit.
②	Position data	Displays the position for which movement was specified by the teaching. Can be manually typed in. (When it is an offset movement, positions that are manually typed in will not be reflected in the data that is sent.)	Displayed split in two levels in the case of circle and pallet.
③	**ORG** button	Returns the robot to the origin.	
④	**STOP** button **MSTOP** button	• Clicking **STOP** stops teaching operation. It is also possible to click this button to temporarily stop a program while it is running. • Clicking **MSTOP** stops the motor and places it in motor free state.	
⑤	**OK** button	Writes the position displayed in ② to the grid. When you click **OK**, data other than the offset setting will not be transferred to the main unit. If there is data other than the offset setting, send it after it is set.	When it is an offset movement, the offset value will be received and written to the grid after @OFF is sent.
⑥	**Cancel** button	Closes the dialog box.	

Memo

DTRB Editor, Support Software

for Creceed Cell Master

DTRBP-SW-HTC

Owner's Manual

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