

EQUIPMENT TEST LIST
INTERRUPTERS
POWER SYSTEMS EQUIPMENT

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NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

1.04 Routine test information is arranged in the following order from left to right: Section number, issue/addendum, test letter or paragraph number, test title, test class, frequency, and the last space is for a locally assigned job number.

1.05 Section 010-300-011 provides Equipment Test List instructions.

19.0 INTERRUPTERS

19.1 INTERRUPTERS; ROTARY MERCURY

FOR ALL UNITS

163-650-701 (8/0)	2.01	(B & C) CHECK OIL SPEED REDUCTION UNIT LEVEL-GEAR CASE	MW 12M	-----
	2.01	(D) REPLACE GREASE IN GEAR CASE OF SPEED REDUCTION UNIT	MW 24M	-----
	2.01	(E) CLEAN AND REPLACE GREASE ON INTERRUPTER SHAFT OUTBOARD BEARINGS	MW 24M	-----
	2.01	(F) REFILL GREASE CUPS ON INTERRUPTER SHAFT OUTBOARD BEARINGS WITH FRESH GREASE	MW 24M	-----
	2.01	(F) TURN GREASE CUPS ON INTERRUPTER SHAFT OUTBOARD BEARINGS ONE TURN DOWN	MW 12M	-----
	2.02	CHECK FREEDOM OF ROTATING PARTS	MW 12M	-----
	2.03	CHECK ADJMT OF BRUSH HOLDERS	MW 12M	-----
	2.04	CHECK BRUSH LENGTH	MW 12M	-----
	2.05	CHECK BRUSH FIT	MW 12M	-----
	2.06	CHECK BRUSH PRESSURE	MW 12M	-----
	2.07	CHECK BEARINGS FOR EXCESSIVE WEAR	MW 12M	-----
	2.08	CHECK SHAFT ALIGNMENT	MW 12M	-----
	2.09	CHECK GEAR CASE AND OIL GAUGE FOR OIL LEAKS	MW M	-----
	2.10	CLEAN INSULATING WASHERS	MW 12M	-----
	2.11	(2.11 - 2.12) INSPECT AND CLEAN RING SURFACES	MW M	-----
	2.13	CHECK NOISE AND VIBRATION	MW M	-----
	2.14	CHECK CLEARANCE BETWEEN CURRENT CARRYING PARTS AND GRD METALLIC PARTS	MW 12M	-----

19.2 INTERRUPTERS; 149, 152, 160, 161, 164, 166 & 167 TYPE

FOR ALL UNITS

163-651-701 (3/1)	2.02	(A) LUBRICATE GEAR TEETH AND CAM BEARING SURFACES	MW 3M	-----
	2.04	CHECK CAM ROLLER MOVEMENT	MW 12M	-----
	2.05	CHECK CAM ROLLER BRACKET POSITION	MW 12M	-----
	2.06	CHECK BACKLASH BETWEEN GEARS	MW 12M	-----
	2.07	CHECK COUNTER-SHAFT AND CAM SHAFT MOVEMENT	MW 12M	-----
	2.08	CHECK SHAFT AND GEAR ALIGNMENT (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.09	CHECK SPRING TANG POSITION	MW 12M	-----
	2.10	CHECK CONTACT ALIGNMENT	MW 12M	-----
	2.11	CHECK TANG PRESSURE	MW 12M	-----
	2.12	CHECK PRESSURE OF OPRG SPRING	MW 12M	-----
	2.13	CHECK CLEARANCE BETWEEN OPRG SPRING AND OPRG BAR	MW 12M	-----
	2.14	CHECK CONTACT SEPARATION	MW 12M	-----
	2.15	CHECK CONTACT FOLLOW	MW 12M	-----
	2.16	CHECK PRESSURE BETWEEN CAM AND CAM ROLLER	MW 12M	-----

163-651-701 (3/1) 2.17 CHECK CONTACT SEQUENCE (165 TYPE INTERRUPTER) MW 12M -----
 OPTIONAL FEATURES, SELECT NO MORE THAN ONE CATEGORY

FLANGED ROLLERS

163-651-701 (3/1) 2.02 (B) LUBRICATE CAM ROLLER BEARINGS WITH
 FLANGED ROLLERS MW 3M -----

W/O FLANGED ROLLERS

163-651-701 (3/1) 2.02 (B) LUBRICATE CAM ROLLER BEARINGS WITHOUT
 FLANGED ROLLERS MW 3M -----

19.3 INTERRUPTERS; 157 TYPE

FOR ALL UNITS

163-605-701 (2/0) 2.01 CLEAN INTERRUPTER MW 12M -----
 2.02 (A) CHECK OPERATION OF "A" CAM ROLLER MW 12M -----
 2.03 (A) LUBE "A" CAM ROLLER BEARING MW 6M -----
 2.03 (B) LUBE CAM SHAFT BEARING ON INDEX WHEEL END MW 12M -----
 2.03 (C) LUBE CAM SHAFT BEARING ON CLUTCH END MW 24M -----
 2.03 (D) LUBE DRIVEN GEAR SHAFT BEARING MW M -----
 2.03 (E) LUBE DRIVING AND DRIVEN GEAR TEETH MW M -----
 2.05 (2.05 - 2.06) CHECK OPERATION OF GEARS AND
 GEAR SHAFT MW 12M -----
 2.07 (2.07 - 2.11) CHECK ARMATURE AIR GAP
 ALIGNMENT AND SPRING TENSION MW 12M -----
 2.12 CHECK OPERATE CURRENT FOR CLUTCH MAGNET MW 18M -----
 2.13 CHECK "A" CAM ROLLER PRESSURE MW 12M -----
 2.14 (2.14 - 2.20) CHECK CONTACT SPRING
 REQUIREMENTS MW 18M -----
 2.21 CHECK "A" CAM SPRING CLEARANCE MW 18M -----
 2.22 (2.22 - 2.23) CHECK PULSING CONTACT SPRING
 PRESSURE AND SEPARATION MW 18M -----

19.4 INTERRUPTERS; 163A, 163B, D81208 & D86444

FOR ALL UNITS

163-606-701 (3/0) 2.01 CLEAN MOTOR AND INTERRUPTER EXTERIOR SURFACE MW M -----
 2.03 CHECK INTERRUPTER SPEED MW 12M -----
 2.04 CHECK FREEDOM OF ROTATING PARTS MW 12M -----
 2.05 CHECK GEAR MESH MW 18M -----
 2.06 CHECK PINION ENGAGEMENT MW 18M -----
 2.07 CHECK RADIAL PLAY IN BEARINGS MW 18M -----
 2.09 CLEAN AND OVERHAUL MOTOR MW 18M -----
 2.10 CHECK BRUSHES ON MOTOR COMMUTATOR AND SPEED
 REGULATOR MW 18M -----
 2.11 CHECK REGULATOR CONTACT POINT THICKNESS MW 18M -----
 2.12 CHECK REGULATOR CONTACT RING THICKNESS MW 18M -----
 2.13 LUBRICATE MOTOR MW 6M -----
 2.15 (2.15 - 2.21) CHECK INTERRUPTER CONTACT
 REQUIREMENTS MW 18M -----

19.5 INTERRUPTERS; 163C, 163D & D87731

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FOR ALL UNITS

163-606-701 (3/0)	2.01	CLEAN MOTOR AND INTERRUPTER EXTERIOR SURFACE	MW M	-----
	2.03	CHECK INTERRUPTER SPEED	MW 12M	-----
	2.04	CHECK FREEDOM OF ROTATING PARTS	MW 12M	-----
	2.05	CHECK GEAR MESH	MW 18M	-----
	2.06	CHECK PINION ENGAGEMENT	MW 18M	-----
	2.07	CHECK RADIAL PLAY IN BEARINGS	MW 18M	-----
	2.08	LUBRICATE CAM SHAFT BEARINGS	MW M	-----
	2.09	CLEAN AND OVERHAUL MOTOR	MW 18M	-----
	2.10	CHECK BRUSHES ON MOTOR COMMUTATOR AND SPEED REGULATOR	MW 18M	-----
	2.11	CHECK REGULATOR CONTACT POINT THICKNESS	MW 18M	-----
	2.12	CHECK REGULATOR CONTACT RING THICKNESS	MW 18M	-----
	2.13	LUBRICATE MOTOR	MW 6M	-----
	2.15	(2.15 - 2.21) CHECK INTERRUPTER CONTACT REQUIREMENTS	MW 18M	-----

19.6 INTERRUPTERS; 165 TYPE

FOR ALL UNITS

163-651-701 (3/1)	2.02	(A) LUBRICATE GEAR TEETH AND CAM BEARING SURFACES	MW 3M	-----
	2.04	CHECK CAM ROLLER MOVEMENT	MW 12M	-----
	2.05	CHECK CAM ROLLER BRACKET POSITION	MW 12M	-----
	2.06	CHECK BACKLASH BETWEEN GEARS	MW 12M	-----
	2.07	CHECK COUNTER-SHAFT AND CAM SHAFT MOVEMENT	MW 12M	-----
	2.09	CHECK SPRING TANG POSITION	MW 12M	-----
	2.10	CHECK CONTACT ALIGNMENT	MW 12M	-----
	2.11	CHECK TANG PRESSURE	MW 12M	-----
	2.12	CHECK PRESSURE OF OPRG SPRING	MW 12M	-----
	2.13	CHECK CLEARANCE BETWEEN OPRG SPRING AND OPRG BAR	MW 12M	-----
	2.14	CHECK CONTACT SEPARATION	MW 12M	-----
	2.15	CHECK CONTACT FOLLOW	MW 12M	-----
	2.16	CHECK PRESSURE BETWEEN CAM AND CAM ROLLER	MW 12M	-----
	2.17	CHECK CONTACT SEQUENCE (165-TYPE INTERRUPTERS)	MW 12M	-----

OPTIONAL FEATURES, SELECT NO MORE THAN ONE CATEGORY

FLANGED ROLLERS

163-651-701 (3/1)	2.02	(B) LUBRICATE CAM ROLLER BEARINGS WITH FLANGED ROLLERS	MW 3M	-----
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W/O FLANGED ROLLERS

163-651-701 (3/1)	2.02	(B) LUBRICATE CAM ROLLER BEARINGS WITHOUT FLANGED ROLLERS	MW 3M	-----
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19.7 INTERRUPTERS; 168B, 170, 171, D85620 - D85622

FOR ALL UNITS

163-607-701 (3/0)	2.01	CLEAN MOTOR AND INTERRUPTER EXTERIOR SURFACE	MW 3M	-----
	2.02	(A) LUBRICATE BALL BEARINGS	MW 6M	-----
	2.02	(B) LUBRICATE CAMS AND GEAR TEETH	MW 6M	-----
	2.06	CHECK COVER POSITION	MW 12M	-----
	2.09	CHECK GEAR ALIGNMENT	MW 12M	-----
	2.10	CHECK GEAR LASH	MW 12M	-----
	2.11	CHECK CLEARANCE BETWEEN GEARS AND GEAR GUARDS	MW 12M	-----
	2.14	CHECK POSITION OF SHOE ON CAM	MW 12M	-----
	2.15	CHECK MAIN SPRING TENSION	MW 12M	-----
	2.16	CHECK FEATHER SPRING TENSION	MW 12M	-----
	2.17	CHECK FEATURE SPRING ALIGNMENT	MW 12M	-----
	2.18	CHECK CONTACT ALIGNMENT	MW 12M	-----
	2.19	CHECK MAKE AND BREAK OF PULSE CONTACTS	MW 12M	-----

OPTIONAL FEATURES, SELECT NO MORE THAN ONE CATEGORY

168B INTERRUPTERS

163-607-701 (3/0)	2.20	CHECK DISK POSITION	MW 12M	-----
	2.21	CHECK STUD ALIGNMENT	MW 12M	-----
	2.22	CHECK CONTACT ALIGNMENT	MW 12M	-----
	2.23	CHECK TENSION OF OPERATING SPRING	MW 12M	-----
	2.24	CHECK CLEARANCE BETWEEN CROSS HEAD AND STUD OF OPERATING SPRING	MW 12M	-----
	2.25	CHECK SEPARATION BETWEEN OPERATING SPRING AND STATIONARY SPRING	MW 12M	-----
	2.26	CHECK FEATHER SPRING TENSION	MW 12M	-----
	2.27	CHECK FEATHER SPRING POSITION	MW 12M	-----
	2.28	CHECK CONTACT SEPARATION BETWEEN OPERATING SPRING AND FEATHER SPRING	MW 12M	-----
	2.29	CHECK RETRACTILE SPRING TENSION	MW 12M	-----
	2.30	CHECK RETRACTILE SPRING BRACKETS	MW 12M	-----
163-670-701 (3/0)	2.05	(B) CHECK MOTOR SPEED	MW 6M	-----
	2.08	CHECK CLEARANCE BETWEEN COUPLING HEAD AND LEATHER DISK	MW 12M	-----

170A, D85621 & D85622 INTERRUPTERS

163-670-701 (3/0)	2.05	(A) CHECK MOTOR SPEED	MW 6M	-----
	2.07	CHECK FLYWHEEL POSITION	MW 12M	-----
	2.12	CHECK CLEARANCE BETWEEN FLYWHEEL AND FLYWHEEL GUARD	MW 12M	-----
	2.13	CHECK RELATION BETWEEN HIGH AND LOW SPEED CAM SHAFTS	MW 12M	-----

171A AND D85620 INTERRUPTERS

163-670-701 (3/0)	2.05	(A) CHECK MOTOR SPEED	MW 6M	-----
	2.07	CHECK FLYWHEEL POSITION	MW 12M	-----
	2.12	CHECK CLEARANCE BETWEEN FLYWHEEL AND FLYWHEEL GUARD	MW 12M	-----

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19.8 INTERRUPTERS; 173 TYPE

FOR ALL UNITS

163-609-701 (2/0)	2.01	CLEAN INTERRUPTER CONTACTS, GEARS, AND CAMS	MW 12M	-----
	2.02	LUBRICATE GEAR TEETH, OILITE BUSHING, AND PULSE CAM SURFACE	MW 12M	-----
	2.07	(2.07 - 2.12) CHECK MICRO SWITCH AND RELAY REQUIREMENTS	MW 12M	-----
	2.13	(2.13 - 2.17) CHECK PULSE SPRING ASSEMBLY REQUIREMENTS	MW 12M	-----

19.9 INTERRUPTERS; D-80264

FOR ALL UNITS

163-606-701 (3/0)	2.01	CLEAN MOTOR AND INTERRUPTER EXTERIOR SURFACE	MW M	-----
	2.03	CHECK INTERRUPTER SPEED	MW 18M	-----
	2.04	CHECK FREEDOM OF ROTATING PARTS	MW 18M	-----
	2.05	CHECK GEAR MESH	MW 18M	-----
	2.06	CHECK PINION ENGAGEMENT	MW 18M	-----
	2.07	CHECK RADIAL PLAY IN BEARINGS	MW 18M	-----
	2.09	CLEAN AND OVERHAUL MOTOR	MW 18M	-----
	2.10	CHECK BRUSHES ON MOTOR COMMUTATOR AND SPEED REGULATOR	MW 18M	-----
	2.11	CHECK REGULATOR CONTACT POINT THICKNESS	MW 18M	-----
	2.12	CHECK REGULATOR CONTACT RING THICKNESS	MW 18M	-----
	2.13	LUBRICATE MOTOR	MW 6M	-----
	2.15	(2.15 - 2.20) CHECK INTERRUPTER CONTACT REQUIREMENTS	MW 18M	-----

OPTIONAL FEATURES

WITH SCALE & POINTER

163-606-701 (3/0)	2.21	OPEN INTERVAL MEASUREMENTS WHEN EQUIPPED WITH SCALE & POINTER	MW 18M	-----
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19.10 INTERRUPTERS; J86839B

FOR ALL UNITS

163-680-301 (2/0)	5.00	ROUTINE CHECKS	MW 12M	-----
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19.11 INTERRUPTERS; J87395A

FOR ALL UNITS

163-676-301 (1/0)	4.02	CHECK INPUT VOLTAGE	MW 6M	-----
	4.03	CHECK INTERRUPTER OUTPUT FREQUENCY ADJMT	MW 6M	-----
	4.04	CHECK FUSE FAILURE ALARM	MW 6M	-----

TROUBLE TESTS

163-676-301 (1/0)	5.01	(5.01 - 5.02) TROUBLE CONDITIONS	TT	-----
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19.12 INTERRUPTERS; KS-5068 L1 - L3

FOR ALL UNITS

163-781-701 (3/0)	2.01	(A) CLEAN AND REPACK (FRESH GREASE) POLE CHANGER AND MOTOR BEARINGS	MW 24M	-----
	2.01	(B) GREASE MOTOR BEARING CHAMBER	MW 12M	-----

163-781-701	(3/0)	2.04	CLEAN AND INSPECT MOTOR COMMUTATOR AND POLE CHANGER DRUM SURFACES	MW 12M	-----
		2.06	CHECK BRUSH LENGTH	MW 12M	-----
		2.07	CHECK BRUSH FIT	MW 12M	-----
		2.08	CHECK MOTOR SPEED	MW 12M	-----
		2.09	CHECK TEMPERATURE	MW 12M	-----
		2.10	CHECK FOR EXCESSIVE NOISE AND VIBRATION	MW 12M	-----
TROUBLE TESTS					
163-781-701	(3/0)	2.02	(A) CONDITION OF MOTOR BEARINGS	TT	-----
		2.02	(B) CONDITION OF POLE CHANGE BEARINGS	TT	-----
		2.03	ALIGNMENT OF POLE CHANGER DRUMS	TT	-----
		2.05	BRUSH HOLDER ALIGNMENT	TT	-----
◆ 19.13 INTERRUPTERS; KS-5068 L4, L5					
FOR ALL UNITS					
163-780-701	(3/0)	2.01	LUBRICATION	MW 36M	-----
		2.06	CHECK BRUSH LENGTH	MW 12M	-----
		2.08	CHECK TEMPERATURE	MW 12M	-----
		2.09	CHECK FOR NOISE AND VIBRATION	MW 12M	-----
19.14 INTERRUPTERS; KS-5131					
FOR ALL UNITS					
163-675-701	(8/0)	2.01	(A) LUBRICATE MOTOR SHAFT BEARINGS	MW 48M	-----
		2.01	(E) LUBRICATE WORM AND WORM GEAR	MW 3M	-----
		2.01	(F) LUBRICATE LOW SPEED SHAFT BEARINGS	MW 3M	-----
		2.02	CHECK FOR NOISE AND VIBRATION	MW 3M	-----
		2.05	INSPECT COMMUTATOR AND INTERRUPTER DRUM SURFACES	MW 3M	-----
		2.06	CHECK COMMUTATION	MW M	-----
		2.07	CHECK MOTOR-BRUSH-HOLDER YOKE ADJMT	MW 12M	-----
		2.09	(2.09 - 2.10) CHECK BRUSH CONDITION AND LENGTH	MW 12M	-----
		2.11	CHECK BRUSH PRESSURE	MW 12M	-----
		2.12	CHECK LOW SPEED INTERRUPTER CONTACT SPRINGS	MW 12M	-----
		2.13	(A) CHECK TIMING	MW M	-----
TROUBLE TESTS					
163-675-701	(8/0)	2.04	(A) MOTOR SPEED	TT	-----
		2.08	BRUSH HLDR CLRNC	TT	-----
		2.15	BEARINGS & MOTOR FRAME TEMPERATURE	TT	-----
◆ 19.15 INTERRUPTERS; KS-5132, KS-5187, KS-5188 & KS-5313					
FOR ALL UNITS					
163-675-701	(8/0)	2.01	(A) LUBRICATE MOTOR SHAFT BEARINGS	MW 48M	-----
		2.01	(E) LUBRICATE WORM AND WORM GEAR	MW 3M	-----
		2.02	CHECK FOR NOISE AND VIBRATION	MW 3M	-----

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163-675-701 (8/0)	2.05	INSPECT COMMUTATOR AND INTERRUPTER DRUM SURFACES	MW 3M	-----
	2.06	CHECK COMMUTATION	MW M	-----
	2.07	CHECK MOTOR-BRUSH-HOLDER YOKE ADJMT	MW 12M	-----
	2.09	(2.09 - 2.10) CHECK BRUSH CONDITION AND LENGTH	MW 12M	-----
	2.11	CHECK BRUSH PRESSURE	MW 12M	-----
	2.12	CHECK LOW SPEED INTERRUPTER CONTACT SPRINGS	MW 12M	-----
	2.13	(A) CHECK TIMING	MW M	-----

TROUBLE TESTS

163-675-701 (8/0)	2.04	(A) MOTOR SPEED	TT	-----
	2.08	BRUSH HLDR CLRNC	TT	-----
	2.15	BEARINGS & MOTOR FRAME TEMPERATURE	TT	-----

19.16 INTERRUPTERS; KS-5458

FOR ALL UNITS

163-675-701 (8/0)	2.01	(E) LUBRICATE WORM AND WORM GEAR	MW 3M	-----
	2.01	(F) LUBRICATE LOW SPEED SHAFT BEARINGS	MW M	-----
	2.01	(G) LUBRICATE CAM SHAFT SLEEVE BEARINGS	MW 3M	-----
	2.02	CHECK FOR NOISE AND VIBRATION	MW 3M	-----
	2.05	INSPECT COMMUTATOR AND INTERRUPTER DRUM SURFACES	MW 3M	-----
	2.06	CHECK COMMUTATION	MW M	-----
	2.07	CHECK MOTOR-BRUSH-HOLDER YOKE ADJMT	MW 12M	-----
	2.09	(2.09 - 2.10) CHECK BRUSH CONDITION AND LENGTH	MW 12M	-----
	2.11	CHECK BRUSH PRESSURE	MW 12M	-----
	2.12	CHECK LOW SPEED INTERRUPTER CONTACT SPRINGS	MW 12M	-----
	2.13	(A & B) CHECK TIMING	MW M	-----

OPTIONAL FEATURES, SELECT NO MORE THAN ONE CATEGORY

MOTOR AD-20

163-675-701 (8/0)	2.01	(B1) LUBRICATE MOTOR SHAFT BEARINGS	MW 48M	-----
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MOTOR CWD-2215

163-675-701 (8/0)	2.01	(B2) LUBRICATE MOTOR SHAFT BEARINGS	MW 6M	-----
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MOTOR CBD-2215

163-675-701 (8/0)	2.01	(B3) REPLACE MOTOR SHAFT BEARINGS	MW 60M	-----
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TROUBLE TESTS

163-675-701 (8/0)	2.04	(B) MOTOR SPEED	TT	-----
	2.08	BRUSH HLDR CLRNC	TT	-----
	2.15	BEARINGS & MOTOR FRAME TEMPERATURE	TT	-----

19.17 INTERRUPTERS; KS-5545

FOR ALL UNITS

163-675-701 (8/0)	2.01	(C) LUBRICATE MOTOR SHAFT BEARINGS AND GEAR CASE	MW 12M	-----
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163-675-701 (8/0)	2.01	(E) LUBRICATE WORM AND WORM GEAR	MW 3M	-----
	2.02	CHECK FOR NOISE AND VIBRATION	MW 3M	-----
	2.05	INSPECT COMMUTATOR AND INTERRUPTER DRUM SURFACES	MW 3M	-----
	2.06	CHECK COMMUTATION	MW M	-----
	2.07	CHECK MOTOR-BRUSH-HOLDER YOKE ADJMT	MW 12M	-----
	2.09	(2.09 - 2.10) CHECK BRUSH CONDITION AND LENGTH	MW 12M	-----
	2.11	CHECK BRUSH PRESSURE	MW 12M	-----
	2.12	CHECK LOW SPEED INTERRUPTER CONTACT SPRINGS	MW 12M	-----
	2.13	(C - F) CHECK TIMING	MW M	-----
TROUBLE TESTS				
163-675-701 (8/0)	2.04	(C) MOTOR SPEED	TT	-----
	2.08	BRUSH HLDR CLRNC	TT	-----
	2.15	BEARINGS & MOTOR FRAME TEMPERATURE	TT	-----
19.18 INTERRUPTERS; KS-5746				
FOR ALL UNITS				
163-630-701 (2/0)	2.01	CHECK GRAPHITE OILLESS BEARINGS (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.02	CHECK END PLAY (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.03	CHECK FREEDOM OF ROTATING PARTS	MW 12M	-----
	2.04	CHECK FOR NOISE AND VIBRATION	MW 12M	-----
	2.05	CHECK INTERRUPTER SPRINGS AND CONTACTS	MW 12M	-----
	2.06	CHECK TIMING AND TOLERANCES	MW 12M	-----
19.19 INTERRUPTERS; KS-15509				
FOR ALL UNITS				
163-631-701 (1/0)	2.01	LUBRICATE GEAR TRAIN	MW 12M	-----
	2.03	CHECK FREEDOM OF ROTATING PARTS (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.04	CHECK FOR NOISE AND VIBRATION (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.05	CHECK INTERRUPTER SPRING CONTACTS	MW 12M	-----
	2.06	CHECK INTERRUPTER TIMING	MW 12M	-----
19.20 INTERRUPTERS; KS-15547				
FOR ALL UNITS				
163-675-701 (8/0)	2.01	(D) REPLACE MOTOR SHAFT BEARINGS	MW 60M	-----
	2.01	(E) LUBRICATE WORM AND WORM GEAR	MW 3M	-----
	2.02	CHECK FOR NOISE AND VIBRATION	MW 3M	-----
	2.05	INSPECT COMMUTATOR AND INTERRUPTER DRUM SURFACES	MW 3M	-----
	2.06	CHECK COMMUTATION	MW 12M	-----
	2.07	CHECK MOTOR-BRUSH-HOLDER YOKE ADJMT	MW 12M	-----
	2.09	(2.09 - 2.10) CHECK BRUSH CONDITION AND LENGTH	MW 12M	-----

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163-675-701 (8/0)	2.11	CHECK BRUSH PRESSURE	MW 12M	-----
	2.12	CHECK LOW SPEED INTERRUPTER CONTACT SPRINGS	MW 12M	-----
	2.14	CHECK OPERATION OF CENTRIFUGAL STARTING SWITCH	MW 12M	-----

TROUBLE TESTS

163-675-701 (8/0)	2.04	(D) MOTOR SPEED	TT	-----
	2.08	BRUSH HLDR CLRNC	TT	-----
	2.15	BEARINGS & MOTOR FRAME TEMPERATURE	TT	-----

19.21 INTERRUPTERS; KS-15634

FOR ALL UNITS

163-220-701 (7/1)	2.03	CHECK FOR NOISE AND VIBRATION	MW 12M	-----
	2.04	CHECK TEMPERATURE	MW 12M	-----
	2.06	CHECK CONTACT FOLLOW	MW 12M	-----
	2.07	CHECK TIMING REQUIREMENTS	MW 12M	-----

OPTIONAL FEATURES

HOLTZER-CABOT/INDIANA GENERAL LUBE GEAR BOX MFG PRIOR TO 1-1-72

163-220-701 (7/1)	2.02	(A) LUBRICATE INTERRUPTER GEAR BOX (HOLTZER-CABOT AND INDIANA GENERAL, INC.) NOTE: HOLTZER-CABOT MFRD AFTER 1-1-72 IS LIFE-LUBRICATED	MW 12M	-----
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19.22 INTERRUPTERS; KS-15757

FOR ALL UNITS

163-220-701 (7/1)	2.02	(C) LUBRICATE INTERRUPTER SHAFT BEARING OF KS-15757 L1 (HOLTZER-CABOT AND INDIANA GENERAL, INC)	MW 12M	-----
	2.03	CHECK FOR NOISE AND VIBRATION	MW 12M	-----
	2.04	CHECK TEMPERATURE	MW 12M	-----
	2.06	CHECK CONTACT FOLLOW	MW 12M	-----
	2.07	CHECK TIMING REQUIREMENTS	MW 12M	-----

OPTIONAL FEATURES

HOLTZER-CABOT/INDIANA GENERAL LUBE GEAR BOX MFG PRIOR TO 1-1-72

163-220-701 (7/1)	2.02	(A) LUBRICATE INTERRUPTER GEAR BOX (HOLTZER-CABOT AND INDIANA GENERAL, INC.) NOTE: HOLTZER-CABOT MFRD AFTER 1-1-72 IS LIFE-LUBRICATED	MW 12M	-----
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19.23 INTERRUPTERS; 169A, 169B

FOR ALL UNITS

163-608-701 (2/0)	2.01	CLEAN RELAY CONTACTS AND PARTS	MW W	-----
	2.02	CHECK TIGHTNESS OF ASSY OF 26B CONN BLK	MW 6M	-----
	2.03	CHECK SPRING POSITION FOR 26B CONN BLK E/W TWO SPRING ASSY (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.04	CHECK SPRING POSITION FOR 26B CONN BLK E/W FOUR SPRING ASSY (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.05	CHECK INTERRUPTER TERMINALS	MW 12M	-----

163-608-701 (2/0)	2.06	CHECK SPONGE RUBBER PADS (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.07	CHECK CONTACT ALNMT	MW 12M	-----
	2.08	CHECK CORE AIR-GAPS	MW 12M	-----
	2.09	CHECK BACK STOP GAP	MW 12M	-----
	2.10	CHECK REED AND SPRING CONTACT SEPARATION (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.11	CHECK TIGHTNESS OF CLAMPING SCREWS AND BOLTS (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.12	CHECK ELECTRICAL REQ	MW 12M	-----
19.24 INTERRUPTERS; 84A, 84C -- 84H, 84J TYPE				
FOR ALL UNITS				
163-600-701 (2/0)	2.01	CHECK STARTING AND OPERATING BATTERY VOLTAGE	MW 12M	-----
	2.02	(A) CHECK RINGING VOLTAGES	MW 12M	-----
	2.02	(B) CHECK OUTPUT FREQUENCY	MW 6M	-----
TROUBLE TESTS				
◆ 163-600-701 (2/0)	2.02	(C - N) APPARATUS REQUIREMENTS FAILURE	TT	-----
◆ 19.25 INTERRUPTERS; 100B, 100C, 100D & D-77176				
FOR ALL UNITS				
163-601-701 (1/0)	2.02	CHECK CONTACT ALIGNMENT	MW 12M	-----
	2.04	CHECK CONTACT SPRING LOCATION	MW 12M	-----
	2.06	CHECK TIGHTNESS OF CLAMPING SCREWS AND LOCK NUTS (UPON REPAIR OF EQPT OR PRFRMC INDICATES CHECK ADVISABLE)	MW *	-----
	2.07	CLEAN AND INSPECT CONTACTS	MW 12M	-----
OPTIONAL FEATURES, SELECT NO MORE THAN ONE CATEGORY				
◆ 100-B INTERRUPTER				
163-601-701 (1/0)	2.01	(A) CHECK MAGNET CORE AND REED AIR GAP	MW 12M	-----
	2.03	CHECK CONTACT SPRING TENSION	MW 12M	-----
	2.05	(A) CHECK ELECTRICAL REQ	MW 12M	-----
◆ 100-C AND D-77176 INTERRUPTER				
163-601-701 (1/0)	2.01	(B) CHECK MAGNET CORE AND REED AIR GAP	MW 12M	-----
	2.03	CHECK CONTACT SPRING TENSION	MW 12M	-----
	2.05	(B) CHECK ELECTRICAL REQ	MW 12M	-----
◆ 100-D INTERRUPTER				
163-601-701 (1/0)	2.01	(B) CHECK MAGNET CORE AND REED AIR GAP	MW 12M	-----
	2.05	(B) CHECK ELECTRICAL REQ	MW 12M	-----
19.26 INTERRUPTERS; 153 TYPE				
FOR ALL UNITS				
163-602-701 (2/0)	2.01	CLEAN MOTOR HOUSING, BASE, GEAR CASING AND INTERRUPTER ROLLS	MW M	-----
	2.02	(A) LUBRICATE GEAR TEETH	MW M	-----
	2.02	(B) LUBRICATE BALL BEARINGS AT GEAR CASE END	MW M	-----

163-602-701 (2/0)	2.02	(C) LUBRICATE BALL BEARINGS AT END OPPOSITE GEAR CASE	MW 12M	-----
	2.06	CHECK DEAD INTERMEDIATE SEGMENTS	MW M	-----
	2.07	(A) CHECK OIL LEVEL IN BOTTOM GEAR CASE	MW W	-----
	2.07	(B) DRAIN BOTTOM GEAR CASE OIL (KS-2245 OIL - 24M, KS-16326 OIL - 60M)	MW *	-----
	2.08	CHECK LEAKAGE AT SEALED JOINTS	MW D	-----
	2.09	CHECK LEAKAGE AT OIL CLOSURES	MW D	-----
	2.10	CHECK BRUSH FIT	MW 12M	-----
	2.11	REPLACE BRUSHES (PRIOR TO BRUSH FINGERS REACHING STOPS)	MW *	-----
	2.12	CHECK INSULATION IN TRANSVERSE AND PERIPHERAL SLOTS	MW 12M	-----
	2.13	CHECK ALARM CONTACT CONDITION AND PRESSURE	MW 12M	-----
	2.14	CHECK DRUM SURFACE	MW 12M	-----
	2.15	CHECK DRUM SHAFT END PLAY	MW 12M	-----
	2.16	CHECK BRUSH CENTERING	MW 12M	-----
	2.17	CHECK BRUSH FINGER PRESSURE	MW 12M	-----

19.27 INTERRUPTERS; 155A

FOR ALL UNITS

163-603-701 (2/0)	2.1	CLEAN SURFACES	MW 12M	-----
	2.10	CHECK MOTOR BRUSH LENGTH	MW 12M	-----
	2.13	LUBRICATE MOTOR BEARINGS	MW 6M	-----
	2.16	INSPECT AND LUBRICATE CAM SHAFT AND "A" CAM ROLLER BEARINGS	MW 12M	-----
	2.19	CHECK ARMATURE - POLE PIECE AIR GAP	MW 12M	-----
	2.20	CHECK ARMATURE - DRIVING DISK ALIGNMENT	MW 12M	-----
	2.21	CHECK ARMATURE SPRING TENSION	MW 12M	-----
	2.22	CHECK CLUTCH MAGNET OPERATING CURRENT	MW 12M	-----
	2.23	CHECK "A" CAM ROLLER PRESSURE	MW 12M	-----
	2.24	CHECK INTERRUPTER CONTACT SPRING PRESSURE	MW 12M	-----
	2.25	(2.25 - 2.30) CHECK CLEARANCE AND POSITION OF CONTACT SPRINGS	MW 12M	-----
	2.3	CHECK INTERRUPTER SPEED	MW 12M	-----
	2.31	CHECK POSITION OF "A" CAM CONTACT SPRING	MW 12M	-----
	2.32	(2.32 - 2.33) CHECK PULSING SPRING CONTACT PRESSURE AND GAP	MW 12M	-----
	2.34	CHECK POINTER ADJMT	MW 12M	-----
	2.35	CLEAN INTERRUPTER DRUM	MW 12M	-----
	2.36	REPLACE INTERRUPTER BRUSHES (PRIOR TO BRUSH FINGERS REACHING STOPS)	MW *	-----
	2.37	CHECK BRUSH FIT	MW 12M	-----
	2.38	CHECK ECCENTRICITY OF INTERRUPTER DRUM	MW 12M	-----
	2.39	CHECK BRUSH FINGER PRESSURE	MW 12M	-----
	2.4	CHECK OIL LEVEL IN GEAR CASE	MW W	-----

163-603-701	(2/0)	2.5	DRAIN GEAR CASE OIL	MW 6M	-----
		2.7	CHECK LEAKAGE AT SEALED JOINTS	MW D	-----
		2.8	CHECK LEAKAGE AT OIL CLOSURES	MW D	-----
		2.9	CLEAN MOTOR HOUSING AND REGULATOR PARTS	MW 6M	-----
19.28 INTERRUPTERS; 156B AND J68602AF					
FOR ALL UNITS					
163-604-701	(4/0)	2.01	CLEAN RELAY CONTACTS	MW 12M	-----
		2.02	CHECK VIBRATOR REED-MAGNET CORE AIR GAP	MW 12M	-----
		2.03	CHECK VIBRATOR CONTACT ALNMT	MW 12M	-----
		2.04	CHECK VIBRATOR CONTACT SPRING TENSION	MW 12M	-----
		2.05	CHECK VIBRATOR CONTACT SPRING LOCATION	MW 12M	-----
		2.06	CHECK INTERRUPTER OUTPUT CURRENT FREQUENCY	MW 12M	-----
		2.07	CHECK VIBRATOR CONTACT ADJMT	MW 12M	-----
		2.08	CHECK MINIMUM VOLTAGE START	MW 12M	-----
		2.09	CHECK TIGHTNESS OF VIBRATOR CLAMPING SCREWS AND LOCK NUTS	MW 12M	-----