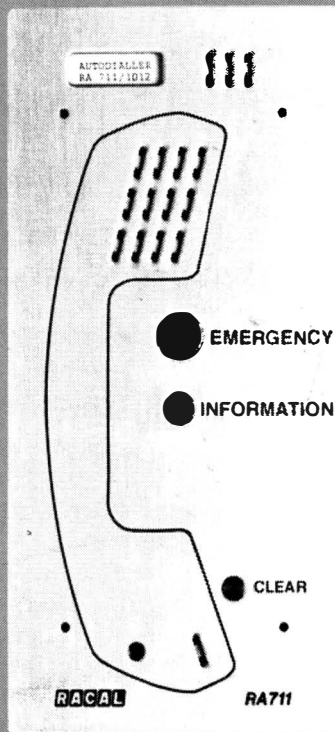


USER GUIDE
for
RA711/1011, /1012 & /1013
Vandal Resist Telephones



R A C A L A C O U S T I C S

Contents

This guide is in two parts. The first part is provided for users of this instrument and the second part is for the sole use of your approved telephone installer.

<i>Part 1</i>	<i>General</i>	<i>1</i>
	<i>Approved Facilities</i>	<i>2</i>
	<i>Operation</i>	<i>4</i>
<i>Part 2</i>	<i>Installation</i>	<i>6</i>

General

The types of telephones covered by this guide are approved in the United Kingdom under the no. S/3064/3/N/502517 for connection to a direct exchange line (i.e. a line exclusive to the meter and not 'shared'), to an extension of a direct exchange line or to an extension on certain types of PBX. They are not suitable for use on party line installations or as extensions to a pay phone.

RA711/1011: 1 number and 'CLEAR' button

RA711/1012: 2 numbers

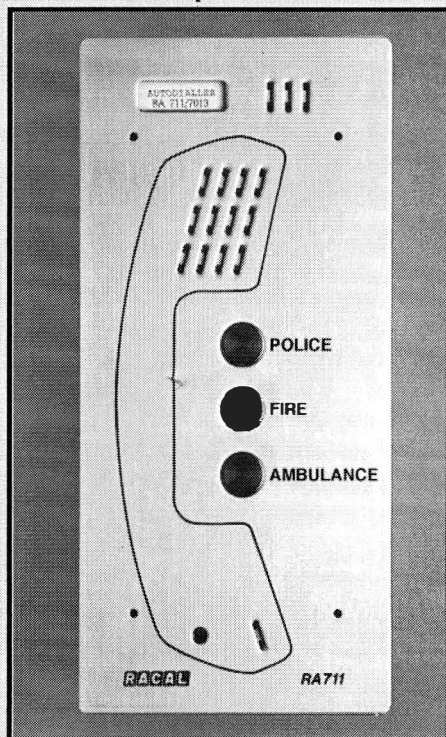
RA711/1012/C: 2 numbers and 'CLEAR' button (optional)

RA711/1013: 3 number

RA711/1013/C: 3 numbers and 'CLEAR' button (optional)

Optional Extra

RA1060/1000 Hearing Aid Induction loop



Approved Facilities

This apparatus has been approved for use of the following facilities:-

1. Loudspeaking (no handset) handsfree operation.
2. Visual indication of 'off-hook' condition (line looped)
3. Audible and visual alarm indication of incoming calls.
4. Installation access using special tools only.
5. External mains to D.C. power supply (9 volts) supplied with each instrument, Part No. RA1050/1000.
6. Provision for external induction loop for hearing aid use, Part No. RA1060/1000
7. Provision to introduce equivalent 'master socket' bell capacitor for directly wired applications, set by DIP switch on installation.
8. Provision to connect external extension bell.
9. Provision to enable automatic clear down of call loop, either fixed timeout or timeout after loss of incoming speech, approx. 1 min. Set by DIP switch on installation.
10. Mounting flush to vertical surface, a back box is provided utilising standard 20mm 'knock outs' for cable access. An optional back box for conventional surface (protruding) wall mounting is available.
11. Up to three 'Autodial' keys, initiate fixed pre-programmed series of digits, (24 digits max. per key).
12. Selectable Loop Dial or DTMF dialling, set by DIP switch on installation.
13. Optional 'CLEAR' key on RA711/1012 and RA711/1013, where auto call clear down is inconvenient.
14. With a PBX with or without secondary dial tone.

Approved Facilities

Any other usage will invalidate the approval of the apparatus if as a result it then ceases to comply with the standards against which the approval was granted.

Connection is effected by plugging in to the appropriate line socket. If your telephone connection is not fitted with new style sockets contact your approved telephone installer or the telephone network supplier (using the reply card provided).

If this method of connection is inadequate because for example the telephone is to be mounted outside, where new sockets are not intended to be used, arrange for your telephone network supplier to directly connect the instrument (using the postcard provided).

The telephone should operate correctly when connected to most compatible PBXs, including those that use secondary dialling tone. However it cannot be guaranteed that the apparatus will operate under all possible conditions of connection. Any cases of difficulty should be referred in the first instance to your local supplier of the instrument.

The telephone is intended for use when powered by the 9 volt D.C. mains unit supplied. Other usage will invalidate any approval given to this apparatus if as a result it ceases to comply with BS 6301:1989.

This apparatus is intended to be internally accessible for installation purposes, only to authorized personnel and must be installed such that user access is prevented. Correct fitting and installation are mandatory as failure to prevent such user access will invalidate any approval given to this apparatus.

Operation - RA711/1011

To make a call

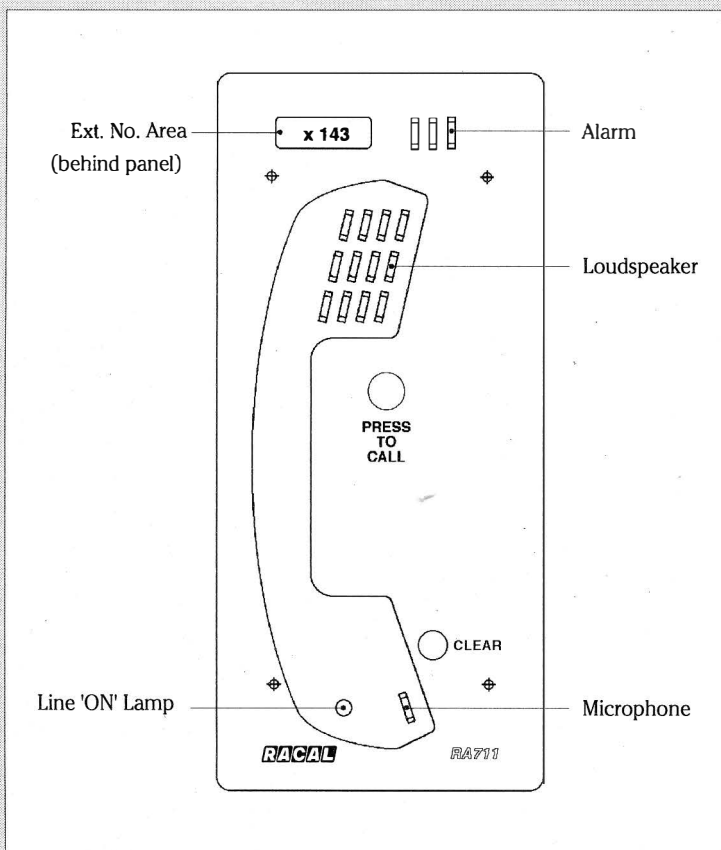
Depress 'PRESS TO CALL' key, dialling tone will NOT be heard.

Dialling takes place automatically, including pauses.

At end of call press 'CLEAR' or wait one minute for automatic cancellation of call.

To answer a call

Depress 'PRESS TO CALL' key (*this will not initiate dialling whilst the telephone is being called*). At end of call press 'CLEAR' or wait one minute for automatic cancellation of call.



Operation - RA711/1012 & RA711/1013

To make a call

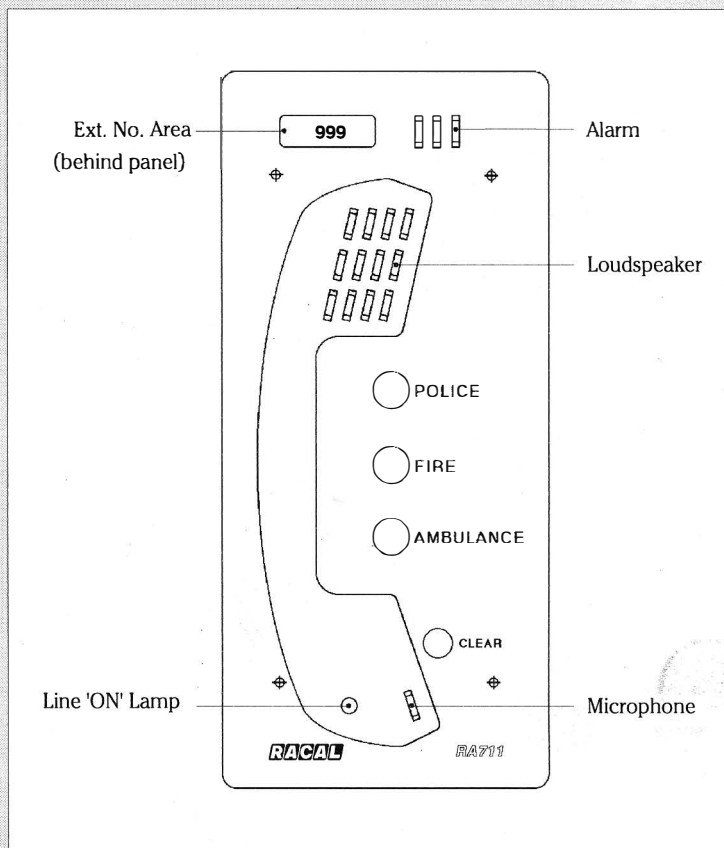
Depress the 'Autodial' key for the service required, dialling tone will NOT be heard.

Dialling takes place automatically, including pauses.

At end of call press 'CLEAR' or wait one minute for automatic cancellation of call.

To answer a call

Depress any Autodial key (*this will not initiate dialling whilst the telephone is being called*). At end of call press 'CLEAR' or wait one minute for automatic cancellation of call.

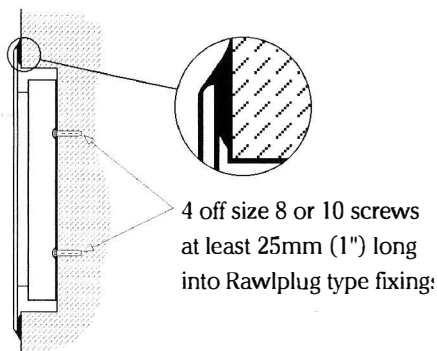
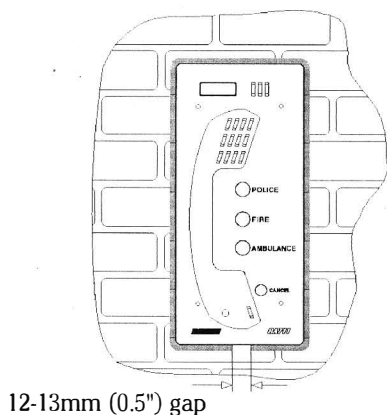


Installation

The following information is provided for use by your approved installer or telephone network supplier only. The RA711 telephone can be either wall mounted or top-of-pole mounted. Wall mounting can be surface, flush or inset into the wall. Various electrical options are available, as defined under the "Electrical Connections" section overleaf. Make sure that these are set correctly before finally fitting the unit to the back box. Mark the removable insert with your telephone number, if desired.

Wall Flush Installation

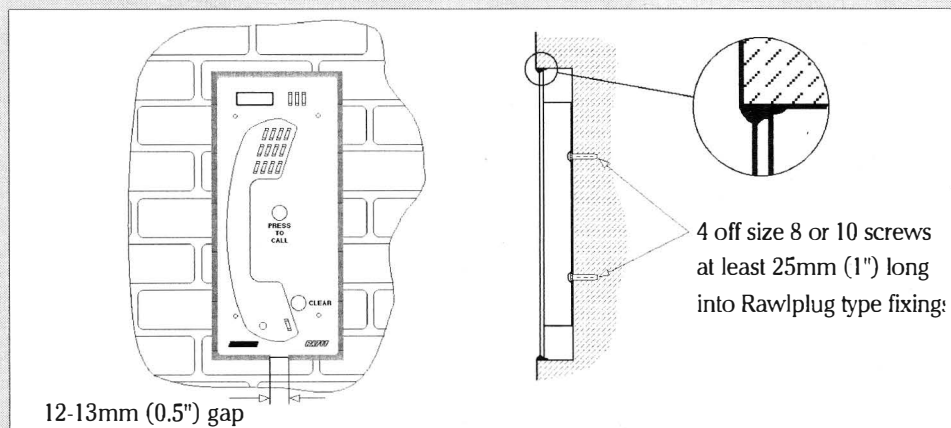
1. Produce hole in wall 285mm high by 120mm wide by 60mm deep.
2. Use size 8 or 10 screws with rawlplugs (4 off) to fix back box into wall, with cut-out at the bottom.
3. Connect the cabling, as detailed under "Electrical Connections", and then using a 4mm socket head key, through the 4 small holes in the front plate, fit the telephone unit to the back box. Start each screw by turning several times at each position, continue turning each screw, several rotations at a time, until all 4 screws are secure. To remove the telephone from the box reverse the procedure.
4. Use any suitable silicone waterproofing sealant (such as Unibond Waterproof Flexible Frame Sealant) to seal to the wall, leaving a 12mm to 13mm (0.5") gap at the bottom for drainage.



Installation

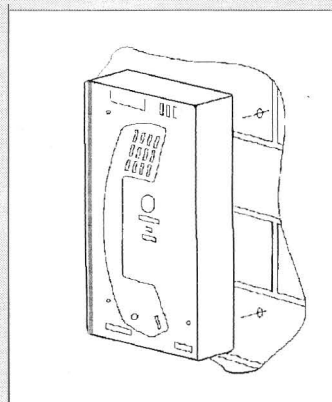
Wall Inset Installation

1. Produce hole in wall 310mm high by 145mm wide by 60mm deep.
2. Use size 8 or 10 screws with rawlplugs (4 off) to fix back box into wall, with cut-out at the bottom.
3. Connect the cabling, as detailed under "Electrical Connections", and then fit to the back box (as described under Wall Flush Installation, item 3).
4. Use any suitable silicone waterproofing sealant (such as Unibond Waterproof Flexible Frame Sealant) to seal to the wall, leaving a 12mm to 13mm (0.5") gap at the bottom for drainage.



Wall Surface Installation

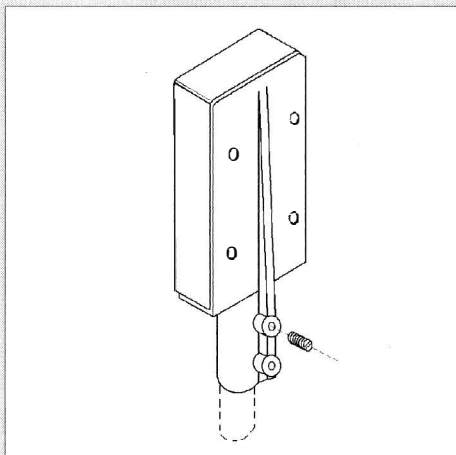
1. Fix the surface mounting back box to the wall, with cut-out at the bottom, using size 8 or 10 screws with rawlplugs (4 off)
2. Connect the cabling, as detailed under "Electrical Connections", and then fit to the back box (as described under Wall Flush Installation, item 3).
3. Use any suitable silicone waterproofing sealant (such as Unibond Waterproof Flexible Frame Sealant) to seal to the back box, leaving a 12mm to 13mm (0.5") gap at the bottom for drainage.



Installation

Top-of-pole Installation

1. Place the top-of-pole mounting over the top of the pole.
2. Tighten the grubscrews to secure the mounting.
3. Fix the surface mounting back box to the top-of-pole mounting with the screws provided.
4. Connect the cabling, as detailed under "Electrical Connections", and then fit to the back box (as described under Wall Flush Installation, item 3).



Electrical Connections

The cables are passed through relevant conduit and connected (in the case of directly wired situations) to the tag block on the instrument.

Connect the 9 volt approved D.C. power supply Pt.No. RA1050/1000 to terminals 7 and 8 and ensure that it is switched on. The adjacent lamp will light if connected correctly.

If the external hearing aid induction loop is to be installed connect to the terminal block in accordance with the connections below and mount vertically around the instrument.

For these versions (/1011 - /1013) the Autodial keys have to be correctly programmed. The program memory requires power. This is supplied by the 9 volt power supply although loss of this power will not cause memory loss for a few minutes after disconnection and not at all if the line connection is made. It is not necessary to have the line connection in place during programming.

Installation

Line Terminal Connections and Selections

The number of telephones which can be connected to a direct exchange line or PBX extension is limited by the ringer equivalence number (REN) of all the telephones connected, which should not exceed a total value of 4.

The REN value of this telephone is 1. In case of doubt consult your telephone supplier.

The Terminal block mounted at the back of the unit is labelled as follows:-

- | | | |
|----|---|-----------------------------|
| 1. | Line (B) | |
| 2. | Bell mute/extension bell | } plug
431A |
| 3. | Not used | |
| 4. | Line (A)/extension bell | |
| 5. | } External induction loop for Hearing Aid | |
| 6. | } (3 turns, 1m dia) | |
| 7. | 0 volt | } external 9 volt dc supply |
| 8. | +9 volt | |

Line Terminal Mode Selections

Mode selectable DIP switches as follows:-

SW18 - 1 1 min. timeout:

enable - OFF

disable - 1 (ON) (factory setting)

SW18 - 2 1 min. timeout:

fixed - OFF (factory setting)

automatic - 2 (ON)

SW18 - 3 Internal Bell capacitor (disabled
when master socket is used)

enabled - 3 (ON)

disabled - OFF (factory setting)

SW24 - 1 Loop Dial or DTMF Dial

Loop Dial - A (factory setting)

DTMF - 1

Installation

Programming of Autodial Keys

Ensure the 9 volt power supply is connected and switched on. **DO NOT USE THE FRONT PANEL KEYS.** To store telephone numbers 'behind' the Autodial keys:-

1. Depress 'ON' followed by 'STORE'.
2. Press particular Autodial key to be programmed, 'S0', 'S1' or 'S2'. These keys are part of the group which include the 'STORE' and 'PAUSE'. Note that 'S0' corresponds to the top (EMERGENCY or PRESS TO CALL) front panel key, 'S1' to the middle and 'S2' to the bottom key.
3. Enter digits to be stored, (max. 24). Include pauses as required for those exchanges that require you to wait for a second dial tone.
4. No digits will be sent to the telephone line.
5. Finish by pressing 'STORE' again, followed by 'CANCEL' if fitted on the front panel.

External Bell

All bells must be approved for connection to the telephone network. They are of the low frequency A.C. type (15Hz-25Hz). D.C. versions must NOT be used. Connect to terminals 2 and 4 of the tag block. Ensure that DIP switch SW18 - 3 is set to '3 (ON)' enabling the internal bell capacitor if a master socket is NOT used.

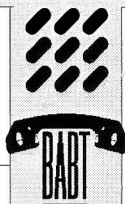
Call Restriction Timeout (used when 'CLEAR' key is not fitted)

If this facility is enabled (SW18 - 1 set to 'OFF') then each call will be time restricted to approximately 1 minute, in one of two ways, set by SW18 - 2.

1. Fixed - (SW18 - 2 set to 'OFF') the 1 minute starts from the last press (and release) of the 'PRESS TO CALL' key or the service required.
2. Auto - (SW18 - 2 set to '2 [ON]') the 1 minute starts from the end of the last incoming tone or speech.

APPROVED for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them

S/3064/3/N/502517



Racal Acoustics Limited

Waverley Industrial Park, Hailsham Drive,
Harrow, Middlesex HA1 4TR, England
Tel: 081 - 427 - 7727 Telex: 926288
Fax: 081 - 427 - 0350

RACAL