Recorder Migration Guide

Introducing our New Models
Recorder and data acquisition products
Multi Channel Module Type

**MX100** PC-based Real Time Data Acquisition System
- Ideal for test lab and process applications
- The DA100 or DC100 can be flexibly configured and expanded to meet a wide range of recording, small-scale data logging and multi-point data acquisition needs.
- Max. speed 500 ms, Max. 300 ch/system & 500 m total cable length

**MW100** Web-enabled Data Acquisition/Data Logging System
- Max. speed 10 ms (1 units), Max. 360 ch/system
- Wide Operating Temperature Range (-20°C to +60°C)

**Input/Output Modules**

**Data Acquisition Unit**

**DA100**
- Data server
- Main unit
- Sub unit

**Data Collector**

**DC100**
- Ideal for test lab and process applications
- The DA100 or DC100 can be flexibly configured and expanded to meet a wide range of recording, small-scale data logging and multi-point data acquisition needs.
- Max. speed 500 ms, Max. 300 ch/system & 500 m total cable length

**Upgrade to**

Subunit DS600 (6-module connection type)
Subunit DS400 (4-module connection type)
Desktop Type

Portable Paperless Recorder
MV1000/MV2000
The Portable recorder with evolutionary high
reliability and ease-of-use!
- Internal memory: 200 MB
- Withstand voltage: 1000 VAC
- Input types: DCV, TC, RTD, DI, DCA
- Communication functions: Ethernet, RS232, RS422/485
- Measurement intervals:
  - 2 s (Stand-alone model)
  - 0.5 s (Expandable model)
- Input channels: 10 to 30 ch
- Multi-point input: Max. 300 ch
- Recording color: 10

Hybrid Recorder
DR130/DR230
The DR130/DR230 recorders provide high reliability and
performance over a wide range of environmental conditions.
- Input types: DCV, TC, RTD, DI, Power monitor, Pulse, Strain
  and direct current (mA) etc.
- Communication functions: RS232C, GP-IB, RS422/485, Ethernet
- Recording color: 10
- Measurement intervals:
  - High-speed model (25 ms*)
    - MV1000: 4, 8 ch
    - MV2000: 8 ch
  - Low-speed model (125 ms*)
    - MV1000: 6, 12, 24 ch
    - MV2000: 10, 20, 30, 40, 48 ch
- Input channels:
  - 10 to 30 ch (Stand-alone model)
  - Max. 300 ch (Expandable model)

Upgrade to

HR2500 Recorder From 1982 to 1990
Decentralized data collection
- Measurement intervals: 2 s
- Number of inputs: 60 to 300 ch
- Recording color: 6

HR2300 Recorder From 1989 to 1998
The third-generation Hybrid Recorder
- High-breakdown-voltage solid-state relays
- 30 ch/1 s
- Recording color: 10

3081 Recorder From 1985 to 1994
The second-generation Hybrid Recorder
- 30 ch/6 s
- Recording color: 6

3088 Recorder From 1992 to 1990
Equipped with Microprocessor
- 30 ch/8 s
- Recording color: 6

HR1300 Recorder From 1989 to 1998
Portable Hybrid Recorder
- High-breakdown-voltage solid-state relays
- 20 ch/1 s
- Recording color: 10

3087 Recorder From 1984 to 1994
Portable Recorder
- Digital print function
- 12 ch/5 s
- The thermally sensitive resistor input can be specified.

3058 Multi-point Recorder From 1985 to 1994
Automatic Equilibrium Recorder
- Incorporated reference junction compensation circuit
- Pen model: 6 to 12 pens
- For continuous record temperature etc. for a long time

3057 Portable Pen Recorder From 1979 to 2007
Equipped with Microprocessor
- Three different power source models
- Pen model: 1 to 2 pens
- Mess-free, disposable Felt-tip pen recording
Panel Mount type

The next generation DAQSTATION DX1000/DX2000

DXAdvanced is built on years of field-proven performance with Yokogawa quality and reliability built-in.

- Internal memory: 200 MB
- Withstand voltage: 1000 VAC
- Input types: DCV, TC, RTD, DI, DCA
- Communication functions: Ethernet, RS232, RS422/485
- Measurement intervals:
  - High-speed model (25 ms*)
    - DX1000: 2, 4 ch
    - DX2000: 4, 8 ch
  - Low-speed model (125 ms*)
    - DX1000: 6, 12 ch
    - DX2000: 10, 20, 30, 40, 48 ch
- Multi-point input: DX1000 (Max. 12 ch)
- DX2000 (Max. 48 ch)

*High-speed mode

Hybrid Recorder DR240

The DR240 recorder provides high reliability and performance over a wide range of environmental conditions.

- Input types: DCV, TC, RTD, DI, Power monitor, Pulse, Strain and direct current (mA) etc.
- Communication functions: RS232, GPIB, RS422/485, Ethernet
- Recording color: 10
- Stand-alone model: Measurement Intervals: 2 s
- Input channels: 10 to 30 ch
- Expandable model: Measurement Intervals: 0.5 s
- Input channels: Max. 300 ch

Upgrade to

HR2500 Recorder (From 1986 to 1998)

- Decentralized data collection
- Measurement intervals: 2 s
- Number of inputs: 60 to 300 ch
- Recording color: 6

HR2400 Recorder (From 1989 to 1998)

- The third-generation Hybrid Recorder
- High-breakdown-voltage solid-state relays
- 30 ch/1 s
- Recording color: 10

4081 Recorder (From 1985 to 1994)

- The second-generation Hybrid Recorder
  - 30 ch/6 s
  - Recording color: 6

4088 Recorder (From 1981 to 1990)

- Equipped with Microprocessor
  - 30 ch/8 s
  - Recording color: 6

µR100F Recorder (From 1988 to 1995)

- Clear, distinct 4-color traces
- Pen model: 1 to 4 pens

µR100T/µR180T Recorder (From 1988 to 1995)

- Easy operation of analog sense
- Intelligent recorder
- Pen model: 1 to 3 pens
- Dot-printing model: 6 to 12 dots

µR100/µR180/µR250 Recorder (From 1985 to 1995)

- Recorder equipped with ultrasonic pen position transducer
- Pen model: 1 to 3 pens
- Dot-printing model: 6 to 24 dots

ER100/ER180 Recorder (From 1975 to 1993)

- Automatic equilibrium recorder
- Pen model: 1 to 3 pens
- Dot-printing model: 6 to 24 dots
Hybrid Recorder
DR232/DR242

- Ideal for test and process needs, the DR series is a scalable, multi-point data acquisition system combining paper chart recording with powerful PC interface capabilities.
- Max. speed 500 ms, Max. 300 ch/system & 500 m total cable length

Input/Output Modules

- DCV/TC/RTD/DI
- Strain (120 Ω)
- Pulse
- mA
- Digital
- Alarm output
- Retransmission

Upgrade to

Hybrid Recorder/Data Acquisition Terminal
HR2500E/DA2500E

- DCV, TC, RTD, DI, Pulse
- High-speed multipoint Scanning: 300 ch/ 2 s
- 500 m in total extension, decentralized data collection
## History of Panel Mount Recorders

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>The next generation DAQSTATION DXAdvanced DX1000/DX2000</td>
</tr>
<tr>
<td>2004</td>
<td>The third-generation chart recorder µR10000/µR20000</td>
</tr>
</tbody>
</table>
| 2001 | Control and measurement station CX1000/CX2000  
Data acquisition station for pharmaceutical model DX100P/DX200P |
| 1999 | Data acquisition station DX100/DX200 |
| 1997 | Paperless recorder VR200 |
| 1995 | The second-generation data acquisition equipment DARWIN |
| 1992 | The second-generation chart recorder µR1000/µR1800  
µRS1000/µRS1800 |
| 1989 | The third-generation high-breakdown-voltage solid-state relays hybrid recorder HR2400 |
| 1986 | The first-generation data acquisition equipment HR2500/DA2500 |
| 1985 | The second-generation hybrid recorder equipped with microprocessor 4081  
The first-generation chart recorder equipped with microprocessor µR100/µR180/µR250  
µR100T/µR180T  
µR100F |
| 1981 | The first-generation hybrid recorder equipped with microprocessor 4088 |
| 1975 | DIN size recorder ER100/ER180 |
| 1961 | Electronic automatic equilibrium recorder ER |

## History of Desktop Recorders

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>The next generation Potable paperless recorder MVAdvanced MV1000/MV2000</td>
</tr>
<tr>
<td>2005</td>
<td>Web-enabled data acquisition/data logging system MW100</td>
</tr>
<tr>
<td>2003</td>
<td>PC-based real time data acquisition system MX100</td>
</tr>
<tr>
<td>1999</td>
<td>MobileCorder MV100/MV200</td>
</tr>
<tr>
<td>1997</td>
<td>Handy oscillographic recorder OR100/OR300</td>
</tr>
<tr>
<td>1995</td>
<td>The second-generation data acquisition equipment DARWIN</td>
</tr>
<tr>
<td>1992</td>
<td>Recorder with built-in thermal printer OR</td>
</tr>
</tbody>
</table>
| 1989 | The third-generation high-breakdown-voltage solid-state relays hybrid recorder HR2300  
Portable hybrid recorder HR1300  
Memory card logger 3820 |
| 1988 | Intelligent pen recorders LR12000/LR8100/LR4100/LR4200 |
| 1986 | The first-generation data acquisition equipment HR2500/DA2500 |
| 1985 | The second-generation hybrid recorder equipped with microprocessor 3081 |
| 1984 | The first-generation portable recorder 3087 |
| 1982 | The first-generation hybrid recorder equipped with microprocessor 3088 |
| 1980 | Multi-point recorder 3058 |
| 1979 | Analog pen recorder 3056/3057 |
| 1977 |  
ER |