

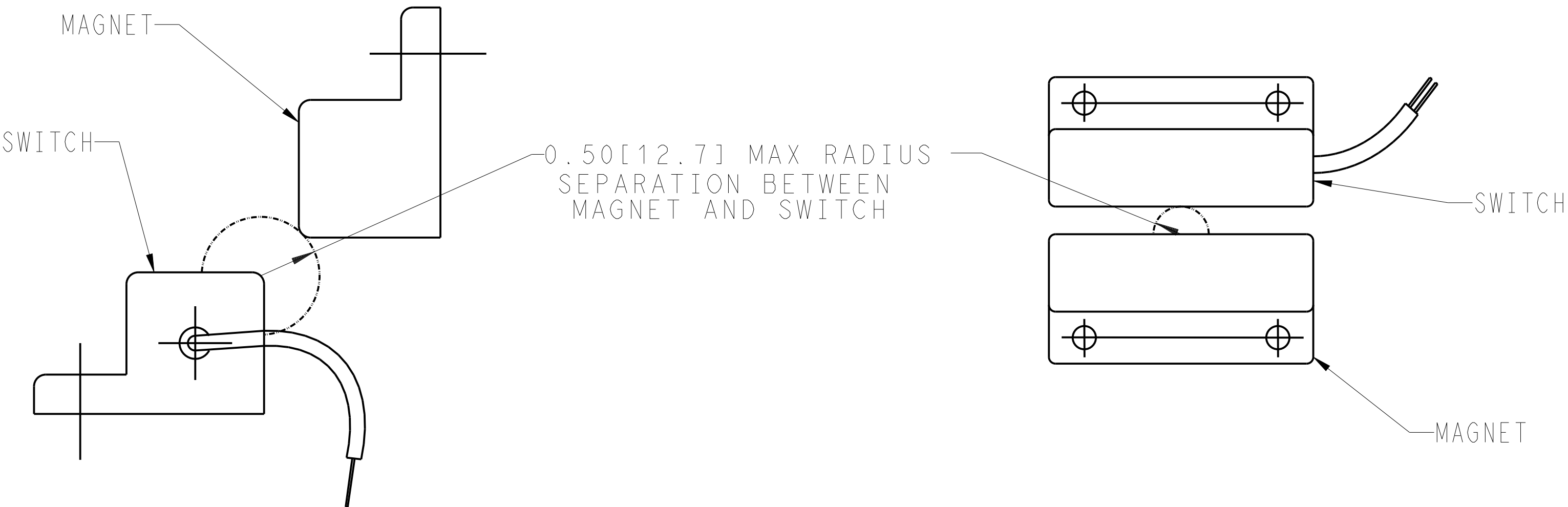


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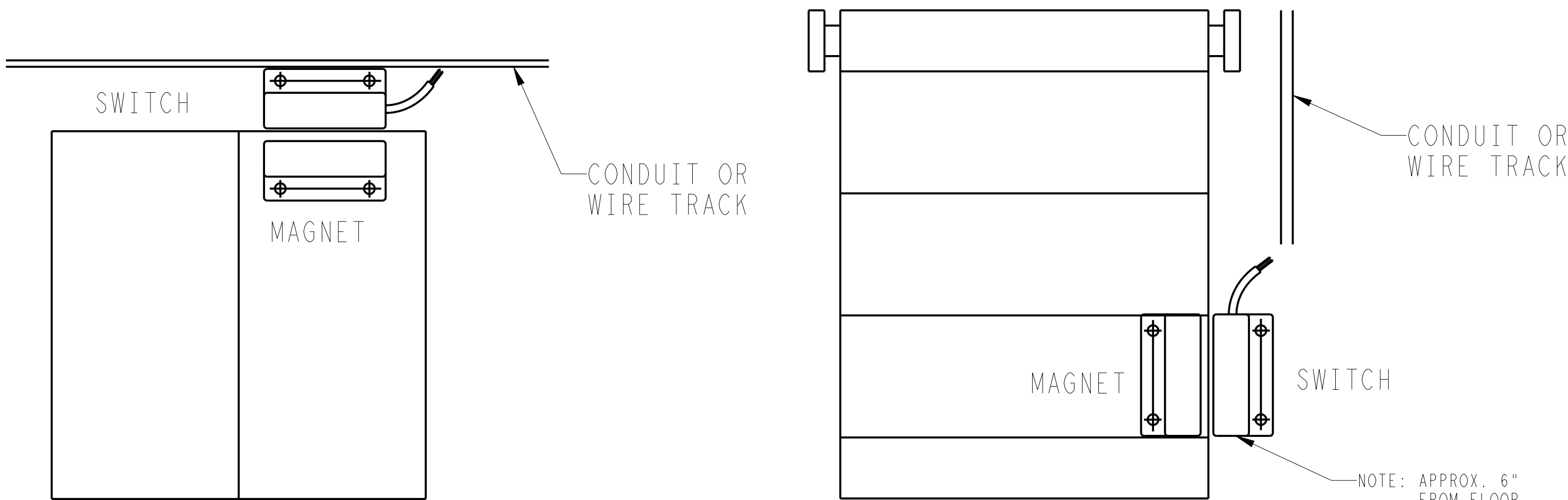
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CTD PART NO.	SHEET NUMBER	INSTALLATION PROCEDURE FOR	SWITCH TYPE
98-03241-00	1 AND 2	ADVANCE AND APX MICROS	NC (NORMALLY CLOSED)
	3	eSOLUTIONS TELEMATICS	
98-03241-01	1 AND 2	ADVANCE AND APX MICROS	NO (NORMALLY OPEN)
	3	eSOLUTIONS TELEMATICS	
	4	SUPRA S	
98-03241-02	1 AND 5	ADVANCE & APX MICROS	NC (NORMALLY CLOSED)
	3	eSOLUTIONS TELEMATICS	
98-06241-03	1 AND 2	ADVANCE & APX MICROS	NO (NORMALLY OPEN)
	3	eSOLUTIONS TELEMATICS	
	4	SUPRA S	



RECOMMENDED MOUNTING POSITIONS

-00 AND -01



SWINGING DOOR APPLICATION

-00, -01, -02 AND -03

(SWITCH AND MAGNET SHAPE FOR REFERENCE ONLY)

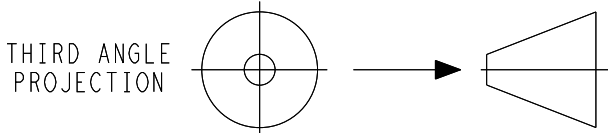
OVERHEAD DOOR APPLICATION

-00, -01, -02 AND -03

(SWITCH AND MAGNET SHAPE FOR REFERENCE ONLY)

G	INITIAL RELEASE OF -02. UPDATED NOTES. UPDATED SHEET INDEX. SEE SHEET 1, 2 & 3. ADDED SHEET 5.	09 SEP 2021	LT-SN/ZMG	JM		ECN1146736
F	IN CHART, ADDED "SUPRA S" TO -01; UPDATED SHT. INDEX; ADDED SHEET 4.	1 JULY 2019	MGC			71N0214P19
E	ADDED CHART AND -01. UPDATED SPEC 4.0 TO INCLUDE DOOR OPEN SWITCH CLOSED.	30 JUN 2017	ZMG			72N0258P17
SYM	REVISION RECORD	DATE	BY	ENGR.	M.E.	NPCA NO.

SHEET INDEX	REV	G	G	G	F	G
	SHEET	1	2	3	4	5



IMPERIAL INCH FORMAT:
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES WITH
METRIC CONVERSIONS IN [MILLIMETERS]

TITLE
INSTALLATION INSTRUCTIONS
REMOTE DOOR SWITCH KIT (ADVANCE/APX/eSOLUTIONS/SUPRA S)

DRAWING NO.
98-03241
SHEET 1 of 5

REV
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SUPERSEDES:

PART CLASSIFICATION: US EAR99

REMOTE SWITCH INSTALLATION PROCEDURE

NDA, NDX, AND NDL ADVANCE MICRO UNITS, APX UNITS ONLY

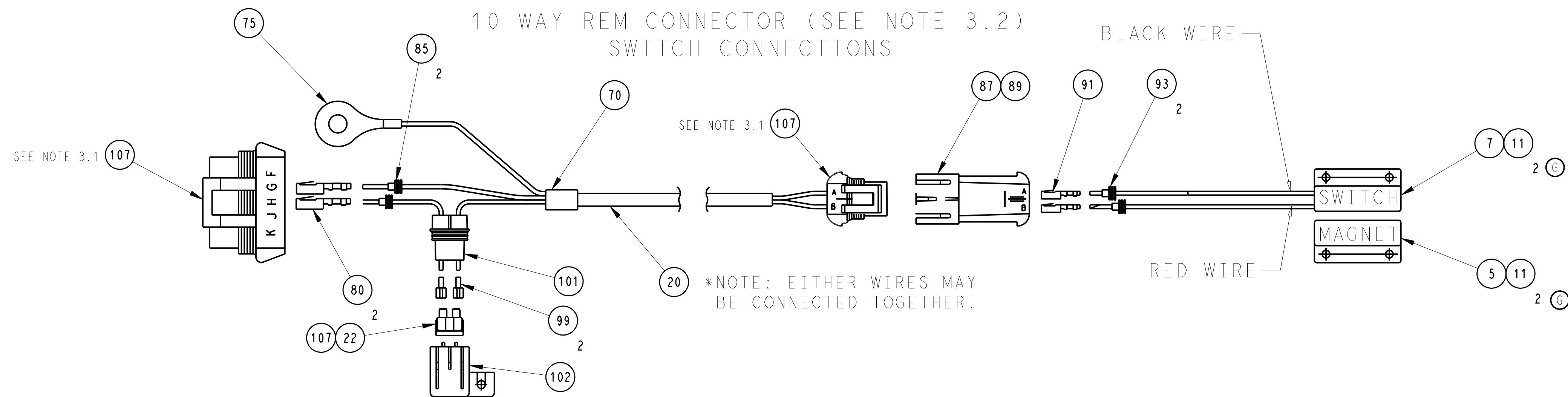
NOTE: INSTALLATION OF THIS REMOTE SWITCH KIT REQUIRES A 3/8" DIA HOLE TO BE DRILLED THROUGH THE NOSE OF THE TRAILER. THE TRAILER MANUFACTURER AND/OR CUSTOMER SHOULD BE CONSULTED PRIOR TO INSTALLATION FOR EXPLICIT INSTRUCTIONS ON THIS PROCEDURE TO AVOID AFFECTING THE TRAILER MANUFACTURER'S WARRANTY. THE CABLE MAY BE ROUTED INTO THE TRAILER THROUGH THE EVAPORATOR POD, HOWEVER, THIS WILL MAKE IT NECESSARY TO DISMOUNT THE ENTIRE CABLE INSIDE THE TRAILER SHOULD THE UNIT EVER NEED TO BE REMOVED.

- 1.0 INSTALL DOOR SWITCH AND MAGNET ON TRAILER DOORS (OR OTHER TYPE OF SWITCH). THEN INSTALL WIRE SEALS (ITEM 93) AND TERMINALS (ITEM 91) TO SWITCH WIRES. INSERT THE WIRES INTO THE EMPTY CAVITIES OF THE CONNECTOR (ITEM 87). BE SURE THAT THE PINS ARE ORIENTATED CORRECTLY AS NOT TO DAMAGE THEM. YOU SHOULD FEEL/HEAR THEM CLICK INTO PLACE WHEN THEY ARE CORRECT. INSTALL SECONDARY LOCK AND PLUG INTO CABLE CONNECTOR.
- 2.0 ROUTE THE CABLE FROM THE SWITCH TO THE 10-WAY CONNECTOR LOCATED NEAR THE CONTROL BOX ON THE UNIT. AFFIX THE CABLE USING THE CUSHION CLAMPS (ITEM 25) AND SELF THREADING SCREWS (ITEM 40). THIS WILL ALSO REQUIRE A 3/8" DIA HOLE IN THE FRONT WALL, PREFERABLY LOCATED IN THE AREA BEHIND THE CONTROL BOX, TO PASS THE CABLE THROUGH (SEE NOTE ABOVE) SO THAT EXCESS IS HANGING OUTSIDE THE FRONT OF THE TRAILER. USE SILICONE CAULK OR OTHER SIMILAR MATERIAL TO STABILIZE THE CABLE THROUGH THE WALL AND TO SEAL THE WALL AGAINST MOISTURE INTRUSION.
- 3.0 UNIT HARNESS CONNECTIONS:
 - 3.1 APPLY CONTACT LUBRICANT (ITEM 107) TO THE EXPOSED TERMINALS OF ALL CONNECTORS. TO CONNECT SWITCH AS "DOOR SWITCH", LOCATE THE 2-WAY CONNECTOR, TIED TO THE MAIN WIRE HARNESS, UNDER THE ENGINE, WITH WIRES LABELED "DS-A" AND "DS-B". REMOVE THE MATING PLUG. REMOVE THE WIRE LOCK FROM THE PLUG AND DISCARD THE CAVITY PLUGS. CUT OFF EXCESS CABLE. THEN CAREFULLY STRIP BACK CABLE JACKET ABOUT 6". CAREFULLY TRIM OFF BRAID LEAVING ABOUT 0.25" EXPOSED. THEN USING SOLDER SLEEVE (ITEM 70) ATTACH GROUND WIRE (ITEM 75) TO EXPOSED BRAID WITH HEAT GUN. APPLY HEAT UNTIL SOLDER RING INSIDE SLEEVE MELTS AND FUSES WIRE AND SHIELD. THEN INSTALL WIRE SEAL (ITEM 93) AND TERMINAL (ITEM 95) ONTO GREEN CABLE WIRE AND INSERT INTO 2-WAY CONNECTOR CAVITY B. THEN ROUTE WHITE CABLE WIRE THROUGH CAVITY OF FUSE HOLDER (ITEM 101) AND AND INSTALL TERMINAL (ITEM 99). THEN PULL WIRE BACK THROUGH TO SEAT IN CONNECTOR. TAKE EXCESS CABLE AND REMOVE 6" OF WHITE WIRE. ON ONE END INSTALL WIRE SEAL (ITEM 93) AND TERMINAL (ITEM 95) AND INSERT INTO 2-WAY CONNECTOR IN CAVITY A AND REPLACE WIRE LOCK ON 2-WAY CONNECTOR. THEN ROUTE OPPOSITE END THROUGH FUSE HOLDER AND INSTALL TERMNIAL (ITEM 99), THEN PULL WIRE TO SEAT TERMINAL IN CONNECTOR. INSTALL FUSE (ITEM 22) AND FUSE HOLDER CAP (ITEM 102) TO FUSE HOLDER (ITEM 101).
 - 3.2 TO CONNECT SWITCH AS A "REMOTE SWITCH (REMS1 OR REMS2)", LOCATE THE 10-WAY CONNECTOR UNDER THE ENGINE, TIED TO THE MAIN WIRE HARNESS. REMOVE THE MATING PLUG. REMOVE THE WIRE LOCK FROM THE PLUG AND DISCARD THE CAVITY PLUGS FROM THE APPROPRIATE CAVITIES ACCORDING TO THE CHART ON SHT 2. CUT OFF EXCESS CABLE. THEN CAREFULLY STRIP BACK CABLE JACKET ABOUT 6". CAREFULLY TRIM OFF BRAID LEAVING ABOUT 0.25" EXPOSED. THEN USING SOLDER SLEEVE (ITEM 70) ATTACH GROUND WIRE (ITEM 75) TO EXPOSED BRAID WITH HEAT GUN. APPLY HEAT UNTIL SOLDER RING INSIDE SLEEVE MELTS AND FUSES WIRE AND SHIELD. THEN INSTALL WIRE SEAL (ITEM 85) AND TERMINAL (ITEM 80) ONTO GREEN CABLE WIRE AND INSERT INTO 10-WAY CONNECTOR CAVITY B. THEN ROUTE WHITE CABLE WIRE THROUGH CAVITY OF FUSE HOLDER (ITEM 101) AND INSTALL TERMINAL (ITEM 99). THEN PULL WIRE BACK THROUGH TO SEAT IN CONNECTOR. TAKE EXCESS CABLE AND REMOVE 6" OF WHITE WIRE. ON ONE END INSTALL WIRE SEAL (ITEM 85) AND TERMINAL (ITEM 80) AND INSERT INTO 10-WAY CONNECTOR IN CAVITY A AND REPLACE WIRE LOCK ON 10-WAY CONNECTOR. THEN ROUTE OPPOSITE END THROUGH FUSE HOLDER AND INSTALL TERMNIAL (ITEM 99), THEN PULL WIRE TO SEAT TERMINAL IN CONNECTOR. INSTALL FUSE (ITEM 22) AND FUSE HOLDER CAP (ITEM 102) TO FUSE HOLDER (ITEM 101).
- 4.0 ADVANCE/APX REMOTE SWITCH SETTINGS:
DOOR AND/OR REMOTE SWITCHES MUST BE ENABLED IN THE MICRO COFIGURATION LIST. (SEE SERVICE MANUAL). CHANGE THE APPROPRIATE CONFIGURATION FROM "NOT INSTALLED" TO "DOOR OPEN SWITCH OPEN" OR "DOOR OPEN SWITCH CLOSED" DEPENDING ON SWITCH TYPE INSTALLED.

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DRAWING NO.	REV
98-03241	G
SHEET 2 OF	

REMOTE SENSOR/DOOR SWITCH INSTALLATION PROCEDURE

eSOLUTIONS TELEMATICS

NOTE: THIS INSTALLATION REQUIRES AND ASSUMES PREVIOUS INSTALLATION OF THE eSOLUTIONS TELEMATICS OPTION.

NOTE: DOOR SWITCHES MAY BE INSTALLED ON MORE THAN ONE DOOR. HOWEVER, THEY MUST BE WIRED IN SERIES SINCE THE eSOLUTIONS SYSTEM ONLY HAS CAPACITY TO READ ONE DOOR SWITCH CIRCUIT. WHEN MORE THAN ONE SWITCH IS INSTALLED IN SERIES, THE eSOLUTIONS SYSTEM WILL NOT KNOW WHICH DOOR IS OPEN.

NOTE: INSTALLATION OF THIS REMOTE DOOR SWITCH KIT REQUIRES A 3/8IN DIA HOLE TO BE DRILLED THROUGH THE NOSE OF THE TRAILER. THE TRAILER MANUFACTURER AND/OR CUSTOMER SHOULD BE CONSULTED PRIOR TO INSTALLATION FOR EXPLICIT INSTRUCTIONS ON THIS PROCEDURE TO AVOID AFFECTING THE TRAILER MANUFACTURER'S WARRANTY. THE CABLE MAY BE ROUTED INTO THE TRAILER THROUGH THE EVAPORATOR POD, HOWEVER, THIS WILL MAKE IT NECESSARY TO DISMOUNT THE ENTIRE CABLE INSIDE THE TRAILER SHOULD THE UNIT EVER NEED TO BE REMOVED.

- 1.0 ASSEMBLE THE CONNECTOR TO THE DOOR SWITCH. INSTALL WIRE SEALS (ITEM 93) AND TERMINALS (ITEM 91) TO SWITCH (ITEM 7) WIRES. INSERT THE WIRES INTO THE EMPTY CAVITIES OF CONNECTOR (ITEM 87). BE SURE THE PINS ARE ORIENTATED CORRECTLY SO AS NOT TO DAMAGE THEM. THERE WILL BE A CLICK THAT CAN BE HEARD/ FELT WHEN THEY ARE SEATED CORRECTLY. INSTALL SECONDARY LOCK (ITEM 89) TO THE CONNECTOR.
- 2.0 INSTALL DOOR SWITCH (ITEM 7) AND MAGNET (ITEM 5) ON TRAILER DOOR WITH HARDWARE (ITEM 11).
- 3.0 DRILL A HOLE THROUGH THE TRAILER FRONT WALL. DRILL A 3/8IN DIA HOLE THROUGH THE FRONT WALL OF THE TRAILER (SEE NOTE ABOVE), PREFERABLY IN THE AREA BEHIND THE ROADSIDE LOWER REAR OF THE TRU, AND TAKING CARE NOT TO DAMAGE THE TRU OR CRITICAL TRAILER COMPONENTS.
- 4.0 APPLY CONTACT LUBRICANT (ITEM 107) TO EXPOSED TERMINALS OF THE CONNECTORS. ROUTE THE EXTENSION CABLE. PLUG THE EXTENSION CABLE (ITEM 20) CONNECTOR INTO THE DOOR SWITCH CONNECTOR. ROUTE THE CABLE FROM THE DOOR SWITCH, PASSING IT THROUGH THE TRAILER WALL, TO THE eSOLUTIONS HARNESS OPTIONS PIGTAILS LOCATED IN THE ROADSIDE LOWER REAR OF THE TRU. SECURE THE CABLE EVERY 2 TO 3 FEET USING CUSHION CLAMPS (ITEM 25) AND SELF THREADING SCREWS (ITEM 40). MAKE SURE THE CABLE CANNOT CHAFE ON ANY SHARP EDGES. USE SILICONE CAULK OR SIMILIAR MATERIAL TO STABILIZE THE CABLE THROUGH THE WALL AND TO SEAL THE WALL AGAINST MOISTURE INTRUSION.

- 5.0 CONNECT THE REMOTE DOOR SWITCH TO THE eSOLUTIONS TELEMATICS HARNESS AND CHASSIS GROUND.
- 5.1 LOCATE THE OPTIONS PIGTAILS ON THE TELEMATICS HARNESS LOCATED IN THE ROADSIDE LOWER REAR AREA OF THE TRU. THE DOOR SWITCH WILL CONNECT TO THE WIRES LABELED "DS-A" AND "FLS-B", WHERE "FLS-B" WILL PROVIDE THE CIRCUIT GROUND SHARED WITH THE FUEL LEVEL SENSOR CIRCUIT GROUND. REMOVE THE HEAT SHRINK TERMINATIONS FROM THE "DS-A" AND "FLS-B" WIRES.

NOTE: IF A FUEL LEVEL SENSOR (FLS) HAS ALREADY BEEN INSTALLED OR WILL BE INSTALLED TO THE eSOLUTIONS TELEMATICS, THAT THE DOOR SWITCH AND FLS MUST SHARE THE COMMON FLS GROUND AT "FLS-B".

- 5.2 PLAN AND MAKE THE CONNECTION OF THE DOOR SWITCH EXTENSION CABLE'S SHIELD (DRAIN) GROUND TO THE CHASSIS. CUT OFF EXCESS CABLE. THEN CAREFULLY STRIP BACK CABLE JACKET ABOUT 6". CAREFULLY TRIM OFF BRAID LEAVING ABOUT 0.25" EXPOSED. THEN USING SOLDER SLEEVE (ITEM 70) ATTACH GROUND WIRE (ITEM 75) TO EXPOSED BRAID WITH HEAT GUN. APPLY HEAT UNTIL SOLDER RING INSIDE SLEEVE MELTS AND FUSES WIRE AND SHIELD. CONNECT THE RING TERMINAL (ITEM 75) TO THE TRAILER OR TRU CHASSIS. MAKE SURE IT IS A GOOD ELECTRICAL CONNECTION.

- 5.3 SPLICE THE DOOR SWITCH EXTENSION WIRES TO THE "DS-A" AND "FLS-B" WIRES OF THE eSOLUTIONS TELEMATICS HARNESS, GREEN TO BLACK AND WHITE TO WHITE, USING BUTT SPLICES (ITEM 106) AND HEAT SHRINK TUBES (ITEM 105).

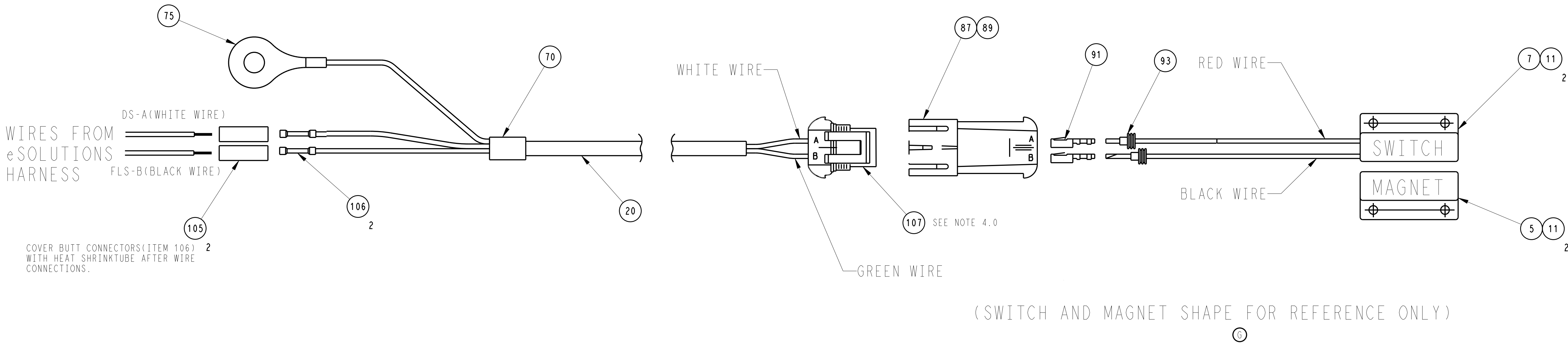
- 5.4 USE WIRE TIES (ITEM 55) PROVIDED TO TIE EXCESS CABLE OUT OF THE WAY AT THE SENSOR AND AT THE UNIT.

- 6.0 CONFIGURE THE REMOTE DOOR SWITCH AND CHECK THAT IT WORKS.

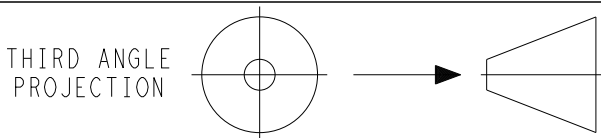
NOTE: THIS KIT SUPPLIES A DOOR SWITCH WITH N.C.(NORMALLY CLOSED) CONTACTS. eSOLUTIONS TELEMATICS MAY ALSO BE CONFIGURED TO WORK WITH N.O. (NORMALLY OPEN) SWITCH CONTACTS IF NEEDED.

NOTE: THE REMOTE DOOR SWITCH CIRCUIT IS ELECTRICALLY PROTECTED AS PART OF THE eSOLUTIONS TELEMATICS SYSTEM PROTECTION.

FOR MORE INFORMATION CONSULT THE eSOLUTIONS INSTALLATION MANUAL.



G	ADDED NOTE.	09 SEP 2021	LT-SN/ZMG	JM		ECN1146736
D	NOTE 4.0: ADDED "ADD LUBRICANT..."; ADDED "NOTE: THIS KIT SUPPLIES..."; ADDED IT.107 & "SEE NOTE 4.0"	03FEB2017	KFV	DMM		72N0002P17
C	ADDED THIS SHEET	15 DEC 2016	LT-IP			72N0031P16
SYM	REVISION RECORD	DATE	BY	ENGR.	M.E.	NPCA NO.



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TITLE
INSTALLATION INSTRUCTIONS
REMOTE DOOR SWITCH KIT (ADVANCE/APX/eSOLUTIONS/SUPRA S)

DRAWING NO.
98-03241
SHEET 3 OF 6
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SUPERSEDES: _____

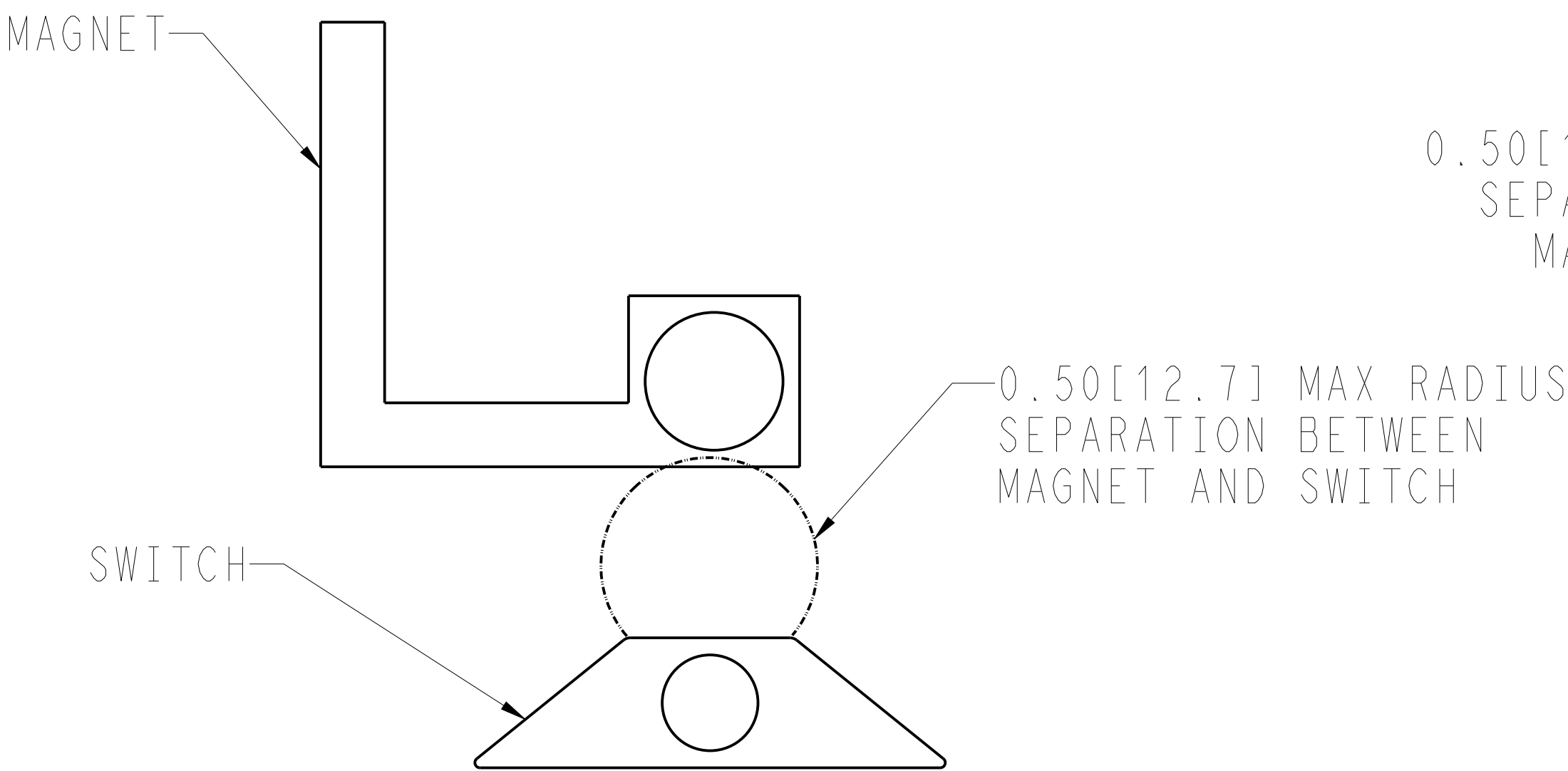
PART CLASSIFICATION: US EAR99



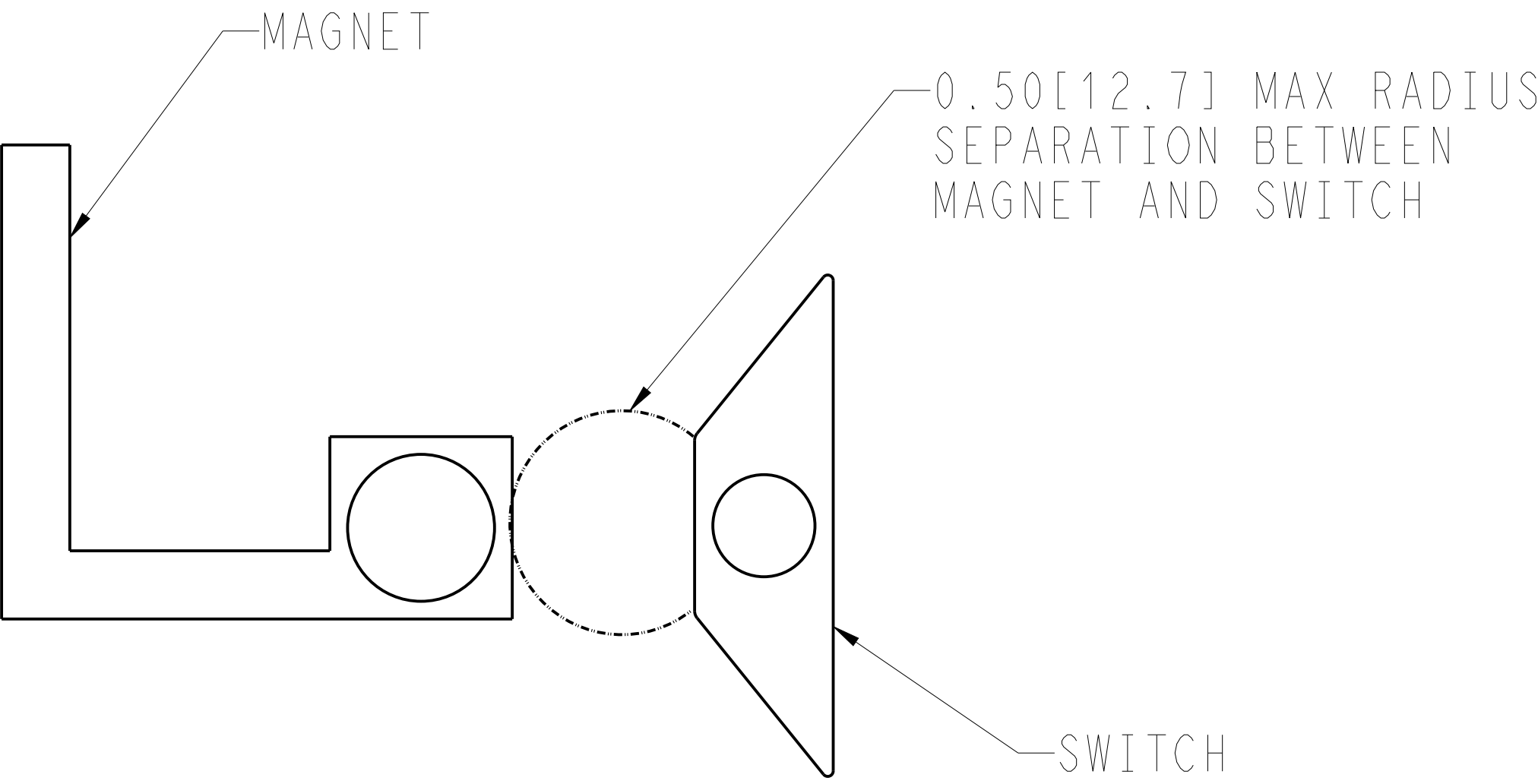
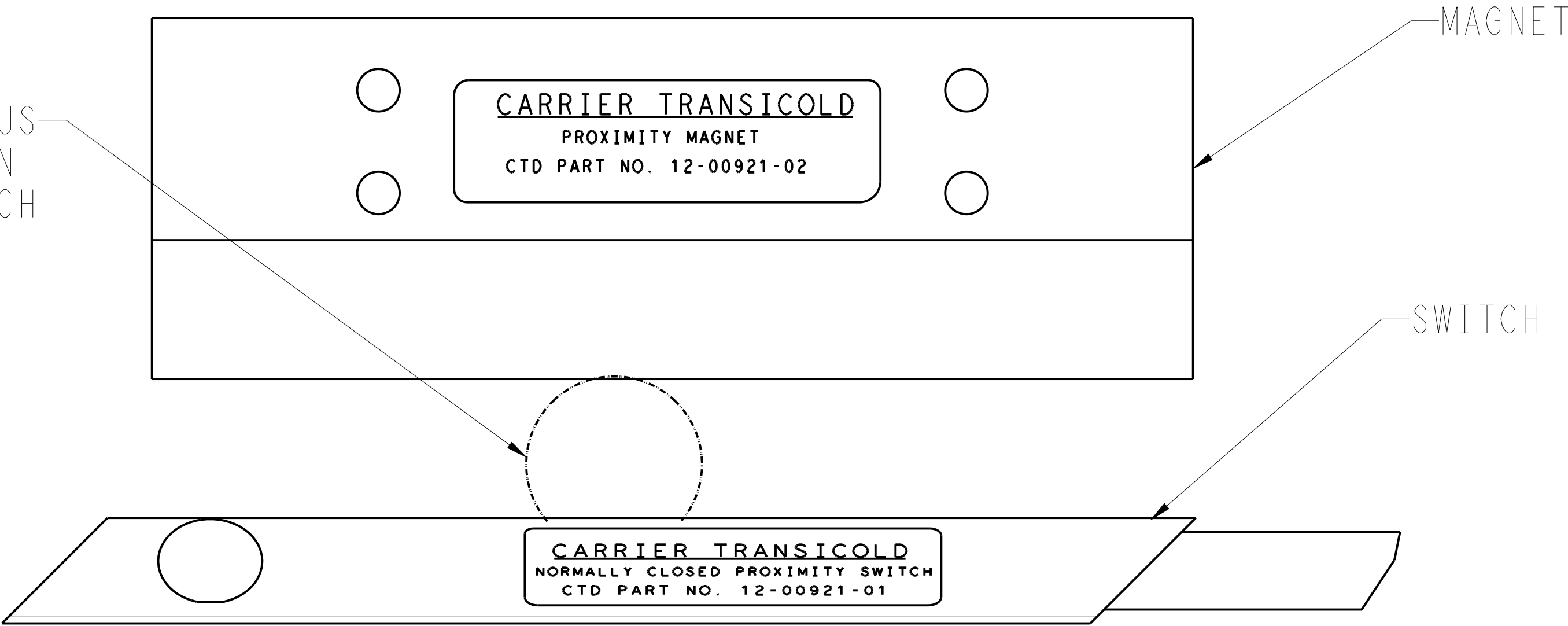
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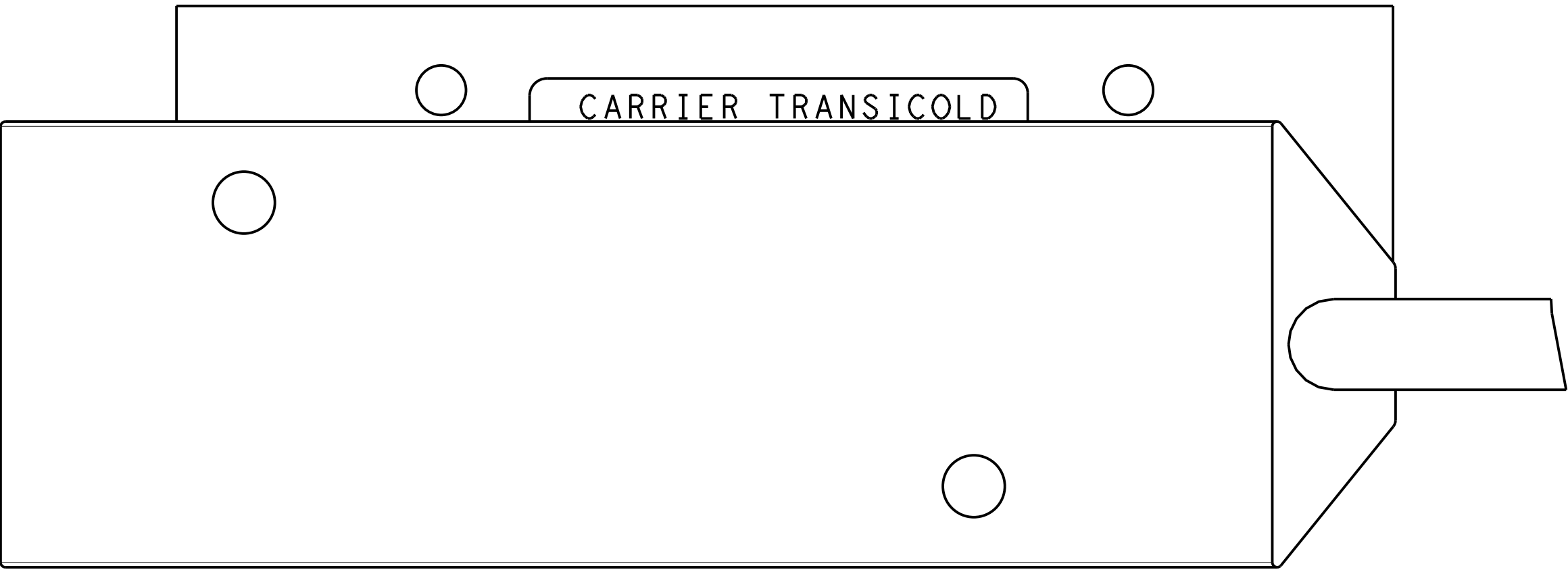
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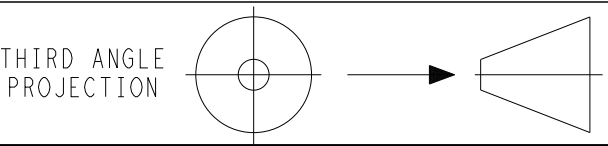
RECOMMENDED MOUNTING POSITIONS
FOR -02



RECOMMENDED MOUNTING POSITIONS
FOR -02 AND -03



G	ADDED THIS SHEET.	09 SEP 2021	LT-SN/ZMG	JM		ECN1146736
SYM	REVISION RECORD	DATE	BY	ENGR.	M.E.	NPCA NO.



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TITLE
INSTALLATION INSTRUCTIONS
REMOTE DOOR SWITCH KIT (ADVANCE/APX/eSOLUTIONS/SUPRA S)

DRAWING NO.
98-03241
SHEET 5 OF 6

REV
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SUPERSEDES: _____

PART CLASSIFICATION: US EAR99

DRAWING CLASSIFICATION: US EAR99