TECHNICAL BULLETIN

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HEAD OFFICE ; SUBARU BLDG.
SHINJUKU, TOKYO, JAPAN

~~JCAB APPROVED~~

NO. 200-024 DATE May 7, 2010 (SUPERSEDES NO.)

REV. DATE (SUPERSEDES NO.)

REASON

1.SUBJECT	: Installation of New COMM/NAV Transceiver and COMM Antenna
2.AIRCRAFT AFFECTED	: FA-200 series aircraft (however, this bulletin applies only to aircraft using a combination of COMM/NAV transceiver (KX-175 or KX-175B), COMM antenna (KA-24), ADF receiver (KR-87) and VOR indicator (KI-203))
3.PRIORITY	: Optional
4.REASON	: Type certificate has been awarded for a combination of KX-155 (transceiver) manufactured by Honeywell and CI-121 (COMM antenna) manufactured by Comant as a replacement for the combination of COMM/NAV transceiver (KX-175B) and COMM antenna (KA-24). Therefore, this bulletin is issued to introduce modification instructions for this new installation
5.DESCRIPTION	: Accomplish the modification for installation of COMM/NAV transceiver and COMM antenna in accordance with Detailed Instructions of Paragraph 13.
6.COMPLIANCE	: At customer's option
7.APPROVAL	: JCAB approval not required.
8.WORK CLAASIFICATION	: The modification work as per this bulletin is classified as minor repair.
9.PARTS REQUIRED	: Refer to Modification Kit No. TB 200-024-1 (Table-1).
10.SPECIAL TOOL	: None required
11.WEIGHT AND BALANCE	: Negligible
12.REFERENCES	: None
13.DETAILED INSTRUCTIONS	:

13-1. Preparation

(1) Remove front seats and rear seats.
(2) Remove positive line from battery connector.
(3) Remove access covers (upper center box between rear seats, lower fuselage fwd of main spar, below right front seat, etc.) and cabin interior as necessary for access.

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(4) Remove instrument panel and radio rack cover, and remove instruments to the extent required to accomplish the modification.

13-2 Removal of old COMM antenna

(1) Referring to Figure 2, remove old COMM antenna (KA-24) and cable (200-344371-001). Retain clamps and clamp attaching screws for reuse, except as noted.

(2) In order to plug old COMM antenna mount hole in fuselage skin, locally fabricate a patch plate to match the hole in accordance with Service Manual, Chapter 13, Structural Repair. Install the patch in place. When installing, apply sealant (MIL-S-8802 TYP2 CL B-2 or equivalent) to faying surface of the patch.

13-3. Installation of new COMM antenna

(1) Install stiffener (203-431050-179) and clips (F-0390-003) as shown in Figures 2 and 3. When installing stiffener, drill new COMM antenna mount holes through skin and stiffener.

(2) Referring to Figure 2, install new COMM antenna (CI 121). After installation of new COMM antenna, apply bead of sealant (MIL-S-8802 TYP2 CL B-2 or equivalent) around the antenna base. Blend out excessive sealant around edges.

13-4. Installation of new transceiver case

(1) Remove old COMM/NAV transceiver (KX-175 or KX-175B), connector and case.

(2) Remove ADF receiver (KR-87), connector and case.

(3) Remove fwd brackets (200-344101-001) securing old COMM/NAV transceiver, and install new brackets (200-344101-007/-008) in accordance with Figure 4.

(4) Install new COMM/NAV transceiver (KX-155) case on fwd brackets in accordance with Figure 5.

(5) Remove existing aft brackets (200-344313-001/-002), and install new brackets (200-344313-001/-002), paying attention to installation direction, as shown in Figure 5. At this time, drill mount holes in new aft brackets to match holes in ADF receiver case and COMM/NAV transceiver case, and install new brackets in place. Also, drill holes in instrument panel frame to match new aft brackets, and secure brackets in place.

NOTE

For aft brackets, new and old parts are the same; since, however, installation direction is to be revered, use caution on installation.

(6) Since new and old COMM/NAV transceivers are different in size, locally fabricate and install shim plate as required to fill gap, in accordance with Figure 4.

(7) Connect connector as removes in step (2) to ADF receiver.

13-5. Replacement of harness behind instrument panel

(1) Referring to Figures 4, 5 and 7, remove old harness behind instrument panel (200-344371-013).

(2) Referring to Figure 7, connect to new COMM/NAV transceiver P005 connector (030-01094-0059) and P007 (030-01094-0060) connector of harness behind instrument panel (200-344371-013).

NOTE

New harness behind instrument panel is supplied with only P005 connector and P007 connector attached, so that length may be adjusted on installation.

(3) Referring to Figures 4 and 7, install on instrument panel J007 jack (JJ-034), J008 jack (JJ-033) and J009 jack (JJ-034) contained in new harness behind instrument panel.

(4) Referring to Figure 7, connect F003, F004, J007 through J009 jacks, P006 connector (030-1077-00) to new harness behind instrument panel. At this time, use thermofit tube, as called out in the figure, to protect stowed and soldered areas of shield wires.

(5) Connect ground wires in accordance with Figure 4, 5 and 7.

(6) Referring to Figure 7, connect socket contact (CTS-S20/20) and disconnect splice (CTL-20) to connection points with ADF receiver. At this time, cut connect splice (32445) at ADF receiver side, and use socket contact (CTS-S20/20) as called out in the Figure.

13-6. Installation of new COMM cable antenna

(1) Referring to Figure 7, connect P001 connector (03-00101-0002) of new COMM cable antenna (200-344377-001) to connector of new COMM/NAV transceiver case.

(4) Adjust cable length on installation, and install J003 jack (UG-89C/U), P003 plug (UG-88C/U) and P008 plug (UG-88C/U).

(5) Referring to Figure 6, install clamps on stringers, grommet (MS35489-5S) on COMM antenna cable through hole in baggage bulkhead, and then insert new COMM antenna cable.

(6) Connect new COMM antenna cable and new COMM antenna as shown in Figures 2 and 7.

13-7. Installation of VOR cable antenna

(1) Referring to Figure 2, remove old VOR antenna cable (200-344371-003).

(2) Referring to Figure 7, connect P002 connector (030-00101-002) of new VOR antenna cable (200-344377-003) to connector of new COMM/NAV transceiver case.

(3) Adjust cable length on installation, and install J004 jack (UG-291C/U).

(4) Connect jack J004 to P004 connector as shown in Figure 2. At this time, change size of clamps which were used for old COMM antenna cable.

13-8. Installation of fuse

(1) Replace fuses for COMM and NAV from 5A to 10A in accordance with Figure 4.

(2) Attach placard (F-0575-010) to fuse holder area to change fuse capacity symbol for COMM and NAV.

13-9. Returning to service

(1) Reinstall all parts removed in the above step 13-1, and return aircraft to service.

14.Others : After completion of this modification, make an entry in aircraft log book indicating compliance with this bulletin, in conjunction with verification by a qualified mechanic.

Table 1 Components of Modification Kit (T/B 200-024-1)

No	P/N	NOMENCLATURE	QTY	REMARKS
1	200-344101-007	FWD BRACKET (LH)	1	
2	200-344101-008	FWD BRACKET (RH)	1	
3	200-344314-001	FWD BRACKET (LH)	1	
4	200-344314-002	FWD BRACKET (RH)	1	
5	200-344377-001	COMM ANTENNA CABLE	1	
6	200-344377-003	VOR ANTENNA CABLE	1	
7	200-344377-005	HARNESS BEHIND INSTRUMENT PANEL	1	
8	203-431050-179	STIFFENER	1	
9	F-0390-003	CLIP	2	
10	F-0575-010	PLACARD	2	
11	F06G10R0A	FUSE (10A)	2	
12	CI 121	COMM ANTENNA	1	
13	KX-155	COMM/NAV TRANSCEIVER	1	
14	050-01778-0001	KX-155 INSTALLATION KIT	1	Ref Table 2
15	AN743-12	BRACKET	2	
16	AN960D6	WASHER	2	
17	AN960D8	WASHER	8	
18	MS20470AD4	RIVET	26	
19	MS21042L06	NUT	2	
20	MS21042L08	NUT	8	
21	MS21919DG3	CLAMP	5	
22	MS24693-S51	SCREW	4	
23	MS35206-245	SKREW	4	
24	MS35489-5S	GROMMET	1	

Table 2 Components of KX-155 Installation Kit (050-01778-0001)

No	P/N	NOMENCLATURE	QTY	REMARKS
1	030-01107-0054	CONNECTOR TERM 54T	1	(NOTE)
2	047-05959-0002	STRAIN RELIEF W/H	2	
3	047-05960-0001	STRAIN RELIEF W/F	2	
4	073-00431-0003	CONN PLT CSTG	1	
5	089-02051-0024	NUT SPEED U 6-32	4	
6	089-02353-0001	NUT CLIP 6-32	6	
7	089-05878-0005	SCR PHP 4-40×5/16	2	
8	089-05878-0010	SCR PHP 4-40×5/8	4	
9	089-05907-0006	SCR PHP 6-32×3/8	4	
10	089-06012-0008	SCR PHP 6-32×1/2	6	
11	090-00019-0007	RING RTNR .438	2	
12	030-00101-0002	PANEL MOUNT PLUG	1	(NOTE)
13	030-01094-0059	CONN 15 POS	1	(NOTE)
14	030-00101-0002	PANEL MOUNT PLUG	1	(NOTE)
15	030-01094-0060	CONN 18 POS	1	(NOTE)

NOTE: At delivery of kit, these parts are supplied as a component of 200-344377-001, 200-344377-003 and 200-344377-005.

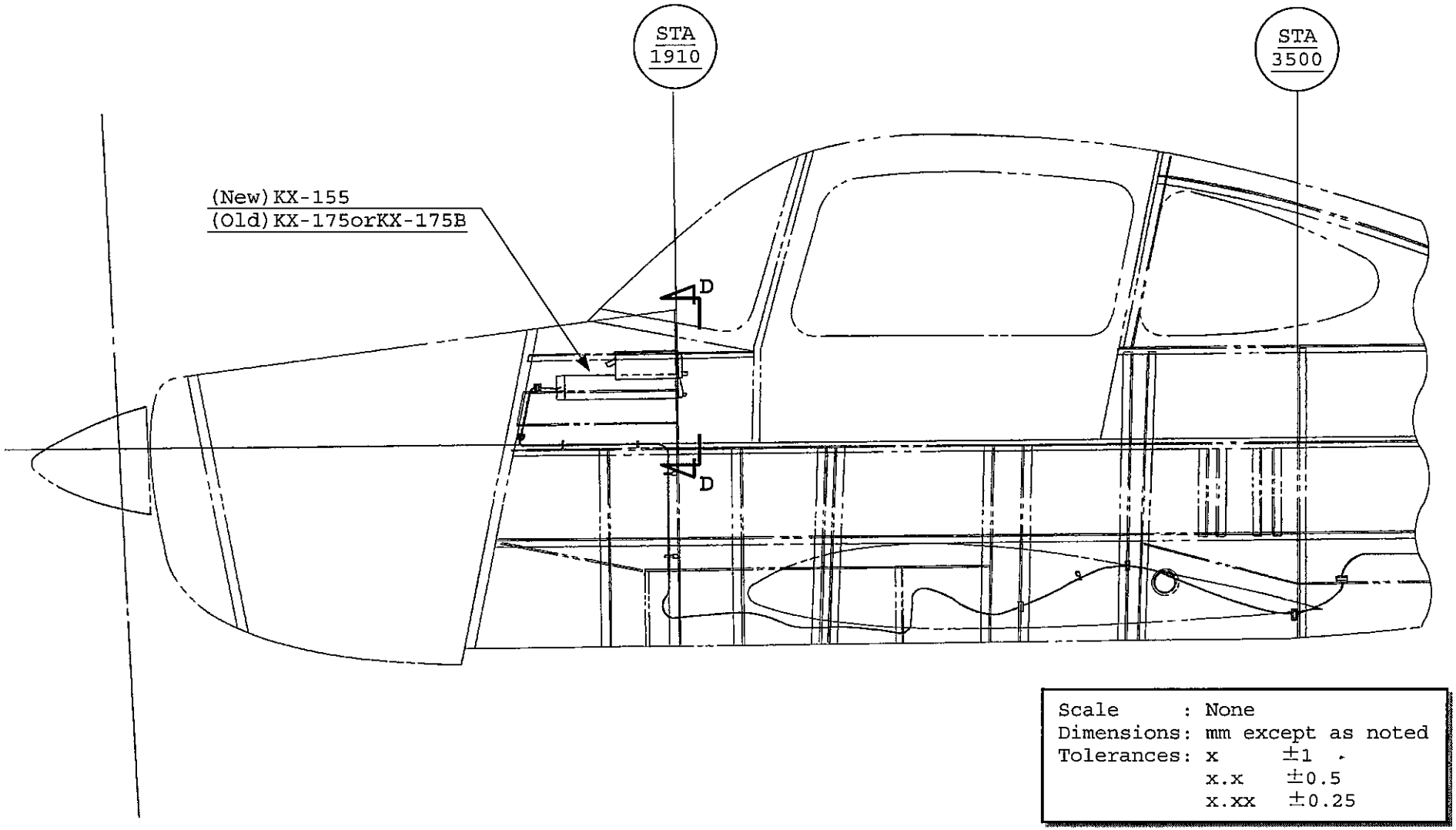


Figure 1 Entire fuselage (Sheet 1)

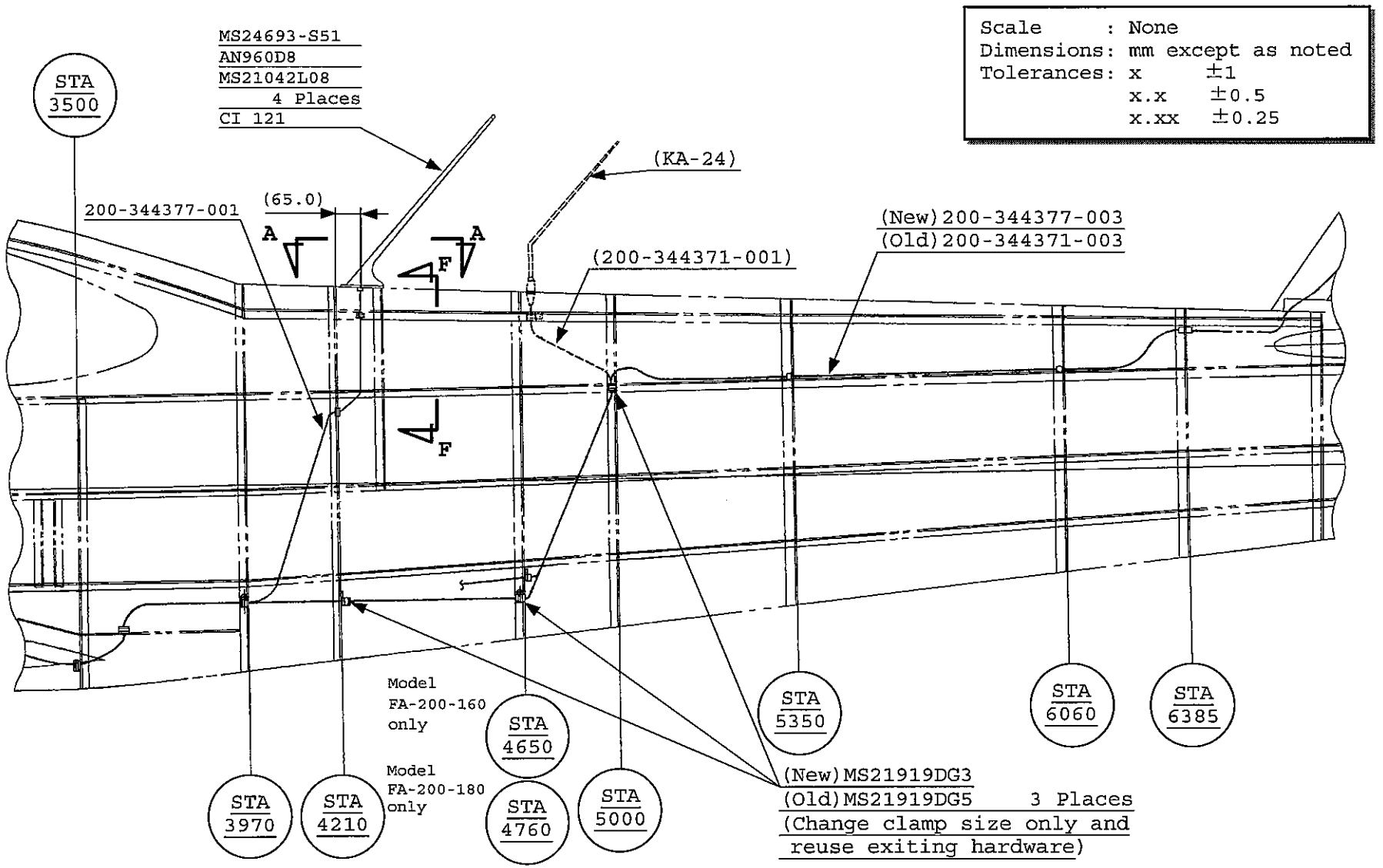


Figure 2 Entire fuselage (Sheet 2)

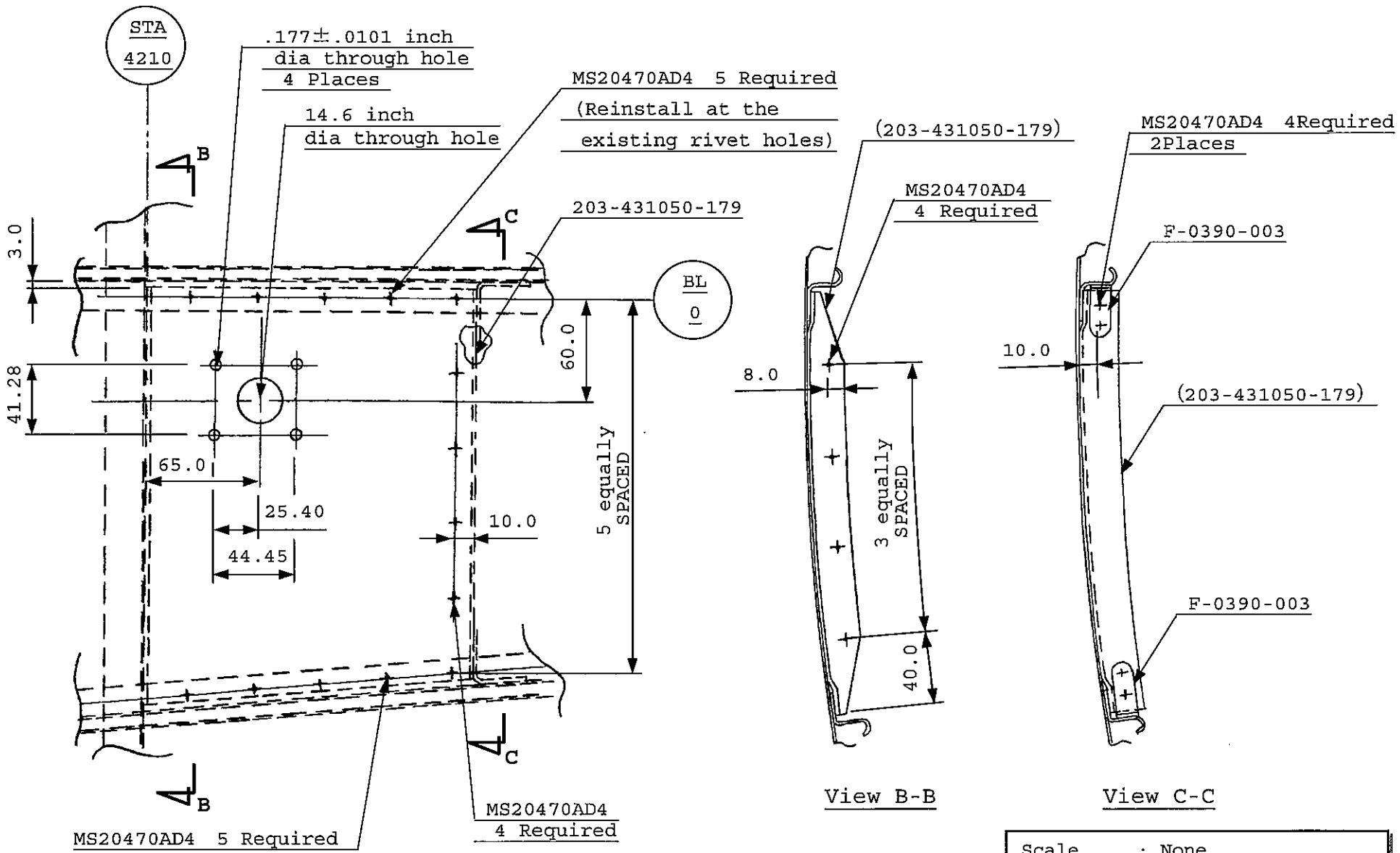


Figure 3 View A-A

Scale	: None
Dimensions:	mm except as noted
Tolerances:	x ±1
	x.x ±0.5
	x.xx ±0.25

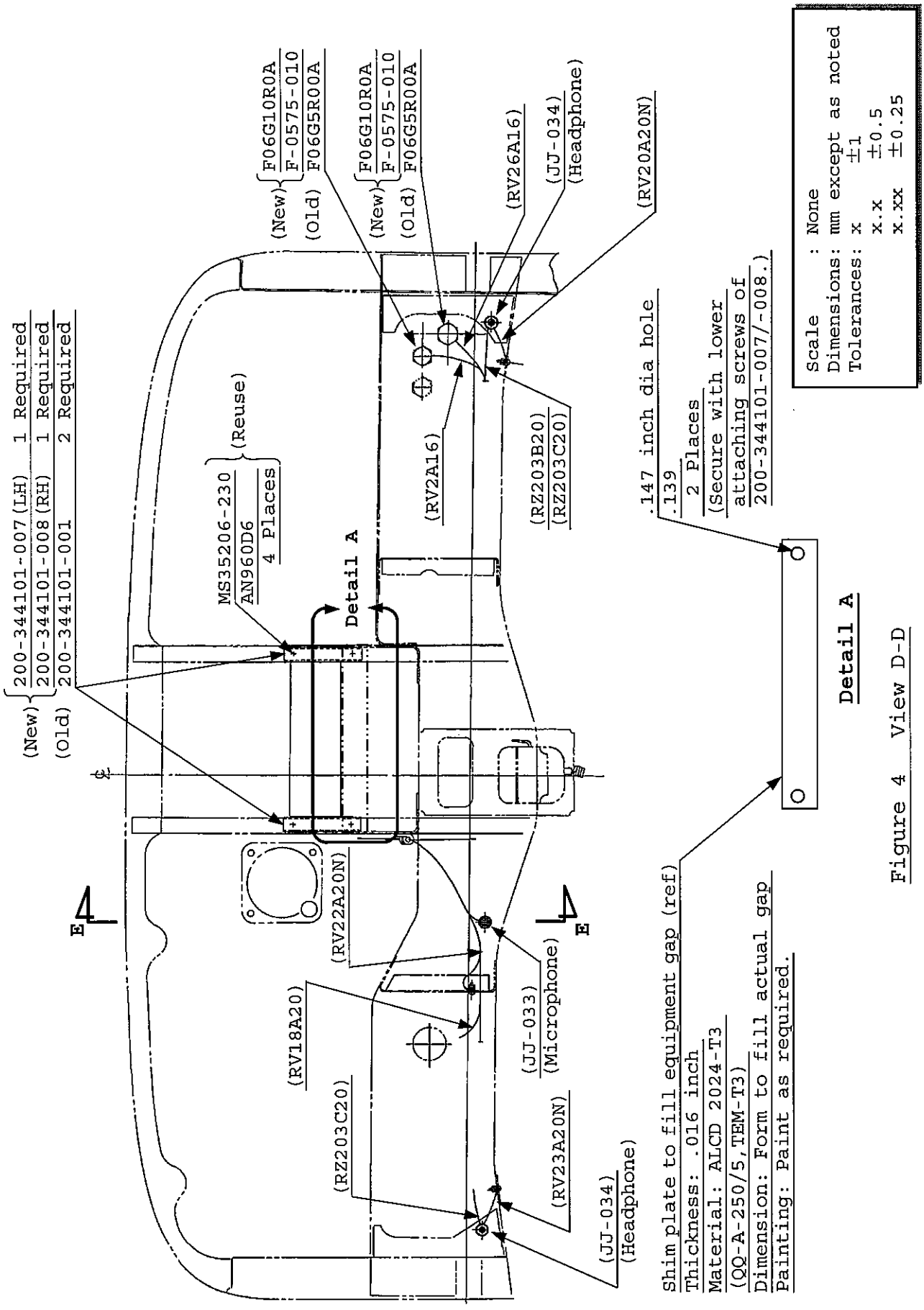
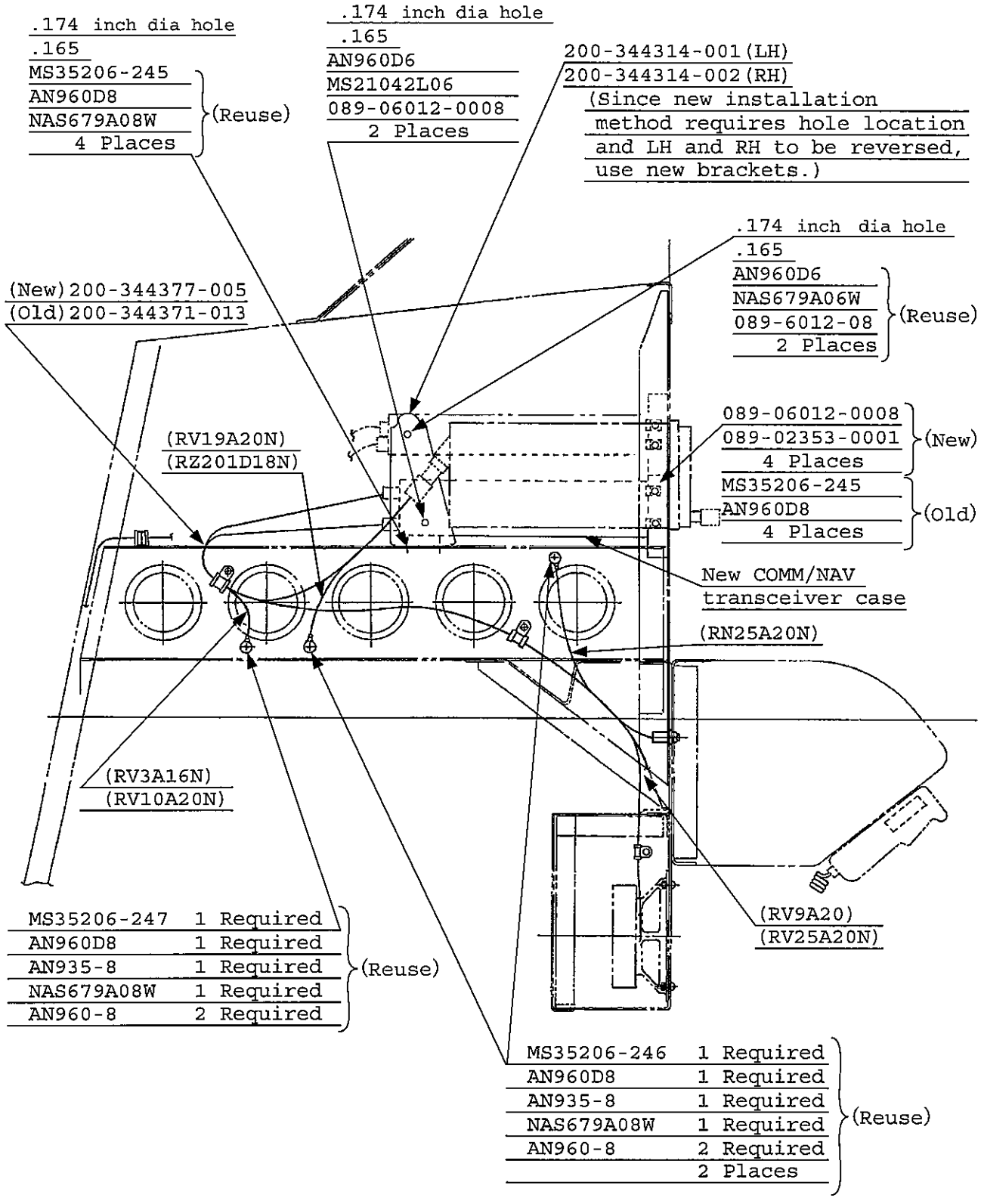
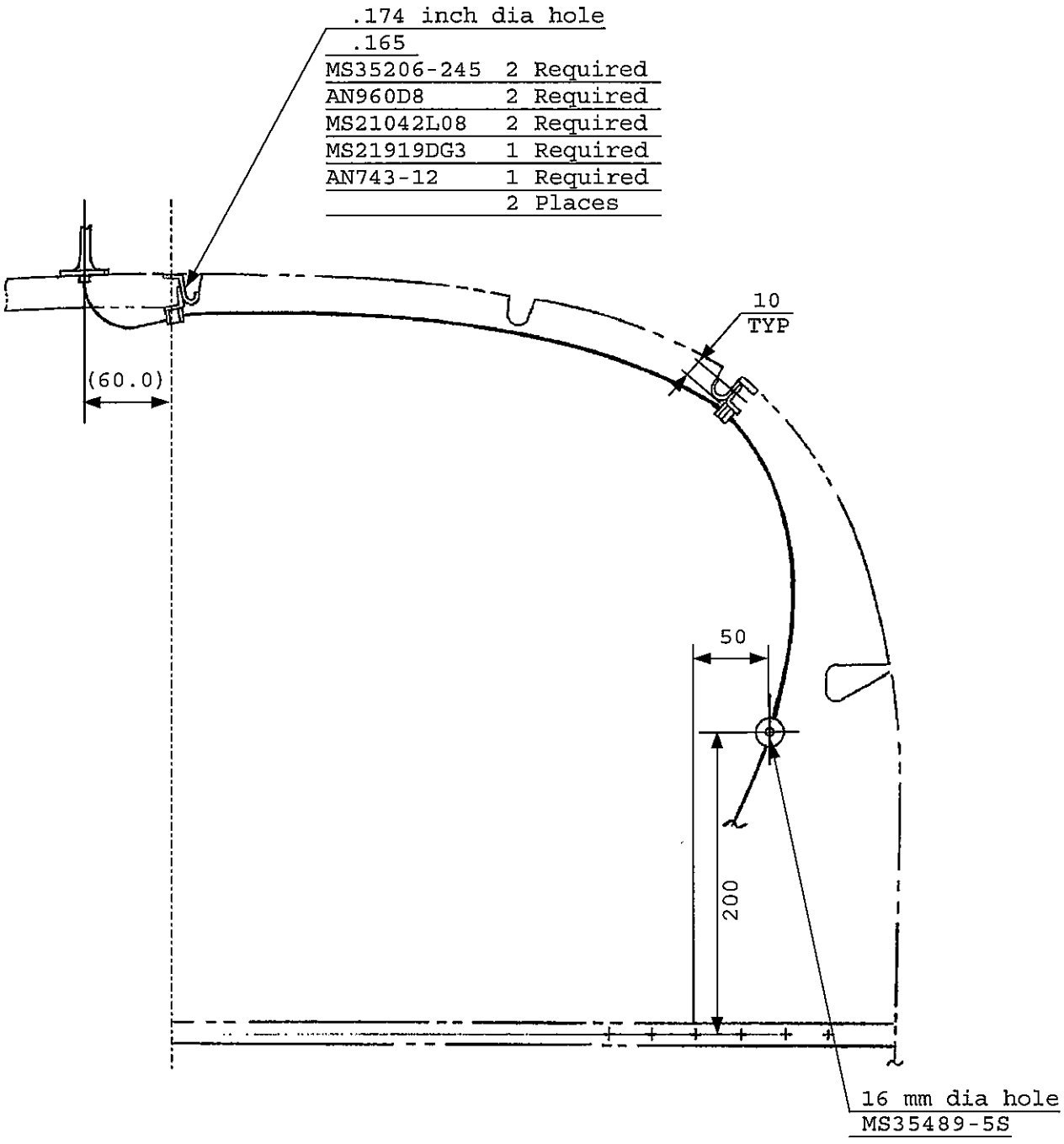


Figure 4 View D-D



Scale : NONE
Dimensions : mm except as noted
Tolerances : x ±1
x.x ±0.5
x.xx ±0.25

Figure 5 View E-E



Scale	: NONE
Dimensions	: mm except as noted
Tolerances	: x ±1
	x.x ±0.5
	x.xx ±0.25

Figure 6 View F-F

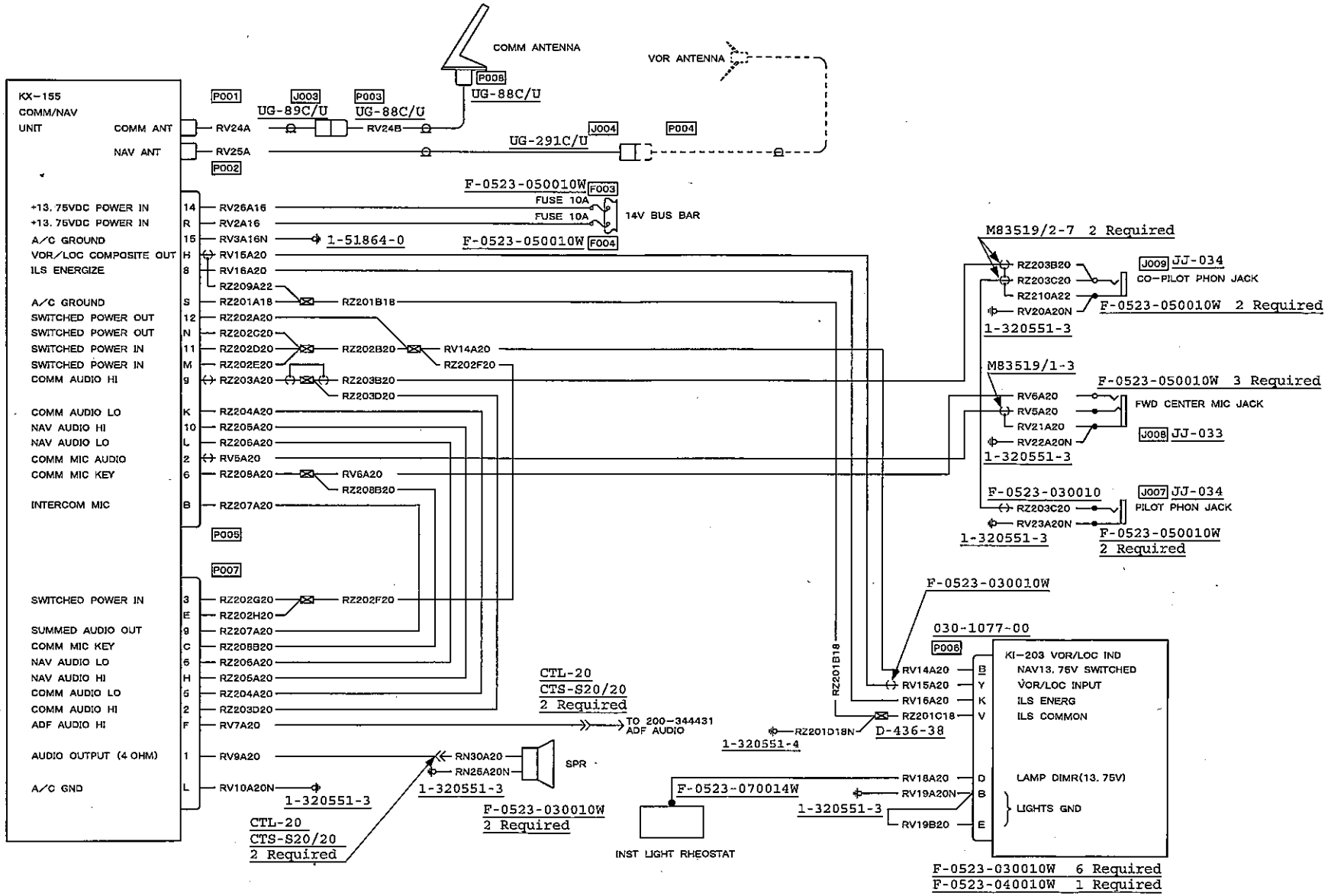


Figure 7 Wiring diagram