GRADED OR SPLIT MULTIPLE ROTARY TRUNK HUNTING CONNECTORS STEP-BY-STEP OFFICES

1. GENERAL

1.01 This section describes the modification of rotary trunk hunting connector multiple required to provide graded or split multiple for a subscriber trunk group. Rotary connector groups are used to give service to subscribers who require more than one line and who wish to have only one listed telephone number.

1.02 These rotary connector groups are composed of two or more shelves of rotary trunk hunting connectors, each connector in the group having access to the same hundred connector terminals.

1.03 The strapping between the hunting and sleeve leads of these connector terminals can be arranged so that any connector in the group will hunt over a maximum of ten consecutive terminals in one level in testing for an idle terminal before a busy tone is sent to the calling subscriber.

1.04 A subscriber's listed or pilot number is the number of the first terminal in the subscriber trunk group which may consist of two or more consecutive terminals in the pilot number level of the rotary connector multiple. The strapping between the hunting and sleeve leads of the terminals in these trunk groups is arranged so that any connector completing a call to the pilot number of a trunk group will hunt over all terminals in the pilot number level of the trunk group for an idle line before sending a busy tone to the calling subscriber.

1.05 When regular rotary hunting connector multiple is employed a subscriber having one listed pilot number may have a trunk group of ten terminals if ten consecutive terminals are available in the pilot number level. Where more than ten terminals are required in a single trunk group or where additional terminals are required for an existing trunk group and a sufficient number of consecutive terminals following the last terminal in this trunk group are not available, graded or split multiple must be provided.

2. DESCRIPTION

2.01 When a graded or split multiple is provided the multiple wiring of the terminals in the subscriber trunk group is modified to provide an individual trunk from one or more of the shelves of the rotary connector group to the subscriber's premises. The use of these individual or split trunks permits the number of trunks terminating at a subscriber's premises to be increased without making a corresponding increase in the number of consecutive connector terminals assigned to the pilot number level of his trunk group.

2.02 A split trunk is obtained by connecting a terminal in the subscriber trunk group in one shelf to a vacant terminal in the same rotary connector group of one hundred terminals and removing the multiple tie between this terminal of the subscriber trunk group and similar terminals in the other shelves. An examination of Chart "A" will show that an incoming call to split terminal 13 of shelf 2 will appear at the subscriber's station as a call on terminal 25. Furthermore this call will not busy terminal 13 in shelves 1 or 3 of this group.

2.03 The last terminal of each trunk group must be common to all shelves in the rotary connector group, therefore a maximum of nine additional trunks can be obtained by grading or splitting all the terminals in a shelf.

2.04 In a two-shelf rotary connector group the installation of split multiple will permit a subscriber trunk group of ten terminals to contain nineteen trunks. Each additional shelf in the rotary connector group will permit nine more trunks to be added to the subscriber trunk group.

3. REQUIREMENTS

3.01 The following requirements have been established for the use of graded or split multiple in rotary trunk hunting connector groups:

(a) The multiple terminals in the first shelf of each rotary group shall never be split.

(b) The last terminal in each subscriber trunk group shall never be split.

(c) The first split terminal shall be installed in the second shelf of a rotary group. When additional split terminals are required the same terminal in each of the remaining shelves of the rotary group shall be split until one terminal in each shelf has been split. Where more than one split terminal per shelf is required the second split terminal shall be installed in the second shelf of the rotary group, etc.

(d) Wherever possible the first split terminal is the pilot number of the subscriber trunk group. This is known as "splitting from the front."

(e) Wherever first choice terminals in a subscriber trunk group are required for listed number night connections, the first terminal not required for night connections is split. This is known as "splitting from the middle."

(f) Where more than one split terminal per shelf is required, consecutive terminals are split.

(g) The multiple of subscriber trunk groups whether regular or split, is always arranged so that a connector completing a call to the pilot number of a trunk group, will test all terminals in the pilot number level for an idle terminal before sending a busy tone to the calling subscriber.

(h) The strapping between the hunting and sleeve leads of the terminal to which a split terminal is tied is always arranged so that if a call is accidently completed to this terminal when it is busy the calling subscriber will receive a busy tone.

3.02 Charts A to D, inclusive, which form a part of this practice, illustrate some of the restrictions outlined above and indicate the wiring changes required when graded or split multiple is installed in a subscriber trunk group.

3.03 Detailed instructions for installing split multiple will be found in another section of this series.

CHART A

Graded or Split Multiple - Rotary Trunk Hunting Connectors
Cross-connection of connector terminals when assignments require splitting of the multiple.

Split from the "Middle"

Typical example of a PBX trunk group allowing two trunks common to all connector shelves for night connections

Pilot Number - 11. Total number of trunks to be included in rotary system - 15.
Terminal Numbers - 11, 12, 13, 14, 15, 16, 17, 18, 19, 10, 25, 26, 27, 28, 29.
Terminals split into the rotary system - 25, 26, 27, 28, 29.

Contacts split and arrangement of ties:
(13B split and tied to 25
(13C " " " " 26
(14B " " " " 27
(14C " " " " 28
(15B " " " " 29

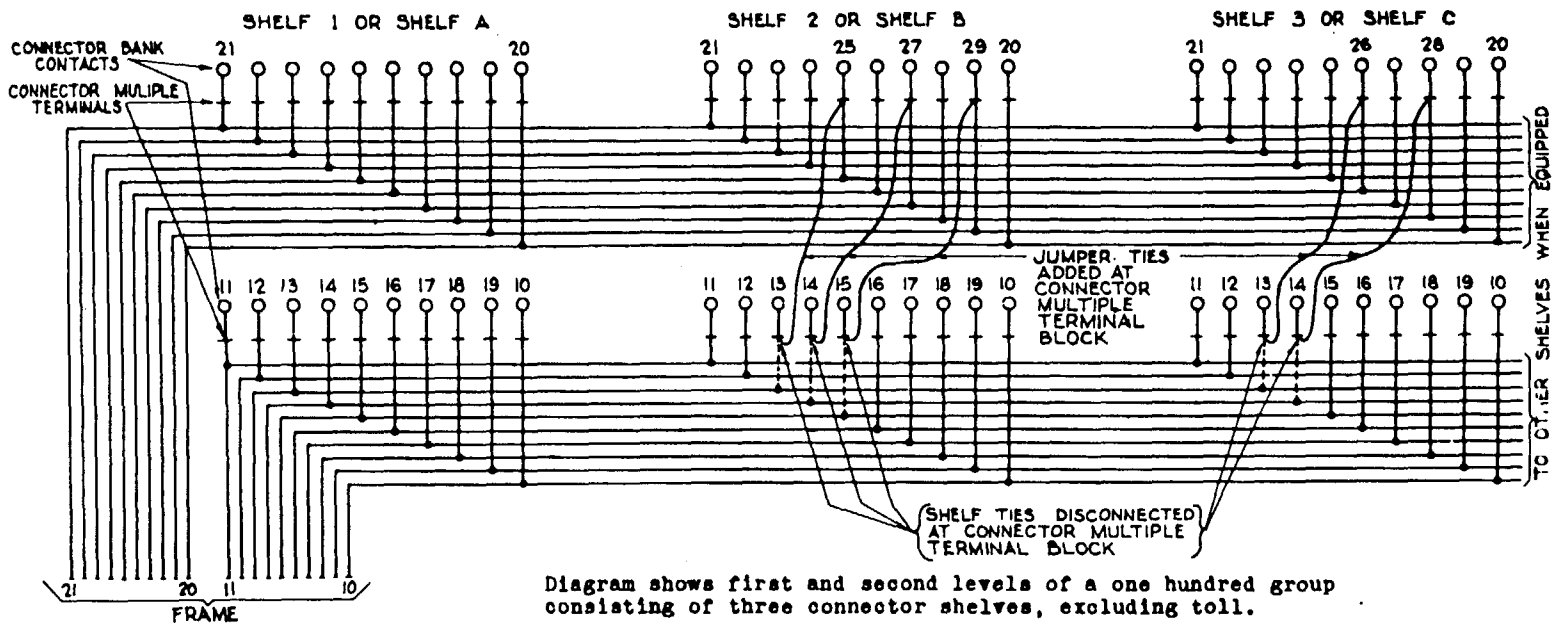
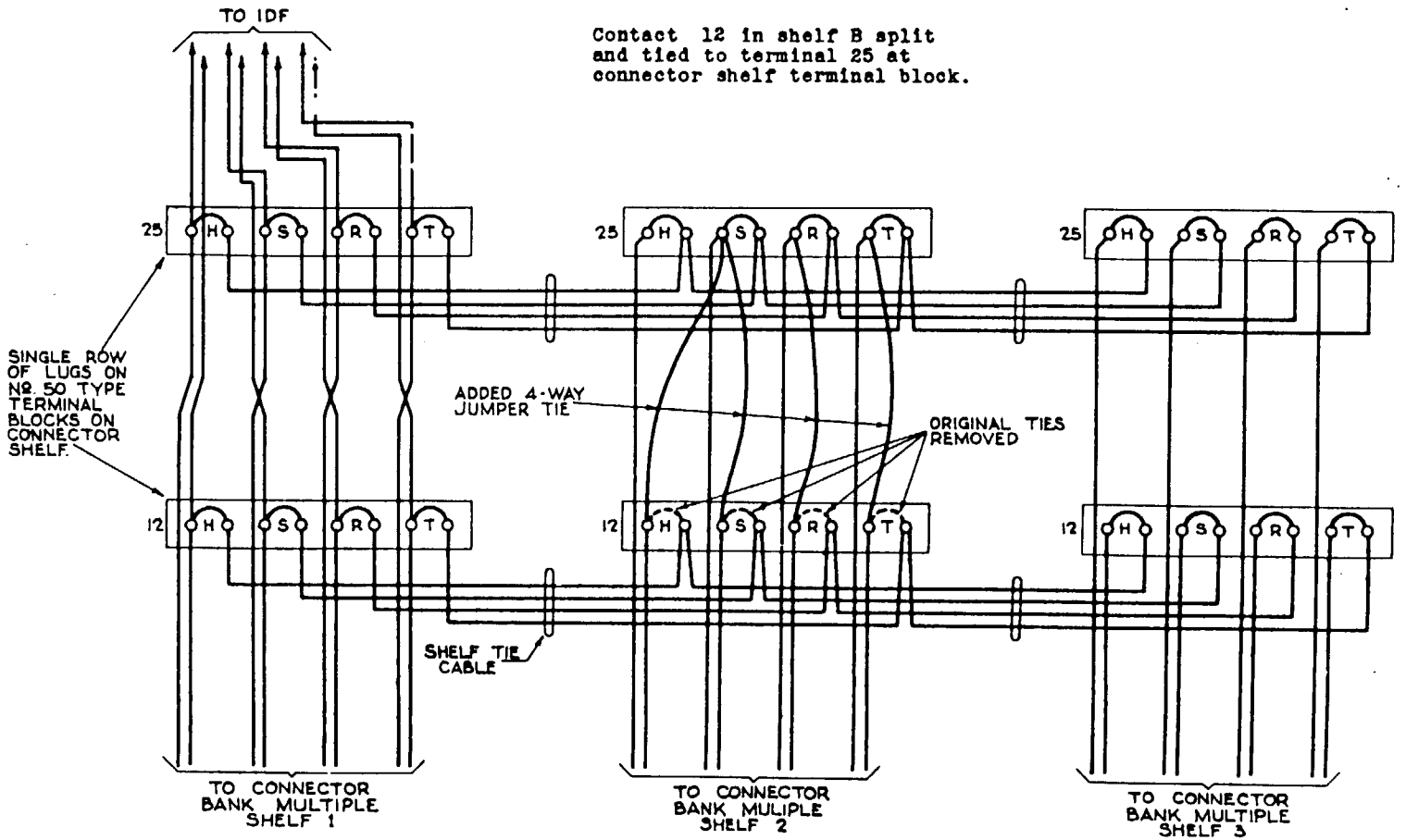


Diagram shows first and second levels of a one hundred group consisting of three connector shelves, excluding toll.

CHART B


TO IDF
Contact 12 in shelf B split and tied to terminal 25 at connector shelf terminal block.
25
H
S
R
T
12
SINGLE ROW OF LUGS ON NO. 50 TYPE TERMINAL BLOCKS ON CONNECTOR SHELF.
ADDED 4-WAY JUMPER TIE
ORIGINAL TIES REMOVED
SHELF TIE CABLE
TO CONNECTOR BANK MULTIPLE SHELF 1
TO CONNECTOR BANK MULIPLE SHELF 2
TO CONNECTOR BANK MULTIPLE SHELF 3

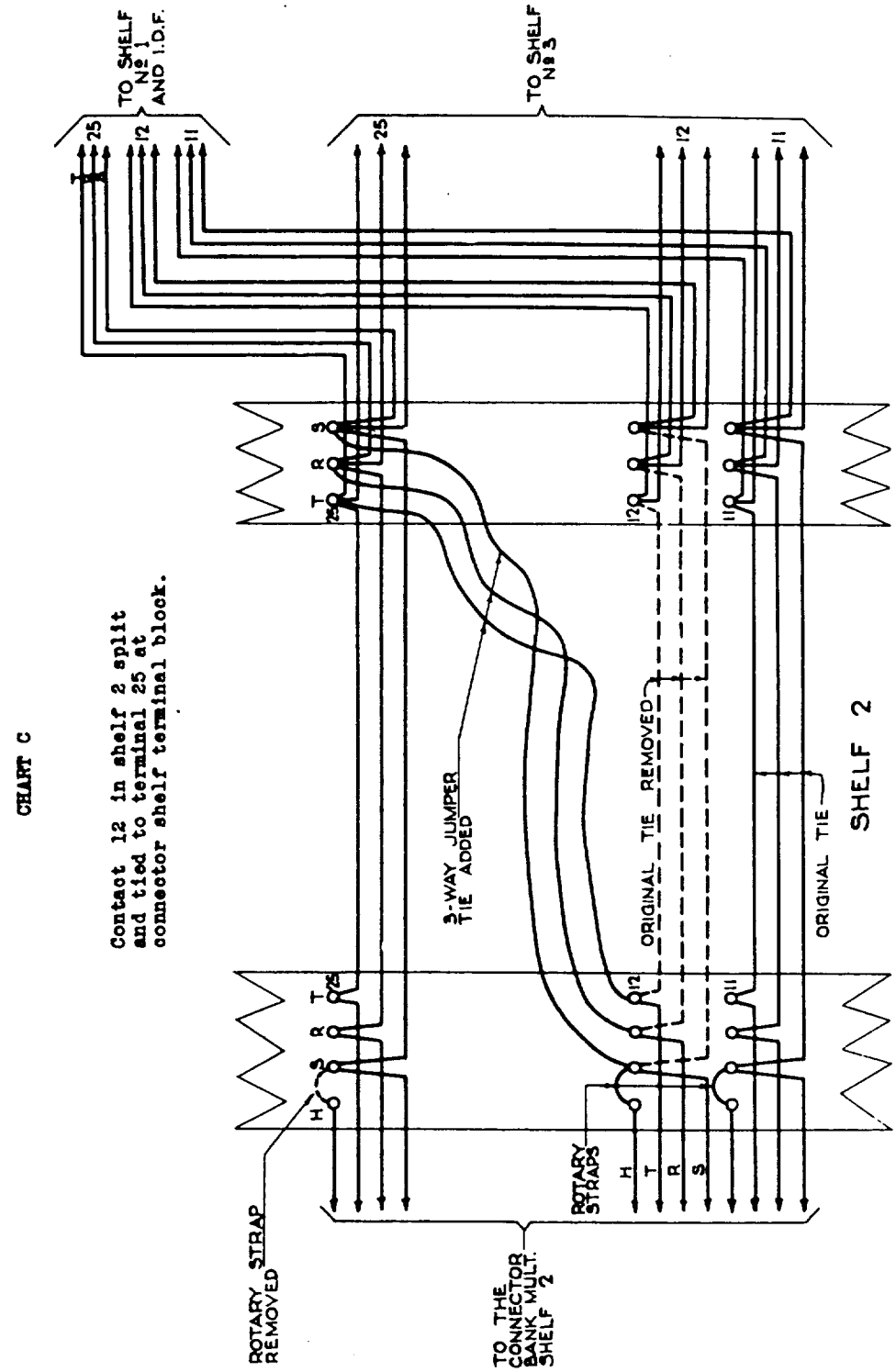
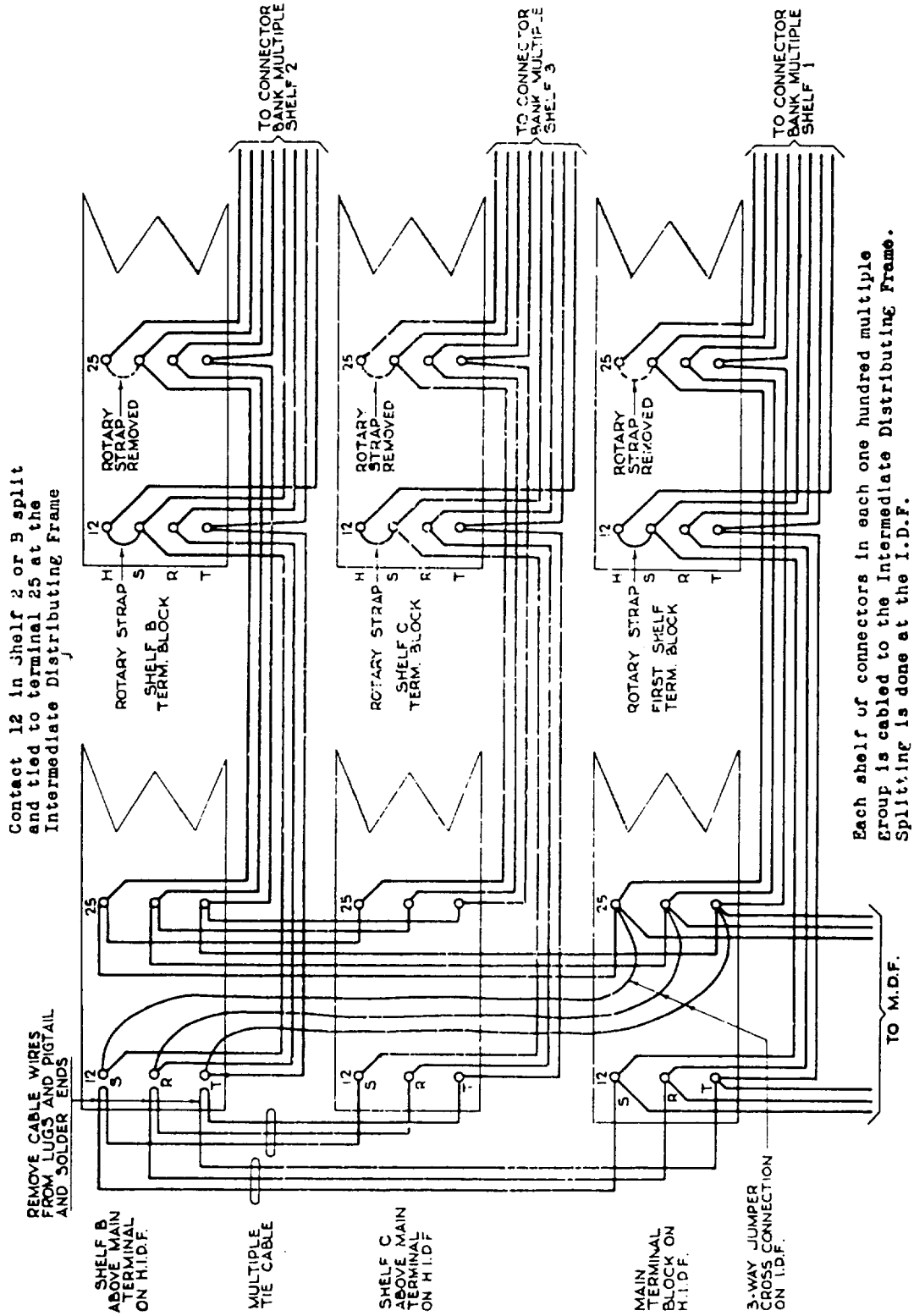


CHART C
Contact 12 in shelf 2 split and tied to terminal 25 at connector shelf terminal block.
TO SHELF Nº 1 AND I.D.F.
TO SHELF Nº 3
25
12
11
T
R
S
H
3-WAY JUMPER TIE ADDED
ORIGINAL TIE REMOVED
ORIGINAL TIE
SHELF 2
ROTARY STRAP REMOVED
ROTARY STRAPS
TO THE CONNECTOR BANK MULT. SHELF 2
Two 100 circuit bank terminal strips installed for each shelf where splitting is contemplated.

CHART D

Contact 12 in shelf 2 or 3 split and tied to terminal 25 at the Intermediate Distributing Frame



Each shelf of connectors in each one hundred multiple group is cabled to the Intermediate Distributing Frame. Splitting is done at the I.D.F.