# KENWOOD

# KDS-100 FleetSync Data Terminal

Kenwood's FleetSync<sup>™</sup> Digital Messaging & Signaling is a cost-effective fleet management tool, ideal for operations using private or subscriber-based two-way services. FleetSync<sup>™</sup> offers digital fleet unit identification, selective calling, status messaging and text messaging for dispatch operations. And now Kenwood's KDS-100 FleetSync<sup>™</sup> Data Terminal expands the FleetSync<sup>™</sup> display, memory and operational capabilities of 80-Series mobile radios. The KDS-100 will also add FleetSync<sup>™</sup> capabilities to Kenwood's 60G/62G-Series mobiles.

## Large Memory Capacity

The KDS-100 has a 100 ID List capacity for selecting individuals and sub-fleet groups; this is ideal for selective call/messaging when the KDS-100 is used as a control station/base unit for a large fleet. Also, fleet mobiles can utilize this capacity to select and decode-display more IDs than the normal 80-Series ID List allows (100). Stack memory can hold up to 368 messages of all types at one time.

## **Simple Installation**

The supplied mounting bracket can be angled to optimize LCD viewing. KCT-34 (80-Series) and KCT-35 (60G/62G-Series) Interface Cable options\*, which are required on all installations, interface the KDS-100 to the mobiles.

\* These cables are short (approx. 1ft.) therefore the KCT-36 Extension Cable option (9.8 ft.) is recommended for most installations.

# Large Backlit LCD & Function Keys



The large LCD (240 x 64 dot matrix) provides a 40 character x 6-line display for messages. Line size is user-adjustable: enlarged 5- or 3-line displays offer maximum readability. Backlight brightness and contrast can also be adjusted by the user to suit different ambient lighting conditions.

#### **DSP Modem**

The built-in FleetSync DSP modem (standard baud rate: 1200/2400 kbps) provides FleetSync signaling even to non-FleetSync mobiles (except Caller ID and Caller Stack).

## Remote Control Head Functionality (80-Series mobiles only)

Mobile channel group/channel or system/group and volume can be controlled with the KDS-100. This provides simple control head operation, so the mobile radio can be installed out of sight (for anti-theft reasons) or out of the way (for mounting ease).

Note: the mobile's internal or external speaker must still be audible.

# Real-Time Clock / Message Time Stamping

The KDS-100 real-time clock (12- or 24-hour display) and calendar can be synchronized with the computer used for programming. Incoming messages are date/time-stamped on the LCD for call age, sequencing, start/end job and billing purposes.

#### **Other Features**

- Message Sorting / Deletion / Temporary Recycle Bin
- Receive Alert (LED & Buzzer)
- Buzzer Volume Control
- Flash Memory



## □ Table 1.0: 80-Series Comparison with and without the KDS-100

FleetSync <sup>™</sup> Feature	80- Series Mobile-only	80-Series & KDS-100	
ID List Capacity	100 1.0	100 1.0	
Status Message Display	1 msg. x 16 char. (Scroll-displayed)	5 msg. x 16 char. (List-displayed)	
Status Message Capacity	9	367 max. <sup>1.1</sup>	
Short Text Message Display	1 msg. x 48 char. (Scroll-displayed)	1 msg. x 48 char. (Page-displayed)	
Short Text Message Capacity	4	367 max. <sup>1.1</sup>	
Long Text Message Display	— Not available (Serial output only)	1 x 1024 char. (Page-displayed)	
Long Text Message Capacity	1	91 <sup>1.1</sup>	
LCD Character Capacity	10 char. X 1 line	40 char. x 6 line (Max.)	
Message Memory Storage	Volatile memory	Lithium backup battery (2-month backup)	

- 80-Series Ver 2.0 radios: ID List = 100 max.; Status List = 50 max. 80-Series Ver 1.x radios: ID List = 32 max.; Status List = 32 max. KDS-100: ID List = 100 max.; see note 1.1 for Status List capacity
- 1.1) The KDS-100 dynamically reallocates message memory. Maximum capacity ranges from 367 messages (255 char. or less per message) to 91 messages (1023 char. or less per message). The KDS-100 can thus hold: 367 Status Messages, or 367 Short Text Messages, or 91 Long Text Messages, or 100 Status Messages & 267 Short Text Messages.

# □ Table 2.0: KDS-100 Modes & Options Required

Mobi <b>l</b> e Series	KDS-100 Mode <sup>2.0</sup>	Mobile FS Parameters <sup>2,2</sup>	KDS-100 FS Para- meters <sup>2,3</sup>	Option(s) Required per mobile (FS= FleetSync)
80	PC	ID (own)	ID List Status List	FS Enharced Option KCT-34 Cable (0.98 ft.)
80	Air	None	ID (own) ID List Status List	KCT-34 Cable (0.98 ft.)
60G/ 62G <sup>2.1</sup>	Air	None	ID (own ) ID List Status List	KCT-35 Cable (0.98 ft.)

2.0) Upon initial KPG-71D / KDS-100 setup, the system operator programs the KDS-100 for PC or Air protocol modes: FleetSync PC mode (80-Series only): All FleetSync parameters are programmed in the KDS-100 (except the mobile's own ID). The KDS-100 performs all FS storage, display, selection and control operations for FleetSync messaging, but the mobile's internal FS modem is used instead of the KDS-100 internal modem.

FleetSync Air Protocol mode (80-Series or 60/62G-Series): All FleetSync parameters are programmed in the KDS-100, including the mobile ID. The KDS-100 performs all FS storage, display, selection and control operations for FleetSync messaging and the KDS-100 internal modem is used (not the mobile's). In this mode, the mobile can execute simple PTT-activated Selective Calls with the mobile microphone PTT rather than the KDS-100 function keys (Selective Call Type=SEL; ID No. 1 automatically used per PTT).

- 2.1) 60G/62G Mobiles do not have any inherent FleetSync features nor display capabilities. FleetSync features are all originated and controlled in the KDS-100 (as is the case with the 80-Series used in the Air Protocol mode).
- 2.2) Refer to the KPG-49D (80-Series FPU) / KPG-56D (60G/62G-Series FPU) and the KDS-100 Service Manual for FleetSync-related mobile programming parameters (set COM1 = Data; set all memory stacks=NO; set all Message serial outputs =YES; set ID (own) for this radio (80-Series only).

2.3) Refer to the KPG-71D software for detailed KDS-100 programming instructions.

#### Specifications

Modem Encode Level	100 – 1,000 mVrms (@1,200Hz/600Ω)
Modem Decode Level	100 – 1,000 mVrms (@1,200Hz/600Ω)
Data Backup Period	> 2 months
Bit Error Rate	
1,200 bps	< 0.5 % (12dB SINAD)
2,400 bps	< 0.5 % (12dB SINAD)
Current Drain	< 700 mA
Dimensions	187 x 42 x 88
(W x H x D, mm)	(without projections)
	187 x 46.5 x 88
	(with projections)
Net weight (kg)	0.5

#### Applicable MIL-STD

	Method / Procedure				
	810C	810D	810E		
Dust	510.1/	510.2/	510.3/		
	Proc. 1	Proc. 1	Proc. 1		
Vibration 514.2/		514.3/	514.4/		
	Proc. 8, 10	Proc. 1 Cat. 8	Proc 1 Cat. 8		
Shock	516.2/	516.3/	516.4/		
	Proc. 1, 2, 5	Proc. 1, 4	Proc. 1, 4		

#### Optional Accessories

KCT-3480-Series Mobile / KDS-100 Interface<br/>Cable (0.98 ft.)KCT-3560G/62G-Series Mobile / KDS-100<br/>Interface Cable (0.98 ft.)KCT-36KCT-34/35 Extension Cable (9.8 ft.)

# KENWOOD CORPORATION

14-6, 1-chome, Dogenzaka, Shibuya-ku, Tokyo 150-8501, Japan KENWOOD COMMUNICATIONS CORPORATION Headquarters

3975 Johns Creek Court, Suwanee, GA 30024-1265 Order Administration/Customer Support/Distribution P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745

KENWOOD ELECTRONICS CANADA INC. Canadian Headquarters 6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

