

Dometic AirNet CAN Bus Communication Driver

Information Sheet for Crimson v2.0

Compatible Devices
Dometic HVAC devices

Verified Devices
Dometic 0x505 device.

General Information

A Red Lion CAN option card (G3CN, XCCN) is mandatory in using the Dometic AirNet communications driver.

HVAC Commands

HVAC Commands consist of the following components:

Prefix	Description
HOMW	HVAC Operation Mode
HFMW	HVAC Fan Mode
HFSW	HVAC Fan Speed
HSTW	HVAC Setpoint Temperature
SHVAC	Send HVAC Command

HOMW, HFMW, HFSW and HSTW should be set to the desired value. The HVAC command will not be sent to the target device until the Send HVAC Cmd (SHVAC) bit is set.

Note, these components are write-only. Associated tags should be set accordingly.

HVAC Status Report

HVAC Status Report consist of the following components:

Prefix	Description
HCFR	HVAC Configuration *
HMR	HVAC Mode
HSR	HVAC Status
HFMR	HVAC Fan Mode *
HFSR	HVAC Fan Speed
HSTR	HVAC Setpoint Temperature
HAMR	HVAC Ambient Temperature
HOTR	HVAC Outdoor Temperature
HFR	HVAC Faults
HATR	HVAC Additional Sensor Temperatures

* Data in bits 0–3 represents data received from drive in bits 4-7.

Status reports are only sent from the target device at a 10 second interval and in response to an HVAC Command to acknowledge the latest change.

Note, these components are read-only. Associated tags should be set accordingly.

Device Identification

Within the device configuration of Crimson 2.0, a Dometic AirNet address can be defined in 1 of 3 ways: Unit ID, Group ID or Broadcast.

The Unit ID setting is used in read/write communications for 1 device whose Unit ID is set to the same number.

The Group ID setting is used for write commands for multiple devices whose Group ID's are set to the same number. Note: In the event a device exists on the network with a Unit ID set to the same number as this Group ID, this device will also respond to these write commands.

Broadcast communications will use a Unit ID of 0 to send write commands to all Dometic AirNet devices on the network.

Address Change Commands

Address change commands are provided in order to change the target device address on either a Unit or Group level by writing the desired address to the UACW (Unit Address Change Command) or the GACW (Group Address Change Command).

Note, these commands are write-only. Associated tags should be set accordingly.

A DevCtrl function is also provided so that the ID configured in the database may be changed. Function 1 should be used and the new ID should be specified for the data.

DEVCTRL(DEVICE, FUNCTION, DATA)

For example, to change Device 0 to a unit id of 30, call

DEVCTRL(0, 1, "30")

Please refer to the Crimson 2.0 User Manual for more information on the DevCtrl function.

Silent Mode Command

The ability to enable/disable the target devices Silent Mode is provided, but should only be used for ID's defined as Unit ID. While in Silent Mode, the unit will only respond to commands and will not report status.

Revision History

02/02/09 – v1.00+ - Created
03/09/09 – v1.00+ - HCFR & HFMR bit notation.
06/05/09 – v1.00+ - Device Identification note.

Cable Information

