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INTRODUCTION

1.1 The Background of Telecom Paging

The Telecom Paging Network commenced operation in 1973. Telecom only operated the network and didn't actually commence selling pager units until March 1985.

Following the private interconnect policy of 1985, Telecom paging operates in a fully deregulated commercial market i.e. private companies may operate and sell their own network as well as paging units. Telecom is forced to stay abreast of new paging developments to stay competitive.

Telecom has the most economical, reliable and best coverage of any paging service in Australia.

1.2 Quick Reference Guide

UNITS

Tone, numeric and alpha numeric pagers are available for sale and rental. (See Ref. 2-1)

Non-Telecom pagers can be connected to the Telecom network if a new crystal (at a charge) is fitted to the pager. See Ref. 2-8)

The warranty period is 12 months from date of purchase. (See Ref. 2-5)

PRICING

Telecom paging offer very competitive pricing when total cost is considered, i.e. cost of pager plus ongoing entwork service charges. (See Ref. 10-1, 10-2, 10-3)

PAYMENT OPTIONS

Cash
Credit
Personal Cheque (with ID)
Credit Card
Bank Cheque

NB: Cash etc. may not be accepted at some outlets – please check your area. (See Ref. 2-4)

AVAILABILITY

Ready to use pagers are available from some metropolitan TBOs and many country areas.

Moorabbin Mobile Service Centre is the central despatch area. In most cases customers can collect their pager there or it may be sent to the customer by courier (at a charge). See Ref. 2-10)

MAINTENANCE

Service and repairs can be carried out at Moorabbin Mobile Service Centre.

Loan units may be obtained from certain TBOs with prior arrangements when a pager is being repaired. (See Ref. 2-5)

COVERAGE

Telecom has the largest most reliable paging network offering coverage in all capital cities and over 100 places Australia wide. (See Ref. 3-3, 3-4, 8-1, 8-2, 8-3)

SERVICES

Telecom Message Services

- Personalised answering and message service in the customers name.
- Message taking/sending and message retrieval. (See Ref. 4-2)

Direct Access (via keyboard and modem) to the Telecom paging network enables customers to use their own facilities at lower rates. (See Ref. 5-1, 5-2, 5-3)

WHY BUY PAGERS FROM TELECOM

Telecom offers a very competitive price package of upfront (pager) price plus ongoing service charges.

Telecom pagers are:

- Technologically advanced
- Simple to use and impact resistant
- Compact, light and highly reliable with low battery consumption
- Guaranteed by Telecom

Telecom offers the most extensive and most reliable paging service Australia wide.

Telecom offers the "Freedom to Roam" to any designated area without notice to callers (extra charge applies).

Telecom offers a wide range of enhanced services.

TELECOM ADVERTISING FOR PAGING

Advertising campaigns in general press and market segment related journals.

Arrangements in Telecom Topics or Mobicats.

Advertising in Yellow Pages.

Direct Marketing.

Mailout to paging Customers.

Referral by an existing Telecom Paging Customer.

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PAGERS

2.1 What type of pagers are available from Telecom?

- **TONE ONLY**

Tone alert sounds when call is received.

2 Models: NEC, National Panasonic.

- **NUMERIC**

Tone alert plus displays contact number or numerical message.

2 Models: NEC, National Panasonic.

- **ALPHA NUMERIC**

Tone alert plus displays full messages. (Words, Numbers and Symbols).

3 Models: NEC, National Panasonic, Phillips.

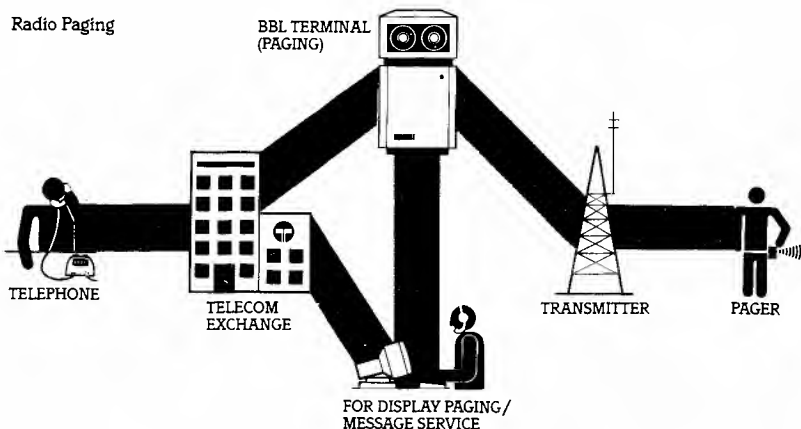
Note: Phillips pager is not in stock at present.

Please see "The Smarter Pager Brochure" for a comparison chart between various models. (Ref. 7-1)

2.2 How do Pagers work?

Pagers are miniature radio receivers. They are capable only of receiving radio signals — not transmitting. Because of this the person who is sending a message to a pager cannot tell if the unit is turned on, is in a coverage area, or has received a message.

The procedures for sending an alert or a message are as follows:



How a paging call travels

PERSONALISED ANSWERING SERVICES

Telefinder Message Service or Telefinder Premium Message Service:
Dial the 01637XXXX number provided. e.g. 016371234. The message will be sent to the pager.

OPERATOR ASSISTED PAGING

1. Call the operator on 016030
(for the cost of a local call Australia wide).
2. Quote the pager number to the operator
016123456

3. **Relay the message that you wish to send, refer to the pager type below:**

**ALPHANUMERIC
(DISPLAY PLUS)**

- Messages up to 230 characters can be transmitted using alphabet letters, numbers, or special characters. The message will be automatically sent to the pager, e.g. message "PLEASE CALL THE OFFICE ON 1234567"

**NUMERIC
(DISPLAY)**

- The operator can either send a numeric message (up to 20 characters) e.g. a telephone number 1234567

or

store an alphanumeric message and send the operator number to the pager, to notify the pager holder that a message is awaiting retrieval.

TONE ONLY

- The operator will send a tone and store an alphanumeric message for the pager, holder to retrieve.

Note:

- All messages are stored and available for retrieval for a 48 hour period.

DIRECT ACCESS PAGING

(Available to all Telefinder Customers)

Sending A Tone Page by Telephone

(available for all pager types)

1. **Ring the pager number provided, e.g. 016123456**
2. **You will hear:**
 - telephone ring
 - a series of short acknowledgement beeps
3. **Hang up after the hearing the acknowledgement beeps.**
4. **Tone only signal will be sent to the pager.**

Sending a Numeric Message by Telephone

(for alphanumeric and numeric pagers only)

To send a numeric message by telephone, you will need a tone telephone service or a DTMF attachment for the phone mouthpiece.

1. **Ring the pager number you wish to send the message to:**
e.g. 016123456
2. **You will hear:**
 - telephone ring
 - three acknowledgement beeps
3. **Then:**
 - Input the numeric message: e.g. 1234567
 - Hang up
4. The message "1234567" should appear on the pager display, a short time later.

2.3 What Charges Apply to Telecom Pagers?

PURCHASING

- Purchase Price
- Direct Access or Operator Access Network Rental (The rental amount is also determined by:
 - Number of services (alerts) connected)
 - Number of areas service required in
 - Whether a fixed term agreement has been signed)

RENTING

- Pager rental
- Security deposit (in some cases)
- Direct Access or Operator Access Network rental (same as for purchasing)

2.4 What are the Payment Options and Billing Arrangements?

Payment can be made by:

CASH	Pick up from TBO's
BANK CHEQUE	Pick up from TBO's or Mobile Service Centre
PERSONAL CHEQUE	(ID required) — pick up from TBO's or Mobile Service Centre
CREDIT CARD	Some TBO's
LEASING	Only for volume sales more than \$1500
CREDIT	With postal delivery, an invoice is issued to the customer usually within 2 weeks

Customers receive a separate account for paging charges. Residential customers are billed every three months (Network Rental is paid in advance). Business customers and rental customers are billed monthly (Network Rental is paid in advance. Pager rental is paid in advance).

2.5 Is There a Warranty? What Happens if a Pager Needs Repair?

Telecom provides a 12 month warranty on all pagers. N.B. Physical damage and loss are not covered by warranty. Telecom units are not insured, customers must arrange this if required.

- Repairs on a fee-for-service basis
- A low cost maintenance agreement that automatically renews every 12 months. The customer may cancel the agreement at any time by providing Telecom's paging account's section with 30 days written notice.

COSTS:

Maintenance Agreement: \$24 p.a.

Fee-for-Service: \$75-\$95 per service

NB: Quotes are given for physical damage.

If a pager is faulty the customer should return the pager to a TBO. If the pager requires replacement of a fitting e.g. belt clip or battery cover, these can usually be supplied to the customer at the TBO (charges depend on each fitting) or sent by mail to the customer. If the pager is malfunctioning a loan unit can usually be supplied on the customers own pager number free of charge, however this is dependent on stock availability.

The customer may also take the pager to Moorabbin Mobile Service Centre where repairs can usually be carried out on the spot.

Payment may be made C.O.D. or invoiced to their pager account.

Note: See Ref. 2-10 for address of TBOs and Service Centre which accept pagers for repair.

2.6 What Types of Batteries Do Pagers Use?

The battery types and average life spans are set out below:

	TONE		NUMERIC		ALPHA NUMERIC		
	NEC	Nat.Pan	NEC	Nat.Pan	NEC	Nat.Pan	Phillips
Battery size	AAA	AAA	AA	AA	AA	AA	'N Type'
Number required	1	1	1	1	1	1	2
Life span (average)	Up to 4 months		Up to 4 months		Up to 3 months		

AA and AAA batteries are available from normal retail outlets, e.g. supermarkets and hardware stores.

'N Type' batteries are available from pharmacies and camera stores.

Note: Tests conducted by various paging companies show that Duracell and Energizer get the best performance from pagers.

2.7 Which Other Companies Sell Pagers?

Telecom paging operates in a fully deregulated commercial market. Various other companies sell pagers and provide paging networks and their price ranges vary. Telecom has the cheapest and most reliable paging network. Most paging companies in Australia sell pagers produced by the same manufacturer.

There are very cheap pagers on the market (e.g. Swissphone) and there are the more reliable and sophisticated (but also more expensive) pagers such as the ones Telecom sell.

Where another paging company sells the same pager as Telecom you will find that Telecom's prices are very competitive especially if the network charges and service facilities are taken into consideration.

Remember: Telecom paging should be sold as a package.

Pager Unit — Network — Service Back-up — Telecom Guarantee.

Our major competitors are:

BELL SOUTH GROUP

- Link Communications
- Instapage
- Skypage/Voicecall
- Small Regional Paging Companies e.g. Easycall

Description:

Pagers — NEC, Motorola, Phillips, Swissphone

Coverage — All capitals, some country areas

Price — Units: comparable. Network: dearer.

HUTCHINSON GROUP

- Answerpage
- Bellpage
- Austpage

Description:

Pagers — NEC

Coverage — All capital cities (at present not very active in Victoria)

Price — Units: comparable. Network: comparable.

MOTOROLA COMMUNICATIONS

— Motorola

Description:

Pagers — Motorola

Coverage — All capital cities, some country areas

Price — Units: Cheaper. Network: Dearer

Note: At present Motorola provide a 'Tone Only' network. Most numeric and alpha numeric units are connected to the Link Communication Network. It is thought that Motorola will provide a 'full service' network by the end of 1989.

At present the Bell South Group are considered to be the biggest threat to Telecom's position as market leader. They aggressively promote their presence in the paging industry.

2.8 Will Other (Non-Telecom) Pagers Work on the Telecom Paging Network?

Yes, we can arrange to have most pager brands fitted with a new crystal which will enable them to operate on our network.

Some older pagers however cannot be changed over to our network and in this situation the customer should be offered a trade-in on one of Telecom's units.

Here is a list of some brands that may be changed over.

STONE:

Silcom

Motorola Bravo

Motorola Envoy (POCSAG)

NEC 2A

NEC 6A

National EK-2075

NUMERIC:

Motorola Bravo

NEC 4A

NEC 5A

National EK-2076

ALPHA NUMERIC

NEC 3A

NEC 7A, 7B

National EK-2077

Motorola PMR 2000

Phillips PG32A

Swissphone

The cost for a changeover to Telecom's network is \$75 per unit. This cost however may be waived at the customers request if a 3 year contract is signed.

For details of changeover procedures, time delays etc. contact the Moorabbin Mobile Service Centre. (See Ref. 2-10 for address).

2.9 Does Telecom Offer Trade-Ins?

Telecom offer a discount on the purchase price of a new pager in exchange for the customers old pager.

The old pager need not be in working condition, and need not be on our network.

Regardless of the type of pager the customer wishes to trade-in, the standard trade-in rate applies to the type of pager they wish to purchase.

TRADE-IN RATES

Trade-In	Any Pager
BUY	Tone Receive \$10 Trade-In
BUY	Numeric Receive \$25 Trade-In
BUY	Alpha/Numeric Receive \$100 Trade-In

Note: If the customer's old pager is on our network, it may be possible to validate the new pager with the same pager number. Check with the radio paging centre. (See Ref. 2-10 for R.P.C. phone number and address).

2.10 How Do I Obtain pagers?

The TS92 pager application form should be completed and mailed to:

Paging Validation Centre
Telecom Mobile Service Centre
88 Keys Road, Moorabbin 3189
Phone (03) 695 3161

You should state if the pager shall be collected or sent by courier to the customer. Present courier fees are \$8.50.

Customers may also purchase pagers directly from the following business offices (TBOs)

METROPOLITAN:

Telecom Business Office
142 Elizabeth Street
Melbourne 3000
Phone: (03) 654 5833

Telecom Business Office
829 Burke Street, Camberwell 3124
Phone: (03) 813 1444

COUNTRY:

Frankston	784 2211	Shepparton	058 20 1222
Mildura	053 37 0216	Ballarat	053 37 0216
Ararat	053 52 4288	Geelong	052 26 3548
Bendigo	054 40 5125	Hamilton	055 73 0302

Account enquiries should be addressed to:

Telecom Australia — Radio Paging Centre
7th Floor, 219 Elizabeth Street,
Melbourne, 3000. Phone: 605 6576

If you have an urgent enquiry on a pager that needs special delivery instructions call Moorabbin Mobile Service Centre. **Phone: (03) 695 3161**

Note: The sales representative should not sign the pager application form on behalf of the customer. If you cannot get a signature, a S.A.E. shall be sent with the pager allowing for return of the signed application form.

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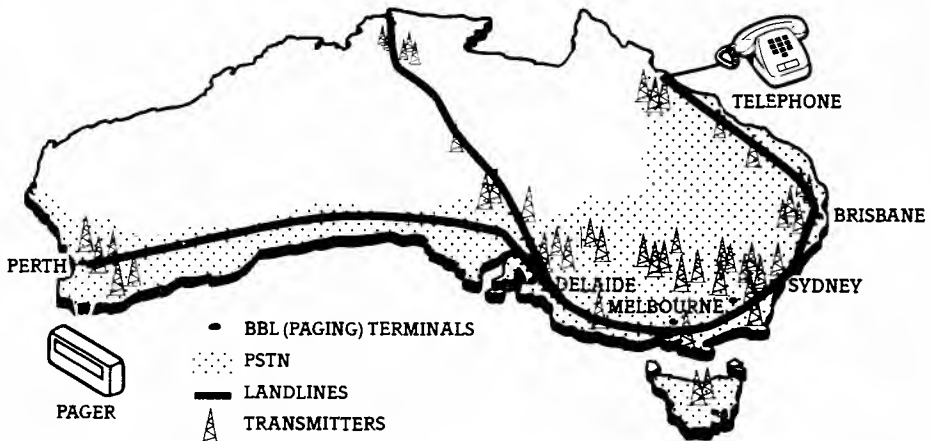
NETWORK

3.1 How Does the Paging Service Work?

The page, whether it be alphanumeric or tone, sent direct or via an operator, travels through the Public Switched Telephone Network (P.S.T.N.) to a paging terminal, which we call a BBL. There is a paging terminal in each capital city tht handles all paging calls for the State, except Hobart, which runs off melbourne; Darwin which runs off Adelaide; and Canberra, which is linked to Sydney.

The BBL codes the information for radio transmission and via landlines, instructs the transmitter in the relevant Pager Service area, to transmit the appropriate radio signals.

The pager reacts upon recognition of the radio signal, by emitting an alert. A display pager will receive the signals and de-code them into associated characters for display.



Example of a pager with national coverage being called

3.2 Where Will Pagers Receive Calls?

The extent of coverage in a service area is usually up to 40 km radius from the transmitter. However the boundaries are not rigid. There can be places outside service areas, especially on high ground, where service can be obtained; while within the service area there can be places where reception is impossible because of screening e.g. from high buildings or in valleys etc.

Refer customers to the coverage map of their service area, this should outline the area where service can be expected.

(See Ref. 8 — Coverage Map)

Note: Large amounts of electronic equipment can also effect reception, e.g. hospitals, computer rooms, etc.

3.3 What is Multi Area Paging (MAP)

Telecom has the largest paging network in Australia. Over 100 localities, currently covering all major metropolitan and country markets.

Multi-area paging, or MAP, allows the customer to define exactly the extent of paging coverage required.

All pages sold in Victoria must have some Victorian coverage as a base. After that customers may nominate any other area they wish to have, e.g. (V1 – Melbourne, N1 – Sydney and N3 – Northern N.S.W.).

There are 15 MAP areas and they may be purchased in any combination.

CAPITAL CITIES ARE REGION 1:

V1 Melbourne

N1 Sydney

Q1 Brisbane

T1 Tasmania (Tasmania has only 1 MAP area)

S1 Adelaide

W1 Perth

COUNTRY REGIONS ARE REGIONS 2 and 3

(See Ref. 10-2 for MAP pricing)

3.4 What is Follow Me?

If the customer has operator access, Follow-Me provides temporary redirection of pager coverage. Follow-Me is activated by calling the operator, quoting their password and informing the operator of:

- The state to which they will be travelling
- How long they will be there

If Follow-Me is selected the customer need only inform the operator if they cross over state borders on the mainland. Victoria wide and Tasmanian coverage are permanent features with Follow-Me.

As this facility is less demanding on Telecom's network and air time than MAP, it has been priced accordingly. In cases where a customer needs coverage in more than 2 capital cities, it is less expensive to take Follow-Me than MAP.

4.1 WHAT IS OPERATOR ASSISTED ACCESS?

This service enables customers' callers to send page calls and messages through an operator. Telecom operators take, send, store, edit and retrieve messages. Numeric and alphanumeric customers messages are sent to the pager and tone customers are paged. All customers can ring the operator and retrieve their messages within 48 hours of them being received by using their special password. This facility is helpful if the customer did not properly receive the message (eg. bad coverage area), their pager is tone only or if they are in a 'no coverage' area.

Passwords are needed to retrieve messages from the operator. They ensure security of messages by only allowing the customer to access them.

A password is chosen by the customer at point of sale. It can be either numbers or letters or a combination of both. Minimum 1 character maximum 6.

NB: Passwords must be taken for all operator assisted paging services.

4.2 WHAT ARE THE FEATURES AND BENEFITS OF TELECOM MESSAGE SERVICES?

FEATURE	BENEFIT
Personalised Answering	<ul style="list-style-type: none"> • Customers' clients benefit from the undivided attention they are given. • Customers' clients are more likely to leave messages with a friendly recipient than with an impersonal answering machine. • Even though the customer are not available, their business appears to still be operating.
Message processing	<ul style="list-style-type: none"> • Customers can determine when they want to do business. • Instead of always responding to page calls as they come in, the customer can determine the priority/urgency of the caller's business, from the messages they leave. • Lengthy or complex messages can be taken with no risk of loss or mis-interpretation. It's like having a personal secretary.
"IF" statements	<ul style="list-style-type: none"> • Customers' business transactions and personal messages can be communicated to specific callers in their absence. • Confidentiality and impartiality guaranteed. • "IF" statements are beneficial when both parties are on the move. No more frustration at "just missing each other".

At present the customer has a choice of two levels of message service:

THE MESSAGE SERVICE (Personalised Answering Service PAS)

With this service, this caller uses only one number to reach the customer's pager, the phone is then answered according to the customer's directions.

eg. Good morning John Citizen's office. May I help you?

Simple messages through to more complex information can be taken by the operator. The customer is paged immediately the message is received.

THE PREMIUM MESSAGE SERVICE

In addition to the facilities of the message service the premium message service allows the customer to leave "if" statements. For example the customer may tell the operator "If Peter Smith calls tell him I shall be late for today's meeting"

When Peter Smith calls the operator will relay the customer's message. In effect the premium message service is both a personalised answering service and a two-way message service.

For both these message services use the application form found in Ref 9.2

DIRECT ACCESS PAGING

5.1 WHAT IS DIRECT ACCESS

Direct access is the ability to either page or send a message direct to a paging unit, without the assistance of an operator.

It has always been possible to send a tone alert to all pager types and numeric messages (via a tone dialling phone) to numeric and alphanumeric pagers. However Telecom also offers the public the ability to send alphanumeric messages directory via their own computer.

Customers wishing to do this must have the following:

- Computer Terminal
- Dial Up Modem
- Communications Package

NOTE: Many communications packages are "Public Domain" ie. no charge for purchase. The modem supplier should be able to provide the customer with the necessary information.

THE DIRECT ACCESS PROCEDURE IS AS FOLLOWS

Sending a Numeric/Alphanumeric Message from a Visual Display Terminal (VDT):

You will need a modem and a Visual Display Terminal (VDT). If using a personal computer, a communications package is also required.

Modem transmission speed can range from between 300 to 2400 bps. 1200 bps is recommended.

The computer profile for Direct access is as follows:

Line Speed	1200 (variable)
Parity	None
Data	8 bits
Stop Bits	1
Auto Line Feed	Y
Local Echo	N

To send a message directly from your terminal:

1. **Dial:**

Victorian customers 016039 (Local Call Cost)

2. **CARRIED ID will appear:** Enter the last 7 digits of the pager number you wish to contact.
e.g. 01 (6123456)

3. **The pager type will appear.**

If, ALPHANUMERIC — any form of message (alpha and numeric) can be sent.

NUMERIC — only numbers can be sent.

TONE ONLY — an alert page will be sent.

NOTE: Access is limited to a maximum of 3 minutes at a time before automatic disconnection.

5.2 WHAT ARE THE FEATURES & BENEFITS OF DIRECT ACCESS?

FEATURE	BENEFIT
<ul style="list-style-type: none">• Lower network Rental:	Save \$\$\$!
<ul style="list-style-type: none">• Send/Receive messages direct:	No intermediary – can send confidential and personal messages without worry.
<ul style="list-style-type: none">• Easy to use:	No complicated procedure, simply access the service and send!
<ul style="list-style-type: none">• Local call fee	Each time the service is accessed, only the local call fee is charged.

5.3 IS DIRECT ACCESS AVAILABLE FOR MAJOR BUSINESS CUSTOMERS?

Direct Access through a dedicated (leased) line to our front end computer, enables organisations to send tone, numeric and alphanumeric messages to their own staff directly, by their own operator.

With an approved terminal connected to the front end computer, organisations can have limited access to our software, enabling them to send, store, retrieve and edit their own messages for transmission to or retrieval by staff. In effect, they can run their own centralised message/paging service.

There are many options open to the organisation on how they would like to set up such a service, eg.

- Use our operators as well as their own
- Use our operators during certain hours (night switch)
- Bar their pagers from PSTN access, i.e. all callers must go through the private operator to send a page.

NB: Please contact the Paging Product Manager for details if a customer is interested in a dedicated line. Special prices and packages are available.