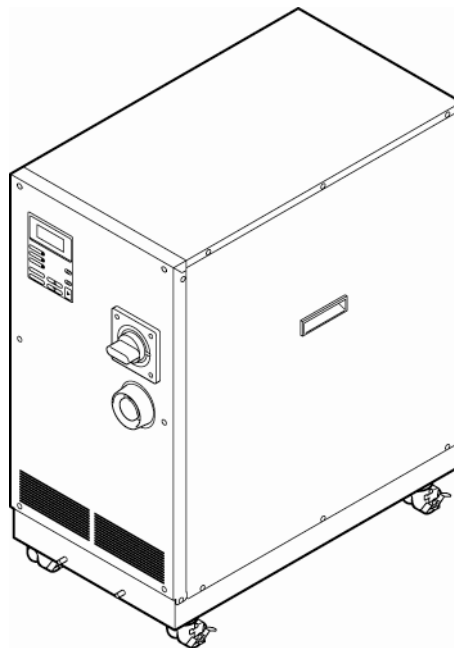 **SMC**

Operation Manual

THERMO CHILLER

HRW***-**-D

This manual provides the explanation of operation procedure to use the additional function of Thermo-Chiller HRW***-**-D (optional model of DeviceNet communication). This manual should be used in addition to another operation manual (HRX-OM-K003).

HRW002-H	HRW008-H	HRW015-H	HRW030-H
HRW002-H1	HRW008-H1	HRW015-H1	HRW030-H1
HRW002-H2	HRW008-H2	HRW015-H2	HRW030-H2
HRW002-HS	HRW008-HS	HRW015-HS	HRW030-HS
HRW002-H1S	HRW008-H1S	HRW015-H1S	HRW030-H1S
HRW002-H2S	HRW008-H2S	HRW015-H2S	HRW030-H2S

Save This Manual Carefully for Use at Any Time

To the Customers

Thank you for purchasing our THERMO CHILLER HRW Series (hereinafter called "This system").

For the long-term, safe use of this system, be sure to read and understand this manual in addition to another operation manual (HRX-OM-K003) thoroughly before performing operation of this system.

● This manual provides only the explanation of operation procedure to use the additional function of Thermo-Chiller HRW***-**-D (optional model of DeviceNet$_{TM}$ communication). For warnings, precautions, installation and fundamental operating procedure of this system, please refer to another operation manual (HRX-OM-K003).

● The contents of this manual explain the additional information to following chapters of another operation manual (HRX-OM-K003).
  ·Chapter 5 System Operation: Addition of operating procedure to use DeviceNet$_{TM}$ communication.

● The contents of this manual and related documents supplied with this system shall be neither regarded as a provision of the contract nor utilized to correct or modify the existing agreements, commitments and relations.

● For the details of DeviceNet$_{TM}$ communication, please refer to communication specifications (HRX-PS-K019).

● The contents of this manual and related documents supplied with this system shall be neither regarded as a provision of the contract nor utilized to correct or modify the existing agreements, commitments and relations.

● Copying, duplicating or transferring any part of or whole contents of this manual without the prior written consent of SMC Corporation is strictly prohibited.

Note: The contents of this manual are subject to change without notice.

Table of Contents

1. Summary of HRW***-**-D

HRW***-**-D is a product that DeviceNet communication function is added to thermo chiller HRW series. And the DeviceNet communication can be used by selecting DeviceNet communication on communication mode setting.

1.1　DeviceNet communication

Start / stop of this product, TEMP SP value setting, and start / stop of circulating fluid automatic recovery[*1] can be possible with DeviceNet communication. And the value of TEMP PV, FLOW PV, PRESS. PV, DI PV[*1] and running / alarm conditions are also outputted. The function of DeviceNet can be used when "DNET REMOTE" mode is selected on communication mode setting.

*1: Applicable when circulating fluid automatic recovery function (option) is selected.

*2: Value of DI PV is displayed when only DI control kit (option) is selected.

For details of DeviceNet communication, please refer to communication specification (HRX-PS-K019). And for details of the other communication function (contact I/O and serial RS-485), please refer to communication specification (HRX-PS-K005).

2. Operation screen

This manual provides the explanation of operating procedure to use the DeviceNet communication. Selection of communication mode is conducted on "Mode Selection screen" shown in figure 2-1.

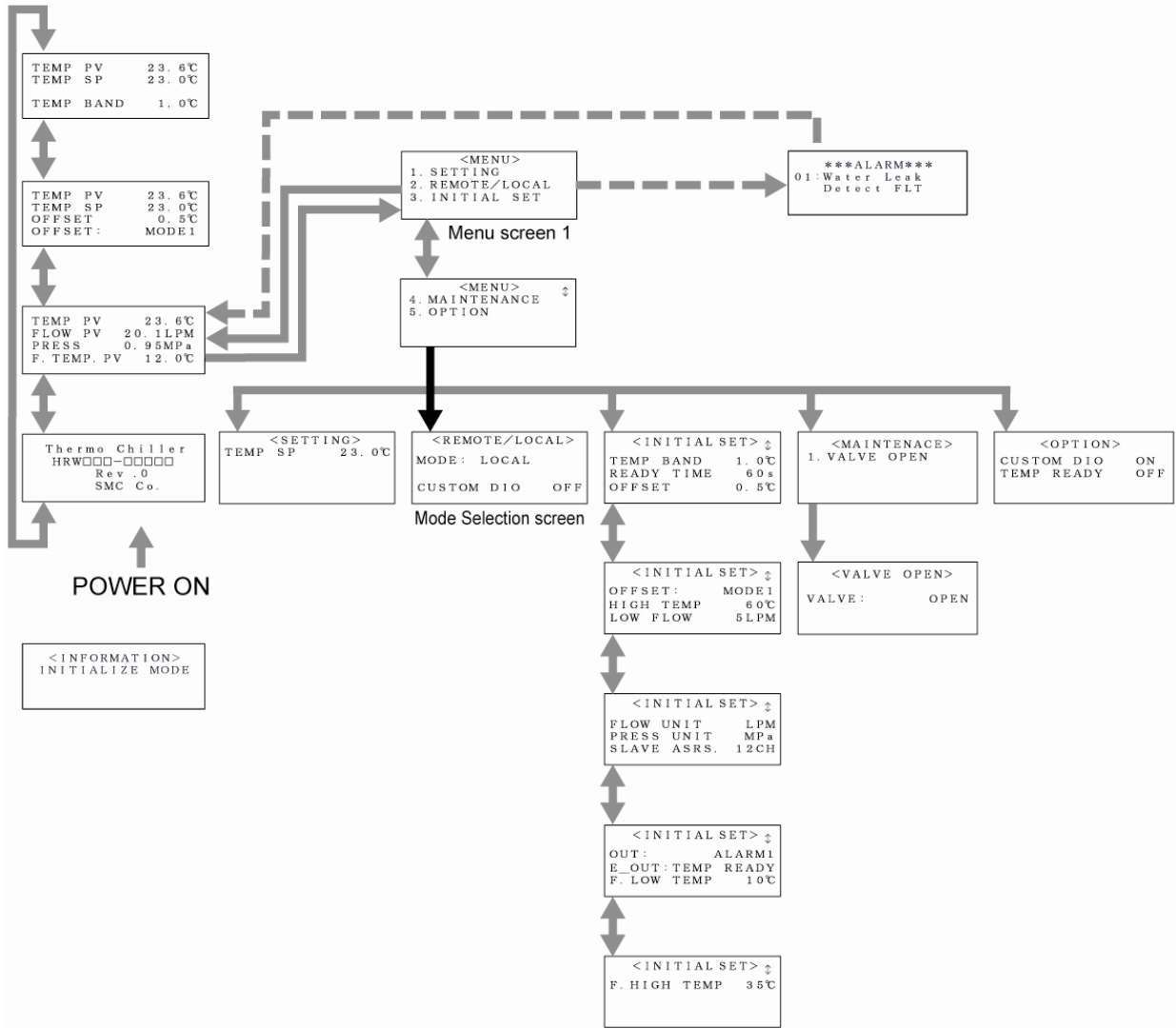Operating procedure for the others, please refer to the operation manual (HRX-OM-K002).

Figure 2-1   Flow Chart of Operation Screen
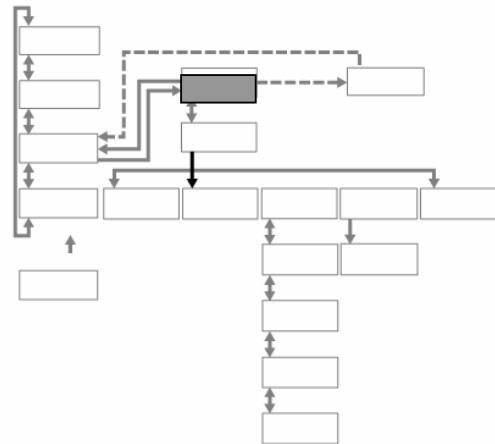
1.1 Operation screen

2.1.1 Menu screen 1

```
        <MENU>      ↕
1. SETTING
2. REMOTE／LOCAL  ←————— 1
3. INITIAL  SET
```


Figure 2-2   Menu screen 1

Table 2-1   Menu screen 1

No.	Item	Descriptions
1	REMOTE/LOCAL	Switches to the "Mode Selection screen" with the press of the [ENT] key.

2.1.2 Mode Selection screen

```
 <REMOTE／LOCAL>↕
MODE:  LOCAL      ←————— 1

CUSTOM  DIO    OFF
```
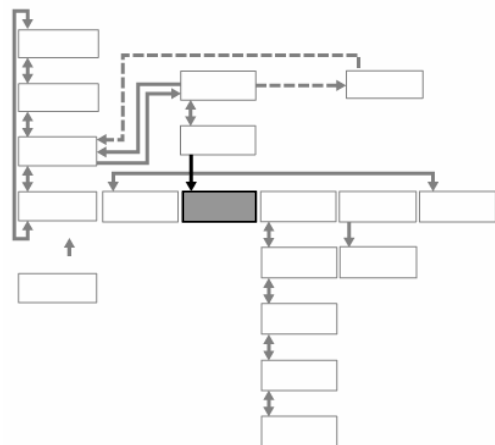

Figure 2-3   Mode Selection screen

Table 2-2   Mode Selection screen

No.	Item		Setting
1	MODE	LOCAL[*1]	System start/stop and TEMP SP value setting are available only from the operation display panel.
		DIO REMOTE[*1]	System start/stop is allowed only through contact signal. TEMP SP value setting is available only from the operation display panel.
		SER REMOTE[*1]	System start/stop and TEMP SP value setting are available only through serial RS-485 communication.
		DNET REMOTE	System start/stop and TEMP SP value setting are available only through DeviceNet communication.

*1: For the details of each communication mode, please refer to communication specification (HRX-PS-K005).

2.1 System Operation

Set the communicatiom mode to "DNET REMOTE".

Figure 2-4   Set the communication mode to "DNET REMOTE"

1. Press the [SEL] key to display the 'Menu screen 1".

```
        <MENU>       ↕
1. SETTING
2. REMOTE/LOCAL
3. INITIAL  SET
```

Figure 2-5   Menu screen 1

2. With the use of the arrow keys ([▲][▼]), move the cursor to "2. REMOTE /LOCAL" in "Menu screen 1".

```
        <MENU>       ↕
1. SETTING
2. REMOTE/LOCAL
3. INITIAL  SET
```
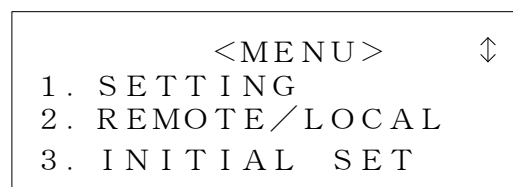
Figure 2-6   Menu screen 1

3. Press the [ENT] key.

The "Mode Selection screen" is displayed.

```
 <REMOTE/LOCAL>↕
MODE:  LOCAL

CUSTOM DIO     OFF
```

Figure 2-7   Mode Selection screen

_4._ Press the [ENT] key.

The name of the current mode flashes.

```
<REMOTE／LOCAL>↕
MODE：◄LOCAL►
        ▼ ▼ ▼
CUSTOM DIO      OFF
```

Figure 2-8   Mode Selection screen

_5._ Use the arrow keys ([▲][▼]) to switch to "DNET REMOTE".

```
<REMOTE／LOCAL>▲
MODE◄DENT REMOTE►
I  8  ▼ ▼0▼ 1▼8▼ ▼ ▼
CUSTOM DIO      OFF
```

Figure 2-9   Mode Selection screen ("DNET REMOTE")

[Tips]

To cancel a selection, press the [SEL] key, not [ENT] key. With the press of the [SEL] key, the cancellation takes effect and screen is switched to the "Menu screen 1".
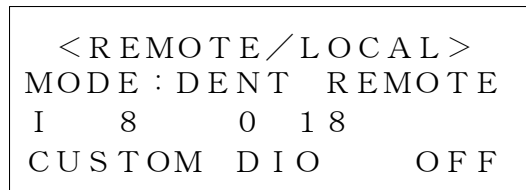
_6._ Press the [ENT] key.

The selection takes effect.

```
<REMOTE／LOCAL>
MODE：DENT REMOTE
I  8    0  18
CUSTOM DIO      OFF
```

Figure 2-10   Mode Selection screen ("DNET REMOTE")

_7._ Press the [SEL] key to display the "Menu screen 1"