ITU

INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

E.133

TELEPHONE NETWORK AND ISDN

**OPERATION, NUMBERING, ROUTING
AND MOBILE SERVICE**

OPERATING PROCEDURES FOR
CARDPHONES

ITU-T Recommendation E.133

(Extract from the *Blue Book*)

NOTES

1   ITU-T Recommendation E.133 was published in Fascicle II.2 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2   In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Recommendation E.133

OPERATING PROCEDURES FOR CARDPHONES

1   Preamble

Cardphones are payphones that accept cards as a means of payment. Many Administrations have deployed cardphones that accept a variety of card types and technologies. (For further definition of CCITT-recommended credit card types, see Recommendation E.118 on the automated international telephone credit card system.) Cardphones provide an attractive alternative to users through added convenience and payment options. The service also provides benefits to Administrations both economic and operational.

Prolifertation of cardphone terminals and technologies may result in a multiplicity of customer operating procedures. The purpose of this Recommendation is to offer guidelines that will:

1)   facilitate customer convenience,

2)   ensure ease of use through a common sequence,

3)   standardize operating procedures to aid Administrations achieve lower equipment costs and customer instruction costs,

4)   increase revenues for Administrations.

2   Operating sequence

This section defines the sequence of actions in setting up a call using a cardphone. Under each step there may be further points of recommendation or preference, or additional comments.

2.1   *Step 1: lift handset*

Comment:

For a loud speaking telephone, step 1 is the action equivalent to going off-hook.

2.2   *Step 2: await signal to pay*

Preferred:

It is preferred to have the dial tone precede payment, but acceptable for it to follow Step 3.

Comment:

The signal may be the dial tone, some other signal or both, e.g. display announcement.

2.3   *Step 3: present means of payment*

Recommended:

If a cardphone also allows payment by coins, initial payment should be in Step 3.

When a prepaid card is used the remaining value of the card should be displayed before use.

When a card is successfully read and is verified as satisfactory, the customer should be given confirmation.

When a card is determined to be invalid, the user should be so informed, e.g. tone, display or announcement.

If further information. such as a personal identification number (PIN), is required, it should follow after the card is read.

Comment:

A card may or may not be retained by the terminal during some or all of a call set-up and connection.

The procedure for dealing with an apparently invalid card is not within CCITT areas of responsibility.

2.4   *Step 4: dial number*

Recommended:

After verification, the required number can be dialled.

If the terminal has a display, it should not display the PIN or other personal access digits.

Preferred:

Step 4 may precede Step 3, but the order given here is preferred.

2.5   *Step 5: conversation or failure of call attempt*

Recommended:

If the card is about to expire, the customer should be given a warning (e.g. tone, display) and reasonable time (minimum 10 seconds) to either terminate the call or to insert an appropriate means of payment.

2.6   *Step 6: termination*

Recommended:

Replacing the handset terminates the call.

Comment:

Where technically possible, when a credit card is used, the call value or cost could be displayed.

If the cardphone has a "next call" feature, its operation terminates a current call without the need to present a means of payment again. The remaining value of a prepaid card should be displayed.

2.7   *Step 7: retrieval of card*

Recommended:

If a card is retained by a terminal during a call, the terminal should automatically eject the card when the handset is   replaced. In the case of special equipment, going on-hook is the equivalent step.

Preferred:

If a card leaves the user's hand during the payment procedure, a method of reminding the user to remove the card   should be provided.

Comment:

A prepaid card should carry some indication of the remaining value on the card itself.

Note – A tabular summary and an SDL description of the procedure are contained in Annex A. The SDL diagram is provided as reference for further study and is not a complete description of the operating procedures. For example, differences in the status found in the tabular summary, i.e. under the headings "Recommended", "Preferred" and "Comment", are not stated in the SDL diagram.

3   Glossary of terms

prepaid card

A card carrying a set amount of unit or monetary value that can be used for telephone purposes. The card is decremented based on use and can be either thrown away or re-valued, depending on the technological attributes of the card.
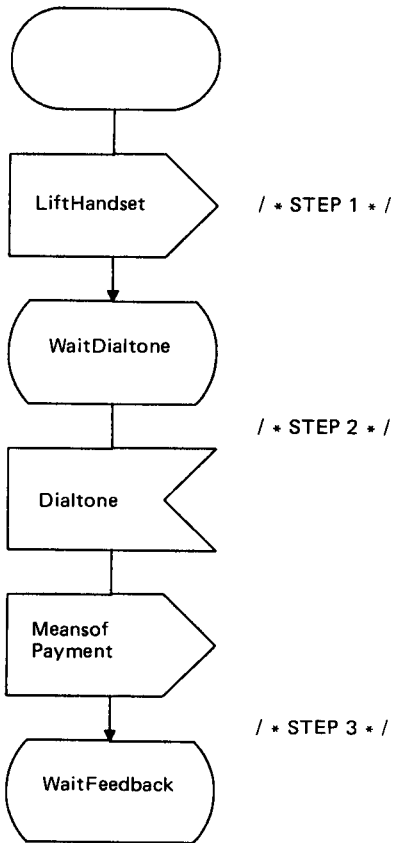
ANNEX A

(to Recommendation E.133)

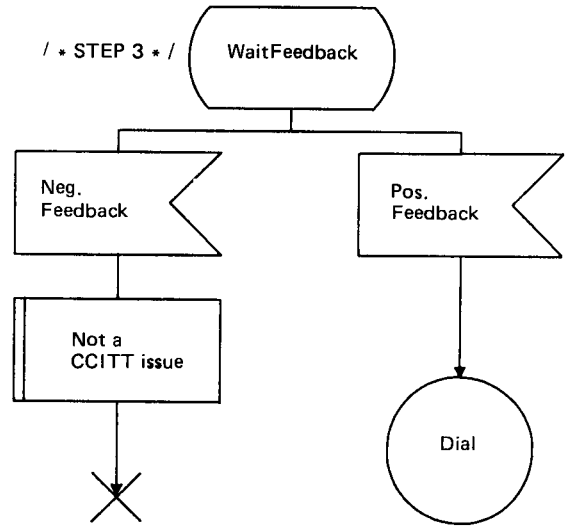**Human factors cardphone operating procedures
tabular summary**

Steps	User action	User options	System reaction	System options	Status
1	Lift handset	With loud speaking telephone, going off hook is equivalent			Comment
2	Await signal to pay		Dial tone should precede payment		Preferred
				This step may follow step 3	Comment
				Signal may be dial tone, display or other	Comment
3	Present means of payment	If used as coin phone, payment should be made at this step			Recommended
			Remaining value of prepaid card should be displayed to the customer		Recommended
			Customer should be given confirmation of successful card read		Recommended
				If PIN is required it should be input after the card is read	Recommended
				Card may or may not be retained during part or all of call	Comment
				Reaction to invalid card handing procedures is up to Administrations	Comment
4	Dial number			If PIN or personal access digits are required, they should not be displayed	Recommended
				Step 4 may precede step 3 but the order given here is preferred (e.g. restricted use cards)	Preferred

Steps	User action	User options	System reaction	System options	Status
5	Conversation or failure of call attempt	Customer should be given an opportunity to prolong the call	The system should give a warning and options in case of expiring means of payment		Recommended
6	Termination	Customer may be given the option of a next call feature	Replaced handset terminates call	Next call feature allows for sequence calling without presenting means of payment again	Recommmended Comment
			The value remaining on the prepaid card should be displayed		Recommended
			Customer could be shown value or cost of credit card call		Comment
7	Retrieval of card		If card is retained, terminal should automatically eject card at call completion		Recommended
			Customer should be reminded if card not removed from terminal at call completion		Preferred
			A prepaid card should carry some indication of the remaining value on the card itself		Comment

PROCESS UsageProcess

LiftHandset   / * STEP 1 * /

WaitDialtone

Dialtone   / * STEP 2 * /

Meansof
Payment

WaitFeedback   / * STEP 3 * /

PROCESS UsageProcess

Dial

/ * STEP 4 * /   Number

/ * STEP 5 * /   Calling

Replace
Handset

WaitRem
Value

/ * STEP 6 * /   Value

WaitMeans
OfPayment

/ * STEP 3 * /   WaitFeedback

Neg.
Feedback   Pos.
                          Feedback

Not a
CCITT issue

                          Dial

WaitMeans
OfPayment

/ * STEP 7 * /   MeansOf
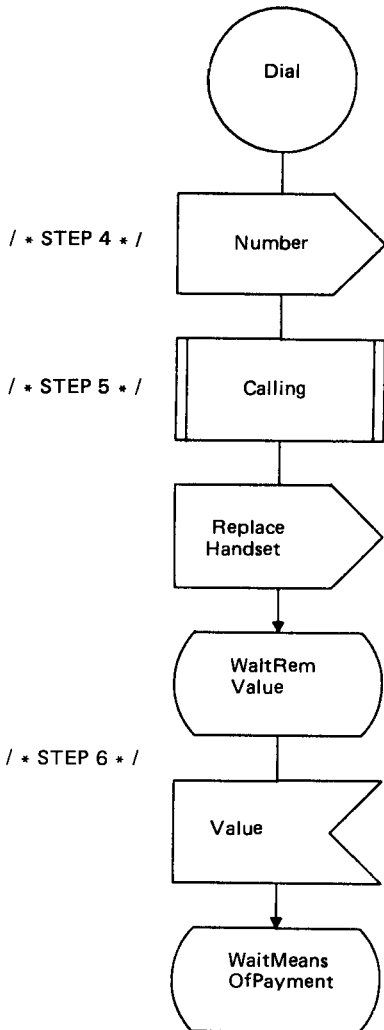   Payment

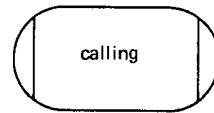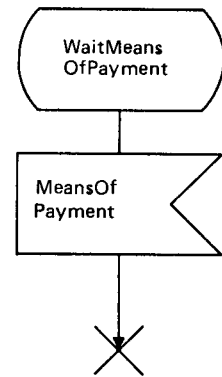calling   T0201290-88

FIGURE A-1/E.133

SDL representation of card phone operating procedures