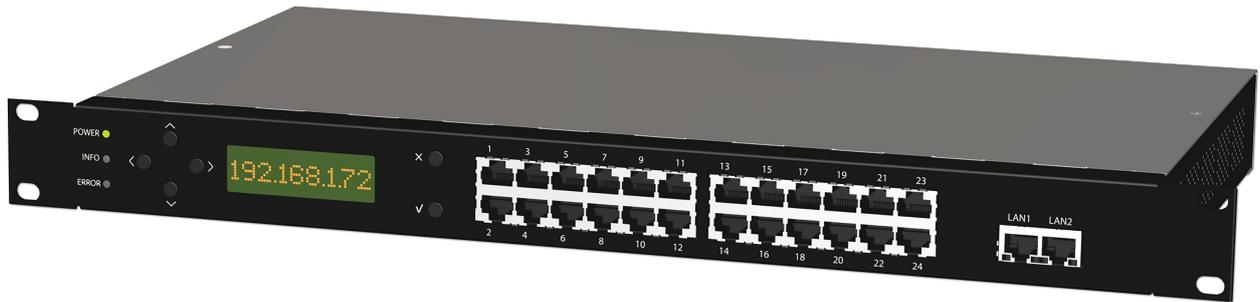




ALPHATRON
Marine



AlphaConnect Hybrid

User Manual

www.jrc.am

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I Preface

I.1 Revision History

Revision Nr.	Description	Date
V0.1	Draft - first issue	13-April-2017
V1.0	Textual changes	18-January-2018

I.2 Glossary

The glossary contains a list of definitions and abbreviations.

I.2.1 Definitions

The following symbols are used to describe the operating instructions:

- S System and / or station status
- U User actions
- Activity in the system or station

I.2.2 Abbreviations

ACT	On hook / off hook status
Led	Light emitting diode – information lamp
P Key	Programming key
F Key	Function key
IU	Intercom Unit
POTS	Plain Old Telephone Service = analogue DTMF telephones
Snom	Snom IP telephones
PTT	Push To Talk
VOL	Volume (control)
PABX	Private Automatic Branch Exchange

II Safety

Disclaimer: The information in this book has been carefully checked and is believed to be accurate. However, no responsibility is assumed for inaccuracies. Alpatron reserves the right to make changes without further notice to any products or modules described herein to improve reliability, function or design. Alpatron Marine b.v. does not assume any liability arising out of the application or use of the described product.

II.1 Safety Instructions



Attention

- **ATTENTION:** Electrostatic sensitive devices
- This equipment contains CMOS integrated circuits. Observe handling precautions to avoid static discharges which may damage these devices.

1 System Overview

The AlphaConnect Hybrid Integrated Communication System is a digital communication system meeting all aspects of internal and external communication, information exchange onboard vessels, offshore installations and to/from onshore operation centers.

Based on the latest computer technology, it's flexible configuration is a cost effective solution for Intercom, Telephone, Public Address, Alarm, Loudhailing and Entertainment. The modern architecture allows for network connection including cascading, remote service and interface to/ from other IP based systems and components.

Several new functions have been introduced including Direct Inward System Access and Distributed Universal Number Discovery. AlphaConnect Hybrid is compatible with all existing DICS stations available. Thus, AlphaConnect Hybrid offer a unique combination of analogue, digital and IP based communication terminals.



Figure 1: System overview

2 System Information Tones

The system will use some different information tones in different situations:

Tone name	Graphic	Tone description	Purpose
Dial tone	—————	425Hz: Continuous	Ready to receive dialling
Call tone	— —	425Hz: 1sec. ON - 4sec. OFF	Calling other extension
Busy tone	• • • • •	425Hz: 0.5 sec. ON - 0.5sec. OFF	The called extension is busy
Congestion	••••••••••	425Hz: 0.2sec. ON - 0.2 sec. OFF	Illegal action (i.e. calling an extension without any intercom unit connected)

3 Configuration Dependant Functionality

3.1 Flexible Numbering Plan

The system can have numbers ranging from 1 to 36 digits, 0-9 (CONFIG). The length of numbers can be mixed freely, but overlapping numbers (143 and 1435) will introduce a short delay on accepting the shorter number.

3.2 Call Group

A call group is a predefined selection of extensions (CONFIG) that will ring simultaneously when called. The call group can be integrated into the normal numbering plan. The first extension within the group to activate (“unhook”) will reply to the call. Already busy extensions will not be affected or affect the functionality of the other members of the call group. When the call is replied to, and the ringing stops, all other group members will operate as normal.

3.3 Call Hunting Group

A call hunting group is a predefined selection of extensions (CONFIG) that will ring one after the other when the group is called. The call hunting group can be integrated into the normal numbering plan. When an extension answers the call, the hunting stops. Already busy extensions will not be affected or affect the functionality of the other members of the call hunting group. It is worth noting that a call group can be a member of a call hunting group and vice versa.

3.4 Paging Group

A paging group is a predefined selection of extensions and external PA-interfaces (CONFIG).

Preoccupied members of the group will not be paged, and the paging party will not be notified of any missing members. It is not possible to define POT members into a paging group, as these are not equipped with the paging facility.

3.5 Alert Group

An alert group is a predefined selection of extensions and external PA-interfaces (CONFIG). An alert group allow you to be notified with a short beep when certain events happen. It is not possible to define POT members into an alert group, as these are not equipped with the paging facility.

3.6 Intrusion

This function must be enabled as a part of “Service Classes” (CONFIG). It will override busy subscribers and subscribers with PRIVACY enabled.

3.7 Speed Dial

Speed dial is locally programmable per IU, and uses the buttons 0-9 as memory locations. This programming is stored in the respective extension in the system and will not have to be reprogrammed to any replacement IU.

POTS speed dial button is a local facility (not system controlled), dependant of the specific telephone instrument.

Snom units can access the full extension list through their directory function (Limited to 100 extensions).

3.8 Conference

The conference function uses “MeetMe” rooms. When enabled, a globally configured extension is the entry point to the conference rooms, where the user is asked to select a specific conference room. Parties can either enter the conference by dialling the conference extension and selecting the same conference number as the rest of the participants or an existing participant can invite a user to the conference.

4 Special Functions Overview

Special functions are available from POTS, IU and Snom units. The following list is an overview of the special functions.

Entry code	Name	Description
21<ext>	Call forwarding	Forwards all incoming calls to the requested extension number Ext.
#21	Clear call forwarding	Clears any configured call forwarding on the phone.
*26	Privacy, Do Not Disturb	Enabled Do Not Disturb on the phone. Incoming calls will not ring, and will be given an error tone instead.
#26	Clear Do Not Disturb	Disabled Do Not Disturb on the phone.
*57	Wake-up call	Performs a Wake-up Call at the requested time. The terminal will ring normally until it is activated (off hook) or automatically cancelled after 3 minutes.
*69	Meet-Me Reply To Paging	If a page group has been configured to allow it, dialling *69 will call the phone that initiated the last paging call in the system.
07<X><Ext>	Set speed dial number	Sets the speed dial number X on the calling phone, where X is a single digit, to call the given extension Ext.
*07<X>	Dial speed dial number	Dials the speed dial number X on the calling phone. Must be a single digit and must be preconfigured with *07*.
#07#<X>	Clear speed dial number	Clears the speed dial number X on the calling phone.
*080	Who am I / Identification	The system outputs the extension.
*081	Echo test	Listen to yourself.
*082	1kHz, 0dBm	Listen to the 1kHz/1mW reference signal.

5 Basic Operation

5.1 POTS individual Services

The ICS POTS interface supports most available types of analogue DTMF telephones. Because of the multitude of services available in equipment from different manufacturers, please refer to the attached documentation for each telephone.

Example of possible POTS services:

- Loudspeaking telephones
- Wireless telephones
- Speed dial
- Answering machine

5.2 Snom Individual Services

The Snom telephones have a multitude of custom settings and special functions. These are described in a separate user manual delivered with the each phone. The initial setup of the phone and configuration of system wide special functions is performed automatically the first time it is connected to the AlphaConnect Hybrid system.

5.3 Place a Call

Using the handset:

- S Idle
- U Unhook the handset
 - Dial tone
- U Dial the extension number
 - Call tone
 -Conversation
- U Replace the handset

Some POTS has handsfree/speakerphone operation. The required sequence for engaging a speakerphone call must be specified by the POTS manufacturer. When handsfree/speakerphone operation is described in this document, it refers to 61xx intercom units.

In general, when this document says to “Unhook the handset” you can alternatively use the speakerphone mode by pushing the ACT key.

Speakerphone:

- S Idle
- U Push the **ACT** key
 - Dial tone (loudspeaker)
 - **ACT** led on
- U Dial the extension number
 - Call tone
 -Conversation (handsfree)
- U Push the ACT key
 - **ACT** led off



Speakerphone(Snom):

- S Idle
- U Dial the extension number
- U Push the √ key
 - Call tone
 -Conversation (handsfree)
- U Push the X key to end conversation

5.4 On Hold

POTS and 61xx:

-Conversation
- U Activate the **R** or FLASH key (Transfer on Snom)
- New dial tone
- U Activate the **R** or FLASH key again to resume call on hold

If you go on-hook instead of resuming the call, the call on hold will immediately call back.

Snom:

-Conversation
- U Press the L1 or L2 key that is active (constantly lit)
- New dial tone, the other L1 or L2 key is lit, the first one is flashing
- U Use the L1 and L2 keys to switch between conversations
- U Press the X key to end the active conversation

5.5 Group Paging

- S Idle
- U Unhook the handset
 - Dial tone
- U Dial the PAGING GROUP access number (CONFIG)
-Announcement
- U Replace the handset

5.6 Individual Paging

- S Idle
- U Unhook the handset
 - Dial tone
- U Dial the extension number
 - Call tone / extension ringing
- U Press the **PTT** key à INDIVIDUAL PAGING is engaged

-Announcement
- U Replace the handset

5.7 Transfer a Call

-Conversation
- U Put call on hold
- New dial tone
- U Dial the new number
-Conversation
- U Replace the handset → transfer is performed

5.8 Call Forwarding

- S Idle
- U Unhook the handset
- Dial tone
- U Dial [*21*]
- Tone off, system enters programming mode for CALL FORWARDING
- U Dial the number of the target extension
- Confirmation tone
- U Replace the handset

As long as the extension is forwarded it is still possible to make calls.

To clear call forwarding:

- S Idle
- U Unhook the handset
- Dial tone
- U Dial [#21]
- Confirmation tone
- U Replace the handset

5.9 Intrusion

The called party is busy in another call:

- S Busy
- A message says to dial [1] to intrude
- U Dial [1]
- The intruding and the called party are connected. The 3rd party is disconnected.
 -Conversation
- U Replace the handset

5.10 Set / Reset Wake Up Call

Wake up can be activated for a time within the next 24h.

- S Idle
- U Unhook the handset
 - Dial tone
- U Dial [*57]
 - Tone off, system enters programming mode for WAKE UP
- U Dial 0-9 as: **HHMM**
 - Confirmation tone
- U Replace the handset

If the input data is faulty the system replaces the confirmation tone with the barring tone.

To clear wakeup call:

- S Idle
- U Unhook the handset
 - Dial tone
- U Dial [#57]
 - Confirmation tone
- U Replace the handset

5.11 Wake Up Call

The wake up call is automatically executed by the system at the requested time. The telephone unit will ring normally until the call is answered (Off hook), or for 3 minutes before automatically being turned off.

- Wake up call
- U Unhook the handset
 - Wake up tone
- U Replace the handset

5.12 Who Am I / Identification

The WHO AM I / IDENTIFICATION function is a way to read the extension number from each line in the system. It is very useful during installation to establish the true extension number and correspondence between the physical connection and the extension number. For more information see *Special Functions Overview* on page 9.

- S Idle
- U Unhook the handset
 - Dial tone
- U Dial [*080]
 - Tone off, system outputs WHO AM I / IDENTIFICATION information
- U Replace the handset

5.13 Conference

A conference is set up one participant at the time through the global entry point or through invitations from existing conference participants.

- S Idle
- U Unhook the handset
 - Dial tone
- U Dial the global conference extension
 - System informs to select conference room
- U Dial the wanted room number
 - Conference

Replace the handset → terminates the participant

When a user is in a conference room, a new participant can be invited by following the procedure below:

- S In a conference room
- U Dial [0]
 - Notification tone
- U Dial the number of the new participant and press '#'
 - Call tone
 - ... Both users are placed back in the conference room

Note that the intrusion procedure described in chapter 5.9 is valid if the inviter is a high priority user.



Note The intrusion procedure described in *Intrusion* on page 12 is valid if the inviter is a high priority user.

6 Extended Operation of Intercom Unit

6.1 One-button Intercom

This functionality is dependant of having configured the one-button intercom memories (M1, M2 or M3) in the configuration (CONFIG).

- S Idle
- U Dial [M1], [M2] or [M3] (KEEP HOLDING FOR PTT MODE)
 - Extension dialled responds differently according to type:
 - Paging group: Normal page
 - 61xx extension: Enters speakerphone mode
 - POTS extension: Rings normally
 -Conversation
- U Press ACT key / release [M] to terminate

6.2 Speed Dial

Programming a two-button speed dial memory location:

- S Idle
- U Dial [P]
 - **ACT** and **PTT** led on
- U Dial the sequence of the operation you want to program (note)
- U Dial [P]
 - **ACT** led on and **PTT** led OFF
- U Dial location key [0] – [9]
 - **ACT** led OFF

Erasing a two-button speed dial memory location:

- S Idle
- U Dial [P]
 - **ACT** and **PTT** led ON
- U Dial [P]
 - **ACT** led on and **PTT** led OFF
- U Dial location key [0] – [9] to erase
 - **ACT** led OFF

Using a two-button speed dial memory location:

- S Idle
- U Unhook the handset / **ACT** key
 - Dial tone
 - **ACT** led on

- U Dial [**P**]
- U Dial location key [**0**] – [**9**]
- System responds to the programmed sequence, see the description of the operation in question

6.3 Pre-Dialing

Intercom units have the possibility to pre-dial extensions before going offhook.

- S Idle
- U Dial the extension number
- U Unhook the handset / **ACT** key
- Call tone
-Conversation
- U Replace the handset

7 Intercom Unit Facilities

7.1 Manual Voice Direction control

This facility can be used during calls where one or both members are located in noisy areas and the normal voice direction circuit is operating optimally. It will transfer the intercom unit from the normal duplex (2-way) (handset mode) or semi duplex (speakerphone) to simplex (one-way-at-the-time) mode.

-Conversation
- U Press the **PTT** key for more than 0.5 sec. to engage simplex mode
- The PTT led starts to flash slowly (constantly lit when pressed)
- U Press the **PTT** key to speak, release the **PTT** key to listen
-Conversation

7.2 Ringer Volume Control

The ringer volume control has 5 steps. The default volume setting is preset to any of the 5 levels in the configuration (CONFIG). Minimum level is adapted to meet the requirement of a quiet cabin or office environment.

- SRinging
- U Push the **VOL** key successively for higher volume until the top level. On top level the next step is bottom level.
- SRinging

7.3 Handset Volume Control

The handset volume control has 5 steps. The default volume setting is preset to any of the 5 levels in the configuration (CONFIG). Minimum level is adapted to meet the requirement of a quiet cabin or office environment.

- SConversation (using handset)
- U Push the **VOL** key successively for higher volume until the top level. On top level the next step is bottom level.
- SConversation

7.4 Loudspeaker volume Control

The loudspeaker volume control has 5 steps independent of other volume settings. The default volume setting is preset to any of the 5 levels in the configuration (CONFIG). Minimum level is adapted to meet the requirement of a quiet cabin or office environment.

- SLoudspeaking conversation (using integrated microphone and internal / external loudspeaker)
- U Push the **VOL** key successively for higher volume until the top level. On top level the next step is bottom level.
- SLoudspeaking conversation

7.5 Privacy (Ringer off)

This facility only applies to intercom unit.

- S Idle
- U Slide the **RINGER** switch (rear edge side of the intercom unit) to **OFF** to engage privacy, **ON** to resume normal operation.

7.6 Sound Modes

The various intercom units can have up to 3 different sound modes:

- **Handset mode:**The handset microphone and earphone are enabled, any loudspeaker is muted, and the unit chassis microphone is muted.
- **Loudhearing:**The handset microphone and earphone are enabled, the internal/external loudspeaker is enabled, the unit microphone is muted.
- **Loudspeaking:**The handset is on-hook (or absent) and thus disabled, the internal/external loudspeaker is enabled, the unit microphone is active.



Note In this mode the unit is operating fully handsfree.

How to achieve the different modes:

- **Handset mode:**Off-hook the handset while idle.
- **Loudhearing:**Push the **ACT** key while the handset is off-hook.
- **Loudspeaking:**On-hook the handset while in loudhearing mode. Or push the **ACT** key while idle.

7.7 Backlight Dimmer Control

The backlight has 5 intensity levels. The selected level is maintained through next change or restart/power up.

S Idle

U Press the **F** key

- **F** led on

U Push the **VOL** key successively for higher intensity until the top level. On top level the next step is bottom level. Bottom level is not completely off.

U When correct level is set, press the **F** key

- **F** led off

7.8 Change Ringtone

There are five different ringtones to select from. The selected ringtone is stored on the extension in the exchange and maintained through restart.

S Idle

U Press the **F** key

- **F** led on

U Push the **R** key for next ringtone

- 1 sec. of the ringtone is played

U When correct tone is selected, press the **F** key

- **F** led off

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