ICOM B.I.I.S.

Binary Interchange of Information and Signaling

A Global Solution for Digital Messaging, Signaling and Data Exchange

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B.I.I.S. enables *digital* communications, signaling and message exchange with *analogue radios.*

The non-proprietary, world standard offers consumers a wider array of products for a variety of applications and improves their choices.

Previously, consumer's choices have been limited by proprietary systems like Fleet Synch®.

B.I.I.S. digital technology has impressive features that allow communication providers to manage a large fleet of vehicles or people with increased efficiency. This is a low-cost way to enhance the performance of any large fleet, from public safety to private business.

Unlike traditional analog 2-tone or 5-tone systems, the signaling capabilities of B.I.I.S. enable the user to preprogram and access a large number of groups and individuals. This is an enormous increase over current analog technology.

Messaging capabilities expand the way people communicate. Users will be able to store and send frequently used text messages, as well as sending free-text messages composed on a keypad or DTMF microphone.

The B.I.I.S. system stores the last 6 messages received, a valuable feature for anyone making multiple stops or deliveries.

With an external printer, via the OPC-822, you can print out messages or receipts on location without using a PC.

B.I.I.S. sends and receives GPS signals, a powerful AVL tool to keep track of a large fleet over a wide geographic area.

B.I.I.S is currently available on these VHF and UHF mobiles:

F521 #90, 50W, 136-174 MHz
F621 #92, 45W, 440-490 MHz

It will soon be available on F30GT VHF and F40GT UHF portables.

Digital Technology

B.I.I.S. utilizes MSK digital modulation using the non proprietary ETS 300 BIIS World Standard. It transmits and receives at 1200 BPS and is conventional, not trunked, in the current version.

Messaging

Short data messages (SDM) may be sent and read on the mobile display. Up to 24 stored messages may be sent and received by the mobile. An abbreviation selection enables quick messaging without distraction.

Free text messages may be sent from the HM100T DTMF mobile microphone, using the keypad to create the characters. These messages are limited to 10 characters.

Up to 95 characters of free text may be sent from to the mobile from a base location equipped with OEM software using the OPC-822. OEM software and

MDT are required to display a long message. B.I.I.S. stores the last six messages received messages the last three calls received.

Signaling

A fleet coordinator may use Selective Call, Group Call or Supervisor Call. The Calling/Called party is displayed on the mobile. Emergency call is available to each unit in the field.

An extensive fleet map is possible with 3999 Individual ID's, 95 Group ID's and 4095 Common ID's.

ANI (Automatic Numbering identification) and Log in/off are standard and airtime logging is possible with OEM software.

GPS Data Exchange

GPS position data is exchanged between the mobile and base in standard NMEA0183 format. An external GPS receiver, connected via the OPC-822 makes it AVL ready. "I Track" software will soon be available for AVL fleet management.
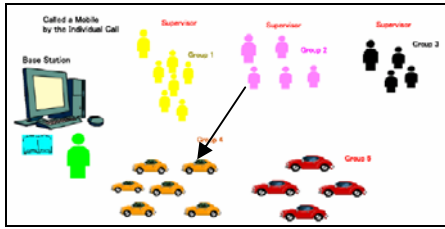
Target Applications
- Large fleets
- Called/calling party confirmations
- Free text messaging
- AVL
- Field printed messages
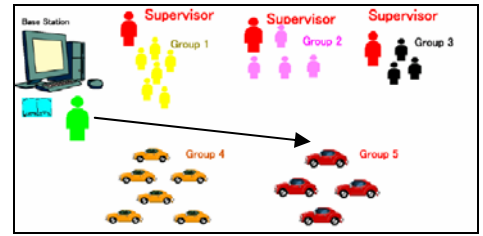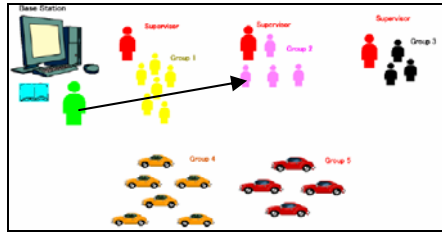- Government, utilities, delivery, taxis

Benefits of BIIS
- Speed
- Spectrum efficient
- Large number of ID's
- Greater feature set than Fleet Synch
- World standard, non proprietary
- Free text capability

Select Call

Icom 1
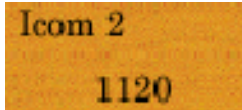

Push digital key to enter the select mode.

Icom 1

Scroll up/down to select the desired individual.

Press "Call" key

Icom 2

Bell and speaker icon indicate the connection is established

Press PTT to answer the call and begin transmission.

Press "Clear Down" to terminate the connection

Group Call

Icom 1

Push digital key to enter the select mode.

Icom 1

Scroll up/down to select the desired group.

Press "Call" key

Icom 4

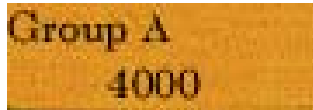Bell and speaker icon indicate the connection is established

Icom 1

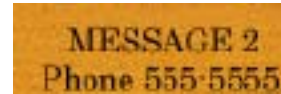Push digital key to enter the select mode. Select desired group or individual.

Icom 1

Scroll up/down to select the desired message.

Icom 1

Press "Call" and message is sent. Free text may be sent with HM100NT or a PC

Text may be sent to a printer in the vehicle.

	ID	Group A	Group B	Group C	Group E
Icom 1	01110	GID=4000	-	-	GID=4040
Icom 2	01120	GID=4000	-		
Icom 3	01130	GID=4000	-		
Icom 4	01140	-	GID=4010	-	GID=4040
Icom 5	01150	-	GID=4010		
Icom 6	01160	-	GID=4010	-	
Icom 7	01170	-	-	GID=4020	GID=4040
Icom 8	01180	-	-	GID=4020	-
Icom 9	01190	-	-	GID=4020	
Icom 10	01200	-	GID=4010	-	GID=4040
Icom 11	01210	-	GID=4040	-	
Icom 12	01220	-	GID=4040	-	

GPS Data Exchange

System Overview

Dispatcher

Repeater

Vehicle with GPS receiver and an Icom mobile with B.I.I.S.

Status 24
GPS POS REQUEST

Scroll to select desired mobile.

Select "status 24" with up/down key.

Press "Call"

GPS Data is received from mobile.

Standard Accessories

- Hand microphone (HM-100N)
- DC Cable
- Mounting bracket kit
- Fuses
- Key assign stickers
- (Key assign stickers will be slightly different from those supplied with non-BIIS versions)

Options

- CS-F500 Cloning software (New. Rev. 2.0)
- Rev. 2.0 software can be used for conventional and BIIS versions.
- HM-100TN DTMF microphone
- OPC-617 ACC cable
- OPC-822 Interface cable (RS-232C type)
- OPC-1122: Cloning cable (RS-232C type. PC-transceiver)
- SM-25   : Desktop microphone
- SP-5   : External speaker
- SP-10   : External speaker
- SP-22   : External speaker
- UT-105 : SmarTrunkII logic board
- UT-108 : DTMF decoder unit
- UT-109 #02   : Non-rolling type 32 codes voice scrambler
- UT-110 #02   : Rolling type 1020 codes voice scrambler
- UT-111 : LTR trunking unit

HM 100 TN