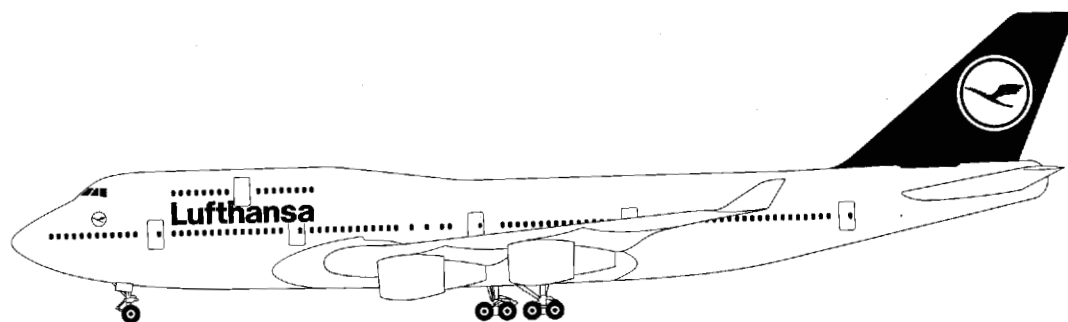


Training Manual

B747-430

ATA 21 Practical Training Handbook



WF-B12-.M.

Ausgabe: 03.97
Nur zur Schulung

Bestellnr: DLH B747-4 21 B12M P

 **Lufthansa**
TECHNISCHE SCHULUNG



Lufthansa Technical Training

For training purpose and internal use only.

Copyright by Lufthansa Technical Training GmbH.

All rights reserved. No parts of this training manual may be sold or reproduced in any form without permission of:

Lufthansa Technical Training GmbH

Lufthansa Base Frankfurt

D-60546 Frankfurt/Main

Tel. +49 69 / 696 41 78

Fax +49 69 / 696 63 84

Lufthansa Base Hamburg

Weg beim Jäger 193

D-22335 Hamburg

Tel. +49 40 / 5070 24 13

Fax +49 40 / 5070 47 46

ATA 21 AIR CONDITIONING 1

 SP - PRAXIS B - 1 - M QUALIFICATION 1

ATA 21 AIR CONDITIONING 2

 21-20 DISTRIBUTION 2

 21-30 PRESSURIZATION CONTROL 21

 21-40 HEATING 28

 21-50 COOLING 44

 21-60 TEMPERATURE CONTROL 63

Bildverzeichnis

Figure 1	21-20 DISTRIBUTION COMPONENT INDEX	3
Figure 2	21-20 DISTRIBUTION COMPONENT INDEX	4
Figure 3	21-20 DISTRIBUTION COMPONENT LOCATION	5
Figure 4	21-20 DISTRIBUTION COMPONENT LOCATION	6
Figure 5	21-20 DISTRIBUTION COMPONENT INDEX	7
Figure 6	21-20 DISTRIBUTION COMPONENT LOCATION	8
Figure 7	21-20 DISTRIBUTION COMPONENT LOCATION	9
Figure 8	21-20 DISTRIBUTION COMPONENT LOCATION	10
Figure 9	21-20 DISTRIBUTION COMPONENT LOCATION	11
Figure 10	21-20 DISTRIBUTION COMPONENT LOCATION	12
Figure 11	21-20 DISTRIBUTION COMPONENT LOCATION	13
Figure 12	21-20 DISTRIBUTION COMPONENT LOCATION	14
Figure 13	21-20 DISTRIBUTION COMPONENT LOCATION	15
Figure 14	21-20 DISTRIBUTION COMPONENT LOCATION	16
Figure 15	21-20 DISTRIBUTION COMPONENT LOCATION	17
Figure 16	21-20 DISTRIBUTION COMPONENT LOCATION	18
Figure 17	21-20 DISTRIBUTION COMPONENT LOCATION	19
Figure 18	21-20 DISTRIBUTION COMPONENT LOCATION	20
Figure 19	21-30 PRESSURIZATION CONTROL COMPONENT INDEX	22
Figure 20	21-30 PRESSURIZATION CONTROL COMPONENT INDEX	23
Figure 21	21-30 PRESSURIZATION CONTROL COMPONENT INDEX	24
Figure 22	21-30 PRESSURIZATION CONTROL COMPONENT LOCATION	25
Figure 23	21-30 PRESSURIZATION CONTROL COMPONENT LOCATION	26
Figure 24	21-30 PRESSURIZATION CONTROL COMPONENT LOCATION	27
Figure 25	21-40 HEATING COMPONENT INDEX	29
Figure 26	21-40 HEATING COMPONENT INDEX	30
Figure 27	21-40 HEATING COMPONENT INDEX	31
Figure 28	21-40 HEATING COMPONENT INDEX	32
Figure 29	21-40 HEATING COMPONENT LOCATION	33
Figure 30	21-40 HEATING COMPONENT LOCATION	34
Figure 31	21-40 HEATING COMPONENT LOCATION	35
Figure 32	21-40 HEATING COMPONENT LOCATION	36
Figure 33	21-40 HEATING COMPONENT LOCATION	37
Figure 34	21-40 HEATING COMPONENT LOCATION	38
Figure 35	21-40 HEATING COMPONENT LOCATION	39
Figure 36	21-40 HEATING COMPONENT LOCATION	40
Figure 37	21-40 HEATING COMPONENT LOCATION	41
Figure 38	21-40 HEATING COMPONENT LOCATION	42
Figure 39	21-40 HEATING COMPONENT LOCATION	43
Figure 40	21-50 COOLING COMPONENT INDEX	45
Figure 41	21-50 COOLING COMPONENT INDEX	46
Figure 42	21-50 COOLING COMPONENT INDEX	47
Figure 43	21-50 COOLING COMPONENT INDEX	48
Figure 44	21-50 COOLING COMPONENT LOCATION	49
Figure 45	21-50 COOLING COMPONENT LOCATION	50
Figure 46	21-50 COOLING COMPONENT LOCATION	51
Figure 47	21-50 COOLING COMPONENT LOCATION	52
Figure 48	21-50 COOLING COMPONENT LOCATION	53
Figure 49	21-50 COOLING COMPONENT LOCATION	54
Figure 50	21-50 COOLING COMPONENT LOCATION	55
Figure 51	21-50 COOLING COMPONENT LOCATION	56
Figure 52	21-50 COOLING COMPONENT LOCATION	57
Figure 53	21-50 COOLING COMPONENT LOCATION	58
Figure 54	21-50 COOLING COMPONENT LOCATION	59



Bildverzeichnis

Figure 55	21-50 COOLING COMPONENT LOCATION	60
Figure 56	21-50 COOLING COMPONENT LOCATION	61
Figure 57	21-50 COOLING COMPONENT LOCATION	62
Figure 58	21-60 TEMPERATURE CONTROL COMPONENT INDEX	64
Figure 59	21-60 TEMPERATURE CONTROL COMPONENT INDEX	65
Figure 60	21-60 TEMPERATURE CONTROL COMPONENT INDEX	66
Figure 61	21-60 TEMPERATURE CONTROL COMPONENT INDEX	67
Figure 62	21-60 TEMPERATURE CONTROL COMPONENT INDEX	68
Figure 63	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	69
Figure 64	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	70
Figure 65	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	71
Figure 66	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	72
Figure 67	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	73
Figure 68	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	74
Figure 69	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	75
Figure 70	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	76
Figure 71	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	77
Figure 72	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	78
Figure 73	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	79
Figure 74	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	80
Figure 75	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	81
Figure 76	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	82
Figure 77	21-60 TEMPERATURE CONTROL COMPONENT LOCATION	83



ATA 21 AIR CONDITIONING

SP - PRAXIS B - 1 - M QUALIFICATION

- Ozone Catalytic Converter
- Flow Control and Shutoff Valve (FCV)
- Pack Heat Exchanger
- Water Scupper
- Water Collector
- Water Separator
- Water Aspirator
- Ram Air Inlet Door (RAI)
- Ram Air Exit Door (RAE)
- Turbine Bypass Valve (TBV)
- Air Bearing Air Cycle Machine (ABACM)
- 8" Ground Connection

ZONEN TEMPERATURE CONTROL SYSTEM

- Trim Air Pressure Regulator and Shutoff Valve (Trim PRSOV)
- Zone Trim Air Modulating Valve (7)
- Trim Air Pressure Sensor
- Zone Duct Temperature Sensor (7)
- zone Duct Temperature Bulb (7)
- Zone Duct Overtemperature Switch (7)

DISTRIBUTION

- ECS Miscellaneous Card
- Flight Crew Foot Heating Plate (4)
- Flight Crew Foot Heating Bedienpanel (P 44/45)
- Flight Crew Rest Area Heater
- Flight Crew Rest Area Bedienpanel
- Upper Recirculation Fan (2)
- Lower Recirculation Fan (2)
(Einbauort nur andeuten)
- Upper Recirculation Fan Komponenten
- Lower Recirculation Fan Komponenten
- Main Deck Distribution Flapper Valve (2)
- Galley/Lavatory Ventilation Fan (2)

AFT CREW REST AREA SYSTEM

- Fan Filter
- Supply Fan
- Skin Heat Exchanger (2)
- Skin Temperature Sensor (2)
- Dual Modulating Valve (2)
- Heater (2)
- Duct Temperature Sensor (2)
- CRA Temperature Sensor Assembly (2)
- CRA temperature Controller (2)

- Booster Fan
- Conditioned Air Shutoff Valve
- Bedientafel (2)

COOLING

- Inboard Supply Valve
- Inboard Exhaust Valve
- Bypass Valve
- Ground Exhaust Valve
- Smoke/Override Valve
- E6/E9-V alve
- Supply Fan
- Exhaust Fan
- Low Flow Detector (2)
- Smoke Detector

HEATING

- Left and Right Forward Cargo Compartment Heater
- Forward Cargo Compartment Ventilation Fan (3)
- Forward Cargo Compartment Ventilation Fan Switch
- Aft Cargo Heating Control Valve
- Aft Cargo Heating Override Valve
- Underfloor Temperature Switch

VENTILATION

- Bulk Cargo Ventilation Fan
- Aft Cargo Ventilation Fan
- Aft Cargo Ventilation Bedienpanel
- Cabin Shutoff Valve No.1
- Shutoff Valve No.2A
- Shutoff Valve No.2B
- Aft Cargo Trim Air Shutoff Valve No.3
- Aft Cargo Trim Air Modulating Valve
- Zonen Duct Temperature Sensor
- Zonen Duct Overheat Switch
- Zonen Temperature Sensor (2)
- Zonen Temperature Bulb (2)
- Aft Cargo A/C Selector (P 461)
- Bulk Cargo Flapper Valve (2)

PRESSURIZATION

- Cabin Pressure Controller A and B
- Interface Control Unit (2)
- Auxiliary Panel (2)
- Outflow Valve (2)



- Pressure Relief Valve (2)
- Blow Out Door (2)
- Upper Deck Blow Out Doors
- Main Deck Dado Panels
- Main Deck Blow Out Panels
- Positiv Pressure Relief Valves
- Negativ Pressure Relief Door (Cargo Doors)
- Cargo Compartment Blow Out Panels
- Decompression Blow Out Panels

VENTILATION








- Forward Overboard Valve







ATA 21 AIR CONDITIONING
21-20 DISTRIBUTION



DISTRIBUTION

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CARD - CARGO AIR CONDITIONING, YMLA17	2	1	117AL, MAIN EQUIP CTR, FWD ELECT SYS CARD FILE, M7603	21-28-03
CARD - ENVIRON CONT SYS MISC, YMLA13	2	1	117AL, MAIN EQUIP CTR, FWD ELECT SYS CARD FILE, M7603	21-26-02
CARD FILE - (FIM 31-51-00/101) MAWEA, M7952				
CIRCUIT BREAKER - OVDR 5 CREW REST FAN PWR, C3132	2	1	AFT EQUIP CTR, P85	*
CIRCUIT BREAKER - AFT CARGO VENT FLAPPER, C10685	2	1	AFT EQUIP CTR, P183 	*
LAVATORY AND GALLEY VENT PRIMARY, C1520		1	AFT EQUIP CTR, P84 	*
LAVATORY AND GALLEY VENT SECONDARY, C3144		1		*
CIRCUIT BREAKER - CARGO AIR COND CONT, C10371	2	1	FLT COMPT, P6	*
CARGO AIR COND PCA, C10001		1	6F33	*
ECS MISC PC ASSY, C10215		1	6F34	*
RECIRC FAN UNDERFLOOR, C10199		1	6J33	*
LAV & GALLEY VENT FAN, C1198		1	6H29	*
FWD OVBD VLV CONT, C10213		1	6H31	*
RECIRC FAN OVHD, C10198		1	6J32	*
CIRCUIT BREAKER - CARGO/VENT FLAPPER, C10002	2	1	6H28	*
CARGO/VENT FWD CONT, C10369		1	117AL, MAIN EQUIP CTR, P180	*
CARGO/VENT AFT CONT, C10370		1	180E9	*
CREW REST COND AIR VLV PWR, C10700		1	180E10	*
CREW REST HTR CONT, C10012		1	180E11	*
FWD OVBD VALVE POWER, C10214		1	180H13	*
GASPER FAN CONTROL, C490 		1	180F20	*
MN DK CARGO FIRE FLAPPER, C10590		1	180J20	*
WSHD AIR, C10291		1	180F11	*
ZONE B CRA AIR COND VALVE PWR, C10819 		1	180C7	*
ZONE B CRA HEAT CONT, C10817 		1	180H25	*
CIRCUIT BREAKER - FWD CARGO VENT FAN PWR 3, C3175	2	1	180D13	*
FWD CARGO VENT FAN PWR 1, C3173		1	180D11	*
FWD CARGO VENT FAN PWR 2, C3174		1	117AL, MAIN EQUIP CTR, P414	*
LWR CARGO A/C VALVES PWR, C10372		1	414D11	*
CIRCUIT BREAKER - CARGO VENT FAN PWR AFT, C3176	2	1	414J8	*
CARGO VENT FAN PWR BULK, C3177		1	414J11	*
OVHD RECIRC FAN PWR 1, C816		1	414F2	*
OVHD RECIRC FAN PWR 2, C817		1	117AL, MAIN EQUIP CTR, P415	*
UNDERFLOOR RECIRC FAN PWR 1, C818		1	415J34	*
UNDERFLOOR RECIRC FAN PWR 2, C1563 		1	415J31	*
ZONE B CRA RECIRC FAN PWR, C3247 		1	415R4	*
		1	415R7	*
		1	415N7	*
		1	415N10	*
		1	415F30	*











* SEE THE WDM EQUIPMENT LIST

-  AFA PASSENGER AND COMBI AIRPLANES
-  DLH 001-099
-  DLH 101-999; AFA PASSENGER AND COMBI AIRPLANES; UTA PASSENGER AND COMBI AIRPLANES
-  AFA 241-269; UTA 325



Distribution - Component Index
Figure 101 (Sheet 1)

Figure 1 21-20 DISTRIBUTION COMPONENT INDEX



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CONTROLLER - (FIM 21-40-00/101) CREW REST AREA TEMP, M7505 ZONE B CRA TEMP, M5271  ZONE F TEMP, M7336 				
CONTROLLER - (FIM 21-60-00/101) PACK TEMP A, M7911 PACK TEMP B, M7912 ZONE TEMP, M7913				
CONNECTOR - GROUND SERVICE DIODE - (FIM 31-01-36/101) M3901,M3902,M3903,M4584 DIODE - (FIM 31-01-39/101) M3303,M3305,M3915,M3986,M3987,M4440,M4441, M4445,M4446,M4585,M4988; M4572,M4612 	5	2	191NL,192HR	21-21-03
FAN - AFT CARGO VENT FAN, B8290	8	1	AFT CARGO COMPT, RIGHT SIDEWALL	21-26-12
FAN - BULK CARGO VENT FAN, B8291	8	1	BULK CARGO COMPT, LEFT SIDEWALL	21-26-12
FAN - BULK CARGO FAN, B8338 	6	1	BULK CARGO COMPT, LEFT SIDEWALL	21-26-08
FAN - CREW REST AREA BOOST FAN, H512 	13	1	AREA ABOVE CEILING, RIGHT	21-29-03
FAN - CREW REST AREA SUPPLY FAN, H535 	11	1	AREA ABOVE CEILING, RIGHT	21-29-03
FAN - FWD CARGO VENT FAN 1, B8287	7	1	FWD CARGO COMPT, ABOVE CEILING	21-26-10
FAN - FWD CARGO VENT FAN 2, B8288	7	1	FWD CARGO COMPT, ABOVE CEILING	21-26-10
FAN - FWD CARGO VENT FAN 3, B8289	7	1	FWD CARGO COMPT, ABOVE CEILING	21-26-10
FAN - GASPER FAN, M553 	3	1	AREA ABOVE CEILING, LEFT	21-24-01
FAN - OVHD RECIRC FAN 1, H515	3	1	AREA AFT OF U/D WALL, RIGHT	21-25-01
FAN - OVHD RECIRC FAN 2, H516	3	1	AREA AFT OF U/D WALL, LEFT	21-25-01
FAN - PRIMARY LAV/GAL VENT FAN, H527	3	1	AREA AFT OF BULK CARGO COMPT, RIGHT	21-26-03
FAN - SECONDARY LAV/GAL VENT FAN, H528	3	1	AREA AFT OF BULK CARGO COMPT, RIGHT	21-26-03
FAN - UNDERFLOOR RECIRC FAN 1, H517	5	1	PASS. CABIN SECOND TO THIRD DR, LEFT	21-25-07
FAN - UNDERFLOOR RECIRC FAN 2, H518	5	1	PASS. CABIN SECOND TO THIRD DR, RIGHT	21-25-07
FAN - ZONE B CRA BOOST FAN, H547 	14	1	AREA ABOVE CEILING, RIGHT	21-29-08
FILTER - CRA AIR SUPPLY FAN 	11	6	AREA ABOVE CEILING, LEFT	21-29-04
FILTER - GASPER FAN 	3	4	AREA ABOVE CEILING	21-24-03
FILTER - OVHD RECIRC FAN	3	4	AREA ABOVE CEILING	21-25-05
FILTER - UNDERFLOOR RECIRC FAN	5	4	PASS. CABIN SECOND TO THIRD DOOR	21-25-08
MANIFOLD - MAIN DISTRIBUTION	5	1	PASS. CABIN SECOND TO THIRD DOOR	21-21-00
MODULE - (FIM 26-23-00/101) ENG/APU/CGO FIRE CONT, M7326				
MODULE - (FIM 31-01-18/101) LAV/GALLEY TIME DELAY, M7977				
MODULE - (FIM 52-71-00/101) FWD CARGO DOOR ASSY, M709				
MODULE - (FIM 52-72-00/101) AFT CARGO DOOR ASSY, M711				
MODULE - CABIN TEMP, M7329	1		FLT COMPT, P5	*
MODULE - CAPT HEATER CONTROL, M7375	1		FLT COMPT, P44	*
MODULE - F/O HEATER CONTROL, M7376	1		FLT COMPT, P45	*






* SEE THE WDM EQUIPMENT LIST

-  DLH 004-099; AFA 201-240
 UTA 301

Distribution - Component Index
Figure 101 (Sheet 2)




Figure 2 21-20 DISTRIBUTION COMPONENT INDEX



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
RELAY - AFT CARGO FLAPPER - LEFT, R8434 AFT CARGO FLAPPER - RIGHT, R8433 PRIMARY LAV/GAL VENT FAN CONT, R7498 SECOND LAV/GAL VENT FAN CONT, R7499 RELAY - (FIM 31-01-15/101) CREW REST AREA RECIRC FAN, R7281 RELAY - (FIM 31-01-36/101) CARGO AIR COND CLOSED, R8090 ENGINE ON INDICATOR, R7446 FWD CARGO DOOR CLOSED, R8083 FWD CARGO VENT FAN 1, R7866 FWD CARGO VENT FAN 2, R7867 FWD CARGO VENT FAN 3, R7868 FWD OVBD VALVE CONT, R7497 GASPER FAN CONT, R160  RELAY - (FIM 31-01-39/101) AFT CARGO DOORS CLOSED, R8084 AFT CARGO OVHT, R7684 AFT CARGO VENT FAN, R7869 AFT TRIM SOV CONT, R8103 AFT VLV A OPEN CONT, R8102 AFT VLV B CLOSED, R8119 AFT VLV B OPEN, R8110 BULK CARGO VENT FAN, R7870 CABIN SOV CONT, R8101 CABIN SOL OP, R8105 CARGO AIR COND CLOSED, R8107 CARGO AIR COND FIRE, R8278 CARGO FIRE CUTOFF, R8197 CARGO HEAT FIRE SHUTOFF, R235 CREW REST VENT FAN SHUTOFF, R8132 FAN FIRE CUTOFF, R7664 LWR RECIRC FAN 1 CONT, R7495 LWR RECIRC FAN 2 CONT, R7496 MN DK FIRE SUPRN & DISCH, R8328 MN DK FIRE SUPRN & DISCH, R8329 OVHD RECIRC FAN 1 CONT, R7493 OVHD RECIRC FAN 2 CONT, R7494 ZONE B CRA FIRE SHUTOFF, R2025  ZONE B CRA RECIRC CONTROL, R8590  ZONE B CREW REST SMOKE R8589  ZONE F CREW REST - MAWEA AND FAN SHUTOFF, R8134  RELAY - (FIM 31-01-24/101) CONDITIONED AIR SHUTOFF VALVE CONTROL, R8451 RELAY - (FIM 32-09-00/101) SYS ALT AIR/GRD, R7334, R7336 SYS PRI AIR/GRD, R228, R7364	2	1 1	AFT EQUIP CTR, E8	* * *






* SEE THE WDM EQUIPMENT LIST

Distribution - Component Index
Figure 101 (Sheet 3)**Figure 3 21-20 DISTRIBUTION COMPONENT LOCATION**

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SENSOR - PRIMARY LAV/GAL VENT FAN CURRENT, T1661 SECONDARY LAV/GAL VENT FAN CURRENT, T1662	2	1 1	AFT EQUIP CTR, E8	* *
SENSOR - (FIM 31-01-36/101) GASPER FAN CURRENT, T1813 				
SENSOR - (FIM 31-01-39/101) LWR RECIRC FAN 1 CURRENT, T1659 LWR RECIRC FAN 2 CURRENT, T1660 OVHD RECIRC FAN 1 CURRENT, T1811 OVHD RECIRC FAN 2 CURRENT, T1812				
SENSOR - CREW REST AREA FAN CURRENT, T1800	2	1	AFT EQUIP CTR, P83	*
SENSOR - ZONE B CRA FAN CURRENT, T1967 	2	1	POWER DISTRIBUTION CENTER - RIGHT, P415	*
SWITCH - (FIM 21-60-00/101) AFT CARGO DUCT, OVERTEMP, S1905 SWITCH - (FIM 52-72-00/101) BULK CARGO DOOR WARNING, S43				
SWITCH - AFT CARGO VENT, S2100	8	1	AFT CARGO DOOR AREA, P59	*
SWITCH - CARGO COND AIR FLOW RATE S2120	1	1	FLT COMPT, P461, CARGO COND AIR PNL	
SWITCH - CREW REST SMOKE RESET, S2127	15	1	DOOR 5 AND ZONE F CREW REST	*
SWITCH - FWD CARGO VENT FAN, S2099	7	1	FWD CARGO DOOR AREA, P86	*
SWITCH - LEFT FLAPPER RESET, S2020	7	1	BULK CARGO SIDEWALL	*
SWITCH - RIGHT FLAPPER RESET, S2021	7	1	BULK CARGO SIDEWALL	*
SWITCH - WSHLD AIR, S3	1	1	FLT COMPT, P44, CAPT HEATER CONTROL MODULE, M7375	*
SWITCH - WSHLD AIR, S3	1	1	FLT COMPT, P45, F/O HEATER CONTROL MODULE, M7376	*
SWITCH - ZN D AIR DISTRIB FLAPPER RESET, S2148	10	1	AREA ABOVE CEILING	21-23-01
SWITCH - ZN E AIR DISTRIB FLAPPER RESET, S2149	10	1	AREA ABOVE CEILING	21-23-01
SWITCH/LIGHT - (FIM 26-23-00/101) CARGO BOTTLE DISCHARGE, S3 FWD CARGO FIRE, S1				
SWITCH/LIGHT - GASPER FAN, S9 	1	1	FLT COMPT, P5, CABIN TEMP, M7329	*
SWITCH/LIGHT - LWR RECIRC, S7	1	1	FLT COMPT, P5, CABIN TEMP, M7329	*
SWITCH/LIGHT - UPR RECIRC, S6	1	1	FLT COMPT, P5, CABIN TEMP, M7329	*
UNIT - (FIM 31-61-00/101) C EIU, M7352 L EIU, M7353 R EIU, M7351				

* SEE THE WDM EQUIPMENT LIST

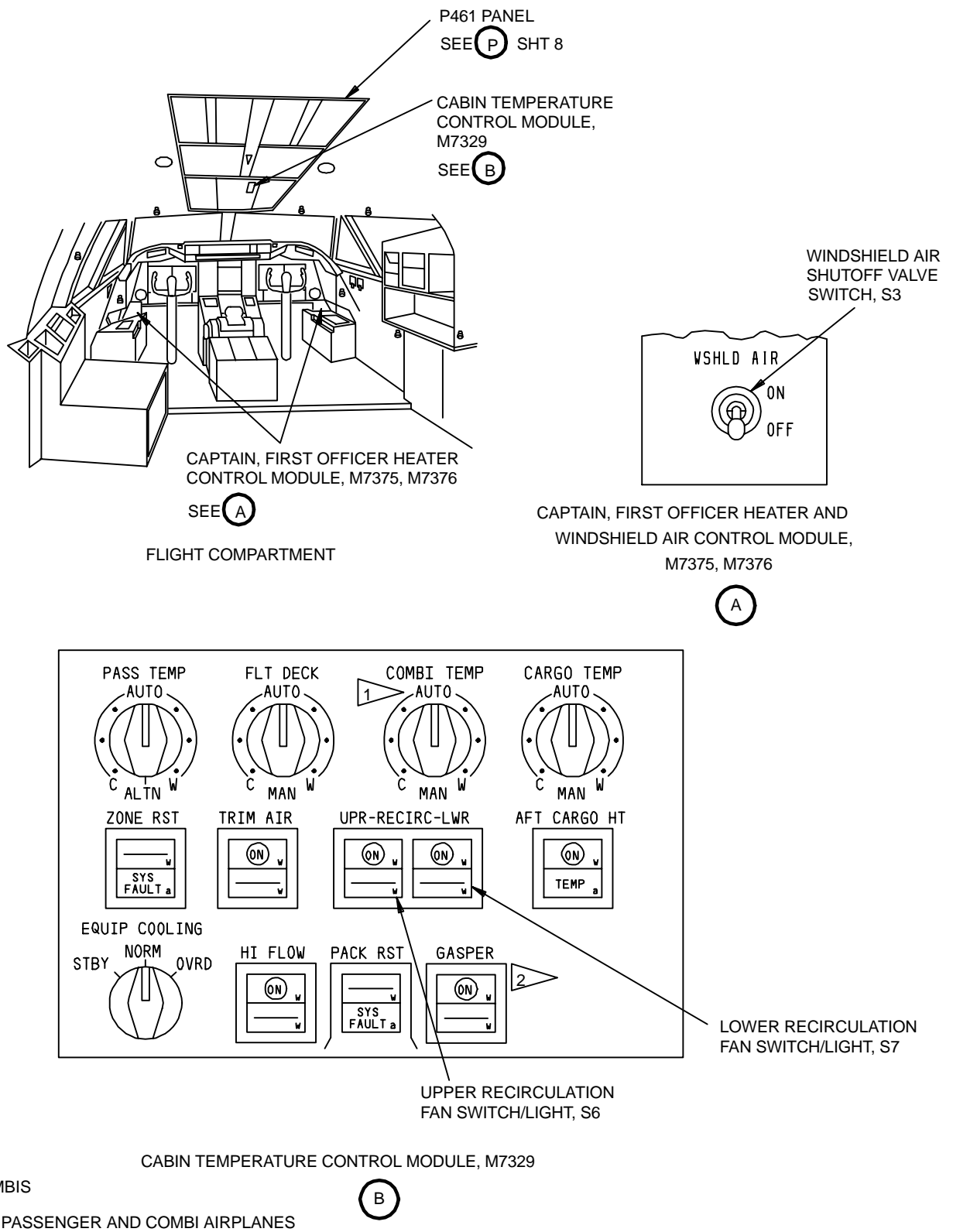
6 BELOW FLOOR OF PASSENGER CABIN, FORWARD OF DOOR 3 OR RIGHT WING GEAR WHEEL WELL

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
VALVE - AFT CARGO AIR COND VLV A, V527	8	1	WING LDG GEAR WELL, RIGHT	21-28-01
VALVE - AFT CARGO AIR COND VLV B, V528	8	1	WING LDG GEAR WELL, RIGHT	21-28-01
VALVE - AFT CARGO FLAPPER ASSY, LEFT, V488	7	1	BULK CARGO COMPT, LEFT	21-26-09
VALVE - AFT CARGO FLAPPER ASSY, RIGHT, V489	7	1	BULK CARGO COMPT, RIGHT	21-26-09
VALVE - AFT CARGO TRIM AIR SOV, V494	8	1	BODY LDG GEAR WELL, RIGHT	21-28-04
VALVE - CABIN SHUTOFF, V492	8	1	 6	21-28-02
VALVE - CAPT WINDSHIELD AIR, V464	4	1	FLT COMPT, LEFT	21-22-01
VALVE - COND AIR CHECK	5	3	WING LDG GEAR WELL	21-21-01
VALVE - CREW REST CONDITIONED AIR SHUTOFF, V539  5	13	1	AREA ABOVE CEILING, LEFT	21-29-05
VALVE - DOOR 5 OVHD CRA DUAL MODULATION, V406	15	1	AREA ABOVE CEILING, RIGHT	21-29-01
VALVE - F/O WINDSHIELD AIR, V465	4	1	FLT COMPT, RIGHT	21-22-01
VALVE - FWD OVERBOARD, V462	4	1	BETWEEN NOSE GEAR WELL AND FUSELAGE LEFT	21-26-15
VALVE - LAV/GAL VENT FAN CHECK	3	2	AFT OF BULK CARGO COMPT, RIGHT	21-26-04
VALVE - OVHD RECIRC FAN CHECK	3	2	ABOVE CEILING	21-25-02
VALVE - UNDERFLOOR RECIRC FAN CHECK	5	2	PASS. CABIN SECOND TO THIRD DOOR	21-25-09
VALVE - ZONE B CRA CONDITIONED AIR SHUTOFF, V626  4	14	1	AREA ABOVE CEILING, RIGHT	21-29-05
VALVE - ZONE B CRA DUAL MODULATION, V627  4	15	1	AREA ABOVE CEILING, RIGHT	21-29-01
VALVE - ZONE D AIR DISTRIB FLAPPER, V532	10	1	AREA ABOVE CEILING	21-23-01
VALVE - ZONE E AIR DISTRIB FLAPPER, V533	10	1	AREA ABOVE CEILING	21-23-01
VALVE - ZONE F CRA DUAL MODULATION, V511  2	15	1	AREA ABOVE CEILING, RIGHT	21-29-01

Distribution - Component Index
Figure 101 (Sheet 5)

Figure 5 21-20 DISTRIBUTION COMPONENT INDEX

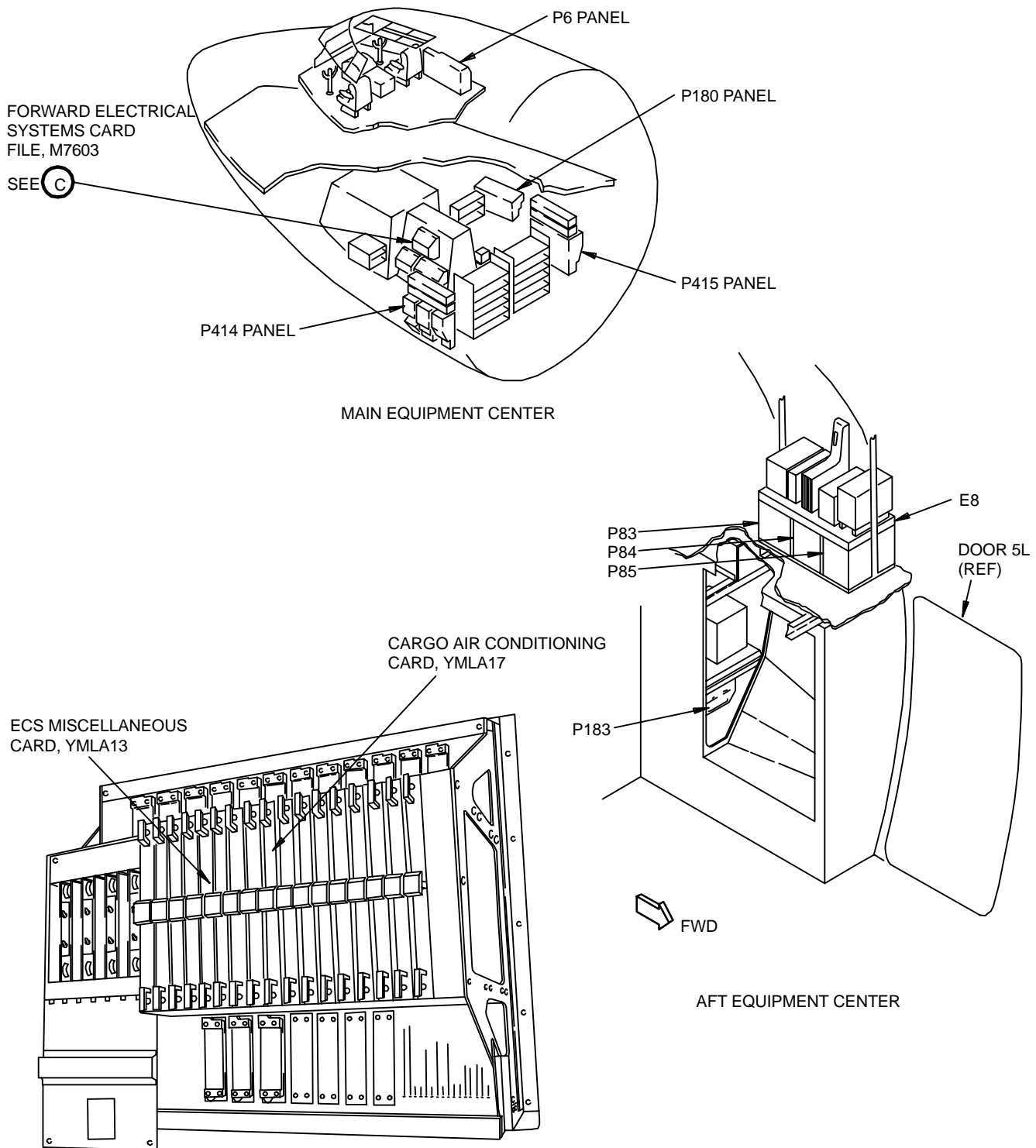




Distribution - Component Location
Figure 102 (Sheet 1)

Figure 6 21-20 DISTRIBUTION COMPONENT LOCATION

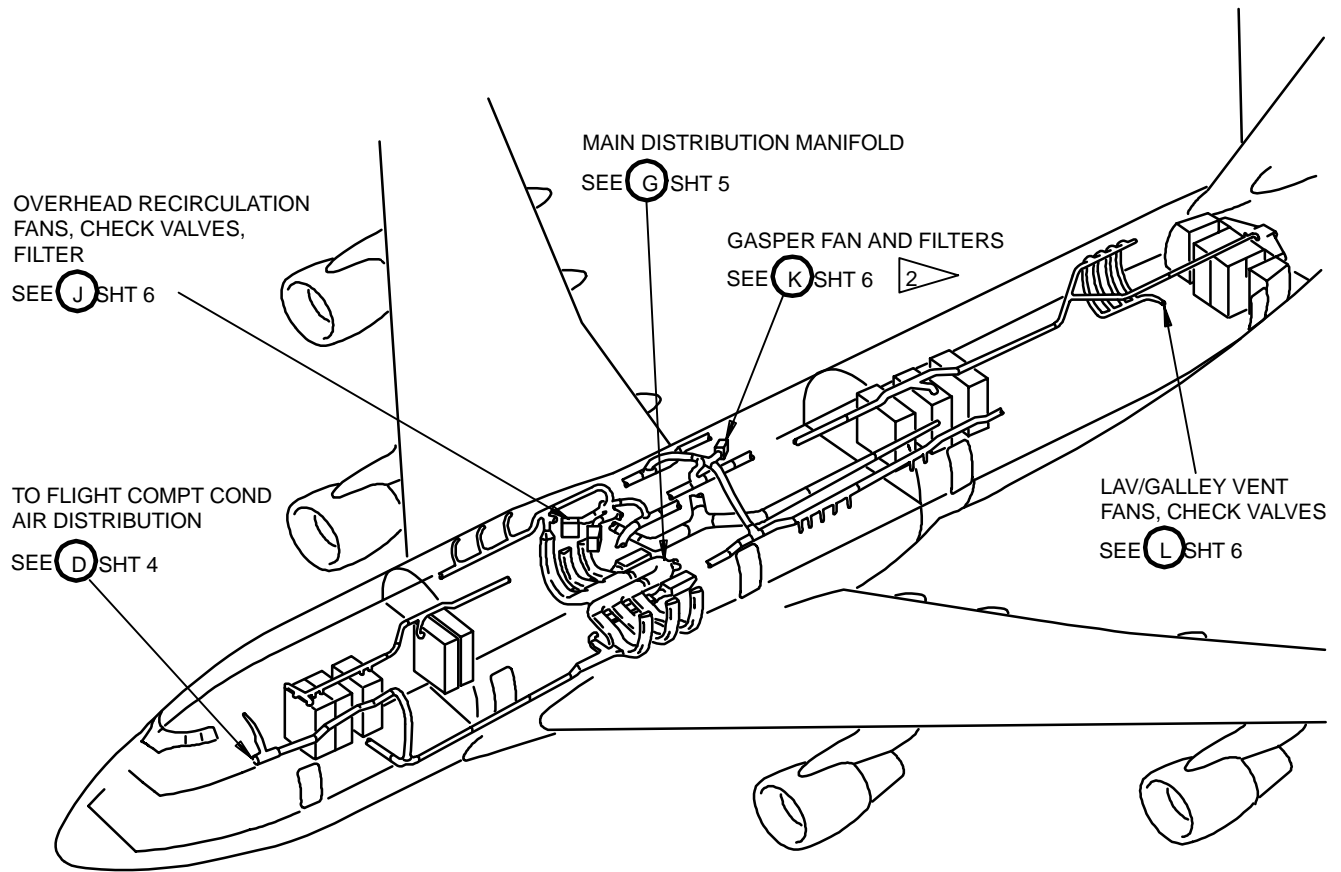




FORWARD ELECTRICAL SYSTEMS CARD FILE, M7603

(C)

Distribution - Component Location
Figure 102 (Sheet 2)**Figure 7 21-20 DISTRIBUTION COMPONENT LOCATION**

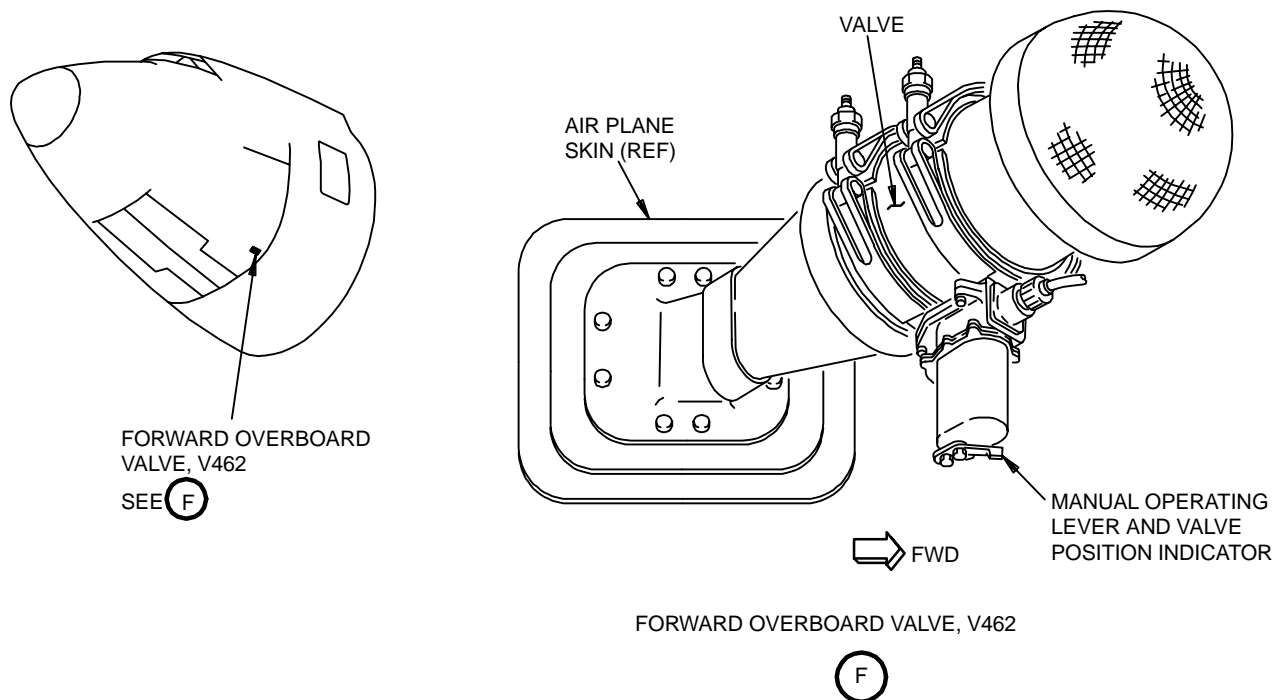
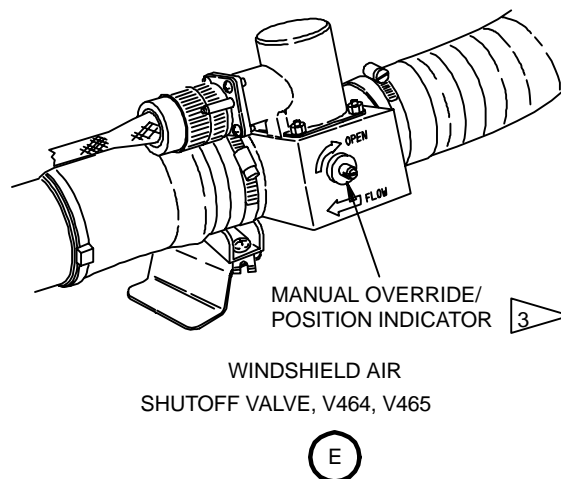
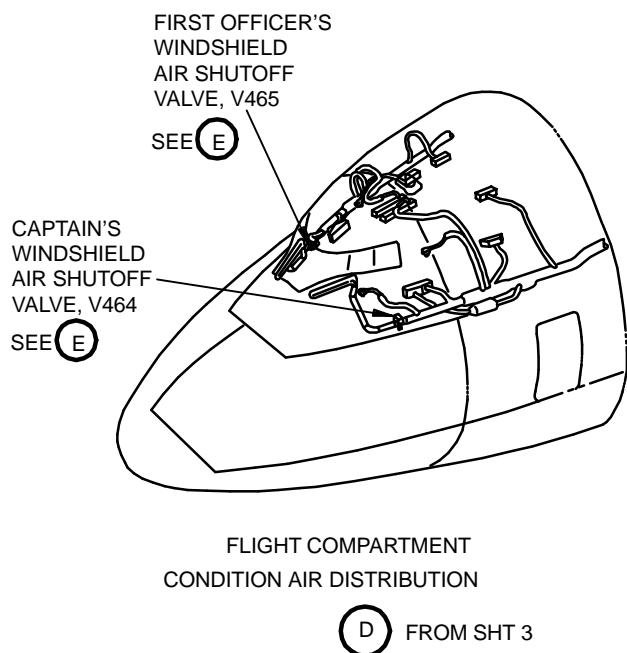


2 AFA PASSENGER AND COMBI AIRPLANES

Distribution - Component Location
Figure 102 (Sheet 3)

Figure 8 21-20 DISTRIBUTION COMPONENT LOCATION

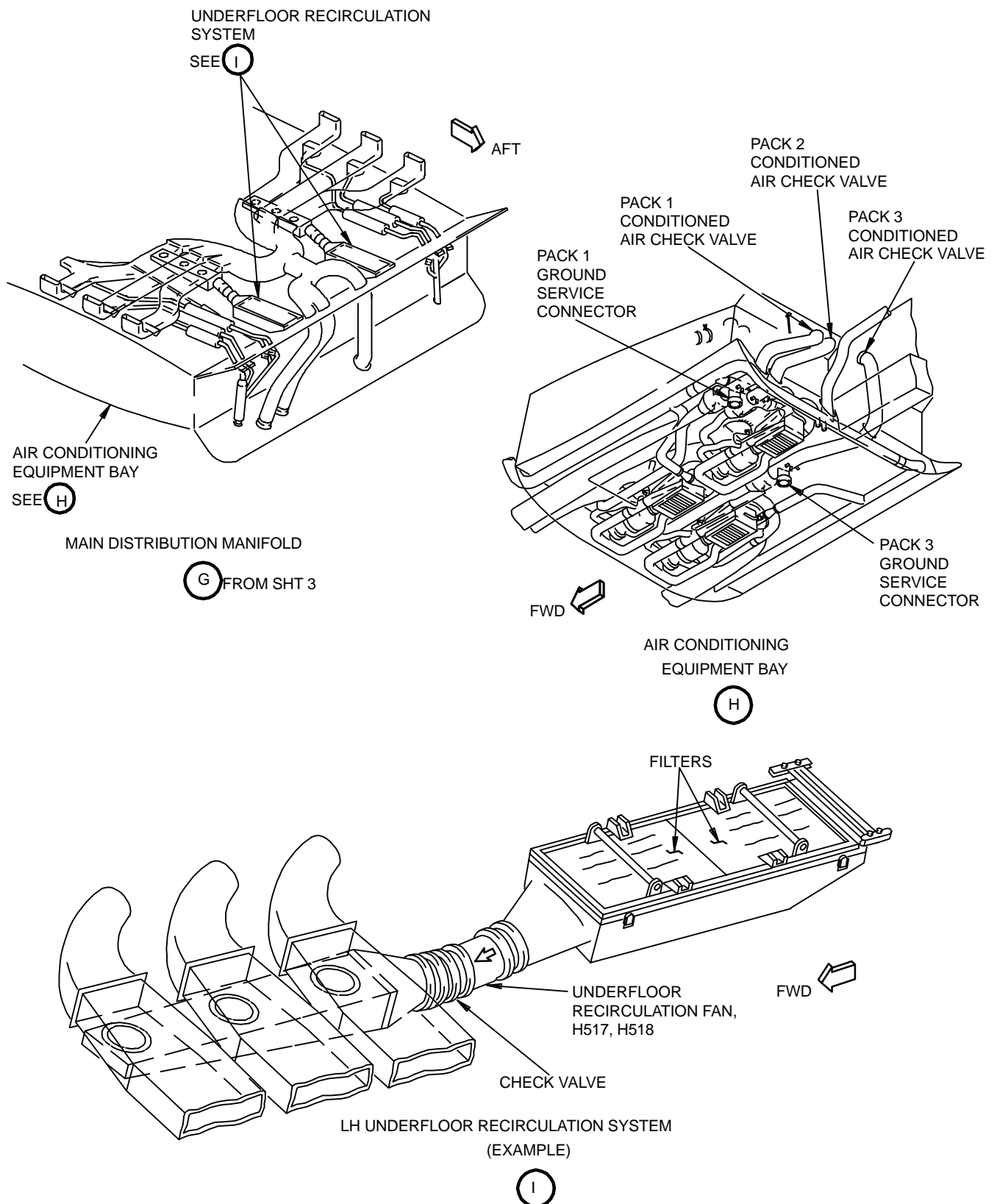




3 NOT INSTALLED ON ALL AIRPLANES

Distribution - Component Location
Figure 102 (Sheet 4)

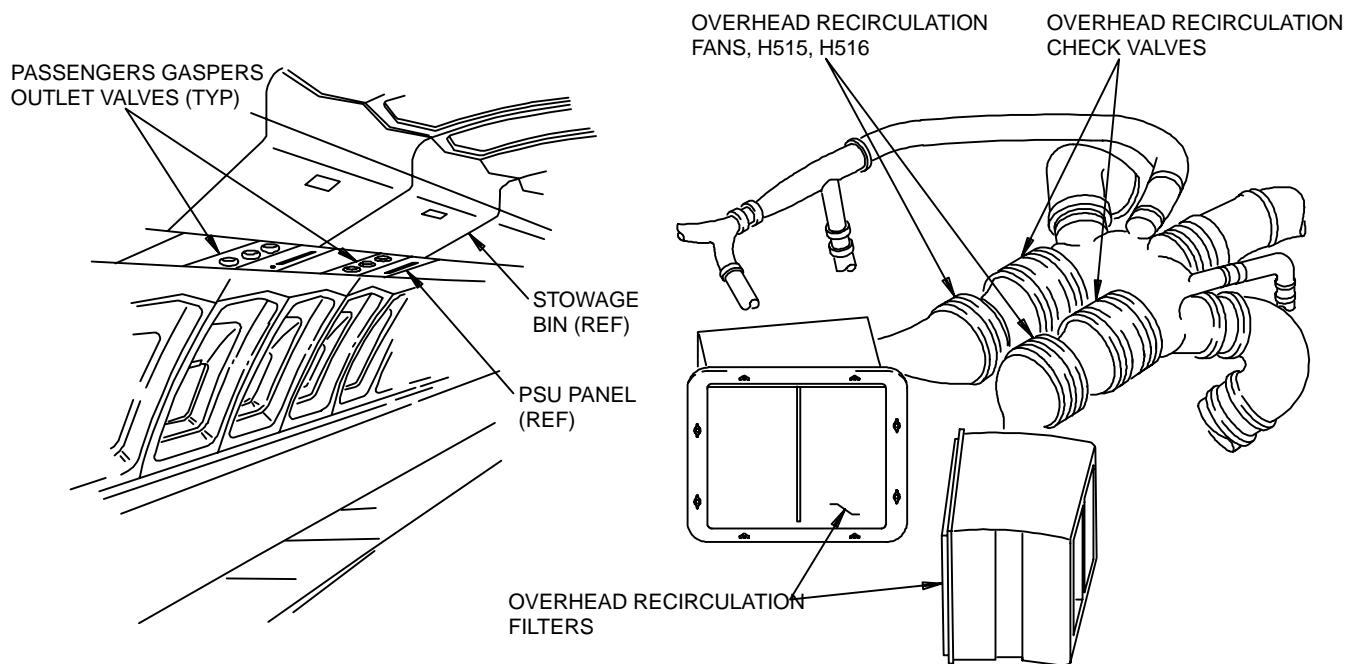
Figure 9 21-20 DISTRIBUTION COMPONENT LOCATION



Distribution - Component Location
Figure 102 (Sheet 5)

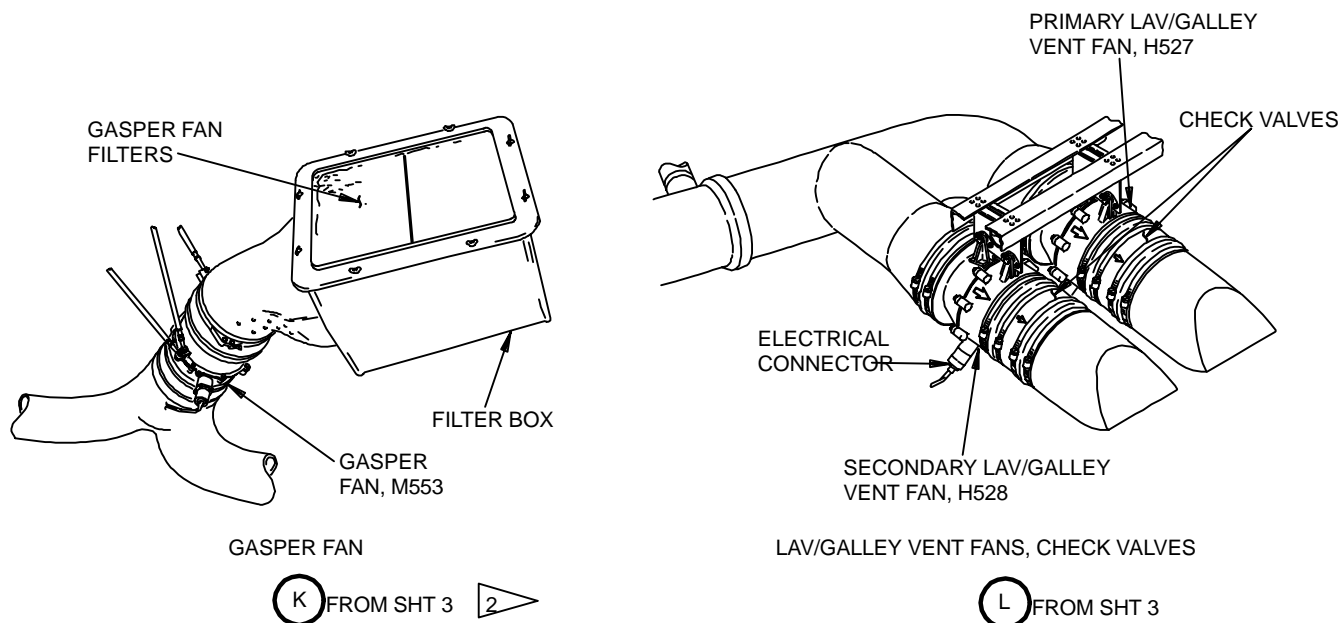
Figure 10 21-20 DISTRIBUTION COMPONENT LOCATION





OVERHEAD RECIRCULATION FANS, CHECK VALVES, FILTERS

J FROM SHT 3



K FROM SHT 3

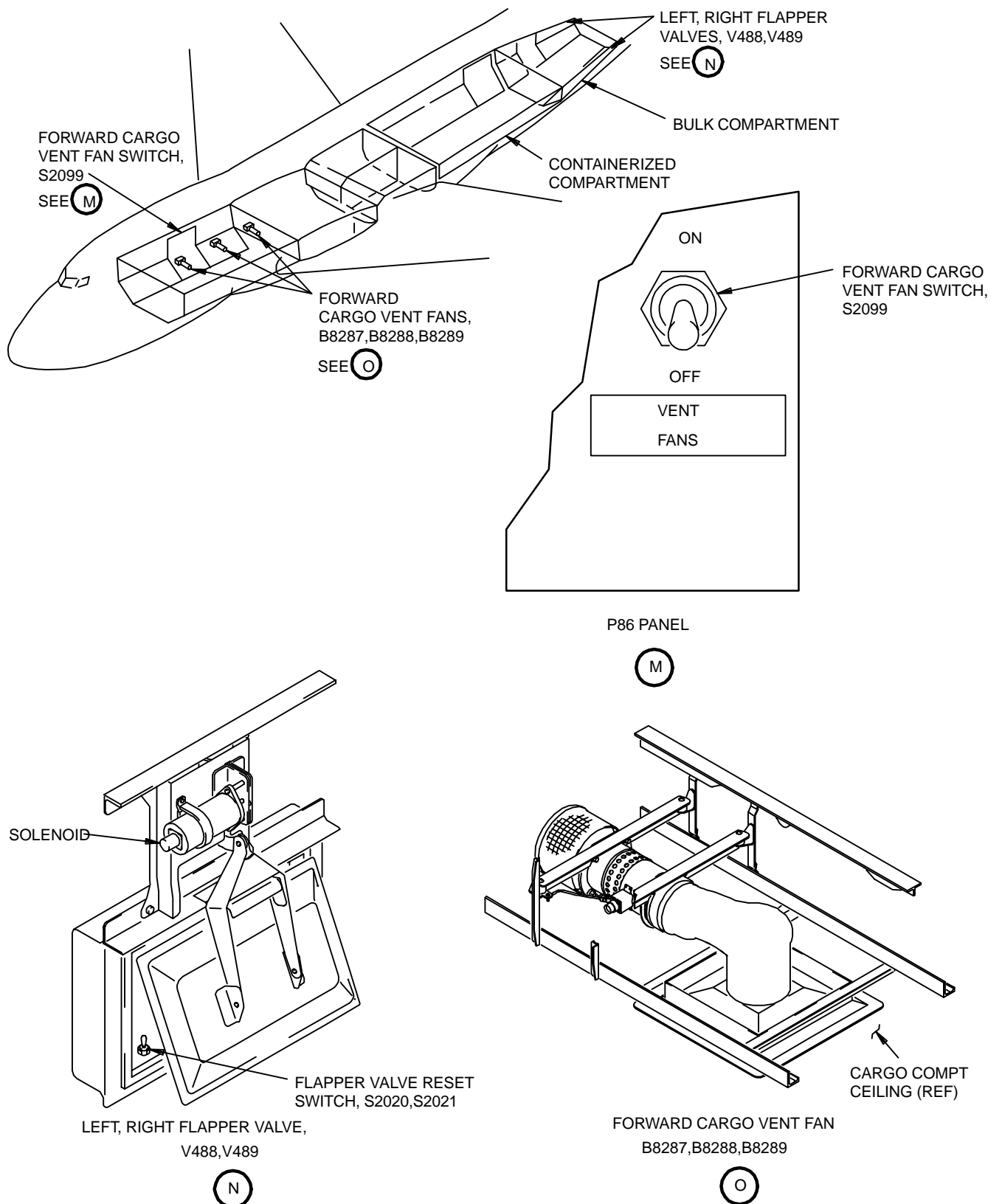
L FROM SHT 3

2 AFA PASSENGER AND COMBI AIRPLANES

Distribution - Component Location
Figure 102 (Sheet 6)

Figure 11 21-20 DISTRIBUTION COMPONENT LOCATION

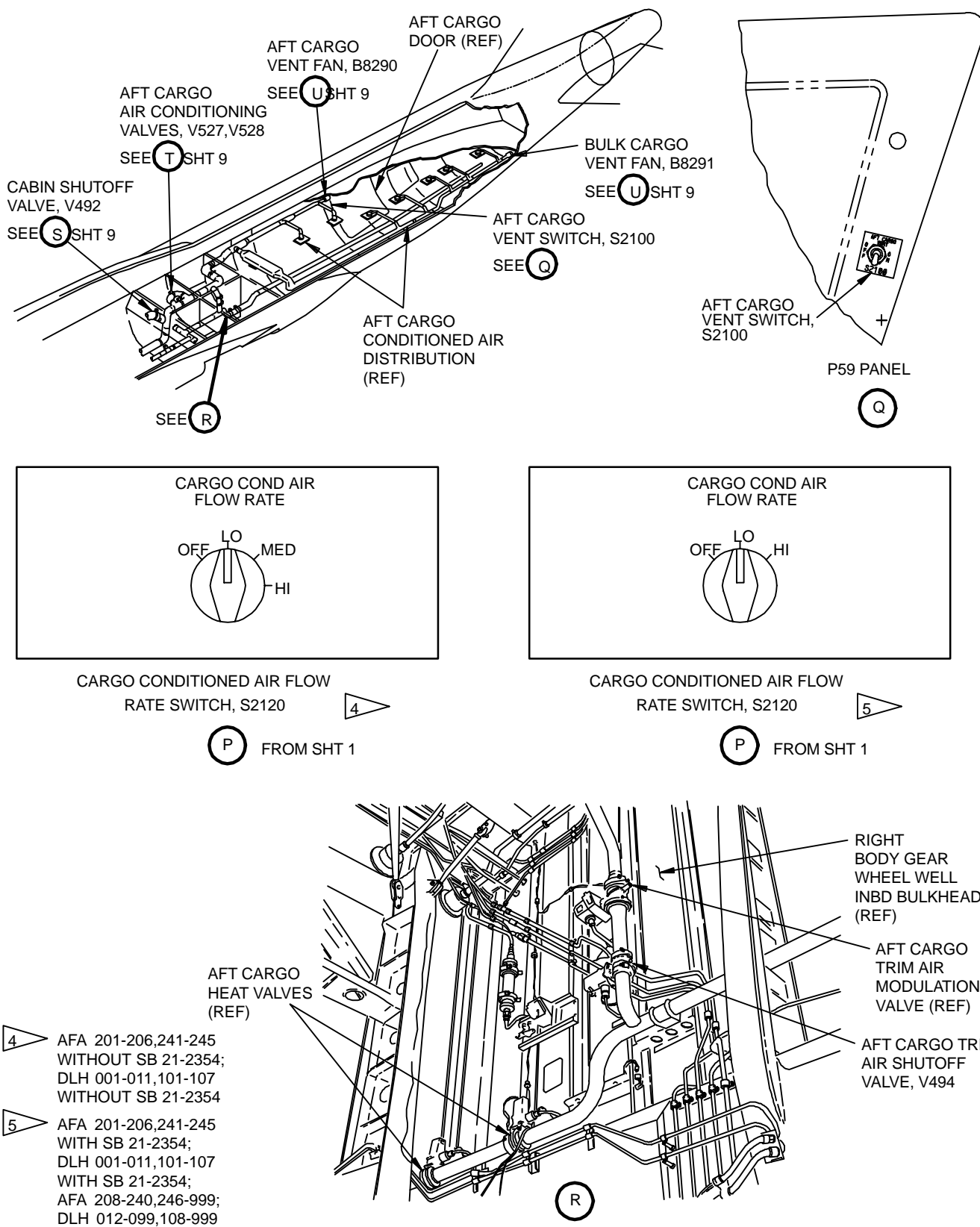




Distribution - Component Location
Figure 102 (Sheet 7)

Figure 12 21-20 DISTRIBUTION COMPONENT LOCATION

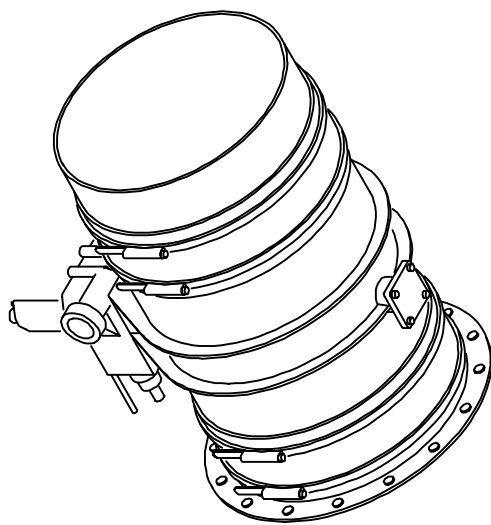




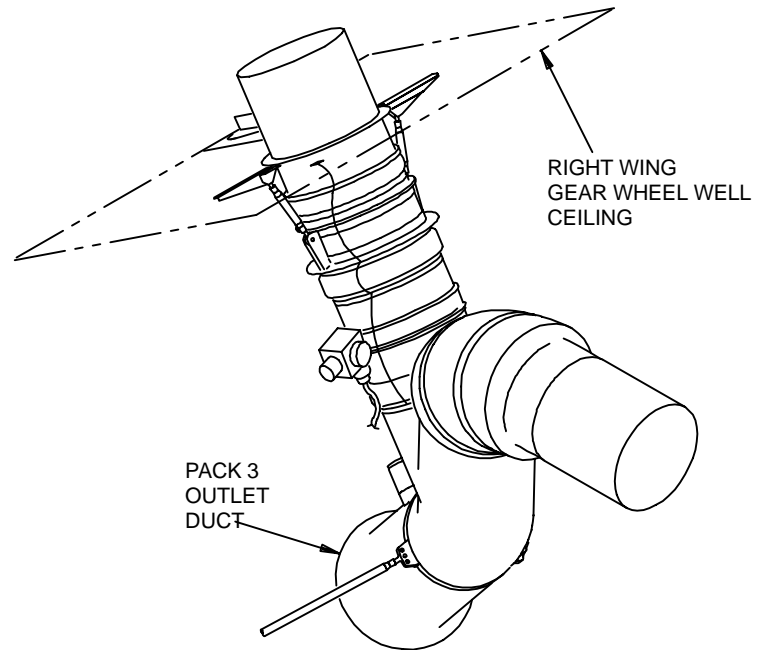
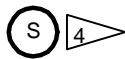
Distribution - Component Location
Figure 102 (Sheet 8)

Figure 13 21-20 DISTRIBUTION COMPONENT LOCATION

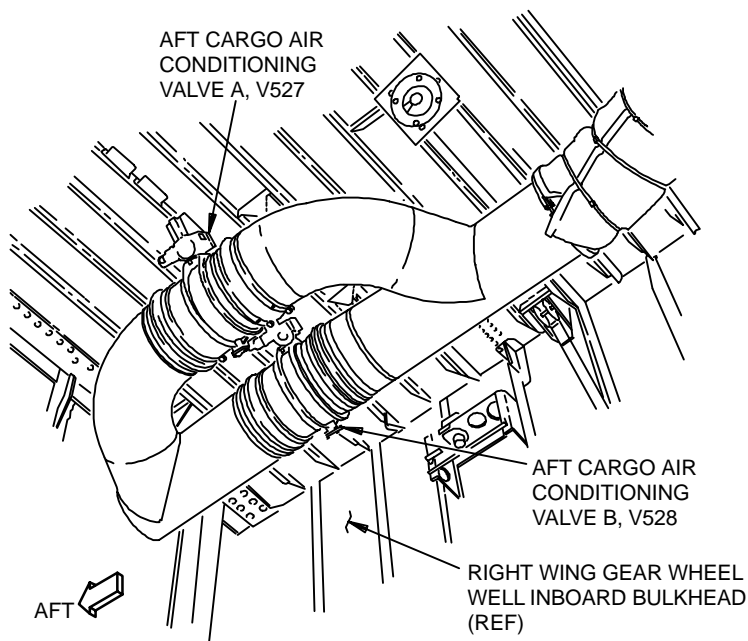




CABIN SHUTOFF VALVE, V492
(ABOVE RIGHT WING GEAR WHEEL WELL)



CABIN SHUTOFF VALVE, V492
(IN RIGHT WING GEAR WHEEL WELL)

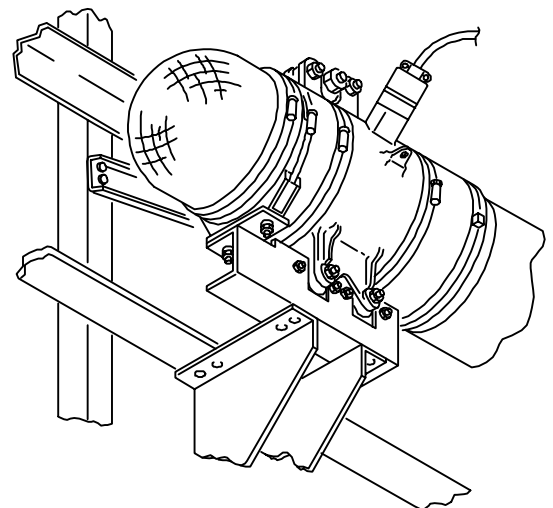


AFT CARGO AIR CONDITIONING VALVES, V527, V528



4 AFA 201,202,241,242;
DLH 001-008,101-107

5 AFA 203-240,243-280;
DLH 009-100,108-999



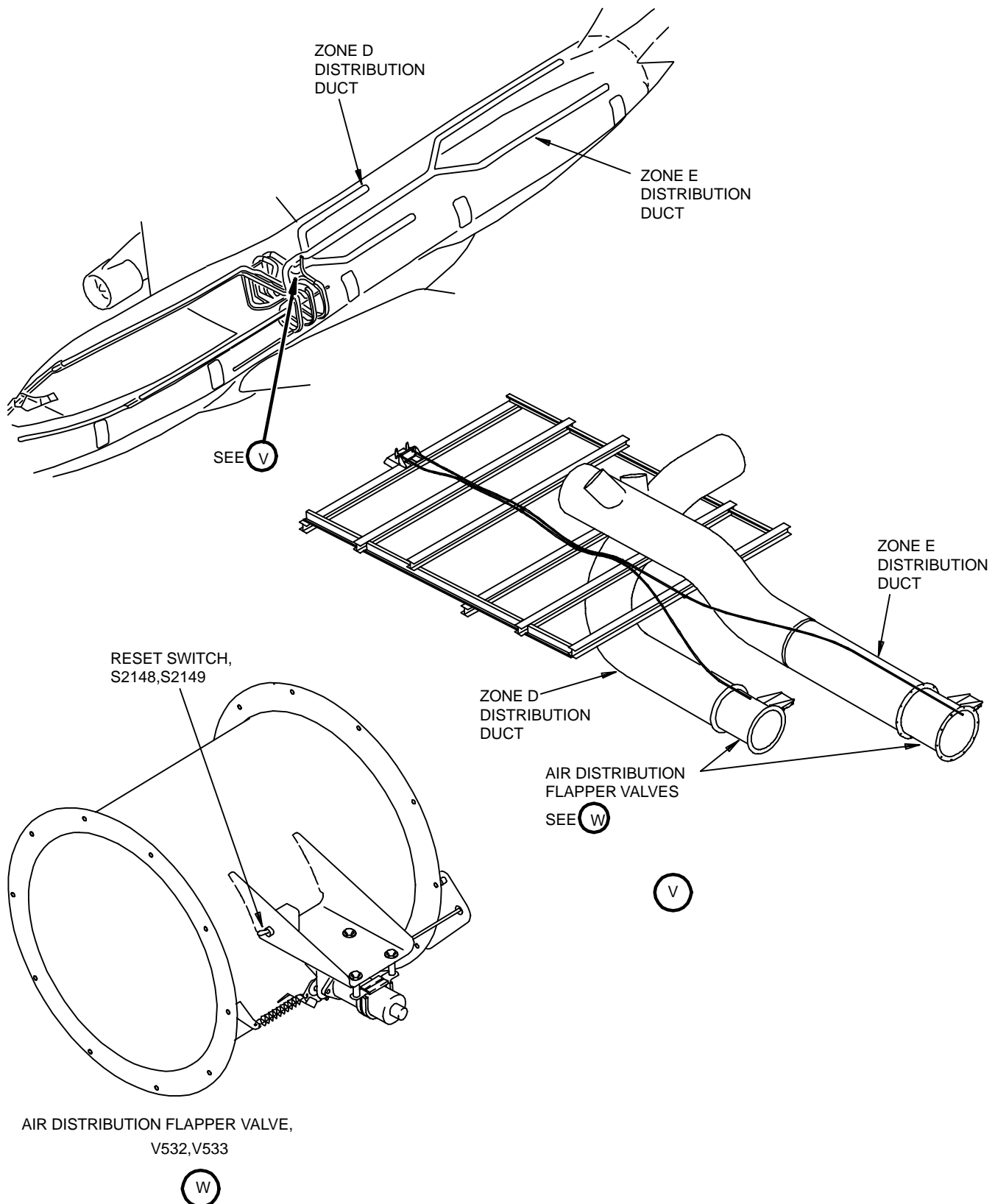
AFT CARGO VENT FANS, B8290, B8291



Distribution - Component Location (Details From Sht 8)
Figure 102 (Sheet 9)

Figure 14 21-20 DISTRIBUTION COMPONENT LOCATION

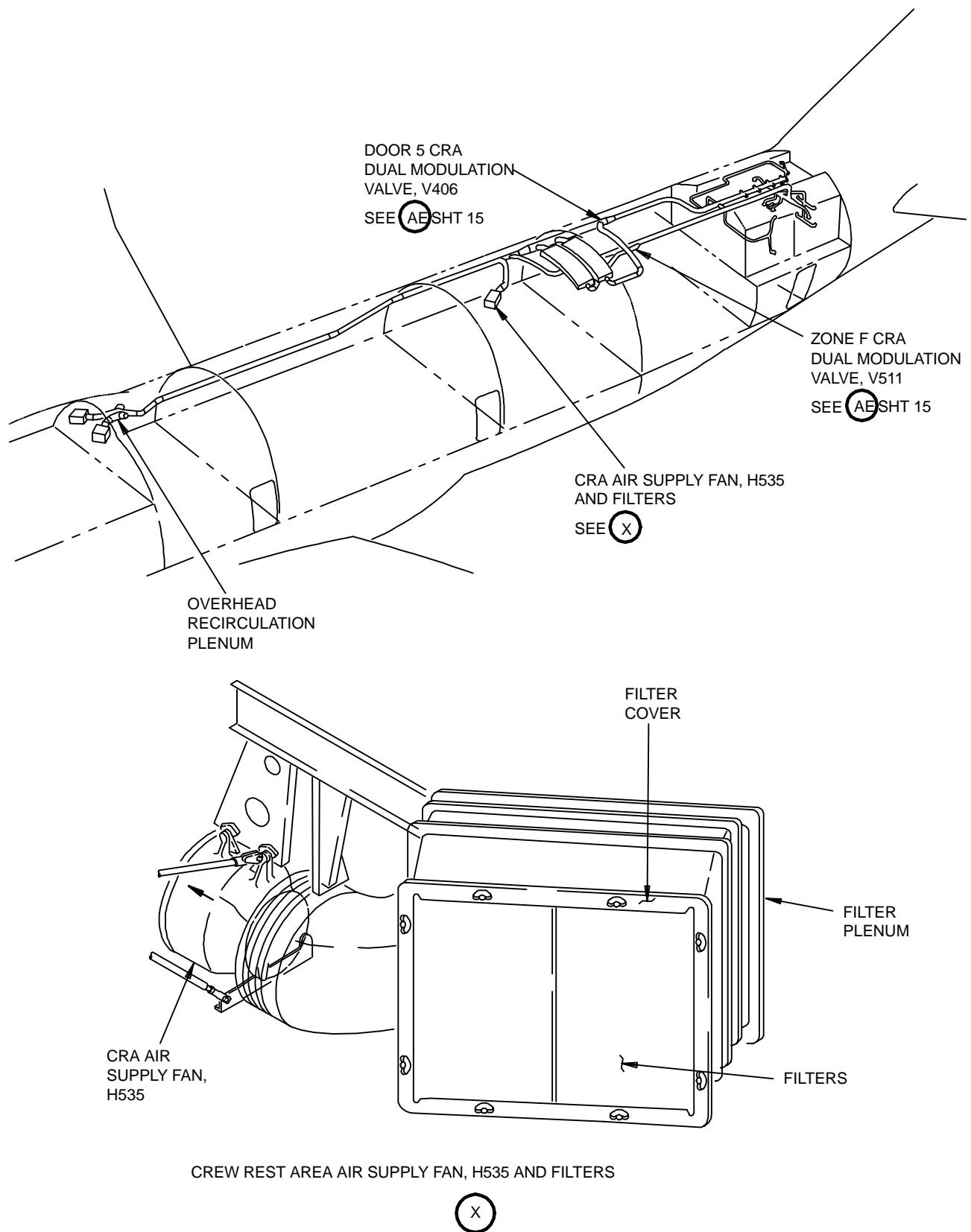




Distribution - Component Location
Figure 102 (Sheet 10)

Figure 15 21-20 DISTRIBUTION COMPONENT LOCATION

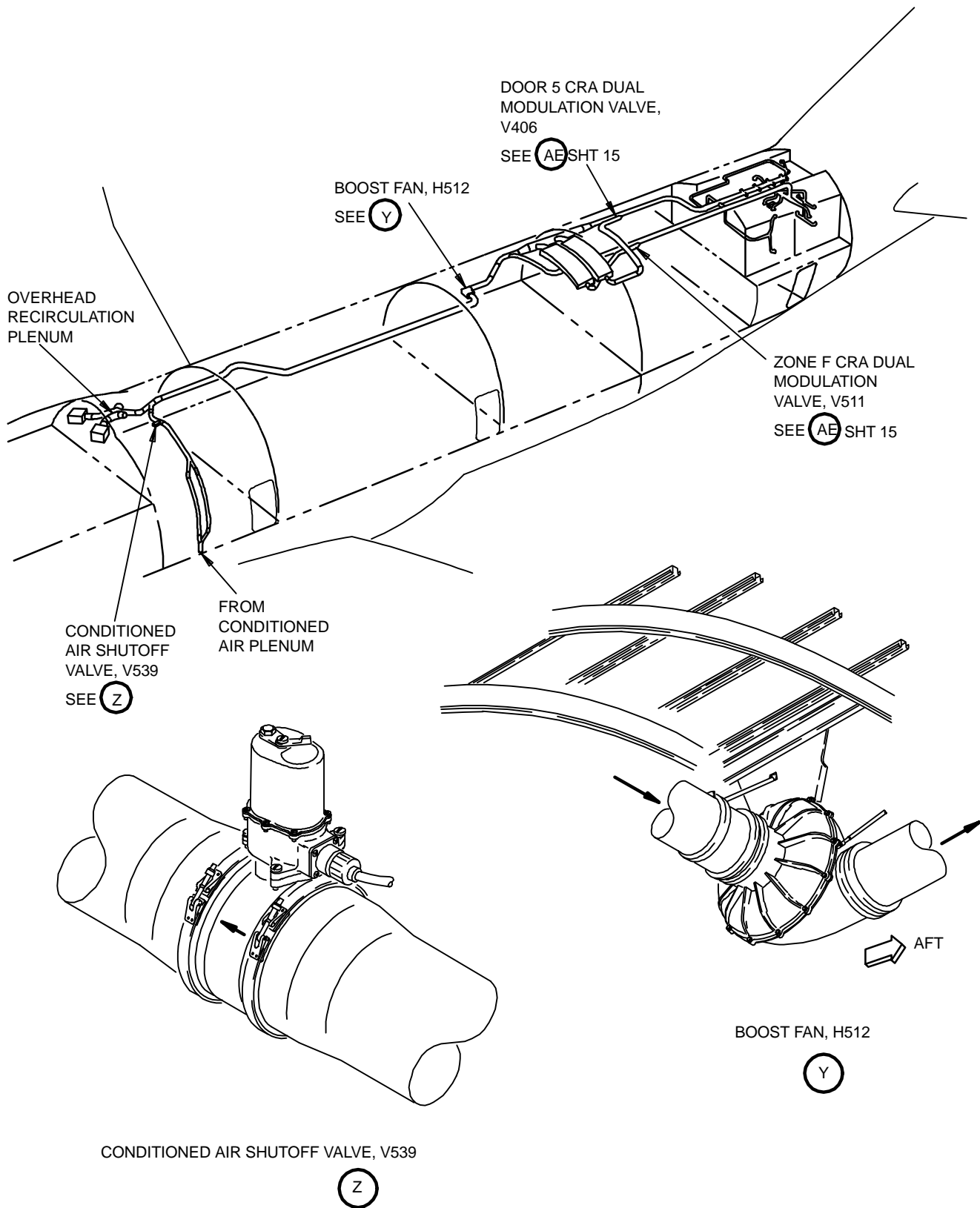




Distribution - Component Location
Figure 102 (Sheet 11)

Figure 16 21-20 DISTRIBUTION COMPONENT LOCATION

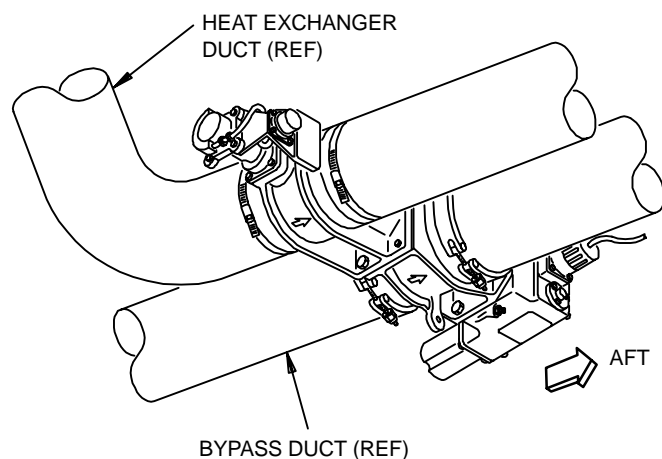




Distribution - Component Location
Figure 102 (Sheet 12)

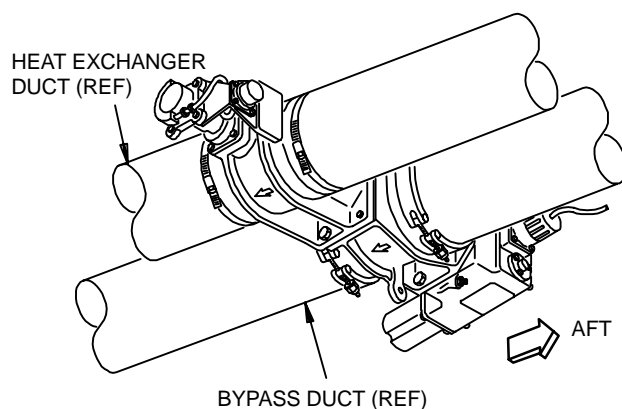
Figure 17 21-20 DISTRIBUTION COMPONENT LOCATION





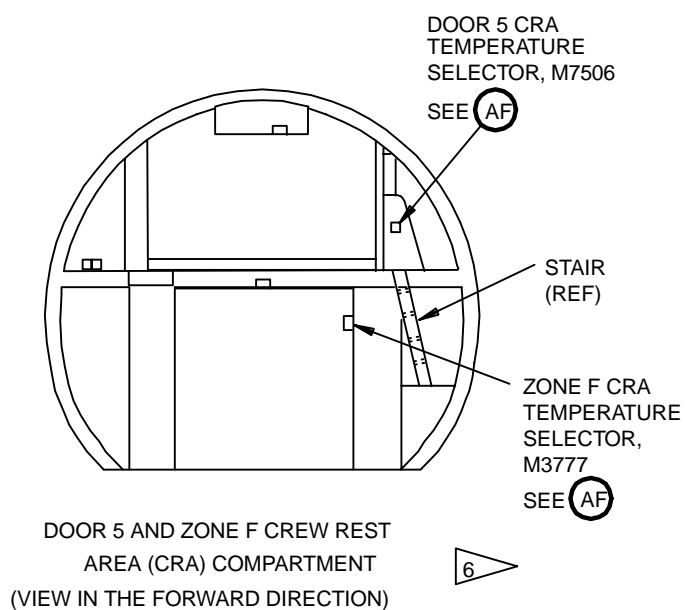
CRA DUAL MODULATION VALVE, V406,V511

(AE) FROM SHT 11,12 OR 13
6

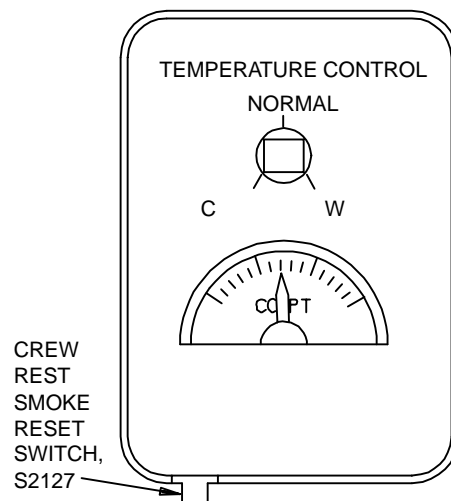


CRA DUAL MODULATION VALVE, V627

(AE) FROM SHT 14
7



DOOR 5 AND ZONE F CREW REST
AREA (CRA) COMPARTMENT
(VIEW IN THE FORWARD DIRECTION)



CRA TEMPERATURE SELECTOR,
M7506,M3777

(AF) 6

6 DLH 001-099;
AFA 201-240

7 AFA 241-269;
UTA 325

Distribution - Component Location
Figure 102 (Sheet 15)

Figure 18 21-20 DISTRIBUTION COMPONENT LOCATION



21-30 PRESSURIZATION CONTROL



PRESSURIZATION CONTROL

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
ACTUATOR - PRESSURIZATION OUTFLOW VALVE	2,3	2	AFT OF BULK CARGO COMPT	21-31-07
CAPACITOR - TUNING	2,3		AFT OF BULK CARGO COMPT, P213	
B1688		1		*
B1689		1		*
B1690		1		*
B1691		1		*
CAPACITOR - TUNING	2,3		AFT OF BULK CARGO COMPT, P213	
B1684		1		*
B1685		1		*
B1686		1		*
B1687		1		*
CARD - (REF 21-20-00, FIG. 101)				
ECS MISC PCA, YMLA13				
CIRCUIT BREAKERS -	1		FLT COMPT, P6	
CABIN PRESS AUTO A, C549		1	6J28	*
CABIN PRESS CONT R ICU, C10268		1	6J31	*
CABIN PRESS CONT L ICU, C10267		1	6J30	*
OUTFLOW VALVE MAN-R, C547		1	6L7	*
OUTFLOW VALVE MAN-L, C548		1	6L6	*
CABIN PRESS AUTO B, C10183		1	6J29	*
CIRCUIT BREAKERS - (REF 31-01-15, FIG. 101)				
OUTFLOW VALVE-L, C124				
OUTFLOW VALVE-R, C381				
CIRCUIT BREAKERS -	1		117AL, MAIN EQUIP CTR, P414	
CABIN PRESS ICU LEFT, C3165		1	414M8	*
CABIN PRESS ICU RIGHT, C3166		1	414B8	*
COMPUTER - (REF 34-61-00, FIG. 101)				
L FMC, M7442				
R FMC, M7443				
CONTROLLER - CABIN PRESSURE AUTO A, M7948	1	1	117AL, MAIN EQUIP CTR, E1-3	21-31-02
CONTROLLER - CABIN PRESSURE AUTO B, M7949	1	1	117AL, MAIN EQUIP CTR, E2-3	21-31-02
DIODE - UPPER PRV BLOCKING, M1810		1	117AL, MAIN EQUIP CTR, E2-4	*
DIODE - LOWER PRV BLOCKING, M1811		1	117AL, MAIN EQUIP CTR, E2-4	*
FILTER - POSITIVE PRESSURE RELIEF VALVE	4	2	FWD CARGO COMPT, LH	21-32-02
ICU - L CABIN PRESSURE, M7950	2,3	1	AFT OF BULK CARGO COMPT, LH	21-31-10
ICU - R CABIN PRESSURE, M7951	2,3	1	AFT OF BULK CARGO COMPT, RH	21-31-10
INDICATOR - OUTFLOW VALVE POSITION	1	2	FLT COMPT, P5, CAB PRESS PNL, M181	*
MODULE - CABIN PRESSURE SELECT, M181	1	1	FLT COMPT, P5	*
MOTOR - OUTFLOW VALVE AC	2,3	2	AFT OF BULK CARGO COMPT	21-31-06
MOTOR - OUTFLOW VALVE DC	2,3	2	AFT OF BULK CARGO COMPT	21-31-08

* SEE WDM EQUIPMENT LIST

Pressurization Control - Component Index
Figure 101 (Sheet 1)

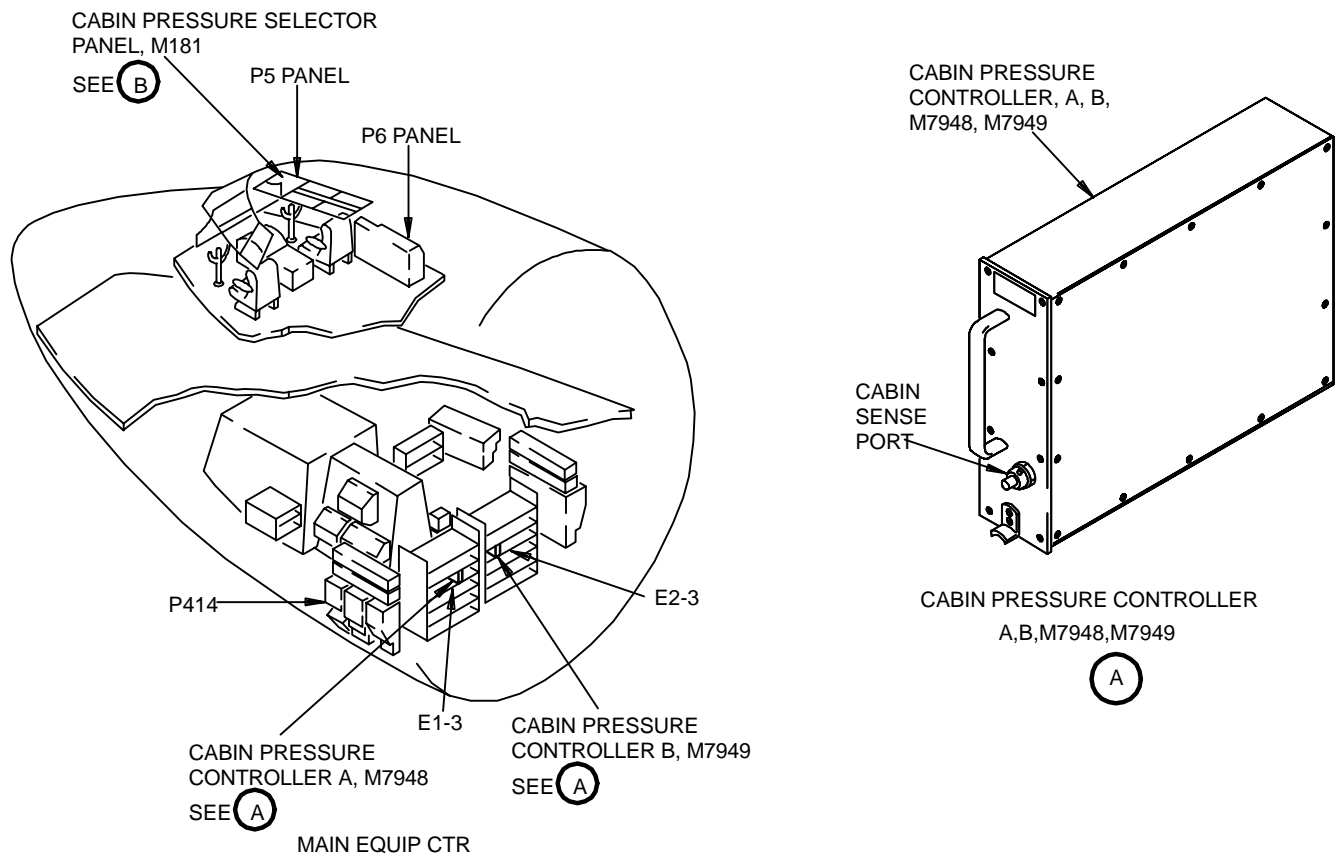
Figure 19 21-30 PRESSURIZATION CONTROL COMPONENT INDEX



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
RELAYS - (REF 31-01-30, FIG. 101) R AUTO/MAN 1, R348 R AUTO/MAN 2, R350 R OUTFLOW VALVE OPEN, R352 R OUTFLOW VALVE CLOSE, R353 R RES - CURRENT LIMITING, R420,R421,R422 RELAYS - (REF 31-01-33, FIG. 101) L AUTO/MAN 1, R349 L AUTO/MAN 2, R351 L OUTFLOW VALVE OPEN, R355 L OUTFLOW VALVE CLOSE, R356 L RES - CURRENT LIMITING, R423,R424,R425 RELAYS - (REF 32-09-00, FIG. 101) SYS PRI AIR/GRD, R7331 SYS ALT AIR/GRD, R7334 SCREEN - PRESSURIZATION OUTFLOW VALVE SWITCH - CABIN PRESSURE MODE, (S1)				
SWITCH - LANDING ALTITUDE, (S5)	2,3 1	2 1	AFT OF BULK CARGO COMPT FLT COMPT, P5, CAB PRESS PNL, M181	21-31-01 *
SWITCH - MANUAL TOGGLE, (S2)	1	1	FLT COMPT, P5, CAB PRESS PNL, M181	*
SWITCH - UPR CABIN PRESS RELIEF, S667	4	1	FLT COMPT, P5, CAB PRESS PNL, M181	*
SWITCH - LWR CABIN PRESS RELIEF, S668	4	1	FWD CARGO COMPT, AFT HALF, LH	*
SWITCH/LIGHT - LEFT MANUAL, (S4)	1	1	FWD CARGO COMPT, AFT HALF, LH	*
SWITCH/LIGHT - RIGHT MANUAL, (S3)	1	1	FLT COMPT, P5, CAB PRESS MODULE, M181	*
UNIT - (REF 31-61-00, FIG. 101) C EIU, M7443 L EIU, M7442 R EIU, M7351				
VALVE - R PRESSURIZATION OUTFLOW, V90	2,3	1	FLT COMPT, P5, CAB PRESS MODULE, M181	21-31-01
VALVE - L PRESSURIZATION OUTFLOW, V91	2,3	1	AFT OF BULK CARGO COMPT, RH	21-31-01
VALVES - POSITIVE PRESSURE RELIEF	4	2	AFT OF BULK CARGO COMPT, LH FWD CARGO COMPT, LH	21-32-01

* SEE WDM EQUIPMENT LIST

Pressurization Control - Component Index
Figure 101 (Sheet 2)**Figure 20 21-30 PRESSURIZATION CONTROL COMPONENT INDEX**

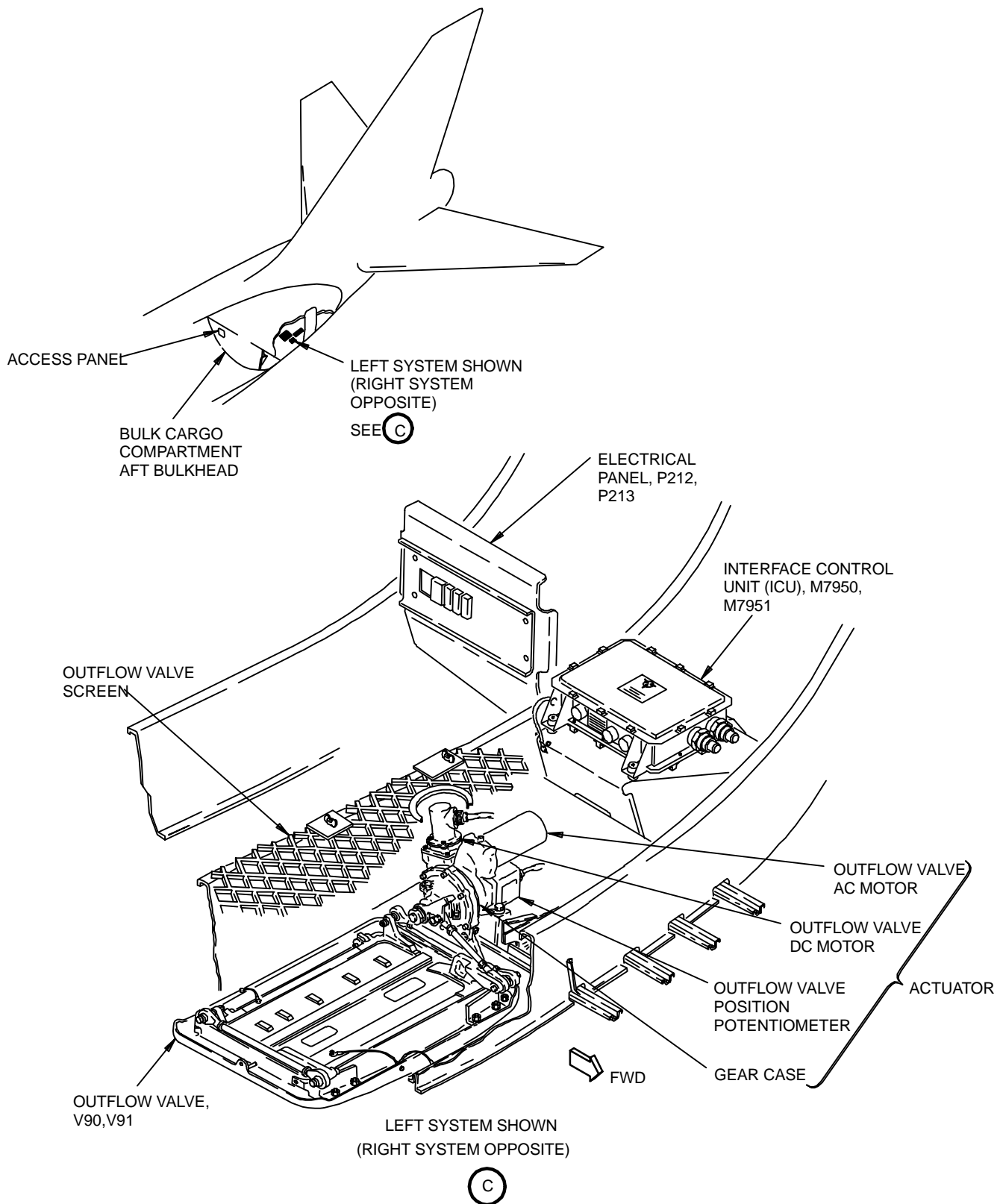


- 1 DLH 001-006,101-104
UTA 301
- 2 AFA ALL
DLH 007-099,105-199
UTA 325

Pressurization Control - Component Location
Figure 102 (Sheet 1)

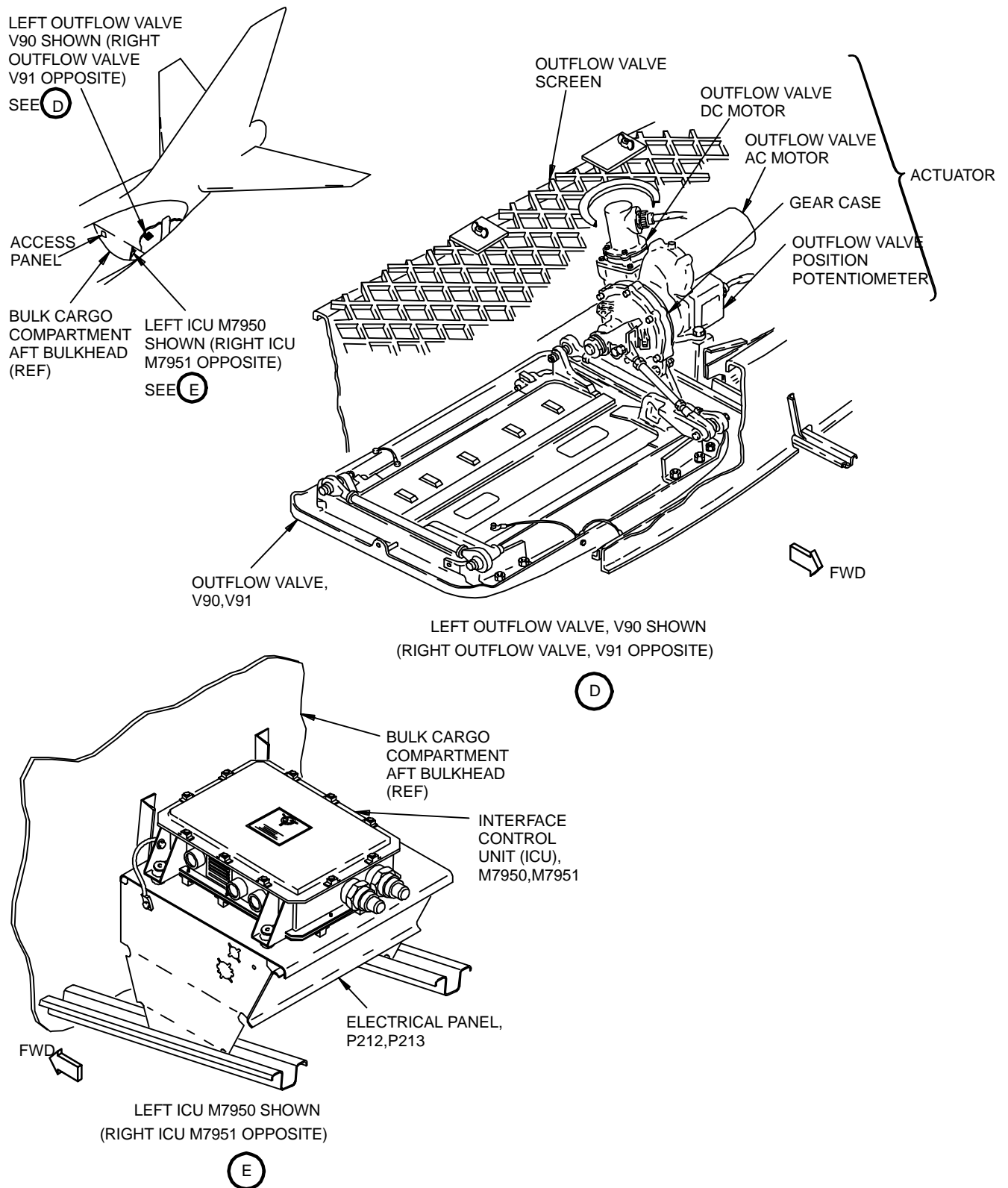
Figure 21 21-30 PRESSURIZATION CONTROL COMPONENT INDEX





Pressurization Control - Component Location
Figure 102 (Sheet 2)

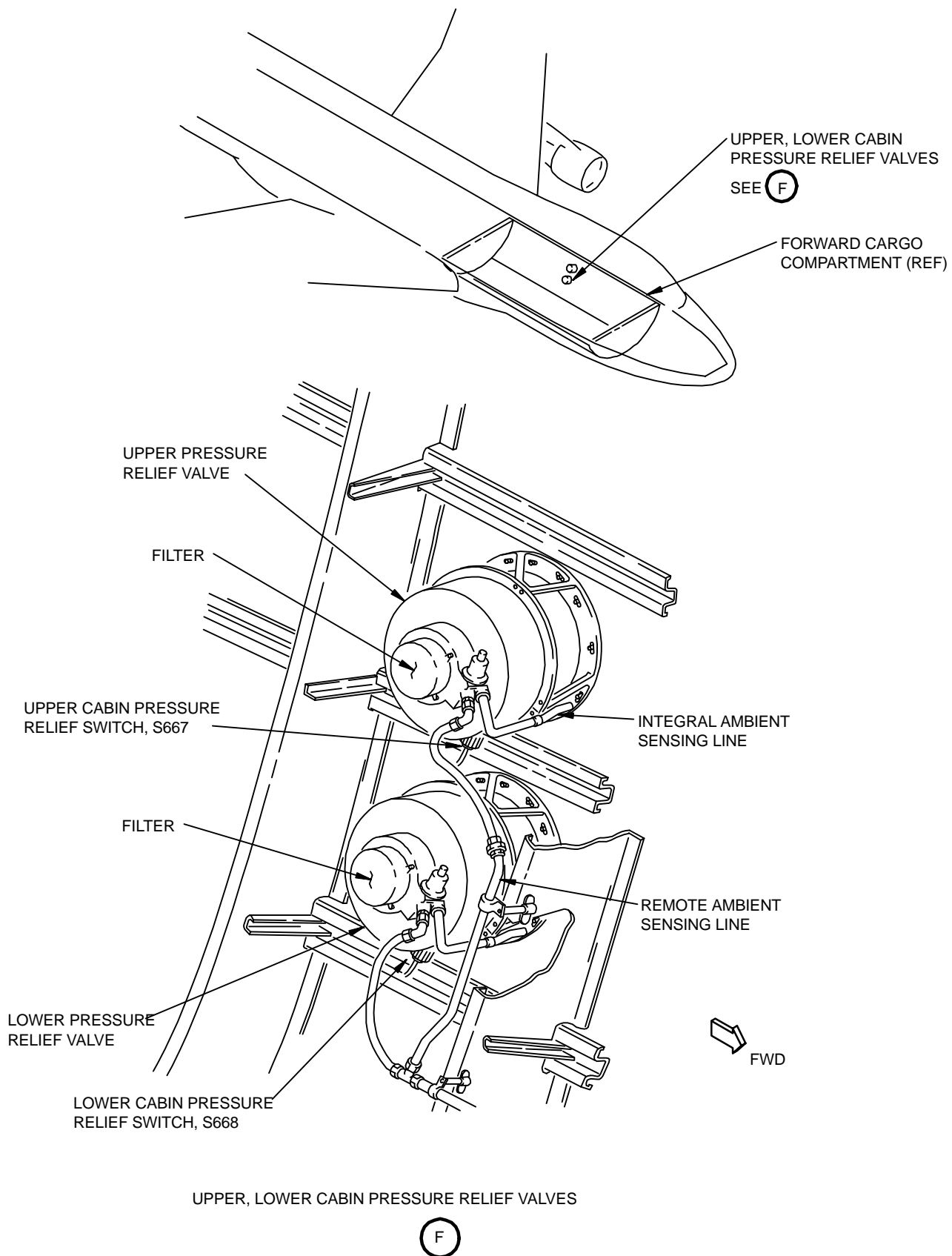
Figure 22 21-30 PRESSURIZATION CONTROL COMPONENT LOCATION



Pressurization Control - Component Location
Figure 102 (Sheet 3)

Figure 23 21-30 PRESSURIZATION CONTROL COMPONENT LOCATION













Pressurization Control - Component Location
Figure 102 (Sheet 4)

Figure 24 21-30 PRESSURIZATION CONTROL COMPONENT LOCATION



21-40 HEATING





HEATING

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
BULB - DR 5 OVHD CRA TEMPERATURE, T1664	12	1	DOOR 5 OVHD CRA CEILING	21-41-02
BULB - ZONE F TEMP, T1810		1	ZONE F CEILING	21-41-02
CARD - (FIM 21-20-00/101)				
ECS MISC PCA, YMLA13				
CONTROLLER - (FIM 21-60-00/101)				
ZONE TEMPERATURE, M7913				
CONTROLLER - DR 5 OVHD CRA TEMPERATURE, M7505	12	1	AREA OUTBD OF DOOR 5 OVHD CRA, LEFT	21-41-03
CONTROLLER - FLT DK CREW REST HEAT, M6776	2	1	F/D CREW REST AREA SIDEWALL	*
CONTROLLER - ZONE B CRA TEMP, M527 	13	1	SECT 44, AREA ABOVE THE CEILING	21-41-03
CONTROLLER - ZONE F TEMP, M3776	12	1	AREA OUTBD OF DOOR 5 OVHD CRA, LEFT	21-41-03
CIRCUIT BREAKER -				
OVDR 5 CREW REST HTR PWR, C3133		1	AFT EQUIP CTR, P85	
CRA TEMP CONT, C10013		1		
CIRCUIT BREAKER -				
DOOR HEAT CONT, C8749	7	1	FLT COMPT, P6	
FWD CARGO HEAT CONT, C10323		1	6F31	*
ZN B CR RST TEMP SENSOR, C10820 		1	6F32	*
ZONE TEMP CONT DC, C10219		1	6E34	*
ZONE TEMP SENSOR LWR CARGO, C10212		1	6F29	*
ZONE TEMP SENSOR CREW REST AREA, C10227		1	6G33	*
CIRCUIT BREAKER -			6G34	*
CARGO HEAT AFT, C1050	7	1	FLT COMPT, P7	
CIRCUIT BREAKER -			7H9	*
CREW REST HTR CONT, C10012	7	1	117AL, MAIN EQUIP CTR, P180	
ZN B CREW REST HEAT CONT, C10817 		1	180F20	*
ZN B CREW REST TEMP CONT, C10818 		1	180D11	*
ZONE F FAN/HTR CONT, C10429		1	180D12	*
CIRCUIT BREAKER -			180J18	*
AUX HEAT PWR CAPT HIGH, C10200	7	1	117AL, MAIN EQUIP CTR, P414	
AUX HEAT PWR CAPT LOW, C10201		1	414H11	*
AUX HEAT PWR F/O HIGH, C10202		1	414H12	*
AUX HEAT PWR F/O LOW, C10203		1	414H13	*
CARGO HEAT SIDE DOOR PWR, C3170 		1	414H14	*
CGO HTR PWR FWD L, C3163		1	414C8	*
DOOR AREA HTR PWR 3&4-LEFT, C3096		1	414J2	*
DOOR AREA HTR PWR 1&2-LEFT, C3095		1	414E2	*
CIRCUIT BREAKER -			414E5	*
AFT CARGO HEAT PWR, C1051	7	1	117AL, MAIN EQUIP CTR, P415	
BULK CARGO HEATER, C3184 		1	415L29	*
CGO HTR PWR FWD R, C3164		1	415H35	*
DOOR AREA HTR PWR 3&4-RIGHT, C3094		1	415G18	*
DOOR AREA HTR PWR 1&2-RIGHT, C3093		1	415G35	*
DOOR 5 AREA HEATERS, C10631 		1	415G38	*
FLT DK CREW REST HEATER, C3194		1	415H38	*
UPR DK DOOR AREA HTR PWR, C3181		1	415D38	*
ZN B CREW REST HEATER PWR, C3248 		1	415H35	*
ZONE F HEATER POWER, C3185		1	415F27	*
ZONE F HEATER TEMP CONT, C10430		1	415J37	*
		1	415J39	*

* SEE THE WDM EQUIPMENT LIST

 PROVISIONS
 DLH 003-099

 AFA 241-269; UTA 325
 UTA 301

Heating - Component Index
Figure 101 (Sheet 1)

Figure 25 21-40 HEATING COMPONENT INDEX



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
HEATER - CAPT FOOT - LEFT, H519	1	1	FLT COMPT	21-42-01
HEATER - CAPT FOOT - RIGHT, H520	1	1	FLT COMPT	21-42-01
HEATER - CAPT SHOULDER, H523	2	1	FLT COMPT	21-42-02
HEATER - CREW REST AREA, H513	11	1	AREA ABOVE CEILING, RIGHT	21-41-01
HEATER - DOOR AREA 1 - R, B7091	6	1	FIRST PASS. CABIN DOOR, RIGHT	21-49-01
HEATER - DOOR AREA 1 - L, B7092	6	1	FIRST PASS. CABIN DOOR, LEFT	21-49-01
HEATER - DOOR AREA 2 - R, B7093	6	1	SECOND PASS. CABIN DOOR, RIGHT	21-49-01
HEATER - DOOR AREA 2 - L, B7094	6	1	SECOND PASS. CABIN DOOR, LEFT	21-49-01
HEATER - DOOR AREA 3 - R, B7095	6	1	THIRD PASS. CABIN DOOR, RIGHT	21-49-01
HEATER - DOOR AREA 3 - L, B7096	6	1	THIRD PASS. CABIN DOOR, LEFT	21-49-01
HEATER - DOOR AREA 4 - R, B7097	6	1	FOURTH PASS. CABIN DOOR, RIGHT	21-49-01
HEATER - DOOR AREA 4 - L, B7098	6	1	FOURTH PASS. CABIN DOOR, LEFT	21-49-01
HEATER - DOOR AREA 5 - L, B8470	6	1	FIFTH PASS. CABIN DOOR, LEFT	21-49-01
HEATER - DOOR AREA 5 - R, B8471	6	1	FIFTH PASS. CABIN DOOR, RIGHT	21-49-01
HEATER - FLT DK CREW REST, H534	2	1	FLT DK CREW REST SIDEWALL	21-42-03
HEATER - FWD CARGO - R, H526	3	1	FWD CARGO COMPT, FWD HALF, RIGHT	21-43-01
HEATER - FWD CARGO - L, H525	3	1	FWD CARGO COMPT, FWD HALF, LEFT	21-43-01
HEATER - F/O AUXILIARY SHOULDER, H524	2	1	FLT COMPT	21-42-01
HEATER - F/O FOOT - L, H521	1	1	FLT COMPT	21-42-01
HEATER - F/O FOOT - R, H522	1	1	FLT COMPT	21-42-01
HEATER - UPR DK DOOR AREA - L, B1628	6	1	UPR DECK DOOR, LEFT	21-49-01
HEATER - UPR DK DOOR AREA - R, B1629	6	1	UPR DECK DOOR, RIGHT	21-49-01
HEATER - ZONE B CRA, H546	11	1	AREA ABOVE CEILING RIGHT	21-41-01
HEATER - ZONE F CRA, H533	11	1	AREA ABOVE CEILING LEFT	21-41-01
HEATER BLANKET - SIDE CARGO DOOR	14	1	MAIN DECK, AFT OF THE SIDE CARGO DOOR	*
AFT, X194				
DOOR - AFT, X195		1	MAIN DECK, SIDE CARGO DOOR AREA	*
DOOR - MID, X196		1	MAIN DECK, SIDE CARGO DOOR AREA	*
DOOR - FWD, X197		1	MAIN DECK, SIDE CARGO DOOR AREA	*
FWD, X198		1	MAIN DECK, FWD OF THE SIDE CARGO DOOR	*
INDICATOR - DOOR 5 OVHD CRA TEMPERATURE, N309	12	1	DOOR 5 OVHD CRA	*
INDICATOR - ZONE F TEMP, N315	12	1	ZONE F CRA	*
MODULE - (FIM 21-60-00/101)				
CABIN TEMP, M7329				
COMBI ZONE SELECT, M6847				
MODULE - (FIM 26-23-00/101)				
ENG/APU/CARGO FIRE CONTROL, M7326				
MODULE - CAPT HEATER CONTROL, M7375	1	1	FLT COMPT, P44	*
MODULE - F/O HEATER CONTROL, M7376	1	1	FLT COMPT, P45	*

* SEE THE WDM EQUIPMENT LIST

4 DLH 001-199
5 AFA 241-280






















Heating - Component Index
Figure 101 (Sheet 2)

Figure 26 21-40 HEATING COMPONENT INDEX



* SEE THE WDM EQUIPMENT LIST

Figure 27 21-40 HEATING COMPONENT INDEX

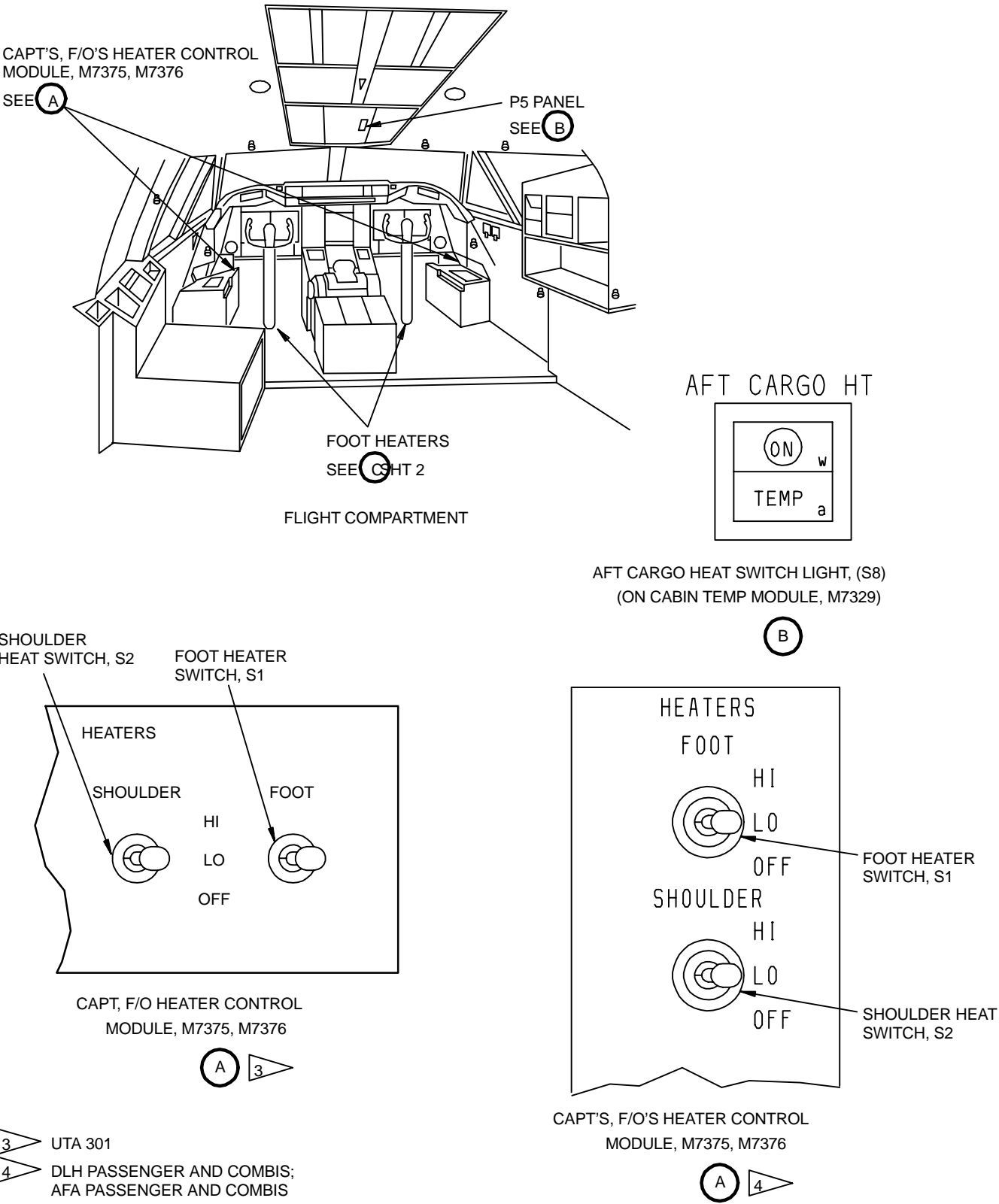
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SWITCH - (FIM 21-60-00/101) 				
COMBI ZONE SELECT, S1				
SWITCH - AFT CARGO COMPT TEMP SEL, S1035 	15	1	AFT CARGO COMPT, RIGHT	*
SWITCH - AFT CARGO COMPT TEMP SEL, S1035 	4	1	BULK CARGO COMPT, RIGHT	*
SWITCH - AFT CARGO HIGH TEMP CONT, S1979 	4	1	BULK CARGO COMPT, LEFT	21-44-02
SWITCH - AFT CARGO HIGH TEMP CONT, S2091 	15	1	AFT CARGO COMPT, RIGHT	21-44-02
SWITCH - AFT CARGO LOW TEMP CONT, S1988 	4	1	BULK CARGO COMPT, LEFT	21-44-02
SWITCH - AFT CARGO LOW TEMP CONT, S2093 	15	1	AFT CARGO COMPT, RIGHT	21-44-02
SWITCH - AFT CARGO OVHT, S1980 	4	1	BULK CARGO COMPT, LEFT	21-44-04
SWITCH - AFT CARGO OVHT, S2092 	15	1	AFT CARGO COMPT, RIGHT	21-44-04
SWITCH - AFT CARGO UNDFLR TEMP CONT, S2071 	4	1	BULK CARGO COMPT, RIGHT	21-44-07
SWITCH - BULK CARGO HIGH TEMP CONT, S2069 	15	1	BULK CARGO COMPT, LEFT	21-44-02
SWITCH - BULK CARGO LOW TEMP CONT, S2068 	15	1	BULK CARGO COMPT, LEFT	21-44-02
SWITCH - BULK CARGO OVHT, S2070 	15	1	BULK CARGO COMPT, LEFT	21-44-04
SWITCH - BULK CARGO TEMP SEL, S2067 	15	1	BULK CARGO COMPT, RIGHT	*
SWITCH - BULK CARGO UNDFLR OVHT, S2072 	15	1	BULK CARGO COMPT, RIGHT	21-44-06
SWITCH - BULK CARGO UNDFLR TEMP CONT, S2077 	15	1	BULK CARGO COMPT, RIGHT	21-44-05
SWITCH - CAPT FOOT HEATER, S1	1	1	FLT COMPT, P44, CAPT HTR CONT PNL, M7375	*
SWITCH - CAPT SHOULDER HEATER, S2	1	1	FLT COMPT, P44, CAPT HTR CONT PNL, M7375	*
SWITCH - F/O FOOT HEATER, S1	1	1	FLT COMPT, P45, F/O HTR CONT PNL, M7376	*
SWITCH - F/O SHOULDER HEATER, S2	1	1	FLT COMPT, P45, F/O HTR CONT PNL, M7376	*
SWITCH - FWD CARGO TEMP CONT, S2014	3	1	FWD CARGO COMPT, FWD HALF, LEFT	21-43-03
SWITCH/LIGHT - AFT CARGO HEAT, S8	1	1	FLT COMPT, P5, CABIN TEMP, M7329	*
UNIT - (FIM 31-61-00/101)				
C EIU, M7352				
L EIU, M7353				
R EIU, M7351				
VALVE - (FIM 21-20-00/101)				
DR 5 OVHD CRA DUAL MODULATION, V406				
ZONE F CRA DUAL MODULATION, V511				
VALVE - AFT CARGO HEAT CONT, V10 	15	1	BODY LDG GEAR WELL, RIGHT	21-44-01
VALVE - AFT CARGO HEAT CONT, V10 	4	1	BODY LDG GEAR WELL, RIGHT	21-44-01
VALVE - AFT CARGO HEAT OVERRIDE, V11 	15	1	WING LDG GEAR WELL, RIGHT	21-44-01
VALVE - AFT CARGO HEAT OVERRIDE, V11 	4	1	BODY LDG GEAR WELL, RIGHT	21-44-01
VALVE - BULK CARGO HEAT CONT, V188 	15	1	BODY LDG GEAR WELL, RIGHT	21-44-01

* SEE THE WDM EQUIPMENT LIST

Heating - Component Index
Figure 101 (Sheet 4)

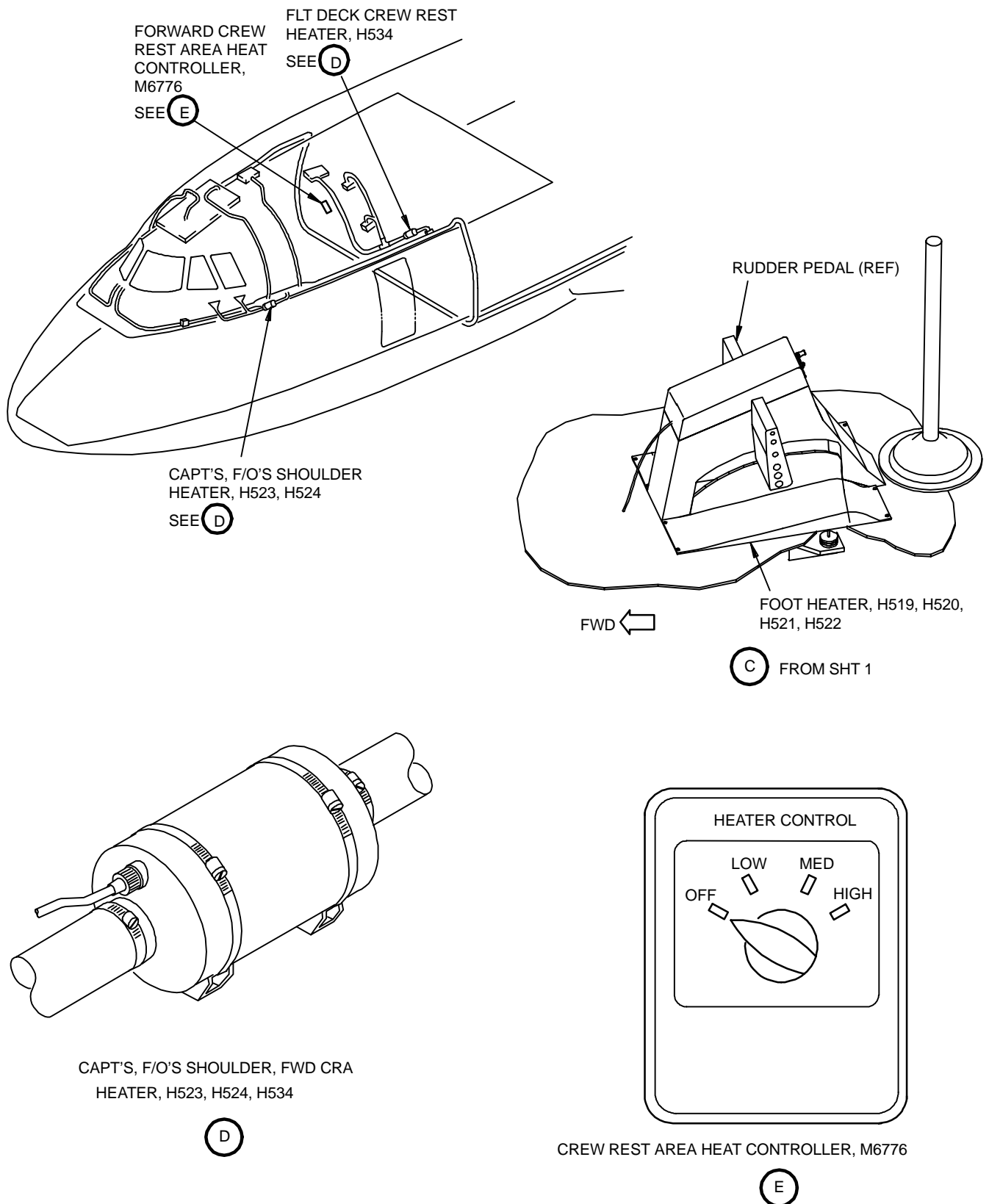
Figure 28 21-40 HEATING COMPONENT INDEX





Heating - Component Location
Figure 102 (Sheet 1)

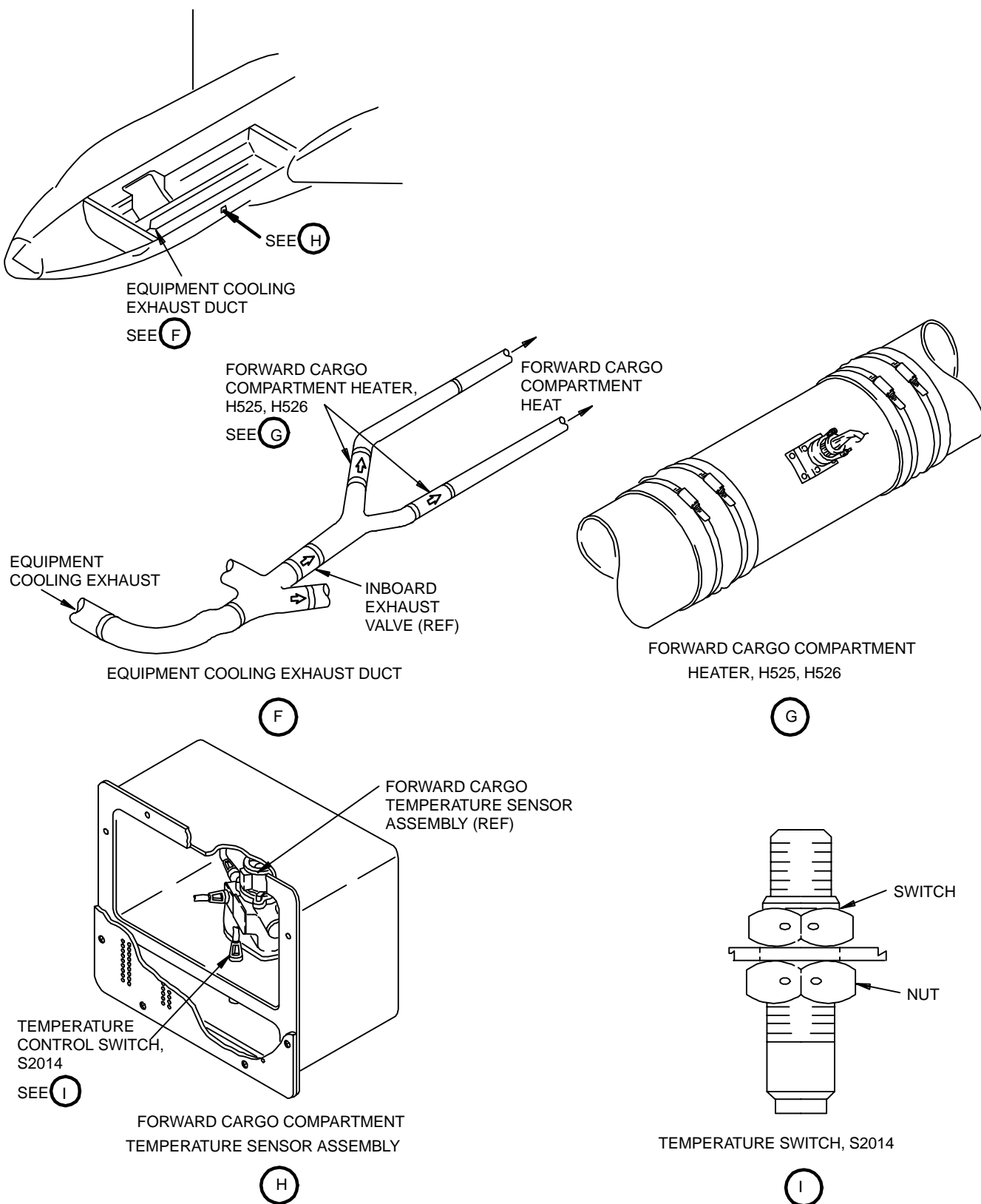
Figure 29 21-40 HEATING COMPONENT LOCATION



Heating - Component Location
Figure 102 (Sheet 2)

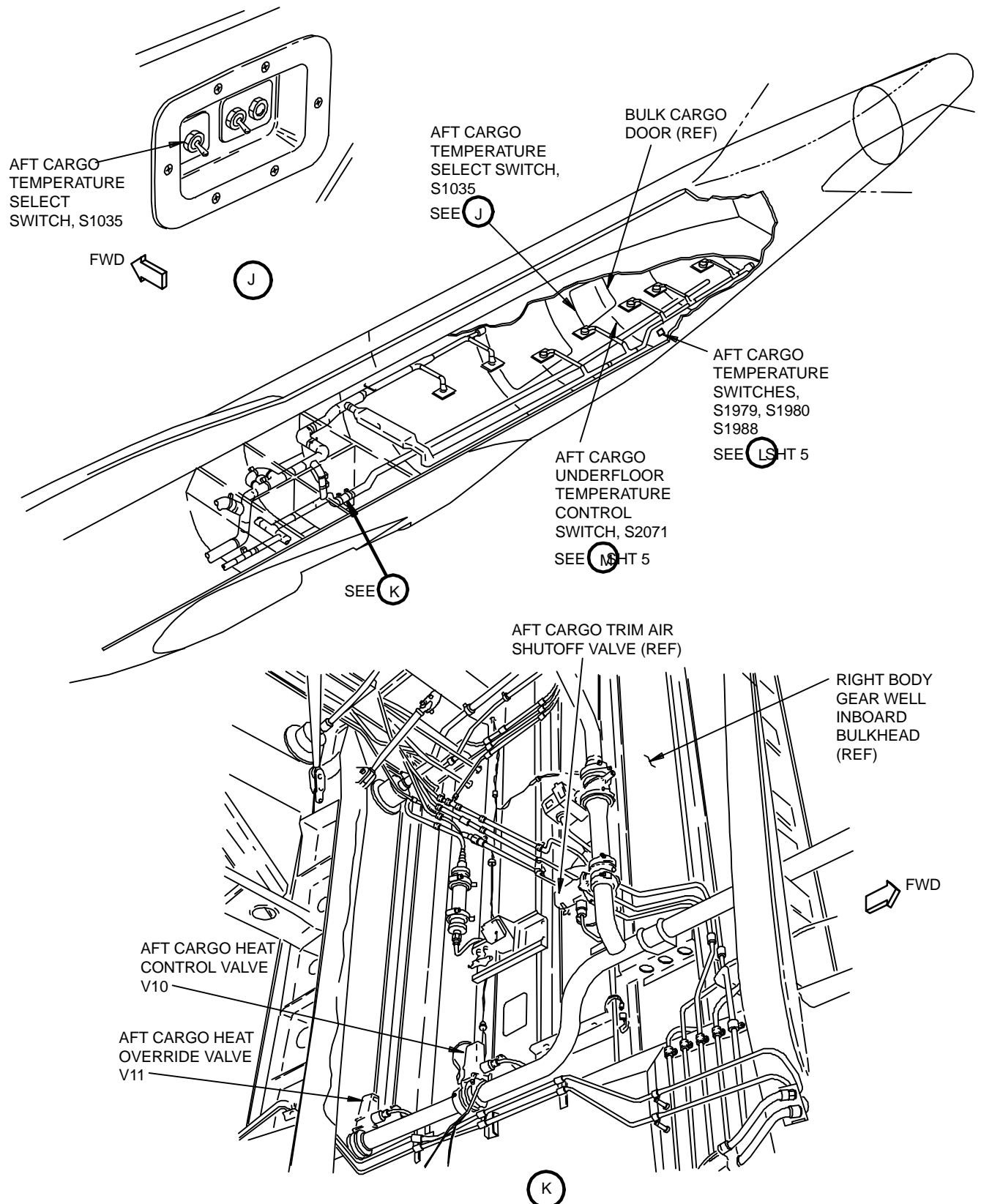
Figure 30 21-40 HEATING COMPONENT LOCATION





Heating - Component Location
Figure 102 (Sheet 3)

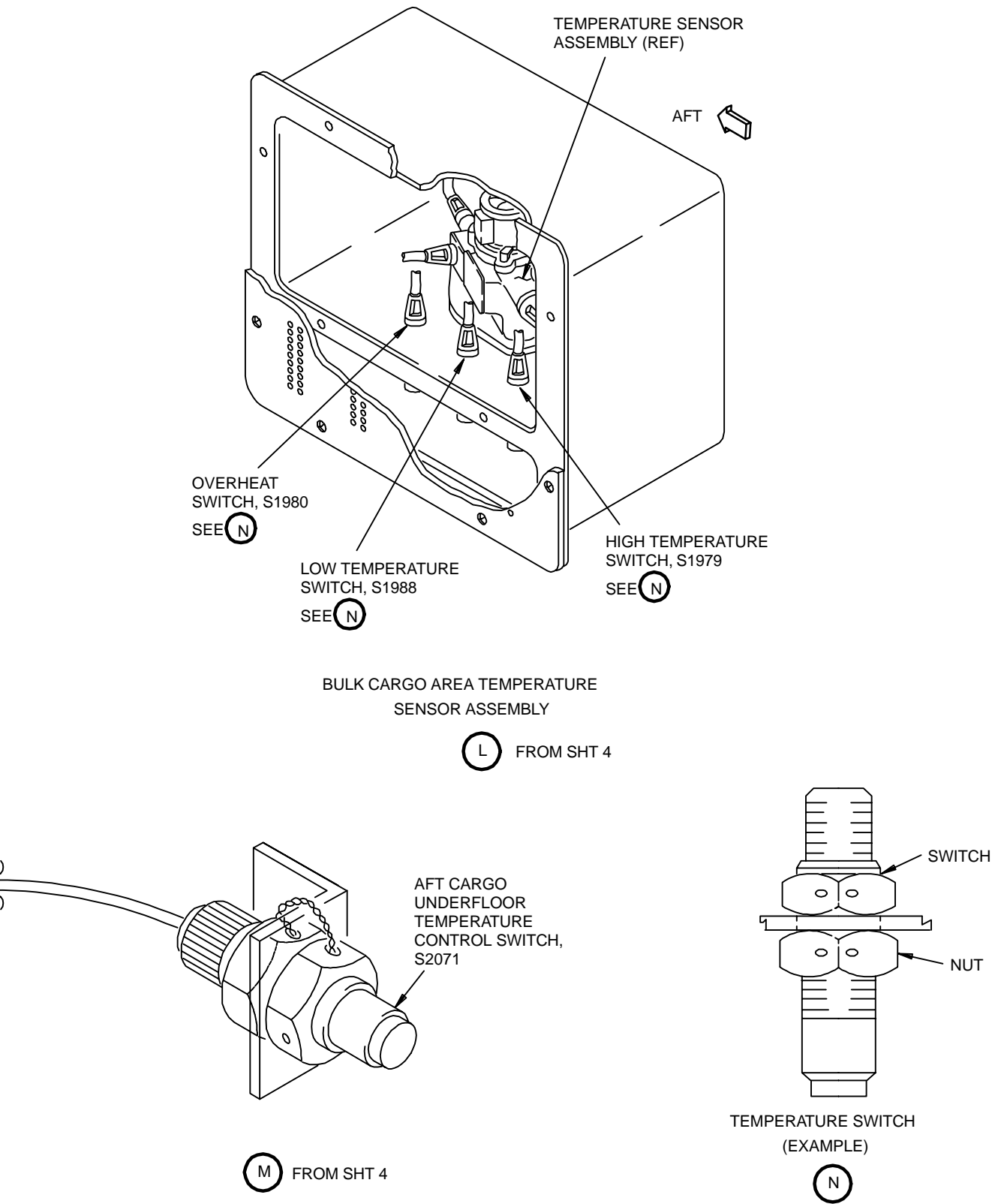
Figure 31 21-40 HEATING COMPONENT LOCATION



Heating - Component Location
Figure 102 (Sheet 4)

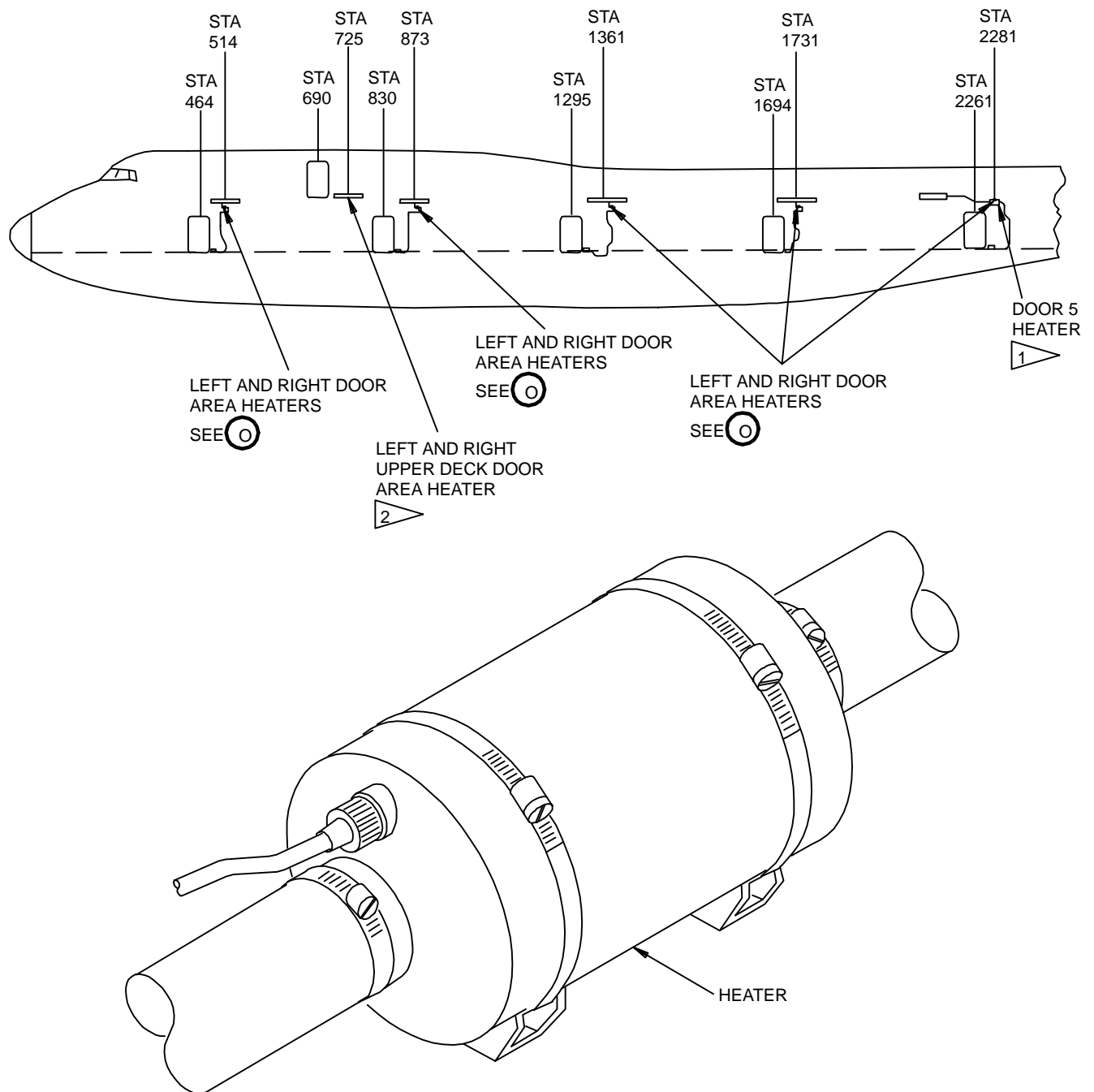
Figure 32 21-40 HEATING COMPONENT LOCATION





Heating - Component Location
Figure 102 (Sheet 5)

Figure 33 21-40 HEATING COMPONENT LOCATION



LEFT AND RIGHT DOOR AREA HEATERS, B7091,B7092,B7093
B7094,B7095,B7096,B7097,B7098,B1628,B1629

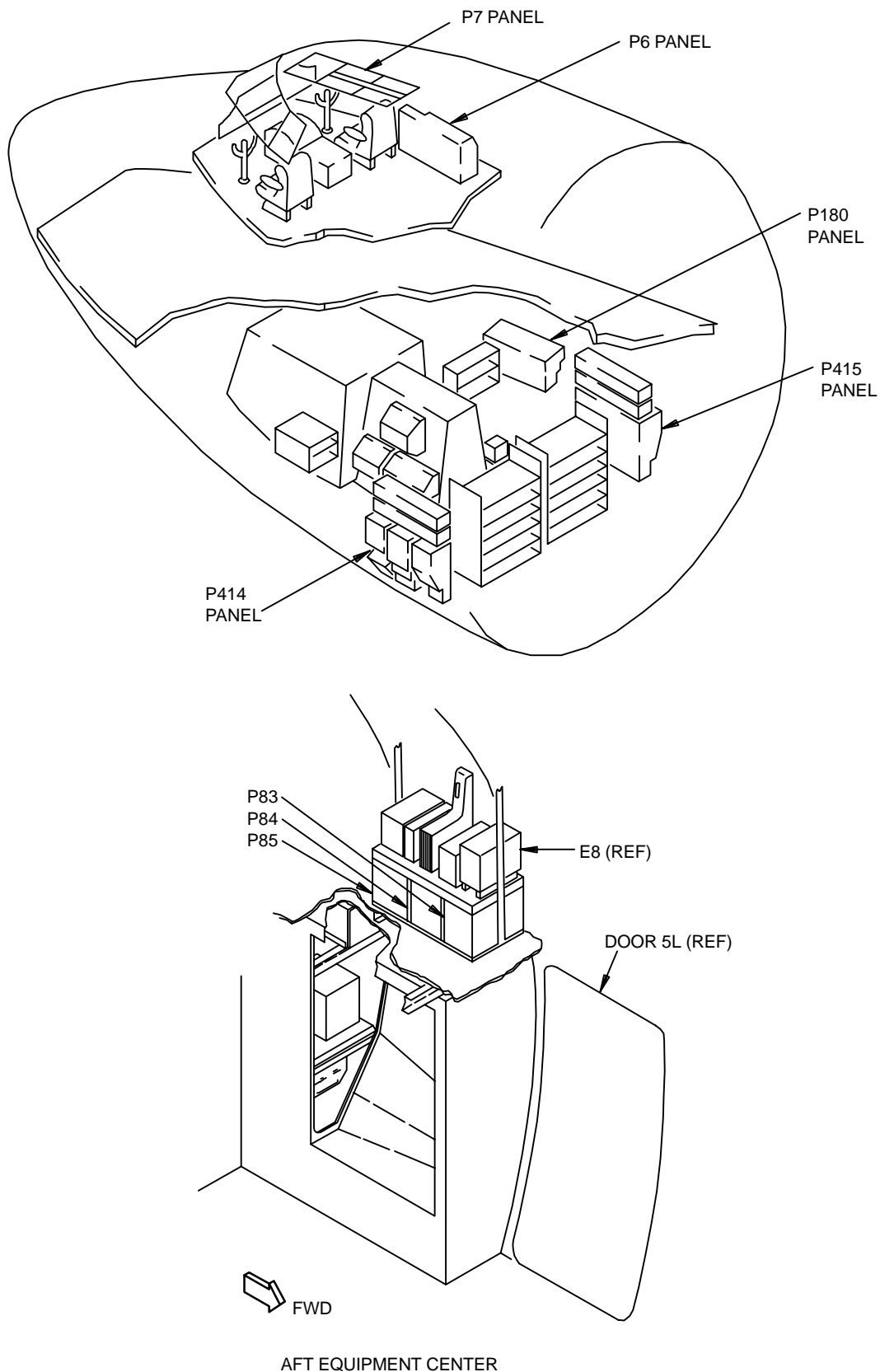


1 DLH 003-099
2 DLH 001-199

Heating - Component Location
Figure 102 (Sheet 6)

Figure 34 21-40 HEATING COMPONENT LOCATION

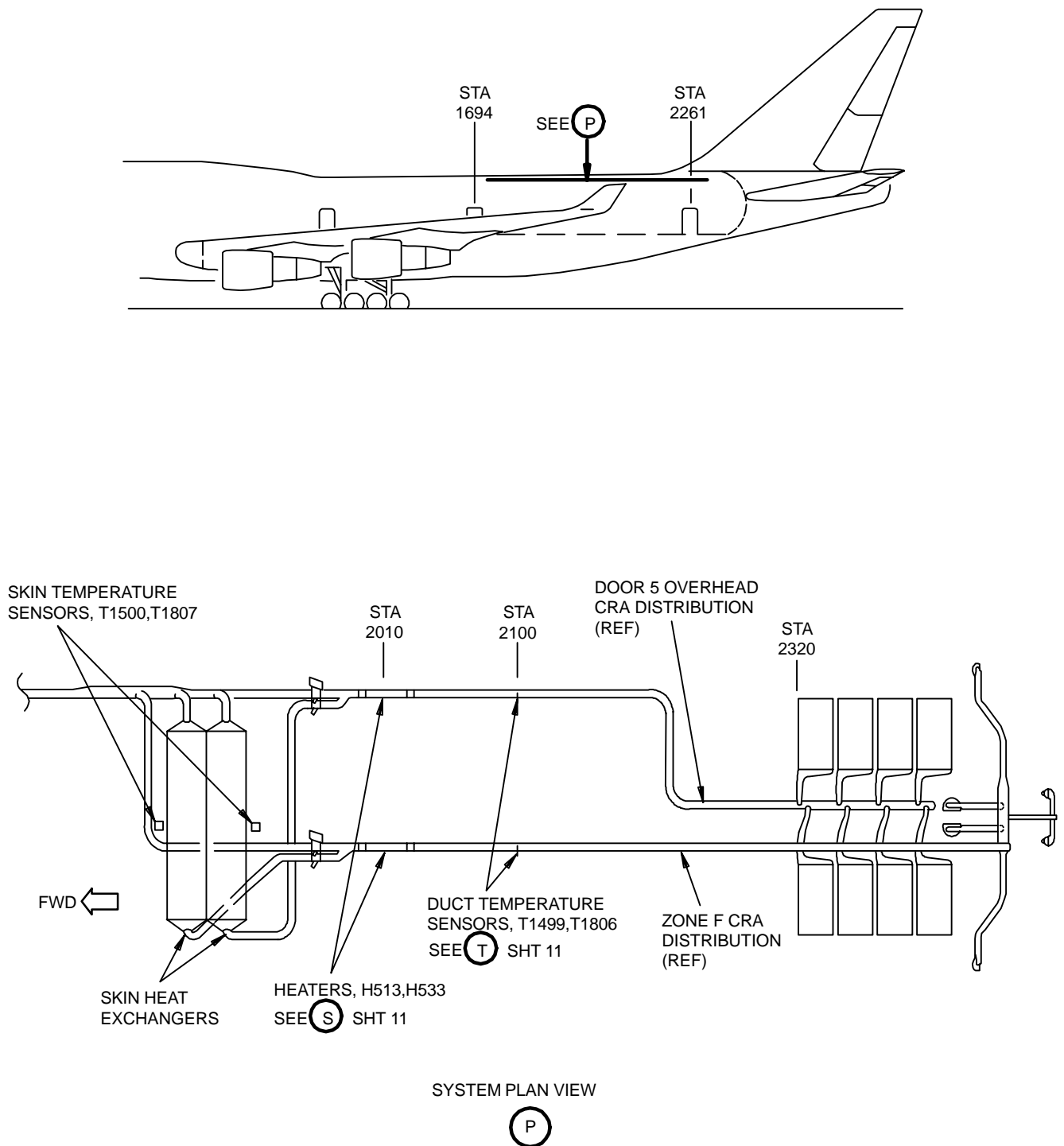




Heating - Component Location
Figure 102 (Sheet 7)

Figure 35 21-40 HEATING COMPONENT LOCATION

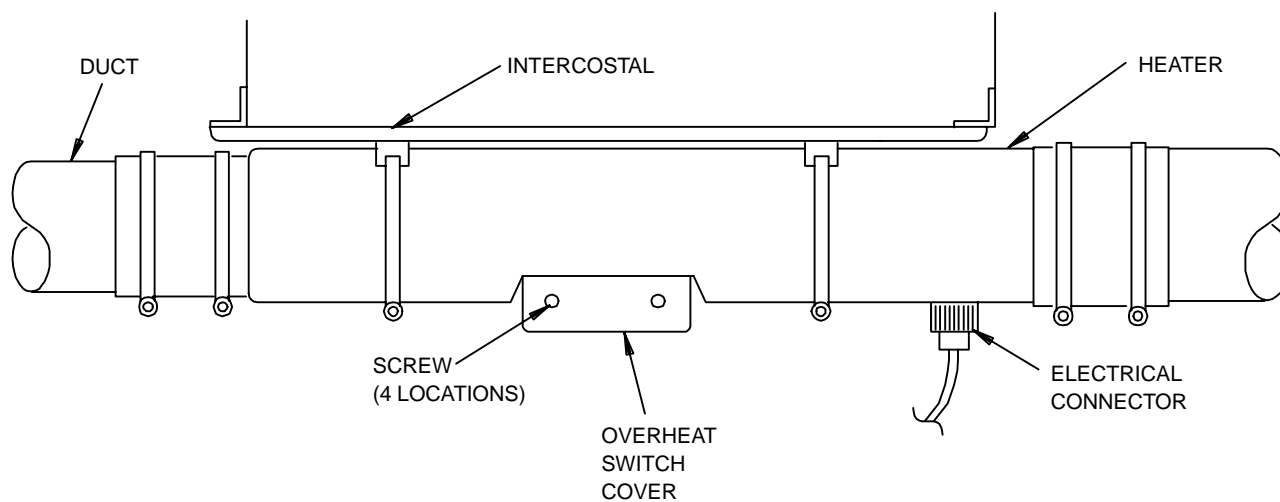




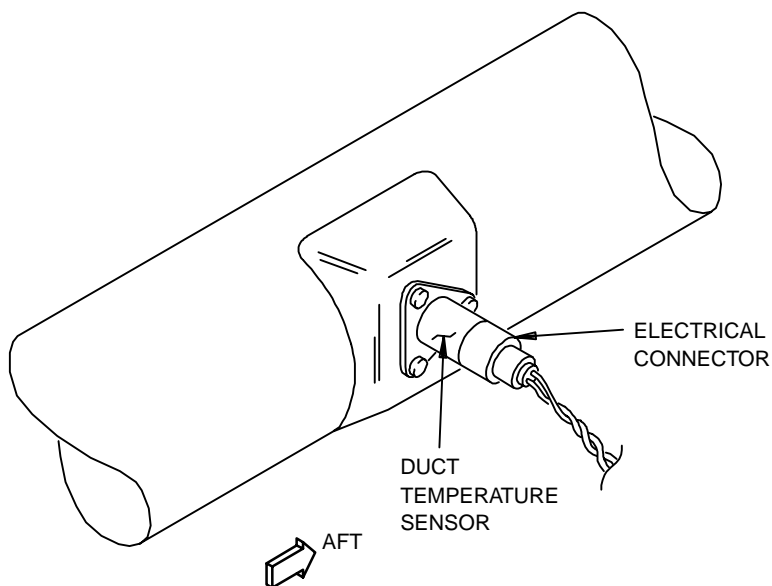
Heating - Component Location
Figure 102 (Sheet 8)

Figure 36 21-40 HEATING COMPONENT LOCATION





HEATERS, H513,H546



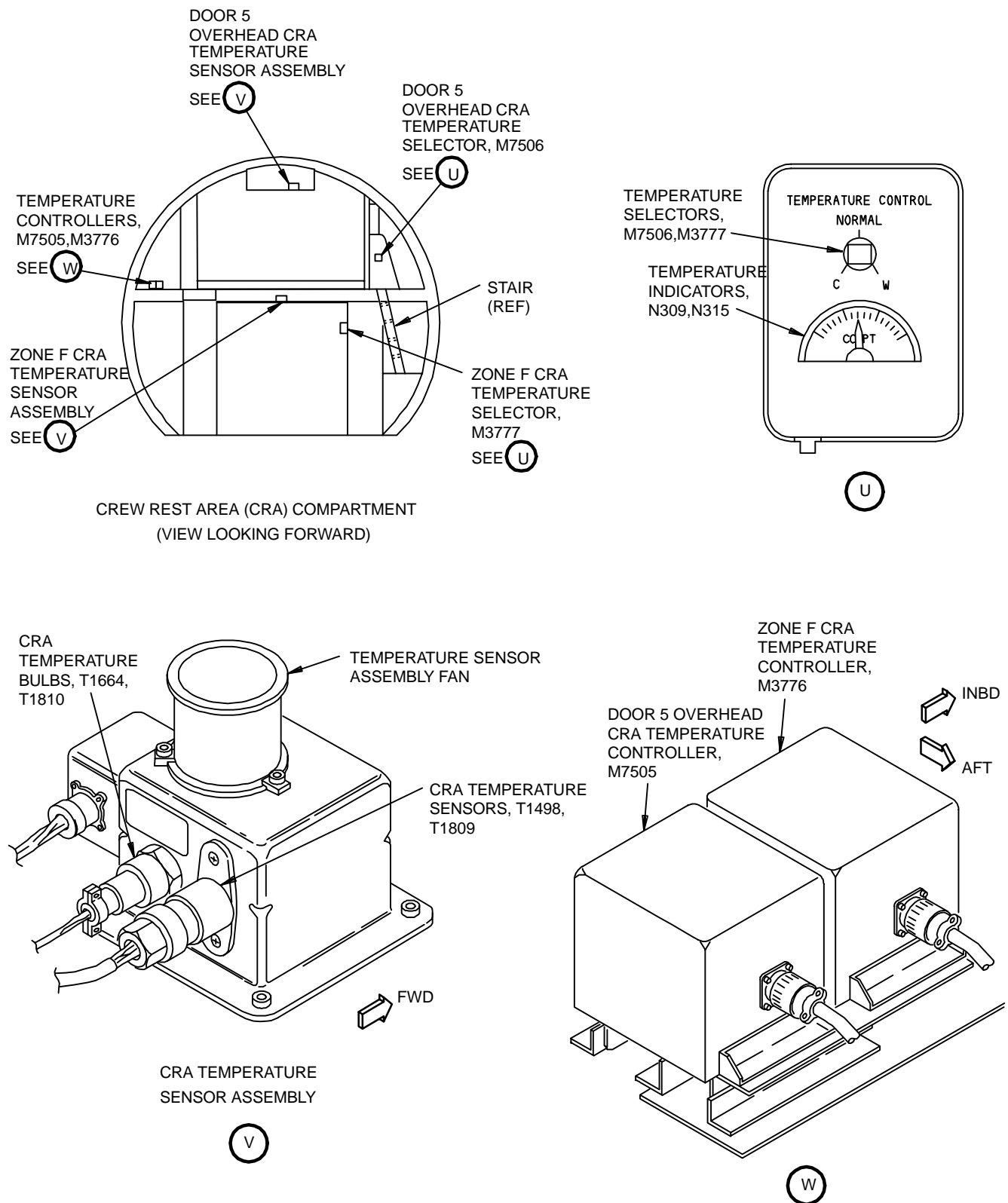
DUCT TEMPERATURE SENSOR, T1499,T1806,T1969



Heating - Component Location (Details from Shts 8,9, or 10)

Figure 102 (Sheet 11)

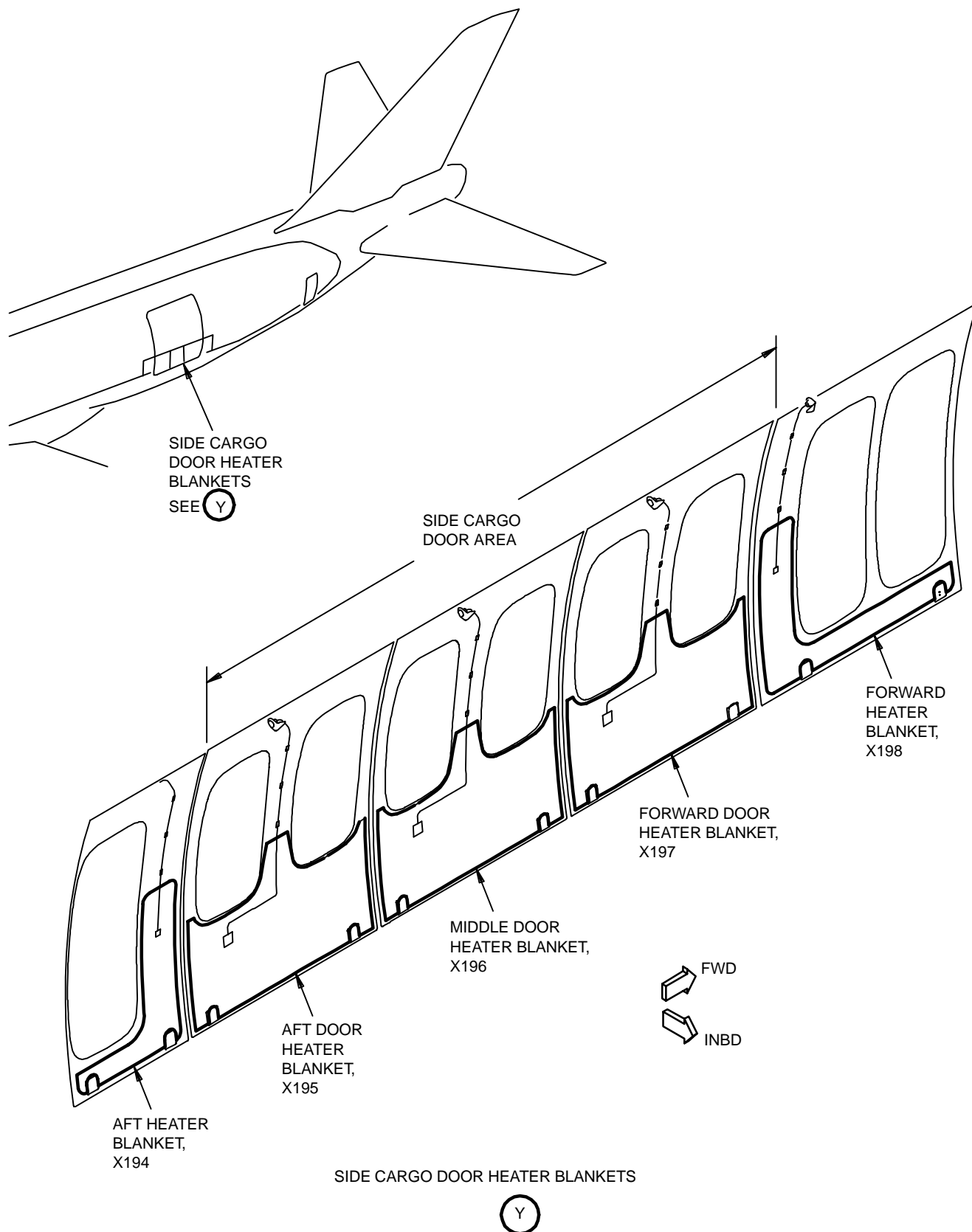
Figure 37 21-40 HEATING COMPONENT LOCATION



Heating - Component Location
Figure 102 (Sheet 12)

Figure 38 21-40 HEATING COMPONENT LOCATION








Heating - Component Location
Figure 102 (Sheet 14)

Figure 39 21-40 HEATING COMPONENT LOCATION

21-50 COOLING



COOLING

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ACTUATOR - (FIM 21-60-00/101) RAM AIR EXIT, V156,V157,V158 RAM AIR INLET, V105,V106,V107 ASPIRATOR - WATER	4	3	191EL,191NL,192ER, AIR COND ACCESS DOORS/PANELS	21-51-1 1
BULB - COMPRESSOR DISCHARGE TEMP, T479,T481,483	12	3	191AL,191HL,192AR, AIR COND ACCESS DOORS/PANELS	21-51-19
PRIMARY HEAT EXCH INLET TEMP, T1597,T1598, T1599 	4	3	191EL,191NL,192ER, AIR COND ACCESS DOORS/PANELS	21-51-20
PRIMARY HEAT EXCH OUTLET TEMP, T1600,T1601, T1602 	4	3	191EL,191NL,192ER, AIR COND ACCESS DOORS/PANELS	21-51-20
SECONDARY HEAT EXCH OUTLET TEMP, T1603, T1604,T1605 	4	3	191EL,191NL,192ER, AIR COND ACCESS DOORS/PANELS	21-51-20
CARDS - (FIM 73-21-00/101) ENG 1 N2, YMLA01 ENG 2 N2, YMLA03 ENG 3 N2, YMLA05 ENG 4 N2, YMLA07 CARD - EQUIP COOLING, YMLA15	7	1	117AL, MAIN EQUIP CTR, M7603 ELEC SYS CARD FILE FWD FLT COMPT, P6	21-58-05
CIRCUIT BREAKER - E/E COOLING IND, C604 E/E COOLING PCA, C10241 E/E COOLING SMOKE IND TEST, C10336 E/E COOLING SMOKE OVRD, C10235	7	1 1 1 1	6J36 6L8 6J35 6L9	* * * *
CIRCUIT BREAKER - EQUIP COOL CONT EXH FAN, C10240 EQUIP COOL CONT SUPPLY FAN, C10239 EQUIP COOL CONT VLV, C10236 PACK 1 FLOW CONT VLV, C515 PACK 1 PROT, C10204 PACK 2 FLOW CONT VLV, C516 PACK 2 PROT, C10205 PACK 3 FLOW CONT VLV, C517 PACK 3 PROT, C10206	7	1 1 1 1 1 1 1 1 1 1	117AL, MAIN EQUIP CTR, P180 180H30 180J4 180F4 180J1 180J2 180F1 180F2 180J16 180J17	* * * * * * * * * *
CIRCUIT BREAKER - ACM MASS FLOW IND, C522 EQPT COOLING EXHAUST FAN, C942 PACK TEMP CONT A, C3182	7	1 1 1	117AL, MAIN EQUIP CTR, P415 415E32 415R14 415K27	* * *
CIRCUIT BREAKER - EQPT COOL CONT VALVE GND, C10238 EQPT COOL CONT VALVE INBD, C10237 EQPT COOLING SUPPLY FAN, C3145 PACK TEMP CONT B, C3183	7	1 1 1 1	117AL, MAIN EQUIP CTR, P414 414L11 414L12 414R30 414C2	* * * *
CLEANER - EQUIP COOLING AIR	10	1	FWD CARGO COMPT, LEFT	21-58-10

* SEE THE WDM EQUIPMENT LIST

 DLH PASSENGER AND COMBIsCooling - Component Index
Figure 101 (Sheet 1)

Figure 40 21-50 COOLING COMPONENT INDEX





COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
COLLECTOR - WATER	13	3	191HL,191NL,192HR, AIR COND	21-51-25
CONDITIONER - AIRFLOW SIGNAL, M594	6	1	ACCESS DOORS	21-51-17
CONTROLLER - (FIM 21-60-00/101)			WING LDG GEAR WELL, RIGHT	
PACK TEMPERATURE A, M7911				
PACK TEMPERATURE B, M7912				
DETECTOR - (FIM 26-16-00/101)				
EQUIPMENT COOLING SMOKE, M7931				
DETECTOR - LOW FLOW, FLT DECK, M7933	8	1	FLT COMPT CEILING	21-58-02
DETECTOR - LOW FLOW, MAIN E/E RACK, M7934	8	1	117AL, MAIN EQUIP CTR	21-58-02
DIFFUSER - FAN/INLET HOUSING	4	3	191HL,191AL,192AR, AIR COND	21-51-07
			ACCESS DOORS	
DIODE - (FIM 31-01-36/101)				
EQUIP COOLING BLOCKING, M3562,M3563,M3565, M3419,M3420,M3421,M3929,M3986,M4439				
PACK BLOCKING, X1044,X1045				
DIODE - (FIM 31-01-39/101)				
PACK BLOCKING, X1046				
EXCHANGER - HEAT	2	3	191EL,191ML,192ER, AIR COND	21-51-03
			ACCESS DOORS	
FAN - EQUIP COOLING EXHAUST, B7437	8	1	FWD CARGO COMPT, RIGHT	21-58-01
FAN - EQUIP COOLING SUPPLY, B7436	10	1	FWD CARGO COMPT, LEFT	21-58-01
FILTER - FLOW CONTROL AND SHUTOFF VALVE	3	6	191NL,191HL,192HR, AIR COND	21-51-13
			ACCESS DOORS	
MACHINE - AIR CYCLE (ACM)	2	3	191HL,191AL,192AR, AIR COND	21-51-04
			ACCESS DOORS	
MODULE - BLEED AIR CONTROL, M7328	1	1	FLT COMPT, P5	*
MODULE - CABIN TEMP, M7329	1	1	FLT COMPT, P5	*

* SEE THE WDM EQUIPMENT LIST

Cooling - Component Index
Figure 101 (Sheet 2)


Figure 41 21-50 COOLING COMPONENT INDEX



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
RELAY - (FIM 31-01-36/101) BYPASS VALVE, R7441 CARGO FIRE E/E SHUTOFF, R8082 CARGO AIR COND CLOSED, R8090  CLEAN MODE, R7518 ENGINE ON INDICATION, R7446 EQUIP COOL CED DISABLE, R7721 EQUIP COOL DIFF PRESS, R1174 EQUIP COOL SUPPLY FAN, R7447 EQUIP COOL TEST, R1173 E6/E9 VALVE, R7444 GRD CREW HORN, R7760 GND EXHAUST VALVE, R7442 INBD EXHAUST VALVE, R7440 INBD SUPPLY VALVE, R7439 PACK 1 CONT, R7484 PACK 1 NORMAL FLOW, R7481 PACK 1 OVERTEMP SHUTDOWN, R7487 PACK 2 CONT, R7485 PACK 2 NORMAL FLOW, R7482 PACK 2 OVERTEMP SHUTDOWN, R7488 SKIN TEMP SWITCH, R7445 SMK/OVRD, R7443 SUPPLY FAN TIME DELAY, R7448 RELAY - (FIM 31-01-39/101) CARGO AIR COND CLOSED, R8107  CARGO FIRE CUTOFF, R8197 EQUIP COOL EXHAUST FAN, R7450 EXHAUST FAN TIME DELAY, R7449 PACK 3 CONT, R7486 PACK 3 NORMAL FLOW, R7483 PACK 3 OVERTEMP SHUTDOWN, R7489 RELAY- (FIM 32-09-00/101) SYS ALT AIR/GND, R7333 SYS AIR/GND, R7331 SCREEN - RAM AIR SYSTEM SENSOR - (FIM 31-01-36/101) SUPPLY FAN CURRENT, T1591 SENSOR - (FIM 31-01-39/101) EXHAUST FAN CURRENT, T1592	4	3	191AL,192AR,191HL, AIR COND ACCESS DOORS	21-51-15

* SEE THE WDM EQUIPMENT LIST

 DLH PASSENGER AND COMBIs;
AFA PASSENGER AND COMBIs
Cooling - Component Index
Figure 101 (Sheet 3)**Figure 42 21-50 COOLING COMPONENT INDEX**

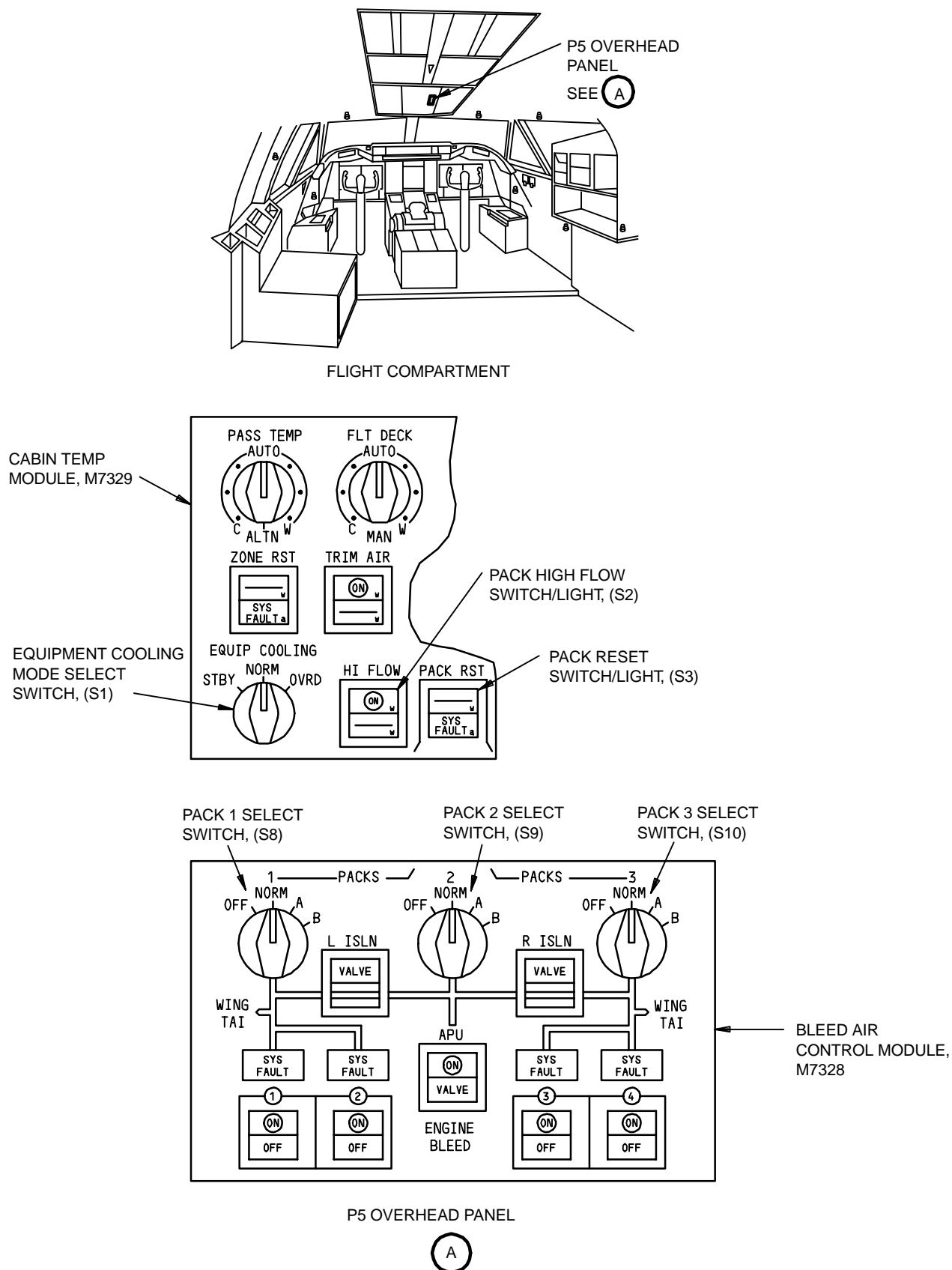
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SENSOR - PACK AIRFLOW, T423,T424,T425	6	3	WING LDG GEAR WELL	21-51-16
SEPARATOR - WATER	2	3	191NL,192HR, AIR COND ACCESS DOORS	21-51-05
SWITCH - (FIM 21-20-00/101) CARGO AIR COND FLOW SELECT - AFT, S2120 CREW REST SMOKE RESET, S2127				
SWITCH - (FIM 21-60-00/101) RAM EXIT DOOR POSITION, S572,S573,S574				
SWITCH - COMPRESSOR DISCHARGE OVERHEAT, S520 S517,S522	5	3	191HL,191AL,192AR, AIR COND ACCESS DOORS/PANELS	21-51-09
SWITCH - EQUIP COOL DIFF PRESS, S1981	8	1	117AL, MAIN EQUIP CTR	21-58-09
SWITCH - EQUIP COOL OVHT, S1977	10	1	FWD CARGO COMPT, LEFT	21-58-08
SWITCH - EQUIP COOL MODE, S1	1	1	FLT COMPT, P5, CABIN TEMP CONTROL MODULE, M7324	*
SWITCH - PACK 1, S8	1	1	FLT COMPT, P5, BLEED AIR CONT MODULE, M7328	*
SWITCH - PACK 2, S9	1	1	FLT COMPT, P5, BLEED AIR CONT MODULE, M7328	*
SWITCH - PACK 3, S10	1	1	FLT COMPT, P5, BLEED AIR CONT MODULE, M7328	*
SWITCH - PACK DISCHARGE OVERHEAT, S519,S518, S521	5	3	191NL,192HR, AIR COND ACCESS DOORS	21-51-08
SWITCH - SKIN TEMPERATURE, S1888	8	1	FWD CARGO COMPT	21-58-07
SWITCH/LIGHT - HI FLOW, S2	1	1	FLT COMPT, P5, CABIN TEMP PNL, M7329	*
SWITCH/LIGHT - PACK RESET, S3	1	1	FLT COMPT, P5, CABIN TEMP PNL, M7329	*
TRANSMITTER - WATER SEPARATOR DIFFERENTIAL PRESSURE, T534,T535,T536 	14	3	191NL,192HR, AIR COND ACCESS DOORS	21-51-18
UNIT - (FIM 31-61-00/101) C EIU, M7352 L EIU, M7353 R EIU, M7351				
VALVE - (FIM 21-60-00/101) TURBINE BYPASS V102,V103,V104				
VALVE - BYPASS, V446	10	1	FWD CARGO COMPT, LEFT	21-58-04
VALVE - COMPRESSOR BYPASS CHECK	2	3	191HL,191AL,192AR, AIR COND ACCESS DOORS	21-51-06
VALVE - COOLING AIR CHECK	4	3	191NL,191FL,192FR, AIR COND ACCESS DOORS	21-51-14
VALVE - FLOW CONTROL AND SHUTOFF, V93,V94,V95	2	3	191HL,191NL,192HR, AIR COND ACCESS DOORS	21-51-01
VALVE - EXHAUST FAN CHECK	8	1	FWD CARGO COMPT, RIGHT	21-58-03
VALVE - E6/E9, V449	11	1	FWD CARGO COMPT, LEFT	21-58-13
VALVE - GROUND EXHAUST, V447	11	1	FWD CARGO COMPT	21-58-12
VALVE - INBD EXHAUST, V445	11	1	FWD CARGO COMPT	21-58-04
VALVE - INBD SUPPLY, V444	10	1	FWD CARGO COMPT, LEFT	21-58-04
VALVE - SMOKE/OVRD, V448	10	1	FWD CARGO COMPT, LEFT	21-58-06
VALVE - SUPPLY FAN CHECK	10	1	FWD CARGO COMPT, LEFT	21-58-03

* SEE THE WDM EQUIPMENT LIST

Cooling - Component Index
Figure 101 (Sheet 4)

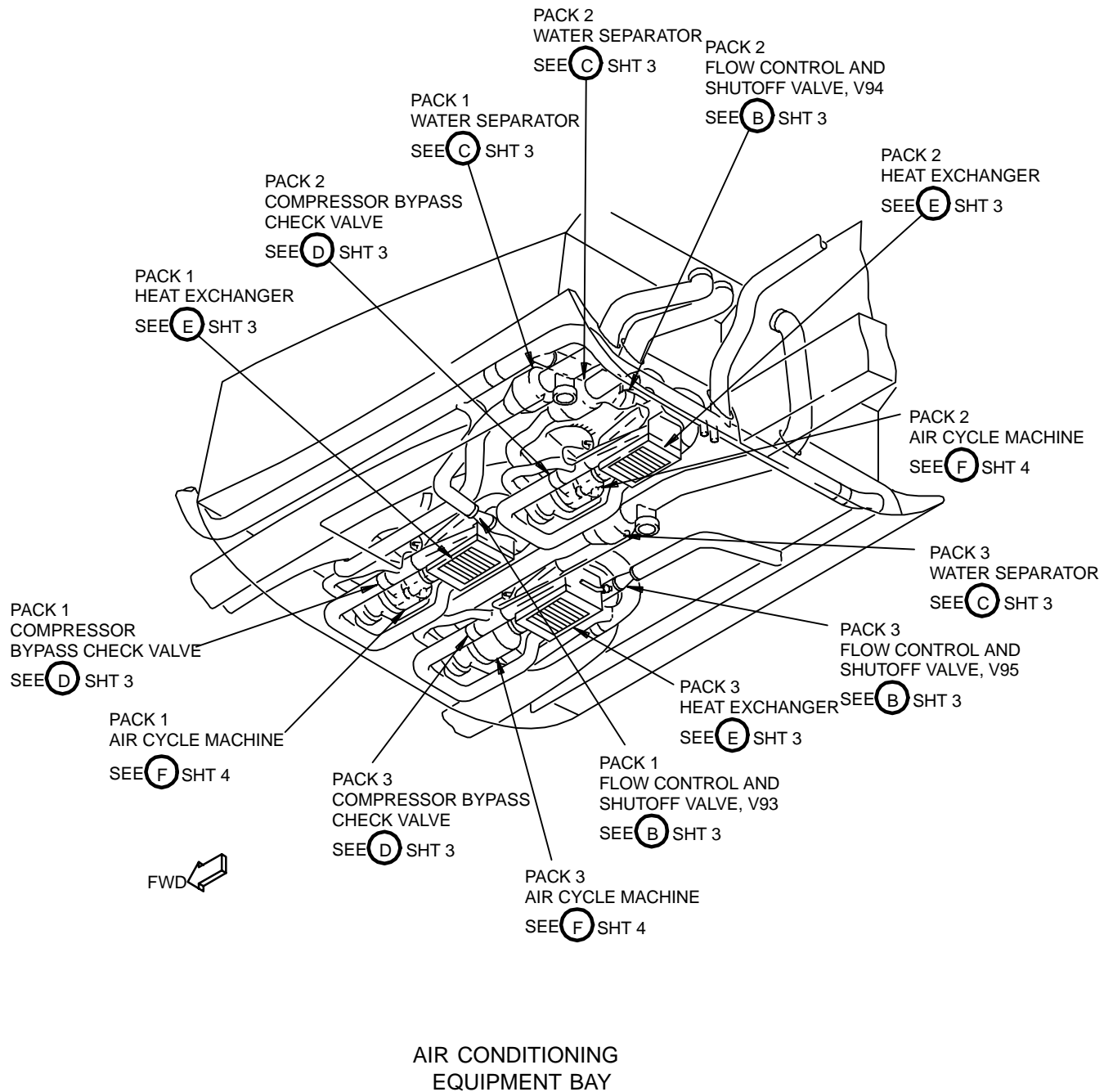
Figure 43 21-50 COOLING COMPONENT INDEX





Cooling - Component Location
Figure 102 (Sheet 1)

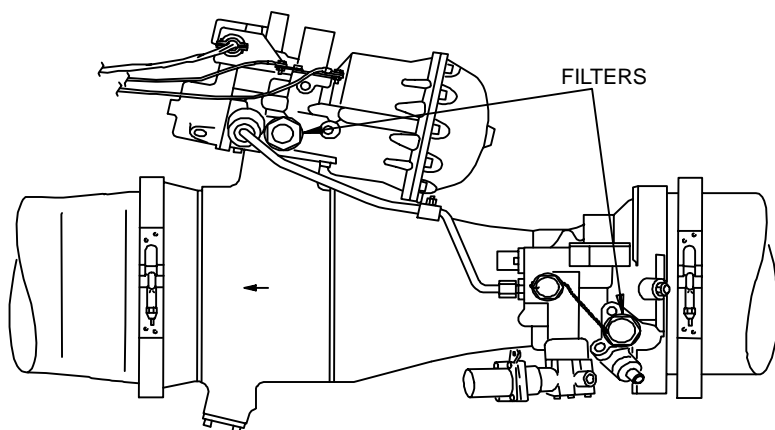
Figure 44 21-50 COOLING COMPONENT LOCATION



Cooling - Component Location
Figure 102 (Sheet 2)

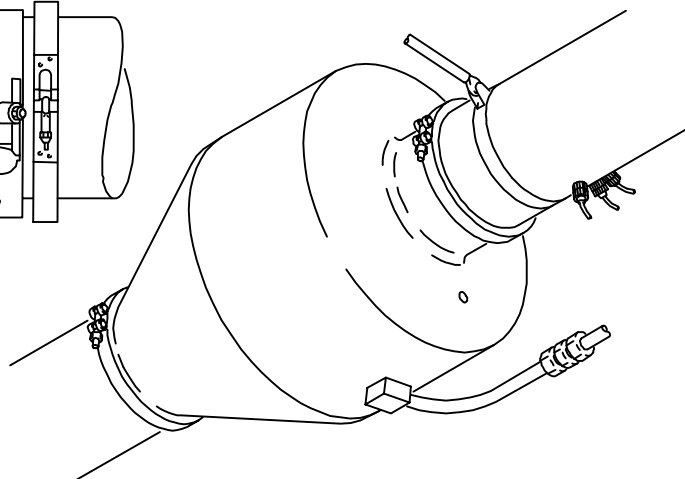
Figure 45 21-50 COOLING COMPONENT LOCATION





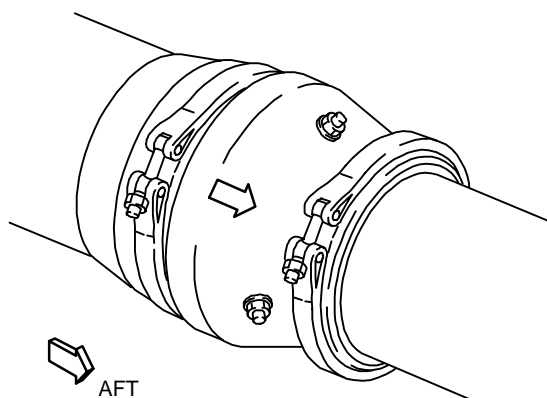
FLOW CONTROL AND
SHUTOFF VALVE, V93, V94, V95

(B)



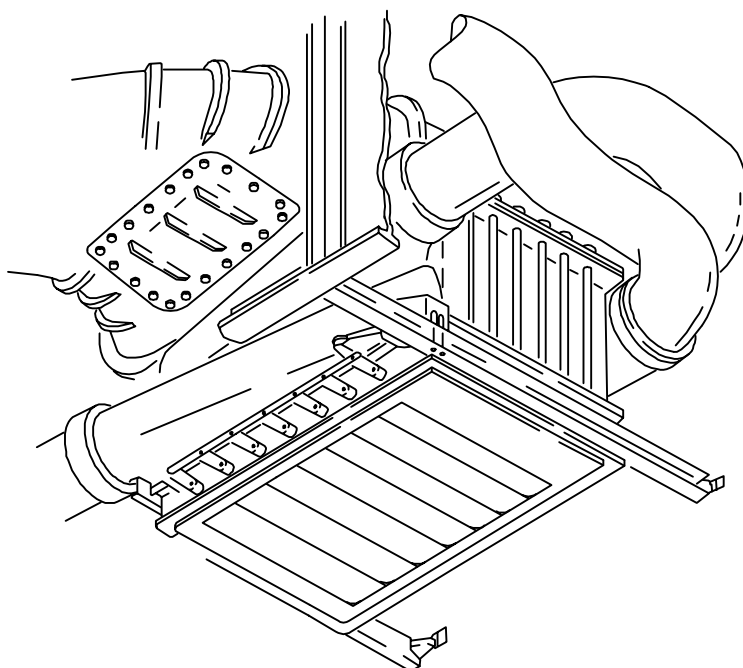
WATER SEPARATOR (EXAMPLE)

(C)



COMPRESSOR BYPASS CHECK VALVE

(D)



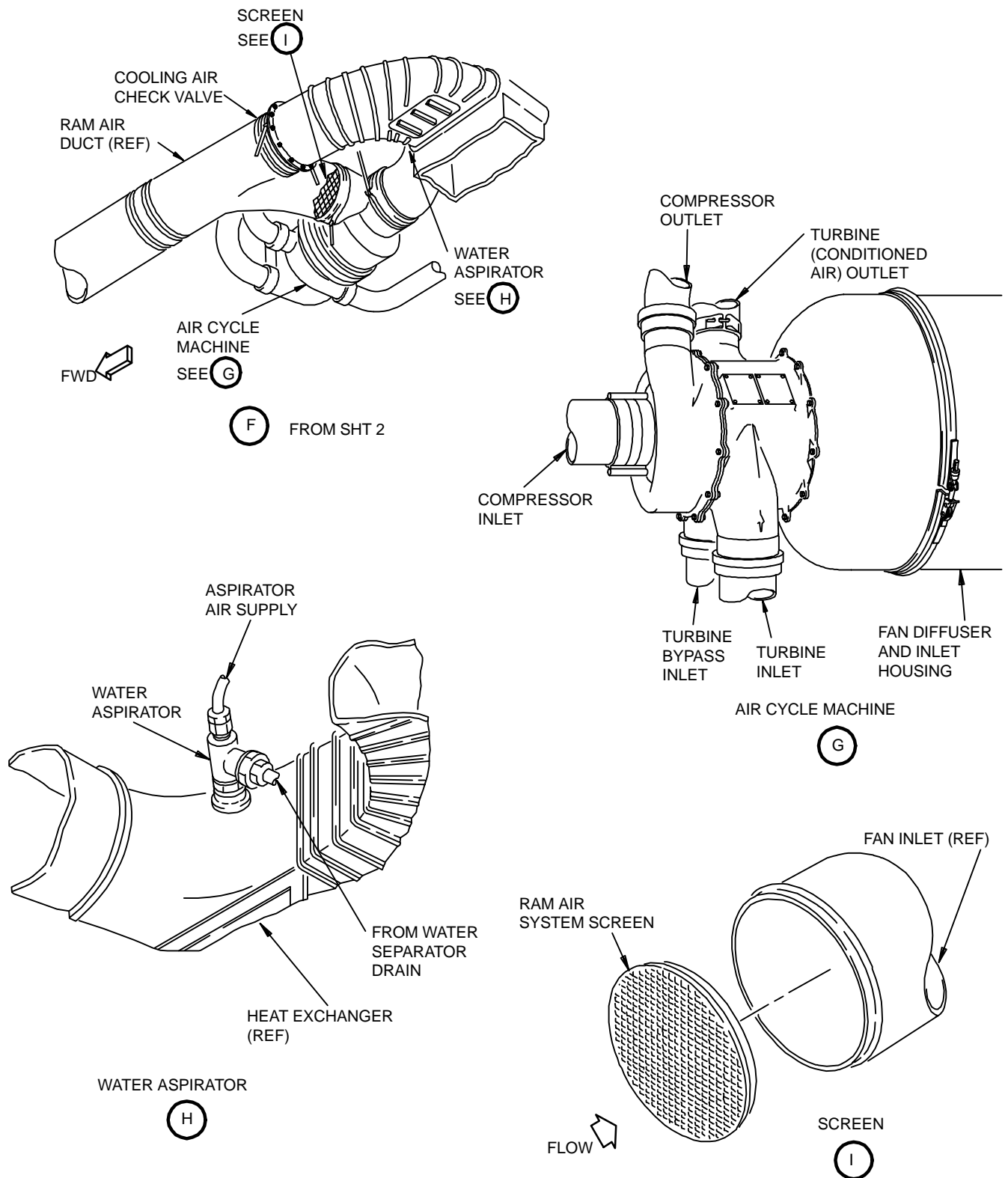
HEAT EXCHANGER (EXAMPLE)

(E)

Cooling - Component Location (Details From Sht 2)
Figure 102 (Sheet 3)

Figure 46 21-50 COOLING COMPONENT LOCATION

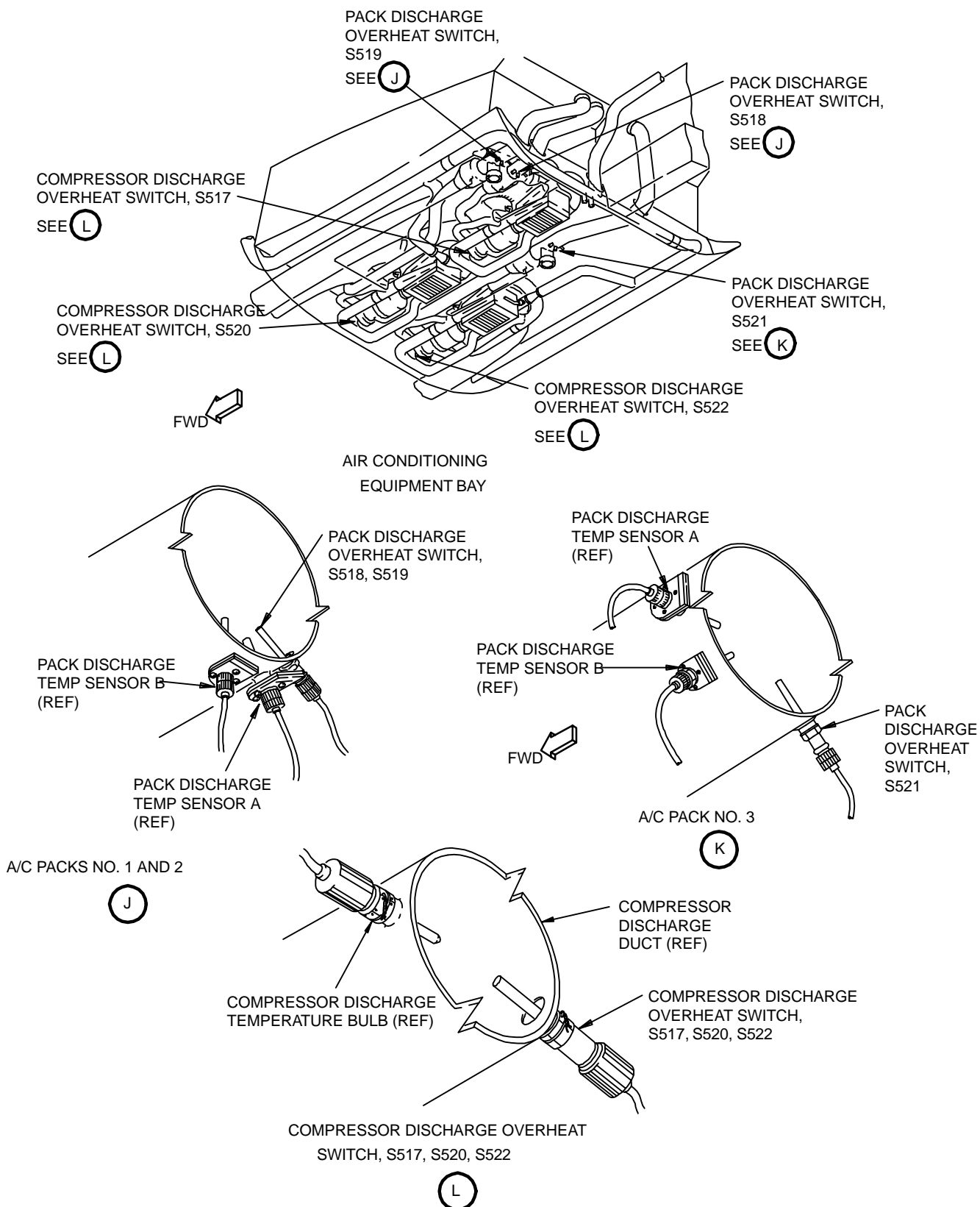




Cooling - Component Location
Figure 102 (Sheet 4)

Figure 47 21-50 COOLING COMPONENT LOCATION

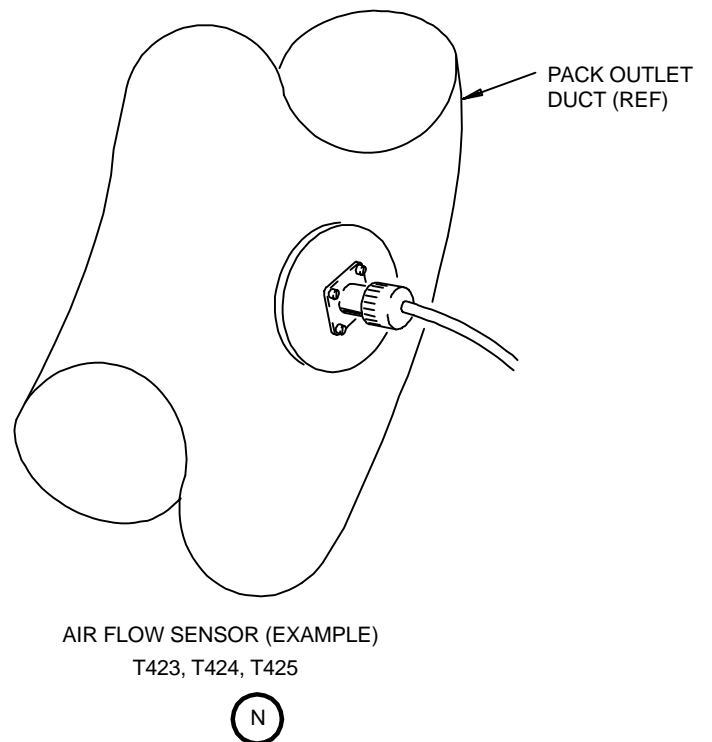
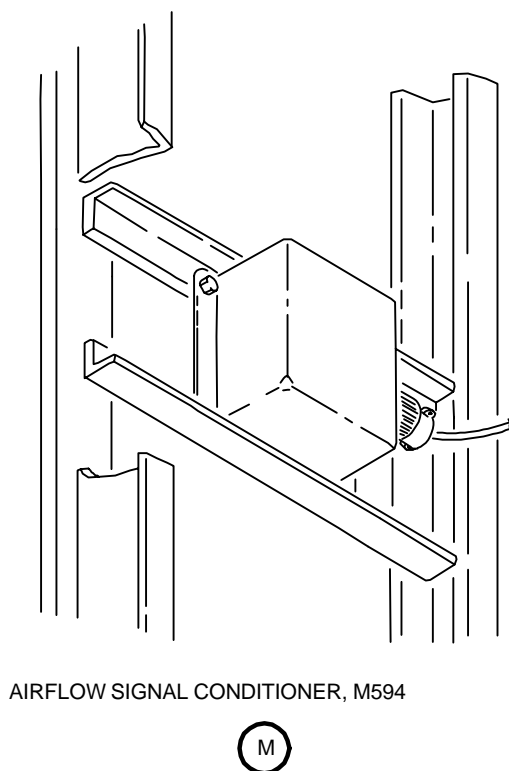
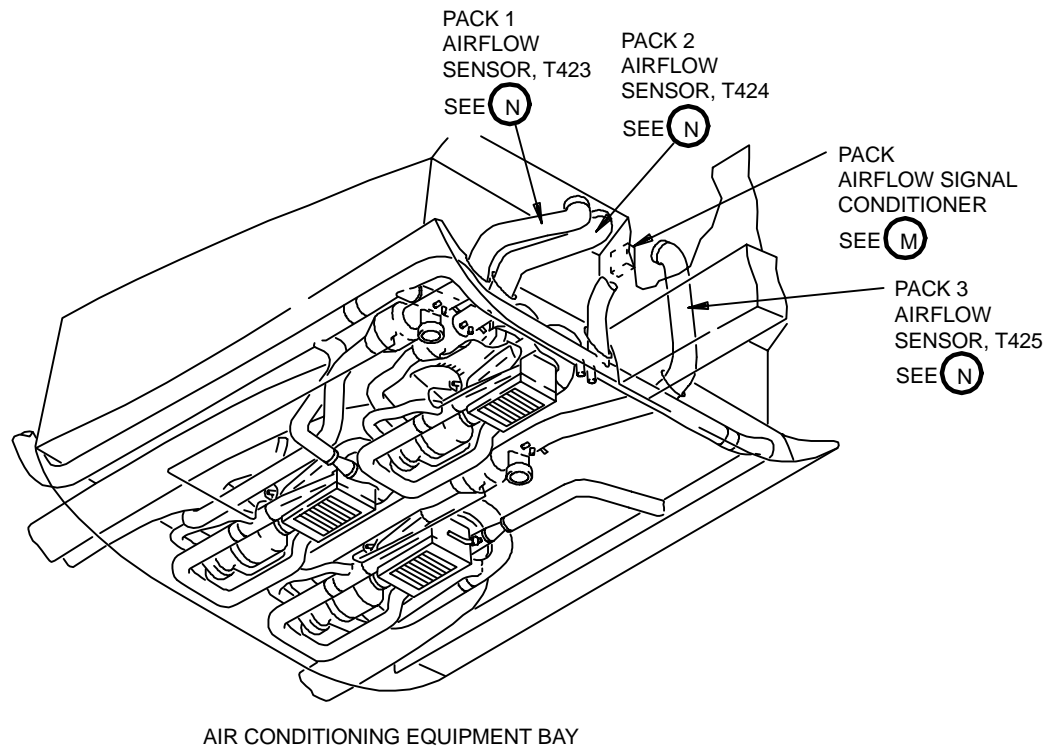




Cooling - Component Location
Figure 102 (Sheet 5)

Figure 48 21-50 COOLING COMPONENT LOCATION

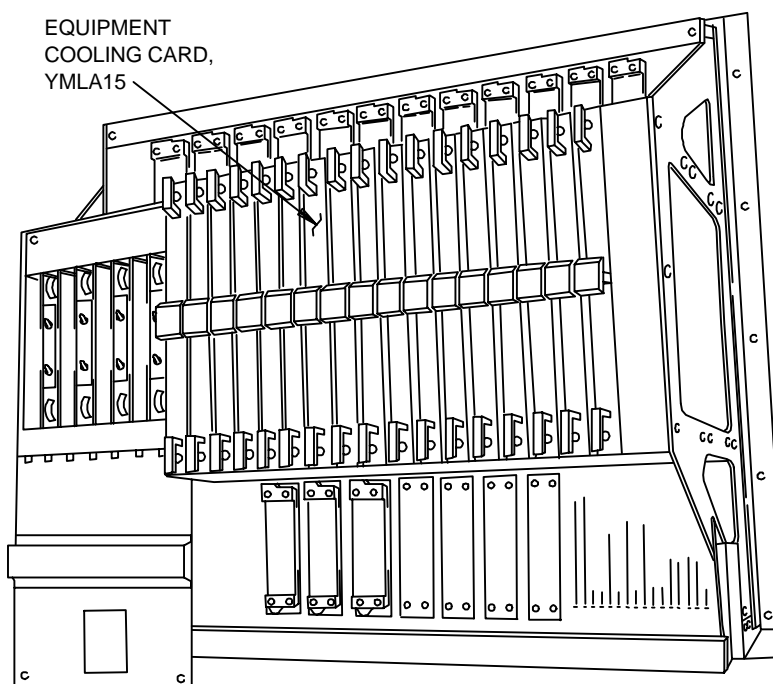
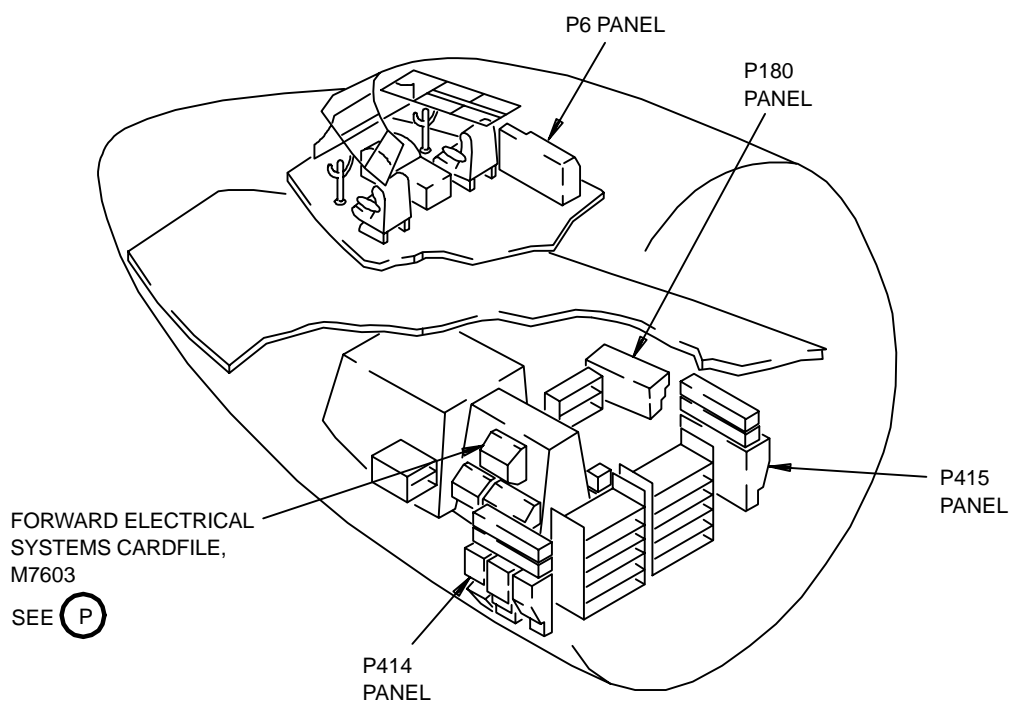




Cooling - Component Location
Figure 102 (Sheet 6)

Figure 49 21-50 COOLING COMPONENT LOCATION





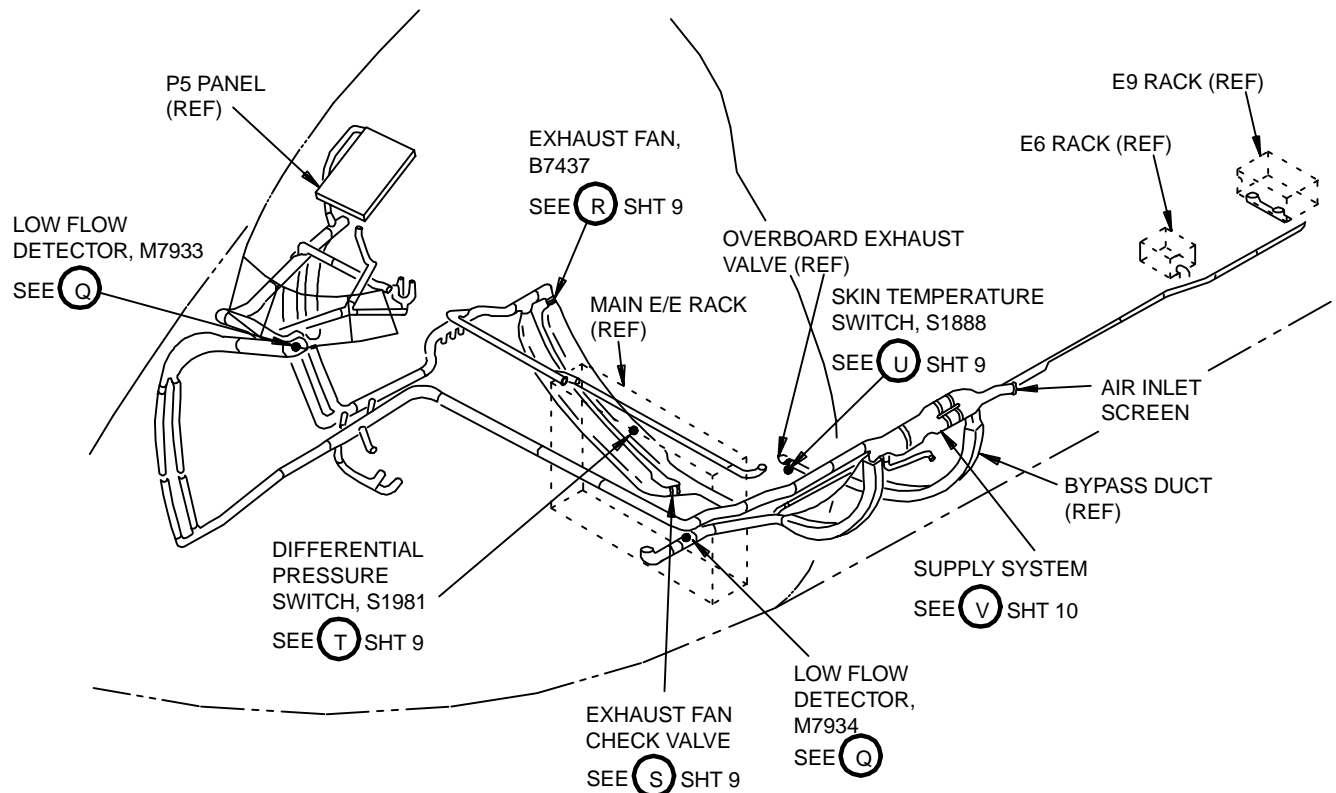
FORWARD ELECTRICAL SYSTEMS
CARDFILE, M7603

(P)

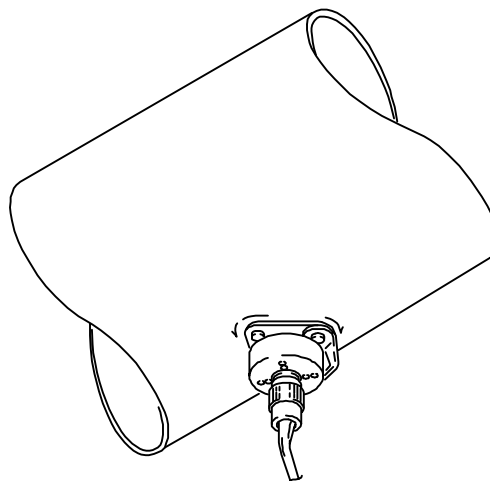
Cooling - Component Location
Figure 102 (Sheet 7)

Figure 50 21-50 COOLING COMPONENT LOCATION





EQUIPMENT COOLING SYSTEM



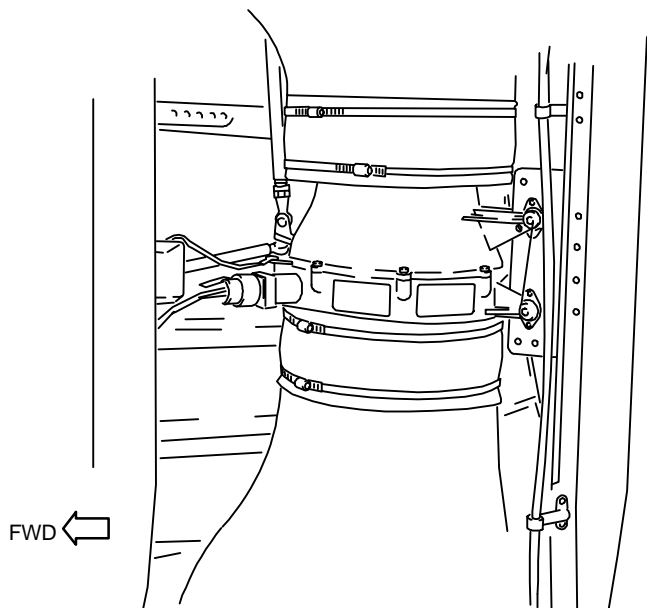
**LOW FLOW (COOLING EFFECT)
DETECTOR, M7933, M7934**



**Cooling - Component Location
Figure 102 (Sheet 8)**

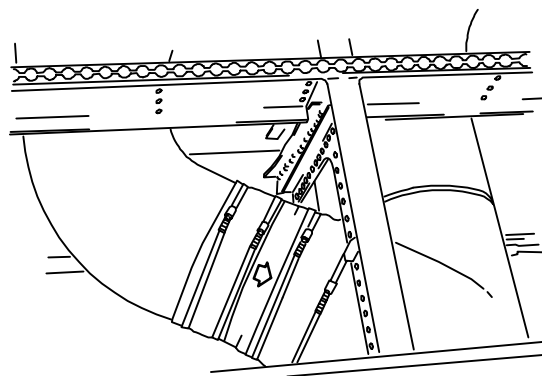
Figure 51 21-50 COOLING COMPONENT LOCATION





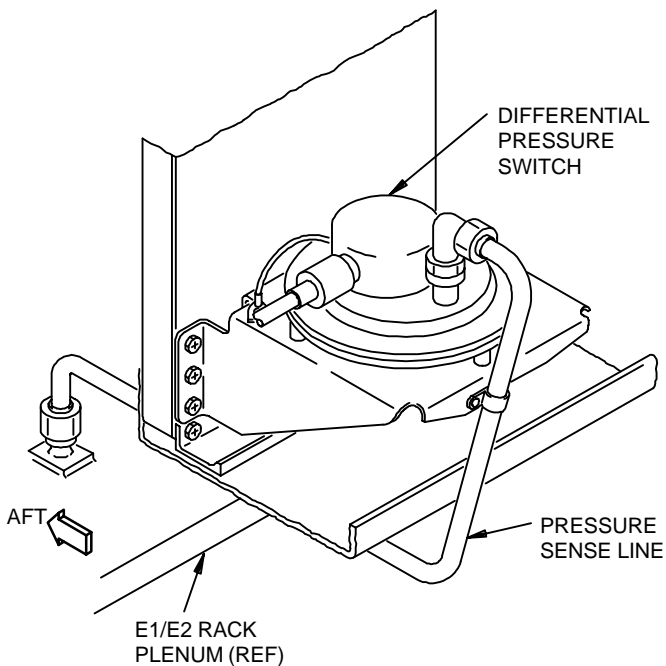
EXHAUST FAN, B7437

(R)



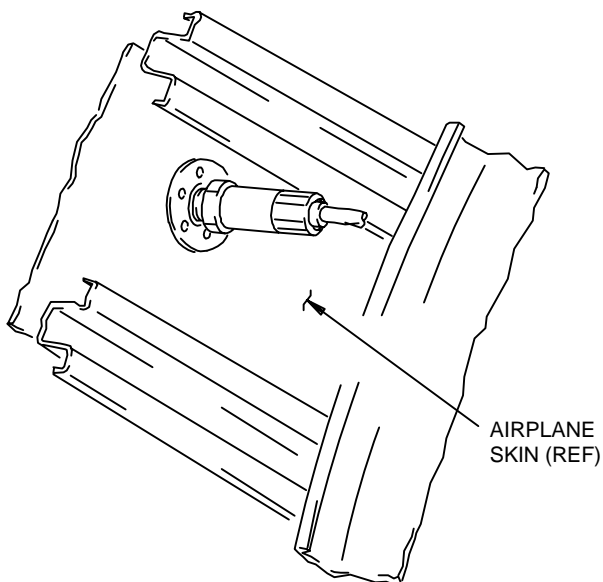
EXHAUST FAN CHECK VALVE

(S)



DIFFERENTIAL PRESSURE SWITCH, S1981

(T)

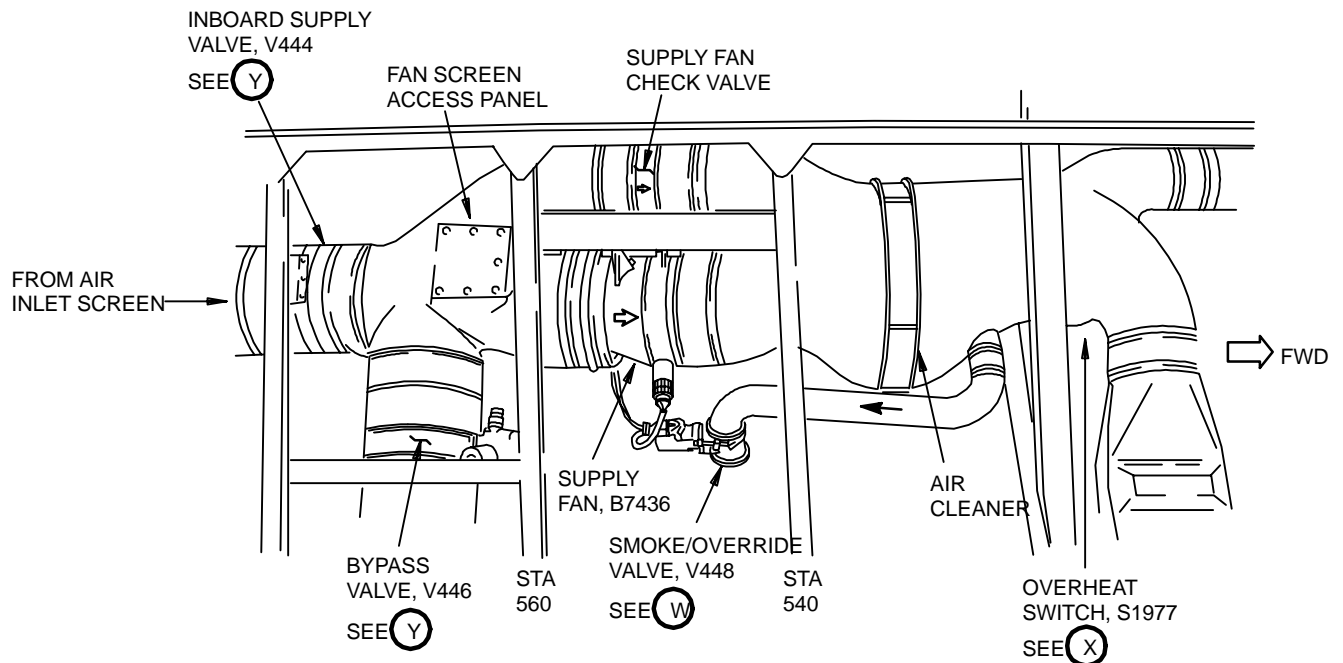


SKIN TEMPERATURE SWITCH, S1888

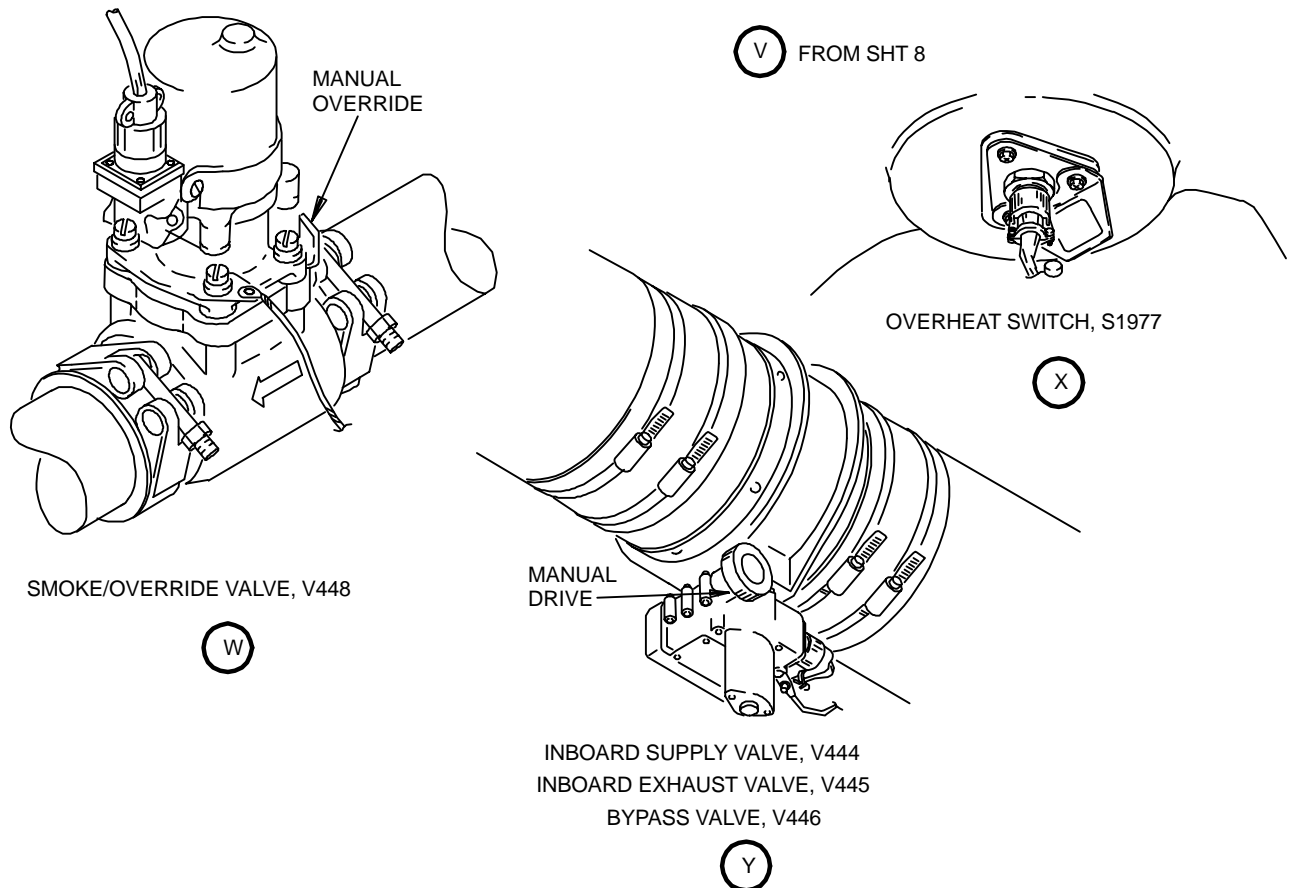
(U)

Cooling - Component Location (Details From Sheet 8)
Figure 102 (Sheet 9)

Figure 52 21-50 COOLING COMPONENT LOCATION



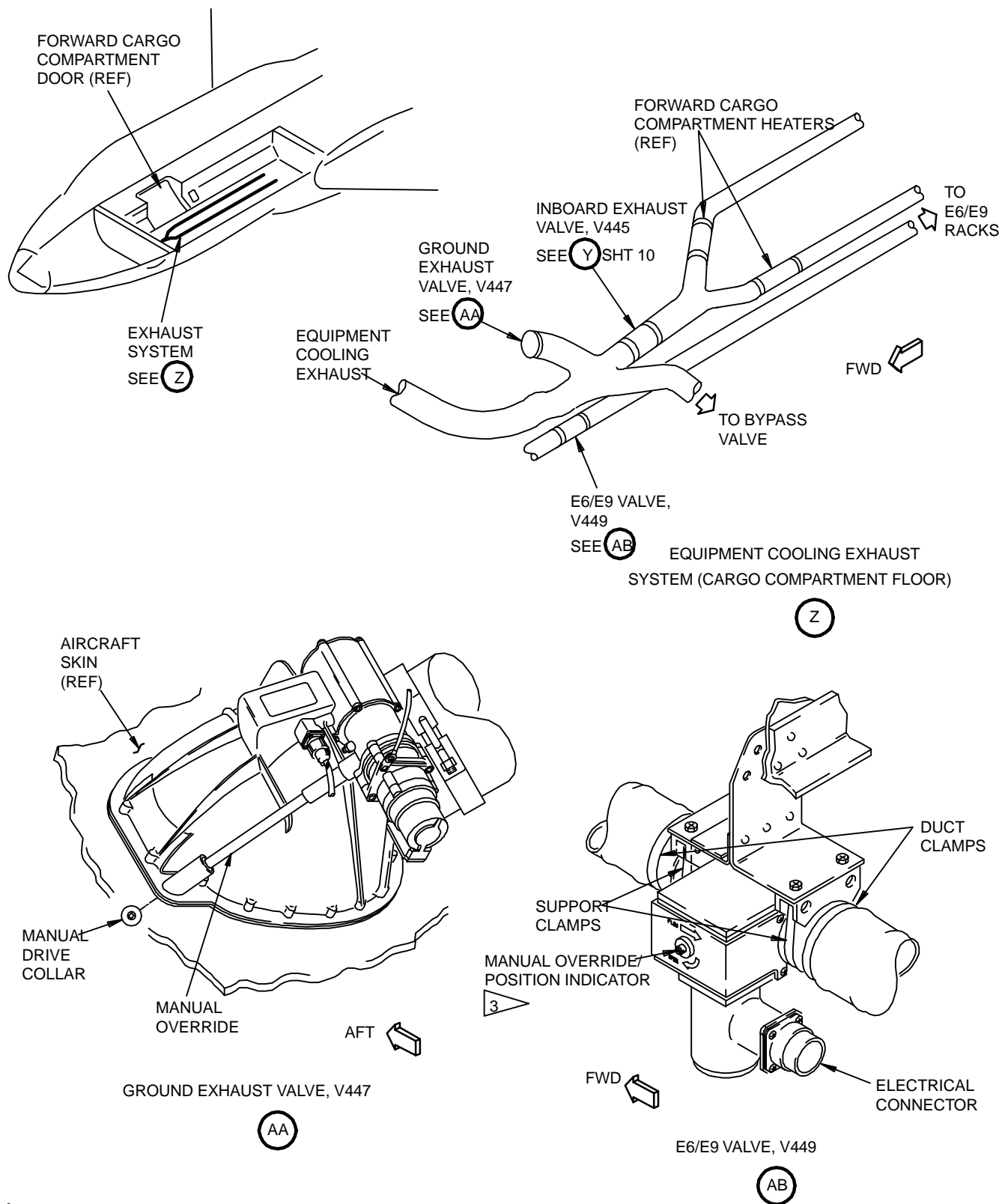
SUPPLY SYSTEM - FORWARD CARGO LEFT SIDEWALL



**Cooling - Component Location
Figure 102 (Sheet 10)**

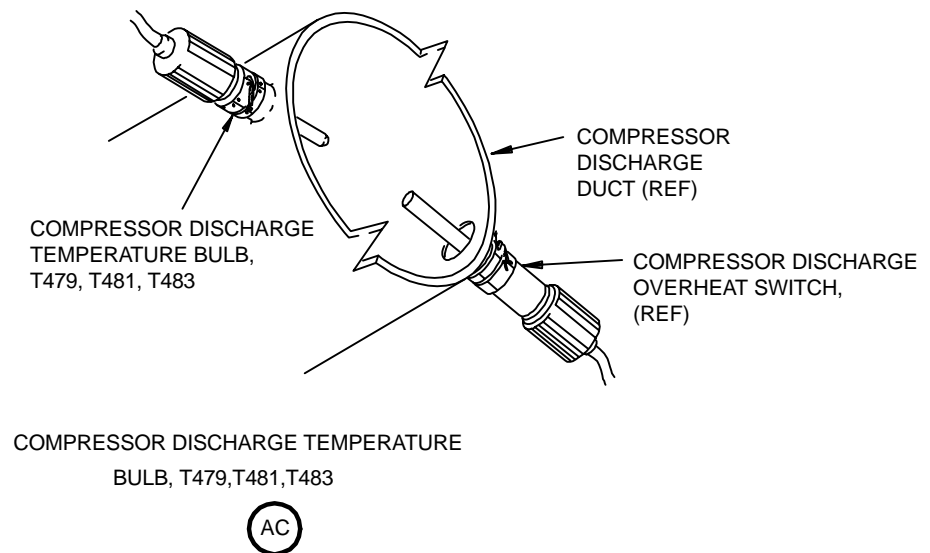
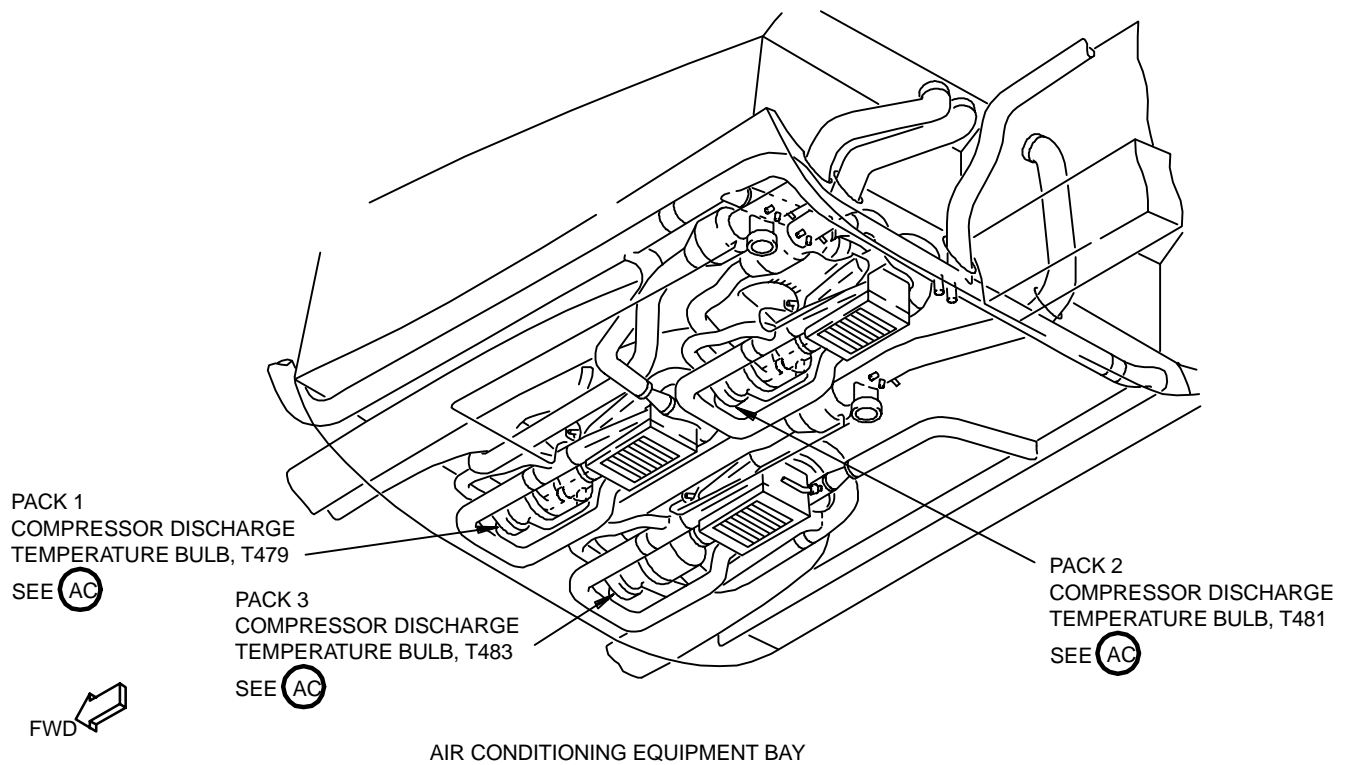
Figure 53 21-50 COOLING COMPONENT LOCATION





Cooling - Component Location
Figure 102 (Sheet 11)

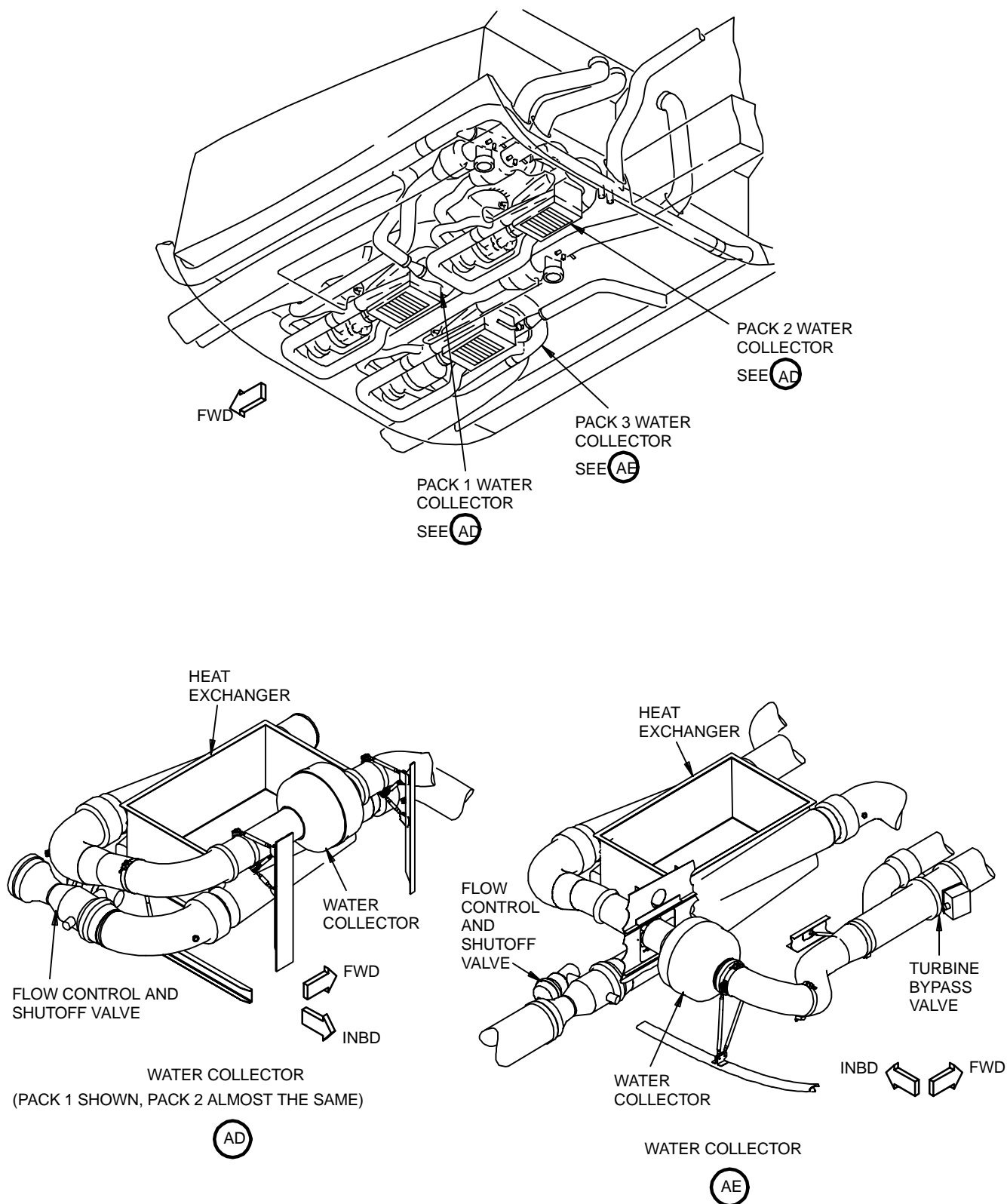
Figure 54 21-50 COOLING COMPONENT LOCATION



Cooling - Component Location
Figure 102 (Sheet 12)

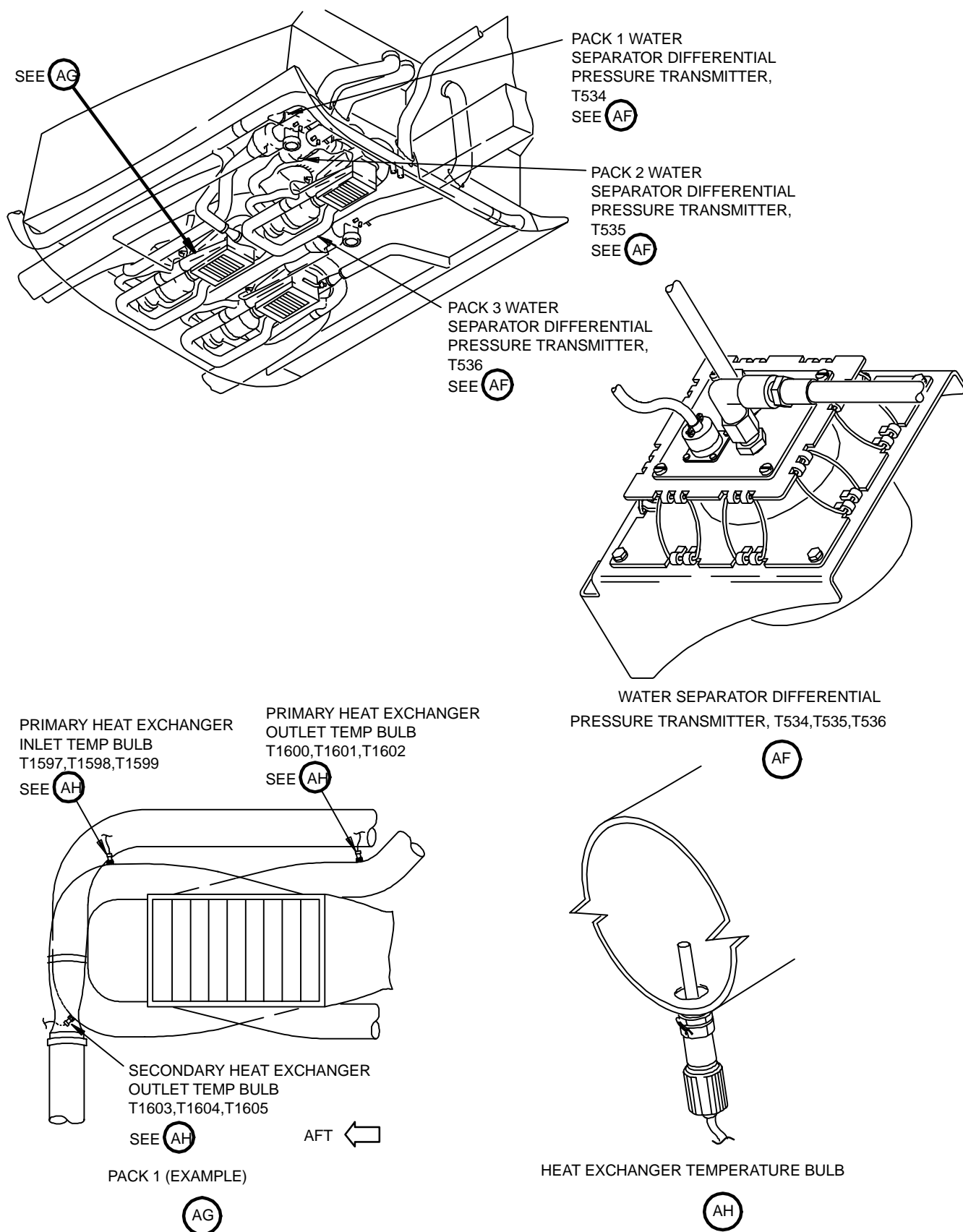
Figure 55 21-50 COOLING COMPONENT LOCATION





Cooling - Component Location
Figure 102 (Sheet 13)

Figure 56 21-50 COOLING COMPONENT LOCATION








Cooling - Component Location
Figure 102 (Sheet 14)

Figure 57 21-50 COOLING COMPONENT LOCATION



21-60 TEMPERATURE CONTROL

TEMPERATURE CONTROL SYSTEM








COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
ACTUATOR - RAM AIR EXIT DOOR PACK 1, V156	7	1	191EL, AIR CONDITIONING ACCESS PANEL	21-62-05
PACK 2, V157	7	1	191ML, AIR CONDITIONING ACCESS PANEL	21-62-05
PACK 3, V158	7	1	192ER, AIR CONDITIONING ACCESS PANEL	21-62-05
ACTUATOR - RAM AIR INLET DOOR PACK 1, V105	7	1	WING TO BODY FAIRING	21-62-03
PACK 2, V106	7	1	WING TO BODY FAIRING	21-62-03
PACK 3, V107	7	1	WING TO BODY FAIRING	21-62-03
BULB - AFT CARGO TEMP, T507	12	1	AFT CARGO COMPT, RIGHT	21-61-05
BULB - BULK CARGO TEMP, T962	12	1	BULK CARGO AREA, LEFT	21-61-05
BULB - ZONE TEMPERATURE FLIGHT DECK ZONE, T1632	3	1	FLT COMPT, LEFT	21-61-03
UPPER DECK ZONE, T1633	3	1	LH UPPER DECK, OUTBOARD OF PSU RUN	21-61-03
ZONE A, T1634	2	1	AREA ABOVE CEILING - NOSE TO FIRST DOOR	21-61-03
ZONE E, T1638 	3	1	AREA ABOVE CEILING - AFT OF FOURTH DOOR	21-61-03
ZONE E (PASSENGER CONFIG), T1638 	3	1	AREA ABOVE CEILING - AFT OF FOURTH DOOR	21-61-03
BULB A - ZONE TEMPERATURE ZONE B, T1635	3	1	AREA ABOVE CEILING - FIRST TO SECOND DOOR	21-61-03
ZONE C, T1636	3	1	AREA ABOVE CEILING - SECOND TO THIRD DOOR	21-61-03
ZONE D, T1637	3	1	AREA ABOVE CEILING - THIRD TO FOURTH DOOR	21-61-03
ZONE E (CARGO CONFIG), T1638 	15	1	MN DK CARGO OVERHEAD, STA 2000	21-61-03
BULB B - ZONE TEMPERATURE ZONE B, T1644	3	1	AREA ABOVE CEILING - FIRST TO SECOND DOOR	21-61-03
ZONE C, T1645	3	1	AREA ABOVE CEILING - SECOND TO THIRD DOOR	21-61-03
ZONE D, T1646	3	1	AREA ABOVE CEILING - THIRD TO FOURTH DOOR	21-61-03
ZONE E (CARGO CONFIG), T1894 	15	1	FOURTH DOOR MN DK CARGO OVERHEAD, STA 2020	21-61-03
CAPACITOR - (FIM 31-01-36/101) MAN PHASE SHIFT, M3892,M3896,M3898; M3893 				
CAPACITOR - (FIM 31-01-39/101) MAN PHASE SHIFT, M3895,M3897				
CARD - (FIM 21-20-00/101) ECS MISC PCA, YMLA13 CARGO AIR COND, YMLA17				
CARD - (FIM 73-21-00/101) ENG 1 N2, YMLA01 ENG 2 N2, YMLA03 ENG 3 N2, YMLA05 ENG 4 N2, YMLA07				

-  PASSENGER AIRPLANES  UTA 301
 COMBIs




Temperature Control System - Component Index
Figure 101 (Sheet 1)

Figure 58 21-60 TEMPERATURE CONTROL COMPONENT INDEX



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
CIRCUIT BREAKER - ALT TEMP CONT, C10401	10	1	180F27	*
CABIN TEMP SEL, C10226		1	180F21	*
TRIM AIR PRESS SENSOR, C10223		1	180F17	*
CIRCUIT BREAKER - FLT DK AUTO/MAN TEMP CONT, C539	10	1	FLT COMPT, P6	*
MASTER TRIM AIR CONT, C10216		1	6G36	*
PACK TEMP CONT A, C10217		1	6F30	*
PACK TEMP CONT B, C10218		1	6F35	*
ZONE TEMP CONT AC, C10222		1	6F36	*
ZONE TEMP CONT DC, C10219		1	6F28	*
ZONE TEMP SENSOR B & C, C10209		1	6F29	*
ZONE TEMP SENSOR C & D, C10210		1	6G30	*
ZONE TEMP SENSOR D & E, C10211		1	6G31	*
ZONE TEMP SENSOR FLT DK & B, C10207		1	6G32	*
ZONE TEMP SENSOR UPR DK & A, C10208		1	6G28	*
CIRCUIT BREAKER - ALTN TEMP CONT PWR LEFT, C10398	10	1	6G29	*
COMBI MAN TEMP CONT, C10557 		1	117AL, MAIN EQUIP CTR, P414	*
FLT DK MANUAL TEMP CONT, C1016		1	414B14	*
CIRCUIT BREAKER - ALT TEMP CONT PWR RIGHT, C10399	10	1	414B13	*
ALT TEMP CONT ZONE A, C10400		1	414A12	*
ALT TEMP CONT ZONE U/D, C10521		1	117AL, MAIN EQUIP CTR, P415	*
CARGO MANUAL TEMP CONT, C10402		1	415B28	*
PACK TEMP CONT A, C3182		1	415B27	*
PACK TEMP CONT B, C3183		1	415B29	*
CONTROLLER - (FIM 21-40-00/101) CRA TEMPERATURE, M7505		1	415B26	*
ZONE F TEMP, M3776 		1	415K27	*
CONTROLLER - (FIM 49-61-00/101) APU, M7847		1	415C38	*
CONTROLLER - A PACK TEMPERATURE, M7911	10	1	117AL, MAIN EQUIP CTR, E2-4	21-62-06
CONTROLLER - B PACK TEMPERATURE, M7912	10	1	117AL, MAIN EQUIP CTR, E2-4	21-62-06
CONTROLLER - UPPER DECK ALTN TEMP, M6714 	2	1	AREA BETWEEN NOSE GEAR WELL AND FUSELAGE	21-61-02
CONTROLLER - ZONE A ALTN TEMPERATURE, M7943	2	1	AREA BETWEEN NOSE GEAR WELL AND FUSELAGE, RIGHT	21-61-02
CONTROLLER - ZONE TEMPERATURE, M7913	10	1	117AL, MAIN EQUIP CTR, E2-4	21-61-01
DIODE - (FIM 21-30-00/101) UPR PRV BLOCKING, M1810				
DIODE - (FIM 31-01-39/101) CARGO AIR COND AUTO/MAN BLKG, M4442				
MASTER TRIM AIR BLOCKING, M3852				
MODULE - CABIN TEMP SELECTOR, M7914 	1	1	PURSUERS STATION CONT PNL	*
MODULE - CABIN TEMP SELECTOR, M7914 	1	1	DOOR 2, LEFT	*
MODULE - CABIN TEMPERATURE CONTROL, M7329	1	1	FLT COMPT, P5	*
MODULE - COMBI ZONE SELECT, M6847 	1	1	FLT COMPT, P461	*
RELAY - (FIM 31-01-06/101) 				
COMBI AUTO MODE TEMP CONT, R8262				




* SEE THE WDM EQUIPMENT LIST

-  DLH PASSENGER AND COMBI AIRPLANES
-  AFA PASSENGER AND COMBI AIRPLANES
-  DLH 001-099

Temperature Control System - Component Index
Figure 101 (Sheet 2)

Figure 59 21-60 TEMPERATURE CONTROL COMPONENT INDEX












COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
RELAY - (FIM 31-01-36/101) FLIGHT DECK AUTO/MAN TEMP CONT, R7492 PACK TEMP CONT B, R8038 ZONE A ALTN TEMP CONT, R7795 ZONE C ALTN TEMP CONT INT TMR, R7797 ZONE E ALTN TEMP CONT INT TMR, R7799 ZONE E AUTO MODE TEMP CONT, R8261 				
RELAY - (FIM 31-01-39/101) AFT CARGO OVERHEAT, R7684 ALTN TEMP CONT, R7803 CABIN TEMPERATURE SELECTOR, R8069 CARGO AIR COND CLOSED, R8107 CARGO AUTO/MAN TEMP CONT, R7801 MASTER TRIM AIR CONT, R7490 MASTER TRIM AIR SHUTDOWN, R7491 PACK TEMP CONT A, R8037 U/D ALTN TEMP CONT, R8155 ZONE B ALTN TEMP CONT INTR TMR, R7796 ZONE D ALTN TEMP CONT INTR TMR, R7798 ZONE D AUTO MODE TEMP CONT, R8260 ZONE U/D ALTN TEMP CONT INTR TMR, R7794 				
RELAY - (FIM 32-09-00/101) GND SAFETY, R7330,R7334,R7335; R7336 				
SENSOR - AFT CARGO TEMP, T1628	12	1	AFT CARGO COMPT, RIGHT	21-61-05
SENSOR - BULK CARGO TEMP, T1738	12	1	BULK CARGO AREA, LEFT	21-61-05
SENSOR - FWD CARGO TEMP, T1627	12	1	FWD CARGO COMPT, LEFT	21-61-05
SENSOR - PACK DISCHARGE TEMPERATURE PACK 1, SENSOR A, T1609	11	1	191NL, AIR CONDITIONING ACCESS DOOR	21-62-07
PACK 1, SENSOR B, T1612	11	1	191NL, AIR CONDITIONING ACCESS DOOR	21-62-07
PACK 2, SENSOR A, T1610	11	1	191NL, AIR CONDITIONING ACCESS DOOR	21-62-07
PACK 2, SENSOR B, T1613	11	1	191NL, AIR CONDITIONING ACCESS DOOR	21-62-07
PACK 3, SENSOR A, T1611	11	1	191HR, AIR CONDITIONING ACCESS DOOR	21-62-07
PACK 3, SENSOR B, T1614	11	1	191HR, AIR CONDITIONING ACCESS DOOR	21-62-07
SENSOR - TRIM AIR PRESS, T1616	7	1	191NL, AIR CONDITIONING ACCESS DOOR	21-61-13

* SEE THE WDM EQUIPMENT LIST

Temperature Control System - Component Index
Figure 101 (Sheet 3)

Figure 60 21-60 TEMPERATURE CONTROL COMPONENT INDEX



COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SENSOR - ZONE TEMPERATURE				
FLT DECK ZONE, T1617	2	1	FLT COMPT, LEFT	21-61-03
ZONE A, T1619	2	1	AREA ABOVE CEILING - NOSE TO FIRST DOOR	21-61-03
ZONE A ALTN, T1753	2	1	AREA ABOVE CEILING - NOSE TO FIRST DOOR	21-61-04
ZONE B, SENSOR A, T1620	2	1	AREA ABOVE CEILING - FIRST TO SECOND DOOR	21-61-03
ZONE B, SENSOR B, T1629	2	1	AREA ABOVE CEILING - FIRST TO SECOND DOOR, RIGHT	21-61-03
ZONE C, SENSOR A, T1621	2	1	AREA ABOVE CEILING - SECOND TO THIRD DOOR, RIGHT	21-61-03
ZONE C, SENSOR B, T1630	2	1	AREA ABOVE CEILING - SECOND TO THIRD DOOR, RIGHT	21-61-03
ZONE D, SENSOR A, T1622	2	1	AREA ABOVE CEILING - THIRD TO FOURTH DOOR	21-61-03
ZONE D, SENSOR B, T1631	2	1	AREA ABOVE CEILING - THIRD TO FOURTH DOOR	21-61-03
ZONE E, T1623 	2	1	AREA ABOVE CEILING - AFT OF FOURTH DOOR	21-61-03
ZONE E (PASS. CONFIG), T1623 	3	1	AREA ABOVE CEILING - AFT OF FOURTH DOOR	21-61-03
ZONE E, SENSOR A (CARGO CONFIG), T1623 	15	1	MN DK CARGO OVERHEAD, STA 2000	21-61-03
ZONE E, SENSOR B (CARGO CONFIG), T1893 	15	1	MN DK CARGO OVERHEAD, STA 2020	21-61-03
ZONE U/D, T1618	3	1	LEFT UPPER DECK, OUTBOARD OR ABOVE PSU RUN	21-61-03
ZONE U/D ALTN, T1858 	3	1	LEFT UPPER DECK, OUTBOARD OR ABOVE PSU RUN	21-61-04
SENSOR - ZONE DUCT TEMPERATURE				
AFT CARGO, T1658	13	1	BODY LDG GEAR WELL, RIGHT	21-61-16
FLIGHT DECK ZONE, T1647	9	1	FWD CARGO CONTAINER COMPT AFT HALF, LEFT	21-61-16
ZONE A, T1649	9	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-16
ZONE A ALTN, T1746	9	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-14
ZONE B, T1650	9	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-16
ZONE C, T1651	9	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-16
ZONE D, T1652	9	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-16
ZONE E, T1653	9	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-16
ZONE U/D, T1648	9	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-16
ZONE U/D ALTN, T1822 	9	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-14
SWITCH - AFT CARGO FLOW SELECT, 2120	1	1	FLT COMPT, P461	*
SWITCH - ALTN ZONE DUCT OVERTEMPERATURE				
ZONE B, S1983	4	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-12
ZONE C, S1984	4	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-12
ZONE D, S1985	4	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-12
ZONE E, S1986	4	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-12
ZONE U/D, S1982 	4	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-12
SWITCH - CARGO TEMP SELECT, S1907	1	1	FLT COMPT, P5	*
SWITCH - COMBI TEMP SELECT, S1906 	1	1	FLT COMPT, P5 PNL	*
SWITCH - COMBI ZONE SELECT, (S1) 	1	1	FLT COMPT, P461 PNL	*
SWITCH - FLT DECK TEMP SELECT, S1737	1	1	FLT COMPT, P5	*
SWITCH - PASSENGER TEMP SELECT, S1738	1	1	FLT COMPT, P5	*

* SEE THE WDM EQUIPMENT LIST

 DLH 101-106Temperature Control System - Component Index
Figure 101 (Sheet 4)

Figure 61 21-60 TEMPERATURE CONTROL COMPONENT INDEX



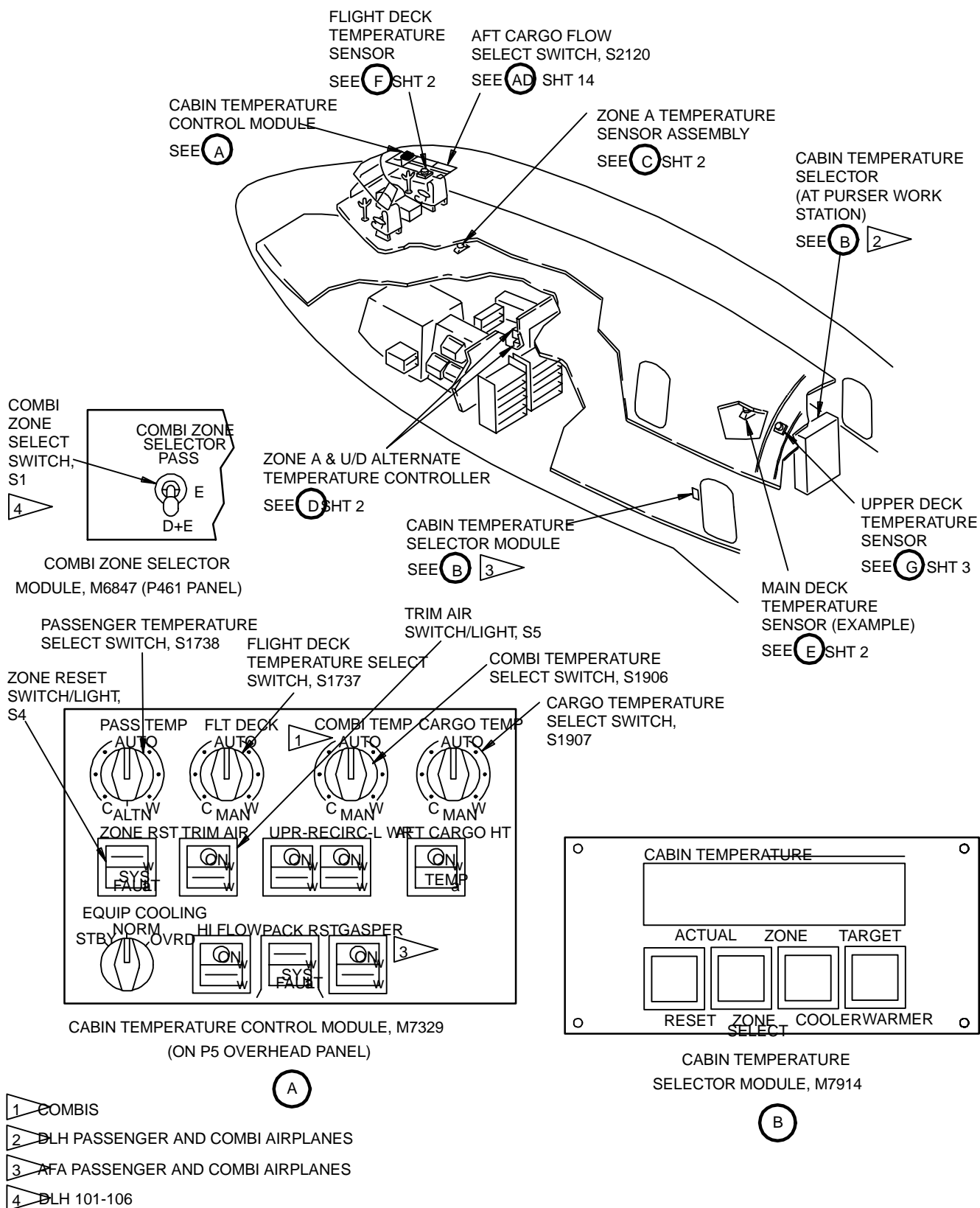
COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	AMM REFERENCE
SWITCH - RAM AIR EXIT DOOR LIMIT PACK 1, S572	7	1	191EL, AIR CONDITIONING ACCESS PANEL	21-62-12
PACK 2, S573	7	1	191ML, AIR CONDITIONING ACCESS PANEL	21-62-12
PACK 3, S574	7	1	192ER, AIR CONDITIONING ACCESS PANEL	21-62-12
SWITCH - ZONE DUCT OVERTEMPERATURE AFT CARGO, S1905	13	1	BODY LDG GEAR WELL, RIGHT	21-61-07
FLIGHT DECK ZONE, S1894	4	1	FWD CARGO COMPT, LEFT	21-61-07
ZONE A, S1896	4	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-07
ZONE B, S1897	4	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-07
ZONE C, S1898	4	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-07
ZONE D, S1899	4	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-07
ZONE E, S1900	4	1	AREA BEHIND U/D AFT WALL, LEFT	21-61-07
ZONE U/D, S1895	4	1	AREA BEHIND U/D AFT WALL, RIGHT	21-61-07
SWITCH/LIGHT - ZONE RST, S4	1	1	FLT COMPT, P5, CABIN TEMP MODULE, M7329	*
SWITCH/LIGHT - TRIM AIR, S5	1	1	FLT COMPT, P5, CABIN TEMP MODULE, M7329	*
UNIT - (FIM 31-61-00/101) C EIU, M7352				
L EIU, M7353				
R EIU, M7351				
VALVE - ACM TURBINE BYPASS PACK 1, V102	7	1	191AL, AIR CONDITIONING ACCESS DOOR	21-62-01
PACK 2, V103	7	1	191HL, AIR CONDITIONING ACCESS DOOR	21-62-01
PACK 3, V104	7	1	192AR, AIR CONDITIONING ACCESS DOOR	21-62-01
VALVE - MASTER TRIM AIR SHUTOFF, V110	5	1	191ML, AIR CONDITIONING ACCESS PANEL	21-61-08
VALVE - TRIM AIR MODULATING AFT CARGO, V461	13	1	BODY LDG GEAR WELL, RIGHT	21-61-10
FLIGHT DECK ZONE, V450	6	1	WING LANDING GEAR WELL, LEFT	21-61-10
ZONE A, V452	6	1	WING LANDING GEAR WELL, LEFT	21-61-10
ZONE B, V453	6	1	WING LANDING GEAR WELL, RIGHT	21-61-10
ZONE C, V454	6	1	WING LANDING GEAR WELL, LEFT	21-61-10
ZONE D, V455	6	1	WING LANDING GEAR WELL, RIGHT	21-61-10
ZONE E, V456	6	1	WING LANDING GEAR WELL, LEFT	21-61-10
ZONE UD, V451	6	1	WING LANDING GEAR WELL, RIGHT	21-61-10

* SEE THE WDM EQUIPMENT LIST

Temperature Control System - Component Index
Figure 101 (Sheet 5)

Figure 62 21-60 TEMPERATURE CONTROL COMPONENT INDEX

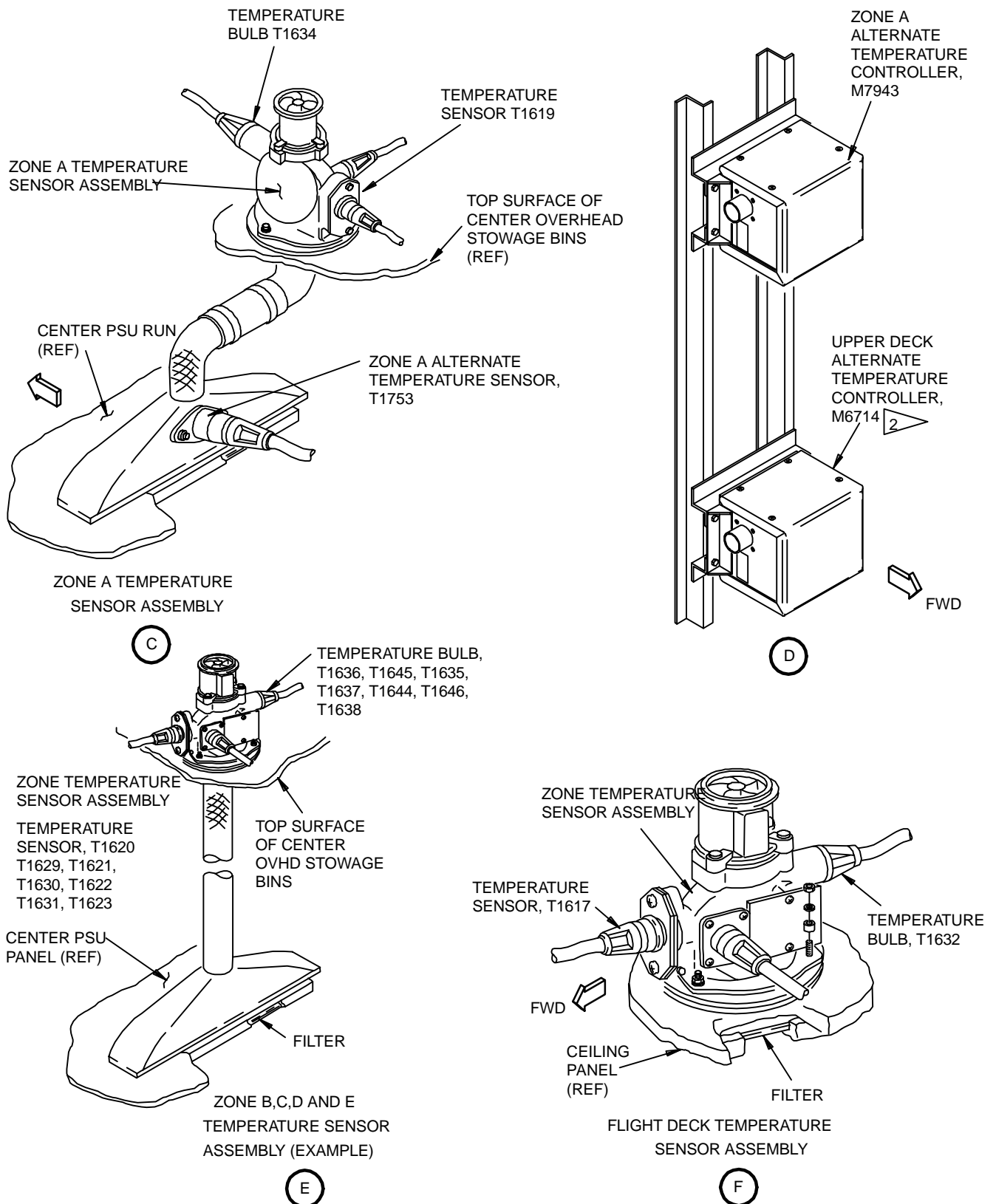




Temperature Control System - Component Location
Figure 102 (Sheet 1)

Figure 63 21-60 TEMPERATURE CONTROL COMPONENT LOCATION

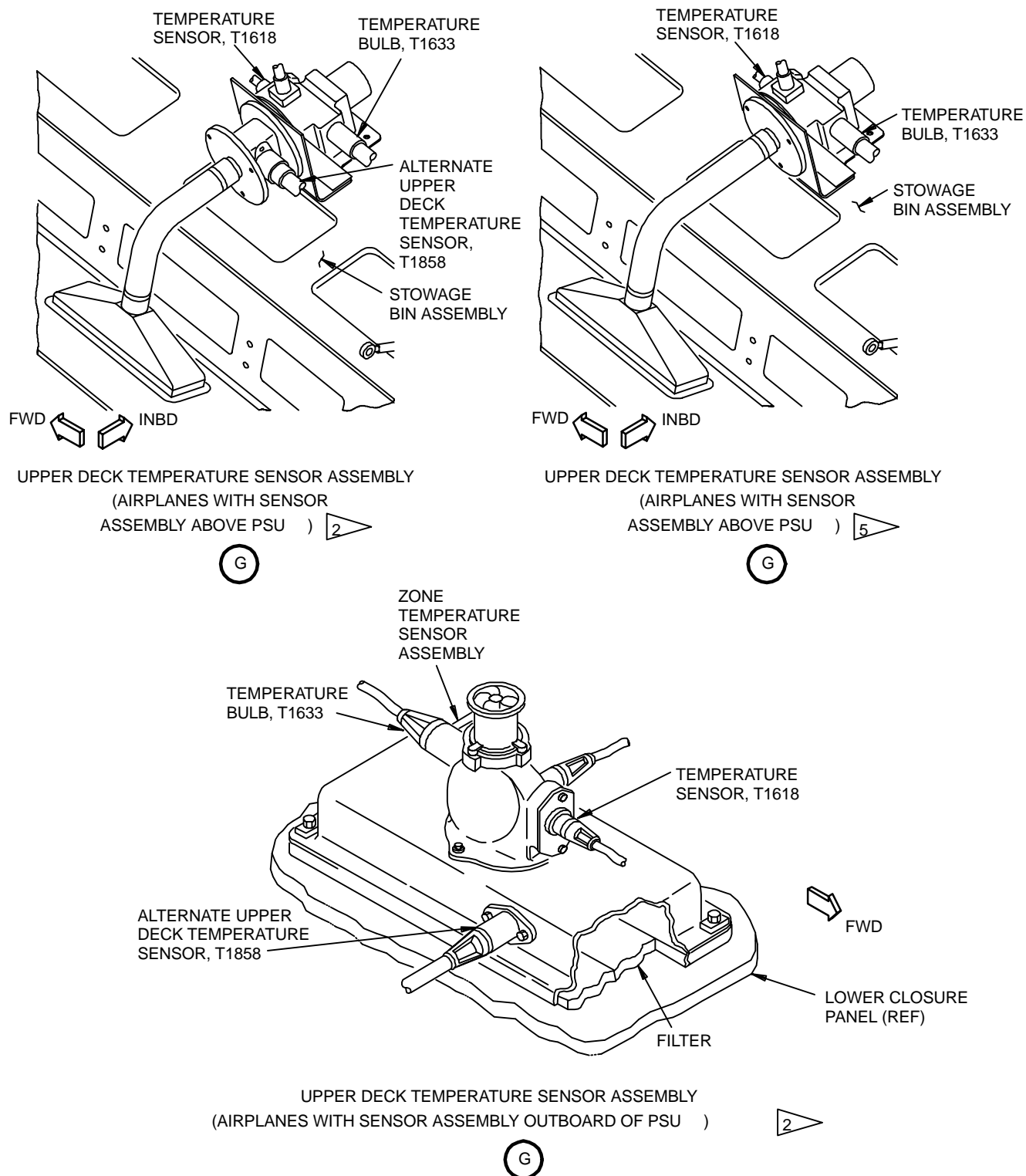




Temperature Control System - Component Location (Details From Sht 1)
Figure 102 (Sheet 2)

Figure 64 21-60 TEMPERATURE CONTROL COMPONENT LOCATION

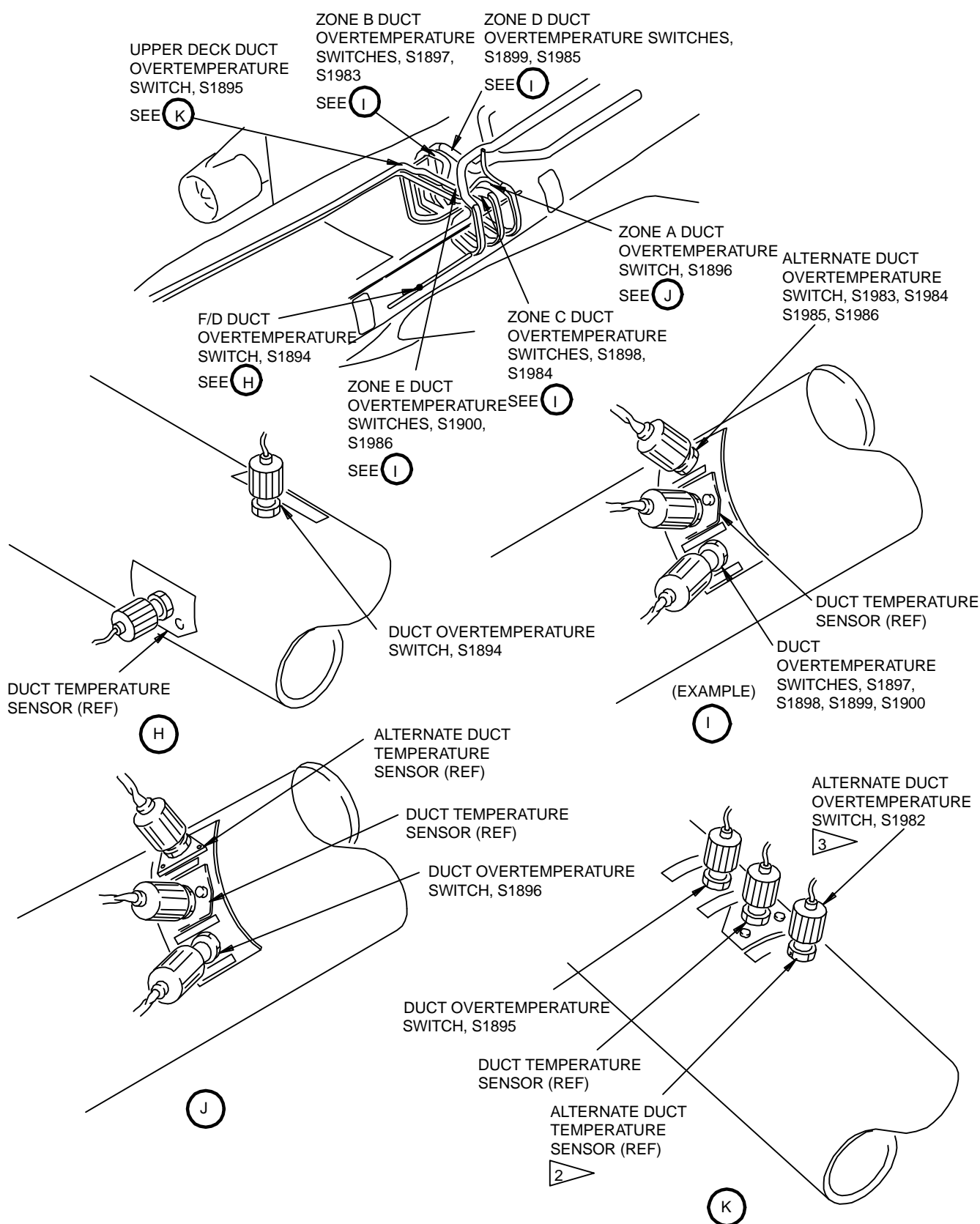




5 AFA PASSENGER AND COMBI AIRPLANES;
UTA ALL

Temperature Control System - Component Location (Detail From Sht 1)
Figure 102 (Sheet 3)

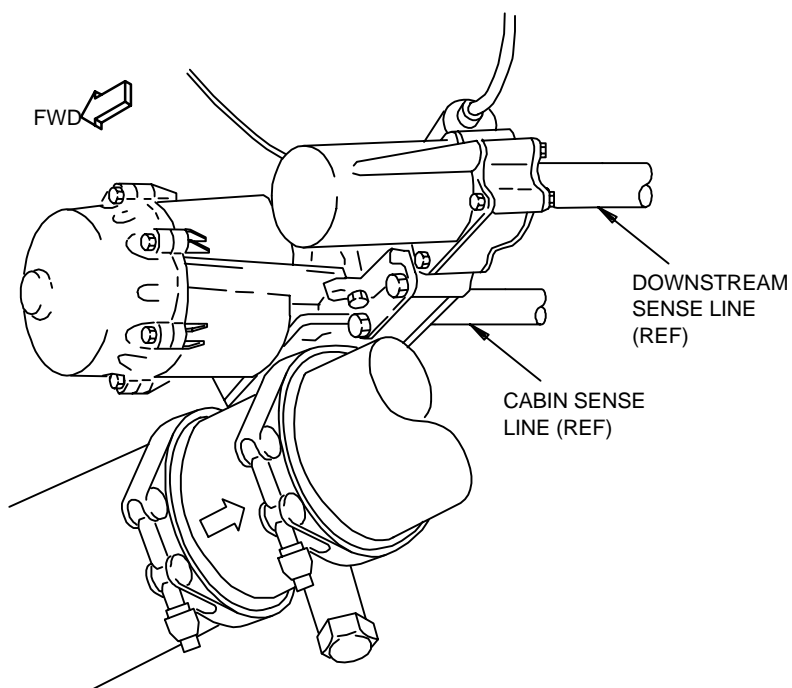
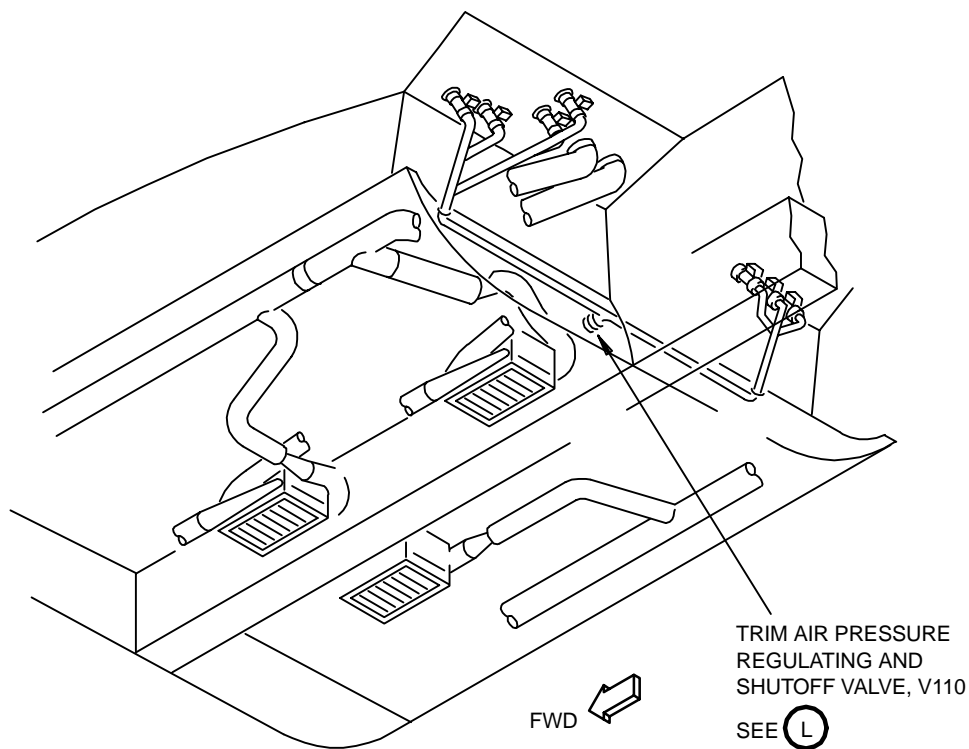
Figure 65 21-60 TEMPERATURE CONTROL COMPONENT LOCATION



Temperature Control System - Component Location
Figure 102 (Sheet 4)

Figure 66 21-60 TEMPERATURE CONTROL COMPONENT LOCATION





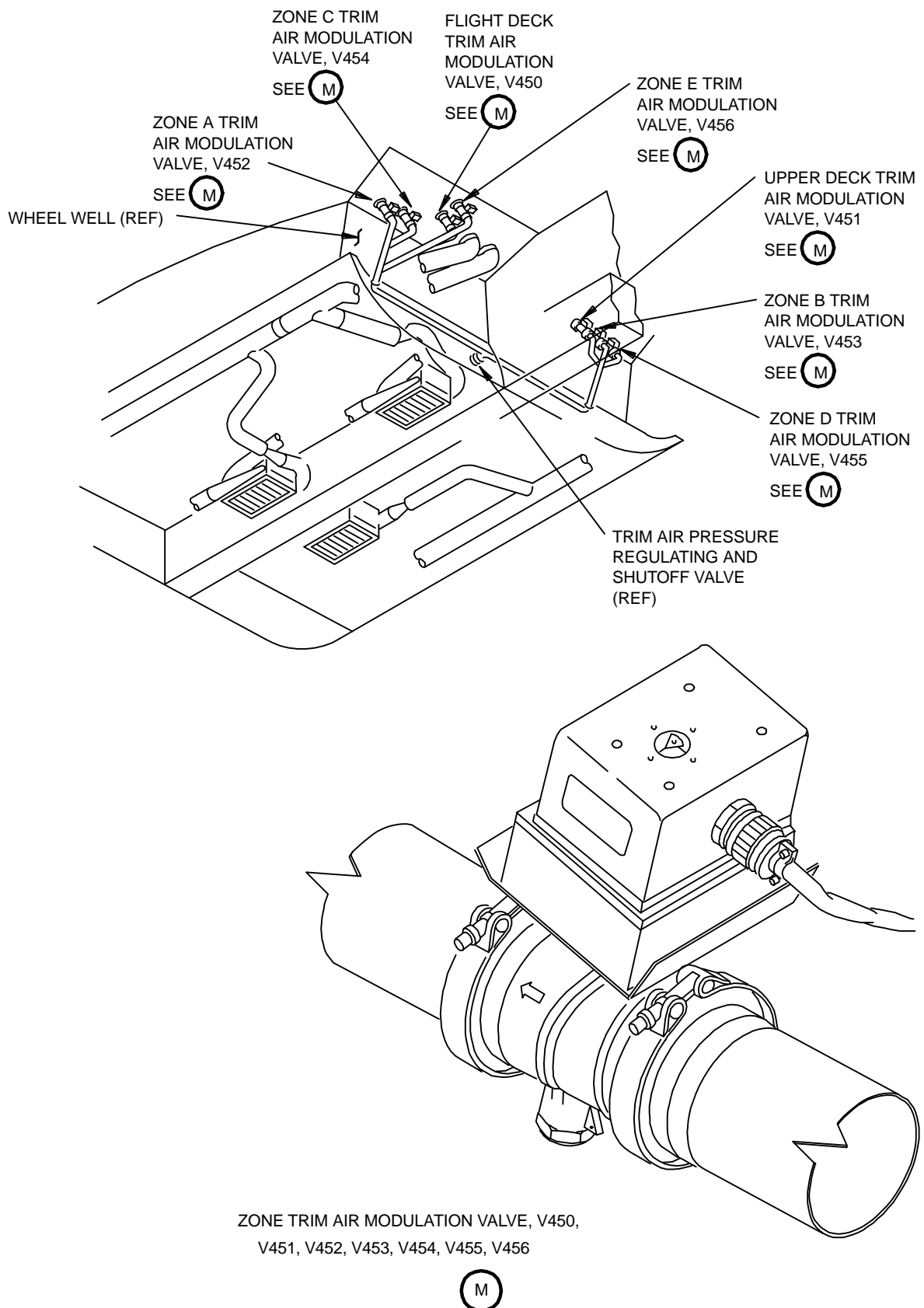
TRIM AIR PRESSURE REGULATING AND SHUTOFF VALVE, V110

(L)

Temperature Control System - Component Location
Figure 102 (Sheet 5)

Figure 67 21-60 TEMPERATURE CONTROL COMPONENT LOCATION

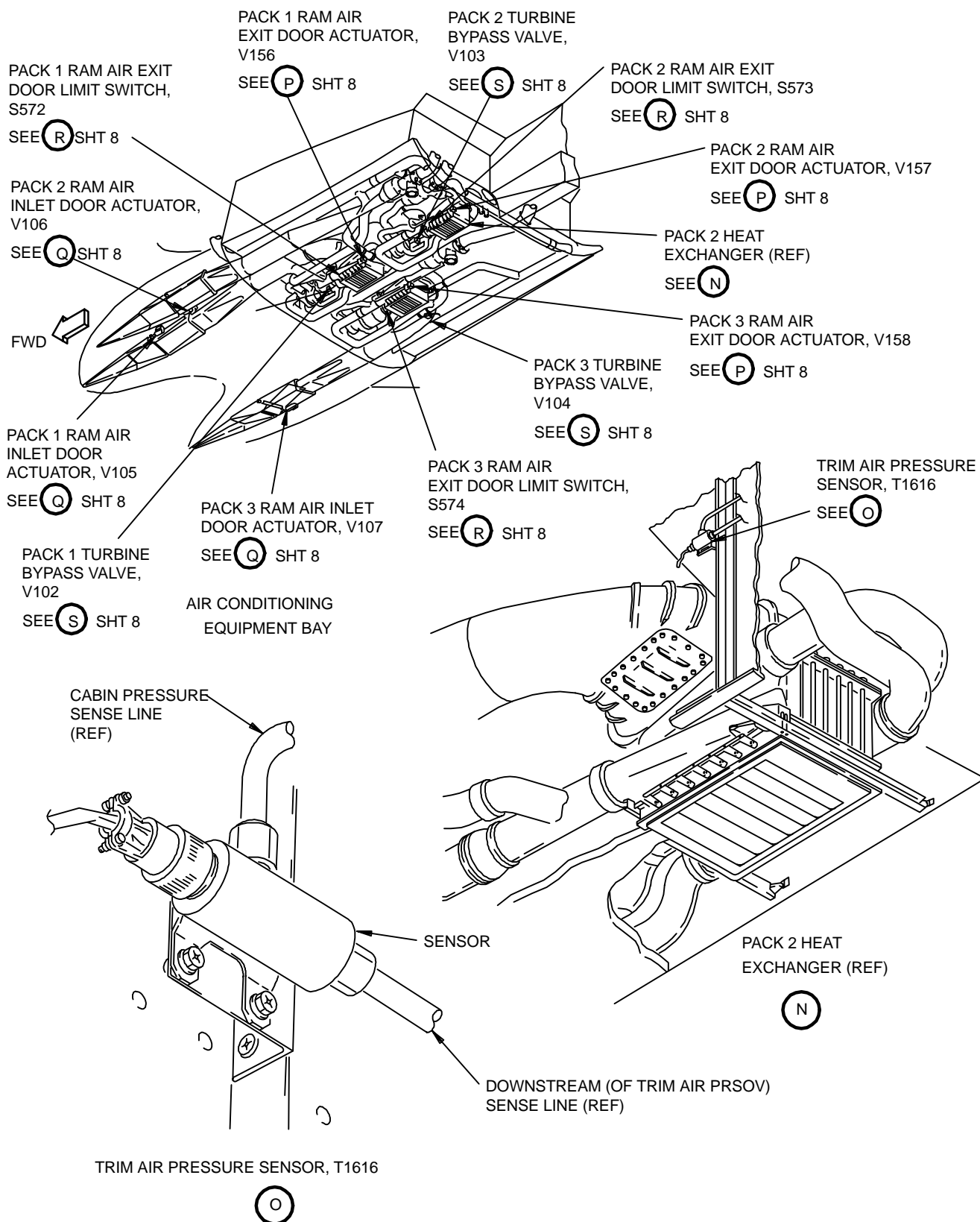




Temperature Control System - Component Location
Figure 102 (Sheet 6)

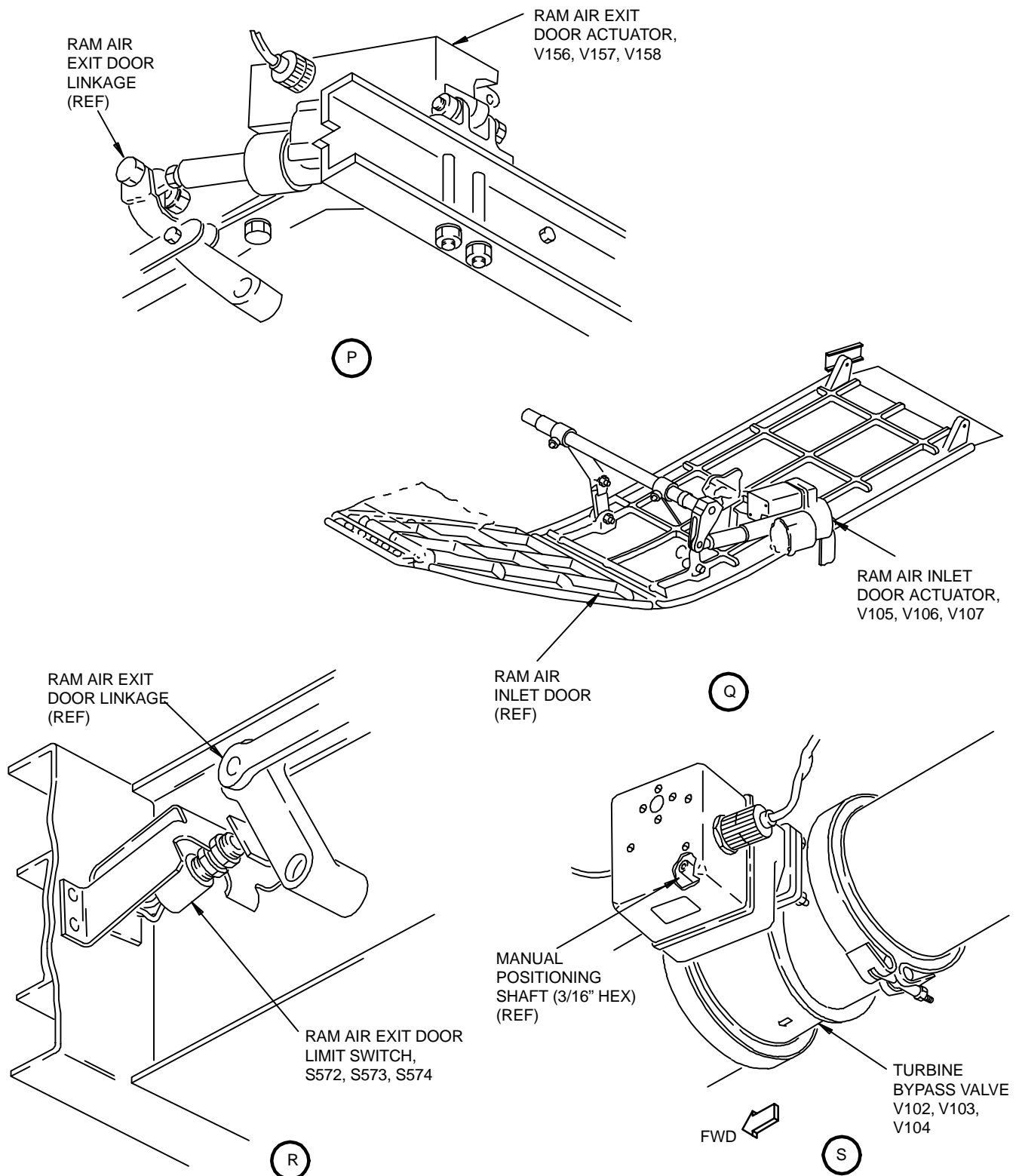
Figure 68 21-60 TEMPERATURE CONTROL COMPONENT LOCATION





Temperature Control System - Component Location
Figure 102 (Sheet 7)

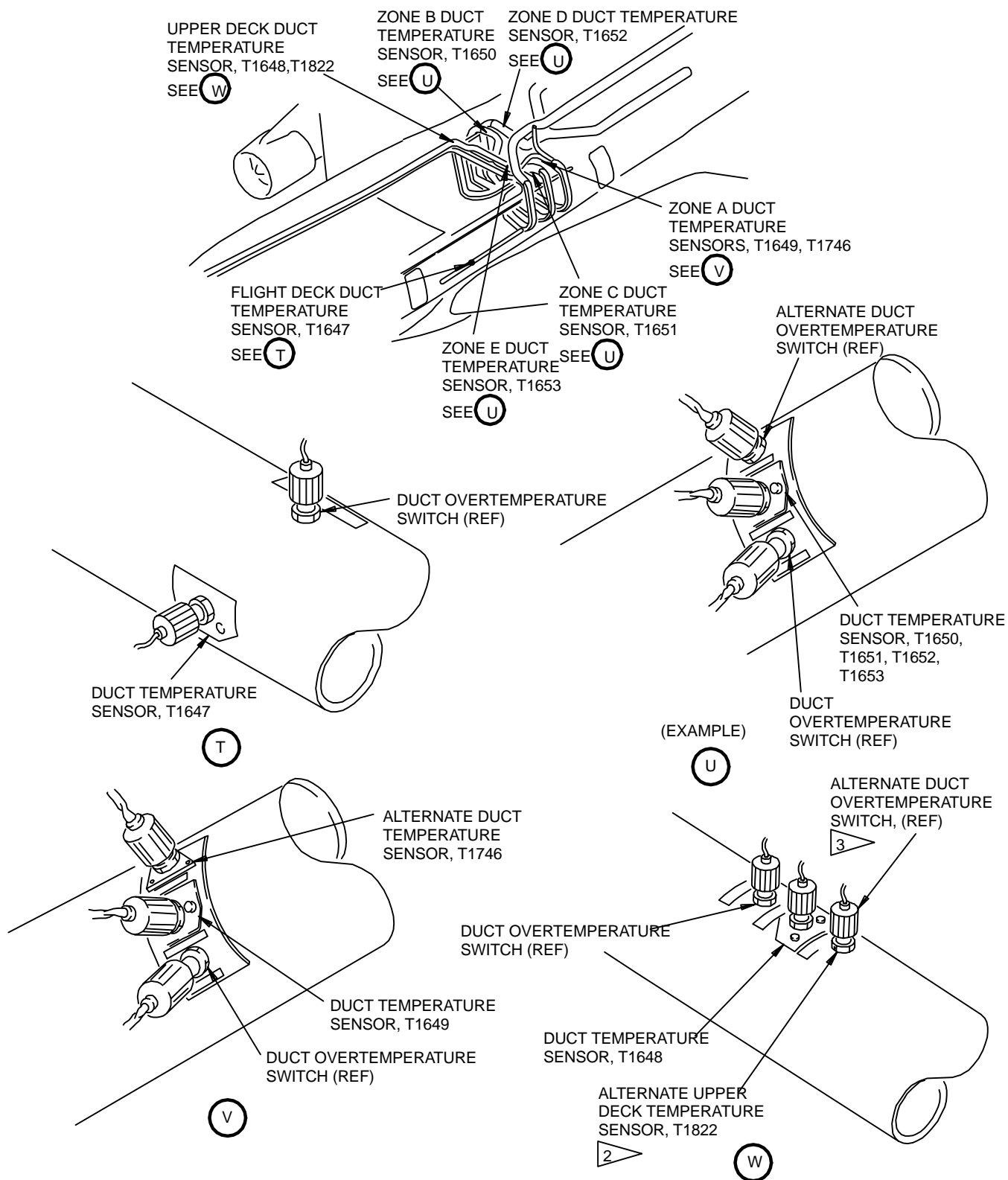
Figure 69 21-60 TEMPERATURE CONTROL COMPONENT LOCATION



Temperature Control System - Component Location (Details From Sht 7)
Figure 102 (Sheet 8)

Figure 70 21-60 TEMPERATURE CONTROL COMPONENT LOCATION

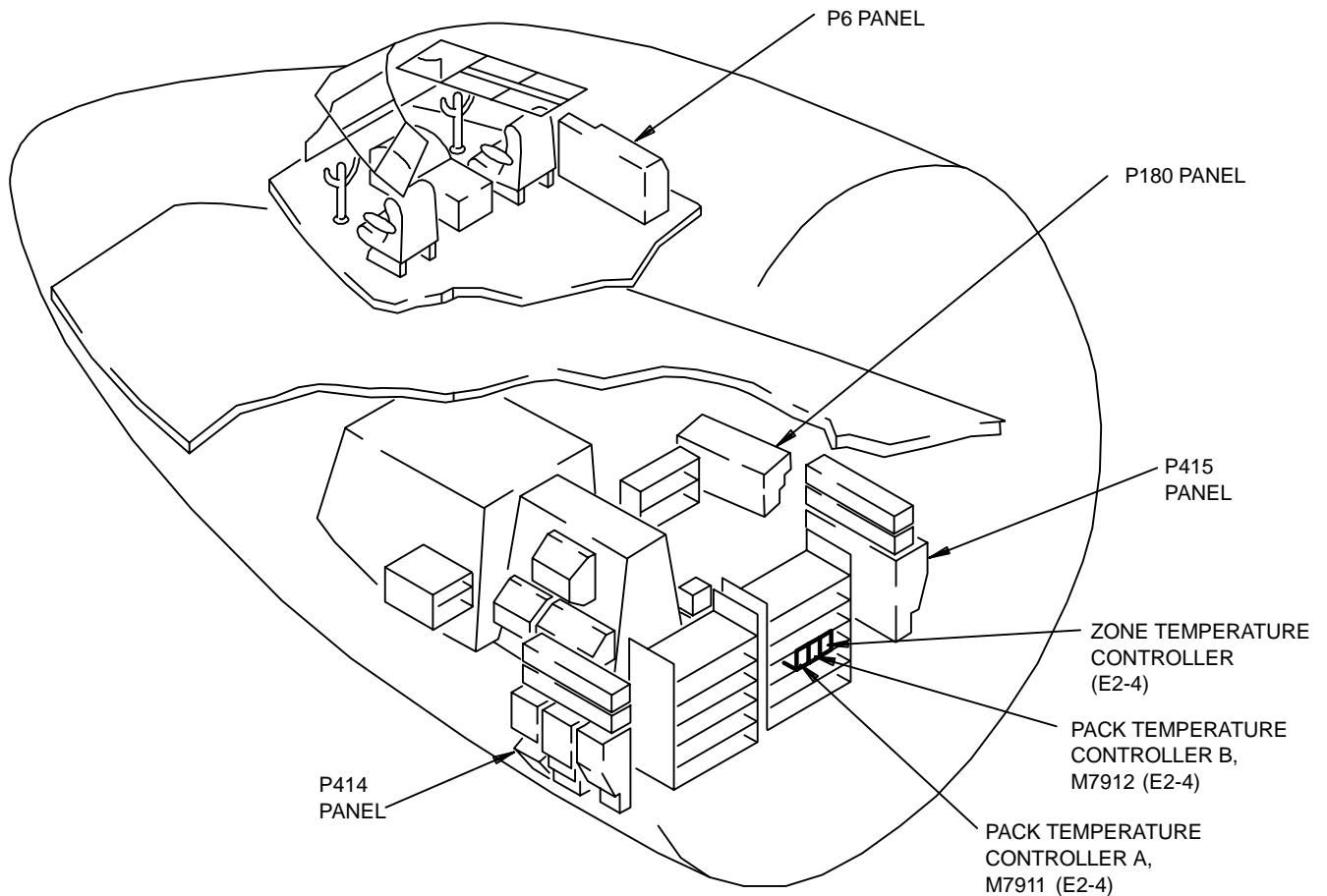




Temperature Control System - Component Location
Figure 102 (Sheet 9)

Figure 71 21-60 TEMPERATURE CONTROL COMPONENT LOCATION





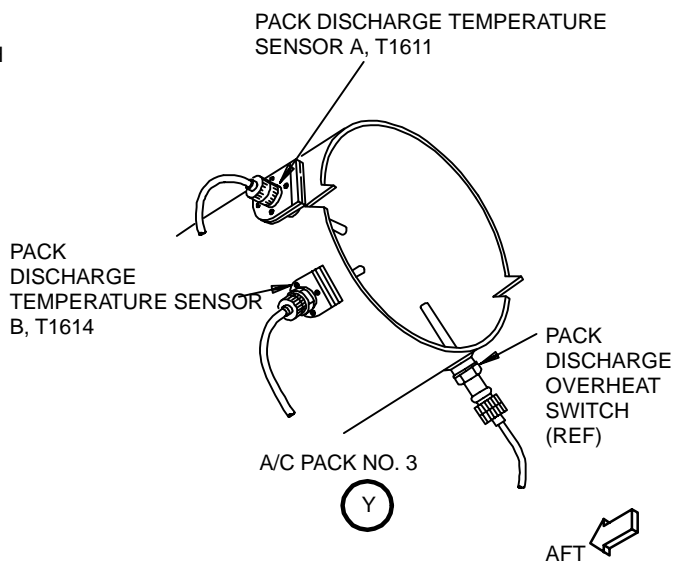
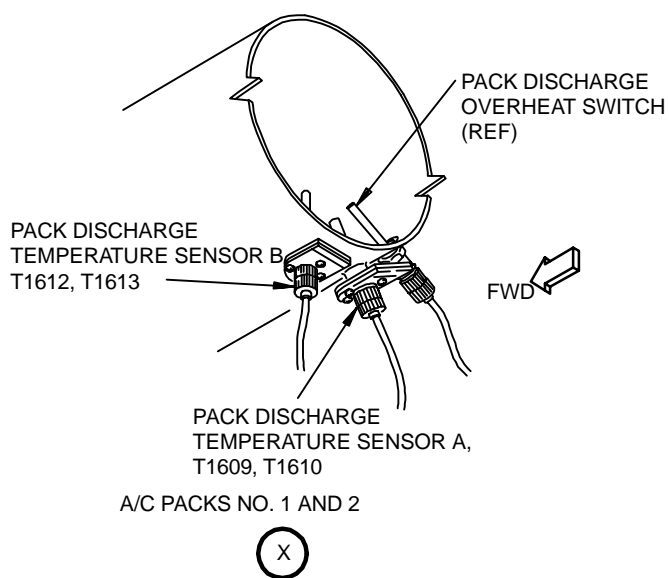
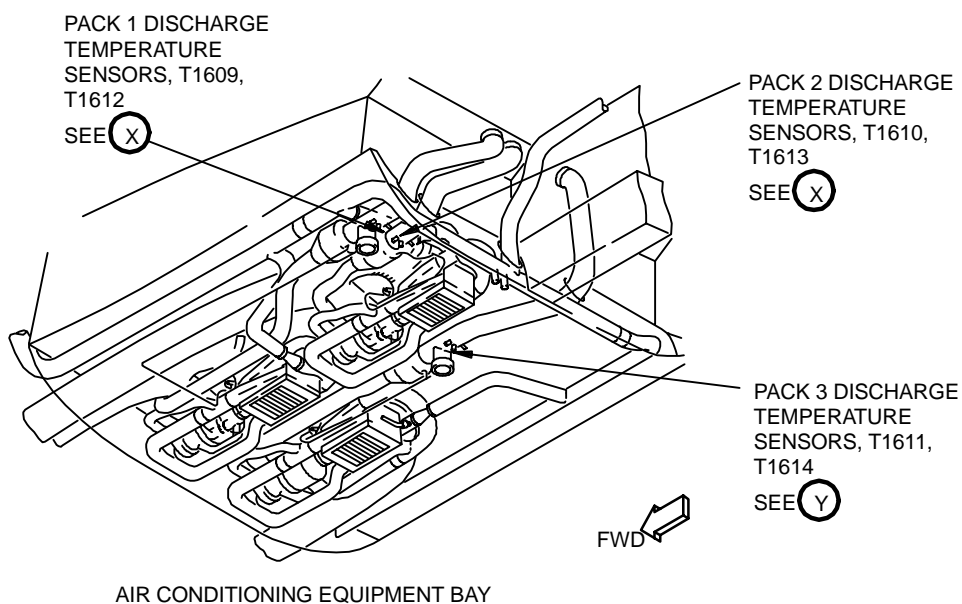
PACK TEMPERATURE CONTROLLER, M7911, M7912

Temperature Control System - Component Location

Figure 102 (Sheet 10)

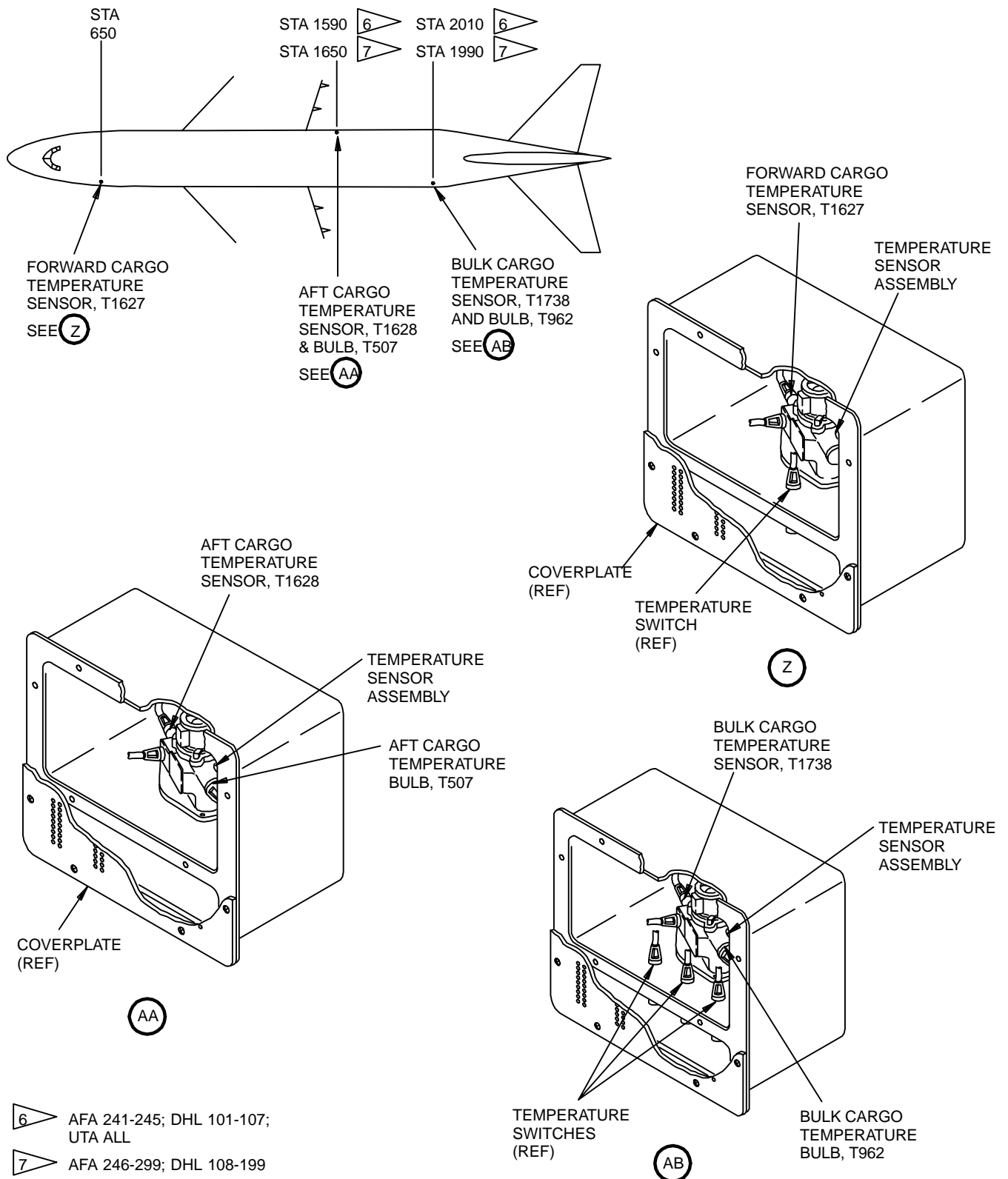
Figure 72 21-60 TEMPERATURE CONTROL COMPONENT LOCATION





Temperature Control System - Component Location
Figure 102 (Sheet 11)

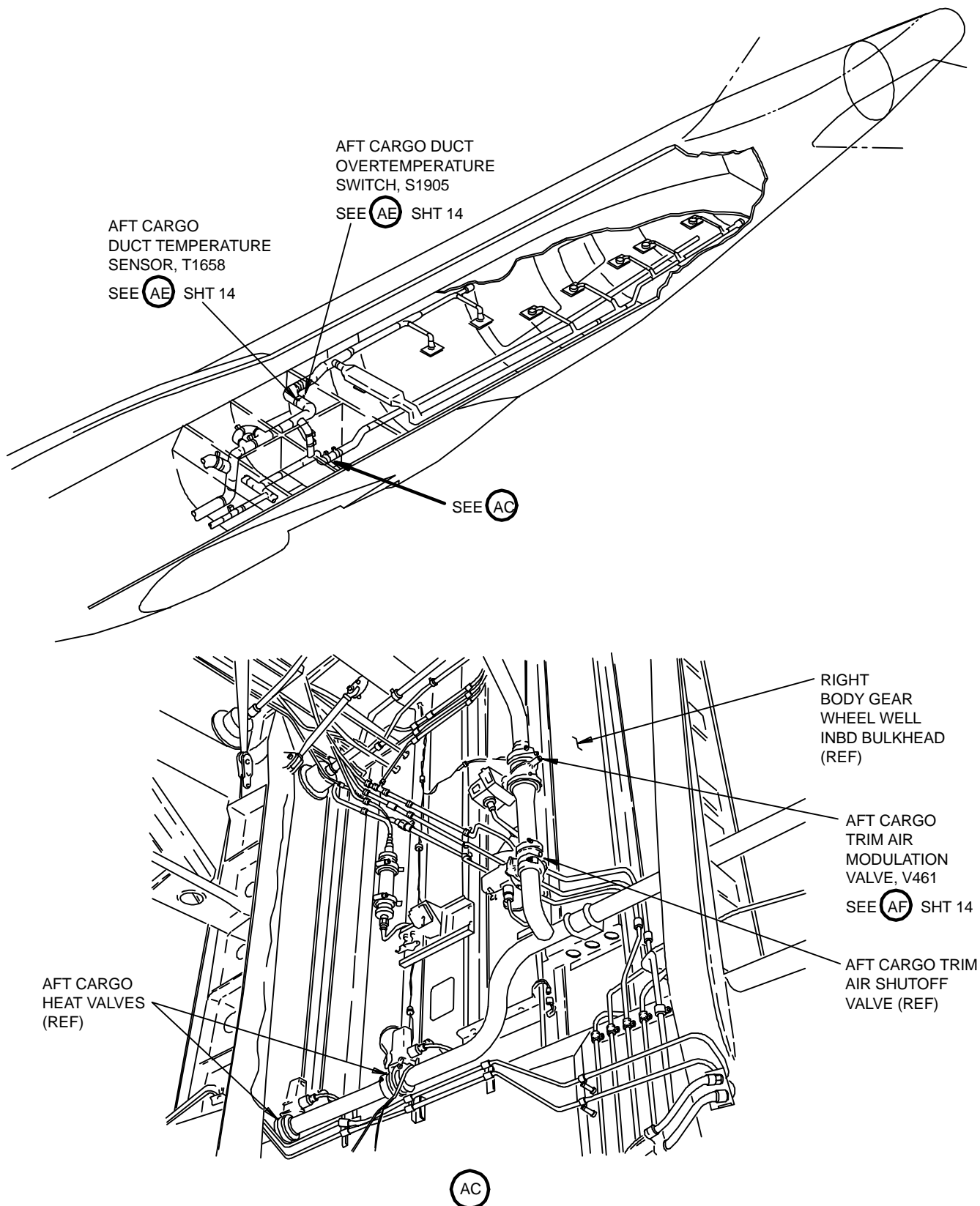
Figure 73 21-60 TEMPERATURE CONTROL COMPONENT LOCATION



Temperature Control System - Component Location
Figure 102 (Sheet 12)

Figure 74 21-60 TEMPERATURE CONTROL COMPONENT LOCATION

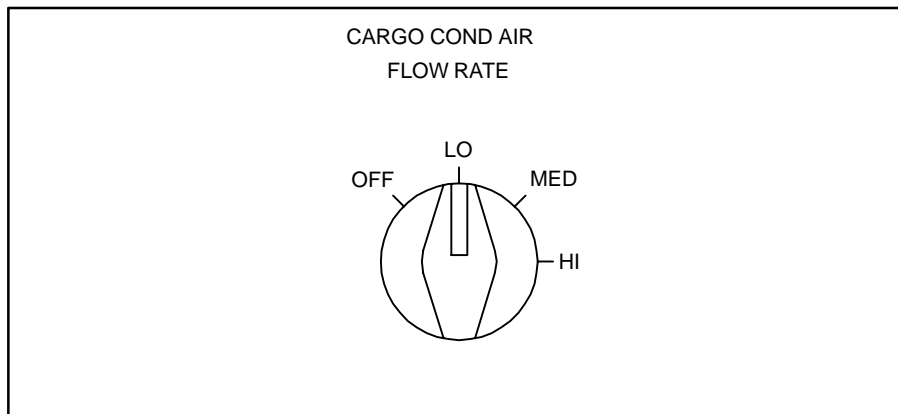




Temperature Control System - Component Location
Figure 102 (Sheet 13)

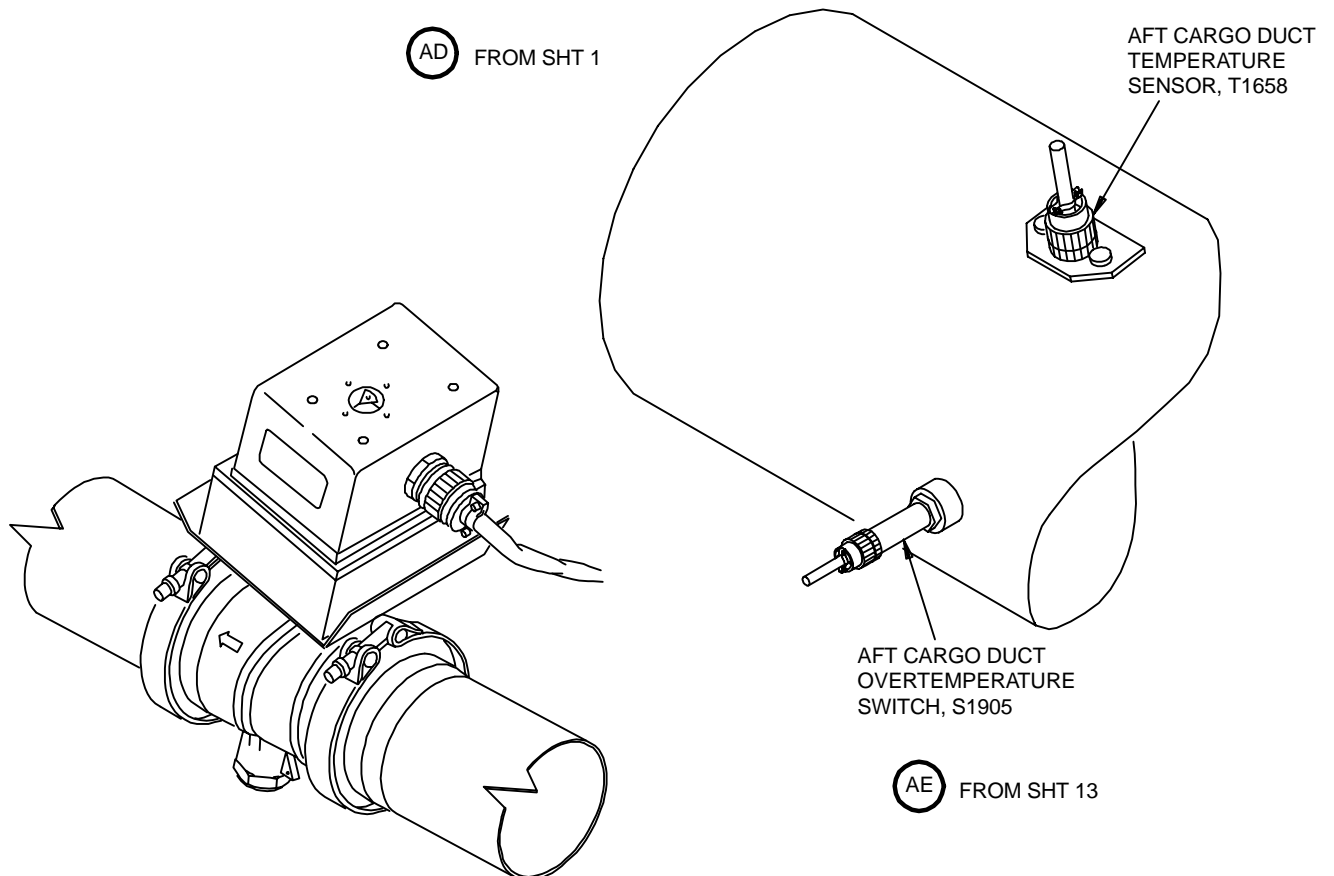
Figure 75 21-60 TEMPERATURE CONTROL COMPONENT LOCATION





AFT CARGO FLOW SELECT SWITCH, S2120
(ON P461 PANEL)

(AD) FROM SHT 1



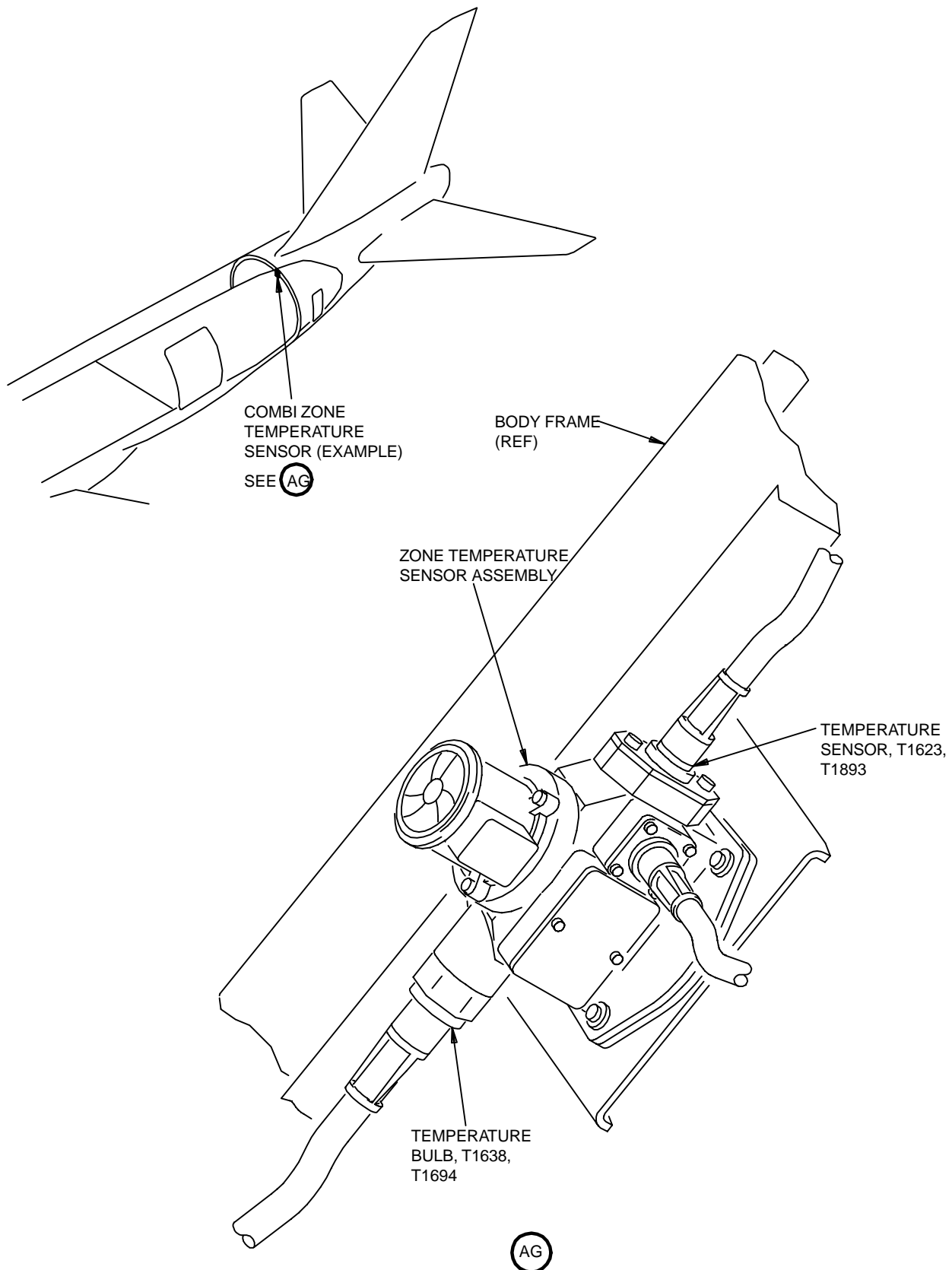
AFT CARGO TRIM AIR MODULATION VALVE, V461

(AF) FROM SHT 13

Temperature Control System - Component Location
Figure 102 (Sheet 14)

Figure 76 21-60 TEMPERATURE CONTROL COMPONENT LOCATION





Temperature Control System - Component Location
Figure 102 (Sheet 15)

Figure 77 21-60 TEMPERATURE CONTROL COMPONENT LOCATION

