

ROYAL CANADIAN AIR FORCE

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LIST OF SPECIAL INFORMATION

BATTERIES - GENERAL

(This EO replaces EO 40-5-5A dated 21 Nov 56)

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

LIST OF RCAF REVISIONS

DATE

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* 8 Jul 57	/3	Repair of Loose Battery Terminals Exide 6GT-13 Type K1.
*23 Aug 57	/4	AN3150-2 Batteries Installed on CF-100 and F86 Aircraft New 50 CM of Mercury Pressure Vent Plugs

^{*} Asterisks appearing opposite entries denote changes since last issue.

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SPECIAL INFORMATION

INSTALLATION OF TUBING ON BATTERY HYDROMETER

INFORMATION

The present battery hydrometer RCAF Ref. 5J/28 has been found unsatisfactory in the testing of AR12-25 and AR12-36 Willard batteries. These batteries have smaller diameter filler wells which prevent the Edelman 40B type hydrometer from being used. To obviate this condition a 5" piece of tubing can be inserted into the hydrometer tip to facilitate the testing of these batteries.

INSTRUCTION

A 5" piece of 1/8" diameter plastic, hard rubber or bakelite tubing or the plastic covering from line communication wire RCAF Ref. 5E/404 may be used for this installation, see Figure 1 for a general view.

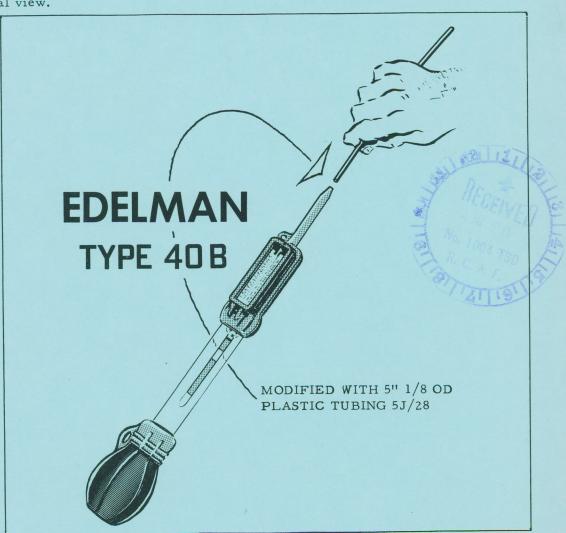


Figure 1

SPECIAL INFORMATION

INSTALLATION OF TUBING ON BATTERY HYDROMETER

INFORMATION

The present battery hydrometer RCAF Ref. 51/28 has been found unsatisfactory in the testing of AR12-25 and AR12-36 Willard batteries. These batteries have smaller diameter filler wells which prevent the Edelman 40B type hydrometer from being used. To obviate this condition a 5" piece of tubing can be inserted into the hydrometer tip to facilitate the testing of these batteries.

INSTRUCTION

2. A 5" piece of 1/8" diameter plastic, hard rubber or bakelite tubing or the plastic covering from line communication wire RCAF Ref. 5E/404 may be used for this installation, see Figure 1 for a general view.



Figure

ROYAL CANADIAN AIR FORCE SPECIAL INFORMATION SPECIAL INFORMATION BRISTOL AIR REFER OVAL AND INSTALLATION (WESTERIL) LIMITED OF AIRCRAFT BATTERY DEPARTMENT.

INFORMATION

It has been reported that aircraft batteries RCAF Ref. 5J/174 have been found leaking near or around the battery vent. It is believed that failure of the battery in this area may be attributed to using the battery vent as a hand grip when removing or installing the batteries in aircraft.

INSTRUCTION

A sling has been proposed as outlined in Figure 1 which will facilitate removal and installation of the battery. The sling may be manufactured locally on an as required basis.

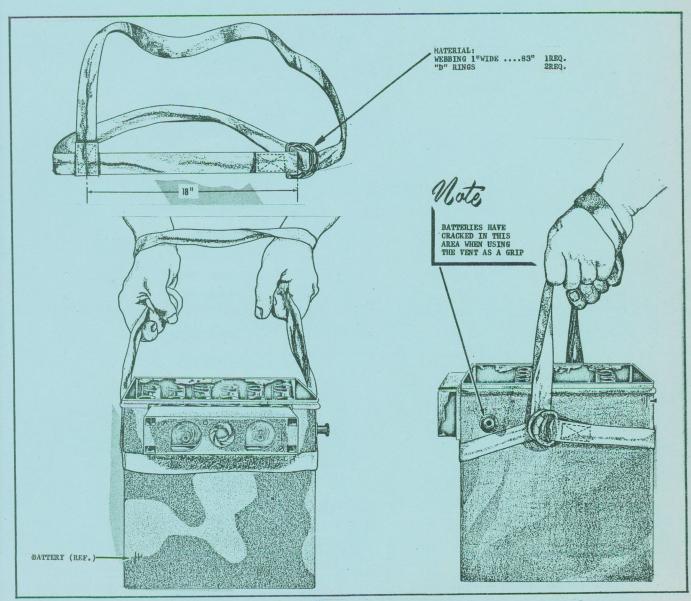
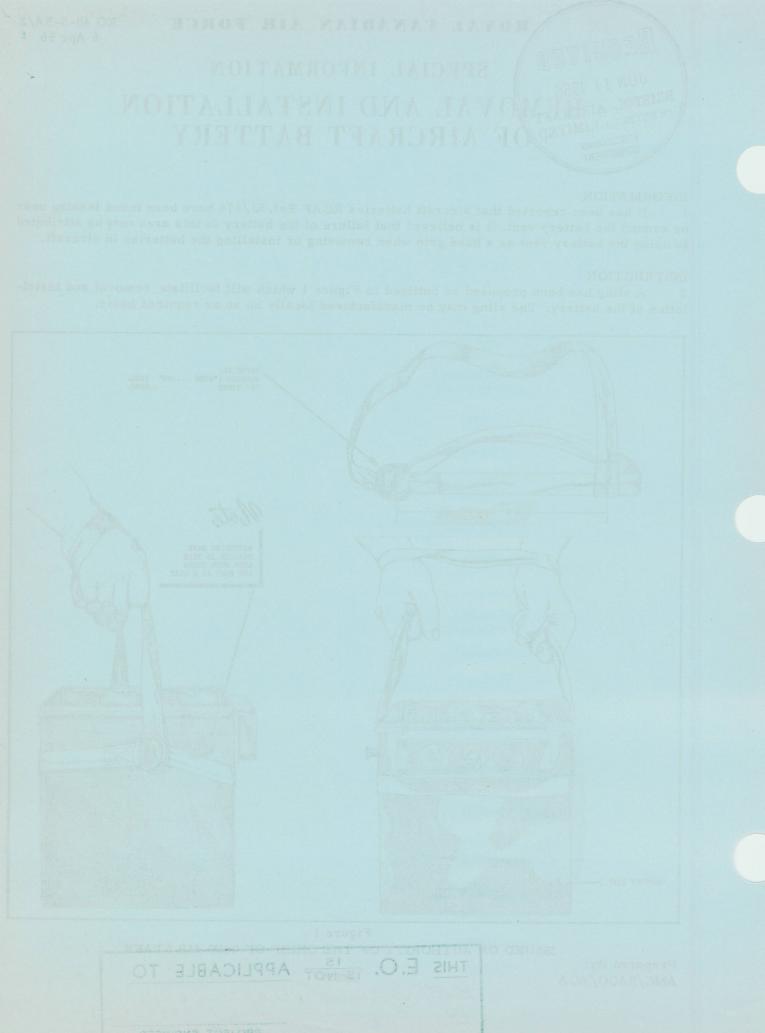


Figure 1

Prepared By: AMC/SACO/ACA

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SPECIAL INFORMATION

PAIR OF LOOSE BATTERY TERMINALS EXIDE 6GT-13 TYPE K1

EQUIPMENT AFFECTED:

Batteries, Lead Acid Type - Exide 6GT-13 (K1) Sec/Ref - 5J/140

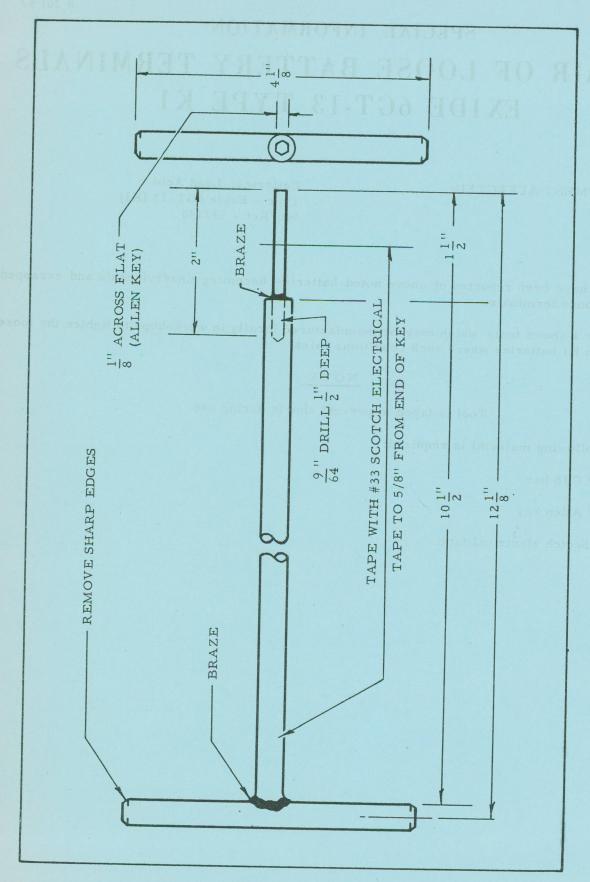
GENERAL

- Cases have been reported of above noted batteries becoming unserviceable and scrapped because of loose terminals.
- Figure 1 shows tools which may be manufactured locally in workshops to tighten the loose terminals on Kl batteries where such conditions exist.

NOTE

Tool is taped to prevent shorts during use.

- The following material is required:
- (a) 1/4" CRS bar
- 1/8" Allen key (b)
- #33 Scotch electrical tape. (c)



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Figure 1

FROM CANAIR MAT

LOG 1771 6/DEC /57

INSTRUCTIONS PER MAC LOG 1757 3 DEC AMC LOG 2274 26 NOV AND EO 40-5-5A/4 23 AUG TO BE DISREGARDED UNTIL FURTHER ADVISED.

NEW TYPE L522 BATTERY VENT PLUGS REF 5J10020 ARE NOT TO BE USED PENDING INVESTIGATION OF A REPORTED DEFECT. ANY UNITS THAT HAVE BEEN INSTALLED ARE TO BE IMMEDIATELY REMOVED FROM SERVICE. ALL HOLDINGS ARE TO BE PLACED IN QUARANTINE UNTIL FURTHER INSTRUCTIONS ISSUED.

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RESTRICTED EO 40-5-5A/4 23 Aug 57

SPECIAL INFORMATION

EMSTOL AIRCRAFT (WESTERN) LIMITED ENGINEERING AN 3150-2 BATTERIES INSTALLED ON CF-100 AND F86 AIRCRAFT NEW 50 CM. OF MERCURY PRESSURE VENT PLUGS

EQUIPMENT AFFECTED:

Batteries, lead acid, installed on CF-100 and F-86 aircraft only. Type AN3150-2. Sec/Ref. 5J/174.

INFORMATION

SEP 25 1957

- 5J/174 batteries installed on CF-100 and F-86 aircraft have been reported with cell upheavals and cell explosion. Exide investigation showed that the original vent plugs type L548 of 15 cm of mercury pressure on these AN3150-2 batteries may remain closed upon return to upright position from inverted flight. With vent caps locked closed, pressure would build up in cells to cause cell upheaval and battery explosion possibilities.
- The worse case which occured in these Exide tests was as follows: After charging at 25 amps so that the battery was gassing freely and then inclining the battery so as to close the vents of the original 15 cm of mercury plugs, it was possible to lock the vent caps closed in less than 10 seconds. Locking of the vent caps cause a pressure build up which continues until the cell lifts far enough to relieve the pressure.
- On the average, with charging rate at 25 amps and then with the same conditions imposed on the battery as in Para. 2, vent caps would lock closed in 21 seconds.
- New Exide type L522 plugs of 50 cm of mercury pressure capacity enable aircraft to fly for longer inverted flight without danger of locking the vents closed to cause pressure build up and cell upheaval.

INSTRUCTION

A limited quantity of Exide type L522 plugs are being procured for retrofit on CF-100 and F-86 aircraft only. Because of limited supply, it is necessary that user units demand only the required amount to retrofit batteries having old L548 plugs installed on CF-100 and F-86 aircraft. Demands may be made from applicable 1 SD or 30 AMB, and a message from AMC will direct units to order when supplies are received at supply depots.

All future procurement of AN3150-2 batteries will be to new specification, equipped with 50 cm of mercury pressure vent plugs.

Prepared By: AMC/SACO/ACA

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

ON CF-100 AND E86 AIRCRAFT NEW 50 CM. OF MERCURY PRESSURE VENT PLUCS

EQUIPMENT AFFECTED

Ratteries, lead add, installed on CF-100 and F-86 arcraft only. Type AM3150-2, Sen/Ref. 51/174.

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A limited quantity of Exide type L522 plugs are being procured for retrofft on CF-100 and F-86 aircraft only. Escause of limited supply, it is necessary that user units demand only the required amount to retrofft batteries having old L543 plugs installed on CF-100 and F-36 aircraft. Demands may be made from applicable 1 SD or 30 AME, and a massage from AMC will direct units to order when supplies are received at supply depots.

6 All future procurement of AN3150-2 batteries will be to new specification, equipped with 50 cm of mercury pressure vent plugs.

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