

Infra-Red Keyboard

User Manual

Title Page

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1. Introduction

1.1. Scope

The scope of this document covers the operation of the Infra-red keyboard for electronic displays.

1.2. Purpose

The purpose of the document is to provide the relevant information to enable the user to benefit from the full features available from the keyboard.

2. Hardware Installation

2.1. Unpacking

Carefully remove the items from their package and store the packaging safely. Your package should include the following items:

- Display Unit with Power Cable
- Infra-red Keyboard
- 9V Battery
- Hanging Brackets with screws
- User Manual

2.2. System Configuration

The display should be located in a position where there is unrestricted viewing of the front face of the display. Also locations where the display is subject to bright lights or direct sunlight should be avoided. Connect the Power Cable to the Mains and a short test message or the first text message will be displayed. The Display is now in the RUN mode.

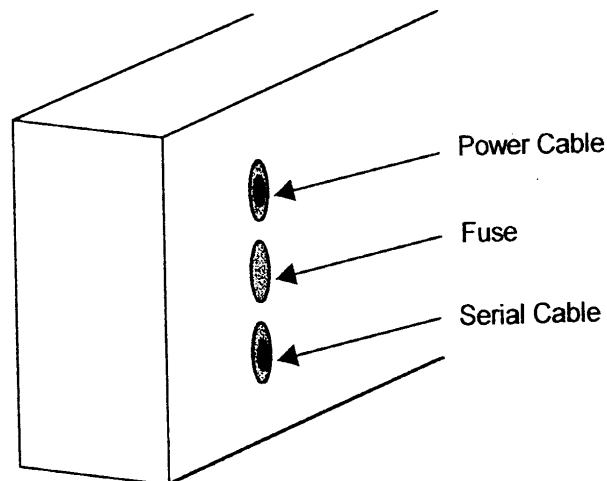


Figure 1 – Rear view of Display.

3. Keyboard

The keyboard is a standard *QWERTY* keyboard and communicates with the display via infra-red. Because the keyboard uses infra-red, areas subject to bright light or direct sunlight should be avoided. A full set of alpha/numeric characters is available along with punctuation characters, arithmetic characters, symbols and characters used in languages other than English.

Special function command keys are identified in white lettering above the character key. These special function keys include CLEAR TEXT/REVERSE/TIME etc.

Various special effects such as 'Shoot', 'Jump', 'Wipe' and a TIMED TEXT feature are also available.

Detailed description and operation of the command keys and special effects are described in section 4.

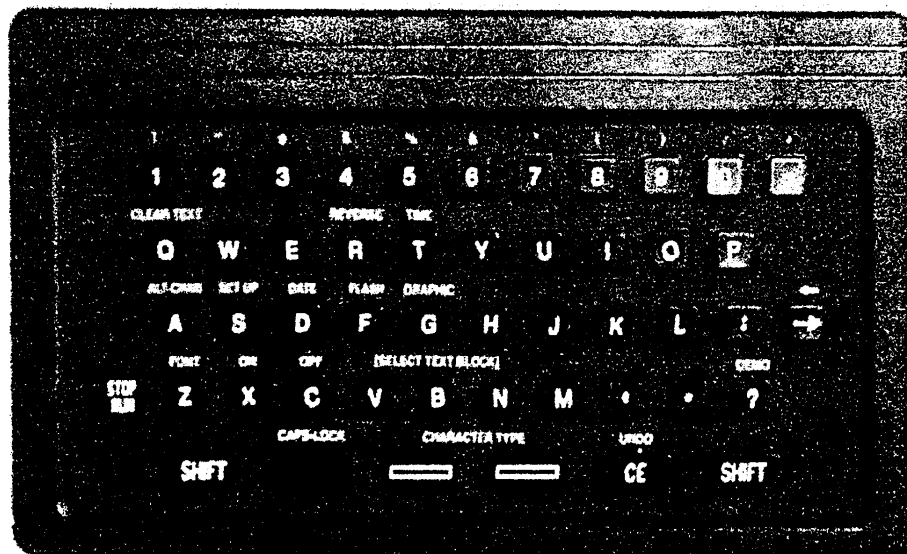


Figure 2 - Infra-red Keyboard.

SETUP = STOP/RUN > SHIFT > S (4-2-1)
(TO EXIT SETUP PRESS S THEN STOP/RUN) (4-2-8)
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4. Operating Instructions

4.1. General

The display units have a total memory capacity of 24k. This allows the user to send up to 99 pages of text or 99 messages to be displayed. From here on, we will refer to a text page or message as a textblock. Each textblock has an identification number, 01-99 and the number of characters within the textblock is determined by the amount of memory already used up in other textblocks. When no more characters can be added to the text block, a message 'text full' appears on the display. In this case a new textblock will need to be created. Should there be no more memory capacity, a message 'No Memory' appears on the display.

4.2. Setting up the display

This section covers setting up the display to show the correct time and date. Where there is more than one unit connected on a network, the serial address can also be changed.

4.2.1. Enter SET-UP mode

To enter the SET-UP mode:

1. Press the STOP/RUN key to enter the EDIT mode
2. Press the SHIFT key
3. Press the S key

The message 'Setup Unit' will be displayed.

4.2.2. Set the current Time

While in the SET-UP mode, press the T key to toggle between the Hours, Minutes and Seconds. To change the values of the Hours, Minutes or Seconds:

1. Press the SPACE key to increase the value
2. Press the ARROW key to decrease the value

4.2.3. Set the current Date

While in the SET-UP mode, press the D key to toggle between the Date, Month, Year, Day of the week and week number. To change the values:

1. Press the SPACE key to increase the value
2. Press the ARROW key to decrease the value

4.2.4. Set the Address

While in the SET-UP mode, press the A key to display the current address of the display. To change the address from '01' to '02', enter 02.

4.2.5. Reset the Display

This function clears all textblocks from the memory of the display. This enables the user to start entering new textblocks again. To clear the memory of the display:

1. In SET-UP mode, press the Q key, a message 'Reset Y/N' is displayed
2. Press the Y key to clear.

4.2.6. Set the Cursor to ON/OFF

The cursor flashes in the EDIT mode to indicate your position in the textblock. To stop the cursor from being displayed, press the F key.

4.2.7. Set the INSERT/OVERTYPE function

Press the R key to toggle between INSERT or OVERTYPE in the EDIT mode.

4.2.8. Exit SET-UP mode

All the above functions are carried out in the SET-UP mode.

After changing the values, to exit the SET-UP mode:

1. Press the S key
2. Press the STOP/RUN key.

4.3. Adding text to the display

As described in section 4.1, the display can hold up to 99 textblocks depending on their size. On power-up the display is in RUN mode and the first textblock (01) will be displayed, unless textblock 01 is the TIMED TEXT feature. The STOP/RUN key toggles between the EDIT mode and the RUN mode. The EDIT mode is where all the textblocks are edited. When the editing is completed, press the STOP/RUN key to send your textblock to the display where it will scroll along on your display.

Note: It is advisable to use textblock 01 for the timed text feature. If you create textblock 02 and textblock 03 and you want the messages to scroll one after the other, use textblock 01 to set the timed text feature. Refer to section 4.5.

4.3.1. Editing textblocks

To select a textblock for editing e.g. textblock 3:

1. In EDIT mode, press the SHIFT key
2. Press the V key, a message 'Select' is displayed
3. Enter 03
4. Use the ARROW key to move to the right or press the SHIFT key and then the ARROW key to move the cursor to the left. Press the CE key to delete characters similar to the backspace key on a PC keyboard.

4.3.2. Clearing all Text in a textblock

The CLEAR TEXT function erases all the text in the current text block:

To clear all the text in the current textblock:

1. In EDIT mode, press the SHIFT key
2. Press the Q key, a message 'Clear Y/N' is displayed
3. Enter Y.

4.3.3. CAPS-LOCK

The CAPS LOCK function changes the characters from uppercase (default) to lowercase. To switch between uppercase and lowercase:

1. In EDIT mode, press the SHIFT key
2. Press the PAUSE/BLANK key.

4.3.4. Arrow Key

This function allows the user to move the cursor one place to the left. To change direction, press the SHIFT key and now the arrow key will move the cursor to the right.

4.3.5. Character Fonts

There are two font types available, normal (default) and wide. To switch between normal and wide:

1. In EDIT mode, press the SHIFT key
2. Press the Z key.

4.3.6. Extended Character Set

The character set for the display covers most languages. A complete set is shown in Table 2. Refer to the Table for further details.

4.3.7. FLASH

The FLASH function allows the user to make part of the text in the textblock flash. To start this function:

1. In EDIT mode, press the SHIFT key
2. Press the F key and enter the text you wish to have flash.

4.3.8. Graphics

A choice of pre-set graphics is stored in the display. To select a graphic:

1. In EDIT mode, press the SHIFT key
2. Press the G key.
3. Press the SHIFT key and then the A key to see the full selection of graphics available.

4.4. *Displaying the Date and Time*

The current date and time can be displayed in various different formats.

4.4.1. Time

Firstly, make sure the correct time has been set on the display. Refer to section 4.2 for set-up details. To display the current time:

1. In EDIT mode, press the SHIFT key
2. Press the T key.

Each time the T key is pressed, a different time format appears, 12:34:56 or 12:34. Press the SHIFT key to display the format of your choice.

4.4.2. Date

Again, make sure the correct date has been set on the display. Refer to section 4.2 for set-up details. To display the current date:

1. In EDIT mode, press the SHIFT key
2. Press the D key.

Each time the D key is pressed, a different date format appears, 27/09/99, 27/Sep/99, Monday or 39 (Week Number). Press the SHIFT key to display the format of your choice.

4.5. *TIMED TEXT*

TIMED TEXT is a feature whereby textblocks can be pre-programmed to be displayed after one another, at different times of the day or on a particular day(s) of the week. For the example below, create textblock 02 and textblock 03 and use textblock 01 to add the TIMED TEXT feature.

To create textblocks 02 and 03, do the following:

1. In EDIT mode (press the STOP/RUN key), press the SHIFT key
2. Press the V key, *Select* is displayed, enter the textblock number 02
3. Enter *TEXT222222* and press the STOP/RUN key
4. Do similar steps for textblock 03 except enter *TEXT333333*.

To set a TIMED TEXT message, do the following:

1. In EDIT mode, press the SHIFT key
2. Press the V key, enter the textblock number 01
3. Press the SHIFT key and then the C key six times, the message 'Timed Goto' appears on the display.
4. Press the SHIFT key, a small T is displayed
5. Enter 02 and press the SPACE key
6. Press the SHIFT key and then the C key six times, the message 'Timed Goto' appears on the display
7. Press the SHIFT key, a small T is displayed
8. Enter 03
9. Textblock should now read $T02 T03$
10. Press the STOP/RUN key.

Textblock 02 is now followed by textblock 03. Using the above instructions, other possibilities of the TIMED TEXT is shown in the examples below.

Example 1: $T(09)$ will display textblock 09 first.

Example 2: $T(04) (10:00)$ will display textblock 04 only, after 10:00am each day.

Example 3: $T(05) (12:30) (13:00)$ will display textblock 05 between 12:30pm and 13:30pm.

Example 4: $T(08) (09:00) (17:00) (1)$ will display textblock 08 between 9:00am and 17:00pm on Mondays, (1 = day of the week).

Note: The freeze command, described in the next section, stops all functions including the Timed Text feature. Therefore, make sure that this command is not included in textblocks you wish to add the timed text feature.

4.6. Special Effects

This section describes the features to add eye-catching effects to your textblock. The features include for example, Shoot, Wipe, Jump etc. These commands are controlled using two keys, the ON key and the OFF key. The ON key adds the effect when the textblock scrolls on to the display, the OFF key adds the effect when the textblock scrolls off the display. The ON feature must be selected before you enter the text you want to add the effect to and like wise the OFF feature must be selected after the text.

For example, to have textblock 02 'Shoot', one character at a time on to the display and 'Wipe' off the display afterwards, do the following:

1. Press the STOP/RUN key to enter the EDIT mode
2. Press the SHIFT key followed by the V key
3. Enter 02
4. Press the SHIFT key followed by the Q key to clear the textblock
5. Press the Y key
6. Press the SHIFT key
7. Press the X key 9 times, until the message Shoot is displayed
8. Press the SHIFT key, a small s is displayed on the first character
9. Enter the text THIS IS A TEST with a space at the end
10. Press the SHIFT key
11. Press the C key 5 times
12. Press the SHIFT key, a small < is displayed at the end of the textblock
13. Press the STOP/RUN key.

Your textblock will now shoot on to the display and a PACMAN like character will wipe the textblock off the display. For the complete list of features and their details, refer to Table 1.

EFFECT	DESCRIPTION	ON/OFF	Press the Key	SYMBOL
VARIABLE	Adds or removes your textblock using a selection of effects.	ON OFF	X - 1 time C - 1 time	R
BACKGROUND	Not Applicable.			
DOWN	Adds or removes your textblock downwards.	ON OFF	X - 3 times C - 3 times	▼
UP	Adds or removes your textblock upwards.	ON OFF	X - 4 times C - 4 times	▲
WIPE	Adds or removes your textblock using the WIPE effect.	ON OFF	X - 5 times C - 5 times	c
JUMP	Adds your textblock using the JUMP effect.	ON	X - 6 times	J
LAMP	Not Applicable.			
DIM	This command will dim your textblock on the display	ON OFF	X - 8 times C - 8 times	D
SHOOT	Adds your textblock, one character at a time.	ON	X - 9 times	s
FREEZE	Freezes your textblock on the display, no other textblocks will scroll on the display when this feature is selected.	OFF	C - 9 times	f

Table 1 - List of Effects available for Display.

To display a special character, enter the English character, press the SHIFT key and press the A key. Repeat until the character you require is displayed.

A	Ä	Å	a	ä	å	â	à	á
B	b							
C	Ç	c	ç					
D	d							
E	É	Æ	e	è	æ	ë	ê	é
F	f							
G	g							
H	h							
I	i	ï	î	ì	í			
J	j							
K	k							
L	l							
M	m							
N	Ñ	n	ñ					
O	Ö	o	ö	ô	ò	ó		
P	p							
Q	q							
R	r							
S	s							
T	t							
U	Ü	u	ü	û	ù	ú		
V	v							
W	w							
X	x							
Y	y	ÿ						
Z	z							
\$	£	€	¥	Pls				
([{	«	<				
)]	}	»	>				
*	=	-	+					
:	;							
/	\							
!	!							

Table 2 - Characters available on the keyboard.