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List Of Contact Personnel

24 HOURS EMERGENCY BREAKDOWN SERVICES AND MAINTENANCE CONTACT

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1.2. Brief Description of Air-Conditioning & Mechanical Ventilation Service

This operation instruction and maintenance manual consist of Air-Conditioning & Mechanical Ventilation system description, system operation and operating procedures complete with As-Built Drawings for the PROJECT D2019-00162 CONSTRUCTION OF 9
BUILDINGS AND ADDITIONS & ALTERATIONS WORKS TO 2 BUILDINGS ALONG SEMBAWANG ROAD-BLK 2

AREAS:

BLK 2 - 1st Storey

- > 01-02 NCR (ACMV)
- > 01-03 SPARE (ACMV)
- > 01-05 NCR (ACMV)
- > 01-06 NCR (ACMV)
- ➤ 01-07 OT SERVER ROOM (ACMV)
- ➤ 01-08 BATTERY ROOM (ACMV)
- > 01-09 NCR(S) (ACMV)
- > 01-10 NCR(C) (ACMV)
- > 01-11 EVC/ELECT DB ROOM (ACMV)
- > 01-12 GROWTH (MV)
- > 01-13,01-14,01-15 DC-ROOM (ACMV)
- > 01-16,01-17,01-18 IDS ROOM (ACMV)
- > 01-19,01-20,01-21,01-22,01-23 IDS ROOM (ACMV)

BLK 2 - 2nd Storey

- > 02-01 GS & OPS ROOM (AC)
- > 02-01A HD GS (AC)
- > 02-01B HD OPS (AC)
- > 02-01C HD AP (AC)
- > 02-02 O ROOM (ACMV)
- ➤ 02-03 TRAINING (ACMV)
- > 02-04 INT BRANCH(ACMV)
- > 02-04A HD INT OFFICE (ACMV)
- > 02-04B STORE (MV)
- > 02-05 BF-ROOM (ACMV)
- > 02-06 R-ROOM (ACMV)
- > 02-08 CAMP OPS (ACMV)
- > 02-09 LOG BRANCH (ACMV)
- > 02-09A HD LOG
- > 02-10 SMC ROOM (ACMV)
- > 02-11 INTERVIEW ROOM (ACMV)
- > 02-12 INTERVIEW ROOM (ACMV)

BLK 2 – 3rd Storey

- > 03-01 NSMB ROOM (AC)
- > 03-01A HD OFFICER (AC)
- ➤ 03-01B OPS OFFICER (AC)
- ➤ 03-02 MEETING ROOM (ACMV)
- ➤ 03-03 OFFICE ROOM (AC)
- > 03-03A DY CGO (AC)
- ➤ 03-03B DISCUSION (AC)
- > 03-03C CGO (AC)
- > 03-03D FSM ROOM (AC)
- > 03-04 DTD BRANCH (AC)
- > 03-04A HD DTD (AC)
- ➤ 03-05 PLAN BRACH (AC)
- > 03-05A HD PLANS (AC)
- > 03-06 OOTW (AC)
- > 03-06A DISCUSSION ROOM (AC)
- ➤ 03-06B HD CO/I (AC)
- ➤ 03-06C DY HD OOTW (AC)
- > 03-06D HD OOTW (AC)
- ➤ 03-07 ANCILLARY OFFICE (AC)
- ➤ 03-08 CONFERENCE (ACMV)
- ➤ 03-09 WAITING ROOM (ACMV)
- > 03-11 NCR (ACMV)
- > 03-12 NCR (ACMV)
- ➤ 03-13 NCR (ACMV)
- > 03-14 NCR (ACMV)
- ➤ 03-15 ANCILLARY OFFICE (AC)
- ➤ 03-16 MANPOWER BRANCH (AC)
- ➤ 03-16A SERVICE (AC)
- > 03-16B INTERVIEW (AC)
- > 03-16C HD MP (AC)

The scope of works consists of Supply, Delivery, Installation, Testing, Commissioning and One-Year monthly servicing and maintenance during defects liability for the complete airconditioning and mechanical ventilation systems.

Air-Conditioning System

All A/C equipment operate on environmentally friendly, non-ozone depleting refrigerants – R410A & R32.

A Variable Refrigerant Flow (VRF) System consists of Condensing Units Fan Coil Units which consists of Ceiling Cassette/ 4-Way Type and Wall Mounted Type, wiring works, refrigerant and condensate drain piping c/w insulation, brackets, cable trays, trunking, fresh air ductworks, louvers and other accessories.

(Note: Refer to Air-Conditioning Equipment Summary)

Mechanical Ventilation System

Supply, delivery, installation, testing and commissioning of Mechanical Ventilation Systems includes fans, exhaust air grilles & volume control dampers for those applicable.

In rooms where mechanical ventilation is provided, the mechanical ventilation systems for toilets shall be operated by interlock to motion sensor except for handicapped toilet which is interlock to lighting.

(Note: Refer to Mechanical Ventilation Fan Equipment Summary)

S/N	EQUIPMENT DESIGNATION	MODEL	TYPE OF EQUIPMENT	QTY	LOCATION
1	CU 2-1 (a)	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
2	CU 2-1 (b)	PUCY-P300YKD	CONDENSING UNIT	1	ROOF
3	FCU-1-1	PLFY-P125VEM-PA	CEILING CASSETTE	1	01-13 DC ROOM
4	FCU-1-2	PLFY-P80VEM-PA	CEILING CASSETTE	1	01-14 DC ROOM
5	FCU-1-3	PLFY-P80VEM-PA	CEILING CASSETTE	1	01-15 DC ROOM
6	FCU-1-4	PLFY-P63VEM-PA	CEILING CASSETTE	1	01-18 DC ROOM
7	FCU-1-5	PLFY-P63VEM-PA	CEILING CASSETTE	1	01-17 DC ROOM
8	FCU-1-6	PLFY-P80VEM-PA	CEILING CASSETTE	1	01-16 DC ROOM
9	FCU-1-7	PLFY-P50VEM-PA	CEILING CASSETTE	1	01-19 IDS ROOM
10	FCU-1-8	PLFY-P50VEM-PA	CEILING CASSETTE	1	01-20 IDS ROOM
11	FCU-1-9	PLFY-P50VEM-PA	CEILING CASSETTE	1	01-23 IDS ROOM
12	FCU-1-10	PLFY-P50VEM-PA	CEILING CASSETTE	1	01-22 IDS ROOM
13	CU 2-2 (a)	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
14	CU 2-2 (b)	PUCY-P300YKD	CONDENSING UNIT	1	ROOF
15	FCU-2-1	PLFY-P125VEM-PA	CEILING CASSETTE	1	01-13 DC ROOM
16	FCU-2-2	PLFY-P80VEM-PA	CEILING CASSETTE	1	01-14 DC ROOM
17	FCU-2-3	PLFY-P80VEM-PA	CEILING CASSETTE	1	01-15 DC ROOM
18	FCU-2-4	PLFY-P63VEM-PA	CEILING CASSETTE	1	01-18 DC ROOM
19	FCU-2-5	PLFY-P63VEM-PA	CEILING CASSETTE	1	01-17 DC ROOM
20	FCU-2-6	PLFY-P80VEM-PA	CEILING CASSETTE	1	01-16 DC ROOM
21	FCU-2-7	PLFY-P50VEM-PA	CEILING CASSETTE	1	01-24 IDS ROOM
22	FCU-2-8	PLFY-P63VEM-PA	CEILING CASSETTE	1	01-21 IDS ROOM
23	FCU-2-9	PLFY-P50VEM-PA	CEILING CASSETTE	1	01-23 IDS ROOM
23	FCU-2-10	PLFY-P50VEM-PA	CEILING CASSETTE	1	01-22 IDS ROOM
24	CU 2-3A (a)	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
25	CU 2-3A (b)	PUCY-P250YKD	CONDENSING UNIT	1	ROOF
26	FCU-3A-1	PEFY-P200VMHS-E	CEILING DUCTED	1	01-07 OT SEVER ROOM
27	FCU-3A-2	PEFY-P200VMHS-E	CEILING DUCTED	1	01-07 OT SEVER ROOM
28	FCU-3A-3	PEFY-P200VMHS-E	CEILING DUCTED	1	01-07 OT SEVER ROOM
29	CU 2-3B	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
30	FCU-3B-1	PEFY-P200VMHS-E	CEILING DUCTED	1	01-07 OT SEVER ROOM
31	CU 2-4A (a)	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
32	CU 2-4A (b)	PUCY-P300YKD	CONDENSING UNIT	1	ROOF
33	FCU-4A-1	PKFY-P100VKM-E	WALL MOUNTED	1	01-02 NCR
34	FCU-4A-2	PKFY-P100VKM-E	WALL MOUNTED	1	01-03 NCR
35	FCU-4A-3	PKFY-P100VKM-E	WALL MOUNTED	1	01-05 NCR
36	FCU-4A-4	PEFY-P140VMA-E	CEILING DUCTED	1	01-06 NCR
37	FCU-4A-5	PEFY-P125VMA-E	CEILING DUCTED	1	01-08 BATTERY
38	FCU-4A-6	PEFY-P125VMA-E	CEILING DUCTED	1	01-09 NCR (S)
39	FCU-4A-7	PEFY-P63VMA-E	CEILING DUCTED	1	01-10 NCR (C)
40	FCU-4A-8	PKFY-P50VLM-E	WALL MOUNTED	1	01-11 ELEC ROOM

S/N	EQUIPMENT DESIGNATION	MODEL	TYPE OF EQUIPMENT	QTY	LOCATION
41	CU 2-4B (a)	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
42	CU 2-4B (b)	PUCY-P300YKD	CONDENSING UNIT	1	ROOF
43	FCU-4B-1	PKFY-P100VKM-E	WALL MOUNTED	1	01-02 NCR
44	FCU-4B-2	PKFY-P100VKM-E	WALL MOUNTED	1	01-03 NCR
45	FCU-4B-3	PKFY-P100VKM-E	WALL MOUNTED	1	01-05 NCR
46	FCU-4B-4	PEFY-P140VMA-E	CEILING DUCTED	1	01-06 NCR
47	FCU-4B-5	PEFY-P125VMA-E	CEILING DUCTED	1	01-08 BATTERY
48	FCU-4B-6	PEFY-P125VMA-E	CEILING DUCTED	1	01-09 NCR (S)
49	FCU-4B-7	PEFY-P63VMA-E	CEILING DUCTED	1	01-10 NCR (C)
50	FCU-4B-8	PKFY-P50VLM-E	WALL MOUNTED	1	01-11 ELEC ROOM
51	CU 2-5(a)	PUCY-P250YKD	CONDENSING UNIT	1	ROOF
52	CU 2-5(b)	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
53	FCU-5-1	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-01 CS & OPS ROOM
54	FCU-5-2	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-01 CS & OPS ROOM
55	FCU-5-3	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01B HD OPS
56	FCU-5-4	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 HD GS
57	FCU-5-5	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 ATO
58	FCU-5-6	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 ARTY OPS
59	FCU-5-7	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 FMSO
60	FCU-5-8	PLFY-P63VEM-PA	CEILING CASSETTE	1	02-02 O-ROOM
61	FCU-5-9	PLFY-P63VEM-PA	CEILING CASSETTE	1	02-03 TRAINING
62	FCU-5-10	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 INT BRANCH
63	FCU-5-11	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 INT BRANCH
64	FCU-5-12	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 INT BRANCH
65	FCU-5-13	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 INT BRANCH
66	CU 2-6(a)	PUCY-P250YKD	CONDENSING UNIT	1	ROOF
62	CU 2-6(b)	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
63	FCU-6-1	PLFY-P100VEM-PA	CEILING CASSETTE	1	02-01 CS & OPS ROOM
64	FCU-6-2	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 NSF
65	PFCU-6-3	PEFY-P200VMHS-E-F	FRESH INTAKE	1	02-01 CS & OPS ROOM
66	FCU-6-4	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 HD TRG
67	FCU-6-5	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 OPS /TRG WO
68	FCU-6-6	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 HD AP
69	FCU-6-7	PLFY-P32VFM-E	CEILING CASSETTE	1	02-01 ENGR OPS
70	FCU-6-8	PLFY-P32VFM-E	CEILING CASSETTE	1	02-02 O-ROOM
71	FCU-6-9	PLFY-P63VEM-PA	CEILING CASSETTE	1	02-03 TRAINING
72	FCU-6-10	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 INT BRANCH
73	FCU-6-11	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 INT BRANCH
74	FCU-6-12	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 INT BRANCH
75	FCU-6-13	PLFY-P32VFM-E	CEILING CASSETTE	1	02-04 DY HDINT OFFICE

S/N	EQUIPMENT DESIGNATION	MODEL	TYPE OF EQUIPMENT	QTY	LOCATION
76	CU 2-7 (a)	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
77	CU 2-7 (b)	PUCY-P250YKD	CONDENSING UNIT	1	ROOF
78	FCU-7-1	PLFY-P125VEM-PA	CEILING CASSETTE	1	02-05 BF ROOM
79	FCU-7-2	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-06 R-ROOM
80	FCU-7-3	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-12 INTERVIEW ROOM
81	FCU-7-4	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-11 INTERVIEW ROOM
82	FCU-7-5	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-08 CAMP OPS
83	FCU-7-6	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-09 LOG BRANCH
84	FCU-7-7	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-09 LOG BRANCH
85	PFCU-7-8	PEFY-P125VMHS-E-F	FRESH AIR INTAKE	1	02-07 STORE OUTSIDE
86	FCU-7-9	PLFY-P32VFM-E	CEILING CASSETTE	1	02-09 DY HD LOG
87	FCU-7-10	PLFY-P32VFM-E	CEILING CASSETTE	1	02-09 FMEO
88	CU 2-8 (a)	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
89	CU 2-8 (b)	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
90	FCU-8-1	PLFY-P125VEM-PA	CEILING CASSETTE	1	02-05 BF ROOM
91	FCU-8-2	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-06 R-ROOM
92	FCU-8-3	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-08 CAMPS OPS
93	FCU-8-4	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-10 SMC
94	FCU-8-5	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-09 LOG BRANCH
95	FCU-8-6	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-09 LOG BRANCH
96	FCU-8-7	PLFY-P32VFM-E	CEILING CASSETTE	1	02-09 FINANCE
97	FCU-8-8	PLFY-P32VFM-E	CEILING CASSETTE	1	02-09 RESOURCE
98	FCU-8-9	PLFY-P50VEM-PA	CEILING CASSETTE	1	02-09 HD LOG
99	CU 2-9 (a)	PUCY-P250YKD	CONDENSING UNIT	1	ROOF
100	CU 2-9 (b)	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
101	FCU-9-1	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
102	FCU-9-2	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
103	FCU-9-3	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
104	FCU-9-4	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
105	PFCU-9-5	PEFY-P125VMHS-E-F	FRESH AIR INTAKE	1	03-01 NSMB
106	FCU-9-6	PLFY-P32VFM-E	CEILING CASSETTE	1	03-01B OPS OFFICE
107	FCU-9-7	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-02 MEETING ROOM
108	CU 2-10	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
109	FCU-10-1	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
110	FCU-10-2	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
111	FCU-10-3	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
112	FCU-10-4	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-01 NSMB
113	FCU-10-5	PLFY-P32VFM-E	CEILING CASSETTE	1	03-01A HD OFFICER
114	FCU-10-6	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-02 MEETING ROOM

S/N	EQUIPMENT DESIGNATION	MODEL	TYPE OF EQUIPMENT	QTY	LOCATION
115	CU 2-11	PUCY-P250YKD	CONDENSING UNIT	1	ROOF
116	FCU-11-1	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-03A OFFICE ROOM
117	FCU-11-2	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-03C OFFICE ROOM
118	FCU-11-3	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-03D OFFICE ROOM
119	FCU-11-4	PLFY-P80VEM-PA	CEILING CASSETTE	1	03-08 CONFERENCE
120	FCU-11-5	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-09 WAITING ROOM
121	CU 2-12	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
122	FCU-12-1	PLFY-P32VFM-E	CEILING CASSETTE	1	03-03 OFFICE
123	FCU-12-2	PLFY-P63VEM-PA	CEILING CASSETTE	1	03-03B DISUSSION ROOM
124	FCU-12-3	PLFY-P32VFM-E	CEILING CASSETTE	1	03-03 OFFICE
125	FCU-12-4	PLFY-P80VEM-PA	CEILING CASSETTE	1	03-08 CONFERENCE
126	FCU-12-5	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-09 WAITING ROOM
127	PFCU-12-6	PEFY-P125VMHS-E-F	FRESH AIR INTAKE	1	03-03 OFFICE
128	CU 2-13 (a)	PUCY-P300YKD	CONDENSING UNIT	1	ROOF
129	CU 2-13 (b)	PUCY-P250YKD	CONDENSING UNIT	1	ROOF
130	FCU-13-1	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-04 DTD BRNCH
131	FCU-13-2	PLFY-P32VFM-E	CEILING CASSETTE	1	03-04A HD DTD
132	FCU-13-3	PLFY-P32VFM-E	CEILING CASSETTE	1	03-05 PLAN BRANCH
133	FCU-13-4	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-06 OOTW
134	PFCU-13-5	PEFY-P200VMHS-E-F	FRESH AIR INTAKE	1	CORRIDOR
135	FCU-13-6	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-06A DISSUSSION ROOM
136	FCU-13-7	PLFY-P32VFM-E	CEILING CASSETTE	1	03-06B HD CO/I
137	FCU-13-8	PLFY-P100VEM-PA	CEILING CASSETTE	1	03-07 ANCILLARY OFFICE
138	CU 2-14	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
139	FCU-14-1	PLFY-P32VFM-E	CEILING CASSETTE	1	03-11 DTD BRANCH
140	FCU-14-2	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-05 PLANS BRANCH
141	FCU-14-3	PLFY-P32VFM-E	CEILING CASSETTE	1	03-05 PLANS BRANCH
142	FCU-14-4	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-05A HD PLANS
143	FCU-14-5	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-06 OOTW
144	FCU-14-6	PLFY-P32VFM-E	CEILING CASSETTE	1	03-06C DY HD OOTW
145	FCU-14-7	PLFY-P32VFM-E	CEILING CASSETTE	1	03-06D HD OOTW
146	FCU-14-8	PLFY-P100VEM-PA	CEILING CASSETTE	1	03-07 ANCILLARY OFFICE
147	CU 2-15	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
148	FCU-15-1	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-15 ANCILLARY OFFICE
149	FCU-15-2	PLFY-P32VFM-E	CEILING CASSETTE	1	03-15 ANCILLARY OFFICE
150	PFCU-15-3	PEFY-P125VMHS-E-F	FRESH AIR INTAKE	1	03-15 ANCILLARY OFFICE
151	FCU-15-4	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-16 DICUSSION ROOM
152	FCU-15-5	PLFY-P32VFM-E	CEILING CASSETTE	1	03-16 DY HD MP
153	FCU-15-6	PLFY-P32VFM-E	CEILING CASSETTE		03-16 DIV PSYCH
154	FCU-15-7	PLFY-P32VFM-E	CEILING CASSETTE	1	03-16B INTERVIEW

S/N	EQUIPMENT DESIGNATION	MODEL	TYPE OF EQUIPMENT	QTY	LOCATION
155	CU 2-16	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
156	FCU-16-1	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-15 ANCILLARY OFFICE
157	FCU-16-2	PLFY-P32VFM-E	CEILING CASSETTE	1	03-16A OFFICE
158	FCU-16-3	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-16 MANPOWER BRANCH
159	FCU-16-4	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-16 MANPOWER BRANCH
160	FCU-16-5	PLFY-P50VEM-PA	CEILING CASSETTE	1	03-16 HD MP
161	CU 2-17A	PUCY-P200YKD	CONDENSING UNIT	1	ROOF
162	FCU-17A-1	PKFY-P100VKM-E	WALL MOUNTED	1	03-13 NCR
163	FCU-17A-2	PKFY-P100VKM-E	WALL MOUNTED	1	03-12 NCR
164	FCU-17A-3	PKFY-P100VKM-E	WALL MOUNTED	1	03-11 NCR
165	FCU-17A-4	PKFY-P100VKM-E	WALL MOUNTED	1	03-14 NCR
167	CU 2-17B	PUCY-P350YKD	CONDENSING UNIT	1	ROOF
168	FCU-17B-1	PKFY-P100VKM-E	WALL MOUNTED	1	03-13 NCR
169	FCU-17B-2	PKFY-P100VKM-E	WALL MOUNTED	1	03-12 NCR
170	FCU-17B-3	PKFY-P100VKM-E	WALL MOUNTED	1	03-11 NCR
171	FCU-17B-4	PKFY-P100VKM-E	WALL MOUNTED	1	03-14 NCR

MECHANICAL VENTILATION FAN EQUIPMENT

S/N	EQUIPMENT DESIGNATION	MV FAN MODEL	TYPE OF EQUIPMENT	QTY	LOCATION
1	FAF-2-L1-01	PRIO 250E2	CENTRIFUGAL IN- LINE	1	DC ROOM (01-13,01-14&01-15)
2	FAF-2-L1-02	K315 L SILEO	CENTRIFUGAL IN- LINE	1	DC ROOM (01-16, 01-17 & 01-18)
3	FAF-2-L1-03	K100 M SILEO	CENTRIFUGAL IN- LINE	1	01-09 NCR(S),01-10 NCR (C) & 01-11 ELE-ROOM
4	FAF-2-L1-04	K150 XL SILEO	CENTRIFUGAL IN- LINE	1	NCR (01-02,01-03,01-05,01-06)
5	FAF-2-L1-05	K150 XL SILEO	CENTRIFUGAL IN- LINE	1	01-12 GROWTH
6	FAF-2-L1-06	K315 M SILEO	CENTRIFUGAL IN- LINE	1	IDS ROOM (01-19 TO 01-24)
7	EXEAF-2-L1-01	KTEX 50-30-4	EX PROOF	1	01-08 BATTERY ROOM
8	FAF-2-L2-01	K200 L SILEO	CENTRIFUGAL IN- LINE	1	02-02 O-ROOM, 02-03 TRAINING
9	FAF-2-L2-02	K315 M SILEO	CENTRIFUGAL IN- LINE	1	02-05 BF ROOM, 02-06 R- ROOM
10	FAF-2-L2-03	K315 M SILEO	CENTRIFUGAL IN- LINE	1	02-08 TO 02-12 OFFICE
11	FAF-2-L2-04	K100 XL SILEO	CENTRIFUGAL IN- LINE	1	02-04B STORE
12	TEAF-2-L2-01	K150 XL SILEO	CENTRIFUGAL IN- LINE	1	T2-02 FEMALE TOILET
13	FAF-2-L3-01	K150 XL SILEO	CENTRIFUGAL IN- LINE	1	03-02 MEETING
14	FAF-2-L3-02	K200 L SILEO	CENTRIFUGAL IN- LINE	1	03-08 CONFERENCE, 03-09 WAITING ROOM
15	FAF-2-L3-03	K100 M SILEO	CENTRIFUGAL IN- LINE	1	NCR (03-11 TO 03-14)



The following equipment list is under warranty.

S/N	EQUIPMENT DESIGNATION	MODEL
1	CU 2-1 (a)	PUCY-P350YKD
2	CU 2-1 (b)	PUCY-P300YKD
3	FCU-1-1	PLFY-P125VEM-PA
4	FCU-1-2	PLFY-P80VEM-PA
5	FCU-1-3	PLFY-P80VEM-PA
6	FCU-1-4	PLFY-P63VEM-PA
7	FCU-1-5	PLFY-P63VEM-PA
8	FCU-1-6	PLFY-P80VEM-PA
9	FCU-1-7	PLFY-P50VEM-PA
10	FCU-1-8	PLFY-P50VEM-PA
11	FCU-1-9	PLFY-P50VEM-PA
12	FCU-1-10	PLFY-P50VEM-PA
13	CU 2-2 (a)	PUCY-P350YKD
14	CU 2-2 (b)	PUCY-P300YKD
15	FCU-2-1	PLFY-P125VEM-PA
16	FCU-2-2	PLFY-P80VEM-PA
17	FCU-2-3	PLFY-P80VEM-PA
18	FCU-2-4	PLFY-P63VEM-PA
19	FCU-2-5	PLFY-P63VEM-PA
20	FCU-2-6	PLFY-P80VEM-PA
21	FCU-2-7	PLFY-P50VEM-PA
22	FCU-2-8	PLFY-P63VEM-PA
23	FCU-2-9	PLFY-P50VEM-PA
23	FCU-2-10	PLFY-P50VEM-PA
24	CU 2-3A (a)	PUCY-P350YKD
25	CU 2-3A (b)	PUCY-P250YKD
26	FCU-3A-1	PEFY-P200VMHS-E
27	FCU-3A-2	PEFY-P200VMHS-E
28	FCU-3A-3	PEFY-P200VMHS-E
29	CU 2-3B	PUCY-P200YKD
30	FCU-3B-1	PEFY-P200VMHS-E
31	CU 2-4A (a)	PUCY-P350YKD
32	CU 2-4A (b)	PUCY-P300YKD
33	FCU-4A-1	PKFY-P100VKM-E
34	FCU-4A-2	PKFY-P100VKM-E
35	FCU-4A-3	PKFY-P100VKM-E
36	FCU-4A-4	PEFY-P140VMA-E
37	FCU-4A-5	PEFY-P125VMA-E
38	FCU-4A-6	PEFY-P125VMA-E
39	FCU-4A-7	PEFY-P63VMA-E
40	FCU-4A-8	PKFY-P50VLM-E

S/N	EQUIPMENT DESIGNATION	MODEL	
41	CU 2-4B (a)	PUCY-P350YKD	
42	CU 2-4B (b)	PUCY-P300YKD	
43	FCU-4B-1	PKFY-P100VKM-E	
44	FCU-4B-2	PKFY-P100VKM-E	
45	FCU-4B-3	PKFY-P100VKM-E	
46	FCU-4B-4	PEFY-P140VMA-E	
47	FCU-4B-5	PEFY-P125VMA-E	
48	FCU-4B-6	PEFY-P125VMA-E	
49	FCU-4B-7	PEFY-P63VMA-E	
50	FCU-4B-8	PKFY-P50VLM-E	
51	CU 2-5(a)	PUCY-P250YKD	
52	CU 2-5(b)	PUCY-P200YKD	
53	FCU-5-1	PLFY-P50VEM-PA	
54	FCU-5-2	PLFY-P50VEM-PA	
55	FCU-5-3	PLFY-P32VFM-E	
56	FCU-5-4	PLFY-P32VFM-E	
57	FCU-5-5	PLFY-P32VFM-E	
58	FCU-5-6	PLFY-P32VFM-E	
59	FCU-5-7	PLFY-P32VFM-E	
60	FCU-5-8	PLFY-P63VEM-PA	
61	FCU-5-9	PLFY-P63VEM-PA	
62	FCU-5-10	PLFY-P32VFM-E	
63	FCU-5-11	PLFY-P32VFM-E	
64	FCU-5-12	PLFY-P32VFM-E	
65	FCU-5-13	PLFY-P32VFM-E	
66	CU 2-6(a)	PUCY-P250YKD	
62	CU 2-6(b)	PUCY-P200YKD	
63	FCU-6-1	PLFY-P100VEM-PA	
64	FCU-6-2	PLFY-P32VFM-E	
65	PFCU-6-3	PEFY-P200VMHS-E-F	
66	FCU-6-4	PLFY-P32VFM-E	
67	FCU-6-5	PLFY-P32VFM-E	
68	FCU-6-6	PLFY-P32VFM-E	
69	FCU-6-7	PLFY-P32VFM-E	
70	FCU-6-8	PLFY-P32VFM-E	
71	FCU-6-9	PLFY-P63VEM-PA	
72	FCU-6-10	PLFY-P32VFM-E	
73	FCU-6-11	PLFY-P32VFM-E	
74	FCU-6-12	PLFY-P32VFM-E	
75	FCU-6-13	PLFY-P32VFM-E	

S/N	EQUIPMENT DESIGNATION	MODEL
76	CU 2-7 (a)	PUCY-P350YKD
77	CU 2-7 (b)	PUCY-P250YKD
78	FCU-7-1	PLFY-P125VEM-PA
79	FCU-7-2	PLFY-P50VEM-PA
80	FCU-7-3	PLFY-P50VEM-PA
81	FCU-7-4	PLFY-P50VEM-PA
82	FCU-7-5	PLFY-P50VEM-PA
83	FCU-7-6	PLFY-P50VEM-PA
84	FCU-7-7	PLFY-P50VEM-PA
85	PFCU-7-8	PEFY-P125VMHS-E-F
86	FCU-7-9	PLFY-P32VFM-E
87	FCU-7-10	PLFY-P32VFM-E
88	CU 2-8 (a)	PUCY-P200YKD
89	CU 2-8 (b)	PUCY-P200YKD
90	FCU-8-1	PLFY-P125VEM-PA
91	FCU-8-2	PLFY-P50VEM-PA
92	FCU-8-3	PLFY-P50VEM-PA
93	FCU-8-4	PLFY-P50VEM-PA
94	FCU-8-5	PLFY-P50VEM-PA
95	FCU-8-6	PLFY-P50VEM-PA
96	FCU-8-7	PLFY-P32VFM-E
97	FCU-8-8	PLFY-P32VFM-E
98	FCU-8-9	PLFY-P50VEM-PA
99	CU 2-9 (a)	PUCY-P250YKD
100	CU 2-9 (b)	PUCY-P200YKD
101	FCU-9-1	PLFY-P63VEM-PA
102	FCU-9-2	PLFY-P63VEM-PA
103	FCU-9-3	PLFY-P63VEM-PA
104	FCU-9-4	PLFY-P63VEM-PA
105	PFCU-9-5	PEFY-P125VMHS-E-F
106	FCU-9-6	PLFY-P32VFM-E
107	FCU-9-7	PLFY-P63VEM-PA
108	CU 2-10	PUCY-P350YKD
109	FCU-10-1	PLFY-P63VEM-PA
110	FCU-10-2	PLFY-P63VEM-PA
111	FCU-10-3	PLFY-P63VEM-PA
112	FCU-10-4	PLFY-P63VEM-PA
113	FCU-10-5	PLFY-P32VFM-E
114	FCU-10-6	PLFY-P63VEM-PA

S/N	EQUIPMENT DESIGNATION	MODEL
115	CU 2-11	PUCY-P250YKD
116	FCU-11-1	PLFY-P50VEM-PA
117	FCU-11-2	PLFY-P50VEM-PA
118	FCU-11-3	PLFY-P50VEM-PA
119	FCU-11-4	PLFY-P80VEM-PA
120	FCU-11-5	PLFY-P50VEM-PA
121	CU 2-12	PUCY-P350YKD
122	FCU-12-1	PLFY-P32VFM-E
123	FCU-12-2	PLFY-P63VEM-PA
124	FCU-12-3	PLFY-P32VFM-E
125	FCU-12-4	PLFY-P80VEM-PA
126	FCU-12-5	PLFY-P50VEM-PA
127	PFCU-12-6	PEFY-P125VMHS-E-F
128	CU 2-13 (a)	PUCY-P300YKD
129	CU 2-13 (b)	PUCY-P250YKD
130	FCU-13-1	PLFY-P50VEM-PA
131	FCU-13-2	PLFY-P32VFM-E
132	FCU-13-3	PLFY-P32VFM-E
133	FCU-13-4	PLFY-P50VEM-PA
134	PFCU-13-5	PEFY-P200VMHS-E-F
135	FCU-13-6	PLFY-P50VEM-PA
136	FCU-13-7	PLFY-P32VFM-E
137	FCU-13-8	PLFY-P100VEM-PA
138	CU 2-14	PUCY-P350YKD
139	FCU-14-1	PLFY-P32VFM-E
140	FCU-14-2	PLFY-P50VEM-PA
141	FCU-14-3	PLFY-P32VFM-E
142	FCU-14-4	PLFY-P50VEM-PA
143	FCU-14-5	PLFY-P50VEM-PA
144	FCU-14-6	PLFY-P32VFM-E
145	FCU-14-7	PLFY-P32VFM-E
146	FCU-14-8	PLFY-P100VEM-PA
147	CU 2-15	PUCY-P350YKD
148	FCU-15-1	PLFY-P50VEM-PA
149	FCU-15-2	PLFY-P32VFM-E
150	PFCU-15-3	PEFY-P125VMHS-E-F
151	FCU-15-4	PLFY-P50VEM-PA
152	FCU-15-5	PLFY-P32VFM-E
153	FCU-15-6	PLFY-P32VFM-E
154	FCU-15-7	PLFY-P32VFM-E

S/N	EQUIPMENT DESIGNATION	MODEL
155	CU 2-16	PUCY-P200YKD
156	FCU-16-1	PLFY-P50VEM-PA
157	FCU-16-2	PLFY-P32VFM-E
158	FCU-16-3	PLFY-P50VEM-PA
159	FCU-16-4	PLFY-P50VEM-PA
160	FCU-16-5	PLFY-P50VEM-PA
161	CU 2-17A	PUCY-P200YKD
162	FCU-17A-1	PKFY-P100VKM-E
163	FCU-17A-2	PKFY-P100VKM-E
164	FCU-17A-3	PKFY-P100VKM-E
165	FCU-17A-4	PKFY-P100VKM-E
167	CU 2-17B	PUCY-P350YKD
168	FCU-17B-1	PKFY-P100VKM-E
169	FCU-17B-2	PKFY-P100VKM-E
170	FCU-17B-3	PKFY-P100VKM-E
171	FCU-17B-4	PKFY-P100VKM-E



The following equipment list is under warranty.

MECHANICAL VENTILATION FAN EQUIPMENT

S/N	EQUIPMENT DESIGNATION	MV FAN MODEL
1	FAF-2-L1-01	PRIO 250E2
2	FAF-2-L1-02	K315 L SILEO
3	FAF-2-L1-03	K100 M SILEO
4	FAF-2-L1-04	K150 XL SILEO
5	FAF-2-L1-05	K150 XL SILEO
6	FAF-2-L1-06	K315 M SILEO
7	EXEAF-2-L1-01	KTEX 50-30-4
8	FAF-2-L2-01	K200 L SILEO
9	FAF-2-L2-02	K315 M SILEO
10	FAF-2-L2-03	K315 M SILEO
11	FAF-2-L2-04	K100 XL SILEO
12	TEAF-2-L2-01	K150 XL SILEO
13	FAF-2-L3-01	K150 XL SILEO
14	FAF-2-L3-02	K200 L SILEO
15	FAF-2-L3-03	K100 M SILEO

1.3 & 1.4 System Operation & Operation Procedure Air Conditioning System:

1) 24 Hours Change-Over Operation

Enclose the house electrical components: Indicating lights for Incoming, Run, Stop, Trip, High temperature, Reset Push-button, start and stop button, alarm buzzer, alarm buzzer push-button, high temperature thermostat, 10A SP MCB for Control, 24 Hour Recycle Timers and Auto/Off/Manual Selector Switch.

Applicable to rooms that require 24 hours air-conditioning to be run at all times.

- 01-02 ,01-03,01-05 ,01-06 NCR ROOM
- 01-07 OT SERVER ROOM
- 01-08 BATTERY ROOM
- 01-09 NCR (S) ,01-10 NCR (C)
- 01-11 EVC/ELET DB ROOM
- 03-11,03-12,03-13,03-14 NCR ROOM

Command Control / Control Function

Control Panel = turn on incoming power, select timer from 12am to 12pm changeover and select auto mode.

Indoor FCUs = operated by *wireless remote controller, select mode (Cool), select fan speed (high), select temperature (23 deg C). (For First time setting only)

Use the Wireless Remote Controller to operate the Air cons.

Control Panel Status = incoming power indication lights (white), FCU operating status with indication light RUN (Green), STOP (Red), TRIP (Amber), HIGH TEMP (Red)

Status Alert = alarm Buzzer for High temperature, Alarm cancel push-button and reset push-button

Auto mode = Changing of the Fan-coil unit designated (Duty with Stand-by) with the use of timer programmed in the PLC.

Operation Procedure

- 1. Ensure the Air-con panel incoming power light is 'Turn on'.
- 2. Ensure the Selector switch is switched to 'Auto Mode'.
- 3. Press 'Start' button at the control panel before start of 'Operation'.
- 4. Press 'Stop' button the control panel after completion of 'Operation'.
- 5. Ensure the Air-con control panel incoming power light is 'Turn Off'.
- 6. In the event where the Fan coil units need to be turn on individually, the selector switch needs to turn to the manual mode and user must manually press the start or stop button necessary for the designated FCU intended
- 7. For rooms that are not having 24-hour operation for the FCU, operation of the FCU will be through the pressing of the individual thermostat located at the wall side of the rooms.
- 8. There will be a touch screen centralised remote control (CRC) to control all the FCU (Excluding FCUs having 24-hour operation) where user can select the individual FCU to monitor the status and to press the operation buttons (on/off, temperature) indicated on the screen. For more detailed operations to refer to the OMM material catalogue for more details

Mechanical Ventilation System:

Steps To Operate Exhaust/Fresh Air Fan: -

1) Manual Operation

- 1. Ensure All Electrical Power Supply is being turn "ON".

 The incoming indicating lights at the control panel will be lighted up.
- 2. Ensure All the Fan Individual Isolators are being turn "ON".
- 3. Each set of Fan Starter is provided with an AUTO/OFF/MANUAL selector switch. To operate <u>manually</u>, set the fan selector switch to MANUAL position.
- 4. The Fan can be switch on by pressing the START button switch. The RUN indicating light will be lighted up when the fan is running.
- 5. To stop the operation, press the STOP button switch and the OFF indicating light will be lighted up.
- 6. In the unlikely event of system failure, the fan operation will stop and the TRIP indicating light will be lighted up. Set the fan selector switch for the respective faulty fan unit to OFF position and call the maintenance department for assistance.

2) Auto Operation

A) (Interlocked with Lighting)

- 1. To operate <u>automatically</u>, set the fan selector switch to AUTO position.
- 2. The fan can be switched on automatically when the lighting switch is on.
- 3. Same as the manual operation, the RUN, STOP or TRIP indicating light will be lighted up respectively of the operation status.

B) (Interlocked to FCU)

- 1. To operate automatically, set the fan selector switch to AUTO position.
- 2. The fan can be switched on automatically when FCU is on.
- 3. Same as the manual operation, the RUN, STOP or TRIP indicating light will belighted up respectively of the operation status.