MITSUBISHI

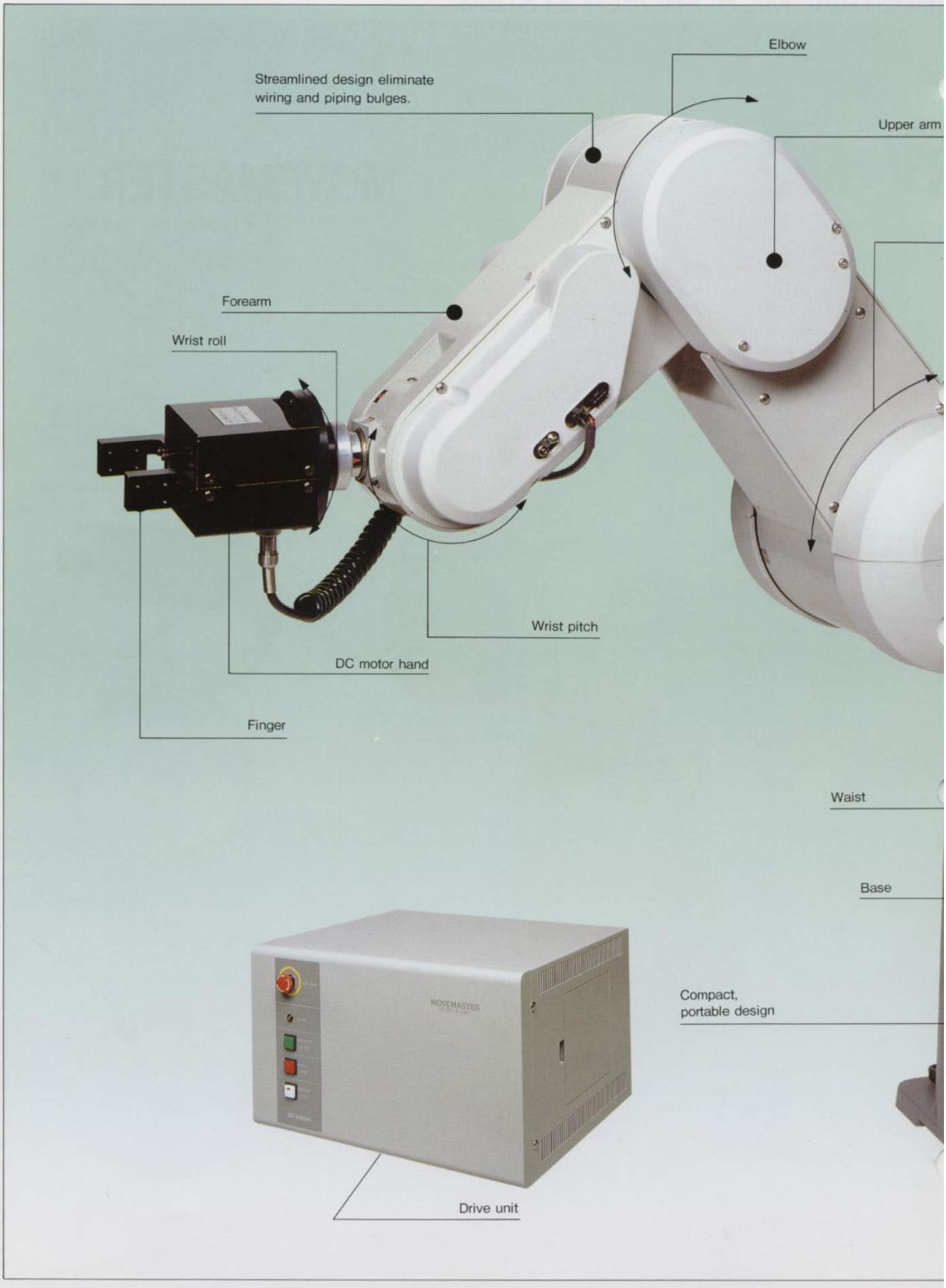
INDUSTRIAL MICRO-ROBOT SYSTEM

Model

RV-M2

MOVEMASTER

Mitsubishi Industrial Micro-robot Im
Movemaster Flexibility and Functio



ementation System
ality in a Compact Package

Research, education, assembly, handlir
working busily in a wide range of fields.
MOVEMASTER RV-M1, comes an enc
enhanced features and capabilites.

Faster

With a maximum resultant speed of 1500 mm/sec., the MOVE-MASTER RV-M2 lowers your ta-ct times. Furthemore, the use of digital servos cuts acceleration/deceleration time all the way down to 0.2 seconds.

Stronger

With a lifting capacity of 2.0 kg, the MOVE-MASTER RV-M2 is suitable for assembly and general handling work.

Wider

Due to a special shoulder-shift mechanism, the arm can stretch out a full 570 mm. The MOVE-MASTER RV-M2 can also reach in closer to itself; it's just the thing for 297 x 420 mm pallets.

More precise

With a position repeatability of ±0.1 mm, the MOVEMASTER RV-M2 is very precise for a vertical articulated robot.
robot.
Furthemore, by improving the control method, we succeeded in reducing vibration and increasing path precision.

With all the advantages of the RV-M1

- Compact, space-saving body.
- Versatile vertical 5-axis design that can duplicate elaborate movements of the human arm.
- Simple and easy programming in BASIC.
- Proven design at an affordable price.

And even easier to operate

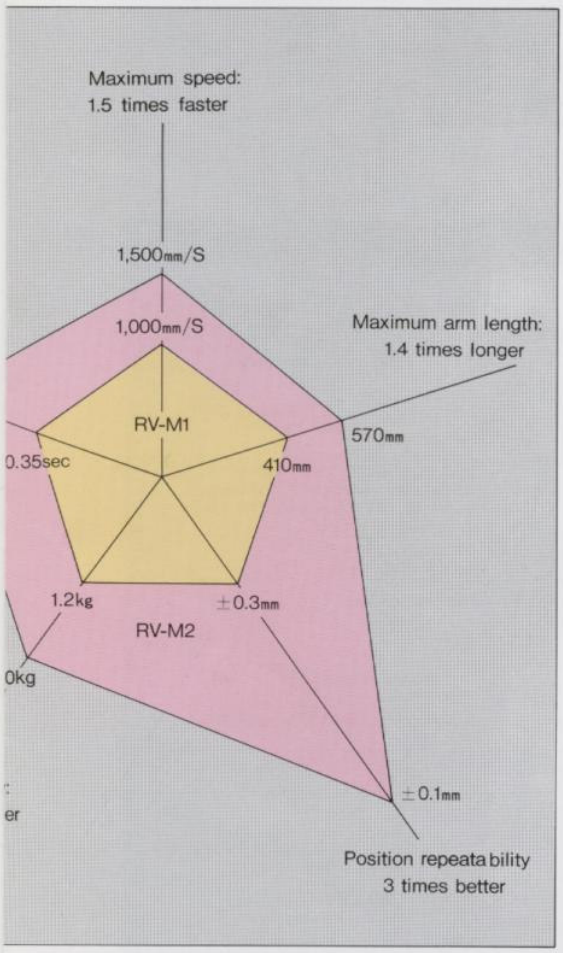
- The optional Teaching Box now has Emergency Stop, Reset, and Jog Speed Selection (High/Low) buttons.
- An alarm detection function has been added for enhanced safety.

■Compar

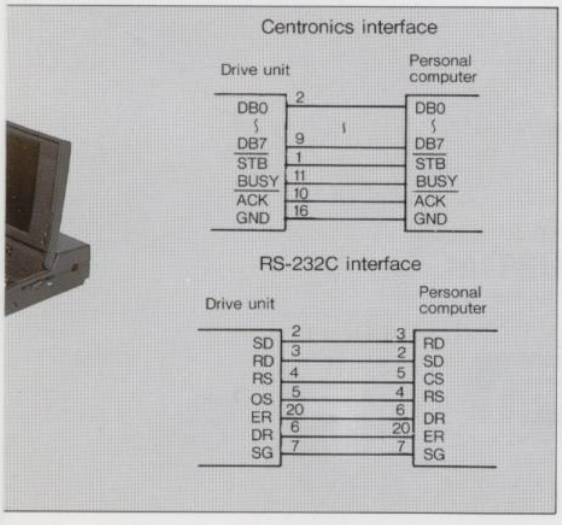
■Persona

OVEMASTER series robots are
v, after the extremely successful
he MOVEMASTER RV-M2-with

with the MOVEMASTER RV-M1

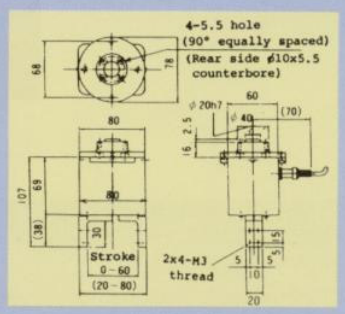


mputer Interfacing

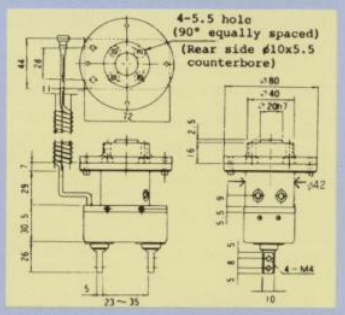


Options

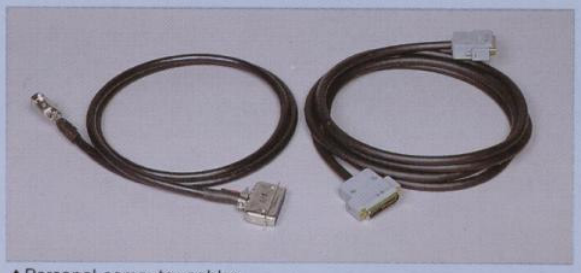
▶The teaching box
The teaching box is used to teach positions to the robot and to display program-step numbers. It includes an emergency stop switch and a 3 m cable.



▲DC motor hand
The DC motor hand has a grip force control function (64 adjustment levels) for grasping hard and soft objects. Taking its power from the drive unit, the DC motor hand weights only 600 grams.

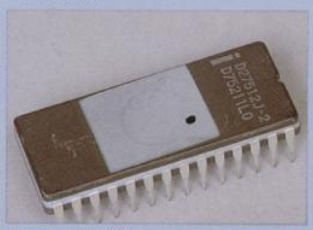


▲Pneumatic-hand
The pneumatic-hand set is made up of a solenoid valve and a pneumatic hand with a built-in open/close sensor. The solenoid valve attached to the robot body. (Maximum grip force: 3.2 kgf; mass; 400 g)



▲Personal computer cables
For MULTI16, PC9801, or MAXY series personal computers.
Centronics cable: 1.5 m RS-232C cable : 3.0 m
(Cables with no connectors are also available.)

▲External I/O cable
External I/O cables are necessary when conecting sequencer, peripheral equipment (such as switches and relays).



▲User EPROM
The unit accepts M5L27512K EP-ROMs or equivalent.

Movemaster-Making Robots More Accessible Than Eve

An entry level system that encourages creative application

Specifications

● Robot Specifications

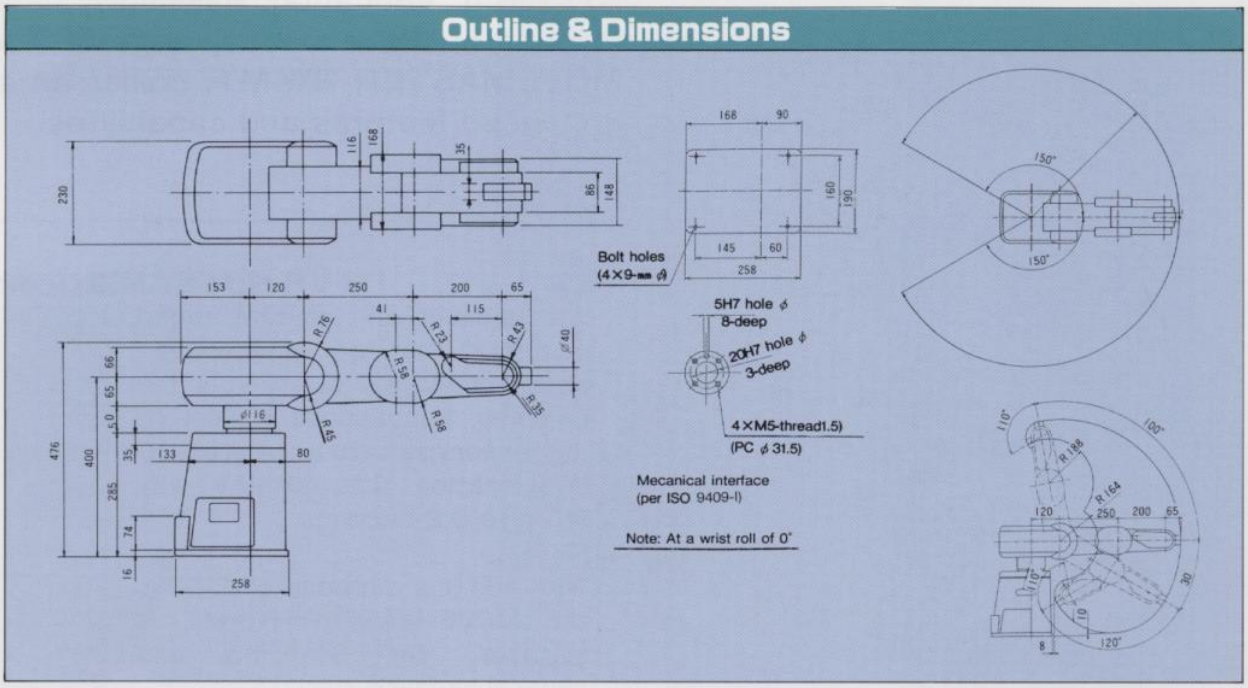
Construction		Vertical, articulated
Degrees of freedom		Five (not including hand gripping)
Drive system		DC servo motors
Arm length		250 + 200 mm (120mm offset)
Operation range (maximum speed)	Waist	300° (140°/sec)
	Shoulder	130° (79°/sec)
	Elbow	120° (140°/sec)
	Wrist pitch	±110° (163°/sec)
	Wrist roll	±180° (223°/sec)
	Grip stroke	60mm (w/ optional DC motor hand)
Maximum path velocity		1500mm/sec (at mechanical interface)
Weight capacity		Max. 2.0kgf (including hand)
Position repeatability		±0.1mm (at mechanical interface)
Home position detection		Non-contact switches and encoders
Installation position		Horizontal
Ambient temperatufe		5 to 40°C
Weight		Approx. 28kg
Motor capacity		axes J1 & J2 : 60W, axis J3 : 40W, axes J4 & J5: 23W

● Drive Unit Specifications

Teaching methods	Positions: Teaching or Manual Data Input Motions : Personal computer programming utilizing the MOVEMASTER command set(71 commands)
Control method	PTP, CP
Control axes	Five (simultaneous)
Funtions	Joint interpolation; linear interpolation; palletizing; interrupt contol; conditional branching; zero return; subroutine support; 21-level speed setting
Memory capacity	999 teach points 3584 program steps
Programming method	Personal computer
Programming language	BASIC
External I/O	16 general purpose I/O; 2 inputs for hand control
	3 dedicated I/O (start, stop, reset, run, wait, error)
Interfaces	Parallel (Centronics) × 1 Serial (RS-232C) × 1
Ambient temperature	5 to 40°C
Power source	*1 AC100/120/200/220/230/240V (±10%) 50Hz/60Hz, 0.5kVA
Size	380W × 331D × 246H (mm)
Weight	25kg

*1 Depending on the source power voltage in your country.

Outline & Dimensions



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