AIR CONDITIONER INTERFACE

LM ADAPTER

MODEL: LMAP04U-E

Network Variables Specification

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Appendix A: Fahrenheit conversion of Centigrade data P.52

ProgramID: 9-000A2-4850-0004-04
XIF: 0404lm31.xif

*1.LonWorks®, and the Echelon logo are trademarks of Echelon Corporation registered in the United States and other countries.
*2.This product is not LONMARK product.
*3.Please contact the dealer about obtaining XIF.
*4.XIF is of operation check settled in LonMaker for Windows 3.0(SP2).
1. Specification

1-1. Object Model

These specifications apply to the communication interface used to connect the LonWorks network and the Mitsubishi Electric M-NET compatible products.

- Model name:
  1. Multiple split type air conditioners CITY MULTI including Air To Water and DOAS
  2. Split-type air conditioners Mr.SLIM
  3. Heat recovery ventilators LOSSNAY

Note: A-M Converter(PAC-SF48MA-E) is necessary.
Note: LOSSNAY Adapter(PZ-53ADF-E) is necessary.

1-2. Explanation of Function Setting

This product requires a function setting switch because of the connected model, system configuration and control functions.

<table>
<thead>
<tr>
<th>SW NO.</th>
<th>switch name</th>
<th>Function</th>
<th>Note</th>
<th>Factory setting</th>
<th>Set timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW1-1</td>
<td>Function switch of local prohibit</td>
<td>ON local prohibit effective</td>
<td>Operation local prohibit NV input from LonWorks becomes effective when switch ON.</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF local prohibit ineffective</td>
<td>Operation local prohibit NV input from LonWorks becomes invalid when switch OFF.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-2</td>
<td>Used together with system controller switch</td>
<td>ON used together with system controller *4,7</td>
<td>not used together with system controller *5,7</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-3</td>
<td>Indoor temperature state interval switch</td>
<td>ON Transmission interval (1 minutes or more)</td>
<td>The number of indoor units connected should be 30 or less *6</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF Transmission interval (10 minutes or more)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-4</td>
<td>Reset Filter/Select enable/disable operation duration</td>
<td>ON effective</td>
<td>When “ON” the reset filter sign input and the operation duration output are enabled.</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF ineffective</td>
<td>When “OFF” the reset filter sign input and the operation duration output are disabled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-5</td>
<td>Function switch of LOSSNAY</td>
<td>ON LOSSNAY is operated from LonWorks</td>
<td>Please turn on the switch when LOSSNAY is operated from LonWorks.</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF</td>
<td>Please turn off the switch when LOSSNAY interlocks with indoor units.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-6</td>
<td>Single set point mode switch</td>
<td>ON Enable single set point mode</td>
<td>When “ON”, whole M-Net system operates in single set point mode. For example, if BMS does not support dual set point, apply this switch.</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF</td>
<td>Enable dual set point mode</td>
<td>When “OFF”, the LMAP is detected as a device supports the dual set point.</td>
<td></td>
</tr>
<tr>
<td>SW1-7</td>
<td>Function switch of SNVT_switch</td>
<td>ON SNVT standard</td>
<td>When “ON”, the specifications of the NV using the SNVT_switch comply with the SNVT Standards.</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF original</td>
<td>When “OFF”, the NV using the SNVT_switch has original specifications.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-8</td>
<td>Select enable/disable forced thermostat OFF</td>
<td>ON effective</td>
<td>When “ON” the forced thermo OFF NV input/output are enabled.</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF ineffective</td>
<td>When “OFF” the forced thermo OFF NV input/output are disabled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-9</td>
<td>Indoor units test run switch</td>
<td>ON (test run) is transmitted to the indoor units</td>
<td></td>
<td>OFF</td>
<td>Always</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF</td>
<td>Before power supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW1-10</td>
<td>LMAP collective alarm detection time switch</td>
<td>ON Enable</td>
<td>When “ON”, the LMAP collective alarm detection maximum time before the same as the LMAP03U(60 minutes).</td>
<td>OFF</td>
<td>before power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF Disable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW3-2</td>
<td>Initialization switch of the air conditioners units</td>
<td>ON Connected cancellation command is transmitted to the indoor units</td>
<td></td>
<td>OFF</td>
<td>Always</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1: Always use together with the local remote controller or system controller.

If any error should occur in BMS or LM ADAPTER, air conditioner units cannot be controlled.

2: Always register the LM ADAPTER as a system controller when using together with the system controller.

3: The functions used with the LM ADAPTER are changed. The air conditioner and LOSSNAY cannot be set to interlock with the LM ADAPTER.

Set with the system controller or local remote controller.

4: Carry out an instruction input at the unit of the lowest address unit in the same group. The instructions to other units are disregarded.

Forced thermostat OFF needs an instruction input for every unit.

In case of a single unit having several M-NET addresses, please set those addresses to the same group.

5: Input the same instructions to all the units in the same group.

6: Make a monitor interval into 1 minute, and when you use both the functions of “local prohibit”, and the “forced thermostat OFF”, give 25 sets or less.

7: A state output is output for every unit.

In case of a single unit having several M-NET addresses, a state output is output per address.
## 1-3. Functions

<table>
<thead>
<tr>
<th>Item</th>
<th>nvNo.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request All Off</td>
<td>nv1</td>
<td>Stops the operation of all air conditioners. The ON/OFF operation is invalid during emergency stop.</td>
</tr>
<tr>
<td>Request On/Off</td>
<td>nv1n</td>
<td>Run and stop operation.</td>
</tr>
<tr>
<td>Request Mode</td>
<td>nv3n</td>
<td>Sets the operation mode.</td>
</tr>
<tr>
<td>Setpoint</td>
<td>nv5n</td>
<td>Sets the temperature.</td>
</tr>
<tr>
<td>Request Dual Setpoint (Cool)</td>
<td>nv7n</td>
<td>Sets the temperature for cooling.</td>
</tr>
<tr>
<td>Request Dual Setpoint (Heat)</td>
<td>nv9n</td>
<td>Sets the temperature for heating.</td>
</tr>
<tr>
<td>Request Setpoint (Auto)</td>
<td>nv11n</td>
<td>Sets the temperature in auto mode.</td>
</tr>
<tr>
<td>Request High Limit in SetBack</td>
<td>nv13n</td>
<td>Sets the high limit temperature in setback mode.</td>
</tr>
<tr>
<td>Request Low Limit in SetBack</td>
<td>nv15n</td>
<td>Sets the low limit temperature in setback mode.</td>
</tr>
<tr>
<td>Request LOSSNAY Mode</td>
<td>nv17n</td>
<td>Sets the LOSSNAY operation mode.</td>
</tr>
<tr>
<td>Request FanSpeed</td>
<td>nv19n</td>
<td>Sets the fan speed.</td>
</tr>
<tr>
<td>Request Local Prohibit On/Off</td>
<td>nv21n</td>
<td>Sets the local remote controller to operation prohibit (On/Off).</td>
</tr>
<tr>
<td>Request Local Prohibit Mode</td>
<td>nv23n</td>
<td>Sets the local remote controller to operation prohibit (operation mode).</td>
</tr>
<tr>
<td>Request Local Prohibit SetPoint</td>
<td>nv25n</td>
<td>Sets the local remote controller to operation prohibit (temperature setting).</td>
</tr>
<tr>
<td>Request Collective Local Prohibit</td>
<td>nv4</td>
<td>Sets the local remote controller of all air conditioners to operation prohibit (On/Off, operation mode, temperature setting).</td>
</tr>
<tr>
<td>Request Forced Thermostat OFF</td>
<td>nv27n</td>
<td>Forcibly turns the air conditioner thermostat OFF.</td>
</tr>
<tr>
<td>Filter Sign Reset</td>
<td>nv29n</td>
<td>The run time (for filter) of air conditioner is reset.</td>
</tr>
<tr>
<td>Time Stamp</td>
<td>nv12</td>
<td>Sets the local remote controller time.</td>
</tr>
<tr>
<td>Request Limit Temperature Setting Range</td>
<td>nv13</td>
<td>Sets the temperature setting range of local remote controller.</td>
</tr>
<tr>
<td>Request Simplified Locking</td>
<td>nv14</td>
<td>Sets the local remote controller switch's simple lock, and displays the mode and intake temperature.</td>
</tr>
<tr>
<td><strong>Monitor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency State</td>
<td>nv3</td>
<td>Output the emergency stop state.</td>
</tr>
<tr>
<td>On/Off State</td>
<td>nv2n</td>
<td>Outputs the On/Off state.</td>
</tr>
<tr>
<td>Collective On/Off State</td>
<td>nv2</td>
<td>Outputs the On/Off state for all air conditioners.</td>
</tr>
<tr>
<td>Mode State</td>
<td>nv4n</td>
<td>Outputs the operation mode setting state.</td>
</tr>
<tr>
<td>Setpoint State</td>
<td>nv6n</td>
<td>Outputs the temperature setting state.</td>
</tr>
<tr>
<td>Dual Setpoint (Cool) State</td>
<td>nv8n</td>
<td>Outputs the temperature for cooling state.</td>
</tr>
<tr>
<td>Dual Setpoint (Heat) State</td>
<td>nv10n</td>
<td>Outputs the temperature for heating state.</td>
</tr>
<tr>
<td>Setpoint (Auto) State</td>
<td>nv12n</td>
<td>Outputs the temperature in auto mode state.</td>
</tr>
<tr>
<td>High Limit in SetBack State</td>
<td>nv14n</td>
<td>Outputs the high limit temperature in setback mode state.</td>
</tr>
<tr>
<td>Low Limit in SetBack State</td>
<td>nv16n</td>
<td>Outputs the low limit temperature in setback mode state.</td>
</tr>
<tr>
<td>LOSSNAY Mode State</td>
<td>nv18n</td>
<td>Outputs the LOSSNAY operation mode setting state.</td>
</tr>
<tr>
<td>FanSpeed State</td>
<td>nv20n</td>
<td>Outputs the fan speed setting state.</td>
</tr>
<tr>
<td>Local Prohibit On/Off State</td>
<td>n22n</td>
<td>Outputs the local remote controller operation prohibit (On/Off) state.</td>
</tr>
<tr>
<td>Local Prohibit Mode State</td>
<td>nv24n</td>
<td>Outputs the local remote controller operation prohibit (operation mode) state.</td>
</tr>
<tr>
<td>Local Prohibit SetPoint State</td>
<td>nv26n</td>
<td>Outputs the local remote controller operation prohibit (temperature setting) state.</td>
</tr>
<tr>
<td>Collective Local Prohibit State</td>
<td>nv5</td>
<td>Outputs the local remote controller collective operation prohibit state.</td>
</tr>
<tr>
<td>Item</td>
<td>nvNo.</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>Forced Thermostat OFF State</td>
<td>nv28n</td>
<td>Outputs the forced thermostat OFF state.</td>
</tr>
<tr>
<td>Run Time for Filter</td>
<td>nv30n</td>
<td>Outputs the run time (for filter) of air conditioner.</td>
</tr>
<tr>
<td>Space Temperature State</td>
<td>nv31n</td>
<td>Outputs the intake temperature of air conditioner.</td>
</tr>
<tr>
<td>Water Temperature State (*2)</td>
<td>nv9</td>
<td>Outputs the water temperature state.</td>
</tr>
<tr>
<td>Defrost State</td>
<td>nv39n</td>
<td>Outputs the defrosting state of indoor unit or outdoor unit.</td>
</tr>
<tr>
<td>Group Number</td>
<td>nv32n</td>
<td>Outputs the group number of the indoor unit.</td>
</tr>
<tr>
<td>Alarm State</td>
<td>nv37n</td>
<td>Outputs the presence of air conditioner errors.</td>
</tr>
<tr>
<td>Collective Alarm for Indoor Unit</td>
<td>nv36n</td>
<td>Outputs the presence of errors in all air conditioners.</td>
</tr>
<tr>
<td>Collective Alarm for LM ADAPTER</td>
<td>nv37n</td>
<td>Outputs the presence of communication errors between the LM ADAPTER and air conditioner.</td>
</tr>
<tr>
<td>Error Code</td>
<td>nv38n</td>
<td>Outputs the presence of air conditioner errors content (error code).</td>
</tr>
<tr>
<td>Error Address</td>
<td>nv39n</td>
<td>Outputs the error source (M-NET address) when an air conditioner error occurs.</td>
</tr>
<tr>
<td>Thermo On/Off state_1 (*1)</td>
<td>nv35n</td>
<td>Outputs the air conditioner operation, thermostat and auxiliary heater states.</td>
</tr>
<tr>
<td>Thermo On/Off state_2 (*1)</td>
<td>nv36n</td>
<td>Outputs the thermostat state.</td>
</tr>
<tr>
<td>Capacity Saving State (*1)</td>
<td>nv27n</td>
<td>Outputs the air conditioner capacity save state.</td>
</tr>
<tr>
<td>Model Code (*)</td>
<td>nv38n</td>
<td>Outputs the air conditioner model code.</td>
</tr>
</tbody>
</table>

**Note**

*1: This product does not have a charge function.

The charge (apportioning) function must be prepared separately in the master system.

*2: Water temperature will be output only with AirToWater unit.

*3: The state of indoor unit is separately output from the corresponding network variable even if indoor units are set to a same group.

As shown on Fig.1, the state of an indoor unit(sub) is not output to the network variable of an indoor unit(main) in the same group.

As shown on Fig.2, the state of each control board of the indoor unit is separately output from the corresponding network variable when an indoor unit is composed of several control board and each control board has a M-NET address.

The state of the control board(sub) is not output to the network variable of the control board(main) in the same indoor unit.
2. Object Details
2-1. Overview

The LM adaptor has the node object, Indoor [0] and Indoor [1] to Indoor [50] objects. Each object contains the network variables or configuration properties for all models. Refer to each object (2.4 to 2.6) for the network variables that can be used with each model (unit).

| Node Object | Includes network variables of Node Object. |
| Indoor[0]   | Includes collective network variables and configuration properties. |
| Indoor[1]   | Includes network variables of 1st Indoor unit. |
|             |                                             |
| Indoor[50]  | Includes network variables of 50th Indoor unit. |
2-2. Node Object (*1)

Node Object

Network Variables

- nv1 nviRequest SNVT_obj_request
- nv2 nvoStatus SNVT_obj_status

2-3. Collective operations/monitoring and Configuration Properties(*1)

Indoor[0]

Network Variables

- nv1 nviAllOff SNVT_switch
- nv2 nvoAllOnOff SNVT_switch
- nv3 nvoAllOff SNVT_switch
- nv4 nviAllPro SNVT_switch
- nv5 nvoAllPro SNVT_switch
- nv6 nvoAllAlarm SNVT_switch
- nv7 nvoAllAlarmLMAP SNVT_switch
- nv8 nvoDefrost SNVT_switch
- nv12 nviRmTime SNVT_time_stamp
- nv13 nviRmLim SNVT_switch
- nv14 nviRmLck SNVT_switch

Configuration Properties

- nciMinOutTm Minimum Send Time (nc15)
- nciStartHrtBt Send Heartbeat Start Time (nc16)
- nciStartOutTm Send Start Time (nc17)
- nciInitStartTm Initialize Start Time (nc18)
- nciInitOutTm_1 Initialize Send Time_1 (nc19)
- nciInitOutTm_2 Initialize Send Time_2 (nc20)
- nciSndHrtBt_1 Send Heartbeat_1 (nc21)
- nciSndHrtBt_2 Send Heartbeat_2 (nc22)
- nciAnalogWidth Spacetemp Width (nc23)
- nciAnlgMonTm Monitoring Time (nc24)
- nciRcvHrtBt_1 Receive Heartbeat_1 (nc25)
- nciRcvHrtBt_2 Receive Heartbeat_2 (nc26)
- nciEffectTm_1 Effective time_1 (nc27)
- nciEffectTm_2 Effective time_2 (nc28)
- nciPolIFetch Effective PollFetch (nc29)
- nciOffline Effective Offline Mode (nc30)
- nciCoolLrSetP Lower Setpoint Cooling (nc31)
- nciHeatUpSetP Upper Setpoint Heating (nc32)
- nciRmOpLck Local Operation Lock (nc33)
- nciRmDisp_1 Local Display_1 (nc34)
- nciRmDisp_2 Local Display_2 (nc35)
- nciSet_1 Communication Timing (nc36)

Notes

*1: It is possible to use with an "ME" remote controller.
*2: It is possible to use with an "MA or ME" remote controller.
2-4. Indoor unit

**Indoor[1]-[50] Network Variables**

- **nv1n** nviOnOff_n SNVT_switch
- **nv3n** nviMode_n SNVT_hvac_mode
- **nv5n** nviSetP_n SNVT_temp_p
- **nv7n** nviCoolSetP_n SNVT_temp_p
- **nv9n** nviHeatSetP_n SNVT_temp_p
- **nv11n** nviAutoSetP_n SNVT_temp_p
- **nv13n** nviSetBackHP_n SNVT_temp_p
- **nv15n** nviSetBackLP_n SNVT_temp_p
- **nv17n** nviFanSpeed_n SNVT_switch
- **nv19n** nviProOnOff_n SNVT_switch
- **nv21n** nviProMode_n SNVT_switch
- **nv23n** nviProSetP_n SNVT_switch
- **nv25n** nviThermoOff_n SNVT_switch
- **nv27n** nviFiltReset_n SNVT_switch
- **nv29n** nviThermo_n SNVT_switch
- **nv31n** nviFanSpeed_n SNVT_switch
- **nv33n** nviProOnOff_n SNVT_switch
- **nv35n** nviProMode_n SNVT_switch
- **nv37n** nviProSetP_n SNVT_switch
- **nv39n** nviThermo_n SNVT_switch
- **nv41n** nvoOnOff_n SNVT_switch
- **nv43n** nvoMode_n SNVT_hvac_mode
- **nv45n** nvoSetP_n SNVT_temp_p
- **nv47n** nvoCoolSetP_n SNVT_temp_p
- **nv49n** nvoHeatSetP_n SNVT_temp_p
- **nv51n** nvoAutoSetP_n SNVT_temp_p
- **nv53n** nvoSetBackHP_n SNVT_temp_p
- **nv55n** nvoSetBackLP_n SNVT_temp_p
- **nv57n** nvoFanSpeed_n SNVT_switch
- **nv59n** nvoProOnOff_n SNVT_switch
- **nv61n** nvoProMode_n SNVT_switch
- **nv63n** nvoProSetP_n SNVT_switch
- **nv65n** nvoThermoOff_n SNVT_switch
- **nv67n** nvoFiltReset_n SNVT_switch
- **nv69n** nvoSpaceTemp_n SNVT_switch
- **nv71n** nvoAlarm_n SNVT_switch
- **nv73n** nvoErrCode_n SNVT_count
- **nv75n** nvoErrAdrs_n SNVT_count
- **nv77n** nvoThermoSt_n SNVT_state
- **nv79n** nvoIcMdlSize_n SNVT_count
- **nv81n** nvoGroupNo_n SNVT_count

**Notes:**

1. "n" of the network variable shows M-NET address of indoor units.
2. It may be unable to be used by the system configuration of air-conditioners units.
3. It is possible to use with an "MA or ME" remote controller.
4. For the use of this function, turn ON the switch(SW1-1) on LM ADAPTER.(Factory setting "OFF")
5. For the use of this function, turn ON the switch(SW1-8) on LM ADAPTER.(Factory setting "OFF")
*6: For the use of this function, turn ON the switch(SW1-4) on LM ADAPTER. (Factory setting "OFF")

*7: It is possible to use with other system controller.

*8: This function is available only for the conventional indoor units which don't support the dual setpoint.

*9: These functions are available for the units which support the dual setpoint.

*10: This function is available for the DOAS was manufactured in October, 2012 or later, when it uses with the DOAS.

2-5. Mr.SLIM

<table>
<thead>
<tr>
<th>Indoor[1]-[50]</th>
<th>Network Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>nv1n</td>
<td>nvOnOff_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_switch</td>
</tr>
<tr>
<td>nv3n</td>
<td>nvMode_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_hvac_mode</td>
</tr>
<tr>
<td>nv5n</td>
<td>nvSetP_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_temp_p</td>
</tr>
<tr>
<td>nv19n</td>
<td>nvFanSpeed_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_switch</td>
</tr>
<tr>
<td>nv21n</td>
<td>nvProOnOff_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_switch</td>
</tr>
<tr>
<td>nv23n</td>
<td>nvProMode_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_switch</td>
</tr>
<tr>
<td>nv25n</td>
<td>nvProSetP_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_switch</td>
</tr>
<tr>
<td>nv27n</td>
<td>nviThermoOff_n</td>
</tr>
<tr>
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<td>SNVT_switch</td>
</tr>
<tr>
<td>nv29n</td>
<td>nviProFanSpeed_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_switch</td>
</tr>
<tr>
<td>nv31n</td>
<td>nvoSpaceTemp_n</td>
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<tr>
<td></td>
<td>SNVT_temp_p</td>
</tr>
<tr>
<td>nv32n</td>
<td>nvoArmAlarm_n</td>
</tr>
<tr>
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<td>SNVT_switch</td>
</tr>
<tr>
<td>nv33n</td>
<td>nvoErrCode_n</td>
</tr>
<tr>
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<td>SNVT_count</td>
</tr>
<tr>
<td>nv34n</td>
<td>nvoErrAdrs_n</td>
</tr>
<tr>
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<td>nvoThermoSt_n</td>
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<td>SNVT_state</td>
</tr>
<tr>
<td>nv36n</td>
<td>nvoThermo_n</td>
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<td></td>
<td>SNVT_switch</td>
</tr>
<tr>
<td>nv38n</td>
<td>nvolcMdlSize_n</td>
</tr>
<tr>
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<td>SNVT_count</td>
</tr>
<tr>
<td>nc39n</td>
<td>nvoGroupNo_n</td>
</tr>
<tr>
<td></td>
<td>SNVT_count</td>
</tr>
</tbody>
</table>
Notes
*1: “n” of the network variable shows M-NET address of Mr.SLIM.
*2: It may be unable to be used by the system configuration of air-conditioners units.
*3: It is possible to use with an "MA" remote controller.
*4: For the use of this function, turn ON the switch(SW1-1) on LM ADAPTER.(Factory setting "OFF")
*5: For the use of this function, turn ON the switch(SW1-8) on LM ADAPTER.(Factory setting "OFF")
*6: For the use of this function, turn ON the switch(SW1-4) on LM ADAPTER.(Factory setting "OFF")
*7: It is possible to use with other system controller.
*8: Please set a commnad cycle to 60 seconds or more when commnd is periodically transmitted to Mr.SLIM.

2-6. LOSSNAY

(1) LOSSNAY interlocks with the indoor unit.(*)

Indoor[1]-[50]

Network Variables

- nv32n nvoAlarm_n  SNVT_switch
- nv33n nvoErrCode_n  SNVT_count
- nv34n nvoErrAdrs_n  SNVT_count

(2) LOSSNAY is operated from LonWorks.(*)

Indoor[1]-[50]

Network Variables

- nv1n nviOnOff_n  SNVT_switch
- nv17n nviLCMode_n  SNVT_switch
- nv19n nviFanSpeed_n  SNVT_switch
- nv21n nviProOnOff_n  SNVT_switch
- nv29n nviFiltReset_n  SNVT_switch
- nv32n nvoAlarm_n  SNVT_switch
- nv33n nvoErrCode_n  SNVT_count
- nv34n nvoErrAdrs_n  SNVT_count
- nc39n nvoGroupNo_n  SNVT_count

(*) indicates the system setting.
**Notes:**

*1: "n" of the network variable shows M-NET address of LOSSNAY.
*2: LOSSNAY is not controlled from a LONWORKS network.
*3: It may be unable to be used by the system configuration of air-conditioners units or the model of LOSSNAY.
*4: LOSSNAY is controlled from a LONWORKS network.
*5: Please turn ON the switch(SW1-5) when LOSSNAY is operation from LONWORKS.(Factory setting "OFF")
*6: There is a case which cannot be used with the system configuration of the air-conditioners units.
*7: For the use of this function, turn ON the switch(SW1-1) on LM ADAPTER.(Factory setting "OFF")
*8: For the use of this function, turn ON the switch(SW1-8) on LM ADAPTER.(Factory setting "OFF")
*9: It is possible to use with other system controller.
*10: It is not possible to use FREE PLAN ADAPTER with LM ADAPTER.

### 2-7. AirToWater

**Indoor[1]-[50]**

<table>
<thead>
<tr>
<th>Network Variables</th>
<th>Network Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>nv1n nviOnOff_n SNVT_switch</td>
<td>nv2n nvoOnOff_n SNVT_switch</td>
</tr>
<tr>
<td>nv3n nviMode_n SNVT_hvac_mode</td>
<td>nv4n nvoMode_n SNVT_hvac_mode</td>
</tr>
<tr>
<td>nv5n nviSetP_n SNVT_temp_p</td>
<td>nv6n nvoSetP_n SNVT_temp_p</td>
</tr>
<tr>
<td>(*2,3,4) nv21n nviProOnOff_n SNVT_switch</td>
<td>(*2,3,4) nv22n nvoProOnOff_n SNVT_switch</td>
</tr>
<tr>
<td>(*2,3,4) nv23n nviProMode_n SNVT_switch</td>
<td>(*2,3,4) nv24n nvoProMode_n SNVT_switch</td>
</tr>
<tr>
<td>(*2,3,4) nv25n nviProSetP_n SNVT_switch</td>
<td>(*2,3,4) nv26n nvoProSetP_n SNVT_switch</td>
</tr>
<tr>
<td>(*5) nv27n nviThermoOff_n SNVT_switch</td>
<td>(*) nv28n nvoThermoOff_n SNVT_switch</td>
</tr>
<tr>
<td>nv31n nviSpaceTemp_n SNVT_temp_p</td>
<td>nv32n nvoSpaceTemp_n SNVT_temp_p</td>
</tr>
<tr>
<td>nv33n nvoAlarm_n SNVT_switch</td>
<td>nv34n nvoErrCode_n SNVT_count</td>
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<tr>
<td>nv35n nvoErrAdrs_n SNVT_count</td>
<td>nv36n nvoThermoSt_n SNVT_state</td>
</tr>
<tr>
<td>nv37n nvoThermo_n SNVT_switch</td>
<td>nv38n nvoThermoSize_n SNVT_count</td>
</tr>
<tr>
<td>nv39n nvoGroupNo_n SNVT_count</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

*1: "n" of the network variable shows M-NET address of AirToWater.
*2: It may be unable to be used by the system configuration of air-conditioners units.
*3: It is possible to use with an "MA or ME" remote controller.
*4: For the use of this function, turn ON the switch(SW1-1) on LM ADAPTER.(Factory setting "OFF")
*5: For the use of this function, turn ON the switch(SW1-8) on LM ADAPTER.(Factory setting "OFF")
*6: Water temperature is output in the case of AirToWater.
*7: It is possible to use with other system controller.
### 3. SNVT Table

#### 3-1. The network variables for individual operation/monitoring.

<table>
<thead>
<tr>
<th>rv No. (*1)</th>
<th>Name (*1)</th>
<th>I/O</th>
<th>CITY</th>
<th>MULTI</th>
<th>Mr.SLIM</th>
<th>LOSSNAY</th>
<th>AirToWater</th>
<th>Page.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1n</td>
<td>Request OnOff</td>
<td>IN</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>δ (*9)</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2n</td>
<td>OnOff run state</td>
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<td>○</td>
<td>○</td>
<td>δ (*9)</td>
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</tr>
<tr>
<td>4n</td>
<td>Mode state</td>
<td>OUT</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>15-16</td>
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<tr>
<td>5n</td>
<td>Request SetPoint</td>
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<td>○ (*6)</td>
<td>○ (*6)</td>
<td>○ (*6)</td>
<td>16</td>
<td></td>
<td></td>
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<tr>
<td>6n</td>
<td>SetPoint state</td>
<td>OUT</td>
<td>○ (*5)</td>
<td>○ (*5)</td>
<td>○ (*5)</td>
<td>16-17</td>
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<td></td>
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<tr>
<td>7n</td>
<td>Request Dual SetPoint (Cooling)</td>
<td>IN</td>
<td>○ (*5)</td>
<td>17</td>
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<td></td>
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</tr>
<tr>
<td>8n</td>
<td>Dual SetPoint (Cooling) state</td>
<td>OUT</td>
<td>○ (*5)</td>
<td>17</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>9n</td>
<td>Request Dual SetPoint (Heating)</td>
<td>IN</td>
<td>○ (*5)</td>
<td>17-18</td>
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<tr>
<td>10n</td>
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<td>OUT</td>
<td>○ (*5)</td>
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<tr>
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<td>IN</td>
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<td>Request High Limit in Setback</td>
<td>IN</td>
<td>○ (*5)</td>
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<td>OUT</td>
<td>○ (*5)</td>
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<td>IN</td>
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<td></td>
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<tr>
<td>16n</td>
<td>Low Limit in Setback state</td>
<td>OUT</td>
<td>○ (*5)</td>
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<td></td>
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<tr>
<td>17n</td>
<td>Request LOSSNAY Mode</td>
<td>IN</td>
<td>○ (*3)</td>
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<tr>
<td>18n</td>
<td>LOSSNAY Mode state</td>
<td>OUT</td>
<td>○ (*3)</td>
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</tr>
<tr>
<td>19n</td>
<td>Request Fanspeed</td>
<td>IN</td>
<td>○ (*6)</td>
<td>○ (*6)</td>
<td>○ (*6)</td>
<td>22</td>
<td></td>
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<tr>
<td>20n</td>
<td>Fanspeed state</td>
<td>OUT</td>
<td>○ (*6)</td>
<td>○ (*6)</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>21n</td>
<td>Request Local Prohibit OnOff</td>
<td>IN</td>
<td>○ (*7,8)</td>
<td>○ (*7)</td>
<td>○ (*7)</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22n</td>
<td>Local Prohibit OnOff state</td>
<td>OUT</td>
<td>○ (*7,8)</td>
<td>○ (*7)</td>
<td>○ (*7)</td>
<td>23-24</td>
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<tr>
<td>23n</td>
<td>Request Local Prohibit Mode</td>
<td>IN</td>
<td>○ (*7,8)</td>
<td>○ (*7)</td>
<td>24</td>
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<tr>
<td>24n</td>
<td>Local Prohibit Mode state</td>
<td>OUT</td>
<td>○ (*7,8)</td>
<td>○ (*7)</td>
<td>24-25</td>
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<td></td>
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</tr>
<tr>
<td>25n</td>
<td>Request Local Prohibit SetPoint</td>
<td>IN</td>
<td>○ (*7,8)</td>
<td>○ (*7)</td>
<td>25</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>26n</td>
<td>Local Prohibit SetPoint state</td>
<td>OUT</td>
<td>○ (*7,8)</td>
<td>○ (*7)</td>
<td>25-26</td>
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<td></td>
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<tr>
<td>27n</td>
<td>Request Forced Thermostat OFF</td>
<td>IN</td>
<td>○</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28n</td>
<td>Forced Thermostat OFF state</td>
<td>OUT</td>
<td>○</td>
<td>26-27</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>29n</td>
<td>Filter Sign Reset</td>
<td>IN</td>
<td>○</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30n</td>
<td>Filter Run Time</td>
<td>OUT</td>
<td>○</td>
<td>27-28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31n</td>
<td>Space Temperature (Water Temperature)</td>
<td>OUT</td>
<td>○</td>
<td>27-28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32n</td>
<td>Alarm state</td>
<td>OUT</td>
<td>○ (*2)</td>
<td>○ (*2)</td>
<td>○ (*2)</td>
<td>28-29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33n</td>
<td>Error Code</td>
<td>OUT</td>
<td>○ (*2)</td>
<td>○ (*2)</td>
<td>○ (*2)</td>
<td>29</td>
<td></td>
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</tr>
<tr>
<td>34n</td>
<td>Error Unit Address</td>
<td>OUT</td>
<td>○ (*2)</td>
<td>○ (*2)</td>
<td>30</td>
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<tr>
<td>35n</td>
<td>Thermo OnOff state_1</td>
<td>OUT</td>
<td>○</td>
<td>30-31</td>
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<td></td>
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<tr>
<td>36n</td>
<td>Thermo OnOff state_2</td>
<td>OUT</td>
<td>○</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38n</td>
<td>Model Code</td>
<td>OUT</td>
<td>○ (*4)</td>
<td>○ (*4)</td>
<td>31-32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39n</td>
<td>Group Number</td>
<td>OUT</td>
<td>○ (*10)</td>
<td>○ (*10)</td>
<td>○ (*10)</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1) The value "n" is M-NET address of indoor unit
2) ex) Request OnOff to the 20th indoor unit.
   - rvNo : 120
   - Name : hvOnOff_020

---

**SNVT Table Description**

- **Request OnOff**: Controls the on/off state of the indoor unit. The value of "n" is the M-NET address of the indoor unit.
- **OnOff run state**: Indicates the run state of the indoor unit. The value of "n" is the M-NET address of the indoor unit.
- **Request Mode**: Requests a specific mode of operation. The value of "n" is the M-NET address of the indoor unit.
- **Mode state**: Indicates the current mode state of the indoor unit. The value of "n" is the M-NET address of the indoor unit.
- **Request SetPoint**: Requests a specific setpoint value. The value of "n" is the M-NET address of the indoor unit.
- **SetPoint state**: Indicates the current setpoint state of the indoor unit. The value of "n" is the M-NET address of the indoor unit.
- **Request Dual SetPoint (Cooling)**: Requests a specific dual setpoint value for cooling. The value of "n" is the M-NET address of the indoor unit.
- **Dual SetPoint (Cooling) state**: Indicates the current dual setpoint state for cooling. The value of "n" is the M-NET address of the indoor unit.
- **Request Dual SetPoint (Heating)**: Requests a specific dual setpoint value for heating. The value of "n" is the M-NET address of the indoor unit.
- **Dual SetPoint (Heating) state**: Indicates the current dual setpoint state for heating. The value of "n" is the M-NET address of the indoor unit.
- **Request SetPoint (Auto)**: Requests a specific setpoint value for auto mode. The value of "n" is the M-NET address of the indoor unit.
- **SetPoint (Auto) state**: Indicates the current setpoint state for auto mode. The value of "n" is the M-NET address of the indoor unit.
- **Request High Limit in Setback**: Requests setting the high limit in setback mode. The value of "n" is the M-NET address of the indoor unit.
- **High Limit in Setback state**: Indicates the current high limit in setback state. The value of "n" is the M-NET address of the indoor unit.
- **Request Low Limit in Setback**: Requests setting the low limit in setback mode. The value of "n" is the M-NET address of the indoor unit.
- **Low Limit in Setback state**: Indicates the current low limit in setback state. The value of "n" is the M-NET address of the indoor unit.
- **Request LOSSNAY Mode**: Requests setting the LOSSNAY mode. The value of "n" is the M-NET address of the indoor unit.
- **LOSSNAY Mode state**: Indicates the current LOSSNAY mode state. The value of "n" is the M-NET address of the indoor unit.
- **Request Fanspeed**: Requests setting the fanspeed. The value of "n" is the M-NET address of the indoor unit.
- **Fanspeed state**: Indicates the current fanspeed state. The value of "n" is the M-NET address of the indoor unit.
- **Request Local Prohibit OnOff**: Requests prohibiting the on/off state. The value of "n" is the M-NET address of the indoor unit.
- **Local Prohibit OnOff state**: Indicates the current local prohibit on/off state. The value of "n" is the M-NET address of the indoor unit.
- **Request Local Prohibit Mode**: Requests prohibiting a specific mode. The value of "n" is the M-NET address of the indoor unit.
- **Local Prohibit Mode state**: Indicates the current local prohibit mode state. The value of "n" is the M-NET address of the indoor unit.
- **Request Local Prohibit SetPoint**: Requests prohibiting a specific setpoint value. The value of "n" is the M-NET address of the indoor unit.
- **Local Prohibit SetPoint state**: Indicates the current local prohibit setpoint state. The value of "n" is the M-NET address of the indoor unit.
- **Request Forced Thermostat OFF**: Requests setting the forced thermostat OFF state. The value of "n" is the M-NET address of the indoor unit.
- **Forced Thermostat OFF state**: Indicates the current forced thermostat OFF state. The value of "n" is the M-NET address of the indoor unit.
- **Filter Sign Reset**: Requests resetting the filter sign. The value of "n" is the M-NET address of the indoor unit.
- **Filter Run Time**: Indicates the current filter run time. The value of "n" is the M-NET address of the indoor unit.
- **Space Temperature (Water Temperature)**: Indicates the current space temperature or water temperature. The value of "n" is the M-NET address of the indoor unit.
- **Alarm state**: Indicates the current alarm state. The value of "n" is the M-NET address of the indoor unit.
- **Error Code**: Indicates the current error code. The value of "n" is the M-NET address of the indoor unit.
- **Error Unit Address**: Indicates the current error unit address. The value of "n" is the M-NET address of the indoor unit.
- **Thermo OnOff state_1**: Indicates the current thermo on/off state for the first thermo unit. The value of "n" is the M-NET address of the indoor unit.
- **Thermo OnOff state_2**: Indicates the current thermo on/off state for the second thermo unit. The value of "n" is the M-NET address of the indoor unit.
- **Model Code**: Indicates the current model code. The value of "n" is the M-NET address of the indoor unit.
- **Group Number**: Indicates the current group number. The value of "n" is the M-NET address of the indoor unit.
*2: The air conditioner maintenance error (minor fault) is not output.
*3: It may be unable to be used by the system configuration of air-conditioners units or the model of LOSSNAY.
*4: This is not output with LONWORKS network. Monitoring with Poll request or Fetch request is required.
*5: The monitor interval must be set in M-NET with the configuration properties (CP).
*6: The range (temperature setting, operation mode, wind speed setting) will differ according to the connected devices.
*7: It is possible to use with an "MA" remote controller.
*8: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller. (The M-NET small remote controller cannot be used.)
*9: The interlocked LOSSNAY is run and stopped with operations to each indoor unit.
*10: It is possible to use with other system controller.
*11: Water temperature is output in the case of AirToWater.

### 3-2. The network variables for collective operation/monitoring.

<table>
<thead>
<tr>
<th>nv No. (*1)</th>
<th>Name (*1)</th>
<th>I/O</th>
<th>CITY</th>
<th>MULTI</th>
<th>Mr.SLIM</th>
<th>LOSSNAY</th>
<th>Interlocks with the indoor unit</th>
<th>Operation from LonWorks</th>
<th>AirToWater</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Request All Off</td>
<td>inAllOff</td>
<td>IN</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Emergency state</td>
<td>invAOFF</td>
<td>OUT</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Collective On/Off state</td>
<td>inAOOnOff</td>
<td>OUT</td>
<td>O</td>
<td>O</td>
<td>Δ (*1)</td>
<td>O</td>
<td>O</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Request Collective Operation Prohibit</td>
<td>inAllPro</td>
<td>IN</td>
<td>O (*2,3)</td>
<td>O (*2)</td>
<td>O (*2,3)</td>
<td>O (*2,3)</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Collective Local Prohibit state</td>
<td>inAllPro</td>
<td>OUT</td>
<td>O (*2,3)</td>
<td>O (*2)</td>
<td>O (*2,3)</td>
<td>O (*2,3)</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Collective Alarm for Indoor Unit</td>
<td>inAAAlarm</td>
<td>OUT</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Collective Alarm for LM Adapter</td>
<td>inAAAlarmLMAP</td>
<td>OUT</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Defrost State</td>
<td>invDefrost</td>
<td>OUT</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Time Stamp</td>
<td>invRmTime</td>
<td>IN</td>
<td>O (*5)</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Request Limit Temperature Setting Range</td>
<td>invRmLim</td>
<td>IN</td>
<td>O (*4,5)</td>
<td>36-37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Request Simplified Locking</td>
<td>invRmLck</td>
<td>IN</td>
<td>O (*5)</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: The interlocked LOSSNAY is run and stopped with operations to each indoor unit.
*2: It is possible to use with an "MA" remote controller.
*3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller. (The M-NET small remote controller cannot be used.)
*4: The cool lower limit value and heat upper limit value must be set with the configuration properties (CP).
*5: ME remote control is used, and it can be used when an air-conditioning is a standard mode.
### 3-4. The correspondence lists of Configuration Properties and Network Variables

<table>
<thead>
<tr>
<th>Functions</th>
<th>GroOf Mode</th>
<th>Setpoint (Cool)</th>
<th>Setpoint (Heat)</th>
<th>Setpoint (Off)</th>
<th>Fan Speed</th>
<th>Local On/Off</th>
<th>Local Setpoint</th>
<th>Local Setpoint</th>
<th>Forced Thermostat</th>
<th>Filter Run Time</th>
<th>Smallest Range</th>
<th>Locking Status</th>
<th>Monitoring Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Minimum Send Time</td>
<td>x14</td>
<td></td>
<td></td>
<td>x165</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2 Send Heartbeat Start</td>
<td>x16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>x18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Initialize Start Time</td>
<td>x18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4 Initialize Stop Time</td>
<td>x14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Initialize Send Time</td>
<td>x16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6 Initialize Send Time,</td>
<td>x18</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Low Limit</td>
<td>x20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2 Low Limit</td>
<td>x20</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Low Limit</td>
<td>x20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4 Local Limit</td>
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<td></td>
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<tr>
<td>5 Local Limit</td>
<td>x20</td>
<td></td>
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<tr>
<td>6 Local Limit</td>
<td>x20</td>
<td></td>
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</tr>
<tr>
<td>7 Local Limit</td>
<td>x20</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>8 Local Limit</td>
<td>x20</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Local Limit</td>
<td>x20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Local Limit</td>
<td>x20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Local Limit</td>
<td>x20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Communication Timing</td>
<td>x24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Collectiv On/Off Mode (Coordinated operation (request))
- Collectiv On/Off Mode (Monitoring (state))

**Note:** Additional variables and their status are not shown in the table.
4. Network Variables

1n Request On/Off

network input SNVT_switch nviOnOff_n;

This input network variable is used to run or stop the indoor unit or ventilator (during independent non-interlocked operation).
When the ventilator (LOSSNAY) is registered as interlocking with indoor unit, it will turn the indoor unit ON (for high speed) and OFF. Instructions according to this network variable in under nvoAllOff's output of the state of "Emergency Off" are disregarded.

Valid Range

<table>
<thead>
<tr>
<th>indoor unit</th>
<th>interlocked ventilator</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ON(high)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ON</td>
<td>ON(high)</td>
<td>1</td>
<td>not used</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>not used</td>
<td>0</td>
</tr>
</tbody>
</table>

*1:The value field is set in 0% usually.
*2:The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.
*3:The setting to over 100% is interpreted as 100%.

Default Value

The default value is determined by the state of the air conditioner (indoor unit).
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

2n On/Off run state

network output SNVT_switch nvoOnOff_n;

This output network variable indicates the present On/Off state of the indoor unit or ventilator.
When the ventilator (LOSSNAY) is registered interlocking with the indoor unit, the state of the ventilator will not be output, but it will operate (On/Off) the same as the indoor unit.

Valid Range

<table>
<thead>
<tr>
<th>indoor unit</th>
<th>interlocked ventilator</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ON(low)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ON(high)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ON</td>
<td>any</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

When Transmitted

This variable is transmitted promptly as its state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the ncinitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

Update Rate

The value defined by nciSndHrtBt_1 (Send Heartbeat_1) and nciMinOutTm (Minimum Send Time) is valid.
### Default Service Type

**Acknowledged**

### Request mode

*network input SNVT_hvac_mode nviMode_n;*

This input network variable is used to change the operation mode of the indoor unit. Some operation modes may not be compatible depending on the model.

#### Valid Range

<table>
<thead>
<tr>
<th>Value</th>
<th>Definition</th>
<th>Active mode (AirToWater unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>HVAC_AUTO</td>
<td>Auto mode</td>
</tr>
<tr>
<td>1</td>
<td>HVAC_HEAT</td>
<td>Heat mode</td>
</tr>
<tr>
<td>3</td>
<td>HVAC_COOL</td>
<td>Cool mode</td>
</tr>
<tr>
<td>5</td>
<td>HVAC_PRE_COOL</td>
<td>Dry mode</td>
</tr>
<tr>
<td>9</td>
<td>HVAC_FAN_ONLY</td>
<td>Fan mode</td>
</tr>
<tr>
<td>11</td>
<td>HVAC_ICe</td>
<td>(Fan mode) *1</td>
</tr>
<tr>
<td>12</td>
<td>HVAC_MAX.HEAT</td>
<td>(Fan mode) *1</td>
</tr>
<tr>
<td>13</td>
<td>HVAC_ECONOMY</td>
<td>(Fan mode) *1</td>
</tr>
<tr>
<td>else</td>
<td>-</td>
<td>(Fan mode) *1</td>
</tr>
</tbody>
</table>

*1 In the case of indoor unit, active mode turns into "Fan mode" not only by "value=9" but also "value=11,12,13,else".

*2 In the case of AirToWater unit, active mode turns into "Heating" not only by "value=1" but also "value=0,5,9,else".

#### Default Value

The default value is determined by the state of the air conditioner (indoor unit).

This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

### Mode state

*network output SNVT_hvac_mode nvoMode_n;*

This output network variable indicates the present mode of the indoor unit.

#### Valid Range

<table>
<thead>
<tr>
<th>Value</th>
<th>Definition</th>
<th>Active mode (AirToWater unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>HVAC_AUTO</td>
<td>Auto mode</td>
</tr>
<tr>
<td>1</td>
<td>HVAC_HEAT</td>
<td>Heat mode</td>
</tr>
<tr>
<td>3</td>
<td>HVAC_COOL</td>
<td>Cool mode</td>
</tr>
<tr>
<td>5</td>
<td>HVAC_PRE_COOL</td>
<td>Dry mode</td>
</tr>
<tr>
<td>9</td>
<td>HVAC_FAN_ONLY</td>
<td>Fan mode</td>
</tr>
<tr>
<td>11</td>
<td>HVAC_ICe</td>
<td>not used</td>
</tr>
<tr>
<td>12</td>
<td>HVAC_MAX.HEAT</td>
<td>not used</td>
</tr>
<tr>
<td>13</td>
<td>HVAC_ECONOMY</td>
<td>not used</td>
</tr>
<tr>
<td>FF</td>
<td>HVAC_NUL</td>
<td>value not available</td>
</tr>
</tbody>
</table>

* The value is 0 while LM ADAPTER is initialized.

#### When Transmitted

This variable is transmitted promptly as the state changes.

This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.

This variable is output by the ncinitStartTm (Initialize Start Time) at the powering of LM ADAPTER.


Update Rate
The value defined by nciSndHrtBl_1 (Send Heartbeat_1) is valid.

Default Service Type
Acknowledged

NOTE:
1: It is necessary to make all the indoor units in the same refrigerant system into the same operation mode depending on a model. "HVAC_NUL" may be outputted when it is set as different operation mode.
2: Depending on the change timing, "HVAC_NUL" may be outputted temporarily.

5n Request Setpoint

network input SNVT_temp_p nviSetP_n;

This input network variable is used to change the temperature setpoint of the indoor unit.
This is used for conventional units do not support the dual setpoint.

Valid Range

<table>
<thead>
<tr>
<th>HVAC Mode</th>
<th>indoor unit (except for AirToWater)</th>
<th>HVAC Mode</th>
<th>AirToWater unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto mode</td>
<td>19°C to 28°C</td>
<td>Heating</td>
<td>30°C to 55°C</td>
</tr>
<tr>
<td>Heat mode</td>
<td>17°C to 28°C</td>
<td>Cooling</td>
<td>5°C to 30°C</td>
</tr>
<tr>
<td>Cool mode</td>
<td>19°C to 30°C</td>
<td>Anti-freeze</td>
<td>10°C to 46°C</td>
</tr>
<tr>
<td>Dry mode</td>
<td>19°C to 30°C</td>
<td>HotWater</td>
<td>30°C to 90°C</td>
</tr>
<tr>
<td>Fan mode</td>
<td>Not available</td>
<td>HeatingEco</td>
<td>30°C to 46°C</td>
</tr>
</tbody>
</table>

Resolution of set temperature : 1.0°C
*Be careful that the range of set temperature may differ depending on the model of the indoor and outdoor units.

Default Value
The default value is determined by the state of the air conditioner (indoor unit).
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

6n Setpoint state

network output SNVT_temp_p nvoSetP_n;

This output network variable indicates the present temperature setpoint of the indoor unit.
This is used for conventional units do not support the dual setpoint.

Valid Range

Output range : 17 to 30°C
*AirToWater unit: 5～90°C
Resolution of Temperature : 1.0°C
*The value is 0 while LM ADAPTER is initialized.

When Transmitted
This variable is transmitted promptly as the state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the nciInitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

Update Rate
The value defined by nciSndHrtBl_1 (Send Heartbeat_1) is valid.
Default Service Type
Acknowledged

7n Request Dual Setpoint (Cooling)

network input SNVT_temp_p nviCoolSetP_n;

This input network variable is used to change the temperature setpoint of the indoor unit for the cooling mode. In addition, it can be used with the indoor unit is available for the dual setpoint. The deadband is fixed as 1.5°C at the LM-AP even if it's changed by other controller.

Valid Range
Output range: 19 to 35°C
Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
*Be careful that the range of set temperature may differ depending on the model of the indoor and outdoor units.

Default Value
The default value is determined by the state of the air conditioner (indoor unit). This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

8n Dual Setpoint (Cooling) state

network output SNVT_temp_p nvoCoolSetP_n;

This output network variable indicates the present temperature setpoint of the indoor unit for the cooling mode. In addition, it can be used with the indoor unit is available for the dual setpoint.

Valid Range
Output range: 19 to 35°C
Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
*The value is 0 while LM ADAPTER is initialized.

When Transmitted
This variable is transmitted promptly as the state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the nciInitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

Update Rate
The value defined by nciSndHrtBt_1(Send Heartbeat_1) is valid.

Default Service Type
Acknowledged

9n Request Dual Setpoint (Heating)

network input SNVT_temp_p nviHeatSetP_n;

This input network variable is used to change the temperature setpoint of the indoor unit for the heating mode. In addition, it can be used with the indoor unit is available for the dual setpoint. The deadband is fixed as 1.5°C at the LM-AP even if it's changed by other controller.
Valid Range
Output range: 4.5 to 28°C
Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
*Be careful that the range of set temperature may differ depending on the model of the indoor and outdoor units.

Default Value
The default value is determined by the state of the air conditioner (indoor unit).
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

10n Dual Setpoint (Heating) state

network output SNVT_temp_p nvoHeatSetP_n;

This output network variable indicates the present temperature setpoint of the indoor unit for the heating mode. In addition, it can be used with the indoor unit is available for the dual setpoint.

Valid Range
Output range: 4.5 to 28°C
Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
*The value is 0 while LM ADAPTER is initialized.

When Transmitted
This variable is transmitted promptly as the state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the nciInitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

Update Rate
The value defined by nciSndHrtBt_1 (Send Heartbeat_1) is valid.

Default Service Type
Acknowledged

11n Request Setpoint (Auto)

network input SNVT_temp_p nviAutoSetP_n;

This input network variable is used to change the temperature setpoint of the indoor unit for the auto mode. In addition, it can be used when the BMS uses the single setpoint for the indoor units supporting the dual setpoint.

Valid Range
Output range: 4.5 to 35°C (when the dual setpoint is available)
Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
*Be careful that the range of set temperature may differ depending on the model of the indoor and outdoor units.

Default Value
The default value is determined by the state of the air conditioner (indoor unit).
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

NOTE:
1: In case of the DOAS, this variable is available for the DOAS was manufactured in October, 2012 or later.
12n **Setpoint (Auto) state**

*network output SNVT_temp_p nvoAutoSetP_n;*

This output network variable indicates the present temperature setpoint of the indoor unit for the auto mode. In addition, it can be used when the BMS uses the single setpoint for the indoor units supporting the dual setpoint.

**Valid Range**
- Output range: 4.5 to 35°C
- Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
  *The value is 0 while LM ADAPTER is initialized.*

**When Transmitted**
- This variable is transmitted promptly as the state changes.
- This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
- This variable is output by the ncilnitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

**Update Rate**
- The value defined by nciSndHrtBt_1 (SendHearbeat_1) is valid.

**Default Service Type**
- Acknowledged

**NOTE**
1: In case of the DOAS, this variable is available for the DOAS was manufactured in October, 2012 or later.

13n **Request High Limit Setpoint in Setback**

*network input SNVT_temp_p nviSetBackHP_n;*

This input network variable is used to change the high limit temperature setpoint of the indoor unit in the setback mode. In addition, it can be used with the indoor unit is available for the dual setpoint.

The deadband is fixed as 1.5°C at the LM-AP even if it's changed by other controller.

**Valid Range**
- Output range: 19 to 35°C (as same as the cooling)
- Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
  *Be careful that the range of set temperature may differ depending on the model of the indoor and outdoor units.*

**Default Value**
- The default value is determined by the state of the air conditioner (indoor unit).
- This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

14n **High Limit Setpoint in Setback state**

*network output SNVT_temp_p nvoSetBackHP_n;*

This output network variable indicates the present high limit temperature setpoint of the indoor in the setback mode. In addition, it can be used with the indoor unit is available for the dual setpoint.

**Valid Range**
- Output range: 19 to 35°C (as same as the cooling)
- Resolution of set temperature: 0.5°C (but it depends whether the indoor unit supports it or not.)
  *The value is 0 while LM ADAPTER is initialized.*
**When Transmitted**
This variable is transmitted promptly as the state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the ncinitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

**Update Rate**
The value defined by nciSndHrtBt_1(SendHearbeat_1) is valid.

**Default Service Type**
Acknowledged

---

### Request Low Limit Setpoint in Setback

`network input SNVT_temp_p nviSetBackLP_n;`

This input network variable is used to change the low limit temperature setpoint of the indoor unit in the setback mode. In addition, it can be used with the indoor unit is available for the dual setpoint.
The deadband is fixed as 1.5°C at the LM-AP even if it's changed by other controller.

**Valid Range**
Output range : 4.5 to 28°C (as same as the heating)
Resolution of set temperature : 0.5°C (but it depends whether the indoor unit supports it or not.)
*Be careful that the range of set temperature may differ depending on the model of the indoor and outdoor units.

**Default Value**
The default value is determined by the state of the air conditioner (indoor unit).
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

---

### Low Limit Setpoint in Setback state

`network output SNVT_temp_p nvoSetBackLP_n;`

This output network variable indicates the present low limit temperature setpoint of the indoor in the setback mode.
In addition, it can be used with the indoor unit is available for the dual setpoint.

**Valid Range**
Output range : 4.5 to 28°C (as same as the heating)
Resolution of set temperature : 0.5°C (but it depends whether the indoor unit supports it or not.)
*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**
This variable is transmitted promptly as the state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the ncinitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

**Update Rate**
The value defined by nciSndHrtBt_1(SendHearbeat_1) is valid.

**Default Service Type**
Acknowledged
17n Request LOSSNAY Mode

network input SNVT_switch nviLCMode_n;

This input network variable is used to change the operation mode of the ventilator (at independent operation without interlocking).
This nv is not required to be use when setting the operation mode only from the local side such as a local remote controller.

Valid Range

<table>
<thead>
<tr>
<th>LOSSNAY Mode</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Interchange</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Automatic</td>
<td>1</td>
<td>not used</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>not used</td>
</tr>
<tr>
<td>Normal</td>
<td>0</td>
<td>0.5% to 100% (*2)</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.

Default Value
The default value is determined by the state of the ventilator.
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

18n LOSSNAY Mode state

network output SNVT_switch nvoLCMode_n;

This output network variable indicates the present operation mode of the ventilator.

Valid Range

<table>
<thead>
<tr>
<th>LOSSNAY Mode</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Interchange</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Automatic</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Normal</td>
<td>0</td>
<td>100%</td>
</tr>
</tbody>
</table>

* The value is 0 while LM ADAPTER is initialized.

When Transmitted
This variable is transmitted promptly as the state changes.
It is also transmitted as the state changes by the operation from the local side such as a local remote controller.

Update Rate
The value defined by nciSndHrtBt_1 (Send Heartbeat_1) and nciMinOutTm (Minimum Send Time) is valid.

Default Service Type
Acknowledged
19n Request Fan Speed

*network input SNVT_switch nviFanSpeed_n;*

This input network variable is used to change the fan speed of the indoor unit or Ventilator (in case of independent operation).

**Valid Range**

<table>
<thead>
<tr>
<th>Fan Speed</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Low</td>
<td>not used</td>
<td>0% to 25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 (*1)</td>
</tr>
<tr>
<td>Mid-2</td>
<td>not used</td>
<td>25.5% to 50%</td>
</tr>
<tr>
<td>Mid-1</td>
<td>not used</td>
<td>50.5% to 75%</td>
</tr>
<tr>
<td>High</td>
<td>not used</td>
<td>75.5% to 100% (*2)</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.
* The setting to state=0xFF is invalid.
*2: The setting to over 100% is interpreted as 100%.

* As the number of steps in fan speed differs depending on the model of the indoor unit.

Each indoor unit runs as follows. The data received is retained continually.

3-step model : Mid-2 is accepted as Mid-1.
2-step model : Mid-2 and Mid-1 are accepted as Low.
1-step model : Low, Mid-2 and Mid-1 are accepted as High.

**Default Value**
The default value is determined by the state of the air conditioner (indoor unit).
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

20n Fan Speed state

*network output SNVT_switch nvoFanSpeed_n;*

This output network variable indicates the present airflow rate of the indoor unit fan.

**Valid Range**

<table>
<thead>
<tr>
<th>Fan Speed</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Low</td>
<td>0</td>
<td>25%</td>
</tr>
<tr>
<td>Mid-2</td>
<td>0</td>
<td>50%</td>
</tr>
<tr>
<td>Mid-1</td>
<td>0</td>
<td>75%</td>
</tr>
<tr>
<td>High</td>
<td>0</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**
This variable is transmitted promptly as the state changes.
It is also transmitted as the state changes by the operation from the local side such as a local remote controller.

**Update Rate**
The value defined by nciSndHrtBt_1(SendHearbeat_1) is valid.

**Default Service Type**
Acknowledged
21n **Request Local Prohibit On/Off**

```
network input SNVT_switch nviProOnOff_n;
```

This input network variable is used to prohibit the On/Off operation of the local remote controller connected to the indoor unit or ventilator (under independent operation without interlocking). When the ventilator is registered to be interlocked with the indoor unit, the On/Off operation of the ventilator will also be prohibited.

Instructions according to this network variable in under the prohibition of collective operation (nvoAllPro outputs "Enable") are held. The operation prohibit setting will be cancelled when the time set with nciRcvHrtBt_1 (Receive Heartbeat 1) elapses, so periodic updating is required.

### Valid Range

<table>
<thead>
<tr>
<th>Prohibit/Permit</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>not used</td>
<td>not used</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>1 (*1)</td>
</tr>
<tr>
<td></td>
<td>not used</td>
<td>0</td>
</tr>
<tr>
<td>Prohibit</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>not used</td>
<td>0.5% to 100% (*2)</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01. The setting to state=0xFF is invalid.
*2: The setting to over 100% is interpreted as 100%.

### Default Value

The default value permit On/Off operation of local remote controller

This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

**NOTE:**

1: For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER. (Factory setting "OFF")
2: It is possible to use with an "MA" remote controller.
3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.

22n **Local Prohibit On/Off state**

```
network output SNVT_switch nvoProOnOff_n;
```

This output network variable indicates the prohibit/permit state for the On/Off of the local remote controller connected to the indoor unit or ventilator.

### Valid Range

<table>
<thead>
<tr>
<th>Prohibit/Permit</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Prohibit</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**

This variable is transmitted promptly as the state changes.

**Update Rate**

The maximum update rate is not available.
**Default Service Type**

Acknowledged

**NOTE:**
1: For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER. (Factory setting "OFF")
2: It is possible to use with an "MA" remote controller.
3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.

### 23n Request Local Prohibit Mode

*network input SNVT_switch nviProMode_n;*

This input network variable is used to prohibit the mode change operation of the local remote controller connected to the indoor unit.

Instructions according to this network variable in under the prohibition of collective operation (nvoAllPro outputs "Enable") are held.

The operation prohibit setting will be cancelled when the time set with nciRcvHrtBt_1 (Receive Heartbeat 1) elapses, so periodic updating is required.

#### Valid Range

<table>
<thead>
<tr>
<th>Prohibit/Permit</th>
<th>SW1-7: OFF</th>
<th>SW1-7: ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Permit</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>not used</td>
<td>1 (*1)</td>
</tr>
<tr>
<td>Prohibit</td>
<td>1</td>
<td>not used</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01. The setting to state=0xFF is invalid.
*2: The setting to over 100% is interpreted as 100%.

**Default Value**

The default value permit mode change operation of local remote controller.

This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

**NOTE:**
1: For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER. (Factory setting "OFF")
2: It is possible to use with an "MA" remote controller.
3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.

### 24n Local Prohibit Mode state

*network output SNVT_switch nvoProMode_n;*

This output network variable indicates the prohibit/permit state of the On/Off operation of the local remote controller connected to the ventilator.

#### Valid Range

<table>
<thead>
<tr>
<th>Prohibit/Permit</th>
<th>SW1-7: OFF</th>
<th>SW1-7: ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Permit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Prohibit</td>
<td>1</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.
When Transmitted
This variable is transmitted promptly as the state changes.

Update Rate
The maximum update rate is not available.

Default Service Type
Acknowledged

NOTE:
1: For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER. (Factory setting "OFF")
2: It is possible to use with an "MA" remote controller.
3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.

25n Request Local Prohibit SetPoint

network input SNVT_switch nviProSetP_n;

This input network variable is used to prohibit the temperature setpoint change of the local remote controller connected to the indoor unit.
Instructions according to this network variable in under the prohibition of collective operation (nvoAllPro outputs "Enable") are held.
The operation prohibit setting will be cancelled when the time set with nciRcvHrtBt_1 (Receive Heartbeat 1) elapses, so periodic updating is required.

Valid Range

<table>
<thead>
<tr>
<th>Prohibit/Permit</th>
<th>SW1-7: OFF</th>
<th>SW1-7: ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Permit</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>not used</td>
</tr>
<tr>
<td>Prohibit</td>
<td>1</td>
<td>not used</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.

*2: The setting to over 100% is interpreted as 100%.

Default Value
The default value permit temperature setpoint change for local remote controller.
This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

NOTE:
1: For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER. (Factory setting "OFF")
2: It is possible to use with an "MA" remote controller.
3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.

26n Local Prohibit SetPoint state

network output SNVT_switch nvoProSetP_n;

This output network variable indicates the prohibit/permit of the temperature setting for the local remote controller connected to the indoor unit or ventilator.
### Valid Range

<table>
<thead>
<tr>
<th>Prohibit/Permit</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Permit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Prohibit</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.*

### When Transmitted

This variable is transmitted promptly as the state changes.

### Update Rate

The maximum update rate is not available.

### Default Service Type

Acknowledged

**NOTE:**
1. For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER. (Factory setting "OFF")
2. It is possible to use with an "MA" remote controller.
3. When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.

#### 27n Request Forced Thermostat OFF

network input SNVT_switch nviThermoOff_n;

This input network variable is used to forcibly change indoor unit to the thermo OFF state (Fan mode). The forced thermo OFF setting will be cancelled when the time set with nciRcvHrtBt_2 (Receive Heartbeat 2) elapses, so periodic updating is required.

### Valid Range

<table>
<thead>
<tr>
<th>Thermostat OFF</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value(*)</td>
</tr>
<tr>
<td>disable</td>
<td>0</td>
<td>1% to 100% (*3)</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>1% to 100% (*3)</td>
</tr>
<tr>
<td>enable</td>
<td>0</td>
<td>0% to 0.5%</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>0% to 0.5%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>not used</td>
</tr>
</tbody>
</table>

*1: The value field is set in 100% usually.
*2: The setting to state=0x02-0xFE is interpreted as state=0x01.
   The setting to state=0xFF is invalid.
*3: The setting to over 100% is interpreted as 100%.

### Default Value

The default value is determined by the state of the air conditioner (indoor unit). This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

#### 28n Forced Thermostat OFF state

network output SNVT_switch nvoThermoOff_n;

This output network variable indicates the current forced thermo OFF state of the indoor unit.
Valid Range

<table>
<thead>
<tr>
<th>Thermostat OFF</th>
<th>SW1-7: OFF</th>
<th></th>
<th>SW1-7: ON</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>disable</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>enable</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

When Transmitted

This variable is transmitted promptly as the state changes.

It is also transmitted as the state changes by the operation from the local side such as a local remote controller.

Update Rate

The maximum update rate is not available.

Default Service Type

Acknowledged

Filter Sign Reset

network input SNVT_switch nviFiltReset_n;

This input network variable resets the run time and filter sign for the indoor unit or ventilator (during independent non-interlocked operation).

Valid Range

<table>
<thead>
<tr>
<th>SW1-7: OFF</th>
<th></th>
<th>SW1-7: ON</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset</td>
<td>1</td>
<td>not used</td>
<td>1(*1)</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.

*2: The setting to over 100% is interpreted as 100%.

*The value is 0 while LM ADAPTER is initialized.

*This operation is not carried out when there are inputs other than the above.

Default Value

This variable becomes value = 0 until the value is updated after the power supply of LM ADAPTER.

Filter Run Time

network output SNVT_time_hour nvoOnTime_n;

This output network variable indicates the filter operation time for the indoor unit or ventilator (during independent non-interlocked operation).

Valid Range

0～65,534 hour

*The value is 0 while LM ADAPTER is initialized.

*The valid range will differ according to the indoor unit or ventilator model.

When Transmitted

This variable is transmitted promptly as the state changes.

Update Rate
The maximum update rate is not available.

**Default Service Type**

Acknowledged

**NOTE:** For the use of this function, turn ON the switch (SW1-4) on LM ADAPTER. (Factory setting "OFF")

31n **Space Temperature (Water Temperature)**

```
network output SNVT_temp_p nvoSpaceTemp_n;
```

This output network variable indicates the state of the indoor temperature.
* In the case of AirToWater unit, this output network variable indicates the state of water temperature.

**Valid Range**

- Output range : -10 ~ 50°C  
  *AirToWater unit: 0~99°C  
- Resolution of Temperature : 0.1°C
  *The value is 0 while LM ADAPTER is initialized.

**When Transmitted**

This variable is transmitted when the indoor temperature changes by more than 1°C. (However, it will not be transmitted for changes within 10 minutes.)
This variable is output when the state change is more than the change width set in nciAnalogWidth (indoor temperature change width setting). (Note that changes within 10 minutes will not be output.)
*To obtain the output within 10 minutes, please refer to the nciSndHrtBt_2 (Send Heartbeat_2) and the nciAnlgMonTm (Monitoring Time).

**Update Rate**

The value designated by nciSndHrtBt_2 (Send Heartbeat_2) and nciMinOutTm (Minimum Send Time) is valid.

**Default Service Type**

Acknowledged

**NOTE:**
1. Indoor temperature is outputted while an indoor unit stops. However, please usually use it for temperature measurement only during operation. It may not become a normal value while a fan stops.
2. The display of local remote controller will be 1.0°C (below a decimal point round off) unit.

32n **Alarm state**

```
network output SNVT_switch nvoAlarm_n;
```

This output network variable indicates the abnormality of the indoor unit.
If an error occurs in an outdoor unit, the indoor unit will also stop with an error. Thus, the error will be output from all indoor units in the same refrigerant system. (However indoor units under stopping are excluded.)

**Valid Range**

<table>
<thead>
<tr>
<th>Unit state</th>
<th>SW1-7:OFF state</th>
<th>SW1-7:OFF value</th>
<th>SW1-7:ON state</th>
<th>SW1-7:ON value</th>
</tr>
</thead>
<tbody>
<tr>
<td>normal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>alarm</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.*
**When Transmitted**
This variable is transmitted promptly as the state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the ncinitStartTm (Initialize Start Time) at the powering of LM-AP.

**Update Rate**
The maximum update rate is not available.

**Default Service Type**
Acknowledged

**NOTE:**
1: The release of the indoor unit nvoAlarm_n(Alarm State) results in the "Off" command of the nviOnOff_n (Request On/Off).
   For the nvoAlarm_n (Alarm State) when the indoor unit is under stopping, transmit "Off", after transmitting "On".
2: The error is not output when the indoor unit is stopped, so always use together with the local remote controller or system controller.

33n **Error Code**

network output SNVT_count nvoErrCode_n;

This output network variable indicates the indoor unit's error code.
If an error occurs in an outdoor unit, the indoor unit will also stop with an error. Thus, the error will be output from all indoor units in the same refrigerant system. (However indoor units under stopping are excluded.)

**Valid Range**
0~7999 = Error Code
65,535 = Normal
*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**
This variable is transmitted promptly as the state changes.
This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller.
This variable is output by the ncinitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

**Update Rate**
The maximum update rate is not available.

**Default Service Type**
Acknowledged

**NOTE:**
1: The release of the indoor unit nvoErrCode_n(Error Code) results in the "Off" command of the nviOnOff_n (Request On/Off).
   For the nvoErrCode_n (Error Code) when the indoor unit is under stopping, transmit "Off", after transmitting "On".
2: The error is not output when the indoor unit is stopped, so always use together with the local remote controller or system controller.
### Error Unit Address

network output SNVT_count nvoErrAdrs_n;

This output network variable indicates the indoor unit's address. If an error occurs in an outdoor unit, the indoor unit will also stop with an error. Thus, the error will be output from all indoor units in the same refrigerant system. (However indoor units under stopping are excluded.)

**Valid Range**

- 0 ~ 255 = Error Unit Address
- 65,535 = Normal
*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**

This variable is transmitted promptly as the state changes. This variable is also transmitted as the state changes by the operation from the local side such as a local remote controller. This variable is output by the ncilnitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

**Update Rate**

The maximum update rate is not available.

**Default Service Type**

Acknowledged

**NOTE:**

1. The release of the indoor unit nvoErrAdrs_n (Error Unit Address) results in the "Off" command of the nviOnOff_n (Request On/Off).
   - For the nvoErrAdrs_n (Error Unit Address) when the indoor unit is under stopping, transmit "Off", after transmitting "On".
2. The error is not output when the indoor unit is stopped, so always use together with the local remote controller or system controller.

### Thermo On/Off state_1

network output SNVT_state nvoThermo_n;

This output network variable indicates the On/Off state of the indoor unit, the thermostat and the auxiliary heater for heating.

This variable is used to calculate the electric charge.

**Valid Range**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Indoor OFF</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Indoor ON</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
<td>Indoor thermostat OFF</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>Indoor thermostat ON</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>Supplementary heater OFF</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>Supplementary heater ON</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**

This variable is transmitted promptly when the state changes.

This variable is output by the ncilnitStartTm (Initialize Start Time) at the powering of LM ADAPTER.
**Update Rate**
The value designated by nciMinOutTm (Minimum Send Time) is valid.

**Default Service Type**
Acknowledged

NOTE: This output value is not the addition value or proportional division value of electric charge.
This variable outputs a value now. It is necessary to perform addition and proportional division based on this output value.

### 36n Thermo On/Off state 2

*network output SNVT_switch nvoThermo_n;*

This output network variable indicates the On/Off state of the indoor unit.
This variable is used to calculate the electric charge.

#### Valid Range

<table>
<thead>
<tr>
<th>Thermostat State</th>
<th>SW1-7: OFF</th>
<th>SW1-7: ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Indoor thermostat OFF</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Indoor thermostat ON</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**
This variable is transmitted promptly when the state changes.
This variable is output by the nciInitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

**Update Rate**
The value designated by nciMinOutTm (Minimum Send Time) is valid.

**Default Service Type**
Acknowledged

NOTE: This output value is not the addition value or proportional division value of electric charge.
This variable outputs a value now. It is necessary to perform addition and proportional division based on this output value.

### 38n Model Code

*network output SNVT_count nvoICmdlSize_n;*

This output network variable indicates the model code that indicates the indoor unit.
This variable is used to calculate the electric charge.

#### Valid Range

0 ~ 65,534

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**
This variable is transmitted promptly when the state changes.
Monitoring with a Poll request or Fetch request is required.
**Update Rate**
The maximum update rate is not available.

**Default Service Type**
Acknowledged

---

### Group number

network output SNVT_count nvoGroupNo_n;

This output network variable indicates the group number of the indoor unit.

**Valid Range**
0~50

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**
This variable is transmitted promptly when the state changes. Monitoring with a Poll request or Fetch request is required.

**Update Rate**
The maximum update rate is not available.

**Default Service Type**
Acknowledged

**NOTE:** The group number set up by the system controller is outputted.

---

### Request All Off

network input SNVT_switch nviAllOff;

This input network variable is used for the emergency Off of the indoor unit and all ventilation.

Under the output of "Emergency OFF" of nvoAllOff cannot operate from other remote controller, system controller.
The ON/OFF input for each indoor unit from the master system will be ignored. The emergency stop valid time is set with nciEffectTm_1 (Effective time 1).
The indoor unit will not start even if the emergency stop is cancelled.

**Valid Range**

<table>
<thead>
<tr>
<th>SW1-7:OFF state</th>
<th>SW1-7:OFF value</th>
<th>SW1-7:ON state</th>
<th>SW1-7:ON value</th>
</tr>
</thead>
<tbody>
<tr>
<td>emergency OFF</td>
<td>0</td>
<td>not used</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 (*1)</td>
<td>0</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFF is interpreted as state=0x01.
The setting to state=0xFF is invalid.

*This operation is not carried out when there are inputs other than the above.
The present instruction state is continued.

**Default Value**
This variable become state=0 and value = 0 until the value is updated after the power supply of LM ADAPTER.

**NOTE:** Input the "On" command with nviOnOff (Request ON/OFF) to start the indoor unit after emergency stop is cancelled.
2 Collective On/Off state

This output network variable collectively indicates the current On/Off state of the indoor units or ventilators (during independent non-interlocked operation).

Valid Range

<table>
<thead>
<tr>
<th>Collective Unit state</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Off</td>
<td>0</td>
<td>0% to 100%</td>
</tr>
<tr>
<td>One or more sets are ON or in test run</td>
<td>1</td>
<td>0% to 100%</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

When Transmitted

This variable is transmitted promptly when the state changes.

It is also transmitted as the state changes by the operation from the local side such as a local remote controller.

This variable is output by the ncilnitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

Update Rate

The maximum update rate is not available.

Default Service Type

Acknowledged

3 Emergency state

This output network variable indicates the emergency stop validity state.

Valid Range

<table>
<thead>
<tr>
<th>Emergency state</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>normal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Emergency OFF</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

When Transmitted

This variable is transmitted promptly when the state changes.

This variable is output by the ncilnitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

Update Rate

This network variable is outputted every 10 minutes.

Default Service Type

Acknowledged
4 Request Collective Operation Prohibit

network input SNVT_switch nviAllPro;

This input network variable is used to collectively prohibit (On/Off, operation mode, temperature setting operations) of the local remote controller connected to the indoor unit or ventilator (during independent non-interlocked operation). Instructions according to nviProOnOff
_n, nviProMode
_n, and nviProSetP
_n, in under the prohibition of collective operation (nvoAllPro outputs "Enable") are held. The effective time is set according to nviEffectTm
_2(Effective Time
_2).

Valid Range

<table>
<thead>
<tr>
<th>Collective Operation Prohibit</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>value</td>
<td>state</td>
</tr>
<tr>
<td>Enable</td>
<td>1</td>
<td>not used</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.
   The setting to state=0xFF is invalid.
*2: The setting to over 100% is interpreted as 100%.
*This operation is not carried out when there are inputs other than the above.
The present instruction state is continued.

Default Value

This variable become state=0 and value = 0 until the value is updated after the power supply of LM ADAPTER.

NOTE:
1: For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER.(Factory setting "OFF")
2: It is possible to use with an "MA" remote controller.
3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.

5 Collective Local Prohibit state

network output SNVT_switch nvoAllPro;

This output network variable indicates the state of collective operation prohibiting.

Valid Range

<table>
<thead>
<tr>
<th>Collective Local Prohibit</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>value</td>
<td>state</td>
</tr>
<tr>
<td>disable</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>enable</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

When Transmitted

This variable is transmitted promptly when the state changes.

Update Rate

The maximum update rate is not available.

Default Service Type

Acknowledged

NOTE:
1: For the use of this function, turn ON the switch (SW1-1) on LM ADAPTER.(Factory setting "OFF")
2: It is possible to use with an "MA" remote controller.
3: When some of the models marketed in July 2002 are used, ME remote controller can be also used for the local remote controller.
6 Collective Alarm for Indoor Unit

network output SNVT_switch nvoAllAlarm;

This output network variable collectively outputs the presence of indoor unit errors(nvoAlarm_n). Abnormalities will be output if the number of the indoor units in unusual is included.

**Valid Range**

<table>
<thead>
<tr>
<th>LM ADAPTER state</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>normal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Error</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**

This variable is transmitted promptly when the state changes. This variable is output by the ncilnitStartTm (Initialize Start Time) at the powering of LM ADAPTER.

**Update Rate**

The maximum update rate is not available.

**Default Service Type**

Acknowledged

7 Collective Alarm for LM ADAPTER

network output SNVT_switch nvoAllAlarmLMAP;

This output network variable collectively outputs the presence of communication errors between the LM ADAPTER and indoor unit. If the number of the indoor units in communication is unusual, the abnormalities in communication will be output.

**Valid Range**

<table>
<thead>
<tr>
<th>LM ADAPTER state</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>normal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>communication Error</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**

This variable is transmitted promptly when the state changes. This variable is output by the ncilnitStartTm (Initialize Start Time) at the powering of LM-AP.

**Update Rate**

The maximum update rate is not available.

**Default Service Type**

Acknowledged

NOTE: The communication error are caused with the power supply OFF of an outdoor unit etc. With the power supply OFF of an indoor unit, communication does not become unusual.
9 Collective Defrosting State

*network output SNVT_switch nvoDefrost;

This network variable indicated the defrosting state (collective) of indoor unit and outdoor unit.

**Valid Range**

<table>
<thead>
<tr>
<th>unit state</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>Normal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>defrosting</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*The value is 0 while LM ADAPTER is initialized.

**When Transmitted**

This variable is transmitted promptly when the state changes.

**Update Rate**

The maximum update rate is not available.

**Default Service Type**

Acknowledged

12 Time Stamp

*network input SNVT_time_stamp nviRmTime;

This input network variable sets the local remote controller's time.

The time is collectively set for all remote controllers (for which the time can be set) connected to M-NET.

**Valid Range**

<table>
<thead>
<tr>
<th>year</th>
<th>not used 0:constantly</th>
</tr>
</thead>
<tbody>
<tr>
<td>month</td>
<td>not used 0:constantly</td>
</tr>
<tr>
<td>day</td>
<td>not used 0:constantly</td>
</tr>
<tr>
<td>hour</td>
<td>0 to 23</td>
</tr>
<tr>
<td>minute</td>
<td>0 to 59</td>
</tr>
<tr>
<td>second</td>
<td>0 to 59</td>
</tr>
</tbody>
</table>

**Default Value**

The value is 0 while LM ADAPTER is initialized.

NOTE: The time is reset when the local remote controller's power is turned OFF, so the time must be set periodically.

13 Request Limit Temperature Setting Range

*network input SNVT_switch nviRmLim;

This input network variable changes the local remote controller's temperature setting range.

The set temperature range is set with nciCoolLrSetP (cool/dry lower limit value setting), and nciHeatUpSetP (Upper Setpoint Heating).

The displayed details are set with nciRmDsp_1 (Local Display 1) and nciRmDsp_2 (Local Display 2).
Valid Range

<table>
<thead>
<tr>
<th>Change of the setting Range</th>
<th>SW1-7: OFF</th>
<th>SW1-7: ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>disable</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>1</td>
<td>0.5% - 100%</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.

*2: The setting to over 100% is interpreted as 100%.

* The details displayed on the local remote controller will be set at each update regardless of the "state field" value.

Default Value

A default value is determined by the setting value of local remote controller.
This variable become state=0 and value = 0 until the value is updated after the power supply of LM ADAPTER.

NOTE:
1. It is possible to use with an "ME" remote controller except the smart ME remote controller.
2. The range is set collectively for all remote controllers (for which range can be set) connected to M-NET.

14 Request Simplified Locking

```
set network input SNVT_switch nviRmLck;
```

This input network variable sets the simple lock for the local remote controller operations.
The simple lock range is set with nciRmOpLck (Local Operation Lock).
The displayed details are set with nciRmDsp_1 (Local Display 1) and nciRmDsp_2 (Local Display 2).
The simple lock is set collectively for all remote controllers (for which simple lock can be set) connected to M-NET.

Valid Range

<table>
<thead>
<tr>
<th>Change of the Simplified Locking</th>
<th>SW1-7: OFF</th>
<th>SW1-7: ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>disable</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>1</td>
<td>not used</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.

*2: The setting to over 100% is interpreted as 100%.

* The details displayed on the local remote controller will be set at each update regardless of the "state field" value.

Default Value

A default value is determined by the setting value of local remote controller.
This variable become state=0 and value = 0 until the value is updated after the power supply of LM ADAPTER.

NOTE:
1. It is possible to use with an "ME" remote controller except the smart ME remote controller.
2. The range is set collectively for all remote controllers (for which range can be set) connected to M-NET.
5. Configuration Properties

15 Minimum Send Time

network input config SNVT_time_sec nciMinOutTm;

This configuration property defines the minimum send time between the output network variables. The objective network variables are given below.

Transmitting time is secured per indoor unit.

- nvoOnOff_n (On/Off run state)
- nvoMode_n (Mode state)
- nvoSetP_n (SetPoint state)
- nvoCoolSetP_n (Dual SetPoint (Cooling) state)
- nvoHeatSetP_n (Dual SetPoint (Heating) state)
- nvoAutoSetP_n (SetPoint (Auto) state)
- nvoSetBackHP_n (High Limit in SetBack state)
- nvoSetBackLP_n (Low Limit in SetBack state)
- nvoLCMode_n (LOSSNAY Mode state)
- nvoFanSpeed_n (FanSpeed state)
- nvoProOnOff_n (Local Prohibit On/Off state)
- nvoProMode_n (Local Prohibit Mode state)
- nvoProSetP_n (Local Prohibit SetPoint state)
- nvoThermoOff_n (Forced Thermostat OFF state)
- nvoOnTime_n (Filter Run Time)
- nvoSpaceTemp_n (Space Temperature)
- nvoAlarm_n (Alarm state)
- nvoErrCode_n (Error Code)
- nvoErrAdrs_n (Error Unit Address)
- nvoThermoSt_n (Thermo On/Off state_1)
- nvoThermo_n (Thermo On/Off state_2)

Transmitting time is secured per indoor unit.

- nvoAllOnOff (Collective On/Off state)
- nvoAllOff (Emergency state)
- nvoAllPro (Collective Local Prohibit state)
- nvoDefrost (Collective Defrosting state)
- nvoAllAlarm (Collective Alarm for Indoor Unit)
- nvoAllAlarmLMAP (Collective Alarm for LM ADAPTER)

Valid Range
The valid range covers from 1.0 to 600.0 seconds (per 1 second).

The setting to 0.0 or 6553.5 seconds makes the minimum send time setting invalid.

The setting to 0.1 - 0.9 seconds results in 1.0 second.

The setting to 600.1 - 6553.4 seconds results in 600.0 seconds.

Default Value
6553.5 seconds (Setting invalid)
Send Heartbeat Start Time

network input config SNVT_time_sec nciStartHrtBt

This configuration property defines the start time of automatic updating at the powering of the LM ADAPTER.
The objective configuration properties are given below.
- nciSndHrtBt_1 (Send Heartbeat_1)
- nciSndHrtBt_2 (Send Heartbeat_2)

Valid Range
The valid range covers from 1200.0 to 6540.0 seconds (per 60 seconds).
The setting to 0.0 or 6553.5 seconds results in 1800.0 seconds.
The setting to 0.1 - 1199.9 seconds results in 1200.0 seconds.
The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

Default Value
6553.5 seconds (judged as 1800 seconds)

Send Start Time

network input config SNVT_time_sec nciStartOutTm

This configuration property defines the start time of the output network variable change at powering of LM ADAPTER.
The objective network variables are given below.
- nvoOnOff_n (On/Off run state)
- nvoMode_n (Mode state)
- nvoSetP_n (SetPoint state)
- nvoCoolSetP_n (Dual SetPoint (Cooling) state)
- nvoHeatSetP_n (Dual SetPoint (Heating) state)
- nvoAutoSetP_n (SetPoint (Auto) state)
- nvoSetBackHP_n (High Limit in SetBack state)
- nvoSetBackLP_n (Low Limit in SetBack state)
- nvoLCMode_n (LOSSNAY Mode state)
- nvoFanSpeed_n (Fanspeed state)
- nvoProOnOff_n (Local Prohibit On/Off state)
- nvoProMode_n (Local Prohibit Mode state)
- nvoProSetP_n (Local Prohibit SetPoint state)
- nvoThermoOff_n (Forced Thermostat OFF state)
- nvoOnTime_n (Filter Run Time)
- nvoSpaceTemp_n (Space Temperature)
- nvoAlarm_n (Alarm state)
- nvoErrCode_n (Error Code)
- nvoErrAdrs_n (Error Unit Address)
- nvoThermoSt_n (Thermo On/Off state_1)
- nvoThermo_n (Thermo On/Off state_2)
- nvoAllOnOff (Collective On/Off state)
- nvoAllOff (Emergency state)
- nvoAllPro (Collective local prohibit state)
- nvoDefrost (Collective Defrosting state)
- nvoAllAlarm (Collective Alarm for Indoor Unit)
- nvoAllAlarmLMAP (Collective Alarm for LM ADAPTER)
Valid Range
The valid range covers from 1200.0 to 6540.0 seconds (per 60 seconds).
The setting to 0.0 or 6553.5 seconds results in 1800.0 seconds.
The setting to 0.1 - 1199.9 seconds results in 1200.0 seconds.
The setting to 6540.1 ~ 6553.4 seconds results in 6540.0 seconds.
Output data is as follows by setup of Variable A and Variable B.

Default Value
6553.5 seconds (judged as 1800 seconds)

NOTE: Output data is as follows by setup "Initialize Start Time" and "Communication Timing".
Setting "Initialize":
An initial output value or a value at a power supply ON to the time of 20-minute progress.
Setting "setting time":
An initial output value or a value at the time of Neuron Chip communication start.

18 Initialize Start Time

network input config SNVT_time_sec ncialnStartTm

This configuration property defines the time to start the output when the output network variables change at LM ADAPTER power ON.
The objective network variables are given below.
- nvoOnOff_n (On/Off run state)
- nvoMode_n (Mode state)
- nvoSetP_n (SetPoint state)
- nvoCoolSetP_n (Dual SetPoint (Cooling) state)
- nvoHeatSetP_n (Dual SetPoint (Heating) state)
- nvoAutoSetP_n (SetPoint (Auto) state)
- nvoSetBackHP_n (High Limit in SetBack state)
- nvoSetBackLP_n (Low Limit in SetBack state)
- nvoAlarm_n (Alarm state)
- nvoErrCode_n (Error Code)
- nvoErrAdrs_n (Error Unit Address)
- nvoThermoSt_n (Thermo On/Off state_1)
- nvoThermo_n (Thermo On/Off state_2)
- nvoAllOnOff (Collective On/Off state)
- nvoAllOff (Emergency state)
- nvoAllAlarm (Collective Alarm for Indoor Unit)
- nvoAllAlarmLMAP (Collective Alarm for LM ADAPTER)

Valid Range
The valid range covers from 0.0,1200.0 to 3600.0 seconds (per 60 seconds).
The setting to 0.0 or 6553.5 seconds makes the initial output time setting invalid.
The setting to 0.1 - 1199.9 seconds results in 1200.0 seconds.
The setting to 3600.1 ~ 6553.4 seconds results in 3600.0 seconds.

Default Value
6553.5 seconds (Setting invalid)
Initialize Send Time_1

`network input config SNVT_time_sec nciInitOutTm_1`

This configuration property defines the minimum send time between the output network variables at initial output. This configuration is valid when setting the Initialize Start Time to other values than 0.0 second. The objective network variables are given below.

- `nvoOnOff_n` (On/Off run state)
- `nvoMode_n` (Mode state)
- `nvoSetP_n` (SetPoint state)
- `nvoCoolSetP_n` (Dual SetPoint (Cooling) state)
- `nvoHeatSetP_n` (Dual SetPoint (Heating) state)
- `nvoAutoSetP_n` (SetPoint (Auto) state)
- `nvoSetBackHP_n` (High Limit in SetBack state)
- `nvoSetBackLP_n` (Low Limit in SetBack state)
- `nvoAlarm_n` (Alarm state)
- `nvoErrCode_n` (Error Code)
- `nvoErrAdrs_n` (Error Unit Address)
- `nvoThermoSt_n` (Thermo On/Off state_1)
- `nvoThermo_n` (Thermo On/Off state_2)
- `nvoAllOnOff` (Collective On/Off state)
- `nvoAllOff` (Emergency state)
- `nvoAllAlarm` (Collective Alarm for Indoor Unit)
- `nvoAllAlarmLMAP` (Collective Alarm for LM ADAPTER)

**Valid Range**
The valid range covers from 0.1 to 1.0 second (per 100m seconds). The setting to 0.0 or 6553.5 seconds makes the initial output minimum send time setting invalid. The setting to 1.1 - 6553.4 seconds results in 1.0 second.

**Default Value**
6553.5 seconds (Setting invalid)

Initialize Send Time_2

`network input config SNVT_time_sec nciInitOutTm_2`

This configuration property defines the minimum send time between each unit of the indoor, Mr.SLIM and ventilator at the initial output. This configuration is valid when setting the Initialize Start Time to other values than 0.0 second. The objective network variables are given below.

- `nvoOnOff_n` (On/Off run state)
- `nvoMode_n` (Mode state)
- `nvoSetP_n` (SetPoint state)
- `nvoCoolSetP_n` (Dual SetPoint (Cooling) state)
- `nvoHeatSetP_n` (Dual SetPoint (Heating) state)
- `nvoAutoSetP_n` (SetPoint (Auto) state)
- `nvoSetBackHP_n` (High Limit in SetBack state)
- `nvoSetBackLP_n` (Low Limit in SetBack state)
- `nvoAlarm_n` (Alarm state)
- `nvoErrCode_n` (Error Code)
- `nvoErrAdrs_n` (Error Unit Address)
- `nvoThermoSt_n` (Thermo On/Off state_1)
- `nvoThermo_n` (Thermo On/Off state_2)
- `nvoAllOnOff` (Collective On/Off state)
- `nvoAllOff` (Emergency state)
nvoAllAlarm (Collective Alarm for Indoor Unit)
nvoAllAlarmLMAP (Collective Alarm for LM ADAPTER)

Valid Range
The valid range covers from 5.0 to 50.0 second (per 1 second).
The setting to 0.0 or 6533.5 seconds makes the initial output minimum send time setting invalid.
The setting to 0.1 - 4.9 seconds results in 5.0 seconds.
The setting to 50.1 - 6553.4 seconds results in 50.0 seconds.

Default Value
6553.5 seconds (Setting invalid)

Send Heartbeat_1

network input config SNVT_time_sec nciSndHrtBt_1;

This configuration property defines the time between the previous and next updating.
When the set time is elapsed from the previous updating, automatic updating will be commenced.
The objective variables are given below.
- nvoOnOff_n (On/Off run state)
- nvoMode_n (Mode state)
- nvoSetP_n (SetPoint state)
- nvoCoolSetP_n (Dual SetPoint (Cooling) state)
- nvoHeatSetP_n (Dual SetPoint (Heating) state)
- nvoAutoSetP_n (SetPoint (Auto) state)
- nvoSetBackHP_n (High Limit in SetBack state)
- nvoSetBackLP_n (Low Limit in SetBack state)
- nvoLCMode_n (LOSSNAY Mode state)
- nvoFanSpeed_n (Fanspeed state)

Valid Range
The valid range covers from 600.0 to 6540.0 seconds (per 60 seconds).
The setting to 0.0 or 6553.5 seconds makes the automatic updating invalid.
The setting to 0.1 - 599.9 seconds results in 600.0 seconds.
The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

Default Value
6553.5 seconds (without automatic update)

Send Heartbeat_2

network input config SNVT_time_sec nciSndHrtBt_2;

This configuration property defines the time between the previous and next updating.
When the set time is elapsed from the previous updating, automatic updating will be commenced.
The objective variable is given below.
- nvoSpaceTemp_n (Space Temperature)

Valid Range
The valid range covers from 600.0 to 6540.0 seconds (per 10 seconds).
The setting to 0.0 or 6553.5 seconds makes the automatic updating invalid.
The setting to 0.1 - 599.9 seconds results in 600.0 seconds.
The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.
To obtain the output within 10 minutes, set the connecting indoor unit to 30 sets or less.
Please turn ON the switch (SW1-3) on LM ADAPTER. (Factory setting "OFF")
The valid range in this case becomes as 60.0 - 6540.0 seconds (per 10 seconds).
The setting to 0.0 or 6553.5 seconds makes the automatic updating invalid.
The setting to 0.1 - 59.9 seconds results in 60.0 seconds.
The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

**Default Value**
6553.5 seconds (without automatic update)

### 24 Spacetemp Width

```c
network input config SNVT_temp_p nciAnalogWidth;
```

This configuration property defines the minimum variation width of the output when nvoSpaceTemp_n
(Space Temperature) changes.
The objective variable is given below.

- nvoSpaceTemp_n (Space Temperature)

**Valid Range**
The valid range covers from 0.5 to 2.0 second (per 0.5 °C).
  * The setting to -0.01°C (0xFFFF) results in 1.0°C.
  * The setting to 2.01 - 327.66 °C results in 2.0°C.

**Default Value**
- 0.01°C (judged as 1.0°C)

### 25 Monitoring Time

```c
network input config SNVT_time_sec nciAnlgMonTm;
```

This configuration property defines the indoor temperature monitor interval from the LM adaptor to the indoor unit.

**Valid Range**
The valid range covers from 600.0 to 6540.0 seconds (per 10 seconds).
  * The setting to 0.0 or 6553.5 seconds results in 600.0 seconds.
  * The setting to 0.1 - 599.9 seconds results in 600.0 seconds.
  * The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

To obtain the output within 10 minutes, set the connecting indoor to 30 sets or less.
Please turn ON the switch (SW1-3) on LM ADAPTER. (Factory setting "OFF")
The valid range in this case becomes as 60.0 ~ 6540.0 seconds (per 10 seconds).
The setting to 0.0 or 6553.5 seconds results in 600.0 seconds.
The setting to 0.1 - 59.9 seconds results in 60.0 seconds.
The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

**Default Value**
6553.5 seconds (judged as 600 seconds)
Receive Heartbeat_1

network input config SNVT_time_sec nciRcvHrtBt_1;

This configuration property defines the maximum elapse time from the last update of the network variables (update of input network variable setting values, poll/Fetch request of output network variables). When the set time has elapsed from the previous update, the initial values (operation enable) will be set automatically. Update either the input network variables or the output network variables before the set time elapses.

The objective variable is given below.
- nviProOnOff_n (Request Local Prohibit On/Off)
- nviProMode_n (Request Local Prohibit Mode)
- nviProSetP_n (Request Local Prohibit SetPoint)

Poll/Fetch request of output network variable is effect. By the time it passes setting time, please update an output network variable.

The objective variable is given below.
- nvoProOnOff_n (Local Prohibit On/Off state)
- nvoProMode_n (Local Prohibit Mode state)
- nvoProSetP_n (Local Prohibit SetPoint)

Valid Range
The valid range covers from 600.0 to 6540.0 seconds (per 60 seconds).
- The setting to 0.0 or 6553.5 seconds results in 1800.0 seconds.
- The setting to 0.1 - 599.9 seconds results in 600.0 seconds.
- The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

Default Value
6553.5 seconds (judged as 1800 seconds)

Receive Heartbeat_2

network input config SNVT_time_sec nciRcvHrtBt_2;

This configuration property defines the maximum elapse time from the last update of the network variables (update of input network variable setting values, poll/Fetch request of output network variables). When the set time has elapsed from the previous update, the initial values (operation enable) will be set automatically. Update either the input network variables or the output network variables before the set time elapses.

The objective variable is given below.
- nviThermoOff_n (Request Forced Thermostat OFF)

Poll/Fetch request of output network variable is effect. By the time it passes setting time, please update an output network variable.

The objective variable is given below.
- nvoThermoOff_n (Forced Thermostat OFF state)

Valid Range
The valid range covers from 600.0 to 6540.0 seconds (per 60 seconds).
- The setting to 0.0 or 6553.5 seconds results in 1800.0 seconds.
- The setting to 0.1 - 599.9 seconds results in 600.0 seconds.
- The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

Default Value
6553.5 seconds (judged as 1800 seconds)
Effective time_1

network input config SNVT_time_sec nciEffectTm_1;

This configuration property defines the valid time of nviAllOff (Request All Off).
The objective variable is given below.
· nviAllOff (Request All Off)

Valid Range
The valid range covers from 60.0 to 6540.0 seconds (per 60 seconds).
The setting to 0.0 or 6553.5 seconds results in 600.0 seconds.
The setting to 0.1 - 59.9 seconds results in 60.0 seconds.
The setting to 6540.1 - 6553.4 seconds results in 6540.0 seconds.

Default Value
6553.5 seconds (judged as 600 seconds)

Effective time_2

network input config SNVT_time_sec nciEffectTm_2;

This configuration property defines the valid time of nviAllPro (Request Collective Operation Prohibit).
The objective variable is given below.
· nviAllPro (Request Collective Operation Prohibit)

Valid Range
The valid range covers from 60.0 to 600.0 seconds (per 60 seconds).
The setting to 0.0 or 6553.5 seconds results in 600.0 seconds.
The setting to 0.1 - 59.9 seconds results in 60.0 seconds.
The setting to 600.1 - 6553.4 seconds results in 600.0 seconds.

Default Value
6553.5 seconds (judged as 600 seconds)
Effective PollFetch

network input config SNVT_switch nciPollFetch;

This configuration property defines the presence of a response to the output network variable poll (Fetch) request when an indoor unit is not connected or when communication with the indoor unit is disabled.

The objective variable is given below.
- nvoOnOff_n (On/Off run state)
- nvoMode_n (Mode state)
- nvoSetP_n (SetPoint state)
- nvoCoolSetP_n (Dual SetPoint (Cooling) state)
- nvoHeatSetP_n (Dual SetPoint (Heating) state)
- nvoAutoSetP_n (SetPoint (Auto) state)
- nvoSetBackHP_n (High Limit in SetBack state)
- nvoSetBackLP_n (Low Limit in SetBack state)
- nvoLCMode_n (LOSSNAY Mode state)
- nvoFanSpeed_n (Fanspeed state)
- nvoProOnOff_n (Local Prohibit On/Off state)
- nvoProMode_n (Local Prohibit Mode state)
- nvoProSetP_n (Local Prohibit SetPoint state)
- nvoThermoOff_n (Forced Thermostat OFF state)
- nvoOnTime_n (Filter Run Time)
- nvoSpaceTemp_n (Space Temperature)
- nvoAlarm_n (Alarm state)
- nvoErrCode_n (Error Code)
- nvoErrAdrs_n (Error Unit Address)
- nvoThermoSt_n (Thermo On/Off state_1)
- nvoThermo_n (Thermo On/Off state_2)
- nvoAllOnOff (Collective On/Off state)
- nvoCtMdlsize_n (Model Code)
- nvoAllAlarm (Collective Alarm for Indoor Unit)

Valid Range

<table>
<thead>
<tr>
<th>Poll/Fetch Response</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>response</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>not used</td>
<td>1 (*1)</td>
</tr>
<tr>
<td>no response</td>
<td>1</td>
<td>not used</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.

*2: The setting to over 100% is interpreted as 100%.

Default Value
0 (Setting invalid) *Always
Effective Offline Mode

```
network input config SNVT_switch nciOffline;
```

This configuration property defines the offline mode setting when the LM adaptor power is turned ON. This setting is valid only for 15 minutes after the LM adaptor power is turned ON. A Null response is returned if a Poll/Fetch request is issued to the network variables during the offline state.

The objective variable is given below.

- nvoOnOff_n (On/Off run state)
- nvoMode_n (Mode state)
- nvoSetP_n (SetPoint state)
- nvoCoolSetP_n (Dual SetPoint (Cooling) state)
- nvoHeatSetP_n (Dual SetPoint (Heating) state)
- nvoAutoSetP_n (SetPoint (Auto) state)
- nvoSetBackHP_n (High Limit in SetBack state)
- nvoSetBackLP_n (Low Limit in SetBack state)
- nvoLCMode_n (LOSSNAY Mode state)
- nvoFanSpeed_n (Fanspeed state)
- nvoProOnOff_n (Local Prohibit On/Off state)
- nvoProMode_n (Local Prohibit Mode state)
- nvoProSetP_n (Local Prohibit SetPoint state)
- nvoThermoOff_n (Forced Thermostat OFF state)
- nvoOnTime_n (Filter Run Time)
- nvoSpaceTemp_n (Space Temperature)
- nvoAlarm_n (Alarm state)
- nvoErrCode_n (Error Code)
- nvoErrAdrs_n (Error Unit Address)
- nvoThermoSt_n (Thermo On/Off state_1)
- nvoThermo_n (Thermo On/Off state_2)
- nvoAllOnOff_n (Collective On/Off state)
- nvoMdlsize_n (Model Code)
- nvoAllAlarm_n (Collective Alarm for Indoor Unit)
- nvoAllOff_n (Emergency state)
- nvoAllPro_n (Request Collective Local Prohibit)
- nvoAllAlarmLMAP_n (Collective Alarm for LM ADAPTER)

### Valid Range

<table>
<thead>
<tr>
<th>Offline Mode</th>
<th>SW1-7: OFF</th>
<th>SW1-7: ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>disable</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>not used</td>
<td></td>
</tr>
<tr>
<td>enable</td>
<td>1</td>
<td>not used</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01. The setting to state=0xFF is invalid.
*2: The setting to over 100% is interpreted as 100%.

### Default Value

0 (Setting invalid) *Always
34 **Lower Setpoint Cooling**

*network input config SNVT_temp_p nciCoolLrSetP;*

This configuration property defines the temperature setting value for local remote controller cool/dry operation. The value is set according to nviRmLim (local remote controller temperature range setting).

**Valid Range**
The valid range covers from 19.0 to 35.0 second (per 0.5°C).
- The setting to -273.17 - 18.99°C results in 19.0°C.
- The setting to 35.01 - 327.66°C results in 35.0°C.

**Default Value**
-0.01°C (judged as 19°C)

NOTE: It is possible to use with an "ME" remote controller.

35 **Upper Setpoint Heating**

*network input config SNVT_temp_p nciHeatUpSetP;*

This configuration property defines the upper limit temperature setting value for local remote controller heat operation.
The value is set according to nviRmLim (Request Limit Temperature Setting Range).

**Valid Range**
The valid range covers from 17.0 to 35.0 second (per 1.0°C).
- The setting to -273.17 - 16.99°C results in 17.0°C.
- The setting to 35.01 - 327.66°C results in 35.0°C.

**Default Value**
-0.01°C (judged as 35°C)

NOTE: It is possible to use with an "ME" remote controller.

36 **Local Operation Lock**

*network input config SNVT_switch nciRmOpLck;*

This configuration property defines the local remote controller simple lock setting value.
The value is set according to nviRmLck (Request Simplified Locking).

**Valid Range**

<table>
<thead>
<tr>
<th>Operation Lock</th>
<th>SW1-7:OFF</th>
<th>SW1-7:ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>All button</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>not used</td>
<td>1 (*1)</td>
</tr>
<tr>
<td>except ON/OFF button</td>
<td>1 not used</td>
<td>1 (*1)</td>
</tr>
</tbody>
</table>

*1: The setting to state=0x02-0xFE is interpreted as state=0x01.

*2: The setting to over 100% is interpreted as 100%.
Default Value
0 (All switches)

NOTE: It is possible to use with an "ME" remote controller.

37 Local Display_1

network input config SNVT_switch nciRmDsp_1;

This configuration property defines the presence of the automatic actual operation mode display on the local remote controller.
The value is set according to nviRmLck (Request Simplified Locking) and nviRmLim (Request Limit Temperature Setting Range).

Valid Range

<table>
<thead>
<tr>
<th>Display</th>
<th>SW1-7: OFF</th>
<th></th>
<th>SW1-7: ON</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>display</td>
<td>0</td>
<td>not used</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>not used</td>
<td></td>
<td>1 (1)</td>
<td>0</td>
</tr>
<tr>
<td>no display</td>
<td>1</td>
<td>not used</td>
<td>1 (1)</td>
<td>0.5% - 100% (2)</td>
</tr>
</tbody>
</table>

1: The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.

2: The setting to over 100% is interpreted as 100%.

Default Value
0 (display)

NOTE: It is possible to use with an "ME" remote controller.

38 Local Display_2

network input config SNVT_switch nciRmDsp_2;

This configuration property defines the presence of the automatic actual operation mode display on the local remote controller.
The value is set according to nviRmLck (Request Simplified Locking) and nviRmLim (Request Limit Temperature Setting Range).

Valid Range

<table>
<thead>
<tr>
<th>Display</th>
<th>SW1-7: OFF</th>
<th></th>
<th>SW1-7: ON</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>display</td>
<td>0</td>
<td>not used</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td>else</td>
<td>not used</td>
<td></td>
<td>1 (1)</td>
<td>0</td>
</tr>
<tr>
<td>no display</td>
<td>1</td>
<td>not used</td>
<td>1 (1)</td>
<td>0.5% - 100% (2)</td>
</tr>
</tbody>
</table>

1: The setting to state=0x02-0xFE is interpreted as state=0x01.
The setting to state=0xFF is invalid.

2: The setting to over 100% is interpreted as 100%.

Default Value
0 (display)

NOTE: It is possible to use with an "ME" remote controller.
Communication Timing

network input config SNVT_switch nciSet_1;

This configuration property defines the network communication start timing at the powering of the LM ADAPTER. When it is set as "Initialization" and the initial processing between LM ADAPTER and Indoor unit is complete, communication of Neuron-Chip is possible. When it is set as "setting time" and the initial processing between LM ADAPTER and Indoor unit is complete, communication of Neuron-Chip cannot be performed. When the setting time of a configuration property is performed, communication of Neuron-Chip is attained.

When it is set as "setting time", communication is started at the shortest setting time in the following configuration properties.

- nciStartHrtBt (Send Heartbeat Start Time)
- nciStartOutTm (Send Start Time)
- nciInitStartTm (Initialize Start Time)

Valid Range

<table>
<thead>
<tr>
<th>Timing</th>
<th>SW1-7:OFF</th>
<th></th>
<th>SW1-7:ON</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>state</td>
<td>value</td>
<td>state</td>
<td>value</td>
</tr>
<tr>
<td>initialize</td>
<td>0</td>
<td>not used</td>
<td>0</td>
<td>not used</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>not used</td>
<td>1 (*)</td>
<td>0</td>
</tr>
</tbody>
</table>
| setting time | 1         | not used | 1 (*)    | 0.5% - 100% (*)

*1: The setting to state=0x02-0xFE is interpreted as state=0x01. The setting to state=0xFF is invalid.
*2: The setting to over 100% is interpreted as 100%.

Default Value

0 (Setting invalid)

Note: Although reception of an instruction input becomes possible after Neuron-Chip operation starts, a state output cannot be performed till the time set up with the configuration properties.
6. Node Object

1n/2n Object Request/Object Status

network input SNVT_obj_request nviRequest;
network output SNVT_obj_status nvoStatus;

This input network variable is used to monitor the LM adaptor for obstacles. The object status is returned in respect to the object_request input update.

Valid Range

<table>
<thead>
<tr>
<th>object_id</th>
<th>object_request</th>
<th>nviRequest</th>
<th>nvoStatus</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2:RQ_UPDATE_STATUS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 to 65535</td>
<td>2:RQ_UPDATE_STATUS</td>
<td>1 to 65535</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>1 to 65535</td>
<td>1</td>
</tr>
</tbody>
</table>

Object Request supports only object_id and RQ_UPDATE_STATUS. Object Status supports only object_id, invalid_id and invalid_request. A response is not output to the object request for 20 minutes after the LM ADAPTER power is turned ON (reset). If a Poll request or Fetch request is made during this time, "invalid_id=1" and "invalid_request=1" will be returned.

When Transmitted

Object Status is transmitted promptly when object_request is input.

Update Rate
The maximum update rate is not available.

Default Service Type
Acknowledged

Default Value
The default value of Object Request is 0.
Appendix A: Fahrenheit conversion of Centigrade data

The type of the network variable of the temperature currently used by LM ADAPTER is SNVT_temp_p, and expresses temperature data with Centigrade. By local remote controller or the system controller, the Fahrenheit is used for a temperature display and Centigrade data is used for communication between units. The conversion table of the Fahrenheit and Centigrade is shown in Table-1. The value of Fahrenheit in the Table-1 is displayed on our controllers. The network variables and configuration properties which use this conversion table are as follows.

<table>
<thead>
<tr>
<th>SetPoint</th>
<th>- nviSetP_n</th>
</tr>
</thead>
<tbody>
<tr>
<td>SetPoint state</td>
<td>- nvoSetP_n</td>
</tr>
<tr>
<td>Dual SetPoint (Cooling)</td>
<td>- nviCoolSetP_n</td>
</tr>
<tr>
<td>Dual SetPoint (Cooling) state</td>
<td>- nvoCoolSetP_n</td>
</tr>
<tr>
<td>Dual SetPoint (Heating)</td>
<td>- nviHeatSetP_n</td>
</tr>
<tr>
<td>Dual SetPoint (Heating) state</td>
<td>- nvoHeatSetP_n</td>
</tr>
<tr>
<td>SetPoint (Auto)</td>
<td>- nviAutoSetP_n</td>
</tr>
<tr>
<td>SetPoint (Auto) state</td>
<td>- nvoAutoSetP_n</td>
</tr>
<tr>
<td>High limit Setpoint in Setback</td>
<td>- nviSetBackHP_n</td>
</tr>
<tr>
<td>High limit Setpoint in Setback state</td>
<td>- nvoSetBackHP_n</td>
</tr>
<tr>
<td>Low limit Setpoint in Setback</td>
<td>- nviSetBackLP_n</td>
</tr>
<tr>
<td>Low limit Setpoint in Setback state</td>
<td>- nvoSetBackLP_n</td>
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<tr>
<td>Space Temperature</td>
<td>- nvoSpaceTemp_n</td>
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<td>Lower Setpoint Cooling</td>
<td>- nciCoolrSetP_n</td>
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<tr>
<td>Upper Setpoint Heating</td>
<td>- nciHeatUpSetP_n</td>
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<th>Table - 1 Conversion table for C/F</th>
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Temperature setting range: 63°F to 87°F
Coo/Dry operation: 67°F to 95°F
Heat operation: 39°F to 83°F
Auto operation: 67°F to 83°F

Note:
When the conversion formula of the Fahrenheit and Centigrade is used, an error arises.