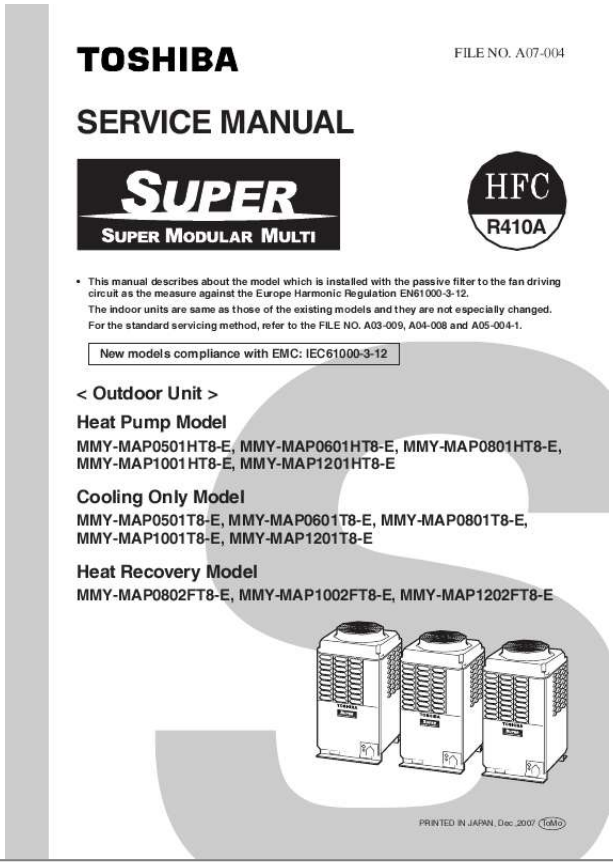

TOSHIBA

FILE NO. A07-004

SERVICE MANUAL

SUPER
SUPER MODULAR MULTI

HFC
R410A

- This manual describes about the model which is installed with the passive filter to the fan driving circuit as the measure against the Europe Harmonic Regulation EN61000-3-12.
  The indoor units are same as those of the existing models and they are not especially changed.
  For the standard servicing method, refer to the FILE NO. A03-009, A04-008 and A05-004-1.

New models compliance with EMC: IEC61000-3-12

< Outdoor Unit >

Heat Pump Model

MMY-MAP0501HT8-E, MMY-MAP0601HT8-E, MMY-MAP0801HT8-E, MMY-MAP1001HT8-E, MMY-MAP1201HT8-E

Cooling Only Model

MMY-MAP0501T8-E, MMY-MAP0601T8-E, MMY-MAP0801T8-E, MMY-MAP1001T8-E, MMY-MAP1201T8-E

Heat Recovery Model

MMY-MAP0802FT8-E, MMY-MAP1002FT8-E, MMY-MAP1202FT8-E

PRINTED IN JAPAN, Dec.2007 (ToMo)

Manual abstract:

@@@@For the standard servicing method, refer to the FILE NO. @@@@3 2. WIRING DIAGRAM .....

..... 42 2 1. DIFFERENT POINTS OF THE MAIN PARTS This model is added with the passive filter to the fan driving circuit of the existing model and then Type name is changed. ("-E" is added to the end of the Type name.
) 1. Newly changed contents Addition of passive filter against the harmonic Item Power supply P .C. board for fan IPDU Passive filter Existing model SMMS 1 MCC-1439-05 SHRM Model in this time SMMS SHRM MCC-1439-06 Addition of connector to connect the passive filter Electrolytic capacitor (MCC-1580), Resistance, Diode, Reactor (CH-68) 2 None 2. Contents change of running 1) Reduction in refrigerant amount Applied models: MMY-MAP0801HT8 (-E), MAP1001HT8 (-E), MAP1201HT8 (-E) (Only for SMMS heat pump models) Unit: kg System HP 5 6 8 10 12 Existing model SMMS -- -- 12.
5 12.5 12.5 Model in tis time SMMS -- -- 12.0 12.0 12.
0 2) Change of oil tank appearance Applied models: SMMS series, SHRM series Tank type of Oil tank (past) (Appearance) Tube type of Oil tank (current) (Appearance) (Layout) Rear view -- (Layout) Rear view -- <Reference: Product Bulletin No.2007-13> 3 Passive filter RED CN01(WHI) Reactor WHI YEL + BLU 22 11 + YEL YEL CN507 1 (YEL) 1 33 11 CN500 (WHI) 11 55 33 11 RED GRY 33 + TD1 (YEL) CN01 (WHI) CN504 12345 BLU YEL 12345 12345 CN503 (WHI) CN501 (RED) CN505(RED) YEL BLU CN506(BLK) CN502 (BLU) 3 3 1 1 BLU 3 CN506 3 (BLK) RED BLU 11 22 YEL MCC-1580 ~ Except 5HP, 6HP FM 12 12 PMV1 PMV2 RED WHI V BLU BLU WHI WHI RED BLK WHI RED BRN BLU ORN YEL WHI RED BRN BLU ORN YEL WHI RED BLK WHI U1 U2 U3 U4 U5 U6 21 21 43 1 4321 W 33 11 33 11 BLK 22 BLK 11 TS1 (GRY) BLU(BLK) TD2 (RED) BLU(BLK) BLU(BLK) BLU(BLK) U

CN501 (RED) CN508 (RED) CN509 (BLK) CN510 (WHI) CN513 (BLU) CN512 (BLU) CN306 (WHI) CN308 (BLU) CN502 (WHI) CN503 (PNK) CN504 (WHI) ON 5 4 3 2 1 5 4 3 2 1 BLK WHI BLU RED PNK 5 4 3 2 1 5 4 3 2 1 4321 4321 4321 4321 4321 54321 54321 4321 4321 1 1 3 3 1 1 3 3 CN500 (WHI) 321 321 654321 654321 654321 654321 432 4321 CN01 CN03 (BLU) (WHI) CN300 (WHI) CN301 (WHI) BLK Pressure Sensor PS Option Board 63H1 63H2 Option Board Option Board Option Board Option Board Pressure Sensor PD FAN IPDU P.C. Board MCC-896, 897 Power supply P.C. board for FAN MCC-1439 U1 U2 U5 U6 Indoor unit Outdoor unit BLU 77 2-1. Outdoor Unit U1 U2 U3 U4 CR503 RY503 BLK WHI BLU RED PNK CN25 3 (WHI) 3 YEL CN26 (BLU) CN06 (WHI) 1 1 54321 54321 SV42 BLU 5 5 Central remote CN311(BLU) controller BLU 33 SV41 BLU 11 CN505 (GRN) CN507 (YEL) CN514 (BLK) ON 1 2 3 4 33 11 33 11 33 11 BLK 22 BLK 11 TL (WHI) BLK Option board BLU BLU RED WHI BLK GRY T6.3A FUSE CR 518 CR511 CR521 CR 510 T6.3A FUSE T6.3A FUSE BLU(BLK) TK4 (GRN) BLU(BLK) BLK BLU(BLK) TK3 (BLU) BLU(BLK) BLU(BLK) TK2 (BLU) BLU(BLK) SW11 ON 1 2 3 4 SW06 SW08 CN523 (YEL) CN30 CN521 (WHI) CN32 SW04 SW05 SW06 CN31 SW07 SW09 SW10 CN516 (RED) ON 1 2 3 4 ON 1 ON 1 2 3 4 ON 1 2 3 4 SW12 SW13 SW14 CN515 (GRN) ON 1 2 3 4 ON 1 2 3 4 ON 1 2 3 4 11 BLU(BLK) W V U CN11 CN10 CN09 CN22 CN23 3 TK1 (BLK) 2 1 TO (BLK) 2 1 TE1 (BLK) CN18 (RED) CR502 RY502 PNK RED BLU WHI BLK 12345 12345 3 3 CN17 (BLK) Interface Control P.

C. Board MCC-1429 SW30 CN310(WHI) 1 1 CR504 RY504 BLK 2 BLK 1 BLK 2 BLK 1 BLU(BLK) 3 IPDU P.C. Board (1) MCC-1502 CN15 CN13 CR506 RY506 11 22 BLU 33 BLK WHI CM1 RED YEL BLU CN03 T CN02 S CN01 R BLK WHI RED 2. WIRING DIAGRAM CR507 RY507 CN21 WHI BLU Reactor CN20 WHI CR508 CN800 RY508 1 2 3 (Srvice) 4 5 6 YEL YEL BLK 4 3 SV51 BLU 2 2 BLU 11 CN312(WHI) BLU 33 SV2 BLU 11 CN324(RED)BLU 33 SV3A BLU 11 CN313(YEL) BLU 33 SV3B BLU 11 CN314(BLK) BLU 33 SV3C BLU 11 + + BLK CR509 RY509 BLU 1 1 2 CN321 2 (RED) 1 2 3 4 CN323 1 1 2 3 4 (WHI) 1 2 CN317 4 3 2 1 2 (BLU) 21 7 7 5 5 3 3 1 1 PNK PNK PNK PNK BRN ORN ORN RED WHI BLK GRY BLK WHI BLU RED PNK BLU BLK(PNK) Compressor Pulse motor valve RED L1 L2 L3 N SV 3D SV 3E BLK(PNK) 2-way valve coil Comp2 Accumulator heater 4WV1 BLK BLK 31 31 ORN ORN Comp1 CN25 3 (WHI) 3 1 3 Earth screw Power Supply, 3phase 380-415V 50Hz 380V 60Hz L1 L2 L3 N RED WHI BLK GRY W V U 1 1 CN26 (BLU) 54321 54321 CN06 (WHI) BLK WHI BLU RED PNK Symbol Parts name 1 2 3 4 CN400 3 2 1 1 2 3 4 (WHI) CN325 (YEL) PNK RED BLU WHI BLK Model: MMY-MAP0501HT8-E, MMY-MAP0601HT8-E, MMY-MAP0801HT8-E, MMY-MAP1001HT8-E, MMY-MAP1201HT8-E 4 D600 D601 D602 D603 D604 CN511 (GRN) 33 11 SW01 CN100 (BLK) SW02 SW03 4 3 2 1 4 3 2 1 CN802 Flash RY510 RY511 RY521 CN307(WHI) CN305(RED) CN402 Transformer WHI CN401 RED CN600(WHI) 55 44 33 22 11 CN316(WHI) 11 BRW CR516 RY516 Noise filter P.C. board MCC-1366 CN21 CN01 CN02 CN03 CN17 CN18 CN19 CN04 CN20 CN22(WHI) CN23(BLU) 1 1 3 3 1 1 3 3 PTC Themistor RED Mg-SW 12 3 5 4 6 A1 A2 RED OCR 2 4 6 33 Heater 1 CN315(BLU) 11 BRW 1 2 3 4 5 6 7 8 9 Color indication CR517 RY517 33 T Heater 2 RY518 RED RED RED WHI BLK BLK GRY GRY GRY L1 RED : RED WHI : WHITE YEL : YELLOW BLU : BLUE BLK : BLACK GRY : GRAY PNK : PINK ORN : ORANGE BRN : BRWN VLT : VIOLET L3 54321 54321 CN18 (RED) 3 3 1 1 CN17 (BLK) Parts layout U1 U2 U3 U4 U5 U6 Fan IPDU MCC-896 Connecting terminal Noise filter P.C. board MCC-1366 MGSW OCR Power supply for fan MCC-1439 L1 L2 L3 N Power supply terminal Comp. IPDU No.
1 MCC-1502 Comp. IPDU No.2 MCC-1502 Interface control P.C. board (I/F) MCC-1429 IPDU Board (2) MCC-1502 BLK WHI CM2 RED YEL BLU CN11 CN10 CN09 CN22 CN23 CN15 CN13 YEL BLU CN03 T CN02 S CN01 R BLK WHI RED CN08 WHI CN07 WHI Passive filter Reactor CM1, CM2 PMV1, PMV2 SV2, SV41, SV42, SV51, SV3A, SV3B, SV3C, SV3D, SV3E 4WV1 COMP1, COMP2 TS1 TD1, TD2 TE1 TO TK1, TK2, TK3, TK4 TL HEATER1, HEATER2, ACCUMULATOR FM PS PD 63H1, 63H2 MG-SW OCR 4-way valve coil Compressor case thermo.
Pipe temp. sensor (Inlet) Pipe temp. sensor (Outlet) Heat exchange temp. sensor Air temp. sensor Oil temp.
sensor Liquid temp. sensor Case heater, 230V, 26W Fan motor (DC) Low pressure sensor High pressure sensor High pressure switch Magnet switch Overcurrent relay Electric parts box Passive filter box 1.

*The two-dot chain line indicates wiring at the local site, and the dashed line indicates accessories sold separately and service cables, respectively. 2. , , and indicate the terminal blocks and the numerals indicate the terminal numbers. 3. indicates P.C. board. * Be sure to fix the electric parts cover surely with two screws.*

(Otherwise water enters into the box resulting in a trouble.) Passive filter RED CN01(WHI) Reactor Except 5HP, 6HP WHI YEL YEL + BLU 22 11 + YEL FM RED BLU 11 22 12 12 MCC-1580 ~ U1 U2 U3 U4 U5 U6 PMV1 63H1 63H2 PMV2 Pressure Sensor PS Option Board Option Board Option Board Option Board Option Board Pressure Sensor PD BLU BLU WHI WHI RED BLK WHI RED BRN BLU ORN YEL WHI RED BRN BLU ORN YEL WHI RED BLK WHI RED WHI BLK TD1 (YEL) U + V W TD2 (RED) TS1 (GRY) 12345 12345 12345 BLU TE1 (BLU) YEL GRY RED CN01 (WHI) 33 11 33 11 BLK 22 BLK 11 BLU(BLK) BLU(BLK) BLU(BLK) BLU(BLK) 21 21 654321 654321 CN301 (WHI) CN509 (BLK) CN510 (WHI) CN513 (BLU) CN512 (BLU) CN306 (WHI) CN308 (BLU) CN502 (WHI) CN503 (PNK) CN504 (WHI) ON SW30 321 321 CN500 (WHI) CN501 (RED) CN508 (RED) 654321 654321 432 4321 43 1 4321 4321 4321 4321 4321 4321 4321 54321 54321 4321 4321 1 1 3 3 1 1 3 3 CN01 CN03 (BLU) (WHI) CN300 (WHI) U1 U2 U5 U6 Indoor unit Outdoor unit FAN IPDU P.C. Board MCC-896, 897 5 4 3 2 1 5 4 3 2 1 GRY RED U1 U2 U3 U4 BLU 77 SV42 Central remote controller BLU CR503 RY503 Interface Control P.C. @@@@IPDU P.C. @@board for FAN 5 5 55 WHI MCC-1439 44 CN503 BLU 3 3 (WHI) CN501 3 3 RED (RED) 22 PNK CN504 CN505(RED) 1 1 11 BLU YEL 33 SV41 CN507 (YEL) CN25 3 (WHI) 3 YEL BLU TK2 (BLU) CN26 (BLU) 1 1 CN514 (BLK) ON 1 2 3 4 33 11 33 11 33 11 BLK 22 BLK 11 TL (WHI) BLK BLU(BLK) TK4 (GRN) BLU(BLK) BLK BLU(BLK) TK3 (BLU) BLU(BLK) BLU(BLK) BLU(BLK) SW11 ON 1 2 3 4 SW06 SW08 CN31 CN523 (YEL) CN30 CN521 (WHI) CN32 SW04 SW05 SW06 SW07 SW09 SW10 CN516 (RED) ON 1 2 3 4 ON 1 ON 1 2 3 4 ON 1 2 3 4 SW12 SW13 SW14 CN515 (GRN) ON 1 2 3 4 ON 1 2 3 4 ON 1 2 3 4 11 BLU(BLK) TK1 (BLK) TO (BLK) BLK WHI BLU RED PNK CN310 (WHI) CR504 RY504 BLK 22 BLK 11 BLK 22 BLK 11 BLK 22 BLK 11 BLK 22 BLK 11 BLU(BLK) 33 54321 54321 CN06 (WHI) W V U PNK RED BLU WHI BLK BLU CR502 RY502 11 RED 12345 12345 CN18 (RED) 3 3 CN17 (BLK) 1or .C. Is jumper setup of outdoor I/F P board correct? . C. @@.C. @@.C.

NO Is the connector of the power supply P board connected certainly? .C. Power supply P board for FAN MCC-1439 .C. The connector No. CN501, CN502, CN503, CN505, CN506, CN507? YES Is the passive filter relay connector connected? YES Is the electric fuse of a Power supply P board for FAN normal? .C. @@.C. @@@@@@.C. @@.C. @@@@to be replaced IPDU 1 IPDU 2 IPDU 1, 2 Fan IPDU IPDU 1, fan IPDU IPDU 2, fan IPDU IPDU 1, 2, fan IPDU, I/F IPDU P board error .C.

03 04 05 06 07 Both IPDU (No.1, No.2) and fan IPDU did not return the communication. Replace IPDU P board with trouble. .C. 7 <SHRM Series (A05-004-1) > Check code name Check code name Cause of operation 1. 2. 3. 4.

Incorrect model setup in service for I/F P board .C. @@@@"I/F control P board" error, "Power supply P.C. @@board correct? @@board connected? @@board? NO Is the connector of the power supply P.

C. board connected certainly? "Power supply P.C. board for FAN MCC-1439" The connector No. CN501, CN502, CN503, CN505, CN506, CN507? YES Is the passive filter relay connector connected? YES Is the electric fuse of a "Power supply P.

C. board for FAN" normal? F500 10A 250V~ YES Is the output voltage of a "Power supply P.C. board for FAN" normal? @@@@@@board. @@board. @@And correct the fault parts. I/F P.C. board error IPDU P.C.

board error Auxiliary code 01 02 03 04 05 06 07 P.C. @@NO Replace fan power supply on P.C. board. On the fan power supply P.C. @@board with trouble. 8 4. CONFIGURATION OF CONTROL CIRCUIT 4-1.

Outdoor Unit Power P.C. @@@@RUNNING CHANGE 5-1. @@@@@@Explanation for detailed operation method, etc. @@@@@@@@@@Refrigerant Recovery When Replacing the Compressor n How to operate the system during repairing of the defective outdoor unit MMY-MAP0501HT8(-E), MMY-MAP0601HT8(-E), MMY-MAP0801HT8(-E), MMY-MAP1001HT8(-E), MMY-MAP1201HT8(-E) <Work procedure> 1.

Follow to the abovementioned "13-1. Refrigerant Recovery in the Troubled Outdoor Unit". 2. Next, recover the refrigerant in the system by using a recovery device, etc. The refrigerant amount to be recovered is determined based upon the capacity of the troubled outdoor unit.

(See the following table.) Example) In a case of backup for 10HP-outdoor unit in 30HP system: in the original system HP (30HP system) = 36.0kg Refrigerant amount in system HP (20HP system) after backup = 27.0kg Refrigerant amount to be recovered = 36.0 27.0 = 9kg 3. For the unit which refrigerant has been recovered, execute "Outdoor Unit Backup Setup" in another section. All the work has finished. System HP 5 6 8 10 12 14 16 18 20 22 5 6 8 10 12 8 8 10 10 8 12 8 12 10 10 10 8 12 10 12 10 12 10 10 12 12 12 6 8 8 10 8 10 8 12 8 10 10 8 10 8 12 10 10 10 8 12 10 10 10 10 12 12 8 10 10 10 10 12 8 8 8 8 6 Refrigerant amount (kg) 8.5 8.

5 13.5 14.5 15.5 20.5 24.0 24.0 27.0 32.5 29.0 32.
0 31.0 32.0 34.0 36.0 42.
0 37.0 42.0 39.0 42.0 40.

0 42.0 43.0 44.0 46.0 48.0 50.0 Combination of outdoor units 24 26 28 30 32 34 36 38 40 42 44 46 48 15 5-5. Replacing Method of Parts <SMMS Series (A03-009, A04-008) > No. 6 Part to be exchanged Pressure sensor positions of 2-way valve coil Work procedure Remarks SV3C Rear side SV3A SV3D SV3B Liquid tank SV3E Accumulator SV2 Oil separator SV41 Compressor (1) SV42 Compressor (2) PS sensor SV5 Front side Inverter assembly PD sensor 7 Temperature sensor positions and identification <Front side of air conditioner> TS1 sensor (Gray) TD1 sensor (Yellow) TD2 sensor (Red) TL sensor (White) Compressor (1) Compressor (2) Accumulator 16 No. 7 Part to be exchanged Temperature sensor positions and identification Work procedure Remarks <Rear side of air conditioner> Rear side TK sensor (White) Accumulator TK1 sensor (Black) Accumulator side (Rear side) Oil separator TK4 sensor (Green) Liquid tank TK2 sensor (Blue) Front side Front side 8 Attachment/ detachment of pipe fixing rubber In this air conditioner, (segmentation system) eyeglass rubber and SUS fix band are adopted for fixing the vibration system as one measures to improve the reliability.

<Used positions of SUS fixing band: Total 5 positions> MAP1201H, 1001H, 0801H: Ø8.0 Ø25.4 MAP0601H, 0501H: Ø8.0 Ø19.05 between SE3E valve and suction pipe Ø6.35 Ø15.88 between SV3C valve and discharge pipe Ø8.0 Ø19.05 between SV42 valve and suction pipe Ø8.

0 Ø19.
05 between SV41 valve and suction pipe Ø6.35 Ø15.88 between SV2 valve and discharge pipe 17 <SHRM Series (A05-004-1) > No. 6 Part to be exchanged Pressure sensor positions of 2-way valve coil Work procedure Remarks SV3C Rear side SV3A SV3D SV3B Liquid tank SV3E Accumulator SV2 Oil separator SV41 Compressor (1) SV42 Compressor (2) PS sensor SV5 Front side Inverter assembly PD sensor 7 Temperature sensor positions and identification <Front side of air conditioner> Front side TS2 sensor TS1 sensor(Grasy) TD1 sensor(Yellow) TD2 sensor(Red) Accumulator Compressor(1) Compressor(2) 18 No. 7 Part to be exchanged Temperature sensor positions and identification Work procedure Remarks <Rear side of air conditioner> TK3 sensor(White) Rear side TK1 sensor(Black) Accumulator side (Front side) Accumulator Liquid tank Oil separator TK4 sensor (Green) TK2 sensor (Blue) (Rear side) 8 Attachment/ detachment of pipe fixing rubber This air conditioner has been designed so that vibration has been reduced to a minium by incorporating in the lower section of the unit, the use of eyeglass rubber fixing brackets and SUS bands.

Both of which greatly help to reduce vibration and improve unit reliability. Used positions of SUS fixing band:Total 5 positions Ø6.35 Ø15.88 between SV3C valve and discharge pipe Ø6.35 Ø15.

88 between SV3E valve and suction Ø6.35 Ø15.88 between SV3E valve and suction Ø8.0 Ø19.05 between SV41 valve and suction pipe Ø8.0 Ø19.05 between SV42 valve and suction pipe 19 5-6. P.C. Board Exchange Procedures (Outdoor Unit) n How to Check Fan Power Supply P.

C. Board and Fan IPDU The fan power supply P board supplies DC power. It supplies DC280V for the fan IPDU, and DC12V and .C. DC7V for the control power supply respectively. If the control power is not supplied, a communication error (Error code [E31]) is out. 1. How to check fan power supply P.C. board (MCC-1439) As shown in the following table, measure the voltage of the check positions with a digital tester.

No. 1 2 Control power voltage 3 Check item DC280V output Check position Between CN500 and Between CN500 and Between CN500 and Criteria DC260 to DC340V DC12V DC7V 2. How to check fan IPDU 1. Check that the lead wires are correctly inserted into 250 fasten terminal of DC280V input and into the communication connector (CN01). 2.

After then replace the fan IPDU if an abnormality is recognized. <MCC-1439 Front View> CN503 CN500 20 6. DETACHMENTS (Passive Filter Circuit) No. 10 Part name Passive filter Work procedure CAUTION Wear protective clothing on your hands as other components may cause injury etc. Remarks <Fig.

1> CN507 of "Power supply P.C. board for FAN" WARNING Never open the cabinet while 5 minutes after turn off the power supply. <Disassembling> 1) Stop unit operation and turn off power suplly to unit. 2) Remove Front panel. @@@@board for FAN", and open relay connector (white). <Fig.1> 5) Pssive filter wiring is fixed at 3 places. Remove the fixation shown in the "Fig.2".

(Binding band, 2 pcs. @@(1 pc. @@@@@@@@@@@@<Fig.7> 12) Remove The lid of the passive filter box. @@@@10 Part name Passive filter (Continued) Work procedure Remarks <Assembly> Assembling by contrary procedure of above 10) 12). Is connector of the power supply P board for .C. fan connected? Connector No.: CN501, CN502, CN503, CN505, CN506, CN507 Power supply P.C.

board A'SSY for Fan: MCC-1439 Is the passive filter connector connected? <Fig. 9> (DC260 to DC340V) Hooks Base <Fig.11> Box Notice When a box fixed, it hooks on the hook of base. <Fig.11> 23 7.

EXPLODED VIEWS AND PARTS LIST 7-1. Outdoor Unit MMY-MAP0501HT8-E (5HP), MMY-MAP0601HT8-E (6HP), MMY-MAP0801HT8-E (8HP), MMY-MAP1001HT8-E (10HP), MMY-MAP1201HT8-E (12HP) 17 16 64 (8, 10, 12,HP) or 26 66 (5, 6HP) 73 74 25 65 (8, 10, 12HP) or 67 (5, 6HP) 95 93 97 52 92 49 94 96 4 (8, 10, 12HP) or 5 (5, 6HP) 91 44 40, 41 30 27 31, 36 (5, 6HP) or 31, 34 (8, 10, 12HP) 32 44 46 8 39 80 43 30 7 24 50 69 724 SV3A SV3B 81 29 1 29 722 723 721 Location No. 1 4 5 7 8 16 17 25 26 27 29 30 31 32 34 36 39 40 41 43 44 46 49 50 63 64 65 66 67 69 73 74 80 81 91 92 93 94 95 96 97 721 722 723 724 Part No. 43146737 43041781 43041782 43046442 43146680 43100265 43119466 43120219 4312C004 43146715 43146736 43146676 43146722 43146727 43146698 43146687 43146734 43146709 43146708 4314Q060 4314Q056 4314Q052 43148202 43148192 43149325 4314G264 4314G265 4314G249 4314G250 43157276 43197175 43197176 4314Q055 4314Q057 43100396 43100406 43100407 43100408 43100409 43100410 43100411 43031110 43155214 43158207 4316V362 Description Valve, Checked, YCV5P-33GME-1 Compressor, DA421A3FB-23M Compressor, DA351A3FB-23M Valve, Packed, 9.52 DIA Valve, Packed, 12.

7 Cabinet, Up Guard, Fan Fan, Propeller, DIA 710, ASG Motor, Fan, DC280V, MF-230-600-1R Valve, Checked, BCV-804DY Valve, Checked, YCV3-22GME-1 Joint, Check Coil, Solenoid, STF-01AJ502E1 Valve, Gas, DIA 25 Valve, 4-Way, STF-0731G Valve, 4-Way, STF-0401G Valve, Check, ZGV-S55B-A Valve, PMV, HAM-BD24TF-1 Coil, PMV, HAM-MD12TF-3 Strainer, DIA 12.7, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 45, C1220T-H Tank, Liquid Separator Band, Fix, SUS304 Condenser Assembly, Three Row Condenser Assembly, Three Row Condenser Assembly, One Row Condenser Assembly, One Row Heater, Case, 29W, AC240V Nut, Flange, M10, SWCH12R Washer, SPHC Strainer, DIA 19.05, C1220T-H Strainer, DIA 25.4, C1220T-H Panel, CGCD2-Z08-C77 Cabinet Assembly, Front, Up Cabinet Assembly, Back, Up Cabinet Assembly, Side, Right Cabinet Assembly, Side, Left Cabinet Assembly, Front, Down Cabinet Assembly, Back, Down Diode, 25A, 600V, *GBPC-2506 Resistor, 1, 20W Reactor, CH-68 P.C. Board Assembly, Passive, MCC-1580 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 2 2 1 1 1 4 1 1 1 1 1 1 1 1 1 2 3 3 1 1 1 1 1 2 Model Name MMY- MAP 1201HT8-E 1001HT8-E 0801HT8-E 0601HT8-E 0501HT8-E 1 2 1 2 2 1 1 1 1 1 1 2 3 3 1 1 1 1 1 1 1 1 1 2 3 3 1 1 1 1 1 2 2 2 2 1 1 1 4 1 1 1 2 2 2 2 1 1 1 4 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1 4 1 1 4 1 1 1 2 1 1 1 1 2 1 1 1 1 2 3 3 1 1 1 1 1 2 3 3 1 2 2 2 1 1 25 MMY-MAP0501HT8-E (5HP), MMY-MAP0601HT8-E (6HP), MMY-MAP0801HT8-E (8HP), MMY-MAP1001HT8-E (10HP), MMY-MAP1201HT8-E (12HP) 28, 33 (SV3E) 28, 33 (SV3C) 12 28, 33 (SV2) 28, 33 (SV3D) 28, 33 (SV3A) 55, 58, 63 28, 38 (SV3B) 61 49 52 50 56, 58, 63 57, 59, 63 54 53 28, 37 (SV4) 28, 37 68 4 (8, 10, 12HP) or 5 (5, 6HP) 62, 72 13, 14 40, 41 31, 34 or 31, 36 (5, 6HP) 30 32 or 35 (5, 6HP) 30 26 Location No. 4 5 12 13 14 28 30 31 32 33 34 35 36 37 38 40 41 49 50 52 53 54 55 56 57 58 59 61 62 63 68 72 Part No.

43041781 43041782 43049683 43050407 43063317 43146660 43146676 43146722 43146727 43146711 43146698 43146699 43146687 43146712 43146730 43146709 43146708 43148202 43148192 43148200 43149377 43149378 43149317 43149318 43149319 43149320 43149321 43149323 43149324 43149325 43151283 43197184 Description Compressor, DA421A3FB-23M Compressor, DA351A3FB-23M Band, DIA 8, EPDM Thermostat, Bimetal Holder, Thermostat Coil, Solenoid, AC220240V, 50Hz, VPV-MOAJ510B0 Joint, Check Coil, Solenoid, STF-01AJ502E1 Valve, Gas, DIA 25 Valve, 2-Way, VPV-122DQ1 Valve, 4-Way, STF-0731G Valve, Ball, B5/8F, Rohs Valve, 4-Way, STF-0401G Valve, 2-Way, VPV-303DQ1 Valve, 2-Way, VPV-603DQ2 Valve, PMV, HAM-BD24TF-1 Coil, PMV, HAM-MD12TF-3 Tank, Liquid Separator Accumulator, 20L Sensor Assembly, Low Pressure, 150XA4-L1 Sensor Assembly, High Pressure, 150XA4-H3 Rubber, Supporter, Pipe, DIA 25.4 Rubber, Supporter, Pipe, DIA 19.

0 Rubber, Supporter, Pipe, DIA 15.9 Rubber, Supporter, Pipe, DIA 8.0 Rubber, Supporter, Pipe, DIA 6.4 Rubber, Supporter, Pipe, DIA 9.5212.7 Rubber, Cushion, EPDM Band, Fix, SUS304 Switch, Pressure, ACB-4UB32W Bolt, Compressor, M6, SWCH18A 3 1 2 2 1 1 1 1 1 1 2 1 3 1 2 6 4 2 6 2 2 2 9 3 1 1 5 1 2 Model Name MMY- MAP 1201HT8-E 1001HT8-E 0801HT8-E 0601HT8-E 0501HT8-E 2 2 2 2 2 2 9 3 1 1 5 1 2 2 2 9 3 1 1 5 1 1 1 3 1 2 2 1 1 1 1 1 1 2 1 3 1 2 6 4 2 6 3 1 2 2 1 1 1 1 1 1 2 1 3 1 2 6 4 2 6 3 1 3 1 2 6 4 2 6 3 1 3 1 2 6 4 2 6 3 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 5 5 2 2 2 9 3 1 2 2 2 2 9 3 1 27 27 27 Valve Checked 50 33 79 68 TD 44 (8, 10, 12HP) or 45 (5, 6 HP) Separator Oil SV2 37 79 79 Strainer Compressor Strainer 29 43 Valve Checked 77 ID 1.2 × 1000 L SV3C Strainer Strainer 76 ID 1.0 × 500 L ID 1.0 × 1000 L 33 37 SV42 4 (8, 10, 12HP) High or Pressure 68 Switch 5 (5, 6 HP) TO 64 (8, 10, 12HP) or 66 (5, 6 HP) Valve Checked 4 (8, 10, 12HP) High Pressure or Switch 5 (5, 6 HP) TD Condenser Left Side Strainer Condenser TE Right Side SV5 39 30 Joint Check High Pressure Sensor 54 Strainer 37 SV41 ID 0.8 × 1000 L 75 Compressor 43 Strainer Refrigeration Circuit Diagram Pulse Motor Valve (5, 6 HP: 1 Valve) 40 65 (8, 10, 12HP) or 67 (5, 6 HP) Valve 4-Way Joint Check 30 TS MMY-MAP0501HT8-E (5HP), MMY-MAP0601HT8-E (6HP), MMY-MAP0801HT8-E (8HP), MMY-MAP1001HT8-E (10HP), MMY-MAP1201HT8-E (12HP) 29 Valve Checked ID 1.

2 × 1000 L 77 28 33 33 SV3E 38 1 Valve Checked SV3B SV3A Valve Checked 29 37 52 8 (8, 10, 12HP) or 7 (5, 6 HP) 81 (8, 10, 12HP) or 82 (5, 6 HP) Strainer Liquid Line Valve Checked 76 34 (8, 10, 12HP) or SV3D 36 (5, 6 HP) TL 53 Strainer Low Pressure Sensor Valve Packed Joint Check 30 10 10 ID 2.0 × 1000 L ID 2.0 × 1000 L 7 Oil Balance Line 48 44 (8, 10, 12HP) or Tank Liquid 45 (5, 6 HP) Accumulator 49 FP Plug Fusible Valve Packed Strainer 32 (8, 10, 12HP) or 35 (5, 6 HP) 80 (8, 10, 12HP) or 82 (5, 6 HP) Gus Line 46 (8, 10, 12HP) or 47 (5, 6 HP) Valve Service (5, 6 HP: Valve Ball) Strainer Location No. 1 4 5 7 8 10 27 29 30 32 33 34 35 36 37 38 39 40 43 44 45 46 47 48 49 50 52 53 54 64 65 66 67 68 75 76 77 79 80 81 82 Part No.

@@@@Board Assembly, Noise-Filter, MCC-1366 P.

C. Board Assembly, Interface, MCC-1429 P.C. Board Assembly, Fan-IPDU, IPDU-2D16DA1 P.C.

Board Assembly, A3-IPDU, MCC-1502 P.C. @@@@1 4 5 7 8 16 17 25 26 27 29 30 32 39 40 41 43 44 46 49 50 63 64 65 66 67 69 73 74 80 81 91 92 93 94 95 96 97 721 722 723 724 Part No. 43146737 43041781 43041782 43046442 43146680 43100265 43119466 43120219 4312C004 43146715 43146736 43146676 43146727 43146734 43146709 43146708 4314Q060 4314Q056 4314Q052 43148202 43148192 43149325 4314G264 4314G265 4314G249 4314G250 43157276 43197175 43197176 4314Q055 4314Q057 43100396 43100406 43100407 43100408 43100409 43100410 43100411 43031110 43155214 43158207 4316V362 Description 1201T8-E Valve, Checked, YCV5P-33GME-1 Compressor, DA421A3FB-23M Compressor, DA351A3FB-23M Valve, Packed, 9.52 DIA Valve, Packed, 12.7 Cabinet, Up Guard, Fan Fan, Propeller, DIA 710, ASG Motor, Fan, DC280V, MF-230-600-1R Valve, Checked, BCV-804DY Valve, Checked, YCV3-22GME-1 Joint, Check Valve, Gas, DIA 25 Valve, Check, ZGV-S55B-A Valve, PMV, HAM-BD24TF-1 Coil, PMV, HAM-MD12TF-3 Strainer, DIA 12.7, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 45, C1220T-H Tank, Liquid Separator Band, Fix, SUS304 Condenser Assembly, Three Row Condenser Assembly, Three Row Condenser Assembly, One Row Condenser Assembly, One Row Heater, Case, 29W, AC240V Nut, Flange, M10, SWCH12R Washer, SPHC Strainer, DIA 19.05, C1220T-H Strainer, DIA 25.4, C1220T-H Panel, CGCD2-Z08-C77 Cabinet Assembly, Front, Up Cabinet Assembly, Back, Up Cabinet Assembly, Side, Left Cabinet Assembly, Side, Right Cabinet Assembly, Front, Down Cabinet Assembly, Back, Down Diode, 25A, 600V, *GBPC-2506 Resistor, 1, 20W Reactor, CH-68 P.

C. Board Assembly, Passive, MCC-1580 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 3 3 1 1 2 2 2 2 1 1 1 4 1 1 1 2 Model Name MMY- MAP 1001T8-E 1 2 0801T8-E 1 2 2 1 1 1 1 1 1 2 3 3 1 1 2 2 2 2 1 1 1 4 1 1 1 1 1 1 1 1 2 3 3 1 1 2 2 2 2 1 1 1 4 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 3 1 1 1 1 1 4 1 1 4 1 1 1 2 1 1 1 2 1 1 1 1 2 3 3 1 1 1 1 2 3 3 2 2 2 0601T8-E 1 0501T8-E 1 32 MMY-MAP0501T8-E (5HP), MMY-MAP0601T8-E (6HP), MMY-MAP0801T8-E (8HP), MMY-MAP1001T8-E (10HP), MMY-MAP1201T8-E (12HP) 28, 33 (SV3E) 28, 33 (SV3C) 12 28, 33 (SV2) 28, 33 (SV3D) 28, 33 (SV3A) 55, 58, 63 28, 38 (SV3B) 61 49 52 50 56, 58, 63 57, 59, 63 28, 37 (SV4) 54 53 30 68 4 (8, 10, 12HP) or 5 (5, 6HP) 62, 72 13, 14 40, 41 30 32 (8, 10, 12HP) or 35 (5, 6HP) 33 Location No. 4 5 12 13 14 28 30 32 33 35 37 38 40 41 49 50 52 53 54 55 56 57 58 59 61 62 63 68 72 Part No. 43041781 43041782 43049683 43050407 43063317 43146660 43146676 43146727 43146711 43146699 43146712 43146730 43146709 43146708 43148202 43148192 43148200 43149377 43149378 43149317 43149318 43149319 43149320 43149321 43149323 43149324 43149325 43151283 43197184 Description 1201T8-E Compressor, DA421A3FB-23M Compressor, DA351A3FB-23M Band, DIA 8, EPDM Thermostat, Bimetal Holder, Thermostat Coil, Solenoid, AC220240V, 50Hz, VPV-MOAJ510B0 Joint, Check Valve, Gas, DIA 25 Valve, 2-Way, VPV-122DQ1 Valve, Ball, B5/8F, Rohs Valve, 2-Way, VPV-303DQ1 Valve, 2-Way, VPV-603DQ2 Valve, PMV, HAM-BD24TF-1 Coil, PMV, HAM-MD12TF-3 Tank, Liquid Separator Accumulator, 20L Sensor Assembly, Low Pressure, 150XA4-L1 Sensor Assembly, High Pressure, 150XA4-H3 Rubber, Supporter, Pipe, DIA 25.4 Rubber, Supporter, Pipe, DIA 19.0 Rubber, Supporter, Pipe, DIA 15.9 Rubber, Supporter, Pipe, DIA 8.0 Rubber, Supporter, Pipe, DIA 6.4 Rubber, Supporter, Pipe, DIA 9.5212.

7 Rubber, Cushion, EPDM Band, Fix, SUS304 Switch, Pressure, ACB-4UB32W Bolt, Compressor, M6, SWCH18A 2 1 2 2 1 1 1 1 1 1 2 1 3 1 2 6 4 2 6 2 2 2 7 3 1 4 2 Model Name MMY- MAP 1001T8-E 2 0801T8-E 2 2 2 2 2 7 3 1 4 2 2 2 7 3 1 4 4 1 2 1 2 2 1 1 1 1 1 1 2 1 3 1 2 6 4 2 6 2 1 2 2 1 1 1 1 1 1 2 1 3 1 2 6 4 2 6 3 1 3 1 2 6 4 2 6 3 1 3 1 2 6 4 2 6 2 1 1 1 1 1 1 1 1 4 1 2 1 1 1 1 1 1 1 1 1 2 2 7 3 2 1 2 2 7 3 0601T8-E 0501T8-E 34 27 27 Valve Checked 50 33 79 68 Separator Oil 37 79 79 Strainer Compressor Strainer 29 43 Valve Checked 77 ID 1.

2 × 1000 L 77 SV3C Strainer Strainer 76 Valve Checked 76 ID 1.0 × 500 L ID 1.0 × 1000 L 33 37 4 (8, 10, 12HP) High or Pressure 68 5 (5, 6 HP) Switch Valve Checked 64 (8, 10, 12HP) or 66 (5, 6 HP) 44 (8, 10, 12HP) or 45 (5, 6 HP) SV2 TO Condenser Left Side 4 (8, 10, 12HP) High or Pressure Switch 5 (5, 6 HP) Strainer TD Condenser TE Right Side SV5 39 30 Joint Check SV42 Compressor 43 Strainer 29 High Pressure Sensor 54 Strainer 37 SV41 ID 0.8 × 1000 L 75 Refrigeration Circuit Diagram Pulse Motor Valve (5, 6 HP: 1 Valve) 40 65 (8, 10, 12HP) or 67 (5, 6 HP) Joint Check 8 (8, 10, 12HP) or 7 (5, 6 HP) 81 (8, 10, 12HP) or 82 (5, 6 HP) 53 Strainer TS MMY-MAP0501T8-E (5HP), MMY-MAP0601T8-E (6HP), MMY-MAP0801T8-E (8HP), MMY-MAP1001T8-E (10HP), MMY-MAP1201T8-E (12HP) 35 SV3D 33 38 1 Valve Checked SV3B SV3A Valve Checked 29 33 52 30 TD Liquid Line Strainer TL Valve Checked ID 1.

2 × 1000 L Low Pressure Sensor Valve Packed Joint Check 30 10 10 ID 2.0 × 1000 L ID 2.0 × 1000 L 7 Oil Balance Line 48 44 (8, 10, 12HP) or Tank Liquid 45 (5, 6 HP) Accumulator 49 FP Plug Fusible Strainer Valve Packed 32 (8, 10, 12HP)) or 35 (5, 6 HP) 80 (8, 10, 12HP) or 82 (5, 6 HP) Gus Line Valve Service (5, 6 HP: Valve Ball) Strainer 46 (8, 10, 12HP) or 47 (5, 6 HP) Location No. 1 4 5 7 8 10 27 29 30 32 33 35 37 38 39 40 43 44 45 46 47 48 49 50 52 53 54 64 65 66 67 68 75 76 77 79 80 81 82 Part No. 43146737 43041781 43041782 43046442 43146680 43047527 43146715 43146736 43146676 43146727 43146711 43146699 43146712 43146730 43146734 43146709 4314Q060 4314Q056 4314Q058 4314Q052 4314Q053 43148220 43148202 43148192 43148200 43149377 43149378 4314G264 4314G265 4314G249 4314G250 43151283 44246235 44246236 44246239 4314Q054 4314Q055 4314Q057 4314Q059 Description 1201T8-E Valve, Checked, YCV5P-33GME-1 Compressor, DA421A3FB-23M Compressor, DA351A3FB-23M Valve, Packed, 9. 52 DIA Valve, Packed, 12.7 Tube, Capillary, ID 2.0 × 2000L Valve, Checked, BCV-804DY Valve, Checked, YCV3-22GME-1 Joint, Check Valve, Gas, DIA 25 Valve, 2-Way, VPV-122DQ1 Valve, Ball, B5/8F, Rohs Valve, 2-Way, VPV-303DQ1 Valve, 2-Way, VPV-603DQ2 Valve, Checked, ZGV-S55B-A Valve, PMV, HAM-BD24TF-1 Strainer, DIA 12.7, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 25.4 Strainer, DIA 45, C1220T-H Strainer, DIA 21, C1220T-H Plug, Fusible, 73°C Tank, Liquid Separator Accumulator, 20L Sensor Assembly, Low Pressure, 150XA4-L1 Sensor Assembly, High Pressure, 150XA4-H3 Condenser Assembly, Three Row Condenser Assembly, Three Row Condenser Assembly, One Row Condenser Assembly, One Row Switch, Pressure, ACB-4UB32W Tube, Capillary, Bypass, 0.8 DIA Tube, Capillary, Bypass, 1.0 DIA Tube, Capillary, 1.2 DIA Strainer, DIA 12.7, C1220T-H Strainer, DIA 19.

05, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 25.4 2 1 1 1 3 1 1 1 1 1 1 1 1 1 1 2 1 1 2 2 2 1 1 1 2 3 3 1 4 1 2 Model Name MMY- MAP 1001T8-E 1 2 0801T8-E 1 2 2 1 1 1 2 3 3 1 4 1 1 1 2 3 3 1 4 4 1 2 1 1 2 2 2 2 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 3 1 1 2 1 1 1 3 1 1 1 1 2 1 1 1 3 1 1 1 2 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 1 1 1 2 4 1 2 1 1 1 2 1 2 3 3 1 2 3 3 2 2 2 0601T8-E 1 0501T8-E 1 36 MMY-MAP0501T8-E (5HP), MMY-MAP0601T8-E (6HP), MMY-MAP0801T8-E (8HP), MMY-MAP1001T8-E (10HP), MMY-MAP1201T8-E (12HP) 713 708 719 717 709 703 711 706 715 705 707 704 720 702 710 712 701 716 714 Location No. @@Board Assembly, Noise-Filter, MCC-1366 P.C. Board Assembly, Interface, MCC-1429 P.C. Board Assembly, Fan-IPDU, IPDU-2D16DA1 P.C. Board Assembly, A3-IPDU, MCC-1502 P.

C. @@@@@@43041781 43046442 43146680 43047401 43063332 43100265 43119466 43120219 4312C004 43146715 43146736 43146676 43146722 43146727 43146711 43146698 43146699 43146730 43146734 43146709 43146708 43146731 43147195 4314Q052 4314Q053 4314Q060 4314Q055 4314Q056 4314Q057 4314Q058 43148220 43148202 43148192 43146737 43148200 43149377 4314G272 4314G273 43157276 431S8087 43197175 43197176 43100396 43100406 43100407 43100408 43100409 43100410 43100411 43194029 43031110 43155214 43158207 4316V362 Description Compressor, DA421A3FB-23M Valve, Packed, 9.52 DIA Valve, Packed, 12.7 Bonnet, 3/8, IN Holder, Sensor Cabinet, Up Guard, Fan Fan, Propeller, DIA 710, ASG Motor, Fan, DC 280V, MF-230-600-1R Valve, Checked, BCV-804DY Valve, Checked, YCV3-22GME-1 Joint, Check Coil, Solenoid, STF-01AJ502E1 Valve, Gas, DIA 25 Valve, 2-Way, VPV-122DQ1 Valve, 4-Way, STF-0731G Valve, Ball, B5/8F, Rohs Valve, 2-Way, VPV-603DQ2 Valve, Check, ZGV-S55B-A Valve, PMV, HAM-BD24TF-1 Coil, PMV, HAM-MD12TF-3 Valve, 2-Way, VPV-1204DQ50 Bonnet, 1/2, IN Strainer, DIA 45, C1220T-H Strainer, DIA 21, C1220T-H Strainer, DIA 12.7, C1220T-H Strainer, DIA 19.

*05, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 25.4 Plug, Fusible, 73°C Tank, Liquid Separator Valve, Checked, YCV5P-33GME-1 Accumulator, 20L Sensor Assembly, Low Pressure, 150XA4-L1 Condenser Assembly, Three Row Condenser Assembly, Three Row Heater, Case, 29W, AC 240V Owner's Manual, MMY-MAP1202FT8-E Nut, Flange, M10, SWCH12R Washer, SPHC Panel, CGCD2-Z08-C77 Cabinet Assembly, Front, Up Cabinet Assembly, Back, Up Cabinet Assembly, Side, Left Cabinet Assembly, Side, Right Cabinet Assembly, Front, Down Cabinet Assembly, Back, Down Bonnet Diode, 25A, 600V, *GBPC-2506 Resistor, 1, 20W Reactor, CH-68 P.C.*

Board Assembly, Passive, MCC-1580 Model Name MMY-MAP 1202FT8-E 2 1 1 1 1 1 1 1 1 2 3 3 1 1 7 1 1 1 2 3 3 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1002FT8-E 2 1 1 1 1 1 1 1 1 2 3 3 1 1 7 1 1 1 2 3 3 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0802FT8-E 2 1 1 1 1 1 1 1 1 2 3 3 1 1 7 1 1 1 2 3 3 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 39 MMY-MAP0802FT8-E, MMY-MAP1002FT8-E, MMY-MAP1202FT8-E 24, 65 (SV3C) 24, 65 (SV3E) 24, 65 (SV3D) 24, 65 (SV3A) 10 49, 52, 56 54 28, 65 (SV3B) 42, 43 54 24, 65 (SV6) 46 50, 52, 56 37 44 65 (SV11) 32 27, 65 (SV41) 27, 65 (SV42) 47 50, 53, 56 50, 53, 56 48 59 4 55, 62 12, 11 30, 31 (SV12) 25 21 27, 65 (SV5) 40 Location No. 4 10 11 12 21 24 25 27 28 30 31 32 37 42 43 44 46 47 48 49 50 52 53 54 55 56 59 62 65 Part No. 43041781 43049683 43050407 43063317 43146676 43146711 43146698 43146712 43146730 43146709 43146708 43146731 4314Q054 43148220 43148202 43148192 43148200 43149377 43149378 43149317 43149318 43149320 43149321 43149323 43149324 43149325 43151283 43197184 43146660 Description Compressor, DA421A3FB-23M Band, DIA 8, EPDM Thermostat, Bimetal Holder, Thermostat Joint, Check Valve, 2-Way, VPV-122DQ1 Valve, 4-Way, STF-0731G Valve, 2-Way, VPV-303DQ1 Valve, 2-Way, VPV-603DQ2 Valve, PMV, HAM-BD24TF-1 Coil, PMV, HAM-MD12TF-3 Valve, 2-Way, VPV-1204DQ50 Strainer, DIA 12.7, C1220T-H Plug, Fusible, 73°C Tank, Liquid Separator Accumulator, 20L Sensor Assembly, Low Pressure, 150XA4-L1 Sensor Assembly, High Pressure, 150XA4-H3 Rubber, Supporter, Pipe, DIA 25.

4 Rubber, Supporter, Pipe, DIA 19.0 Rubber, Supporter, Pipe, DIA 8.0 Rubber, Supporter, Pipe, DIA 6.4 Rubber, Supporter, Pipe, DIA 9.5212.7 Rubber, Cushion, EPDM Band, Fix, SUS304 Switch, Pressure, ACB-4UB32W Bolt, Compressor, M6, SWCH 18A Coil, Solenoid, AV 220 240V, 50Hz Model Name MMY-MAP 1202FT8-E 2 2 2 2 3 7 1 3 1 3 3 1 3 1 1 1 1 1 1 5 3 2 4 6 6 2 6 12 1002FT8-E 2 2 2 2 3 7 1 3 1 3 3 1 3 1 1 1 1 1 1 5 3 2 4 6 6 2 6 12 0802FT8-E 2 2 2 2 3 7 1 3 1 3 3 1 3 1 1 1 1 1 1 5 3 2 4 6 6 2 6 12 41 Refrigeration Circuit Diagram MMY-MAP0802FT8-E, MMY-MAP1002FT8-E, MMY-MAP1202FT8-E Propeller fan 17 FM Fan motor 39 30 Sensor (TE1) Strainer (Right side) Main heat exchanger (Left side) Main heat exchanger Sub heat exchanger (Right side) Sub heat exchanger (Left side) 58 57 Sensor (TO) Pulse motor valve Solenoid valve (SV12) 24 (PMV2) Strainer Strainer Check valve (PMV3) (PMV1) 1 41Check valve 25 4-Way valve Capillary tube 32 48 Solenoid valve (SV11) 39 27 Solenoid valve (SV5) 29 29 Check valve 66 Solenoid valve (SV2) Capillary tube LowSensor pressure (TS1) sensor Sensor (TS2) High-pressure sensor Sensor (TL) Solenoid Capillary Check joint tube 21 valve (SV6) Capillary tube Strainer Solenoid valve (SV3D) Liquid tank Strainer Check joint 47 21 67 Oil separator 46 24 42, 43 27 Capillary tube Solenoid valve 59 Check valve (SV41) Highpressure switch Sensor (TD1) 37 44 24 19 27 Solenoid valve (SV42) Highpressure switch Sensor (TD2) Check valve 19 66 Capillary tube 59 Solenoid valve (SV3C) Check joint Accumulator Compressor 1 (Inverter) 21 Sensor (TK3) 24 Check valve Capillary tube Strainer Strainer Check valve Capillary tube 4 Compressor 2 (Inverter) 20 Sensor (TK1) Sensor (TK4) Solenoid valve (SV3E) Sensor (TK2) Oil tank 4 68 Capillary tube 40 Strainer 35 34 Strainer Capillary tube 24 Solenoid valve (SV3A) 8 8 Strainer 27 Check valve 5 6 26 23 20 38 28 Solenoid valve (SV3B) Check valve 45 Service valve of balance pipe Service valve at liquid side Service valve at discharge gas side Service valve at suction gas side 42 Location No.

1 4 5 6 8 17 19 20 21 23 24 25 26 27 28 29 30 32 34 35 37 38 39 40 41 42 43 44 45 46 47 48 57 58 59 66 67 68 Part No. 43146721 43041781 43046442 43146680 43047527 43120219 43146715 43146736 43146676 43146727 43146711 43146698 43146699 43146712 43146730 43146734 43146709 43146731 4314Q052 4314Q053 4314Q054 4314Q055 4314Q056 4314Q057 4314Q058 43148220 43148202 43148192 43146737 43148200 43149377 43149378 4314G272 4314G273 43151283 44246235 44246236 44246239 Description Valve, Checked, BCV-603DY Compressor, DA421A3FB-23M Valve, Packed, 9.52 DIA Valve, Packed, 12.7 Tube, Capillary, ID 2.0 × 2000L Fan, Propeller, DIA 710, ASG Valve, Checked, BCV-804DY Valve, Checked, YCV3-22GME-1 Joint, Check Valve, Gas, DIA 25 Valve, 2-Way, VPV-122DQ1 Valve, 4-Way, STF-0731G Valve, Ball, B5/8F, Rohs Valve, 2-Way, VPV-303DQ1 Valve, 2-Way, VPV-603DQ2 Valve, Check, ZGV-S55B-A Valve, PMV, HAM-BD24TF-1 Valve, 2-Way, VPV-1204DQ50 Strainer, DIA 45, C1220T-H Strainer, DIA 21, C1220T-H Strainer, DIA 12.7, C1220T-H Strainer, DIA 19.05, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 25.4, C1220T-H Strainer, DIA 25.4 Plug, Fusible, 73°C Tank, Liquid Separator Valve, Check, YCV5P-33GME-1 Accumulator, 20L Sensor Assembly, Low Pressure, 150XA4-L1 Sensor Assembly, High Pressure, 150XA4-H3 Condenser Assembly, Three Row Condenser Assembly, Three Row Switch, Pressure, ACB-4UB32W Tube, Capillary, Bypass, 0.
8 DIA Tube, Capillary, Bypass, 1.0 DIA Tube, Capillary, Bypass, 1.2 DIA Model Name MMY-MAP 1202FT8-E 1 2 1 1 1 1 2 3 3 1 7 1 1 3 1 2 3 1 1 1 3 1 2 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1002FT8-E 1 2 1 1 1 1 2 3 3 1 7 1 1 3 1 2 3 1 1 1 3 1 2 1 1 1 1 1 1 1 1 1 1 2 1 1 1 0802FT8-E 1 2 1 1 1 1 2 3 3 1 7 1 1 3 1 2 3 1 1 1 3 1 2 1 1 1 1 1 1 1 1 1 1 2 1 1 1 43 MMY-MAP0802FT8-E, MMY-MAP1002FT8-E, MMY-MAP1202FT8-E 713 708 719 717 709 703 711 706 715 705 707 704 720 702 710 712 701 716 714 Location No. 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 719 720 Part No. 43050382 43063248 43150315 43155176 43158186 43158183 43160559 43160548 43163017 43163048 4316V366 4316V263 4316V237 4316V245 4316V360 43155194 43152506 43153006 43155197 Sensor, TC (F6) Supporter Assembly Sensor, TD (F6) Description Model Name MMY-MAP 1202FT8-E 5 3 6 2 1 2 1 1 2 1 1 1 2 1 1 1 2 2 1002FT8-E 5 3 6 2 1 2 1 1 2 1 1 1 1 2 1 1 1 2 2 0802FT8-E 5 3 6 2 1 2 1 1 2 1 1 1 1 2 1 1 1 2 2 Capacitor, 400V DC, 1500µF Transformer, TT-01-03 Reactor, CH-44 Terminal Block, 4P, AC 600V, 30A Terminal, 6P, AC 30V, 1A Supporter Supporter Assembly P.
C. Board Assembly, Noise-Filter, MCC-1366 P.C. Board Assembly, Interface, MCC-1429 P.C.
Board Assembly, Fan-IPDU, IPDU-2D16DA1 P.C. Board Assembly, A3-IPDU, MCC-1502 P.C. Board Assembly, Power, MCC-1439 Capacitor, 400V DC, 1000µF Electro Magnetic Switch, FW-2S PTC-Thermistor, ZPROYCE101A500 Resistor, 56k, 15W 44 TOSHIBA CARRIER CORPORATION 23-17, TAKANAWA 3 CHOME, MINATOKU, TOKYO, 108-0074, JAPAN Copyright © 1999 to 2005 TOSHIBA CARRIER CORPORATION, ALL Rights Reserved. 3
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