



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**I.220**

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN)  
SERVICE CAPABILITIES**

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**COMMON DYNAMIC DESCRIPTION OF BASIC  
TELECOMMUNICATION SERVICES**

**ITU-T Recommendation I.220**

(Extract from the *Blue Book*)

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## NOTES

1 ITU-T Recommendation I.220 was published in Fascicle III.7 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.

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## **Recommendation I.220**

### **COMMON DYNAMIC DESCRIPTION OF BASIC TELECOMMUNICATION SERVICES**

*(Melbourne, 1988)*

#### **1 Introduction**

This Recommendation provides the dynamic description of basic telecommunication services. The dynamic description for basic telecommunication services using the circuit-mode means of service establishment/disestablishment is provided in § 2. The packet-mode description is for further study.

The dynamic description shows the flow of events, and states within the service, in a time-sequenced format and identifies all possible actions relevant to the service as perceived by end-users.

Although the service is described from the end-user perspective it does not concern details of the human-to-machine interface itself. In addition, the service description considers the network as a single entity. For example, information flows between nodes within the network are not shown.

End-user perceptions of the service are shown in terms of "user/network" interactions. Internal network actions are included whenever they are or can be perceived by an end-user during the operation of the service, and as required by SDL drawing rules.

The terminology and the meaning of the "user/network" interactions are provided in Annex A. The means for developing dynamic descriptions, e.g. the SDL symbols and their usage, is further elaborated in Recommendation I.210.

*Note* - In the development of the circuit-mode dynamic description, the bearer services (speech, 3.1 kHz audio, unrestricted) and the teleservices (telephony, Teletex, Telefax 4, mixed-mode and Videotex) were considered. Others are for further study.

#### **2 Circuit-mode dynamic description of basic bearer services and teleservices**

See Annex A for terminology used in Figures 1/I.220 to 6/I.220.

In Figures 1/I.220 to 6/I.220, the following notes are common:

*Note 1* - This is an event which may occur at the S/T reference point and can be reflected at the user interface.

*Note 2* - This is an event which may occur at the S/T reference point but is not reflected at the user interface.

*Note 3* - In some networks this decision is optional, that is, multipoint operation is assumed.

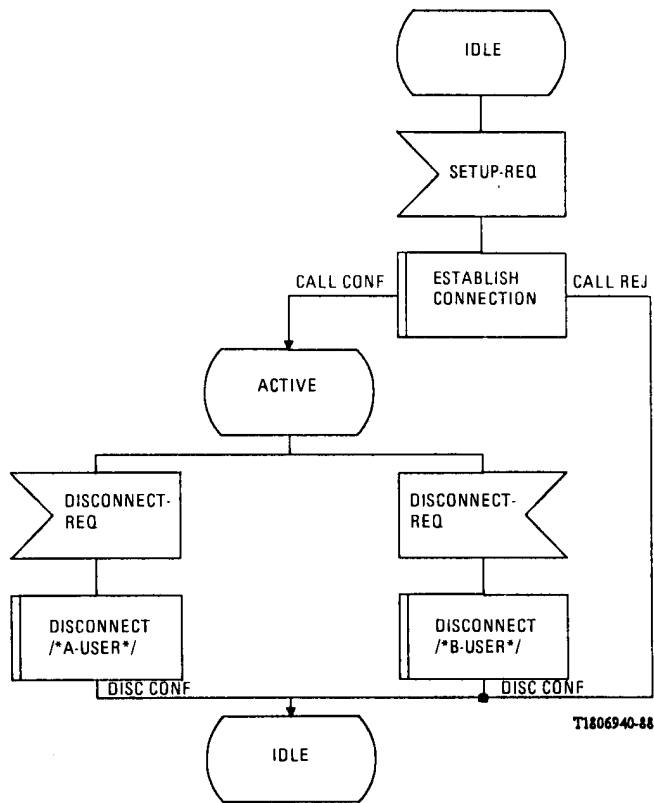


FIGURE 1/I.220  
Basic call process

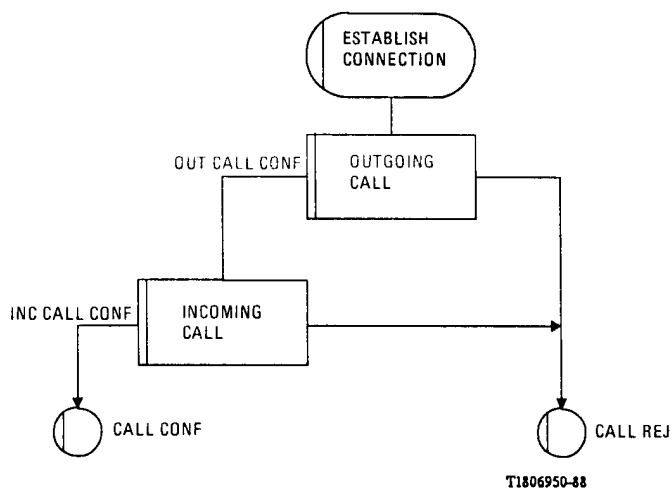
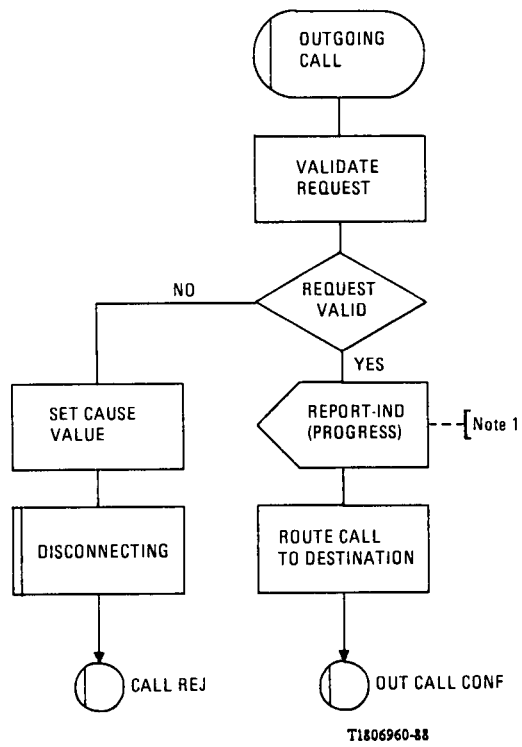


FIGURE 2/I.220  
Basic call process; macro definition:  
establish connection



Note 1 – For Note 1 see beginning of § 2.

FIGURE 3/I.220

Basic call process; macro definition:  
outgoing call

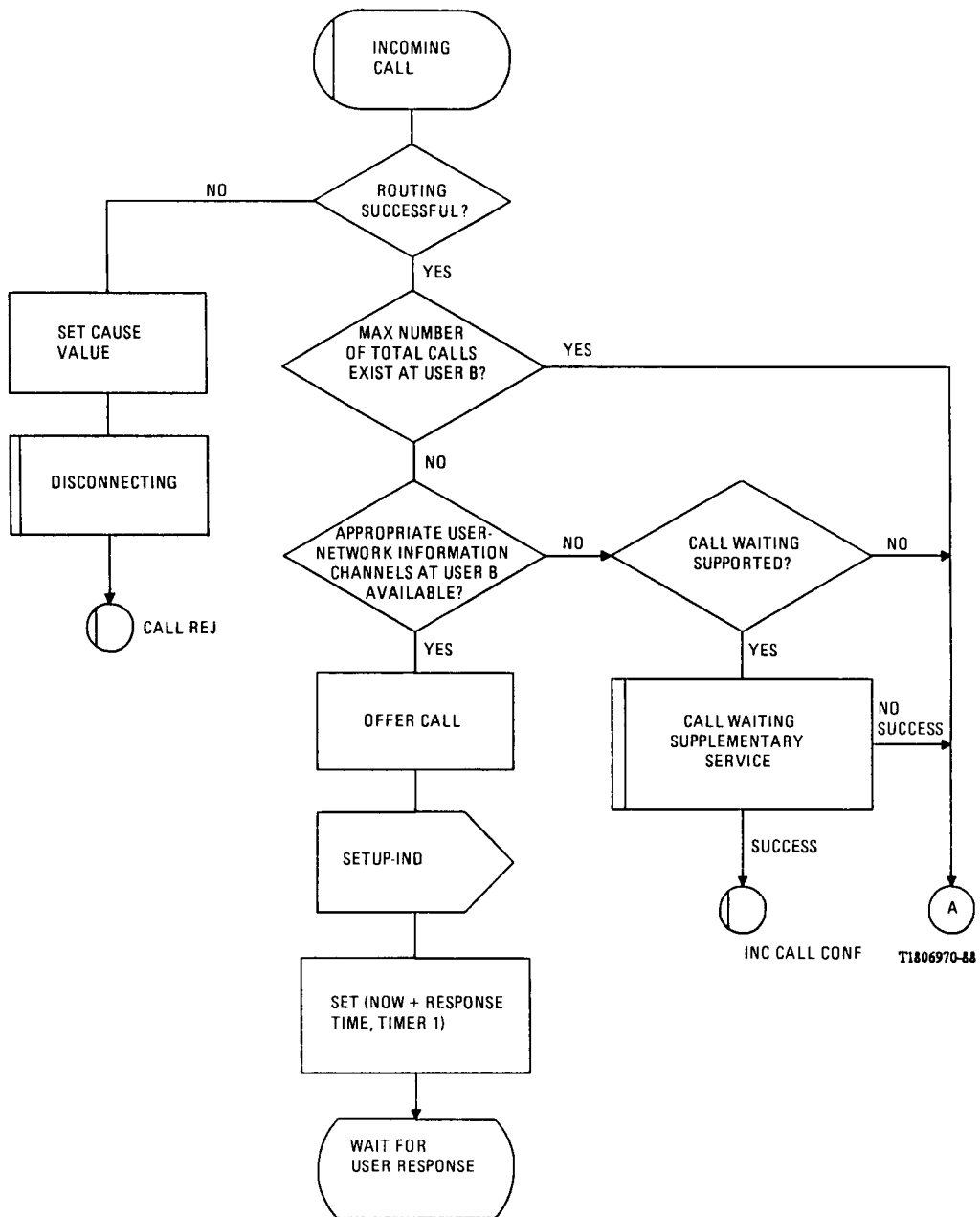
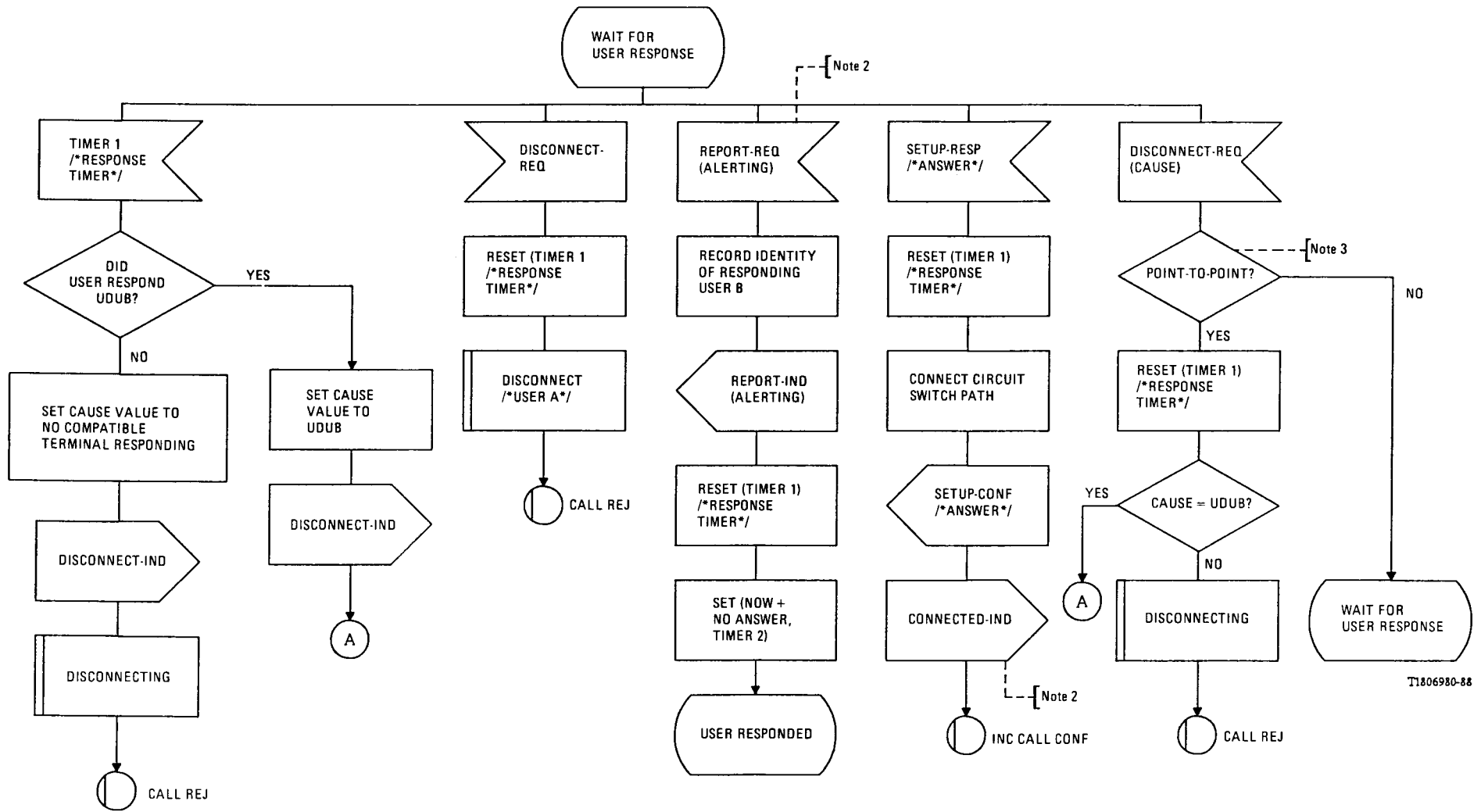


FIGURE 4/I.220 (sheet 1 of 4)

**Basic call process; macro definition:  
incoming call**



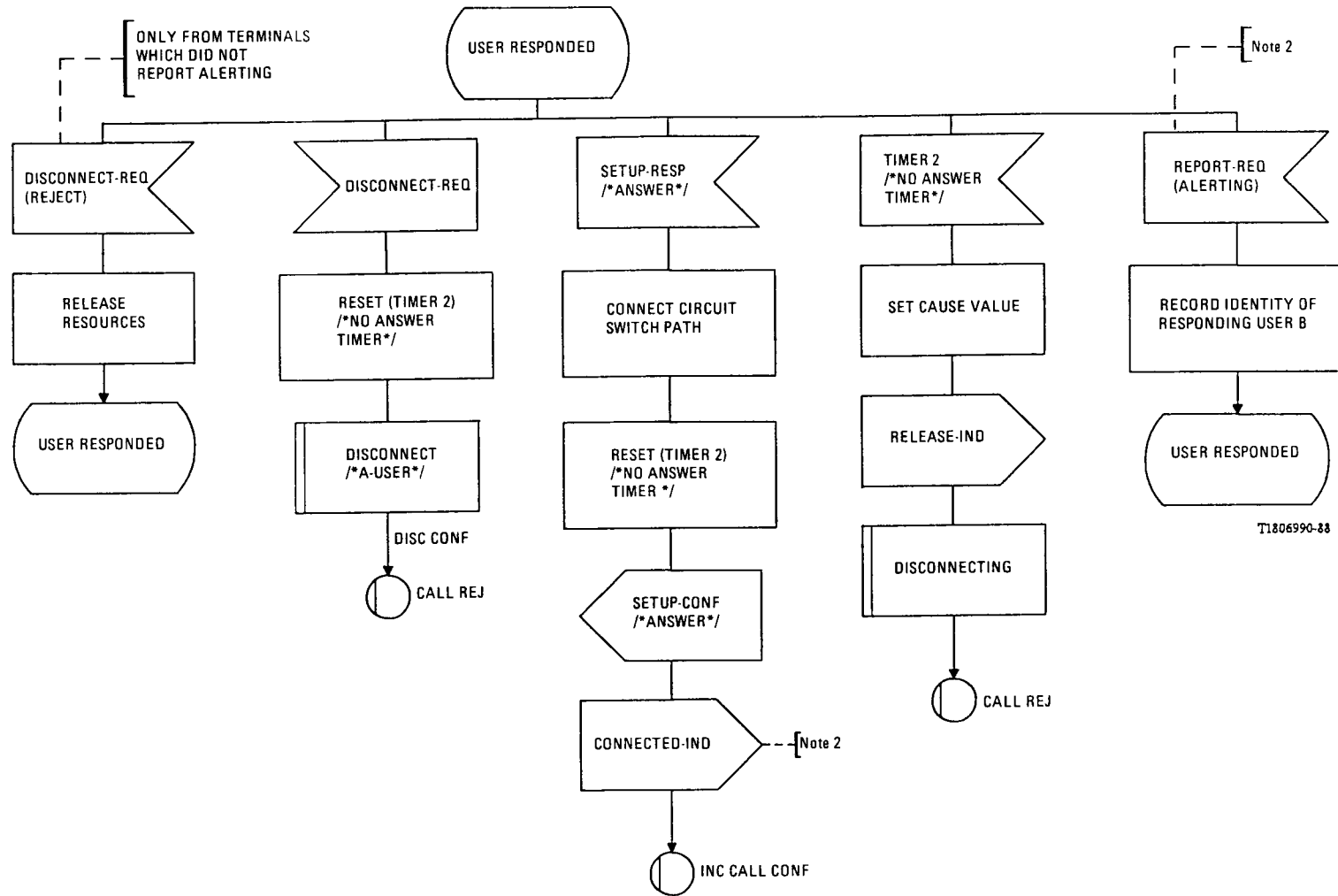
T1806980-88

Note 2 — For Note 2 see beginning of § 2.

Note 3 — For Note 3 see beginning of § 2.

FIGURE 4/I.220 (sheet 2 of 4)

Basic call process; macro definition: incoming call

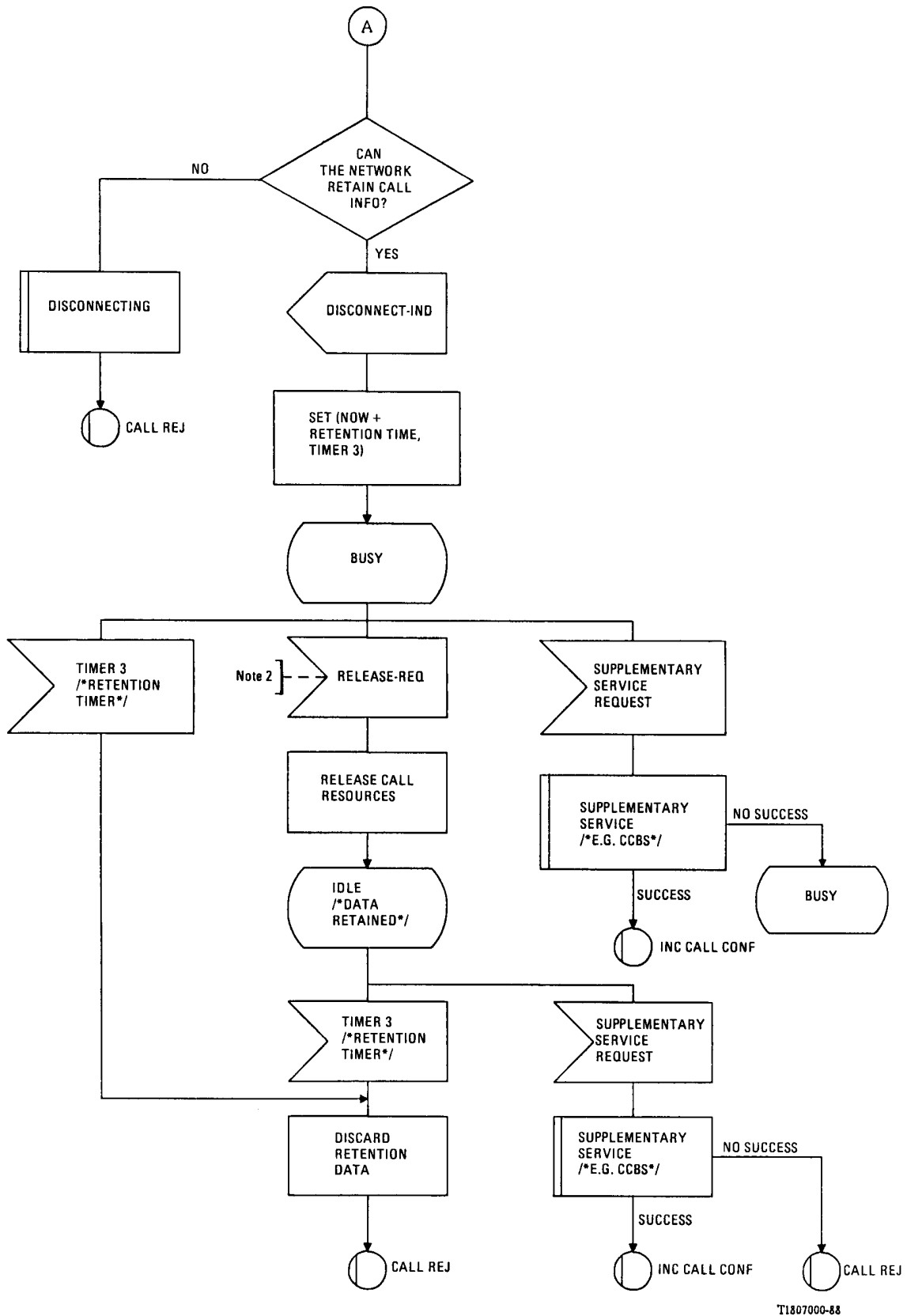


Note 2 — For Note 2 see beginning of § 2.

FIGURE 4/L.220 (sheet 3 of 4)

Basic call process; macro definition: incoming call





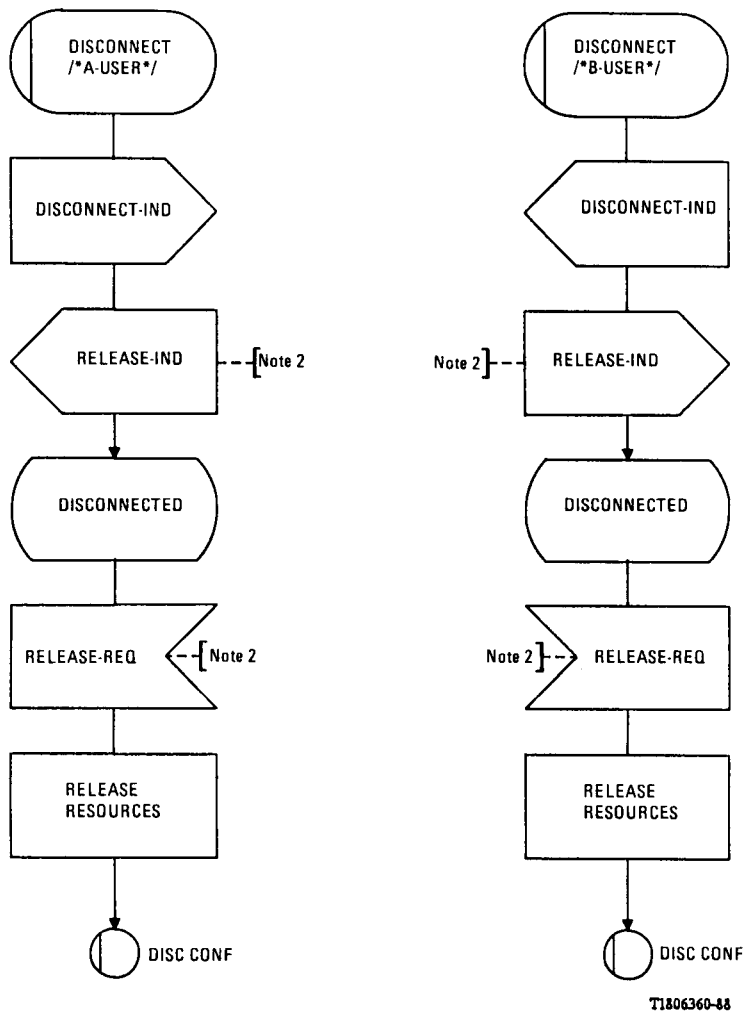
T1807000-88

CCBS Completion of call to busy subscriber

Note 2 - For Note 2 see beginning of § 2.

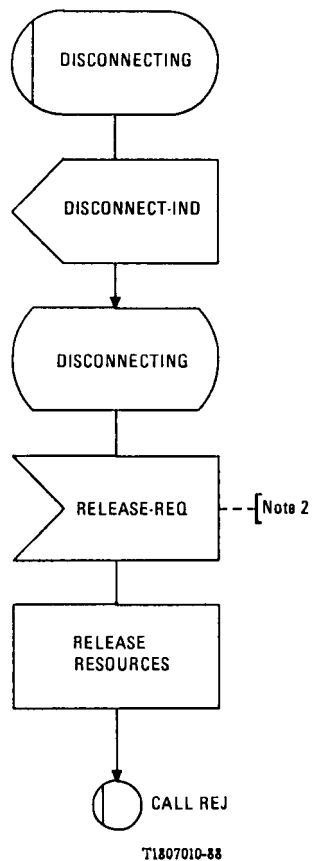
FIGURE 4/I.220 (sheet 4 of 4)

Basic call process; macro definition: incoming call



Note 2 - For Note 2 see beginning of § 2.

FIGURE 5/I.220  
**Basic call process; macro definitions:  
 disconnect/\*A-user\*/ and disconnect/\*B-user\*/**



Note 2 — For Note 2 see beginning of § 2.

FIGURE 6/I.220

**Basic call process; macro definition: disconnecting**

## ANNEX A

(to Recommendation I.220)

### Terminology for "user/network" interactions

SETUP	Interaction across the "user/network" interface regarding a service request.
REPORT	Interaction across the "user/network" interface regarding alerting of the user's terminal function, interworking with a non-ISDN network, or routing progress.
CONNECT	Interaction across the "user/network" interface regarding completion of circuit cut-through.
DISCONNECT	Interaction across the "user/network" interface regarding a user who has disconnected, or regarding a user A who cannot be connected (e.g. busy) to a user B.
RELEASE	Interaction across the "user/network" interface regarding freeing of resources associated with the call/connection, such as call references and channels.
NDUB	Network determined user busy.
UDUB	User determined user busy.