Figure C—9/Q.714 - T1115320-88

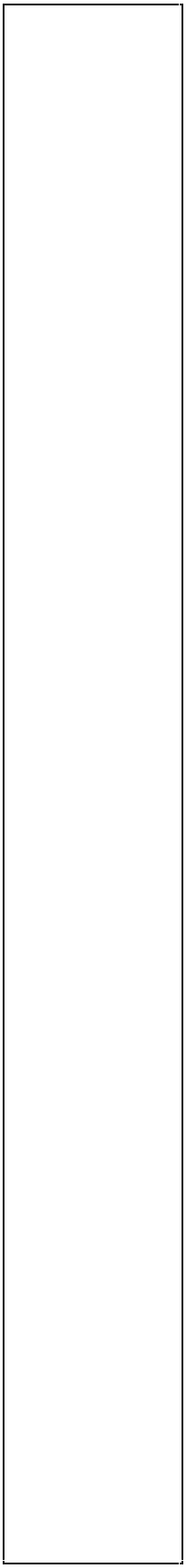


Figure C—10/Q.714 (sheet 1 of 4) - T1115330-88

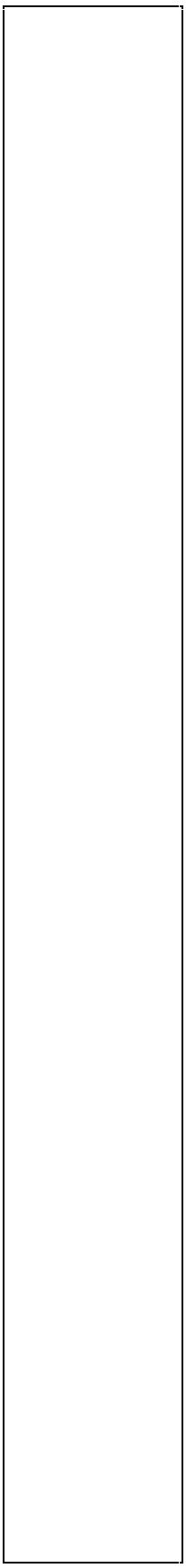


Figure C—10/Q.714 (sheet 2 of 4) - T1115340-88

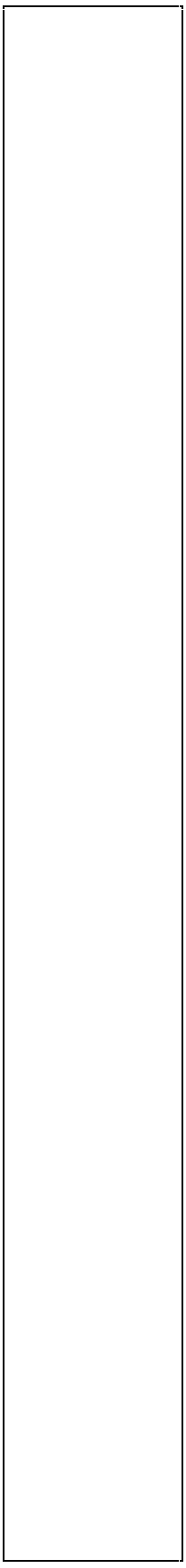


Figure C—10/Q.714 (sheet 3 of 4) - T1115350-88

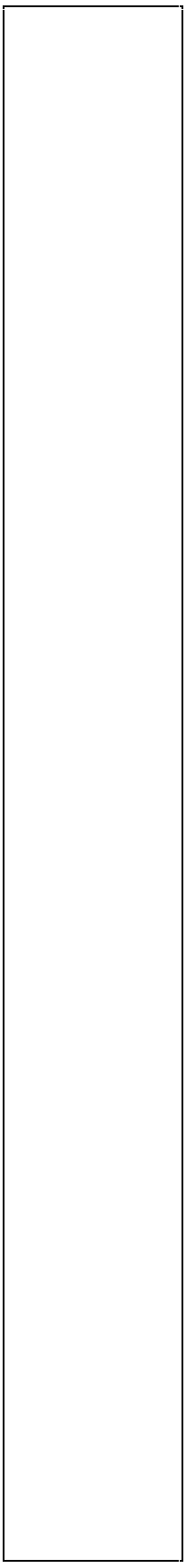


Figure C—10/Q.714 (sheet 4 of 4) - T1115360-88

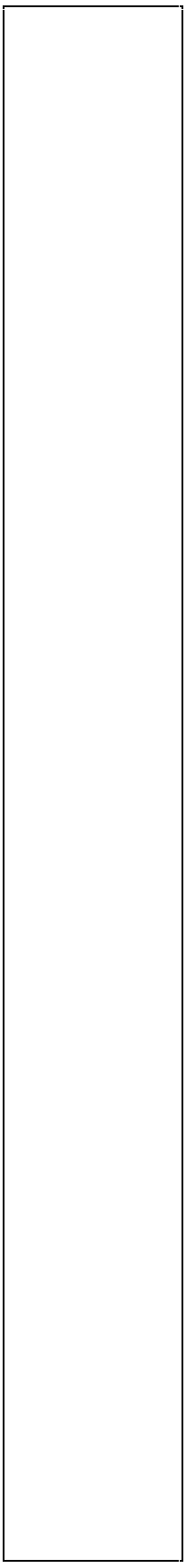


Figure C—11/Q.714 - T1115370-88

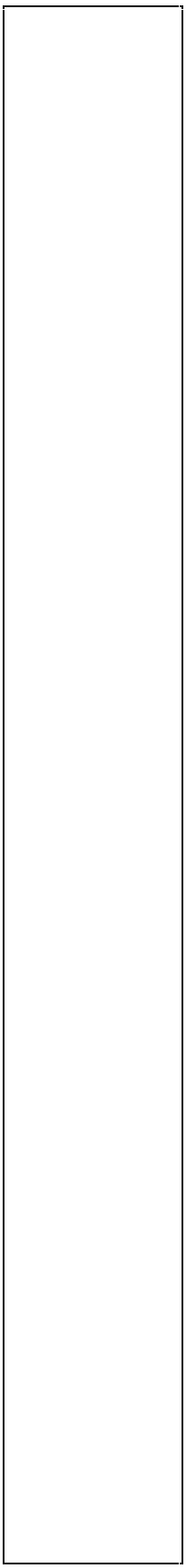
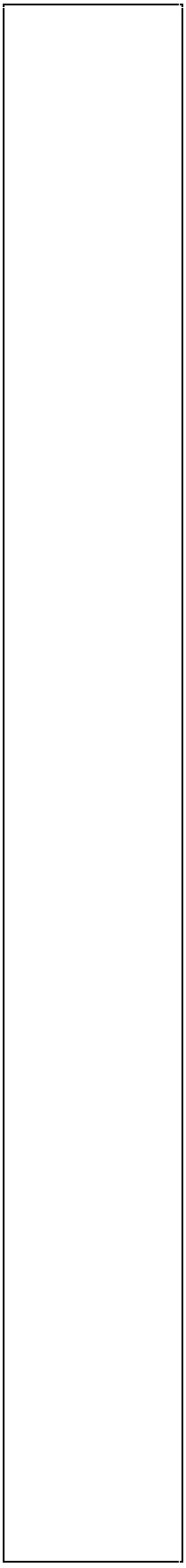


Figure C—12/Q.714 - T1115380-88



ANNEX D

(to Recommendation Q.714)

STATE TRANSITION DIAGRAMS (STD) FOR SCCP MANAGEMENT CONTROL

D.1 *General*

This Annex contains the description of the SCCP management (SCMG) function according to the CCITT Specification and Description Language (SDL).

For the SCCP management function, Figure D—1/Q.714 illustrates a subdivision into functional blocks, showing their functional interactions as well as the functional interactions with the other major functions (e.g. SCCP connectionless control (SCLC)). This is followed by Figures D—2/Q.714 to D—10/Q.714 showing state transition diagrams for each of the functional blocks.

The detailed functional breakdown shown in the following diagrams is intended to illustrate a reference model, and to assist interpretation of the text of the SCCP management procedures. The state transition diagrams are intended to show precisely the behaviour of the signalling system under normal and abnormal conditions as viewed from a remote location. It must be emphasized that the functional partitioning shown in the following diagrams is used only to facilitate understanding of the system behaviour, and is not intended to specify the functional partitioning to be adopted in a practical implementation of the signalling system.

D.2 *Drafting conventions*

Each major function is designated by its acronym (e.g. SCMG = SCCP management).

Each functional block is also designated by an acronym which identifies it (e.g. SSAC = Sub—System Allowed Control).

External inputs and outputs are used for interactions between different functional blocks. Included within each input and output symbol in the state transition diagrams are acronyms which identify the functional blocks which are the source and the destination of the message, e.g.:

SSAC → SSTC indicates that the message is sent from Sub—System Allowed Control to Sub—System Test Control.

Internal inputs and outputs are only used to indicate control of timers.

D.3 *Figures*

Figure D—1/Q.714 shows a subdivision of the SCCP management function (SCMG) into smaller functional blocks, and also shows the functional interactions between them. Each of these functional blocks is described in detail in a state transition diagram as follows:

a) Signalling Point Prohibited Control (SPPC) is shown in Figure D—2/Q.714;

b) Signalling Point Allowed Control (SPAC) is shown in Figure D—3/Q.714;

c) Signalling Point Congested Control (SPCC) is shown in Figure D—4/Q.714;

d) Sub—System Prohibited Control (SSPC) is shown in Figure D—5/Q.714;

e) Sub—System Allowed Control (SSAC) is shown in Figure D—6/Q.714;

f) Sub—System Status Test Control (SSTC) is shown in Figure D—7/Q.714;

g) Coordinated State Change Control (CSCC) is shown in Figure D—8/Q.714;

h) Local Broadcast (LBCS) is shown in Figure D—9/Q.714;

i) Broadcast (BCST) is shown in Figure D—10/Q.714.

D.4 *Abbreviations and timers*

Abbreviations and timers used in Figures D—1/Q.714 to D—10/Q.714 are listed below.

Abbreviations

BCST Broadcast

CSCC Cooordinated State Change Control

DPC Destination Point Code

LBCS Local Broadcast

MSG Message

MTP Message Transfer Part

SCCP Signalling Connection Control Part

SCLC SCCP Connectionless Control

SCMG SCCP Management

SCOC SCCP Connection—Oriented Control

SCRC SCCP Routing Control

SOG Sub—System Out of Service Grant

SOR Sub—System Out of Service Request

SP Signalling Point

SPAC Signalling Point Allowed Control

SPCC Signalling Point Congested Control

SPPC Signalling Point Prohibited Control

SS Sub—System

SSA Sub—System Allowed

SSAC Sub—System Allowed Control

SSP Sub—System Prohibited

SSPC Sub—System Prohibited Control

SST Sub—System Status Test

SSTC Sub—System Status Test Control

UIS User In Service

UOS User Out of Service

Timers

T(stat. info.) Delay between requests for sub—system status information

T(coord. chg.) Waiting for grant for sub—system to go out of service

T(ignore SST) Delay for sub—system between receiving grant to go out of service and actually going out of service

Figure D—1/Q.714 - T1115390-88

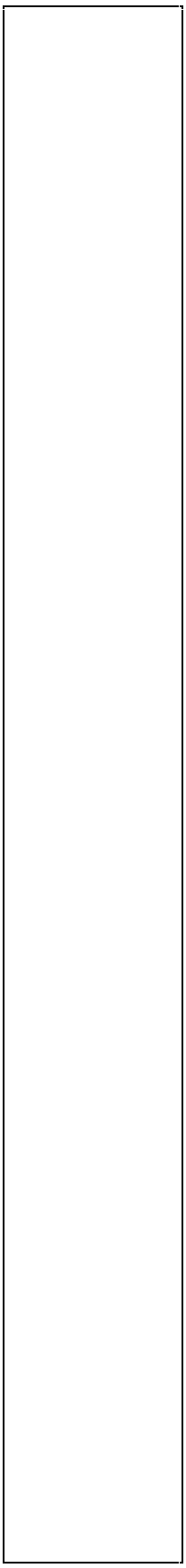


Figure D—2/Q.714 - T1115400-88

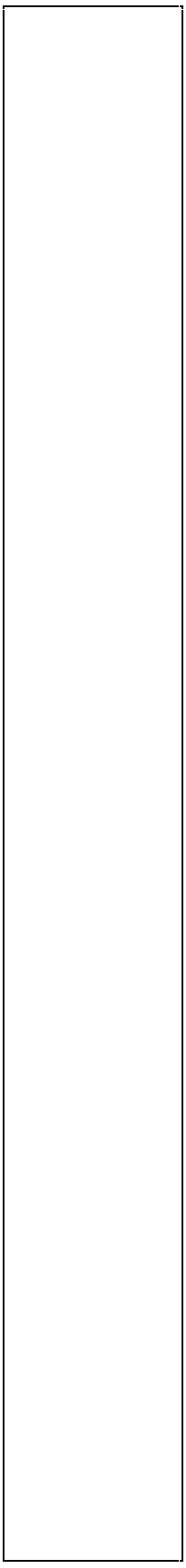


Figure D—3/Q.714 - T1115410-88

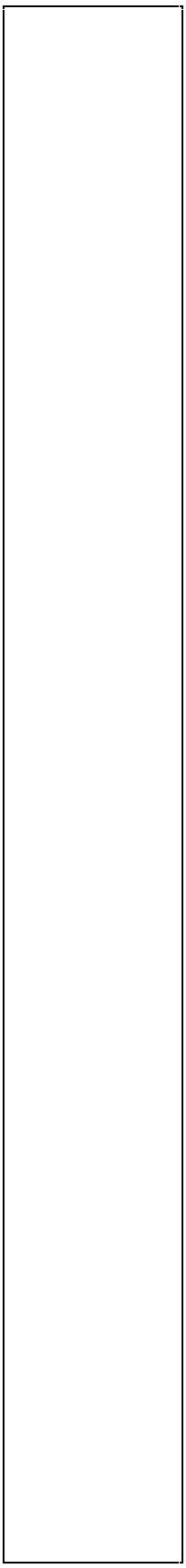


Figure D—4/Q.714 - T1115420-88

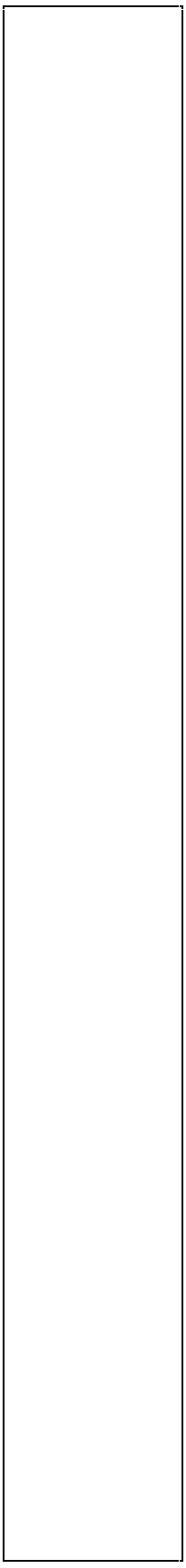


Figure D—5/Q.714 (sheet 1 of 2) - T1115430-88

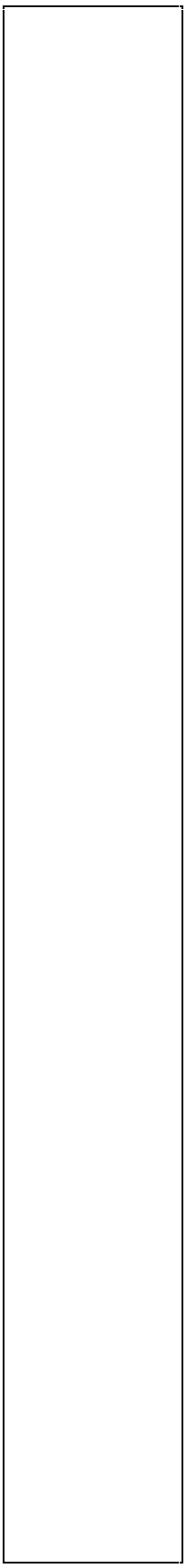
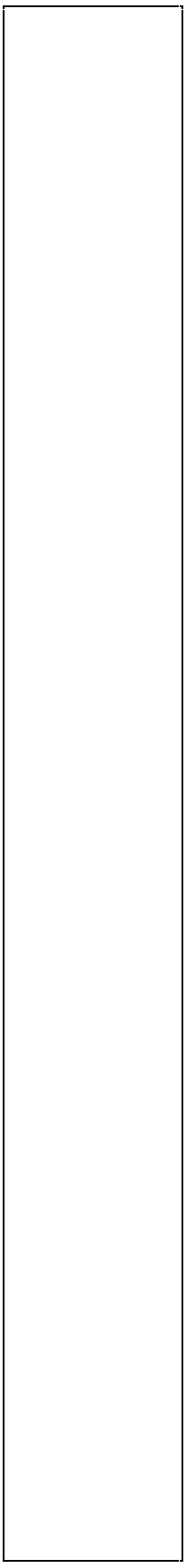


Figure D—5/Q.714 (sheet 2 of 2) - T1115440-88



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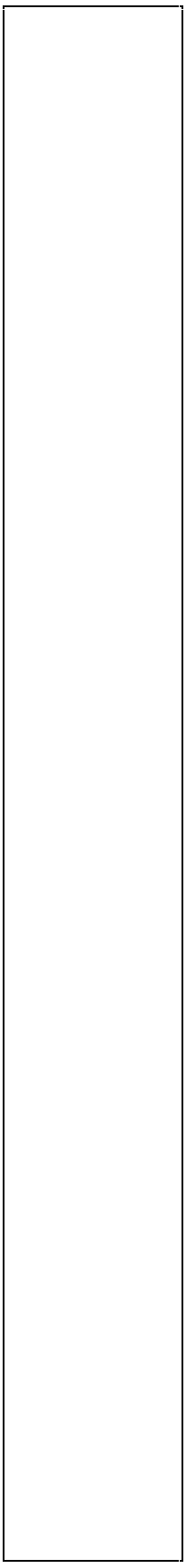
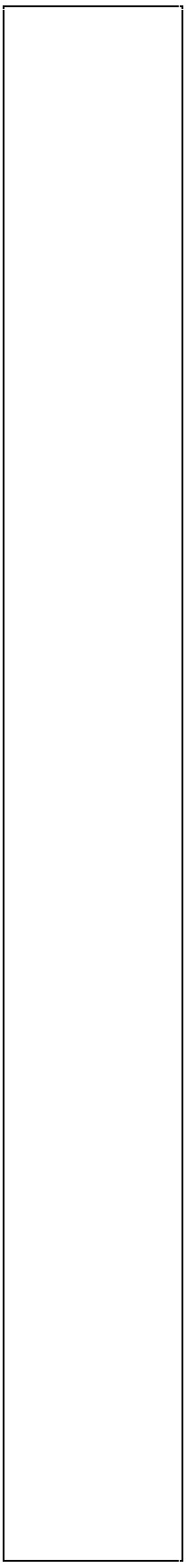


Figure D—6/Q.714 (sheet 2 of 2) - T1115460-88



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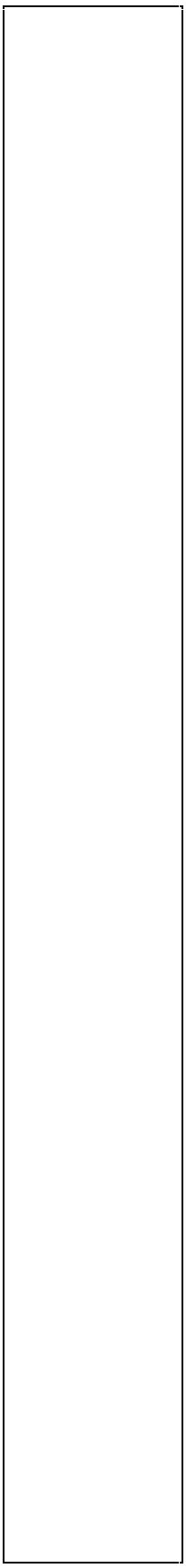
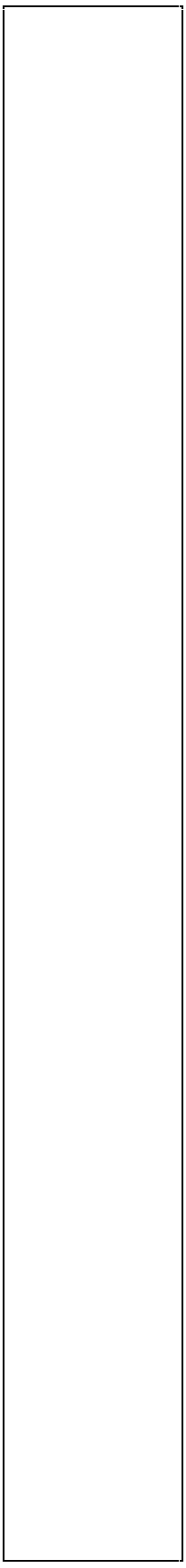


Figure D—8/Q.714 (sheet 1 of 2) - T1115480-88



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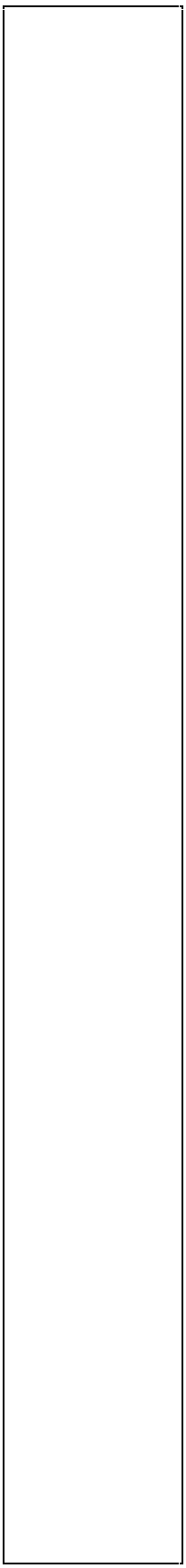

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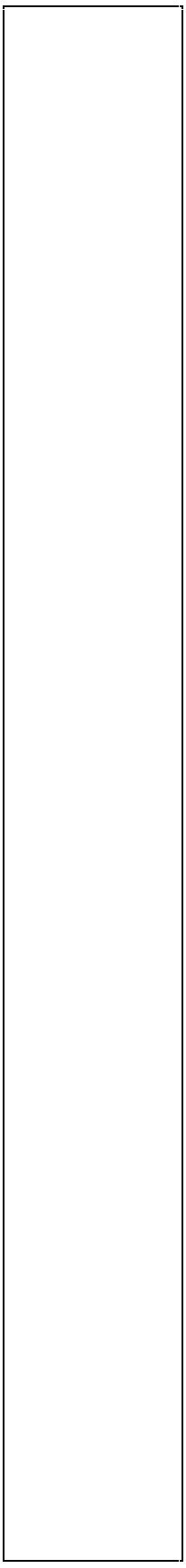

Figure D—9/Q.714 (sheet 2 of 2) - T1115510-88

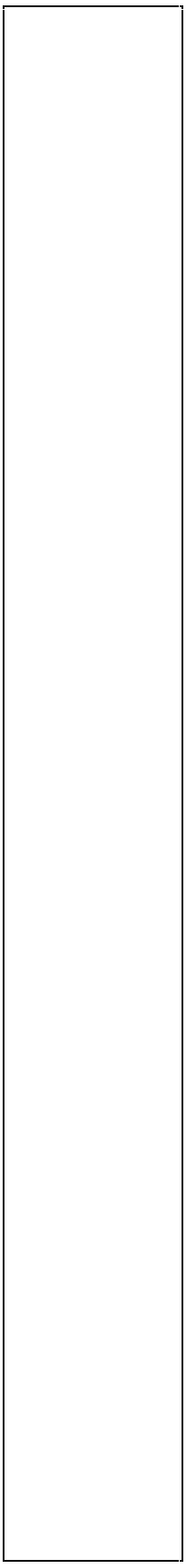

Figure D—10/Q.714 - T1115520-88