

FACTORY AUTOMATION

# MITSUBISHI ELECTRIC INDUSTRIAL/COLLABORATIVE ROBOT High-Performance Teaching Box R86TB



Easy operation with just this one teaching box

- Easy to operate, intuitive user interface
- Major functions of the engineering software incorporated
- Data analysis ways provided for troubleshooting

# Applicable to a wide range of work quickly

The R86TB is a new teaching box further evolved from the conventional high-performance teaching box. Even if a computer cannot be brought to the site, one teaching box can handle a series of processes from setup to maintenance, reducing time and cost.

## Improved operability

Accessible from any screen

## Customizable

Shortcut registration, user definition screens

## 3D monitor incorporated

Visualization of setting areas

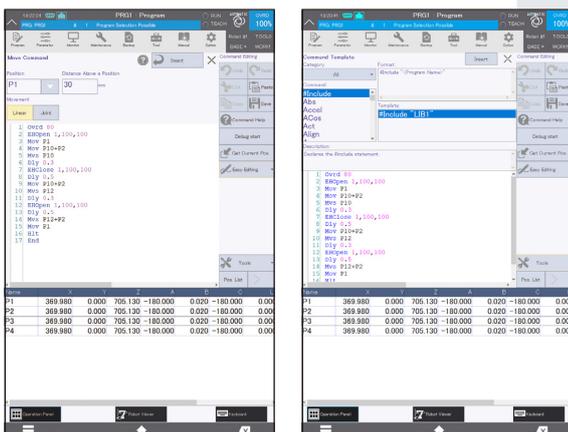
## Security function

File editing can be restricted with a password, and use of functions can be restricted with user authority settings.

### Feature 1

## Easy to operate, intuitive user interface

Any function can be accessed from the HOME screen or page list, and programs can be edited using the easy edit function and templates for further efficient setup.



### Feature 2

## Major functions of the engineering software incorporated

Visualization of setting areas on the 3D monitor screen, settings of safety logic, monitoring of signals, variables, and load conditions, and more features can be utilized with just this one teaching box.

The 3D monitor screen can display layouts created in RT ToolBox3.



Creation



**Improved processing speed**  
Stress-free operability

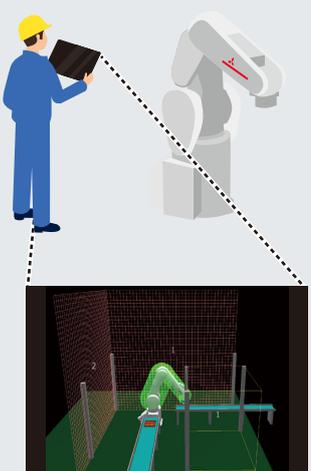
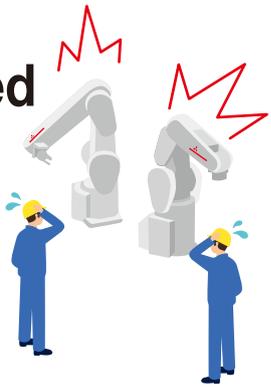
**Secure hardware buttons**  
Tactile and consistent operation using physical buttons.

Abundant information on the large screen display  
**10.1-inch high-definition display**

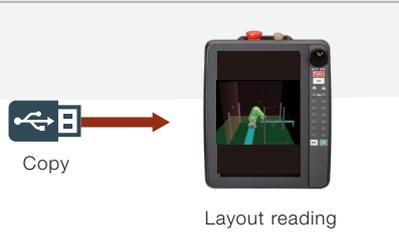
**Feature 3**

**Data analysis ways provided for troubleshooting**

Various types of displays and analysis screens make it possible to perform trouble diagnosis and achieve early troubleshooting without a computer.



Monitoring functions equivalent to those of RT ToolBox3



Real time monitoring possible



▲ Oscillograph function

Error Message	Start Date	Level
3280 Illegal position data (dstn)	22-07-26 19:47:58	Low
3280 Cannot exec without GETM IM	22-07-26 17:18:40	Low
3280 Cannot exec without GETM IM	22-07-26 17:18:28	Low
3280 Cannot exec without GETM IM	22-07-26 17:18:20	Low
4220 Syntax error	22-08-28 18:27:04	Low
4220 Syntax error	22-08-28 18:10:10	Low
7800 Illegal parameter (AXMEN0)	22-08-24 10:56:58	High
7800 Illegal parameter (AXMEN0)	22-08-24 10:53:04	High
4220 Syntax error	22-08-24 10:02:04	Low
4130 Illegal program name	22-08-23 17:42:48	Low
4220 Syntax error	22-08-23 17:28:18	Low
2000 This servo is OFF	22-06-17 10:45:50	Low
413000 This program is NEC	22-06-17 10:44:12	Low

▲ Error history

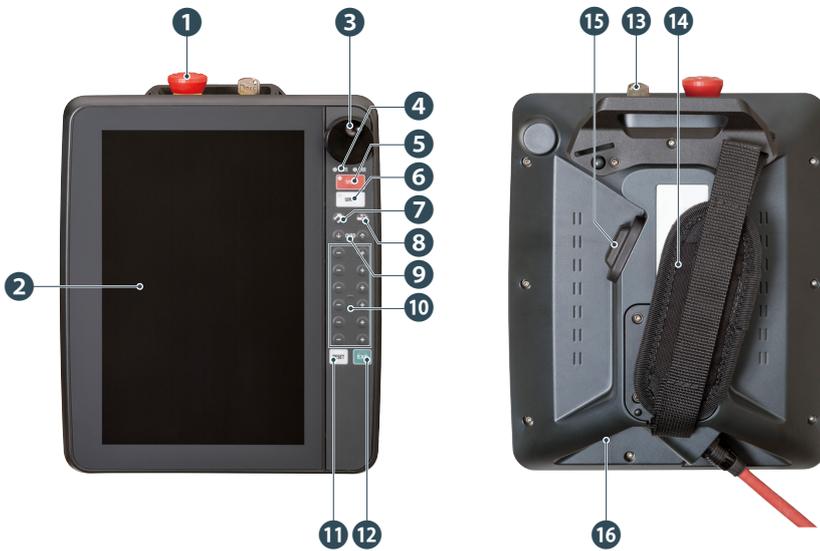
Variable Name	Position	Register	Value	Unit
P1	Position	+353.98+0.00+	0.000	0.000
P2	Position	+389.98+0.00+	0.000	0.000
P3	Position	+389.98+0.00+	0.000	0.000
P4	Position	+389.98+0.00+	0.000	0.000
P10	Position	0.000.0.0.0.0.0.0	0.000	0.000
P12	Position	0.000.0.0.0.0.0.0	0.000	0.000

▲ Program monitor

## Specifications

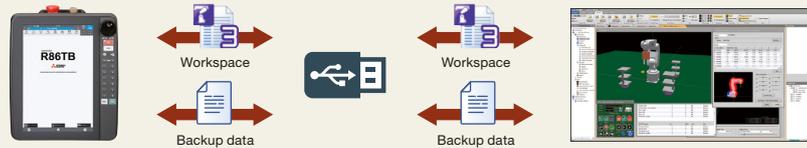
Item	Description
External dimensions	215mm (width) × 284mm (height) × 76mm (depth)
Weight	Approx. 1,200g (only the teaching box, excluding cables)
Body color	Dark gray
Connection method	Connected with the controller using a dedicated connector, Cable length: 7m
Interface	USB port × 1 (32G bytes or less)
Display	10.1 TFT (800 × 1280) color touch panel with a back light
Operation section	Display (touch panel), emergency stop button, enable switch (3-position), wheel, operation-specific key × 20
Display language	Japanese/English/simplified Chinese/traditional Chinese
Compatible controllers	CR800 series, CR700 series (Extension cable model: 2F-32EXTBST-□□M (□□: 01, 05, 10, 15m)), CR751 (Conversion cable required, Conversion cable model: 2F-32CON□□M (□□: 01, 05, 10, 15m))
IP rating	IP65 (excluding conversion and extension cables, and the connector section)

## Part names



No.	Name
1	Emergency stop button
2	Display (touch panel)
3	Wheel
4	Power lamp and error lamp
5	STOP button
6	SERVO button
7	HAND button
8	JOG button
9	OVRD button
10	+/- button
11	RESET button
12	EXE button
13	Key switch
14	Grip handle
15	3-position enable switch
16	USB connector

Workspaces and backup data can be utilized together with RT ToolBox3 via a USB memory.



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