

SERVICE MANUAL

Service Manual

< VRF Central Touchscreen Controller >

CCXL01

< VRF Central Touchscreen Controller Adapter >

CCXLA01

< Energy Calculation Software >

CCSE01

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1. Setup

This clause describes how to set up the system.

1.1 VRF Central Touchscreen Controller

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

1.2 VRF Central Touchscreen Controller Adapter

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller Adapter (CCXLA01).

1.3 Energy Calculation Software

Refer to the Installation and Maintenance Manual for Energy Calculation Software (CCSE01).

2. On Field

This clause describes how to use the system on field.

2.1 VRF Central Touchscreen Controller

Refer to the Operation Manual for VRF Central Touchscreen Controller (CCXL01).

2.2 Energy Calculation Software

Refer to the Operation Manual for Energy Calculation Software (CCSE01).

3. Changing Settings

3.1 Adding/Editing/Deleting Units

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

3.2 Adding/Editing/Deleting Remote Controller (RC) Groups

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

3.3 Adding/Editing/Deleting Group/Block/Area

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

3.4 Editing layout

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

3.5 Adding VRF Central Touchscreen Controller Adapter

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

3.6 Deleting VRF Central Touchscreen Controller Adapter

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

4. Troubleshooting

4.1 VRF Central Touchscreen Controller

4.1.1 Start-up

| Item | Phenomenon | Check | Action |
|------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Connection check takes too long. | Is indoor unit running? | Connection check may take approximately 20 minutes or longer. Stop indoor unit on RCS to shorten the time for connection check. |
| 2 | No unit is shown on the monitor after start-up. (Even after restarting) | Is VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter detected correctly via Register network ? | Unit is not shown if VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter is not detected correctly. Process connection in Register network . |
| | | Are all of Group, Block, and Area registered in Register monitoring target ? | All of Group, Block, and Area need to be registered. |
| 3 | VRF Central Touchscreen Controller does not establish connection with VRF Central Touchscreen Controller Adapter. | Is DSW on VRF Central Touchscreen Controller Adapter set correctly? | For monitor and control mode and H-LINK II mode, set 1 and 5 pins on DSW3 to ON. For non-H-LINK mode, set 1, 4 and 5 pins on DSW3 to ON. Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller Adapter (CCXLA01) to change setting. |
| | | Is IP address on VRF Central Touchscreen Controller Adapter set correctly? | IP address on VRF Central Touchscreen Controller Adapter needs to be correct. IP address can be checked in setting mode. Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller Adapter (CCXLA01) to check the IP address. |
| 4 | Date/Time is not correctly shown upon start-up. | Was VRF Central Touchscreen Controller out of power for a long time? | Date/Time setting will be cleared after being out of power for a long time. Go to Basic setting - Date and time setting to set date and time. |

4.1.2 Monitor (Control)

| Item | Phenomenon | Check | Action |
|------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Commands from VRF Central Touchscreen Controller are not effective. (Remote controllers/air conditioners are not operating.) | Is S23 alarm active? | Communication failure occurred on the LAN between VRF Central Touchscreen Controller and VRF Central Touchscreen Controller Adapter. Verify LAN cable, hub, and VRF Central Touchscreen Controller Adapter conditions are all cleared. |
| | | Is 60, 61, 64, or 65 alarm active? | Communication failure occurred on H-LINK. Verify the power supply for air conditioners, H-LINK wiring, and transmission condition. |
| | | Is “Stop” or “Emergency Stoppage” on external input from PIO1/PIO2 active either on VRF Central Touchscreen Controller or VRF Central Touchscreen Controller Adapter? | Clear the external input signal for “Stop” or “Emergency Stoppage”. |
| | | Was remote controller connection changed? (for example, was remote controller switch removed?) | Ensure to turn the air conditioners off to change remote controller connection. If remote controller connection was changed while the power for air conditioner was on, turn the air conditioner off first and then turn it on again to check connection on Detail setting - Register monitoring target . |
| | | Is stop signal on external input for indoor unit active? | The stop signal on external input for indoor unit has precedence. Clear the external input signal. |
| 2 | Controlling facility units from VRF Central Touchscreen Controller is not effective. (Facility units do not operate) | Are PIO1 and PIO2 in use and S10/S11 alarm active? | If S10 alarm is active, communication failure occurred between VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter and PIO1, and if S11 alarm is active, VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter and PIO2. Verify LAN cable, hub, VRF Central Touchscreen Controller Adapter conditions, and PIO1/PIO2 power supply are all cleared. |
| 3 | After controlling air conditioners from VRF Central Touchscreen Controller, units stop operation after a certain period of time. | Was remote controller connection changed? (for example, was remote controller switch removed?) | Ensure to turn the air conditioners off to change remote controller connection. If remote controller connection was changed while the power for air conditioner was on, turn the air conditioner off first and then turn it on again to check connection on Detail setting - Register monitoring target . |
| 4 | “On all” command is not effective for some units. | Is the unit set as the exception of the simultaneous operation? | Go to Detail setting - Register monitoring target - Register Name to set “Non limited operation” or “Prohibit Off all ope.” for the unit. |
| 5 | “Off all” command is not effective for some units. | Is the unit set as the exception of the simultaneous operation? | Go to Detail setting - Register monitoring target - Register Name to set “Non limited operation” or “Prohibit On all ope.” for the unit. |
| 6 | Control item for RCS prohibit is not shown on control menu. | Did you scroll the page on control menu? | RCS prohibit is on the 2nd page of the control menu. Tap “^” and “v” to scroll the page. |
| 7 | Control item for filter sign reset is not shown on control menu. | Did you scroll the page on control menu? | Filter sign reset is on the 3rd page of the control menu. Tap “^” and “v” to scroll the page. |



TROUBLESHOOTING

| Item | Phenomenon | Check | Action |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8 | The control menu does not close. | Did you tap "X" on the right top of the window? | Tap "X" on the right top of the window. |
| 9 | Electricity usage is not lowered as set in capacity control. | Is "Lower noise" set for an outdoor unit that does not support lower noise control? | Regarding applicable units, contact your distributor. Setting lower noise to units that do not support the function may cause malfunction on capacity control. |
| | | Is the outdoor unit in defrost mode? | This control does not take place while the unit is in defrost mode. |
| | | Does power consumption get lowered after minutes? | The capacity control setting will be reflected within approximately 6 minutes after setting. |
| | | Power consumption gets lowered, but it does not reach the target value. | Since units always need stand-by power, power consumption will NOT be "0" even if 0% is specified for capacity control. Valid setting range varies on outdoor unit type. Regarding applicable units, contact your distributor. This control does not intend to guarantee the operation for the specified power consumption. |
| 10 | Noise is not lowered as set in Lower noise control. | The noise gets lowered, but it does not reach the target value. | This control does not intend to guarantee the operation for the specified noise level. |
| 11 | Unit Name is not fully displayed. | Is unit name too long? | Panels cannot show names longer than specified character length. Try shorter names. |
| 12 | RCS shows "Central Control" and all operations on RCS are locked although RC operation prohibit is not set from VRF Central Touchscreen Controller. | Did you turn on the power for this system before installing RCS for the indoor unit? | The indoor unit may be detected as RC less unit. Go to Detail setting - Register monitoring target to check connection again. |
| | | Was indoor unit changed from RC less unit type to unit with remote controller? | Go to Detail setting - Register monitoring target to check connection again. |
| 13 | It takes long for setting to be affected and/or control units on external input/output. | Are PIO1 and PIO2 in use? | Detection and control of external input/output on PIO1 and PIO2 may take up to 1 minute. Use standard external input/output that will be directly connected to VRF Central Touchscreen Controller/Adapter for higher detection/control priority. |
| 14 | Unintended unit has setting affected after controlling a unit from VRF Central Touchscreen Controller. | Were units correctly registered on master unit? | Units may be registered to wrong unit that is not its master unit. Go to Detail setting - Register monitoring target to verify setting. |
| 15 | Setting on RCS gets bounce back to the preset value. | Is RC operation prohibit set from VRF Central Touchscreen Controller? Or is central controller controlling the unit? | If RC operation is prohibited from central controller, wait for 10 seconds or longer for next operation on RC after commanding. Likewise, wait for 10 seconds or longer for operation on RC after commanding on central controller. |

4.1.3 Monitor (Monitoring)

| Item | Phenomenon | Check | Action |
|------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Contents on the monitor does not change after commanding on remote controller. | Is 60, 61, 64, or 65 alarm active? | Communication failure occurred on H-LINK. Ensure that air conditioners are running, and H-LINK wiring and communication line are correctly connected. |
| | | Are Group, Block, and Area Layout registered correctly? | Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01) to correctly register units. |
| 2 | The contents on the monitor do not match the actual state on the remote controller. | Was remote controller connection changed? (for example, was remote controller switch removed?) | If different commands are made on VRF Central Touchscreen Controller and remote controller, it may take up to 7 minutes for the status on both screens to match. |
| 3 | Panels do not appear on the screen. | Is connection check completed? | Go to Detail setting - Register monitoring target to ensure correct connection. |
| 4 | Display format changed. | Did you select Group in Select display target? | Display format automatically changes to unit if Group is selected in Select display target. |
| | | Did you select All/Area/Block in Select display target? | Display format automatically changes to Group if All, Area, or Block is selected in Select display target. |
| 5 | Panel color stays green after changing operation mode. | Did you change operation mode color on Basic setting - Display/Sound setting ? | Go to Basic setting - Display/Sound setting to change setting for operation mode color. |
| 6 | After commanding "Run" from VRF Central Touchscreen Controller, although the indoor unit is running, it shows as "Stop" on the monitor. | Did you remove the remote controller after turning on the power for the indoor unit? Or is the unit set to accept commands from remote controller although the unit is "RC-less" unit? | The state on the air conditioner cannot be monitored because the unit is detected as "unit with remote controller". Reset the air conditioner and go to Detail setting - Register monitoring target to check connection again. Command "Run" from VRF Central Touchscreen Controller to ensure correct state is shown on the monitor |
| 7 | Temperature on the monitor is greatly different from the actual temperature. | Is saving mode active on remote controller? | Indicated temperature may differ from actual temperature while in saving mode. |
| 8 | Each setting item on the monitor window have value of "--". | Did you select Group/Block/Area for display format? | If multiple setting values exist in the specified Group/Block/Area, then setting items show "--" for the value. |

4.1.4 Schedule

| Item | Phenomenon | Check | Action |
|------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Schedule does not work. | Did you set Schedule inactive for a day? | Cancel Schedule inactive for a day in control window for the unit on the monitor window. |
| | | Did you tap  to complete schedule setting? | Tap  to ensure this sign no longer blinks. |
| | | Is schedule item set for each group? | The target of the schedule is Group. Ensure that the schedule item is set for group. |
| | | Did you set exception day? | If current day is specified as exception day, exception day schedule takes precedence over the regular schedule. Verify the schedule for the exception day. |
| | | Did you set holiday? | No schedule item is active on holiday. |
| | | Did you select Overwrite only where changed for Setting contents activation? | Verify Setting contents activation. Select Overwrite all to retry, or set each group. |
| | | Is connection check completed? | Go to Detail setting - Register monitoring target to ensure correct connection. |
| 2 | Whole calendar is grayed out and cannot set exception day for summer/winter. | Did you set summer/winter season? | Tap Summer/Winter period setting to set season. |
| 3 | Cannot add schedule item. | Did you already set 16 schedule items? | Only 16 items can be set in a day. |
| 4 | The schedule item is set for All (upper criteria), but each Group (lower criteria) seems to have a different schedule item. | Did you select Overwrite only where changed for Setting contents activation? | Select Overwrite all to retry, or set each group. The setting Overwrite only where changed does not edit each exception day or operation pattern. |
| 5 | Exception day schedule does not work. | Did you set schedule for the exception day this year? | Exception day needs to be set every year. Setting 2017/8/1 as exception day 1 does not automatically set 2018/8/1 as exception day 1. Set exception day every year to activate the specific day as exception day. Up to Dec 31 in the current year can be set as exception day. |
| 6 | Alert pop-up is shown when attempt to save data is made. | Is USB flash memory/SD card correctly inserted? | Ensure USB flash memory/SD card is correctly inserted for saving data. |
| | | Does USB flash memory/SD card have enough capacity? | Delete unnecessary file to secure enough capacity. |
| | | Is the USB flash memory/SD card write-protected? | Unlock the write protection or use other USB flash memory/SD card. |




4.1.5 Use results

| Item | Phenomenon | Check | Action |
|------|------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1 | All values show "0" in the usage history for the specified period. | Is the specified period correct? | Specify period for when the unit was running. |
| 2 | Items other than operation time do not appear. | Is facility unit specified? | Facility units do not have thermo-on time and temperatures. Only operation time is available for graphical view. |
| 3 | Panels do not appear on the screen. | Is connection check completed? | Go to Detail setting - Register monitoring target to ensure correct connection. |
| 4 | Unit Name is not fully displayed. | Is unit name too long? | Panels cannot show names longer than specified character length. Try shorter names. |
| 5 | A window with "No data available" pops up. | Is the specified period correct? | Specify period for when the unit was running. |
| 6 | Temperature on the monitor is greatly different from the actual temperature. | Is saving mode active on remote controller? | Indicated temperature may differ from actual temperature while in saving mode. |
| 7 | Alert pop up is shown when attempt to save data is made. | Is USB flash memory/SD card correctly inserted? | Ensure USB flash memory/SD card is correctly inserted for saving data. |
| | | Does USB flash memory/SD card have enough capacity? | Delete unnecessary file to secure enough capacity. |
| | | Is the USB flash memory/SD card write-protected? | Unlock the write protection or use other USB flash memory/SD card. |

4.1.6 History

| Item | Phenomenon | Check | Action |
|------|----------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | The incident information is not recorded. | Did you tap Setting menu - Delete history ? | Tapping Delete history deletes all the records. |
| | | Does the number of records exceed maximum (recordable) records? | If the total number of the records exceeds the maximum records, then the records are deleted from the oldest. Refer to the Operation Manual for VRF Central Touchscreen Controller (CCXL01) for details of maximum record numbers for each history menu. |
| | | Is targeted Group/Block/Area/Layout selected? | Select targeted Group/Block/Area/Layout. Some of the alarms are shown only when All is selected. |
| | | Did you tap Update ? | History display does not automatically refresh the contents. Tap Update to refresh the contents. |
| 2 | Alert pop up is shown when attempt to save data is made. | Is USB flash memory/SD card correctly inserted? | Ensure USB flash memory/SD card is correctly inserted for saving data. |
| | | Does USB flash memory/SD card have enough capacity? | Delete unnecessary file to secure enough capacity. |
| | | Is the USB flash memory/SD card write-protected? | Unlock the write protection or use other USB flash memory/SD card. |

4.1.7 Detail setting

| Item | Phenomenon | Check | Action |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Unnecessary layout is shown. | Did you delete layout? | Follow the steps below to delete layout data. 1. Tap Detail setting - Register monitoring target . 2. Select layout to delete in Register monitoring target . 3. Tap Setting menu - Delete . 4. If the layout is registered as master layout, refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01) to delete individual layout and restart VRF Central Touchscreen Controller. |
| 2 | H-LINK is selected via register monitoring target window when the registration target is "unit", but information of the selected H-LINK is not displayed. | Is the specified H-LINK correctly registered via Register network? | Register the specified H-LINK via Register network. |
| 3 |  is flashing. | Did you tap  . | Setting hasn't been completed. Tap  to complete setting. |
| 4 | Password is required when opening the detail setting window. | Did you set the password? | Password is set for detail setting window as default. The default password is "2468". Password can be changed in Detail setting - Password lock . |

4.2 Energy Calculation Software

4.2.1 Troubleshooting

| Item | Phenomenon | Check | Action |
|------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Energy calculation does not appear on Function Menu. | Is Energy Calculation Software installed? | Refer to the Installation and Maintenance Manual for Energy Calculation Software (CCSE01) "Installation Process". |
| 2 | Calculation information is shown. | Is the power for all VRF Central Touchscreen Controller and VRF Central Touchscreen Controller Adapter turned ON? | Turn on the power for VRF Central Touchscreen Controller Adapter. |
| | | Is test run on VRF Central Touchscreen Controller completed? | Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01) and complete a test run with implementation of connection check, group registration, block registration and area registration. |
| | | Are power on all VRF Central Touchscreen Controller Adapter, VRF Central Touchscreen Controller, and relaying hub turned ON and all wirings are correct? | Check the LAN wiring between VRF Central Touchscreen Controller and VRF Central Touchscreen Controller Adapter and turn on the power for relay hub. |
| | | Have VRF Central Touchscreen/VRF Central Touchscreen Controller Adapter been out of power due to power failure? | Because accumulated data will not be created while the power for VRF Central Touchscreen Controller Adapter is OFF, calculation information will be output. |
| | | Did you set energy calculation? | Refer to the Installation and Maintenance Manual for Energy Calculation Software (CCSE01) "Energy calculation setting". |
| | | Is Pulse rate set? | Ensure to tap Pulse rate setting - Complete to complete setting. |
| 3 | Meter output value and value on energy calculation window are inconsistent. | Are all pulse meters connected appropriately? | Check the wiring for pulse meters. |
| | | Is the power for all pulse accumulator turned ON? | Turn the power on all pulse accumulator. |
| | | Is calculation activated? | Go to Energy calculation setting and set Active . |
| 4 | Usage amount is not accumulated. (Pulse count is 0) | Is all Meter No. set correctly? | Go to Energy calculation setting - Unit data setting to check Meter No. |
| | | Is unit running? | Run all units at 66°F(19°C) in COOL, or 86°F(30°C) in HEAT and check the pulse 1 hour later. |
| | | Is calculation activated? | Go to Energy calculation setting and set Active . |

5. Maintenance

5.1 Configuration data backup

5.1.1 Configuration data backup

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

5.2 Restoring configuration backup data

5.2.1 Restoring configuration backup data

Refer to the Installation and Maintenance Manual for VRF Central Touchscreen Controller (CCXL01).

5.3 Maintenance data

5.3.1 PLC Communication log

Communication with PIO1/PIO2 is logged in files.

| | |
|---------------------|---------------------------------------------------------------------------------|
| File Name | "extadp-" + yyyyymmddHHMMSS + ".txt" (for example, "extadp-20140412185452.txt") |
| Stored as text data | Logs following information for 1 hour. |

[Task code A4:I/O No. Specified monitor (Point N at random)]

▪ Request Format

| | | | | | | |
|-------|----|----------|-----------|---------------|-------------------------|-------------------------|
| 00 | xx | FFFF0000 | A4 | 08 | (a) | (b) |
| Fixed | * | Fixed | Task Code | Reading point | Refer to the following. | Refer to the following. |

*Serial number (changes per task code transmission)

(a): Input module 1 Read request

| | | | | | | | |
|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| 0C | 000000 | 0C | 000001 | 0C | 000002 | 0C | 000003 |
| 1st word Load | | 2nd word Load | | 3rd word Load | | 4th word Load | |

(b): Input module 2 Read request

| | | | | | | | |
|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| 0C | 000004 | 0C | 000005 | 0C | 000006 | 0C | 000007 |
| 5th word Load | | 6th word Load | | 7th word Load | | 8th word Load | |

(Refer to PIO Manual for the detail of data format of read data.)

▪ Response Format

| | | | | | | |
|-------|----|----------|-----------------------------|-------------------|-------------------------|-------------------------|
| 00 | xx | FFFF0000 | 00 | A4 | (a) | (b) |
| Fixed | * | Fixed | Response Task Code (Normal) | Request task code | Refer to the following. | Refer to the following. |

*Serial number (Same as request format)

(a): Input module 1 Read request

| | | | |
|---------------|------|---------------|------|
| xxxx | xxxx | xxxx | xxxx |
| 1st word Load | | 4th word Load | |

(b): Input module 2 Read request

| | | | |
|---------------|------|---------------|------|
| xxxx | xxxx | xxxx | xxxx |
| 5th word Load | | 8th word Load | |

(Refer to PIO manual for the detail of data format of read data.)

5.3.2 Execution log

The time of the execution and executed content is logged in 1 line.

| | |
|---------------------|-------------------------------------------------------------------------------------|
| File Name | "exec-" + yyyyymmddHHMMSS-001 + ".txt" (for example, "exec-20140412161334-001.txt") |
| Stored as text data | Logs following information for 1 hour. |

[To Indoor units/Facility units]

| | |
|-----------------------|-----------------------------------------------------------------------------------|
| yyyy/mm/dd, HH:MM:SS, | yyyy: year/ mm: month/ dd: day/ HH: hour/ MM: minute/ SS: seconds |
| UU, | UU: Unit type (00: Indoor unit 01: Facility units 02: Outdoor unit) |
| KK, | Refrigerant Cycle (01-64) |
| GG, | Address (01-64) |
| YY, | Request source, 00:GUI module, 01: Schedule, 02: External input |
| U, | Run/Stop 0: Stop 1: Run |
| MM, | Operation Mode 01h: Auto, 02h: Cool, 04h: Dry, 08h: Fan, 10h: Heat |
| VV, | Ventilation mode 01h: RC prior 03h: Normal |
| WW, | Fan speed 01h: Auto 02h: High2 04h: High 08h: Low 42h:H High2 |
| LL, | louver 00h/01h/02h/03h/04h/05h/06h/07h (07h: Auto louver) |
| TTTT, | Setting temperature 00.0h - 99.9h (in °C) |
| DS1 | Automatic Cool/Heat Cooling Temperature 000 - 999 (10 x Setting Temperature (°C)) |
| DS2 | Automatic Cool/Heat Heating Temperature 000 - 999 (10 x Setting Temperature (°C)) |
| F, | Filter sign reset 0:No reset 1: Reset |
| R1, | Run/Stop prohibit 1: Prohibit 0: Allow |
| R2, | Mode prohibit 1: Prohibit 0: Allow |
| R3, | Fan speed prohibit 1: Prohibit 0: Allow |
| R4, | Temperature prohibit 1: Prohibit 0: Allow |
| R5, | Louver prohibit 1: Prohibit 0: Allow |
| SS | Schedule setting 1: Valid 0:Inactive for a day |

[To Outdoor units]

| | |
|----------------------|-------------------------------------------------------------------|
| yyyy/mm/dd,HH:MM:SS, | yyyy: year/ mm: month/ dd: day/ HH: hour/ MM: minute/ SS: seconds |
| UU, | Unit type (00: Indoor unit 01: Facility units 02: Outdoor unit) |
| KK, | Refrigerant Cycle (01-64) |
| GG, | Address (00) |
| YY, | Request source 00:GUI module 01: Schedule 02: External input |
| NNN, | Outdoor capacity 000: No setting 001~100: 1% ~ 100% 255:0% |
| SSS, | Lower noise 00 - 09: Lower noise 00 - 09: |

For example:

| |
|------------------------------------------------|
| 2014/04/12,11:00:05,00,01,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:05,00,02,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:06,00,03,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:06,00,04,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:06,00,05,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:07,00,06,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:07,00,07,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:07,00,08,01,1,,,,,0,0,0,0,0,, |
| 2014/04/12,11:00:07,00,09,01,1,,,,,0,0,0,0,0,, |
| ▪ |
| ▪ |
| ▪ |

6. Reference

6.1 Inquiry Checklist for VRF Central Touchscreen Controller

Refer to the following table on the next page.

Exhibit

(Shimizu) (Product Management Dep.)

VRF Central Touchscreen Controller Inquiry Check List

Fill in the boxes surrounded by the bold line.
 Write "N/A" or "None" if nothing applies to the item.
 Write "Pending" if the item are yet to be confirmed.

| | | | |
|---------|--|-----------|--|
| Subject | | Order No. | |
| BP | | | |
| S/C | | | |
| G/C | | | |
| E/U | | | |

| | |
|------------|------|
| Issued by: | Name |
| | |

(1) Customer Information

| | |
|------------------|--|
| 1. Name | |
| 2. Address | |
| 3. Phone/FAX No. | |

(2) DOD

| | | | |
|-------------------------------|--------------|------------------|--------------|
| 1. Delivery from Shimizu (*1) | (yyyy/mm/dd) | 3. Test Run (*1) | (yyyy/mm/dd) |
| 2. Installation on site (*2) | (yyyy/mm/dd) | 4. Hand over | (yyyy/mm/dd) |

(*1) Delivery upon inquiry only. Contact (Shimizu) (Product Management Dep.) for deliver date.
 (*2) Conducted by BP.

(3) System Configuration

| | | | | | | | | | | |
|--------------------------------------------------------------------------------------------|--------|--------------------------------------------------------|---------|-------|--------------------|--------------------|---|---------|---|---------|
| Introducing VRF Central Touchscreen Controller (CCXL01) | | New Introduction / Adding to the existing system / N/A | | | | | | | | |
| Introducing VRF Central Touchscreen Controller Adapter (CCXLA01) | | New Introduction / Adding to the existing system / N/A | | | | | | | | |
| Introducing (Energy Calculation Software)(CCSE01) | | New Introduction / Adding to the existing system / N/A | | | | | | | | |
| Outdoor Units (*3) | Model: | Units | Model: | Units | Total Units | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| Indoor Units (*3) | Model: | Units | Model: | Units | Total Units | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| | Model: | Units | Model: | Units | | | | | | |
| IP address for VRF Central Touchscreen Controller (Default: 192.168.0.50 and 192.168.0.23) | | 1 | | 2 | | Total Units | | | | |
| IP address for VRF Central Touchscreen Controller Adapter (Default: 192.168.0.3) | | Model: CCXLA01 | | | | Total Units | | | | |
| | | 1 | | 2 | | | 3 | | 4 | |
| | | 5 | | 6 | | | | | | |
| Dedicated Pulse I/O Device | | Model: EH-150EHV | | | | Units | | | | |
| Energy Calculation Software | | Model: CCSE01 | | | | | | | | |

(*3) Use the back of this sheet if necessary.

(4) Management System Setting Items (Tick the box after check.)

| No. | Setting Items | Contents |
|----------------------------|-------------------------------|-------------------------------|
| <input type="checkbox"/> 1 | External input | Applicable / Not in Use |
| <input type="checkbox"/> 2 | External output | Applicable / Not in Use |
| <input type="checkbox"/> 3 | Combination Use with | CCM01: units / CCL01: units |
| <input type="checkbox"/> 4 | Other Central Controller (*4) | None |
| <input type="checkbox"/> 5 | Direct Pulse Input | Power meter total: units (*5) |

(*4) In combination use with other central controller, RC less indoor unit cannot be connected and RC operation Prohibition function will not be available.

(*5) Up to 4 pulse transmitting meters each for VRF Central Touchscreen Controller and VRF Central Touchscreen Controller Adapter can be connected to external input.

(5) Setting Item on Energy Calculation Software (Tick the box after check.)

| No. | Setting Items | Contents |
|----------------------------|---------------------------------|----------------------------------------------------------------------------------------------|
| <input type="checkbox"/> 6 | Electricity ratio / Usage ratio | Electricity ratio (calculating electricities) / Usage ratio (output usage ratio as CSV file) |

