KEY PULSING SENDER MULTIPLE CHANGES

CONTENTS

1. GENERAL

1.1 This section outlines the work associated with the addition of senders to and the rearrangement of the key pulsing sender multiple on the key pulsing sender link frame.

1.11 Since this frame and equipment is also used as a Coin Supervisory Link Frame, the work of this section may be considered as applying to the CSL frame by simply substituting this title to all reference of key pulsing sender link frame equipment.

1.2 A typical transition has been selected so as to show all the conditions usually found. Since each job varies and may not involve all of the problems outlined herein, this typical case should only be used as a guide.

1.3 Figure 1 lists the items that apply to Key pulsing sender multiple transition and their location.

Location	Item
K.P.S.L. Frame	Secondary Switches
" "	C Relay
" "	LL Chain
" "	Misc. Leads

FIG. 1 ITEMS ASSOCIATED WITH THE KEY PULSING SENDER MULTIPLE TRANSITION (Par. 1.3)

2. PLANNING WORK SHEETS

2.1 ID-485 is furnished to installers for the purpose of planning the multiple rearrangement. This work sheet is shown in Figure 4.

2.11 An example of a completed ID-485 form is illustrated in Figure 3.

2.12 The multiple rearrangement information is furnished in the job specification and key pulsing link wiring list.

2.2 ID-486 is furnished to the installer for the purpose of planning the C relay and LL chain wiring. This work sheet is illustrated in Figure 5.

2.21 The cabling of the switches is similar to that of the C relays.

2.22 The direction of the LL relay chains in the "A" group shall be from the lowest numbered frame to the highest. In the "B" group chains, it shall be the reverse. This will permit interconnection of corresponding "A" and "B" group chains on the first frame without affecting the direction of the LL relay chains.

2.23 An example of a completed ID-486 form is shown as Figure 6.

3. PRELIMINARY WORK

3.1 This work consists of erecting the new K.P. sender link frames, cabling and connecting of cables, local forms as far as practical, except at the working circuit end. All work required to make the additional K.P. senders, ready for connecting into service and available for transition purposes should be completed.

4. TRANSITION WORK

4.1 General

4.11 This procedure outlines the rearrangement of a key pulsing sender multiple having the following equipment changes -

EQUIPMENT	PRESENT	PROPOSED
KPSL FRAME	2	3
KP SDR SUBGRP	4	4
SEC.SW.APPEARANCE PER SDR SUBGRP	4	6
KP SDR PER SUBGRP	3	5

4.12 Refer to Figures 3 and 6 for composite old and new arrangements of this transition.

4.13 Make busy all new senders and hold them busy, excepting as may be required during the test period.

4.2 Connect New Senders

4.21 Make busy K.P. sender sub-group 0.

4.22 Connect the new sender cable leads at the secondary switch as specified for this sub-group.

4.23 Modify the wiring of the S and SB relays at the miscellaneous frame so as to include the new senders to sub-group 0.

4.24 Connect the wiring at the C relays as specified for the new senders of sub-group 0.

4.3 Extend Sender Subgroup to New Link Frame

4.31 Modify the LL relay chain circuit so as to include the new secondary switch appearances on the A and B links for subgroup 0 as specified.

NOTE: It is expected that the SG, SS and LL leads from the LL relays to the control circuits were connected in advance during the preliminary work.

4.4 Test of Sender Subgroup

4.41 Test sender subgroup 0, remove the busy condition from the subgroup and the associated new senders and return it to service.

4.42 Repeat the work of Paragraphs 4.2, 4.3 and 4.4 on all remaining sender subgroups.

5. CLEAN-UP WORK

5.1 This work includes the removal and disposition of wiring and cable no longer required at the completion of the transition work.

➔ Arrowed lines indicate new or changed information.

6. SEQUENCE CHART

6.1 Figure 2 provides a sequence chart of the transition operation.

OPERATION	SEQUENCE
Make busy sender subgroup	
Connect new sender cable leads	
Modify S & SB relay wiring	
Extend C relay wiring to new link frame	
Modify LL relay chain circuit	
Test the sender subgroup	
Restore sender subgroup to service	

FIG. 2 SEQUENCE CHART
(Par. 6.1)

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ATTACHMENT

Figures 3, 4, 5 and 6.

Reason for Reissue:
To clarify Paragraph 2.22 and Figure 6.

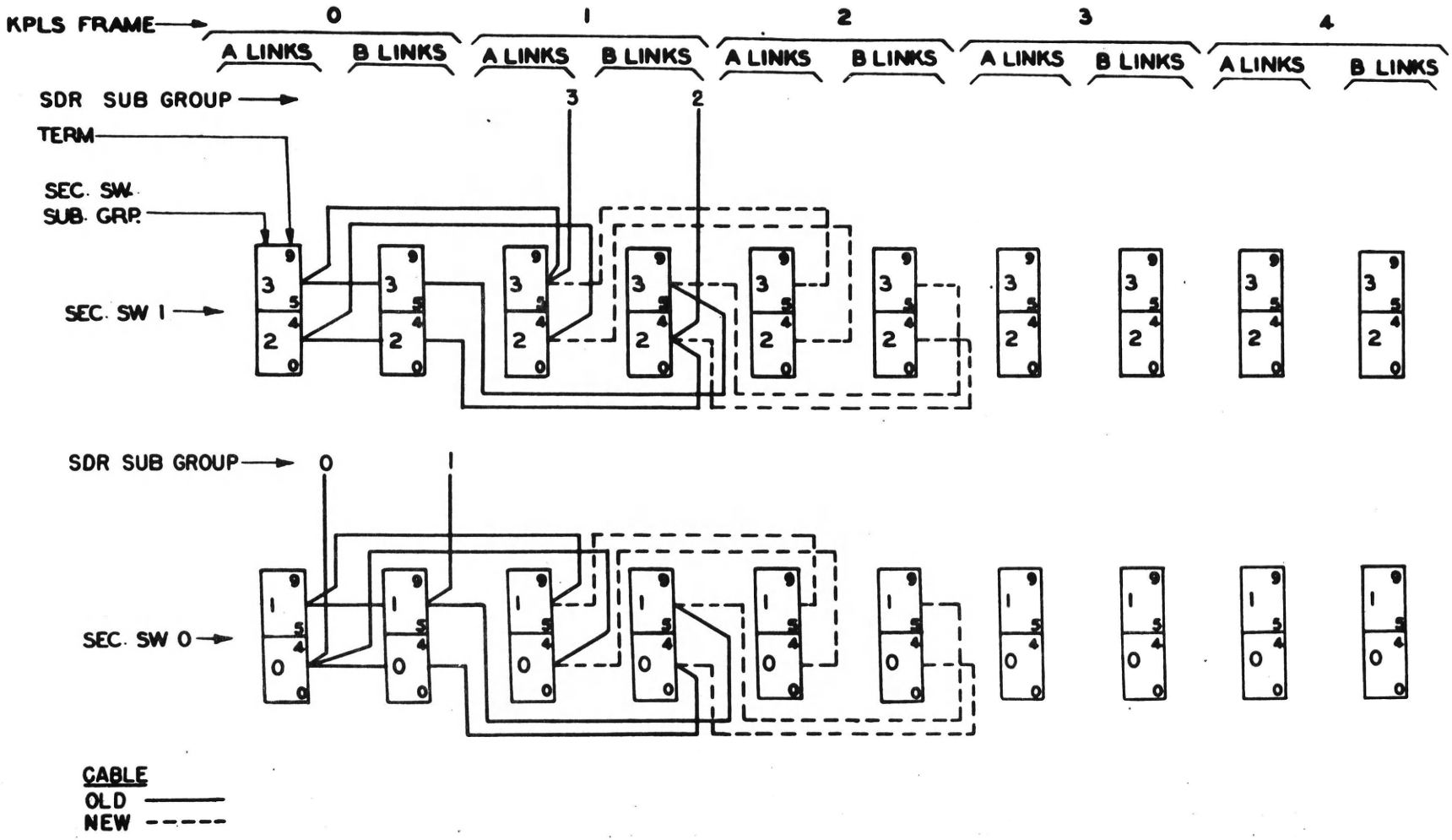


FIG. 3 TYPICAL COMPOSITE ARRANGEMENT OF OLD AND NEW K.P. SENDER MULTIPLE.

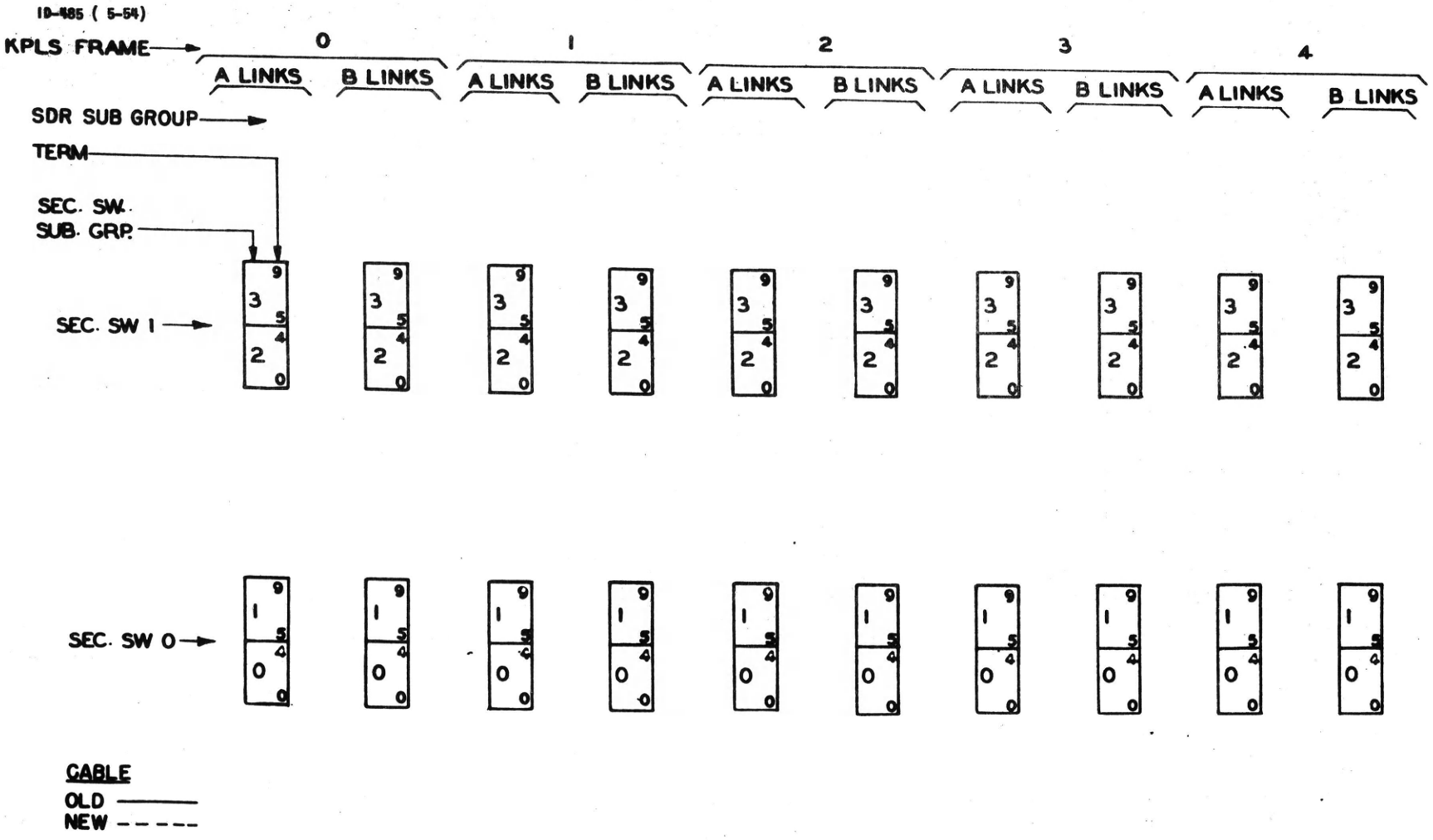
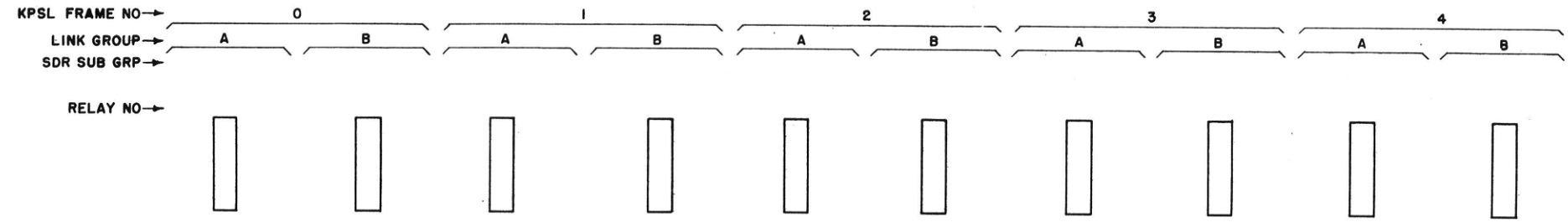


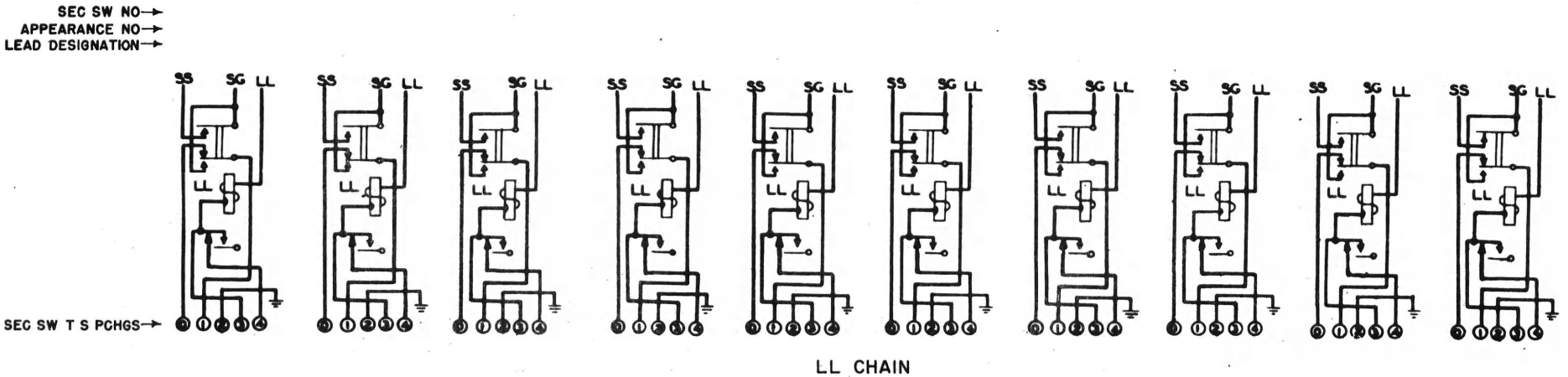
FIG. 4 WORK SHEET FOR SHOWING OLD AND NEW K.P. SENDER MULTIPLE.

ID-486 (5-54)

SUB GROUP

C RELAYS



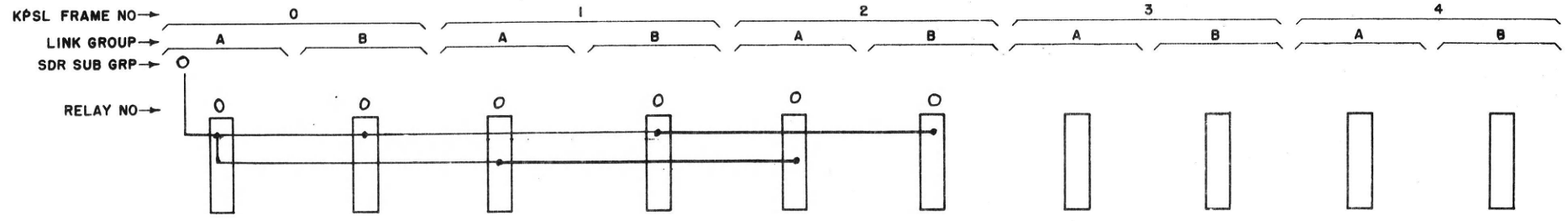


LL CHAIN

FIG. 5 WORK SHEET C AND LL RELAY CHAIN WIRING

SUB GROUP O

C RELAYS



LL CHAIN

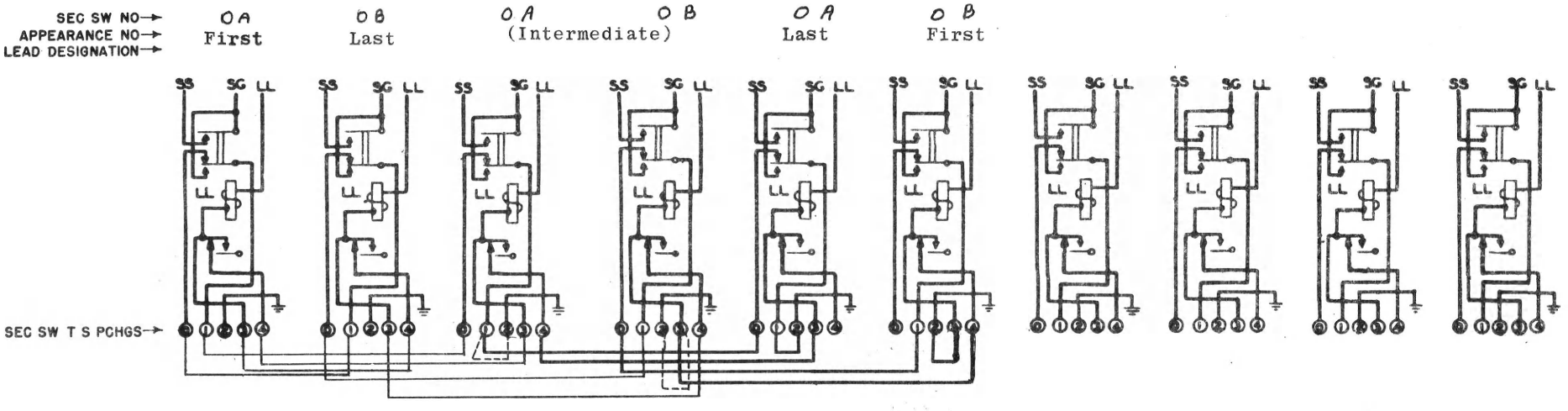


FIG. 6 TYPICAL COMPOSITE ARRANGEMENT OF OLD AND NEW C AND LL RELAY WIRING

------REMOVE
——INSTALL
——REMAINS AS IS