

## SPECIFICATIONS

### Recorder Unit

Measuring system	Ultrasonic echo sensing system			
Recording system	DM-602RR	Direct recording in two directions (X-X' or Y-Y')		
	DM-604RR	Direct recording in four directions (X, X', Y, Y')		
Recording paper	Electrosensitive recording paper 250 mm x20 m A3-560 (DMP-250)			
Measuring range	0.5 m	1.0 m	2.0 m	4.0 m
Range Shift	0% 0 to 0.5 m	0 to 1.0 m	0 to 2.0 m	0 to 4.0 m
(radius)	50% 0.25 to 0.75 m	0.5 to 1.5 m	1.0 to 3.0 m	2.0 to 6.0 m
	100% 0.5 to 1.0 m	1.0 to 2.0 m	2.0 to 4.0 m	4.0 to 8.0 m
Paper feed rate	Constant speed	7.5 mm/min, 15 mm/min, 30 mm/min and 60 mm/min		
	Synchronized	25 mm/m of sensor up/down movement		
	with	1/50 20 mm/m of sensor up/down movement		
	the depth	1/100 10 mm/m of sensor up/down movement		
	1/200	5 mm/m of sensor up/down movement		
Measuring accuracy	±2% at full scale			
Depth mark	A depth mark is printed every 1 m and depth is automatically printed numerically every 5 m			
PC display and storage	Serial data output provided (RS-232C cable)			
Power supply protection circuit	Equipped with two built-in non-fuse breakers (2 A and 8 A). A leakage breaker (15 A). A overvoltage protection circuit.			
Power supply	100 VAC, 50/60 Hz	110 VAC, 50/60 Hz	220 VAC, 50/60 Hz	
Power consumption	700 VA (At 100 VAC)	700 VA (At 110 VAC)	700 VA (At 220 VAC)	
Operating temperature	-10°C to +50°C (14°F to 122°F)			

### Winch Unit

Up/down speed	0 to 20 m / min
Up/down movement distance	100 m maximum (150m version is made to order)
Bottom and casing sensing system	Automatic sensing by limit switch
Operating temperature	-10°C to +50°C (14°F to 122°F)

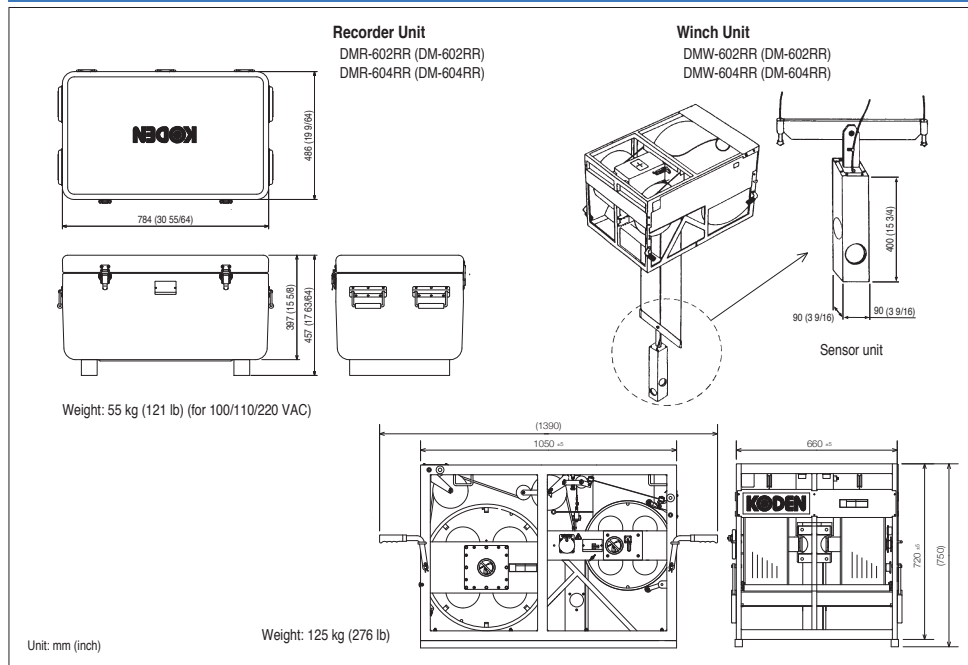
### Standard Configuration

Recorder unit	DMR-602RR (DM-602RR)	
	DMR-604RR (DM-604RR)	
Power supply	DMT-000R	For 100 VAC, contained in box 9 kg
(Built into)	DMT-001R	For 110 VAC, contained in box 9 kg
Recorder unit)	DMT-002R	For 220 VAC, contained in box 9 kg
Winch unit	DMW-602RR (DM-602RR)	With a sensor unit and cable 125 kg
	DMW-604RR (DM-604RR)	With a sensor unit and cable 125 kg
Connecting cable	CW-558R-10M	With 15-pin connectors 10 m
	CW-600-10M	With 8-pin connectors 10 m
AC power cable	CW-71R-10M	With a 3-pin connector and one end plain 10 m
Spare parts kit	Included in Recorder unit 1 set	
Operation manual	Contained in Recorder unit 1	
Brief operation card	for DM-602RR	Contained in Recorder unit 1
	for DM-604RR	Contained in Recorder unit 1

### Spare Parts List

Recording paper	DMP-250	250 mm x 20 m (A3-560)	2
Recording stylus	DMS-001	Contained in a plastic case	2
Current feed stylus	DMS-002	Contained in a plastic case	2

## DIMENSIONS AND WEIGHT



• Winch unit 150m version has different dimensions and weigh.

• Design and specifications are subject to change without notice.



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To ensure proper and safe use of the equipment, please carefully read and follow the instructions in the Operation Manual.

For details, please contact:

## Ultrasonic Drilling Monitor

# DM-602RR / 604RR



*Koden promotes intelligent foundation work.*



- Deeper excavation measurement in high accuracy
- Clear recording even in slurry contaminated with dirt and sand
- High quality excavation work reducing time and cost

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# The DM-602RR/604RR helps improve the quality of a drilled hole and reduces working time and cost!

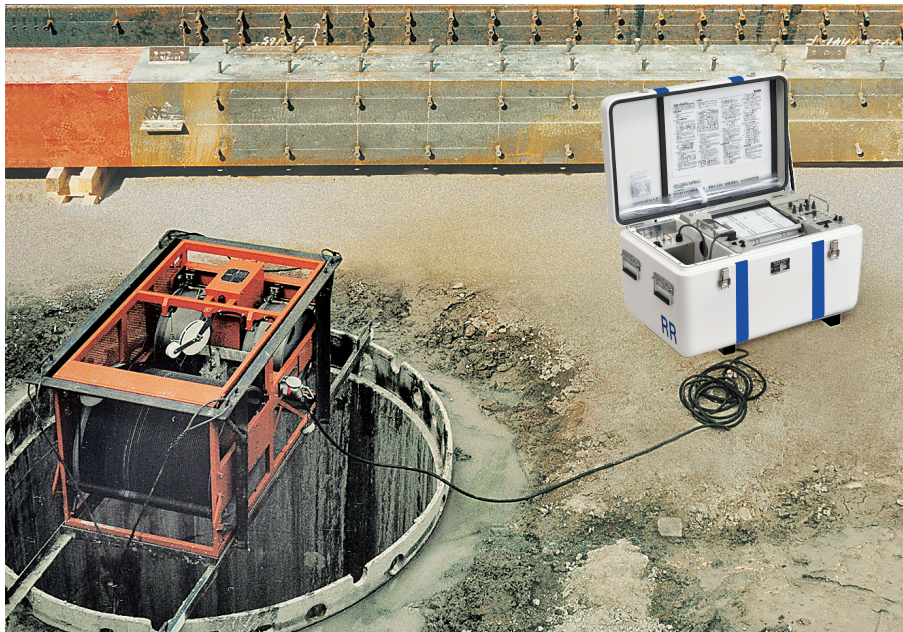
## General

Recent progress and development in foundation engineering has resulted in great strides in excavation techniques. By using artificial slurry of high density and specific gravity, deeper excavation has been made possible. The DM-602RR/604RR series Drilling Monitor system has been developed in compliance with the user's needs arisen from the recent construction environment to accurately measure and record the shape of a drilled hole of greater depth. It can be easily positioned and set up for measurement to provide quick and accurate recordings of excavations. The DM-602RR/604RR series Drilling Monitor provides the following advantages.

- Helps improve the quality of a drilled hole and reduces working time and cost.
- Provides on site records of the perpendicularity of drilled holes and the shape of cross sections in high accuracy.
- Provides numerical measurement data that can be easily imported into various Windows applications (Excel, Word, PowerPoint, etc.) for work reports, etc.

## Features

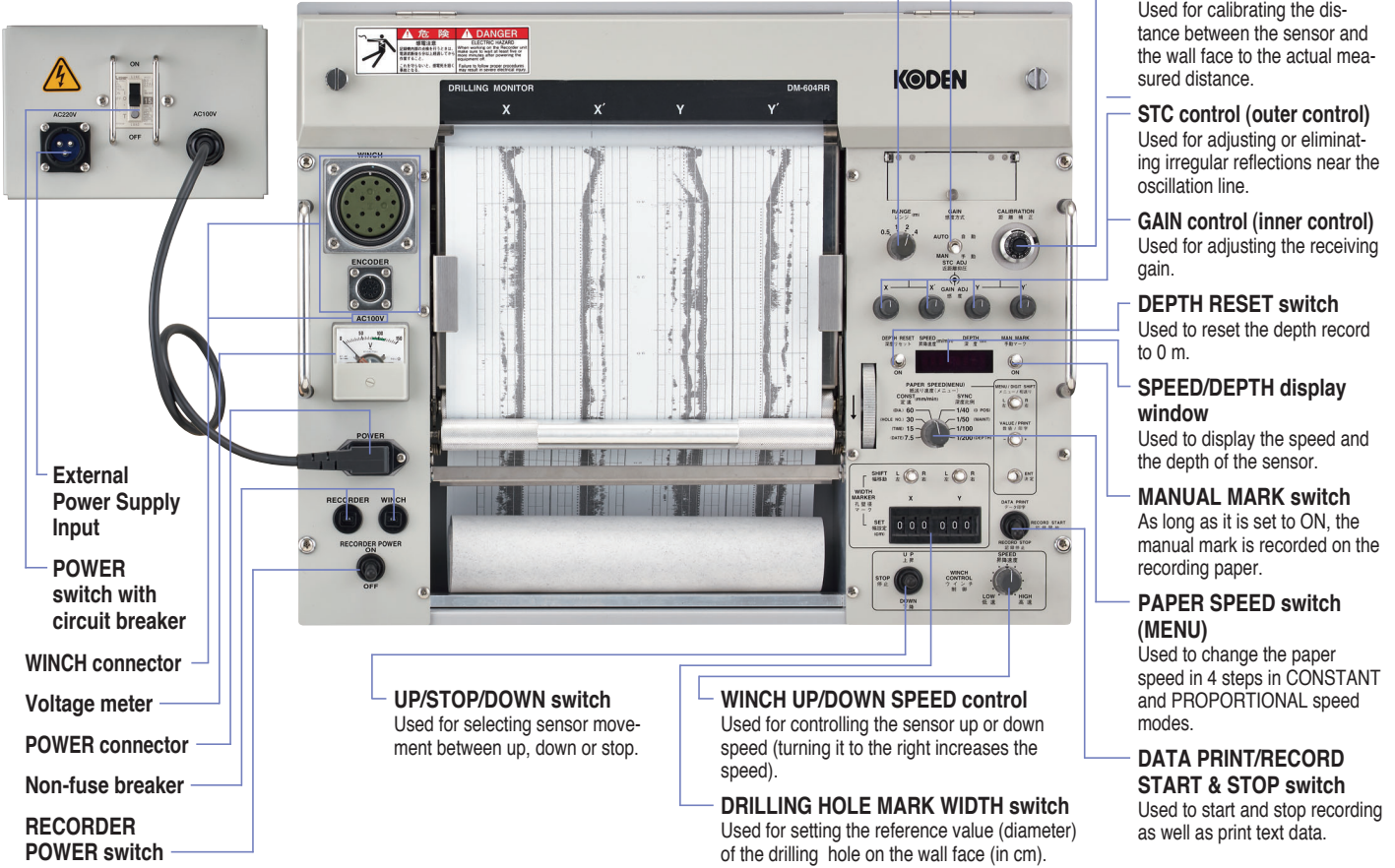
- The DM-602RR/604RR supplies clear records of a drilled hole even in slurry, heavily contaminated with dirt and sand.
- The DM-602RR/604RR supplies clear and precise records thanks to its unique signal processing technique that discriminates wall echoes from the noise.
- The DM-602RR/604RR has the facility to cancel the oscillation line echo that often prevents very close echo recordings.
- The sensor device is automatically controlled to stop at the casing and at the bottom of the hole. An emergency return function is also included.
- Depth range mark, depth mark, drilled hole mark, date, time, etc. can be printed on the recording paper.
- Limit switches are provided to avoid possible wire breakage or entanglement of the wire and cable.
- The recorded result can be output to an external PC via a built-in RS 232C output port.
- A non-fuse circuit breaker is used for circuit protection, eliminating the need for cumbersome fuse replacement at the construction site.



The winch unit and recorder unit on site

## Main controls/switches

(Photograph shown is DM-604RR operation panel)



## Recording Examples

