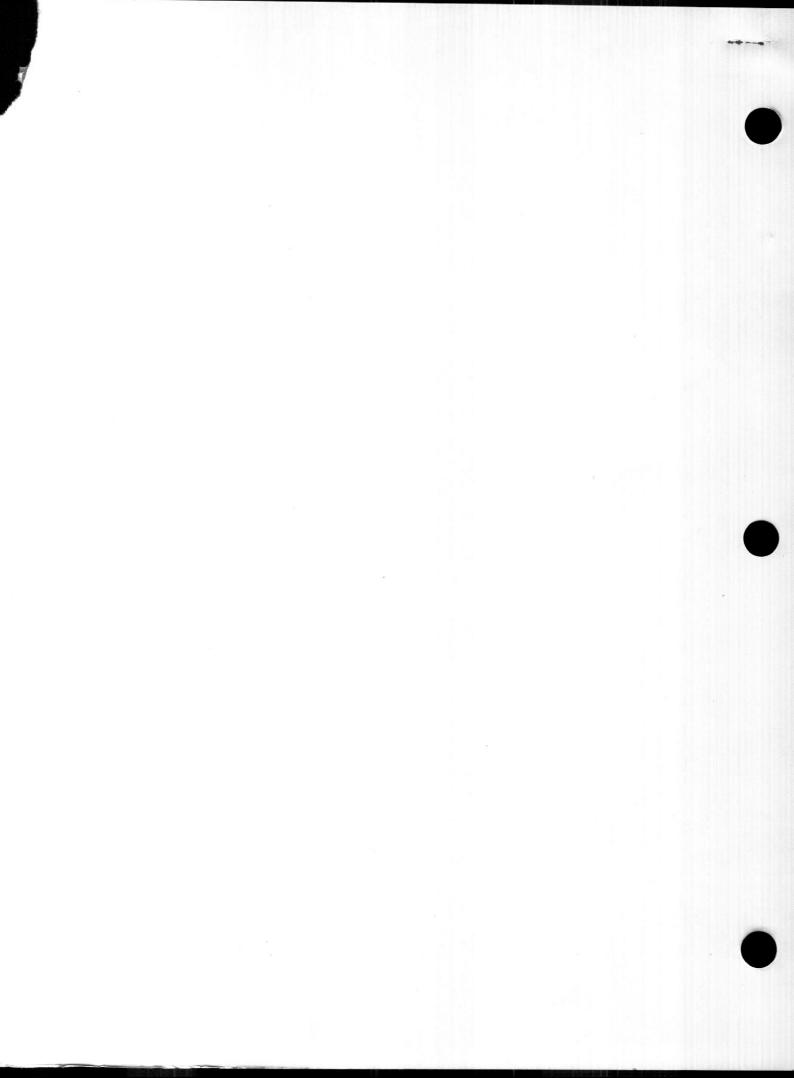


LEAFLET 7/83

CONNECTING LEADS - L5.491-510 (FD.1050). L5.615 SANGAMO WESTON



#### MAINTENANCE MANUAL

CONNECTING LEADS L.5.491 - 510 (F.D.1050) L.5.615

This manual complies with British Civil Airworthiness Requirements, Section A, Chapter A6-2. The technical accuracy of this manual has been verified and is certified correct.

Signed:

0.00

Date: JANUARY 1961

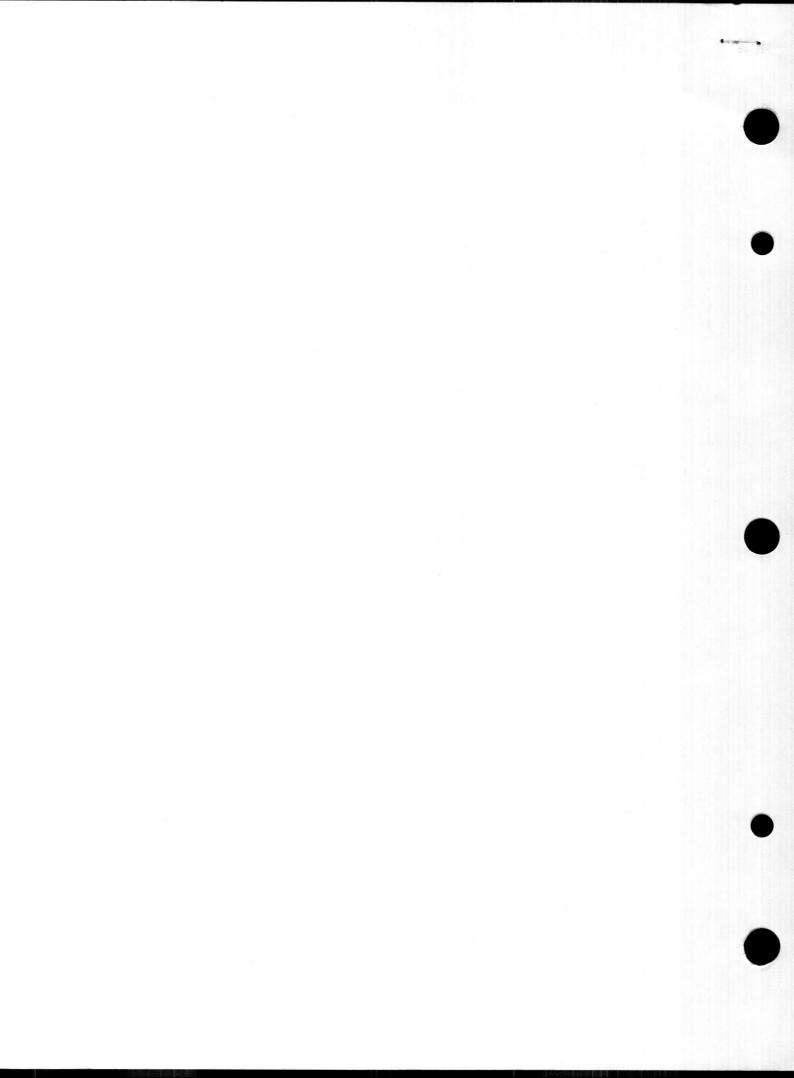
A.R.B. Design Approval No. AD/1147/47

## SANGAMO WESTON LIMITED

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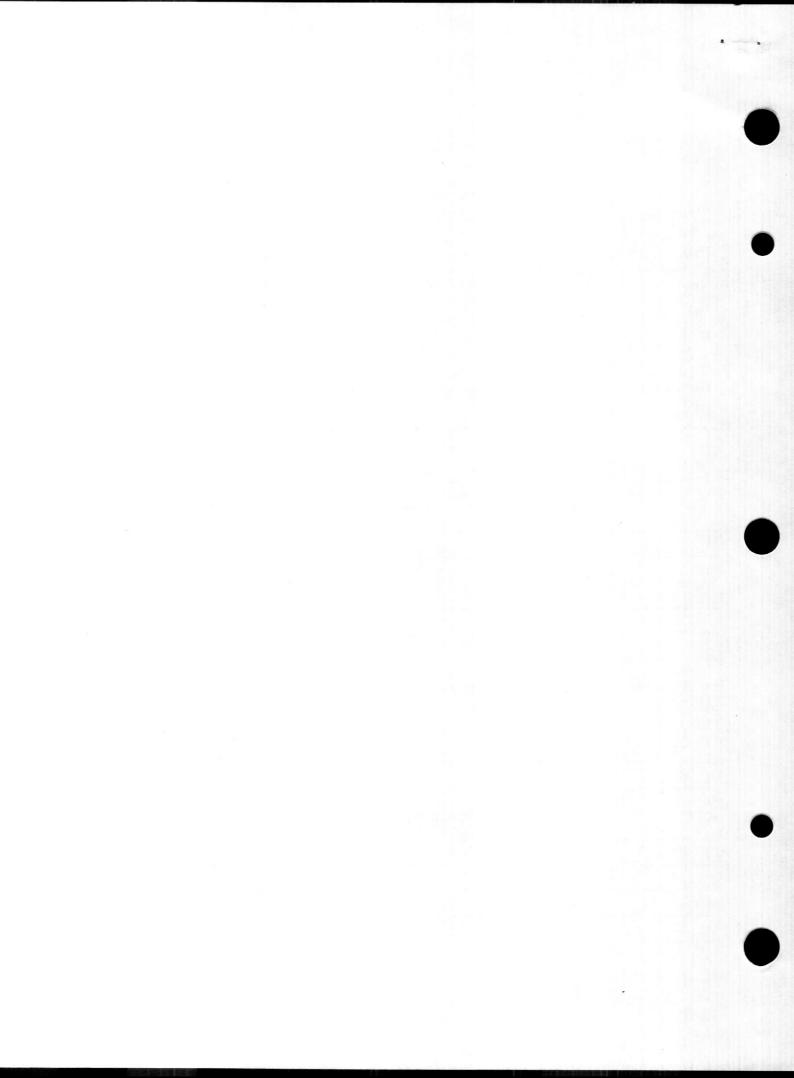


### MAINTENANCE MANUAL

#### REVISION RECORD

The introduction of any amendment or revision not certified in accordance with British Civil Airworthiness Requirements Section A, Chapter A6-2, will invalidate the statement of certification on Page 1. Amendments or revisions embodied in this manual, which have been certified under an approved authorisation other than that applicable to the initial certification must be recorded on separate record sheets.

Revision No.	Date of Issue	Incorporated by:	Date	Remarks
1	June 1965	Sangamo Weston Ltd.	June 1965	Para. 1, 4-8 and 10-12 revised
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#### MAINTENCE MANUAL

CONNECTING LEADS L.5.491 - 510 (F.D.1050) L.5.615

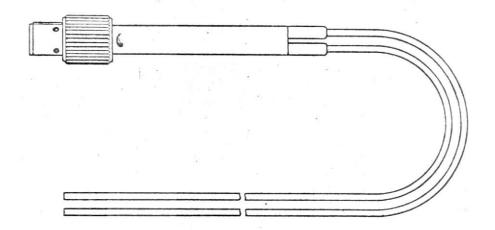


Fig. 1 Connecting Leads L.5.491 - 510 and L.5.615

### Description and operation

#### A. Description

Connecting leads L.5.491 to 510 and L.5.615 are designed for use with SANGAMO WESTON resistance bulb, Model S.110 and S.110G. With the exception of their length all the leads are indentical, each consisting of Twin Tersil 20 leads fitted with a 2-pin moulded polychloroprene socket which mates with the associated resistance bulb. This coupling forms a completely waterproof connection. A letter G or a succeeding letter following the model number denotes that Comsol solder has been used to connect the leads to the pins of the socket.

The length of each variant is given in the following table; Ministry of Aviation reference numbers are included where applicable.

Revision 1 June 1965

Variant No.	M.O.A. Ref	Length of lead
L.5.491	6A/7523	3ft (0.914m)
L.5.492		6ft (1.829m)
L.5.493		9ft (2.743m)
L.5.494	6A/7157	12ft (3.658m)
L.5.495		15ft (4.572m)
L.5.496		20ft (6.096m)
L.5.497		14ft (4.267m)
L.5.498		16ft (4.877m)
L.5.499		5ft (1.524m)
L.5.500		4ft (1.219m)
L.5.501		10ft (3.048m)
L.5.502		2ft (0.610m)
L.5.503		11ft (3.353m)
L.5.615	6A/6916	9ft (2.743m)

## B. Operation

These are interconnecting leads for use with Model S.110 and S.110G resistance bulbs.

## 2. Unpacking

Self-evident.

### 3. Acceptance checks

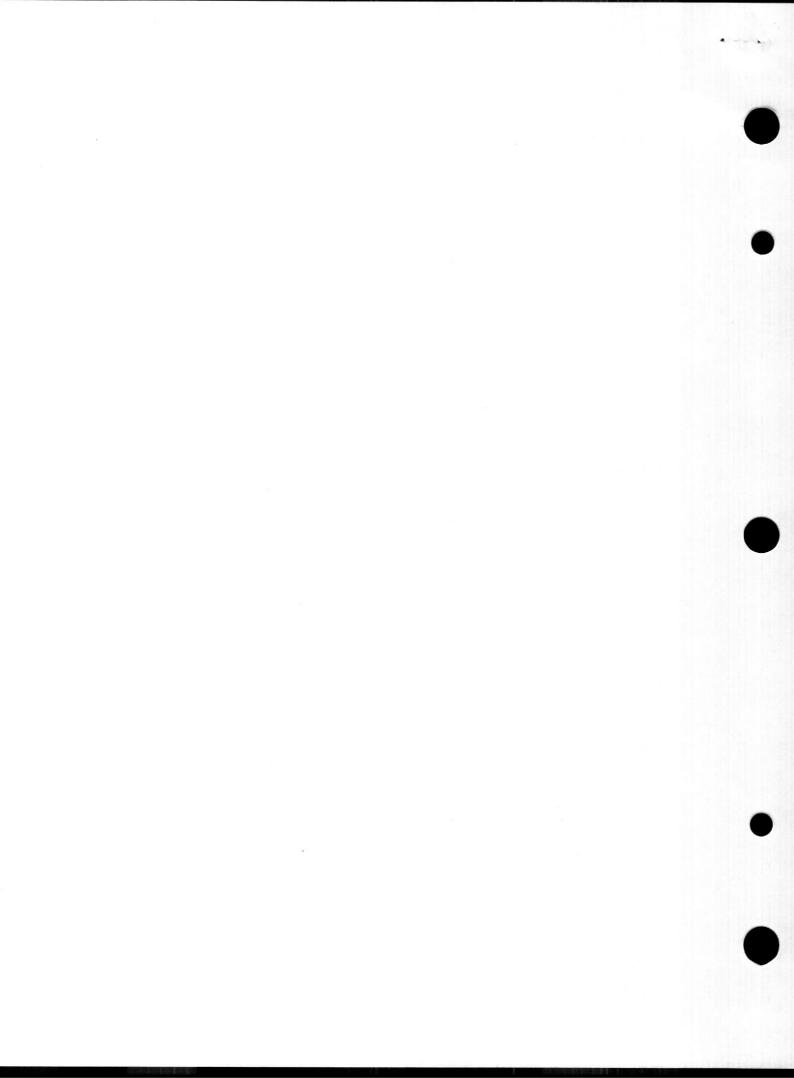
Visually examine the lead for any signs of damage.

#### 4. Storage Instructions

### A. Conditions

(1) The lead should be retained in its packing throughout the storage period.

Revision 1 June 1965



(2) The lead should be stored in conditions where the humidity does not exceed 50% and the temperature range is within the limits -20°C. to +50°C.

NOTE: If the humidity rises above 50% the insulation properties of the lead may be affected, and it must be baked for three hours at 90°C.

### Limiting period

Provised the storage conditions have been fulfilled, the limiting period is 6 years. However, every two years the lead must be checked as detailed in paragraph 8 (Testing) of the Overhaul manual. If proved satisfactory return the lead to storage.

#### 5. Checks before installation:

- (1) Examine the leads and socket for any signs of damage.
- (2) If the lead is suspect it must be checked as detailed in paragraph 8 (Testing) of the Overhaul manual.

#### 6. Installation

The lead must be installed as detailed in the Aircraft manual.

#### 7. Checks after installation

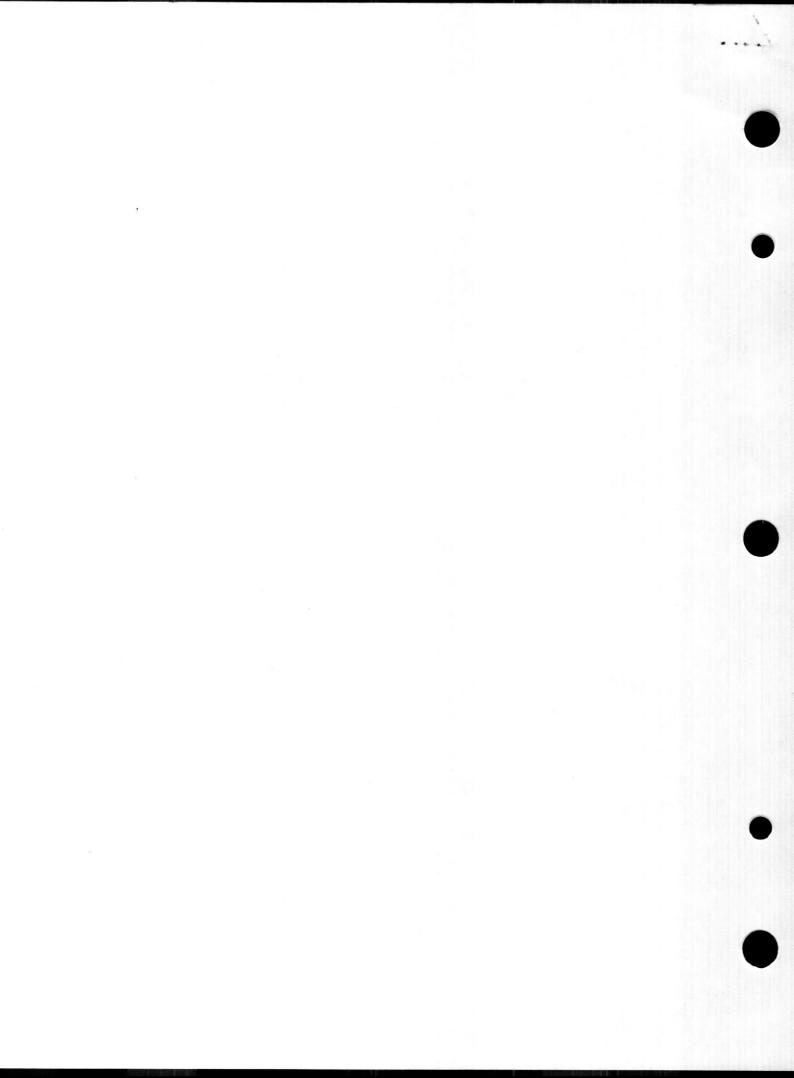
The checks detailed in the Aircraft manual must be made after the lead is installed.

#### 8. Maintenance

The following checks must be made whenever the equipment associated with the lead is examined.

(1) Examine the lead for security of mounting, tightness of electrical connections and cleanness.

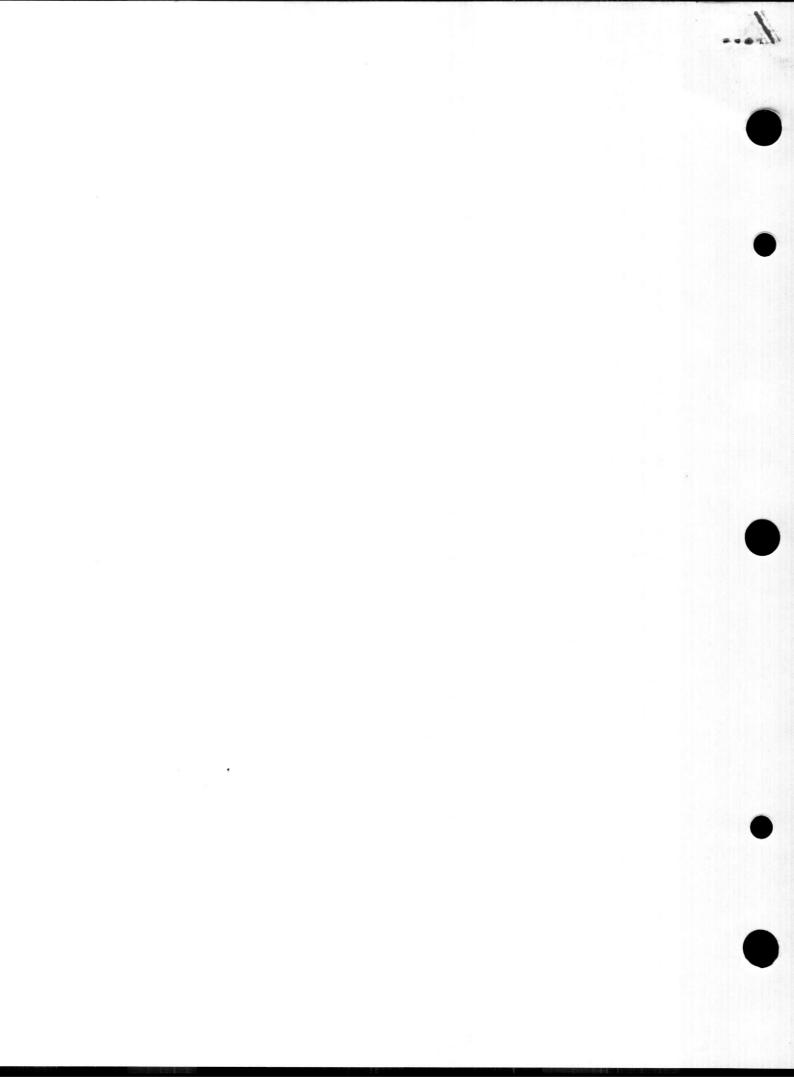
Revision 1 June 1965



- (2) Inspect the outer covering for any signs of deterioration.
- (3) Observe that the connecting end is undamaged and free from the presence of foreign matter.
- (4) Check the lead as detailed in paragraph 7 of this manual.
- 9. Trouble shooting
  Not applicable.
- The lead as he removed as detailed in the Aircraft Manual.
- 11. Beach checks
  Not applicable.
- 12. Overhaul period

  The lead must be overhauled whenever the associated equipment is overhauled.
- 13. Return to manufacturer or base

  Whenever the lead is returned to the manufacturer or base, include in the package a short history of the unit.





CONNECTING LEADS L 5

## SANGAMO WESTON LIMITED

Head office and Works:

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THIS MANUAL HAS BEEN COMPILED AND PRINTED BY THE ENGINEERING DEPARTMENT, SANGAMO WESTON LTD.

First Issued November 1962



This Manual complies with British Civil Airworthiness Requirements, Chapter A6-2. The technical accuracy of this manual has been verified and is certified correct.

Signed.

Date. November 1962

A.R.B. Design Approval No. AD/1147/47

M. Jonegrov .



## CONNECTING LEADS L.5

## REVISION RECORD SHEET

Revision No.	Date of Issue	Incorporated by:	Date	Remarks
1	July 1965	Sangamo Weston Ltd	July 1965	Revision paragraph 8.
2	Oct. 1966	Sangamo Weston Ltd	Oct. 1966	Revision pages 1, 7, 8 and 9.
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The introduction of any amendment or revision not certified in accordance with British Civil Airworthiness Requirements Chapter A6-2 will invalidate the statement of certification on Connecting leads L.5 Amendments or revisions embodied in this manual, which have been certified under an approval authorisation other than that applicable to the initial certification must be recorded on separate record sheets.



## CONNECTING LEADS L.5

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## OVERHAUL MANUAL CONNECTING LEADS L.5

#### Description and operation

#### A. Description

Connecting leads L.5 are stranded copper conductors of assorted lengths and types, the cable and connection ends varying according to the application and associated equipment. Each type of lead is allocated a drawing number (e.g. F.D.751) as an indication of its group, and individual leads are marked with the model, form and specification number (e.g. L.5.180) for more positive identification. A detailed description of the type of lead associated with each 'F.D.' number, together with an illustration is given in the appropriate addendum to this manual.

#### B. Operation

These are interconnecting leads for use in conjunction with resistance thermometer elements, pressure transmitters, ice warning systems, tachometers, etc.

#### C. Data

#### (1) Working temperatures

Type of cable (See appropriate addendum)	Maximum	Minimum (Cable static)	Minimum (Cable subject to flexing)
Duprensheath Triprensheath Dunyprensheath Trinyprensheath Black neoprene Nyvin Tersil Efglass	90°C. 90°C. 90°C. 90°C. 90°C. 90°C. 190°C. 240°C.	-75°C. -75°C. -75°C. -75°C. -75°C. -75°C. -75°C.	-30°C. -30°C. -30°C. -30°C. -30°C. -30°C. -30°C. -75°C.

NOTE: The maximum working temperature of cables at the socket ends is limited to the maximum working temperature of the type of socket fitted, i.e. 90°C. for those fitted with moulded polychloroprene or E.E.L.3 resistant rubber sockets, and 200°C. for those fitted with silicone sockets.

The minimum working temperature at the socket end of all the above cables, when subjected to flexing, is -30°C.

#### (2) Maximum current rating

The maximum current rating of all L.5 connecting leads is 3 amperes.

#### 2. Disassembly

Not applicable.

#### CONNECTING LEADS L.5

#### 3. Cleaning

#### A. Procedure

- (1) Moisten a cloth with Genklene or Inhibisol and remove all grease and dirt adhering to the lead.
- (2) Remove all foreign matter from the connection end by means of a camel hair brusn.

#### B. Schedule of materials

- (1) Genklene or Inhibisol.
- (2) Clean cloth.
- (3) Camel hair brush.

#### 4. Inspection

#### A. Procedure

The following procedure should be adopted whenever the equipment associated with the lead is inspected.

- (1) Examine the outer covering of the lead for signs of cracks and general deterioration.
- (2) Ensure that the connection end is free of foreign matter.

#### 5. Repair

The lead is not a repairable item and must be discarded if found to be defective.

#### 6. Assembly

Not applicable.

#### 7. Fits and clearances

Not applicable.

#### 8. Testing

- (1) Each core has a resistance value of 0.01 ohms per foot approximately, at a temperature of  $20^{\circ}$ C. A simple continuity test must be made on each core.
- (2) Where a twin core cable is used, check the insulation resistance between each core, and each core to the metal sleeve; this must be better than 20 megohms at 250 volts d.c. Where a three-core cable is used, and the third core is connected to the metal sleeve, check the resistance between two cores only and between these cores and the metal sleeve. The continuity test as in operation (1) must be made between the third core and metal sleeve.

#### 9. Trouble shooting

#### A. Causes

The main cause of trouble is dirt accumulating in the socket of the connection end.



# OVERHAUL MANUAL CONNECTING LEADS L.5

#### 1. Description and operation

#### A. Description

Connecting leads L.5 are stranded copper conductors of assorted lengths and types, the cable and connection ends varying according to the application and associated equipment. Each type of lead is allocated a drawing number (e.g. F.D.751) as an indication of its group, and individual leads are marked with the model, form and specification number (e.g. L.5.180) for more positive identification. A detailed description of the type of lead associated with each 'F.D.' number, together with an illustration is given in the appropriate addendum to this manual.

#### B. Operation

These are interconnecting leads for use in conjunction with resistance thermometer elements, pressure transmitters, ice warning systems, tachometers, etc.

#### C. Data

#### (1) Working temperatures

Type of cable (See appropriate addendum)	Maximum	Minimum (Cable static)	Minimum (Cable subject to flexing)
Duprensheath Triprensheath Dunyprensheath Trinyprensheath Black neoprene Nyvin Tersil Efglass	90°C. 90°C. 90°C. 90°C. 90°C. 190°C. 240°C.	-75°C. -75°C. -75°C. -75°C. -75°C. -75°C. -75°C.	-30°C. -30°C. -30°C. -30°C. -30°C. -30°C. -75°C.

NOTE: The maximum working temperature of cables at the socket ends is limited to the maximum working temperature of the type of socket fitted, i.e. 90°C. for those fitted with moulded polychloroprene or E.E.L.3 resistant rubber sockets, and 200°C. for those fitted with silicone sockets.

The minimum working temperature at the socket end of all the above cables, when subjected to flexing, is  $-30^{\circ}C$ .

#### (2) Maximum current rating

The maximum current rating of all L.5 connecting leads is 3 amperes.

#### Disassembly

Not applicable.

## (1111)

#### OVERHAUL MANUAL

#### CONNECTING LEADS L.5

#### 3. Cleaning

#### A. Procedure

- Moisten a cloth with Genklene or Inhibisol and remove all grease and dirt adhering to the lead.
- (2) Remove all foreign matter from the connection end by means of a camel hair brusn.

#### B. Schedule of materials

- (1) Genklene or Inhibisol.
- (2) Clean cloth.
- (3) Camel hair brush.

#### 4. Inspection

#### A. Procedure

The following procedure should be adopted whenever the equipment associated with the lead is inspected.

- (1) Examine the outer covering of the lead for signs of cracks and general deterioration.
- (2) Ensure that the connection end is free of foreign matter.

#### 5. Repair

The lead is not a repairable item and must be discarded if found to be defective.

#### 6. Assembly

Not applicable.

#### 7. Fits and clearances

Not applicable.

#### 8. Testing

- (1) Each core has a resistance value of 0.01 ohms per foot approximately, at a temperature of  $20^{\circ}$ C. A simple continuity test must be made on each core.
- (2) Where a twin core cable is used, check the insulation resistance between each core, and each core to the metal sleeve; this must be better than 20 megohms at 250 volts d.c. Where a three-core cable is used, and the third core is connected to the metal sleeve, check the resistance between two cores only and between these cores and the metal sleeve. The continuity test as in operation (1) must be made between the third core and metal sleeve.

#### 9. Trouble shooting

#### A. Causes

The main cause of trouble is dirt accumulating in the socket of the connection end.

# OVERHAUL MANUAL CONNECTING LEADS L.5

#### 1. Description and operation

#### A. Description

Connecting leads L.5 are stranded copper conductors of assorted lengths and types, the cable and connection ends varying according to the application and associated equipment. Each type of lead is allocated a drawing number (e.g. F.D.751) as an indication of its group, and individual leads are marked with the model, form and specification number (e.g. L.5.180) for more positive identification. A detailed description of the type of lead associated with each 'F.D.' number, together with an illustration is given in the appropriate addendum to this manual.

#### B. Operation

These are interconnecting leads for use in conjunction with resistance thermometer elements, pressure transmitters, ice warning systems, tachometers, etc.

#### C. Data

#### (1) Working temperatures

Type of cable (See appropriate addendum)	Maximum	Minimum (Cable static)	,	Minimum (Cable subject to flexing)
Duprensheath Triprensheath Dunyprensheath Trinyprensheath Black neoprene Nyvin Tersil Efglass	90°C. 90°C. 90°C. 90°C. 90°C. 190°C. 190°C.	-75°C. -75°C. -75°C. -75°C. -75°C. -75°C. -75°C.		-30°C. -30°C. -30°C. -30°C. -30°C. -30°C. -30°C. -75°C.

NOTE: The maximum working temperature of cables at the socket ends is limited to the maximum working temperature of the type of socket fitted, i.e. 90°C. for those fitted with moulded polychloroprene or E.E.L.3 resistant rubber sockets, and 200°C. for those fitted with silicone sockets.

The minimum working temperature at the socket end of all the above cables, when subjected to flexing, is  $-30^{\circ}C$ .

#### (2) Maximum current rating

The maximum current rating of all L.5 connecting leads is 3 amperes.

#### Disassembly

Not applicable.

#### CONNECTING LEADS L.5

#### 3. Cleaning

#### A. Procedure

- (1) Moisten a cloth with Genklene or Inhibisol and remove all grease and dirt adhering to the lead.
- (2) Remove all foreign matter from the connection end by means of a camel hair brusn.
- B. Schedule of materials
  - (1) Genklene or Inhibisol.
  - (2) Clean cloth.
  - (3) Camel hair brush.

#### 4. Inspection

#### A. Procedure

The following procedure should be adopted whenever the equipment associated with the lead is inspected.

- (1) Examine the outer covering of the lead for signs of cracks and general deterioration.
- (2) Ensure that the connection end is free of foreign matter.

#### Repair

The lead is not a repairable item and must be discarded if found to be defective.

#### 6. Assembly

Not applicable.

#### 7. Fits and clearances

Not applicable.

#### 8. Testing

- Each core has a resistance value of 0.01 ohms per foot approximately, at a temperature of 20°C. A simple continuity test must be made on each core.
- (2) Where a twin core cable is used, check the insulation resistance between each core, and each core to the metal sleeve; this must be better than 20 megohms at 250 volts d.c. Where a three-core cable is used, and the third core is connected to the metal sleeve, check the resistance between two cores only and between these cores and the metal sleeve. The continuity test as in operation (1) must be made between the third core and metal sleeve.

#### 9. Trouble shooting

#### A. Causes

The main cause of trouble is dirt accumulating in the socket of the connection end.

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