



सभीपत्रव्यवहार क्षेत्रीय निदेशक(वायुयान) को सम्बोधित किए जाएं
ना कि किसी अन्य अधिकारी के नाम से
All Correspondence should be addressed to Regional
Director (Aircraft) and not to any officer by name

ग्राम्स/Grams : AIRWORTHY
दूरभाष/Phone : 080-25226375
फैक्स/Fax : 080-25226928

संदर्भ सं/Ref No. RCMA(A/C)/HAL(BC)/330

भारत सरकार, रक्षा मंत्रालय
रक्षा अनुसंधान एवं विकास संगठन
क्षेत्रीय सेना उड़नयोग्यता केन्द्र (वायुयान)
सेमिलक,
पोस्ट बॉक्स 1702, विमानपुरा पोस्ट
बंगलोर- 560017
Government of India
Ministry of Defence
Defence R & D Organisation
REGIONAL CENTRE FOR
MILITARY
AIRWORTHINESS (AIRCRAFT)
CEMILAC
Post Box 1702,
Vimanapura Post
BANGALORE-560017

दिनांक/Date: 24 MAR 2014

To,

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-1-1420 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-1-1420 in lieu of imported switch Part No. 1-1420 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as LP cock switch.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-1-1420 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully under gone full Qualification Test (QT) and is hereby provisionally cleared for a period of **One Year** from the date of issue for use on Jaguar subject to terms and conditions of this clearance

3. BASIS FOR CLEARANCE:

- 3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014 for issue of provisional clearance.
- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.

- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-1-1420/ BOM/ 2013, Dated 06/01/2014.
- 3.5 Manufacturing Document No. ISC/ INT-1-1420/ MD / 2013, Dated 06/01/2014.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014.

4. LIMITATIONS:

NIL

5. CONDITIONS OF CLEARANCE:

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. TECHNICAL DETAILS:

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000\text{M}\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10\text{ m}\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	50 ± 10 grams


(A R Raghunath)
Offg. Regional Director (Aircraft)

Copy to:

- 1) GM, Aircraft Division, HAL Bangalore-17
- 2) RDAQA (A/C & O/H), Bangalore-17
- 3) CE (A), CEMILAC, Bangalore-37



सर्भीपत्रव्यवहार क्षेत्रीय निदेशक(वायुयान) को सम्बोधित किए जाएं
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दूरभाष/Phone : 080-25226375
फैक्स/Fax : 080-25226928

भारत सरकार, रक्षा मंत्रालय
रक्षाअनुसंधान एवं विकास संगठन
क्षेत्रीय सेना उद्भनयोग्यता केन्द्र (वायुयान)
सेमिलाक,
पोस्ट बॉक्स 1702, विमानपुरा पोस्ट
बेंगलूर- 560017
Government of India
Ministry of Defence
Defence R & D Organisation
REGIONALCENTRE FOR
MILITARY
AIRWORTHINESS (AIRCRAFT)
CEMILAC
Post Box 1702,
Vimanapura Post
BANGALORE-560017

संदर्भ सं/Ref No. RCMA(A/C)/HAL(BC)/330

दिनांक/Date: 9 Oct 2013

To,

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-2-3-1762 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-2-3-1762 in lieu of imported switch Part no. 2-3-1762 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as Electro hydraulic pump selector switch.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-2-3-1762 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully under gone full Qualification Test (QT) and is hereby provisionally cleared for a period of One Year from the date of issue for use on Jaguar subject to terms and conditions of this clearance

3. BASIS FOR CLEARANCE:

- 3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013 for issue of provisional clearance.
- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.

- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-2-3-1762/ BOM/ 2013, Dated 13/08/2013.
- 3.5 Manufacturing Document No. ISC/ INT-2-3-1762/ MD / 2013, Dated 13/08/2013.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 429 / 13; dated 30/09/2013.
- 3.8 Pilot Assessment report, vide letter No: A/DGM(DL)/IDE/444/13 dated 09/10/2013.

4. **LIMITATIONS:**

NIL

5. **CONDITIONS OF CLEARANCE:**

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. **TECHNICAL DETAILS:**

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000M\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10 m\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	65 ± 10 grams
Mounting Location	:	RH Instrument Panel


A R Raghunath
Offg. Regional Director (Aircraft)

Cc: 1) GM, Aircraft Division, HAL Bangalore-17
2) RDAQA (A/C & O/H), Bangalore-17
3) CE(A), CEMILAC, Bangalore-37



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दूरभाष/Phone : 080-25226375
फैक्स/Fax : 080-25226928

भारत सरकार, रक्षा मंत्रालय
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क्षेत्रीय सेना उड़नयोग्यता केन्द्र (वायुयान)
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बेंगलोर- 560017
Government of India
Ministry of Defence
Defence R & D Organisation
REGIONAL CENTRE FOR
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CEMILAC
Post Box 1702,
Vimanapura Post
BANGALORE-560017

संदर्भ सं/Ref No. RCMA(A/C)/HAL(BC)/330

दिनांक/Date: 9 Oct 2013

To,

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-2-1762 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-2-1762 in lieu of imported switch Part no. 2-1762 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as Laser bay temperature control switch.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-2-1762 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully under gone full Qualification Test (QT) and is hereby provisionally cleared for a period of One Year from the date of issue for use on Jaguar subject to terms and conditions of this clearance.

3. BASIS FOR CLEARANCE:

3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013 for issue of provisional clearance.

- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.
- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-2-1762/ BOM/ 2013, Dated 14/08/2013.
- 3.5 Manufacturing Document No. ISC/ INT-2-1762/ MD / 2013, Dated 14/08/2013.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.8 Pilot Assessment report, vide letter No: A/DGM(DL)/IDE/444/13 dated 09/10/2013.

4. LIMITATIONS:

NIL

5. CONDITIONS OF CLEARANCE:

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. TECHNICAL DETAILS:

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000\text{M}\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10\text{ m}\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	65 ± 10 grams
Mounting Location	:	LH Instrument Panel


A R Raghunath
Offg.Regional Director (Aircraft)

- Cc: 1) GM, Aircraft Division, HAL Bangalore-17
2) RDAQA (A/C & O/H), Bangalore-17
3) CE(A), CEMILAC, Bangalore-37



सभी प्रव्यवहार क्षेत्रीय निदेशक(वायुयान) को सम्बोधित किए जाएं
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फैक्स/Fax : 080-25226928

संदर्भ सं/Ref No. RCMA(A/C)/HAL(BC)/330

भारत सरकार, रक्षा मंत्रालय
रक्षा अनुसंधान एवं विकास संगठन
क्षेत्रीय सेना उड़नयोग्यता केन्द्र (वायुयान)
सेमिलक,
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बंगलूर- 560017
Government of India
Ministry of Defence
Defence R & D Organisation
REGIONAL CENTRE FOR
MILITARY
AIRWORTHINESS (AIRCRAFT)
CEMILAC
Post Box 1702,
Vimanapura Post
BANGALORE-560017

दिनांक/Date: 24 MAR 2014

To,

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-2-8020 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-2-8020 in lieu of imported switch Part No. 2-8020 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as Flight refueling electrics emergency switch.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-2-8020 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully undergone full Qualification Test (QT) and is hereby provisionally cleared for a period of **One Year** from the date of issue for use on Jaguar subject to terms and conditions of this clearance

3. BASIS FOR CLEARANCE:

- 3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014 for issue of provisional clearance.
- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.

- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-2-8020/ BOM/ 2013, Dated 06/01/2014.
- 3.5 Manufacturing Document No. ISC/ INT-2-8020/ MD/ 2013, Dated 06/01/2014.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014.

4. **LIMITATIONS:**

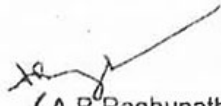
NIL

5. **CONDITIONS OF CLEARANCE:**

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. **TECHNICAL DETAILS:**

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10\text{ m}\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	40 ± 10 grams


(A R Raghunath)
Offg. Regional Director (Aircraft)

Copy to:

- 1) GM, Aircraft Division, HAL Bangalore-17
- 2) RDAQA (A/C & O/H), Bangalore-17
- 3) CE (A), CEMILAC, Bangalore-37



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Post Box 1702,
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BANGALORE-560017

संदर्भ सं/Ref No. RCMA (A/C)/ HAL (BC)/ 330

दिनांक/Date: 9 Oct 2013

To

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-5-1761 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-5-1761 in lieu of imported switch Part no. 5-1761 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as ALT 1 & ALT 2 Switch and control switch for TR1 & TR2.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-5-1761 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully undergone full Qualification Test (QT) and is hereby provisionally cleared for a period of One Year from the date of issue for use on Jaguar subject to terms and conditions of this clearance.

3. BASIS FOR CLEARANCE:

- 3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013 for issue of provisional clearance.
- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.

- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-5-1761/ BOM/ 2013, Dated 13/08/2013.
- 3.5 Manufacturing Document No. ISC/ INT-5-1761/ MD / 2013, Dated 13/08/2013.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.8 Pilot Assessment report, vide letter No: A/DGM(DL)/IDE/444/13 dated 09/10/2013.

4. LIMITATIONS:

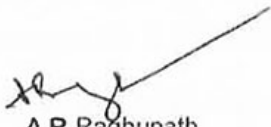
NIL

5. CONDITIONS OF CLEARANCE:

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. TECHNICAL DETAILS:

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000M\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10 m\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	65 ± 10 grams
Mounting Location	:	38 Alpha box


A R Raghunath
Offg.Regional Director (Aircraft)

- Cc: 1) GM, Aircraft Division, HAL Bangalore-17.
2) RDAQA (A/C & O/H), Bangalore-17.
3) CE(A), CEMILAC, Bangalore-37.



FOX NO : 918025226928
918025226928

Mar. 25 2014 01:05PM P1



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CEMILAC
Post Box 1702,
Vimanapura Post
BANGALORE-560017

दिनांक/Date: 24 MAR 2014

To,

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-1424 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-1424 in lieu of Imported switch Part No. 1424 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as selector switch for upper and lower IFF antenna.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-1424 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully undergone full Qualification Test (QT) and is hereby provisionally cleared for a period of One Year from the date of issue for use on Jaguar subject to terms and conditions of this clearance

3. BASIS FOR CLEARANCE:

- 3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014 for issue of provisional clearance.
- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.

- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-1424/ BOM/ 2013, Dated 06/01/2014.
- 3.5 Manufacturing Document No. ISC/ INT-1424/ MD / 2013, Dated 06/01/2014.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 115 / 14, dated 19/03/2014.

4. **LIMITATIONS:**

NIL

5. **CONDITIONS OF CLEARANCE:**

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. **TECHNICAL DETAILS:**

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000M\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10 m\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	50 ± 10 grams


(A R Raghunath)
Offg. Regional Director (Aircraft)

Copy to:

- 1) GM, Aircraft Division, HAL Bangalore-17
- 2) RDAQA (A/C & O/H), Bangalore-17
- 3) CE (A), CEMILAC, Bangalore-37



सभीपत्रव्यवहार क्षेत्रीय निदेशक(वायुयान) को सम्बोधित किए जाएं
ना कि किसी अन्य अधिकारी के नाम से
All Correspondence should be addressed to Regional
Director (Aircraft) and not to any officer by name

ग्राम्स/Grams : AIRWORTHY
दूरभाष/Phone : 080-25226375
फैक्स/Fax : 080-25226928

भारत सरकार, रक्षा मंत्रालय
रक्षाअनुसंधान एवं विकास संगठन
क्षेत्रीय सेना उड़नयोग्यता केन्द्र (वायुयान)
सेमिलाक,
पोस्ट बॉक्स 1702, विमानपुरा पोस्ट
बेंगलूर- 560017
Government of India
Ministry of Defence
Defence R & D Organisation
REGIONALCENTRE FOR
MILITARY
AIRWORTHINESS (AIRCRAFT)
CEMILAC
Post Box 1702,
Vimanapura Post
BANGALORE-560017

संदर्भ सं/Ref No. RCMA(A/C)/HAL(BC)/330

दिनांक/Date: 9 Oct 2013

To

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-1761 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-1761 in lieu of imported switch Part no. 1761 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as ON/OFF switch for Ajax actuator and as Battery switch.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-1761 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully under gone full Qualification Test (QT) and is hereby provisionally cleared for a period of One Year from the date of issue for use on Jaguar subject to terms and conditions listed of this clearance.

3. BASIS FOR CLEARANCE:

- 3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013 for issue of provisional clearance.

- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.
- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-1761/ BOM/ 2013, Dated 13/08/2013.
- 3.5 Manufacturing Document No. ISC/ INT-1761/ MD / 2013, Dated 13/08/2013.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.8 Pilot Assessment report, vide letter No: A/DGM(DL)/IDE/444/13 dated 09/10/2013.

4. LIMITATIONS:

NIL

5. CONDITIONS OF CLEARANCE:

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. TECHNICAL DETAILS:

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000M\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10 m\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	65 ± 10 grams
Mounting Location	:	38 Alpha box


A R Raghunath
Offg.Regional Director (Aircraft)

- Cc: 1) GM, Aircraft Division, HAL Bangalore-17
2) RDAQA (A/C & O/H), Bangalore-17
3) CE(A), CEMILAC, Bangalore-37



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दूरभाष/Phone : 080-25226375
फैक्स/Fax : 080-25226928

भारत सरकार, रक्षा मंत्रालय
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CEMILAC
Post Box 1702,
Vimanapura Post
BANGALORE-560017

संदर्भ सं/Ref No. RCMA(A/C)/HAL(BC)/330

दिनांक/Date: 9 Oct 2013

To

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Pèenya Industrial Estate,
Bangalore-560 058,

**SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-1762 FOR USE ON JAGUAR AIRCRAFT.**

1. INTRODUCTION:

Toggle switch Part No. INT-1762 in lieu of imported switch Part no. 1762 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as Rudder Gearing Master switch, Navigation light switch, Anti collision light switch and Formation lamp switch.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-1762 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully under gone full Qualification Test (QT) and is hereby provisionally cleared for a period of One Year from the date of issue for use on Jaguar subject to terms and conditions of this clearance.

3. BASIS FOR CLEARANCE:

3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013 for issue of provisional clearance.

- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.
- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-1762/ BOM/ 2013, Dated 13/08/2013.
- 3.5 Manufacturing Document No. ISC/ INT-1762/ MD / 2013, Dated 13/08/2013.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.7 Fitment & Functional test report, vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.8 Pilot Assessment report, vide letter No: A/DGM(DL)/IDE/444/13 dated 09/10/2013.

4. LIMITATIONS:

NIL

5. CONDITIONS OF CLEARANCE:

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. TECHNICAL DETAILS:

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000M\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10 m\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	65 ± 10 grams
Mounting Location	:	40 Alpha box


A R Raghunath
Offg. Regional Director (Aircraft)

- Cc: 1) GM, Aircraft Division, HAL Bangalore-17
2) RDAQA (A/C & O/H), Bangalore-17
3) CE(A), CEMILAC, Bangalore-37



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दूरभाष/Phone : 080-25226375
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भारत सरकार, रक्षा मंत्रालय
रक्षाअनुसंधान एवं विकास संगठन
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सेमिलाक,
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Post Box 1702,
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BANGALORE-560017

संदर्भ सं/Ref No. RCMA(A/C)/HAL(BC)/330

दिनांक/Date: 9 Oct 2013

To,

M/s Integral Systems & Components Pvt Ltd,
No. D-388/1, 1st Cross, 1st Stage Peenya Industrial Estate,
Bangalore-560 058,

SUB: PROVISIONAL CLEARANCE OF INDIGENOUS TOGGLE SWITCH
PART NO. INT-1762A269 FOR USE ON JAGUAR AIRCRAFT.

1. INTRODUCTION:

Toggle switch Part No. INT-1762A269 in lieu of imported switch Part no. 1762A269 used in Jaguar Aircraft is indigenized by M/s Integral Systems & Components Pvt Ltd, Bangalore. This switch is used in cockpit as Differential tail plane selection switch.

2. PROVISIONAL CLEARANCE:

Toggle switch Part No. INT-1762A269 indigenously designed and developed by M/s Integral Systems & Components Pvt Ltd, Bangalore, as per specifications and drawings listed in this document has successfully under gone full Qualification Test (QT) and is hereby provisionally cleared for a period of One Year from the date of issue for use on Jaguar aircraft subject to terms and conditions of this clearance.

3. BASIS FOR CLEARANCE:

- 3.1 "Request for clearance" from DLE, Aircraft Division, HAL Bangalore vide letter No. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013 for issue of provisional clearance.
- 3.2 Technical Specification document no. ISC/ TS 079000 / TS/ 2012, ISSUE NIL, Dated 08/06/2012.

- 3.3 Qualification Test schedule document no. ISC/ TS 079000 / QTS / 2012, ISSUE NIL, Dated 08/06/2012.
- 3.4 Bill of Materials Document no. ISC/ INT-1762A269/ BOM/ 2013, Dated 13/08/2013.
- 3.5 Manufacturing Document No. ISC/ INT-1762A269/ MD / 2013, Dated 13/08/2013.
- 3.6 Qualification test report submitted vide letter no. A/ DGM (DL)/ IDE/ 429 / 13, dated 30/09/2013.
- 3.7 Fitment & Functional test report, vide letter No. A/ DGM (DL)/ IDE/ 429 / 2013, dated 30/09/2013.
- 3.8 Pilot Assessment report, vide letter No: A/DGM(DL)/IDE/444/13 dated 09/10/2013.

4. **LIMITATIONS:**

NIL

5. **CONDITIONS OF CLEARANCE:**

- 5.1 This clearance is invalid if any design/ drawing changes are made in the build standard without the concurrence of RCMA (A/C).
- 5.2 Clearance is contingent upon the Quality control aspect of bulk production being cleared by DGAQA, Ministry of Defence.
- 5.3 Feedback on the performance of the unit shall be forwarded to RCMA (Aircraft) and shall be taken up for the type approval subject to satisfactory field evaluation.

6. **TECHNICAL PARTICULARS:**

Operating Voltage	:	30 Volts DC
Insulation Resistance	:	$\geq 1000M\Omega$
Current Rating	:	5 Amps
Contact Resistance	:	$\leq 10 m\Omega$
Life (Electrical)	:	20,000 cycles
Weight	:	65 ± 10 grams
Mounting Location	:	LH Instrument Panel


A R Raghunath
Offg.Regional Director (Aircraft)

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