

**DAIKIN**

Si20 - 701\_A

# Pocket Manual

**Service Diagnosis**

***SkyAir***



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# 1. List of Applicable Models

## ■ R-FU Series

Series	Outdoor Units	Indoor Units
R-FUV1	R71FUV1	FA71FVEK
	R100FUV1	FA100FVEK
	R71FUV1	FH71BVE
	R100FUV1	FH100BVE
	R71FUV1	FHC71KVE
	R100FUV1	FHC100KVE
	R71FUV1	FV71LVE
	R100FUV1	FV100LVE
R-FUY1	R71FUY1	FA71FVEK
	R100FUY1	FA100FVEK
	R71FUY1	FH71BVE
	R100FUY1	FH100BVE
	R125FUY1	FH125BVE
	R71FUY1	FHC71KVE
	R100FUY1	FHC100KVE
	R125FUY1	FHC125KVE
	R140KUY1	FHYC140KVE
	R71FUY1	FV71LVE
	R100FUY1	FV100LVE
	R125FUY1	FV125LVE
R-FUVAL	R71FUVAL	FA71FVEK
	R100FUVAL	FA100FVEK
	R71FUVAL	FH71BVE
	R100FUVAL	FH100BVE
	R71FUVAL	FHC71KVE
	R100FUVAL	FHC100KVE
	R71FUVAL	FV71LVE
	R100FUVAL	FV100LVE
R-FUTAL	R125FUTAL	FH125BVE
	R125FUTAL	FHC125KVE
	R125FUTAL	FV125LVE

### ■ R-GA Series

Series	Outdoor Units	Indoor Units
R-GAV	R50GAV1A	FH50BVE
	R60GAV1A	FH60BVE

### ■ R-G Series

Series	Outdoor Units	Indoor Units
R-GV1	R35GV1	FH35BVE
	R50GV1	FH50BVE
	R60GV1	FH60BVE
	R35GV1	FHB35FV1
	R50GV1	FHB45FV1
	R60GV1	FHB60FV1
	R35GV1	FHC35KVE
	R50GV1	FHC50KVE
	R60GV1	FHC60KVE
	R35GV1	FHK35FV1
	R50GV1	FHK45FV1
	R60GV1	FHK60FV1
R-GV1A	R35GV1A	FHC35KVE
	R50GV1A	FHC50KVE
	R60GV1A	FHC60KVE
R-GVAL	R50GVAL	FH50BVE
	R60GVAL	FH60BVE
	R50GVAL	FHC50KVE
	R60GVAL	FHC60KVE
R-GV1K	R60GV1K	FHC60KVE
	R60GV1K	FH60BVE
	R60GV1K	FHB60FV1
	R60GV1K	FHK60FV1

■ R-KU Series

Series	Outdoor Units	Indoor Units
R-KUV1	R71KUV1	FAY71FAVE
	R100KUV1	FAY100FAVE
	R71KUV1	FHK71FV1
	R71KUV1	FHY71BVE
	R100KUV1	FHY100BVE
	R71KUV1	FHYB71FV1
	R100KUV1	FHYB100FV1
	R71KUV1	FHYC71KVE
	R100KUV1	FHYC100KVE
	R71KUV1	FUY71FJV1
	R100KUV1	FUY100FJV1
	R71KUV1	FVY71LVE
	R100KUV1	FVY100LVE
	R-KUY1	R71KUY1
R100KUY1		FAY100FAVE
R71KUY1		FHK71FV1
R71KUY1		FHY71BVE
R100KUY1		FHY100BVE
R125KUY1		FHY125BVE
R71KUY1		FHYB71FV1
R100KUY1		FHYB100FV1
R125KUY1		FHYB125FV1
R71KUY1		FHYC71KVE
R100KUY1		FHYC100KVE
R125KUY1		FHYC125KVE
R71KUY1		FUY71FJV1
R100KUY1		FUY100FJV1
R125KUY1		FUY125FJV1
R71KUY1		FVY71LVE
R100KUY1		FVY100LVE
R125KUY1		FVY125LVE

Series	Outdoor Units	Indoor Units
R-KUVAL	R71KUVAL	FAY71FAVE
	R100KUVAL	FAY100FAVE
	R71KUVAL	FHY71BVE
	R100KUVAL	FHY100BVE
	R71KUVAL	FHYC71KVE
	R100KUVAL	FHYC100KVE
	R71KUVAL	FVY71LVE
	R100KUVAL	FVY100LVE
R-KUTAL	R125KUTAL	FHY125BVE
	R125KUTAL	FHYC125KVE
	R140KUTAL	FHYC140KVE
	R125KUTAL	FVY125LVE
R-KUTALK	R140KUTALK	FHYC140KVE
R-KUYALK	R140KUYALK	FHYC140KVE
R-KUYAL	R125KUYAL	FHY125BVE
	R125KUYAL	FHYC125KVE
	R140KUYAL	FHYC140KVE
	R125KUYAL	FVY125LVE

#### ■ R-LU Series

Series	Outdoor Units	Indoor Units
R-LUV1	R71LUV1	FAY71FAVE
	R100LUV1	FAY100FAVE
	R71LUV1	FAY71LVE
	R71LUV1	FDYM03FAV1
	R100LUV1	FDYM04FAV1
	R71LUV1	FHY71BVE
	R100LUV1	FHY100BVE
	R71LUV1	FHYB71FV1
	R100LUV1	FHYB100FV1
	R71LUV1	FHYC71KVE
	R100LUV1	FHYC100KVE
	R71LUV1	FHYK71FJV1
	R71LUV1	FUY71FJV1
	R100LUV1	FUY100FJV1
	R71LUV1	FVY71LAVE
	R100LUV1	FVY100LAVE

List of Applicable Models

Series	Outdoor Units	Indoor Units
R-LUV1 (Twin)	R71LUV1	FHY35BVE+FHY35BVE
	R100LUV1	FHY50BVE+FHY50BVE
	R71LUV1	FHYC35KVE+FHYC35KVE
	R100LUV1	FHYC50KVE+FHYC50KVE
R-LUY1	R71LUY1	FAY71FAVE
	R100LUY1	FAY100FAVE
	R71LUY1	FAY71LVE
	R71LUY1	FDYM03FAV1
	R100LUY1	FDYM04FAV1
	R125LUY1	FDYM05FAV1
	R140LUY1	FDYM06FAV1
	R71LUY1	FHY71BVE
	R100LUY1	FHY100BVE
	R125LUY1	FHY125BVE
	R71LUY1	FHYB71FV1
	R100LUY1	FHYB100FV1
	R125LUY1	FHYB125FV1
	R71LUY1	FHYC71KVE(4)
	R100LUY1	FHYC100KVE(4)
	R125LUY1	FHYC125KVE(4)
	R140LUY1	FHYC140KVE(4)
	R71LUY1	FHYK71FJV1
	R71LUY1	FUY71FJV1
	R100LUY1	FUY100FJV1
	R125LUY1	FUY125FJV1
	R71LUY1	FVY71LAVE(4)
	R100LUY1	FVY100LAVE(4)
	R125LUY1	FVY125LAVE(4)
R-LUY1 (Twin)	R71LUY1	FHY35BVE+FHY35BVE
	R100LUY1	FHY50BVE+FHY50BVE
	R125LUY1	FHY60BVE+FHY60BVE
	R140LUY1	FHY71BVE+FHY71BVE
	R71LUY1	FHYC35KVE+FHYC35KVE
	R100LUY1	FHYC50KVE+FHYC50KVE
	R125LUY1	FHYC60KVE+FHYC60KVE
	R140LUY1	FHYC71KVE+FHYC71KVE

Series	Outdoor Units	Indoor Units
R-LUY1 (Triple)	R140LUY1	FHY50BVE+FHY50BVE+FHY50BVE
	R140LUY1	FHYC50KVE+FHYC50KVE+FHYC50KVE
R-LUY2S (Twin)	R42LUY2S	FHC21KV2S+FHC21KV2S
R-LUVAL	R71LUVAL	FAY71FAVE
	R100LUVAL	FAY100FAVE
	R71LUVAL	FAY71LVE
	R71LUVAL	FDYM03FAVAL
	R100LUVAL	FDYM04FAVAL
	R100LUVAL	FHY100BVE
	R71LUVAL	FHYC71KVE
	R100LUVAL	FHYC100KVE
	R71LUVAL	FVY71LAVE
	R100LUVAL	FVY100LAVE
R-LUTAL	R125LUTAL	FDYM05FAVAL
	R140LUTAL	FDYM06FAVAL
	R125LUTAL	FHY125BVE
	R125LUTAL	FVY125LAVE
R-LUTAL (Twin)	R140LUTAL	FHY71BVE+FHY71BVE
	R140LUTAL	FHYC71KVE+FHYC71KVE
R-LUTAL (Multi Use)	R140LUTAL	FHY50BVE+FHY50BVE+FHY50BVE
	R140LUTAL	FHYC50KVE+FHYC50KVE+FHYC50KVE
R-LUYAL	R125LUYAL	FDYM05FAVAL
	R140LUYAL	FDYM06FAVAL
	R125LUYAL	FHY125BVE
	R125LUYAL	FVY125LAVE
R-LUYAL (Twin)	R71LUYAL	FHY35BVE+FHY35BVE
	R100LUYAL	FHY50BVE+FHY50BVE
	R125LUYAL	FHY60BVE+FHY60BVE
	R140LUYAL	FHY71BVE+FHY71BVE
	R71LUYAL	FHYC35KVE+FHYC35KVE
	R100LUYAL	FHYC50KVE+FHYC50KVE
	R125LUYAL	FHYC60KVE+FHYC60KVE
	R140LUYAL	FHYC71KVE+FHYC71KVE
R-LUYAL (Multi Use)	R140LUYAL	FHY50BVE+FHY50BVE+FHY50BVE
	R140LUYAL	FHYC50KVE+FHYC50KVE+FHYC50KVE

■ R-NU Series

Series	Outdoor Units	Indoor Units
R-NUV1	R18NUV1(4)(5)	FDBG18NUV1(4)(5)
	R21NUV1(4)(5)	FDBG21NUV1(4)(5)
	R26NUV1(4)(5)	FDBG26NUV1(4)(5)
	R26NUV1(4)(5)	FDMG26NUV1(4)(5)
	R30NUV1	FDMG30NUV1
	R36NUV1(5)	FDMG36NUV1(5)
	R21NUV1(4)(5)	FH21NUV1(4)(5)
	R26NUV1(4)(5)	FH26NUV1(4)(5)
	R30NUV1	FH30NUV1
	R36NUV1(5)	FH36NUV1(5)
	R18NUV1(4)(5)	FHC18NUV1(4)(5)
	R21NUV1(4)(5)	FHC21NUV1(4)(5)
	R26NUV1(4)(5)	FHC26NUV1(4)(5)
	R30NUV1	FHC30NUV1
	R36NUV1(5)	FHC36NUV1(5)
R-NUY1	R26NUY1(4)(5)	FDBG26NUV1(4)(5)
	R26NUY1(4)(5)	FDMG26NUV1(4)(5)
	R30NUY1	FDMG30NUV1
	R36NUY1(4)(5)	FDMG36NUV1(4)(5)
	R42NUY1(4)(5)	FDMG42NUV1(4)(5)
	R48NUY1(4)(5)	FDMG48NUV1(4)(5)
	R51NUY1(4)(5)	FDMG51NUV1(4)(5)
	R56NUY1(4)(5)	FDMG56NUV1(4)(5)
	R26NUY1(4)(5)	FH26NUV1(4)(5)
	R30NUY1	FH30NUV1
	R36NUY1(4)(5)	FH36NUV1(4)(5)
	R42NUY1(4)(5)	FH42NUV1(4)(5)
	R48NUY1(4)(5)	FH48NUV1(4)(5)
	R26NUY1(4)(5)	FHC26NUV1(4)(5)
	R30NUY1	FHC30NUV1
	R36NUY1(4)(5)	FHC36NUV1(4)(5)
	R42NUY1(4)(5)	FHC42NUV1(4)(5)
R48NUY1(4)(5)	FHC48NUV1(4)(5)	

Series	Outdoor Units	Indoor Units
R-NUV2S	R13NUV2S	FDBT13NUV2S
	R13NUV2S	FDBT13PUV2S
	R18NUV2S	FDBT18NUV2S
	R18NUV2S	FDBT18PUV2S
	R24NUV2S	FDBT24NUV2S
	R24NUV2S	FDBT24PUV2S
	R30NUV2S	FDBT30NUV2S
	R30NUV2S	FDBT33NUV2S
	R36NUV2S	FDBT36NUV2S
	R30NUV2S	FDMG30NUV2S
	R36NUV2S	FDMG36NUV2S
	R13NUV2S1	FH13NUV2S
	R18NUV2S1	FH18NUV2S
	R24NUV2S	FH24NUV2S
	R30NUV2S	FH30NUV2S
	R36NUV2S	FH36NUV2S
	R18NUV2S	FHC18NUV2S
	R24NUV2S	FHC24NUV2S
	R30NUV2S	FHC30NUV2S
	R36NUV2S	FHC36NUV2S

List of Applicable Models

Series	Outdoor Units	Indoor Units
R-NUY2S	R30NUY2S	FDBT30NUV2S
	R30NUY2S	FDBT33NUV2S
	R36NUY2S	FDBT36NUV2S
	R42NUY2S	FDBT42NUV2S
	R48NUY2S	FDBT48NUV2S
	R48NUY2S	FDBT48PUV2S
	R30NUY2S	FDMG30NUV2S
	R36NUY2S	FDMG36NUV2S
	R42NUY2S	FDMG42NUV2S
	R48NUY2S	FDMG48NUV2S
	R51NUY2S	FDMG51NUV2S
	R56NUY2S	FDMG56NUV2S
	R48NUY2S	FDMG48NVV2S
	R51NUY2S	FDMG51NVV2S
	R56NUY2S	FDMG56NVV2S
	R48NUY2S	FDMG48PUV2S
	R51NUY2S	FDMG51PUV2S
	R30NUY2S	FH30NUV2S
	R36NUY2S	FH36NUV2S
	R42NUY2S	FH42NUV2S
	R48NUY2S	FH48NUV2S
	R30NUY2S	FHC30NUV2S
	R36NUY2S	FHC36NUV2S
	R42NUY2S	FHC42NUV2S
	R48NUY2S	FHC48NUV2S

## ■ R-PU Series

Series	Outdoor Units	Indoor Units
R-PUV2S	R30PUV2S	FDBT30PUV2S
	R33PUV2S	FDBT33PUV2S
	R36PUV2S	FDBT36PUV2S
	R30PUV2S	FDMG30PUV2S
	R36PUV2S	FDMG36PUV2S
	R30PUV2S	FDMG30NVV2S
	R36PUV2S	FDMG36NVV2S
	R30PUV2S	FH30PUV2S
	R36PUV2S	FH36PUV2S
	R30PUV2S	FHC30PUV2S
	R36PUV2S	FHC36PUV2S
R-PUY2S	R30PUY2S	FH30PUV2S
	R36PUY2S	FH36PUV2S
	R42PUY2S	FH42PUV2S
	R30PUY2S	FHC30PUV2S
	R36PUY2S	FHC36PUV2S
	R42PUY2S	FHC42PUV2S
	R30PUY2S	FDBT30PUV2S
	R33PUY2S	FDBT33PUV2S
	R36PUY2S	FDBT36PUV2S
	R42PUY2S	FDBT42PUV2S
	R30PUY2S	FDMG30NVV2S
	R36PUY2S	FDMG36NVV2S
	R42PUY2S	FDMG42NVV2S
	R30PUY2S	FDMG30PUV2S
	R36PUY2S	FDMG36PUV2S
	R42PUY2S	FDMG42PUV2S
	R56NUY2S	FDMG56PUV2S

### ■ RR-M Series

Series	Outdoor Units	Indoor Units
RR-MV1	RR71MV1	FAQ71BVV1B
	RR71MV1	FBQ71DV1
	RR71MV1	FCQ71KVEA
	RR71MV1	FHQ71BVV1B
RR-MY1	RR71MY1	FAQ71BVV1B
	RR100MY1	FAQ100BVV1B
	RR71MY1	FBQ71DV1
	RR100MY1	FBQ100DV1
	RR125MY1	FBQ125DV1
	RR140MY1	FBQ140DV1
	RR71MY1	FCQ71KVEA
	RR100MY1	FCQ100KVEA
	RR125MY1	FCQ125KVEA
	RR140MY1	FCQ140KVEA
	RR71MY1	FHQ71BVV1B
	RR100MY1	FHQ100BVV1B
	RR125MY1	FHQ125BVV1B

### ■ RY-FU Series

Series	Outdoor Units	Indoor Units
RY-FUVAL	RY71FUVAL	FAY71FVE
	RY100FUVAL	FAY100FVE
	RY71FUVAL	FHY71BVE
	RY100FUVAL	FHY100BVE
	RY71FUVAL	FHYB71FVAL
	RY100FUVAL	FHYB100FVAL
	RY71FUVAL	FHYC71KVE
	RY100FUVAL	FHYC100KVE
	RY71FUVAL	FVY71LVE
	RY100FUVAL	FVY100LVE
RY-FUTAL	RY125FUTAL	FHY125BVE
	RY125FUTAL	FHYB125FVAL
	RY125FUTAL	FHYC125KVE
	RY125FUTAL	FVY125LVE

### ■ RY-FV Series

Series	Outdoor Units	Indoor Units
RY-FV1A	RY35FV1A	FHY35BVE
	RY35FV1A	FHYB35FV1
	RY35FV1A	FHYC35KVE
	RY35FV1A	FHYK35FJV1

### ■ RY-G Series

Series	Outdoor Units	Indoor Units
RY-GVAL	RY50GVAL	FHY50BVE
	RY60GVAL	FHY60BVE
	RY50GVAL	FHYC50KVE
	RY60GVAL	FHYC60KVE
RY-GV1A	RY50GV1A	FHYB45FV1
	RY60GV1A	FHYB60FV1
	RY50GV1A	FHYC50KVE
	RY60GV1A	FHYC60KVE
	RY50GV1A	FHYK45FJV1
	RY60GV1A	FHYK60FJV1

### ■ RY-GAV Series

Series	Outdoor Units	Indoor Units
RY-GAV	RY50GAV1A	FHY50BVE
	RY60GAV1A	FHY60BVE

## ■ RY-KU Series

Series	Outdoor Units	Indoor Units
RY-KUV1	RY71KUV1	FAY71FAVE
	RY100KUV1	FAY100FAVE
	RY71KUV1	FHY71BVE
	RY100KUV1	FHY100BVE
	RY71KUV1	FHYB71FV1
	RY100KUV1	FHYB100FV1
	RY71KUV1	FHYC71KVE
	RY100KUV1	FHYC100KVE
	RY71KUV1	FHYK71FJV1
	RY71KUY1	FHYK71FJV1
	RY71KUV1	FUY71FJV1
	RY100KUV1	FUY100FJV1
	RY71KUV1	FVY71LVE
	RY100KUV1	FVY100LVE
RY-KUY1	RY71KUY1	FAY71FAVE
	RY100KUY1	FAY100FAVE
	RY71KUY1	FHY71BVE
	RY100KUY1	FHY100BVE
	RY125KUY1	FHY125BVE
	RY71KUY1	FHYB71FV1
	RY100KUY1	FHYB100FV1
	RY125KUY1	FHYB125FV1
	RY71KUY1	FHYC71KVE
	RY100KUY1	FHYC100KVE
	RY125KUY1	FHYC125KVE
	RY140KUY1	FHYC140KVE
	RY71KUY1	FUY71FJV1
	RY100KUY1	FUY100FJV1
	RY125KUY1	FUY125FJV1
	RY71KUY1	FVY71LVE
	RY100KUY1	FVY100LVE
RY125KUY1	FVY125LVE	
RY-KUTAL	RY140KUTAL	FHYC140KVE
RY-KUTALK	RY140KUTALK	FHYC140KVE
RY-KUYAL	RY140KUYAL	FHYC140KVE
RY-KUYALK	RY140KUYALK	FHYC140KVE

## ■ RY-LU Series

Series	Outdoor Units	Indoor Units
RY-LUV1	RY71LUV1	FAY71FAVE
	RY100LUV1	FAY100FAVE
	RY71LUV1	FAY71LVE
	RY71LUV1	FDYB71KAVE
	RY71LUV1	FDYM03FAV1
	RY100LUV1	FDYM04FAV1
	RY71LUV1	FHY71BVE
	RY100LUV1	FHY100BVE
	RY71LUV1	FHYB71FV1
	RY100LUV1	FHYB100FV1
	RY71LUV1	FHYC71KVE
	RY100LUV1	FHYC100KVE
	RY71LUV1	FHYK71FJV1
	RY71LUV1	FUY71FJV1
	RY100LUV1	FUY100FJV1
	RY71LUV1	FVY71LAVE
	RY100LUV1	FVY100LAVE
	RY-LUV1 (Pair)	RY71LUV1
RY100LUV1		FHY50BVE+FHY50BVE
RY71LUV1		FHYC35KVE+FHYC35KVE
RY100LUV1		FHYC50KVE+FHYC50KVE

List of Applicable Models

Series	Outdoor Units	Indoor Units
RY-LUY1	RY71LUY1	FAY71FAVE
	RY100LUY1	FAY100FAVE
	RY71LUY1	FAY71LVE
	RY140LUY1	FDY06KAY1
	RY71LUY1	FDY71KFV1
	RY100LUY1	FDY100KFV1
	RY125LUY1	FDY125KFV1
	RY160LUY1	FDY160KFV1
	RY71LUY1	FDYB71KAVE
	RY71LUY1	FDYM03FAV1
	RY100LUY1	FDYM04FAV1
	RY125LUY1	FDYM05FAV1
	RY140LUY1	FDYM06FAV1
	RY71LUY1	FHY71BVE
	RY100LUY1	FHY100BVE
	RY125LUY1	FHY125BVE
	RY71LUY1	FHYB71FV1
	RY100LUY1	FHYB100FV1
	RY125LUY1	FHYB125FV1
	RY71LUY1	FHYC71KVE
	RY100LUY1	FHYC100KVE
	RY125LUY1	FHYC125KVE
	RY140LUY1	FHYC140KVE
	RY71LUY1	FHYK71FJV1
	RY71LUY1	FUY71FJV1
	RY100LUY1	FUY100FJV1
	RY125LUY1	FUY125FJV1
	RY71LUY1	FVY71LAVE
	RY100LUY1	FVY100LAVE
	RY125LUY1	FVY125LAVE

Series	Outdoor Units	Indoor Units
RY-LUY1	RY71LUY1	FHY35BVE+FHY35BVE
	RY100LUY1	FHY50BVE+FHY50BVE
	RY125LUY1	FHY60BVE+FHY60BVE
	RY140LUY1	FHY71BVE+FHY71BVE
	RY71LUY1	FHYC35KVE+FHYC35KVE
	RY100LUY1	FHYC50KVE+FHYC50KVE
	RY125LUY1	FHYC60KVE+FHYC60KVE
	RY140LUY1	FHYC71KVE+FHYC71KVE
RY-LUY1	RY140LUY1	FHY50BVE+FHY50BVE+FHY50BVE
	RY140LUY1	FHYC50KVE+FHYC50KVE+FHYC50KVE
RY-LUTAL	RY140LUTAL	FDYM06FAVAL
	RY140LUTAL	FHYC140KVE
	RY140LUTAL	FHY50KVE+FHY50KVE+FHY50KVE
	RY140LUTAL	FHY71KVE+FHY71KVE
	RY140LUTAL	FHYC50KVE+FHYC50KVE+FHYC50KVE
	RY140LUTAL	FHYC71KVE+FHYC71KVE
RY-LUVAL	RY140LUVAL	FDYM06FAVAL
	RY140LUVAL	FHYC140KVE
RY-LUYAL (Pair)	RY140LUYAL	FHY50KVE+FHY50KVE+FHY50KVE
	RY140LUYAL	FHY71KVE+FHY71KVE
RY-LUYAL (Twin)	RY140LUYAL	FHYC50KVE+FHYC50KVE+FHYC50KVE
	RY140LUYAL	FHYC71KVE+FHYC71KVE

### ■ RZ-L Series

Series	Outdoor Units	Indoor Units
RZ-LV1	RZ71LV1	FAY71FAVE
	RZ71LV1	FHYB71FV1
	RZ71LV1	FHYC71KVE

### ■ RZQ-H Series

Series	Outdoor Units	Indoor Units
RZQ-HY	RZQ100HY4A	FBQ100DV1
	RZQ125HY4A	FBQ125DV1
	RZQ160HY4A	FBQ140DV1
	RZQ100HY4A	FCQ100KVEA
	RZQ125HY4A	FCQ125KVEA
	RZQ100HY4A	FHQ100BVV1B
	RZQ125HY4A	FHQ125BVV1B

### ■ RZQ-K Series

Series	Outdoor Units	Indoor Units
RZQ-KA	RZQ71KAVLT	FBQ71DVET
	RZQ100KAVLT	FBQ100DVET
	RZQ125KATLT	FBQ125DVET
	RZQ140KATLT	FBQ140DVET
	RZQ71KAVLT	FCQ71KVLT
	RZQ100KAVLT	FCQ100KVLT
	RZQ125KATLT	FCQ125KVLT
	RZQ140KATLT	FCQ140KVLT
RZQ-KB	RZQ71KBV1	FAQ71BVV1B
	RZQ100KBV1	FAQ100BVV1B
	RZQ71KBV1	FBQ71DV1
	RZQ71KBV1	FCQ71KVEA
	RZQ100KBV1	FCQ100KVEA
	RZQ160HY4A	FCQ140KVEA
	RZQ71KBV1	FHQ71BVV1B
	RZQ100KBV1	FHQ100BVV1B
RZQ-KC	RZQ71KCVLT	FBQ71DAVET
	RZQ100KCVLT	FBQ100DAVET
	RZQ125KCTLT	FBQ125DAVET
	RZQ140KCTLT	FBQ140DAVET
	RZQ71KCVLT	FCQ71KVLT
	RZQ100KCVLT	FCQ100KVLT
	RZQ125KCTLT	FCQ125KAVLT
	RZQ140KCTLT	FCQ140KAVLT

### ■ RZR-HU Series

Series	Outdoor Units	Indoor Units
RZR-HUY1	RZR100HUY1	FBQ100DV1
	RZR125HUY1	FBQ125DV1
	RZR140HUY1	FBQ140DV1
	RZR100HUY1	FCQ100KVEA
	RZR125HUY1	FCQ125KVEA
	RZR140HUY1	FCQ140KVEA
	RZR100HUY1	FHQ100BV1B
	RZR125HUY1	FHQ125BV1B
	RZR100HUY1	FHQ100BVV1B
	RZR125HUY1	FHQ125BVV1B
RZR-HUY2S	RZR30HUY2S	FBQ30DV2S
	RZR36HUY2S	FBQ36DV2S
	RZR42HUY2S	FBQ42DV2S
	RZR48HUY2S	FBQ48DV2S
	RZR30HUY2S	FCQ30KV2S
	RZR36HUY2S	FCQ36KV2S
	RZR42HUY2S	FCQ42KV2S
	RZR48HUY2S	FCQ48KV2S

### ■ RZR-KU Series

Series	Outdoor Units	Indoor Units
RZR-KUV1	RZR71KUV1	FBQ71DV1
	RZR100KUV1	FBQ100DV1
	RZR125KUV1	FBQ125DV1
	RZR140KUV1	FBQ140DV1
	RZR71KUV1	FCQ71KVEA
	RZR100KUV1	FCQ100KVEA
	RZR125KUV1	FCQ125KVEA
	RZR140KUV1	FCQ140KVEA
	RZR71KUV1	FHQ71BV1B
	RZR100KUV1	FHQ100BV1B
	RZR125KUV1	FHQ125BV1B
	RZR71KUV1	FHQ71BVV1B
	RZR100KUV1	FHQ100BVV1B
	RZR125KUV1	FHQ125BVV1B

Series	Outdoor Units	Indoor Units
RZR-KUV2S	RZR30KUV2S	FBQ30DV2S
	RZR36KUV2S	FBQ36DV2S
	RZR42KUV2S	FBQ42DV2S
	RZR48KUV2S	FBQ48DV2S
	RZR30KUV2S	FCQ30KV2S
	RZR36KUV2S	FCQ36KV2S
	RZR42KUV2S	FCQ42KV2S
	RZR48KUV2S	FCQ48KV2S

### ■ RZY-L Series

Series	Outdoor Units	Indoor Units
RZY-LV1	RZY71LV1	FAY71FAVE
	RZY71LV1	FHYB71FV1
	RZY71LV1	FHYC71KVE
RZY-LVAL	RZY71LVAL	FAY71FAVE
	RZY71LVAL	FHYB71FVAL
	RZY71LVAL	FHYC71KVE
RZY-LTAL	RZY100LTAL	FAY100FAVE
	RZY100LTAL	FHYB100FVAL
	RZY125LTAL	FHYB125FVAL
	RZY100LTAL	FHYC100KVE
	RZY125LTAL	FHYC125KVE
	RZY100LTAL	FVY100LVE
	RZY125LTAL	FVY125LVE

## 2. Symptom-based Troubleshooting

### 2.1 Overview

	Symptom	Details of Measures
1	Equipment does not operate.	Refer to P.22
2	Indoor unit fan operates, but compressor does not operate.	Refer to P.24
3	Cooling/heating operation starts but stops immediately.	Refer to P.27
4	After unit shuts down, it cannot be restarted for a while.	Refer to P.29
5	Equipment operates but does not provide cooling.	Refer to P.32
6	Equipment operates but does not provide heating.	Refer to P.35
7	Equipment discharges white mist.	Refer to P.38
8	Equipment produces loud noise or vibration.	Refer to P.40
9	Equipment discharges dust.	Refer to P.43
10	Remote controller LCD displays "88".	Refer to P.44
11	Equipment emits odor.	Room smell and cigarette odors accumulated inside the indoor unit are discharged with air. Inside of the indoor unit must be cleaned.
12	Flap operates when power is turned ON.	It is normal. The flap initializes for accurate positioning.
13	Change of operation mode causes flap to move.	It is normal. There is a control function that moves the flap when operation mode is changed.
14	Fan operates in "M" tap during heating even if remote controller is set to "L" tap.	It is normal. It is caused by the activation of the overload control (airflow shift control).
15	Flap automatically moves during cooling.	It is normal. It is caused by the activation of the dew condensation prevention function or ceiling soiling prevention function.

	Symptom	Details of Measures
16	Indoor unit fan operates in "L" tap for 1 minute in "program dry" mode even if compressor is not operating.	It is normal. The monitoring function forcibly operates the fan for 1 minute.
17	Indoor unit fan operates after heating operation stops.	It is normal. The fan operates in the "LL" tap for 60 to 100 seconds to dissipate the residual heat in the heater.
18	Drain pump operates when equipment is not operating.	It is normal. The drain pump continues to operate for several minutes after equipment is turned OFF.
19	Horizontal swing sends air to different directions in cooling and heating even if it is set to the same position.	It is normal. The airflow direction in cooling/dry operation is different from that in heating/fan operation.
20	Flap remains horizontal even if it is set to swing mode.	It is normal. The flap does not swing in the thermostat OFF mode.
21	When operating in remote control thermostat, the thermostat turns OFF before temperature of remote control reaches the set temperature.	It is normal. The thermostat may be controlled with the suction air temperature (body thermostat), concurrently with the set temperature.

## 2.2 Equipment does not Operate

### Applicable Model

All models of SkyAir series

### Supposed Causes

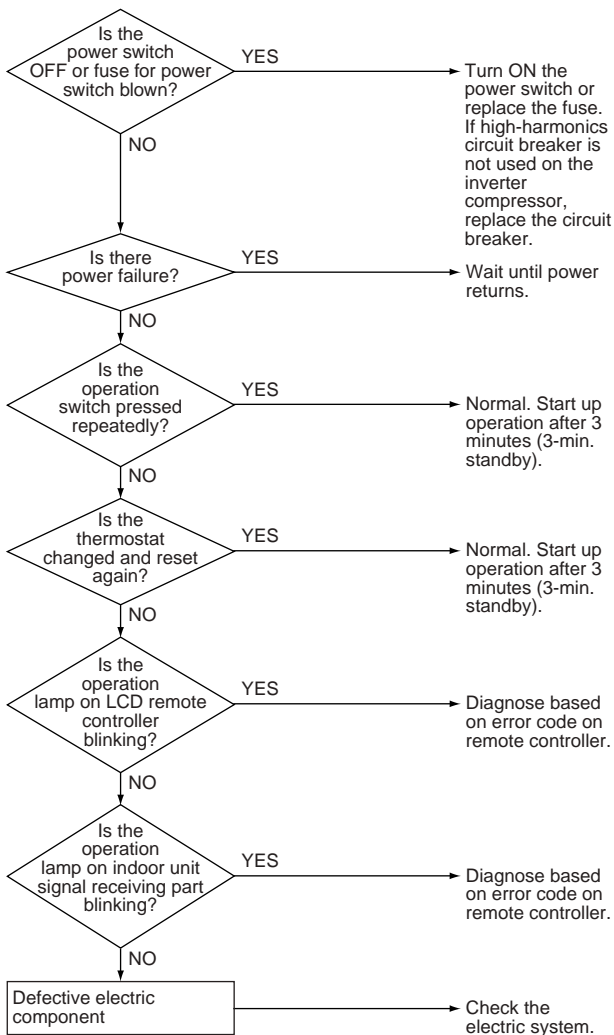
- Fuse blown or disorder of contact in operation circuit
- Defective operation switch or contact point
- Defective high pressure switch
- Defective magnetic switch for fan motor
- Activation or fault of overcurrent relay for fan motor
- Defective overcurrent relay for compressor
- Defective compressor protection thermostat
- Insufficient insulation in electric system
- Defective contact point of magnetic switch for compressor
- Defective compressor
- Defective remote controller or low batteries (wireless)
- Incorrect address setting of wireless remote controller

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 2.3 Indoor Unit Fan Operates, but Compressor does not Operate

### Applicable Model

All models of SkyAir series

### Supposed Causes

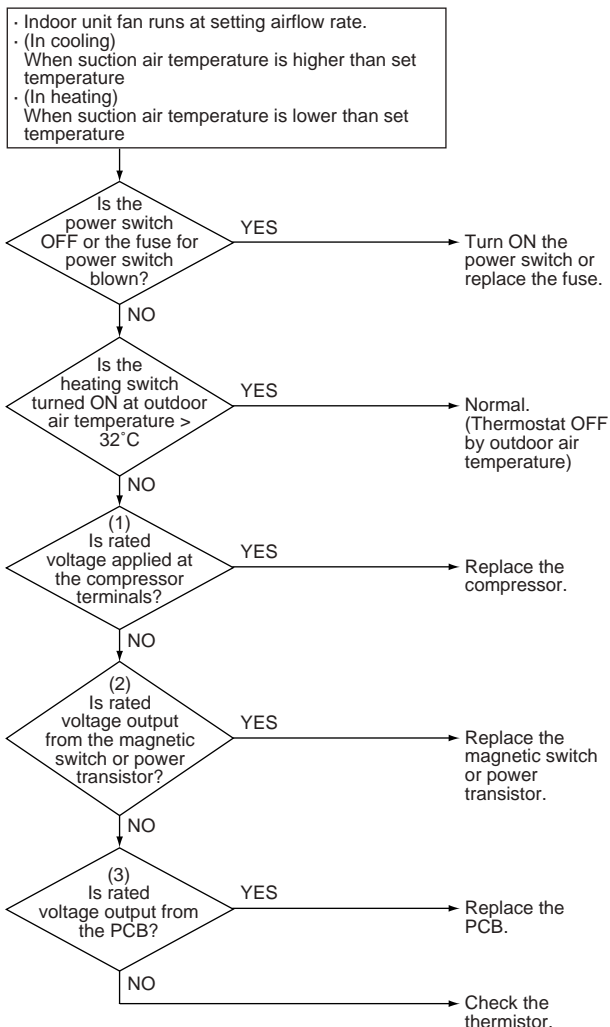
- Fuse blown or disorder of contact in operation circuit
- Defective thermistor
- Defective indoor/outdoor unit PCB
- Defective magnetic switch
- Defective power transistor
- Defective compressor

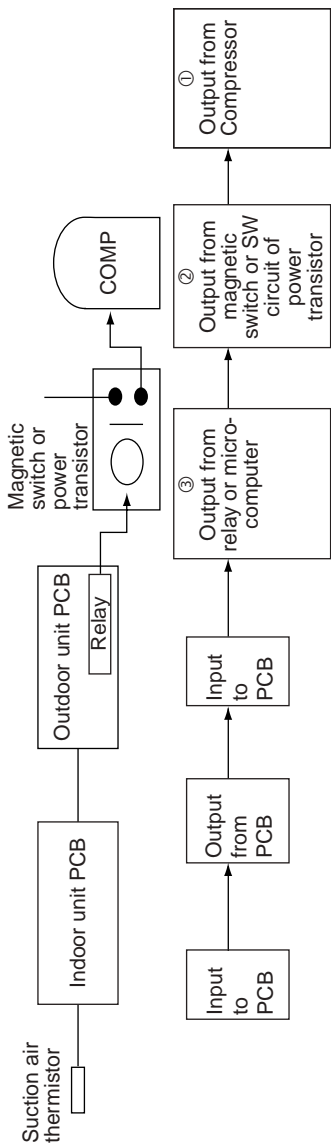
## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## 2.4 Cooling / Heating Operation Starts but Stops Immediately

### Applicable Model

All models of SkyAir series

### Supposed Causes

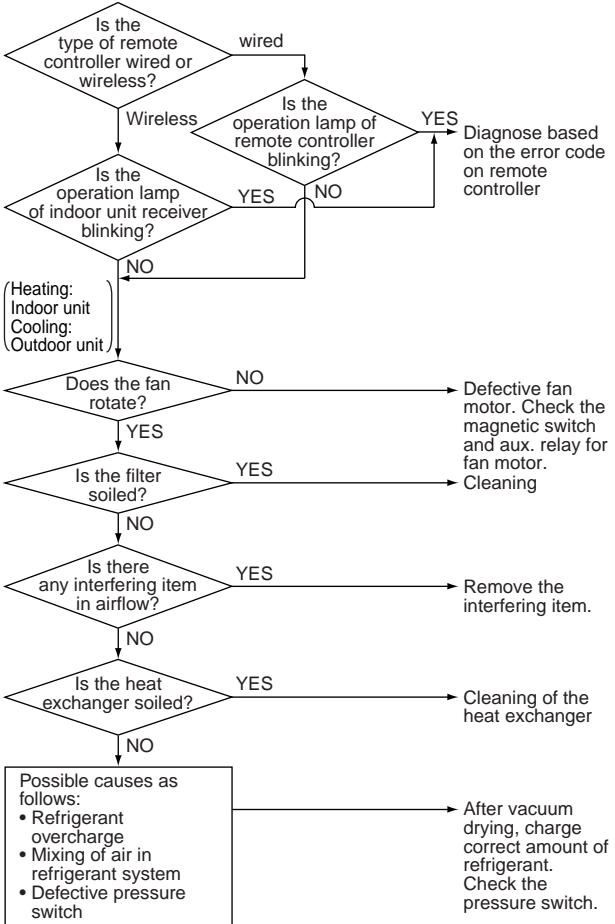
- Overcharge of refrigerant
- Air mixed in refrigerant system
- Defective pressure switch
- Defective magnetic switch for outdoor unit fan motor
- Defective aux. relay for outdoor unit fan motor
- Soiled heat exchanger of outdoor unit
- There is an interfering item in airflow of outdoor unit
- Defective outdoor unit fan
- Soiled air filter of indoor unit
- Soiled heat exchanger of indoor unit
- There is some interfering item in airflow of indoor unit
- Defective indoor unit fan

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 2.5 After Unit Shuts Down, It cannot be Restarted for a While

### Applicable Model

All models of SkyAir series

### Supposed Causes

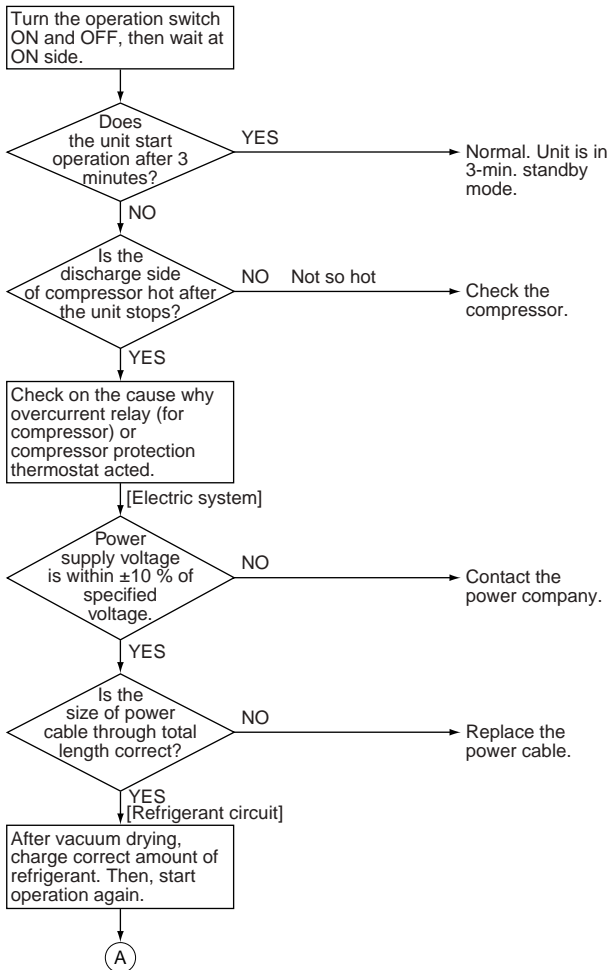
- Overcurrent relay (for compressor)  
Overcurrent relay may act due to the following reasons
  - Lower voltage of power supply
  - Excess level of high pressure
  - Insufficient size of power cable
  - Defective compressor
- Compressor protection thermostat  
Compressor protection thermostat may act due to the following reasons
  - Internal leakage of four way valve (There is no difference between suction air temperature and discharge pipe temperature)
  - Insufficient compression of compressor
  - Incorrect refrigerant
  - Defective electronic expansion valve
  - Insufficient circulation of refrigerant

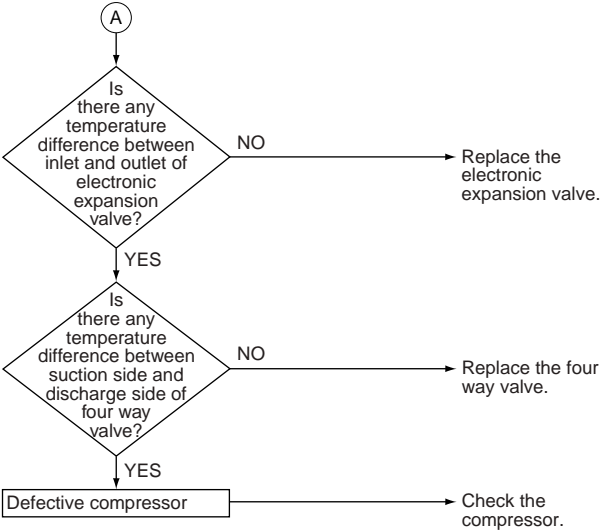
## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## 2.6 Equipment Operates but does not Provide Cooling

### Applicable Model

All models of SkyAir series

### Supposed Causes

- Wrong selection of model
- Refrigerant shortage
- Insufficient airflow in the indoor unit
- Increase of high pressure
  - \* In addition, the following errors may be conceivable
    - Insufficient compression of the compressor
    - Insufficient circulation of refrigerant
    - Defective electronic expansion valve

## Troubleshooting

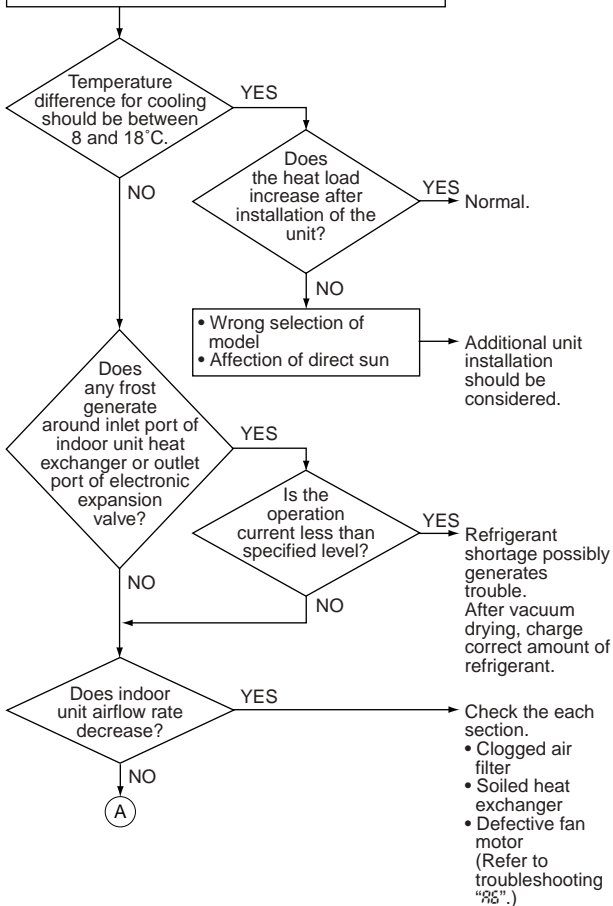


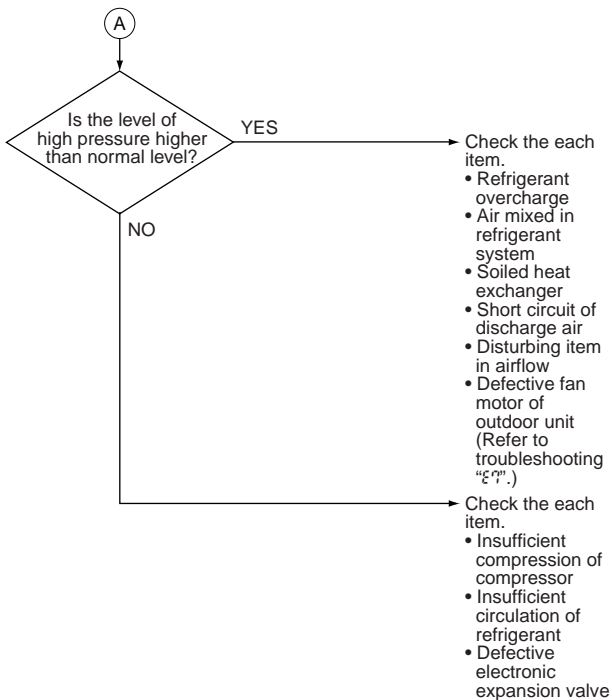
### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

Measure the temperature of suction air and discharge air.

Temperature difference = Suction air temp. - Discharge air temp.





## 2.7 Equipment Operates but does not Provide Heating

### Applicable Model

All models of SkyAir series

### Supposed Causes

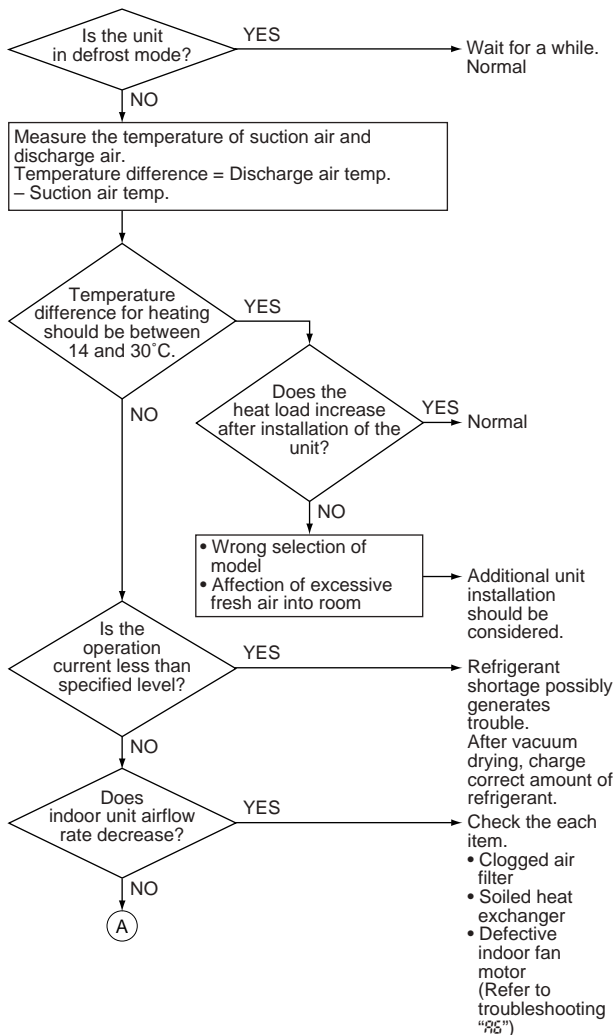
- Wrong selection of model
- Refrigerant shortage
- Insufficient airflow in the indoor unit
- Decrease of low pressure
  - \* In addition, the following errors may be conceivable
    - Insufficient compression of the compressor
    - Insufficient circulation of refrigerant
    - Defective electronic expansion valve

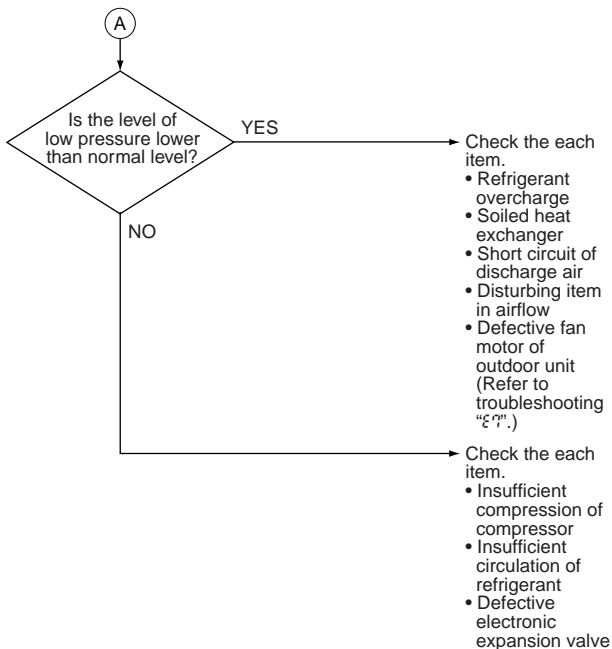
## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## 2.8 Equipment Discharges White Mist

### Applicable Model

All models of SkyAir series

### Supposed Causes

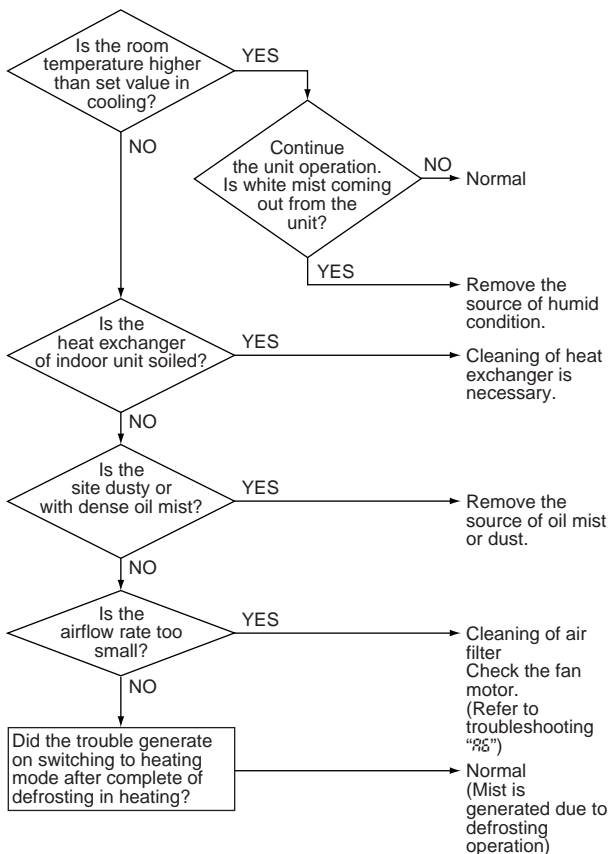
- Humid installation site
- Installation site is dirty and with dense oil mists
- Soiled heat exchanger
- Clogged air filter
- Defective fan motor

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 2.9 Equipment Produces Loud Noise or Vibration

### Applicable Model

All models of SkyAir series

### Supposed Causes

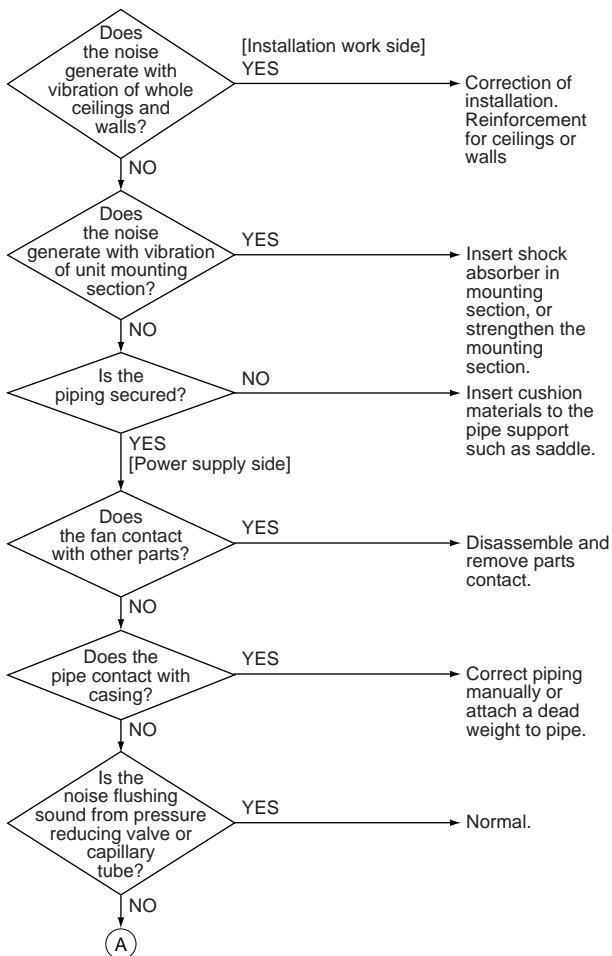
- Improper installation
- Contacts of fan, piping, casing, etc.
- Noise of refrigerant flow
- Operating noise of drain discharge equipment
- Noise of resin components contracting
  - \* In addition, the following errors may be conceivable
    - Overcharge of refrigerant
    - Air interfusion
    - Flash noise of insufficient refrigerant (hushing noise)

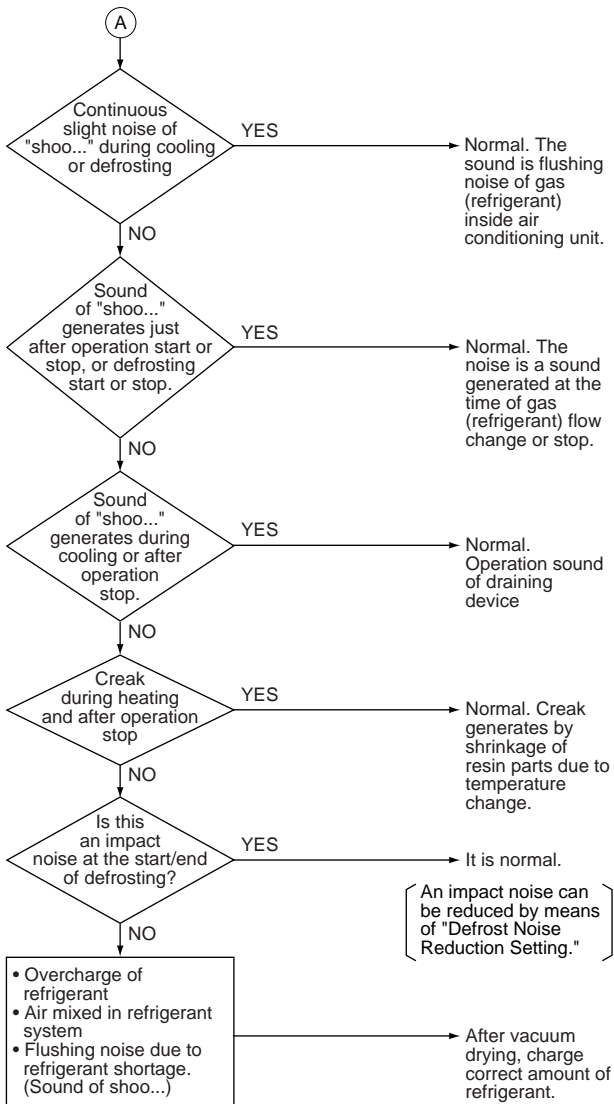
## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## 2.10 Equipment Discharges Dust

### Applicable Model

All models of SkyAir series

### Supposed Causes

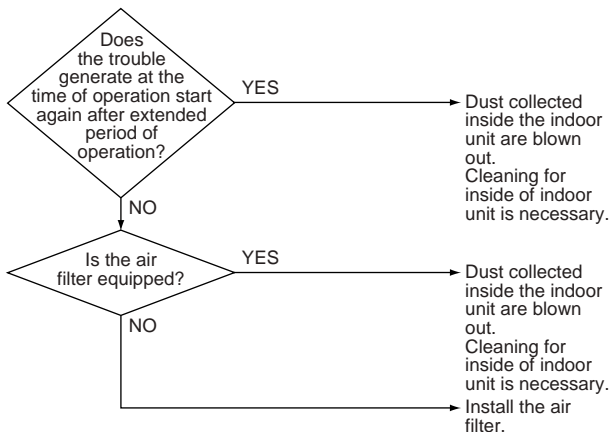
- Carpet
- Animal hair
- Application (cloth shop,...)

### Troubleshooting



**Caution**

Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



## 2.11 Remote Controller LCD Displays "88"

### Applicable Model

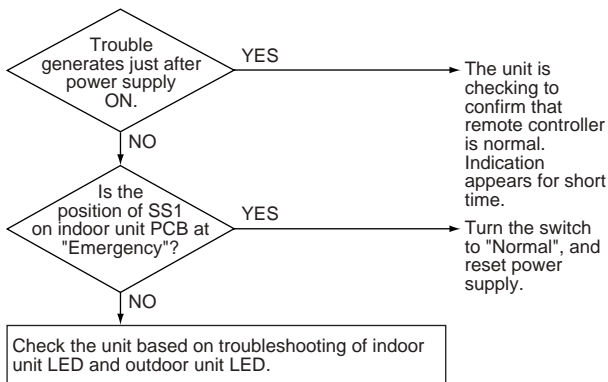
All models of SkyAir series

### Troubleshooting



#### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

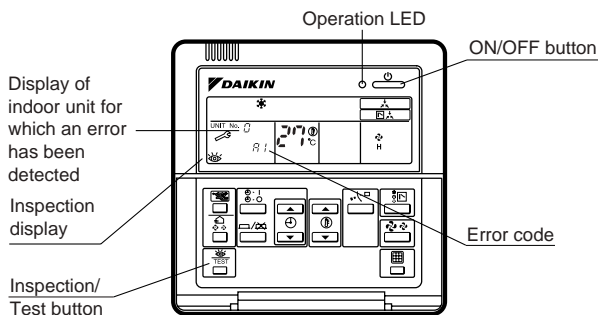


## 3. Troubleshooting by Remote Controller

### 3.1 Procedure of Self-diagnosis by Remote Controller

#### 3.1.1 Wired Remote Controller — BRC1C61/BRC1D61

If operation stops due to error, the remote controller's operation LED blinks, and error code is displayed. (Even if stop operation is carried out, error contents are displayed when the inspection mode is entered.) The error code enables you to tell what kind of error caused operation to stop.

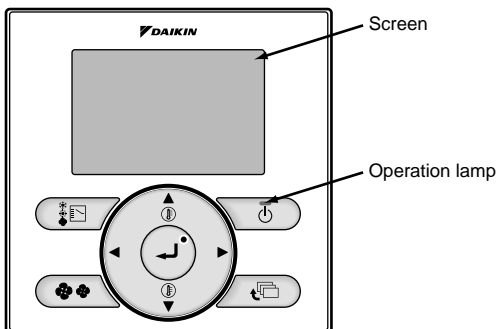


#### **i** Note:

1. Pressing the INSPECTION/TEST button will blink the check indication.
2. While in service mode, holding down the ON/OFF button for a period of 5 seconds or more will clear the failure history indication shown above. In this case, on the codes display, the error code will blink twice and then change to "00" (=Normal), the Unit No. will change to "0", and the operation mode will automatically switch from service mode to normal mode (displaying the set temperature).

## 3.1.2 Wired Remote Controller — BRC1E61

The following will be displayed on the screen when an error (or a warning) occurs during operation. Check the error code and take the corrective action specified for the particular model.



### (1)Checking an error or warning

	Operation Status	Display	
Abnormal shutdown	The system stops operating.	The operation lamp (green) starts to blink. The message "Error: Press Menu button" will appear and blink at the bottom of the screen.	
Warning	The system continues its operation.	The operation lamp (green) remains on. The message "Warning: Press Menu button" will appear and blink at the bottom of the screen.	

## (2) Taking corrective action

- Press the Menu/Enter button to check the error code.




- Take the corrective action specific to the model.



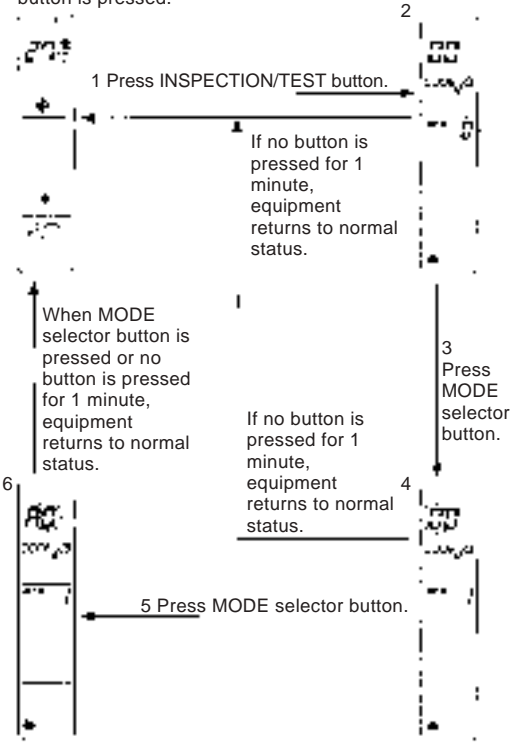
### 3.1.3 Wireless Remote Controller

If unit stops due to an error, the operation indicating LED on the signal receiving part of indoor unit blinks.

The error code can be determined by following the procedure described on next page. (The error code is displayed when an operation error has occurred. In normal condition, the error code of the last problem is displayed.)

1	<p>Press the INSPECTION/TEST button to select "inspection". The equipment enters the inspection mode. The "Unit" indication is displayed and the Unit No. display shows blinking "0" indication.</p>	
2	<p>Set the Unit No.          Press the UP or DOWN button and change the Unit No. display until the buzzer (*1) is generated from the indoor unit.          *1 Number of beeps  <b>3 short beeps:</b> Conduct all of the following operations.  <b>1 short beep:</b> Conduct steps 3 and 4.          Continue the operation in step 4 until a buzzer remains ON. The continuous buzzer indicates that the error code is confirmed.  <b>Continuous beep:</b> No abnormality.</p>	
3	<p>Press the MODE selector button.          The left "0" (upper digit) indication of the error code blinks.</p>	
4	<p>Error code upper digit diagnosis          Press the UP or DOWN button and change the error code upper digit until the error code matching buzzer (*2) is generated.</p> <p>■ The upper digit of the code changes as shown below when the UP and DOWN buttons are pressed.</p> <p><u>0-1-2-3-4-5-6-7-8-9-A-H-C-U-E-F</u>          "UP" button + "DOWN" button</p> <p>*2 Number of beeps  <b>Continuous beep:</b> Both upper and lower digits matched. (Error code confirmed)  <b>2 short beeps:</b> Upper digit matched.  <b>1 short beep:</b> Lower digit matched.</p>	
5	<p>Press the MODE selector button.          The right "0" (lower digit) indication of the error code blinks.</p>	
6	<p>Error code lower digit diagnosis          Press the UP or DOWN button and change the error code lower digit until the continuous error code matching buzzer (*2) is generated.          The lower digit of the code changes as shown below when the UP and DOWN buttons are pressed.</p> <p><u>0-1-2-3-4-5-6-7-8-9-A-H-C-U-E-F</u>          "UP" button - "DOWN" button</p>	

Normal status  
Enters inspection mode from normal status when the INSPECTION/TEST button is pressed.



## 3.2 Error Codes and Description

### 3.2.1 Indoor Unit

Error Code	Contents of Error	Model Name							Reference Page
		FH(Y)C	FH(Y)K	FH(Y)B	FH(Y)	FA(Y)	FV(Y)	FUY, FHC, FH FDBG, FDBT, FDMG	
A1	Indoor Unit PCB Abnormality	●	●	●	●	●	●	●	59
A3	Drain Water Level System Abnormality	●	●	●	●	● *1	●	●	61
A6	Indoor Unit Fan Motor Abnormality				●	● *1		●	64
A7	Swing Flap Motor Abnormality/Lock	●	●		●	●	●	●	72
AF	Drain System Abnormality	●	●	●	●	● *1	●	●	76
AJ	Capacity Setting Abnormality	●	●	●	●	● *1	●	●	78
C4	Thermistor Abnormality	●	●	●	●	● *1	●	●	86
C9	Thermistor Abnormality	●	●	●	●	● *1	●	●	86
CJ	Remote Controller Thermistor Abnormality	●			● *2	●	●	●	91

\*1 For only FAY

\*2 For only FHY

Error Code	Contents of Error	Model Name				Reference Page
		FCQ	FHQ	FAQ	FBQ	
A0	Error of External Protection Device	●				57
A1	Indoor Unit PCB Abnormality	●	●	●	●	59
A3	Drain Water Level System Abnormality	●	●	●	●	61
A6	Indoor Unit Fan Motor Abnormality	●	●	●		66
	Indoor Unit Fan Motor Abnormality				●	68
A7	Swing Flap Motor Abnormality/Lock	●	●	●	●	72
A8	Abnormal Power Supply Voltage	●			●	74
AF	Drain System Abnormality	●	●	●	●	76
AJ	Capacity Setting Abnormality	●	●	●		80
	Capacity Setting Abnormality				●	82
C1	Transmission Error (between Indoor Unit PCB and Fan PCB)				●	83
C4	Thermistor Abnormality	●	●	●	●	86
C6	Defective Combination (between Indoor Unit PCB and Fan PCB)				●	88
C9	Thermistor Abnormality	●	●	●	●	86
CC	Humidity Sensor System Abnormality	●				90
CJ	Remote Controller Thermistor Abnormality	●	●	●	●	91

## 3.2.2 Outdoor Unit, System

### NON-Inverter Series

Error Code	Contents of Error	Series Name						Reference Page
		RY-F	RY-FU	R(Y)-G/GA	R(Y)-KU	R(Y)-LU	RR-M	
E0	Actuation of Safety Device	●	●	●	●			93
	Actuation of Safety Device						●	95
	Actuation of Safety Device					●	●	98
E1	Defective Outdoor Unit PCB					●	●	103
E3	High Pressure System Abnormality	●		●	●			105
	High Pressure System Abnormality					●	●	107
E4	Low Pressure System Abnormality	●		●	●	●	●	115
E6	Compressor Overcurrent					●	●	124
E9	Electronic Expansion Valve Abnormality	●		●	●	●		130
F3	Discharge Pipe Temperature Abnormality	●		●	●			141
	Discharge Pipe Temperature Abnormality					●	●	143
F6	Abnormal Heat Exchanging Temperature					●		149
H3	High Pressure Switch Abnormality	●		●	●			151
	High Pressure Switch Abnormality					●		153
H9	Outdoor Temperature Thermistor System Abnormality	●	●	●	●	●	●	162
J2	Current Sensor System Abnormality					●	●	166
J3	Discharge Pipe Temperature Thermistor System Abnormality	●	●	●	●	●	●	168

Error Code	Contents of Error	Series Name							Reference Page
		RY-F	RY-FU	R(Y)-G/GA	R(Y)-KU	R(Y)-LU	RR-M	R-NU/PU	
J6	Heat Exchanger Temperature Thermistor System Abnormality	●	●	●	●	●	●		171
PJ	Defective Capacity Setting					●	●		205
U0	Refrigerant Shortage	●		●	●	●	●		210
U1	Reverse Phase	●		●	●				216
	Reverse Phase					●	●		217
U4	Transmission Error (Between Indoor Unit and Outdoor Unit)		●						222
	Transmission Error (Between Indoor Unit and Outdoor Unit)	●		●	●	●	●	●	225
U5	Transmission Error (Between Indoor Unit and Remote Controller)	●	●	●	●	●	●	●	235
U8	Transmission Error Between Main Remote Controller and Sub Remote Controller	●		●	●	●			241
UA	Defective Field Setting Switch	●		●	●	●			247
UF	Transmission Error (Between Indoor Unit and Outdoor Unit)	●		●	●	●	●	●	225
	Mis-connection of Field Wiring		●						254

**Inverter Series**

Error Code	Contents of Error	Series Name					Reference Page
		RZ(Y)	RZQ-K	RZQ-H	RZR-KU	RZR-HU	
E0	Activation of Outdoor Unit Protection Device	●					101
E1	Outdoor Unit PCB Abnormality		●	●	●	●	104
E3	Abnormally High Pressure Level (HPS)	●					110
	High Pressure Abnormality (Detected by the High Pressure Switch)		●	●	●	●	112
E4	Actuation of Pressure Sensor		●		●	●	117
	Actuation of Pressure Sensor			●			120
E5	Compressor Motor Lock		●	●	●	●	122
E7	Outdoor Unit Fan Motor Abnormality		●	●	●	●	127
E9	Electronic Expansion Valve Abnormality	●					132
	Electronic Expansion Valve Abnormality		●		●	●	134
	Electronic Expansion Valve Abnormality			●			138
F3	Discharge Pipe Temperature Abnormality	●					145
	Discharge Pipe Temperature Control		●	●	●	●	147
H3	High Pressure Switch Abnormality	●					155
	High Pressure Switch Abnormality		●	●	●	●	156
H4	Low Pressure Switch System Abnormality			●			158
H9	Outdoor Air Temperature Thermistor System Abnormality	●					163
	Thermistor System Abnormality		●	●	●	●	160
J1	Pressure Sensor Abnormality		●		●	●	164
J3	Discharge Pipe Temperature Thermistor System Abnormality	●					169
	Thermistor System Abnormality		●	●	●	●	160
J5	Thermistor System Abnormality		●	●	●	●	160

Error Code	Contents of Error	Series Name					Reference Page
		RZ(Y)	RZQ-K	RZQ-H	RZR-KU	RZR-HU	
J6	Heat Exchanger Temperature Thermistor System Abnormality	●					172
	Thermistor System Abnormality		●	●	●	●	160
J7	Thermistor System Abnormality		●	●	●	●	160
J8	Thermistor System Abnormality		●	●	●	●	160
L1	Outdoor Unit PCB Abnormality		●	●	●	●	173
L4	Overcurrent of DC Output (Instantaneous)	●					175
	Radiation Fin Temperature Rise		●	●	●	●	177
L5	Overcurrent of DC Output (Instantaneous)	●					180
	Output Overcurrent Detection		●	●	●	●	183
(L8)	Electronic Thermal Switch (Time Lag)	●					186
L8	Electronic Thermal (Time Lag)		●	●	●	●	189
L9	Stall Prevention (Time Lag)	●					192
	Stall Prevention (Time Lag)		●	●	●	●	194
LC	Transmission Error (between Control PCB and Inverter PCB)		●	●	●	●	197
P1	Open Phase or Power Supply Voltage Imbalance		●	●	●	●	200
P4	Radiation Fin Temperature Thermistor Abnormality	●					202
	Radiation Fin Thermistor or Related Abnormality		●	●	●	●	204
PJ	Error in Capacity Setting	●					207
	Defective Capacity Setting		●	●	●	●	208
U0	Refrigerant Shortage	●					211
	Refrigerant Shortage		●	●			212
	Refrigerant Shortage				●		214
U2	Insufficient Voltage	●					218
	Power Supply Voltage Abnormality		●	●	●	●	220

Error Code	Contents of Error	Series Name					Reference Page
		RZ(Y)	RZQ-K	RZQ-H	RZR-KU	RZR-HU	
U4	Transmission Error (Between Indoor Unit and Outdoor Unit)	●					228
	Transmission Error (Between Indoor Unit and Outdoor Unit)		●	●	●	●	231
U5	Transmission Error (Between Indoor Unit and Remote Controller)	●					237
	Transmission Error (Between Indoor Unit and Remote Controller)		●	●	●	●	239
U8	Transmission Error Between Main Remote Controller and Sub Remote Controller	●					243
	Transmission Error Between Main Remote Controller and Sub Remote Controller		●	●	●	●	245
UA	Field Setting Switch Abnormality		●	●	●	●	250
UC	Centralized Address Setting Error		●	●	●	●	253
UF	Transmission Error between Indoor and Outdoor Unit / Piping and Wiring Mismatch / Refrigerant Shortage		●	●	●	●	255

## 3.3 **⚡ Error of External Protection Device**

### Remote Controller Display

**⚡**

### Applicable Models

FCQ

### Method of Error Detection

Detect open or short circuit between external input terminals in indoor unit.

### Error Decision Conditions

When an open circuit occurs between external input terminals with the remote controller set to "external ON/OFF terminal".

### Supposed Causes

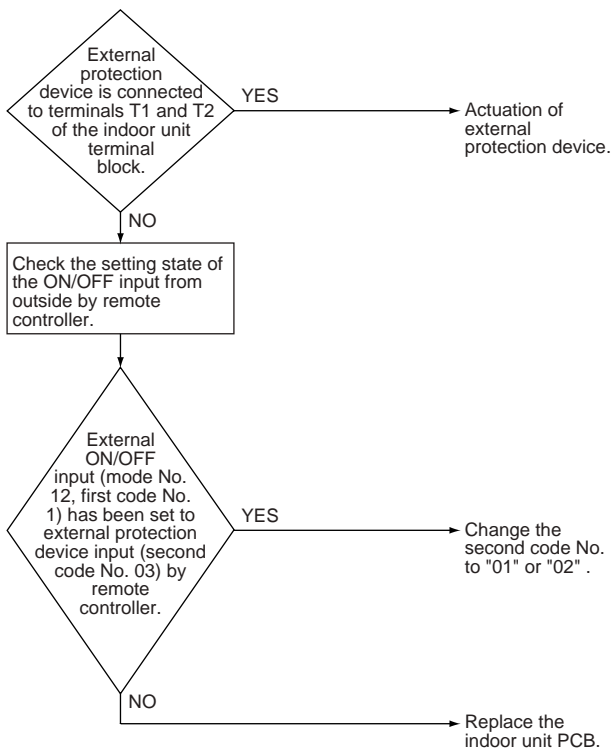
- Actuation of external protection device
- Improper field setting
- Defective indoor unit PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.4 Indoor Unit PCB Abnormality

### Remote Controller Display



### Applicable Models

All indoor models

### Method of Error Detection

Check data from E<sup>2</sup>PROM.

### Error Decision Conditions

The error is generated when the data from the E<sup>2</sup>PROM is not received correctly.

E<sup>2</sup>PROM (Electrically Erasable Programmable Read Only Memory): A memory chip that holds its content without power. It can be erased, either within the computer or externally and usually requires more voltage for erasure than the common +5 volts used in logic circuits. It functions like non-volatile RAM, but writing to E<sup>2</sup>PROM is slower than writing to RAM.

### Supposed Causes

- Defective indoor unit PCB
- External factor (Noise, etc.)

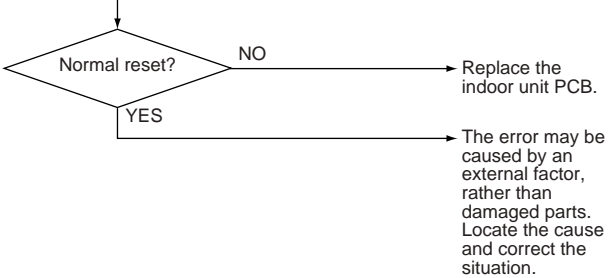
## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

Switch the power OFF and ON again to restart.



## 3.5 **83** Drain Water Level System Abnormality

### Remote Controller Display

**83**

### Applicable Models

FH(Y)C, FH(Y)K, FH(Y)B, FH(Y), FAY, FV(Y), FUY, FHC, FH, FDMG, FDBG, FDBT, FCQ, FHQ (option), FAQ (option), FBQ

### Method of Error Detection

By float switch OFF detection

### Error Decision Conditions

The error is generated when the water level reaches its upper limit and when the float switch turns OFF.

### Supposed Causes

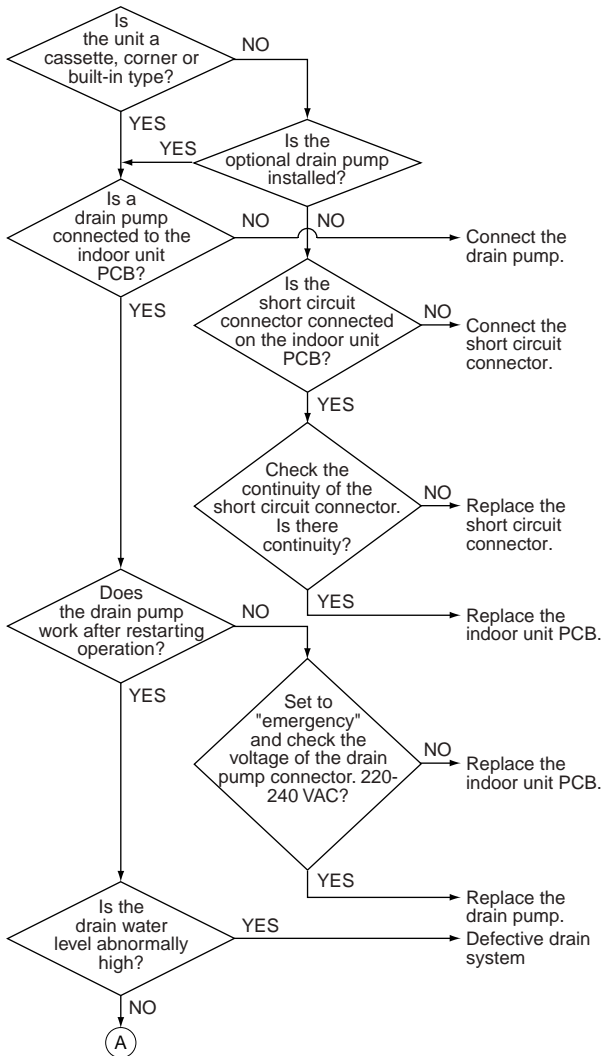
- Defective drain pump
- Improper drain piping work
- Drain piping clogging
- Defective float switch
- Defective indoor unit PCB
- Defective short circuit connector

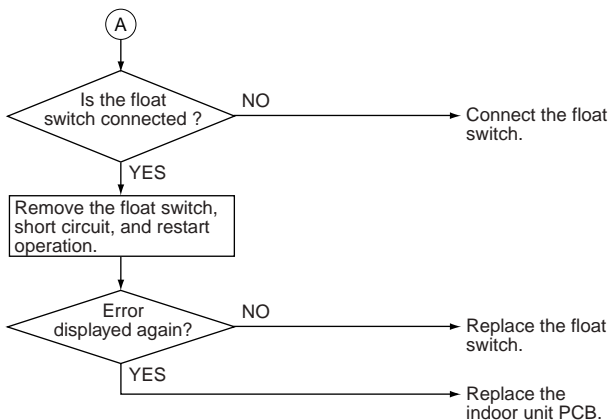
## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

If "F3" is detected by a PCB without X15A, the PCB is defective.

## 3.6 88 Indoor Unit Fan Motor Abnormality

### Remote Controller Display

88

### Applicable Models

FH(Y), FAY, FUY, FHC, FH, FDBG, FDBT, FDMG

### Method of Error Detection

Detection by failure of signal for detecting number of turns to come from the fan motor

### Error Decision Conditions

When number of turns can't be detected even when output voltage to the fan is maximum

### Supposed Causes

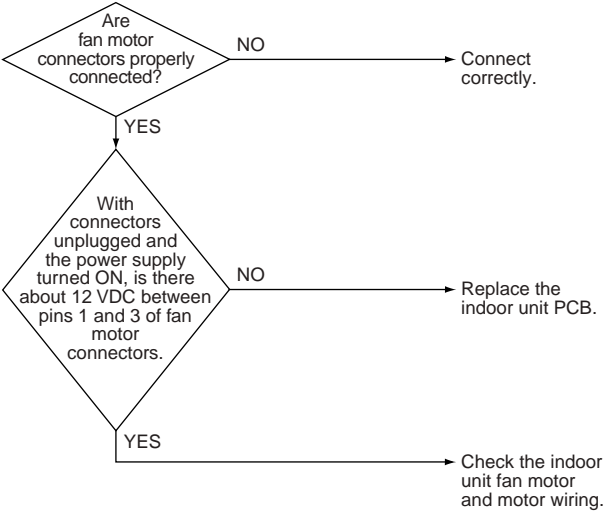
- Defective indoor unit fan motor
- Broken or disconnected wire
- Defective contact
- Defective indoor unit PCB

# Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display



### Applicable Models

FCQ, FHQ, FAQ

### Method of Error Detection

Detection of abnormal fan speed by signal from the fan motor

### Error Decision Conditions

The error is generated when the rotation speed of the fan motor are not detected while the output voltage to the fan is at its maximum.

### Supposed Causes

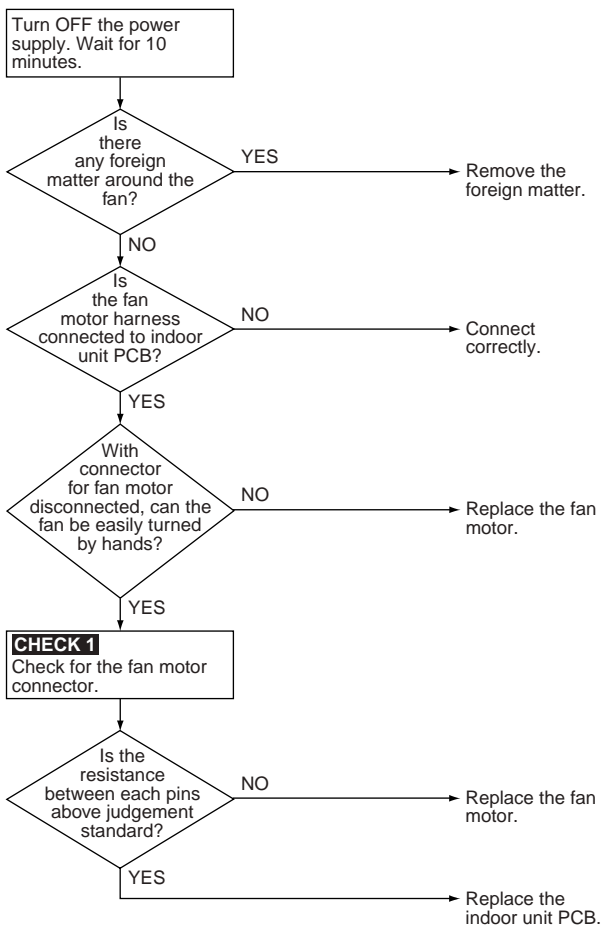
- Defective indoor unit fan motor
- Breaking or disconnection of wire
- Defective contact
- Defective indoor unit PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 1** Refer to P.257.

## Remote Controller Display



### Applicable Models

FBQ

### Method of Error Detection

- Detection from the current flow on the fan PCB.
- Detection from the rotation speed of the fan motor in operation.
- Detection from the position signal of the fan motor.
- Detection from the current flow on the fan PCB when the fan motor starting operation.

### Error Decision Conditions

- An overcurrent flow
- The rotation speed is less than a certain level for 6 seconds.
- A position error in the fan rotor continues for 5 seconds or more.
- An overcurrent flow

### Supposed Causes

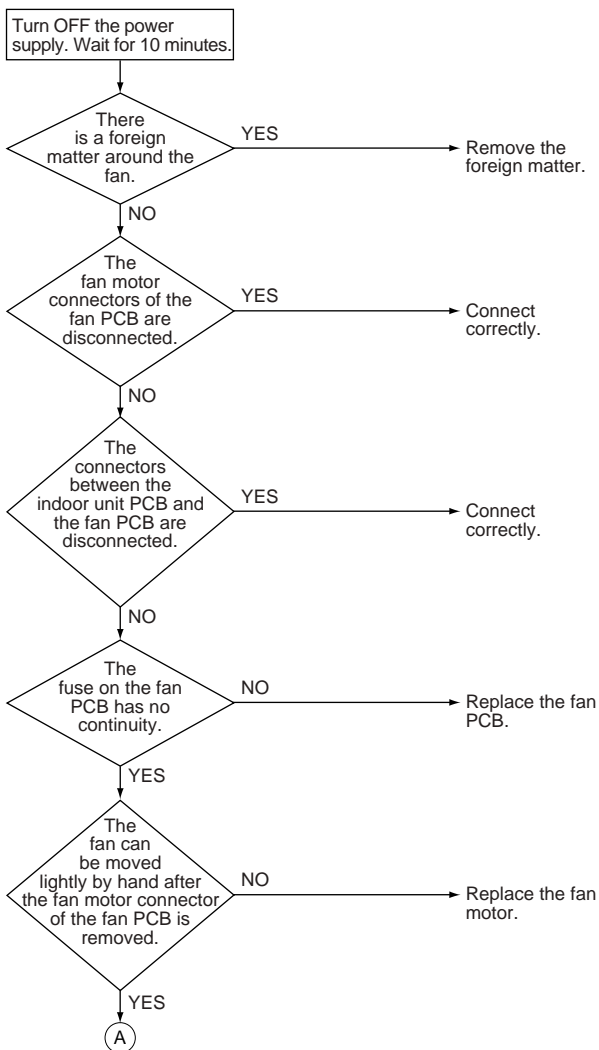
- The clogging of a foreign matter
- The disconnection of the fan motor connectors
- The disconnection of the connectors between the indoor unit PCB and fan PCB
- Defective fan PCB
- Defective fan motor

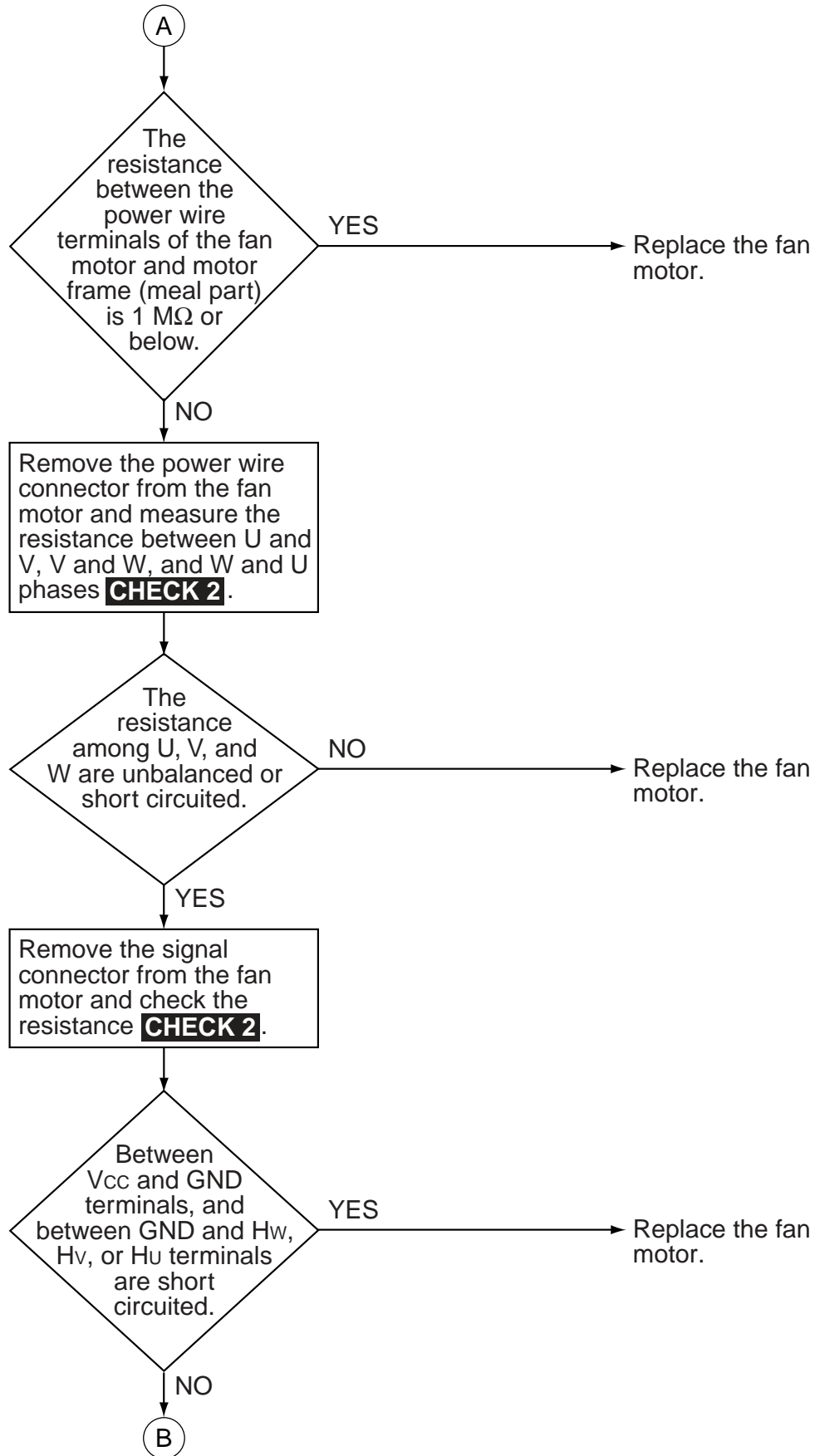
## Troubleshooting



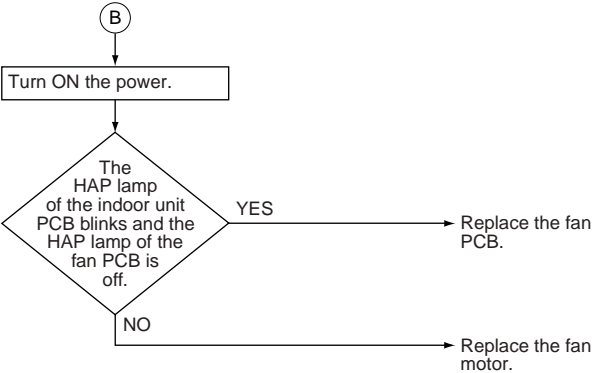
**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





**CHECK 2** Refer to P.258.



## 3.7 Swing Flap Motor Abnormality / Lock

### Remote Controller Display



### Applicable Models

FH(Y)C, FH(Y)K, FH(Y), FA(Y), FV(Y), FUY, FHC, FH, FDBG, FDBT, FDMG, FCQ, FHQ, FAQ, FBQ

### Method of Error Detection

The error is detected by the limit switch when the motor turns.

### Error Decision Conditions

When ON/OFF of the micro-switch for position detection cannot be reversed even though the swing flap motor is energized for a specified amount of time (about 30 seconds).

### Supposed Causes

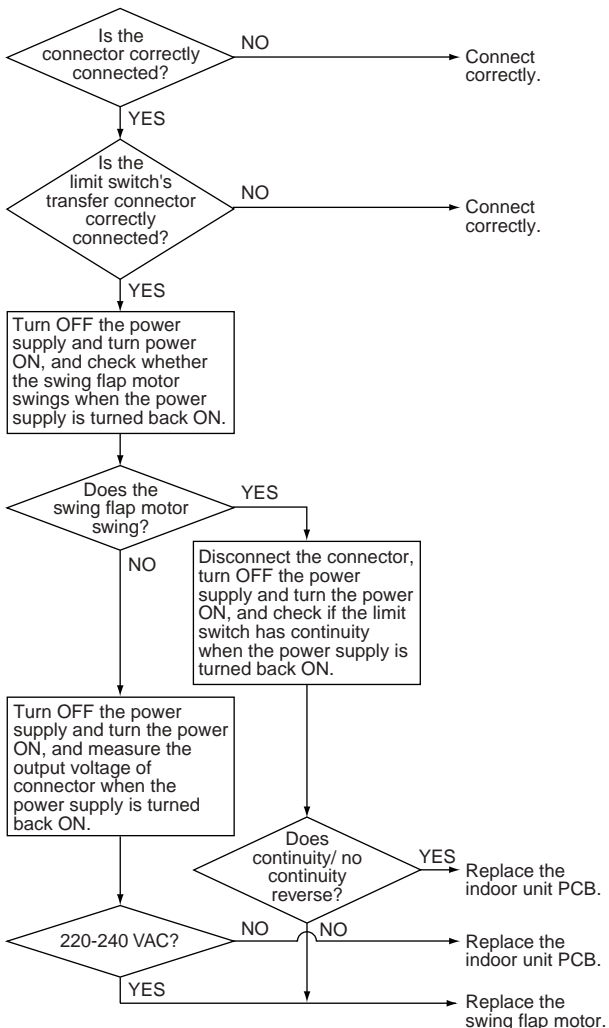
- Defective swing flap motor
- Defective micro-switch
- Defective connector connection
- Defective indoor unit PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.8 **88** Abnormal Power Supply Voltage

### Remote Controller Display

**88**

### Applicable Models

FCQ, FBQ

### Method of Error Detection

Detect error checking the input voltage of fan motor.

### Error Decision Conditions

When the input voltage of fan motor is 150V and below, or 386V and above.

### Supposed Causes

- Power supply voltage abnormality
- Connection defect on signal line
- Wiring defect
- Instantaneous blackout, others

## Troubleshooting

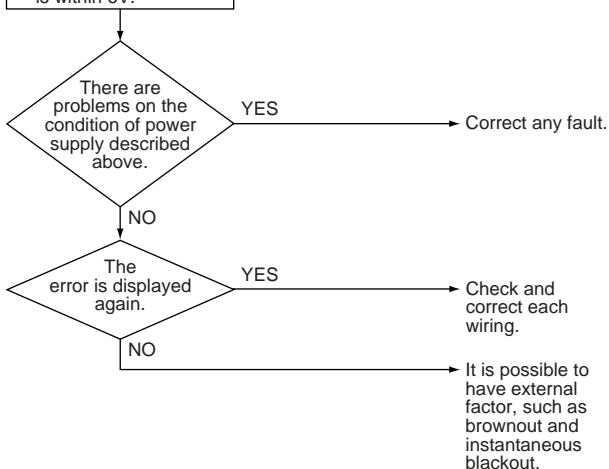


### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

Check the condition of the power supply.

- ① Check if power supply voltage is 220V - 240V  $\pm$  10%.
- ② Check if there is power open phase or defective wiring.
- ③ Check if power supply voltage side unbalance is within 6V.



## 3.9 RF Drain System Abnormality

### Remote Controller Display



### Applicable Models

FH(Y)C, FH(Y)K, FH(Y)B, FH(Y), FAY, FV(Y), FUY, FHC, FH, FDMG, FDBG, FDBT, FCQ, FHQ, FAQ, FBQ

### Method of Error Detection

Water leakage is detected based on float switch ON/OFF operation while the compressor is in non-operation.

### Error Decision Conditions

The float switch changes from ON to OFF while the compressor is OFF.

### Supposed Causes

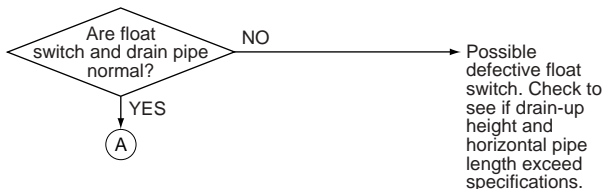
- Error in the drain pipe installation
- Defective float switch
- Defective indoor unit PCB

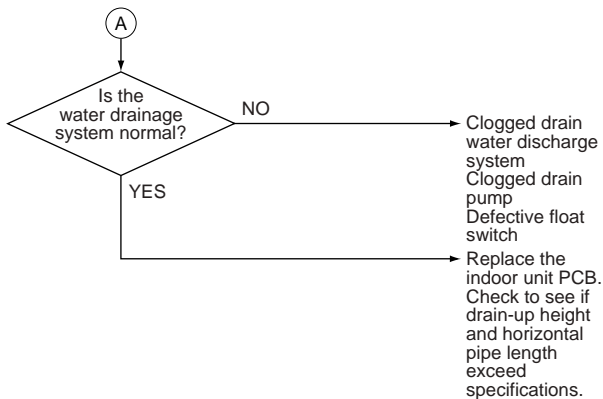
### Troubleshooting



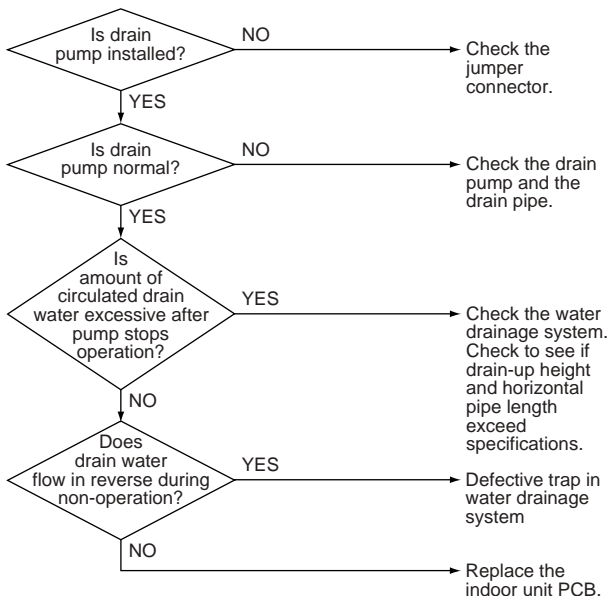
**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





\* In FHY, FAY, and FHQ problems can also occur in the optional drain pump.



## 3.10 Capacity Setting Abnormality

### Remote Controller Display



### Applicable Models

FH(Y)C, FH(Y)K, FH(Y)B, FH(Y), FAY, FV(Y), FUY, FHC, FH, FDBG, FDBT, FDMG

### Method of Error Detection

Capacity is determined according to resistance of the capacity setting adaptor and the memory inside the IC memory on the indoor unit PCB, and whether the value is normal or abnormal is determined.

### Error Decision Conditions

Operation and:

- (1)When the capacity code is not contained in the PCB's memory, and the capacity setting adaptor is not connected.
- (2)When a capacity that does not exist for that unit is set.

### Supposed Causes

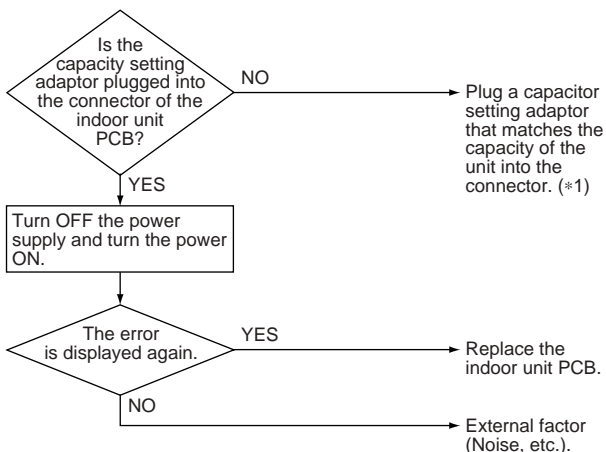
- Defective capacity setting adaptor connection
- Defective indoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

- \*1 Capacity is factory set in the data IC on the PCB. A capacity setting adaptor that matches the capacity of the unit is required in the following case.  
 If the indoor PCB installed at the factory is for some reason changed at the installation site, the capacity will not be contained in the replacement PCB.  
 If you connect a capacity setting adaptor to a PCB in which the capacity is memorized, the capacity setting for the PCB will become the capacity setting of the adaptor. (Priority of capacity setting adaptor)

## Remote Controller Display



### Applicable Models

FCQ, FHQ, FAQ

### Method of Error Detection

Capacity is determined according to resistance of the capacity setting adaptor and the memory inside the IC memory on the indoor unit PCB, and whether the value is normal or abnormal is determined.

### Error Decision Conditions

The error is generated when the following conditions are fulfilled:

Condition	Description
1	<ul style="list-style-type: none"> <li>● The unit is in operation.</li> <li>● The PCB's memory IC does not contain the capacity code.</li> <li>● The capacity setting adaptor is not connected.</li> </ul>
2	<ul style="list-style-type: none"> <li>● The unit is in operation.</li> <li>● The capacity that is set, does not exist for that unit.</li> </ul>

### Supposed Causes

- Defective capacity setting adaptor connection
- Defective indoor unit PCB

### Capacity Setting Adaptor

The capacity is set in the PCB's memory IC. A capacity setting adaptor that matches the capacity of the unit is required in the following case:

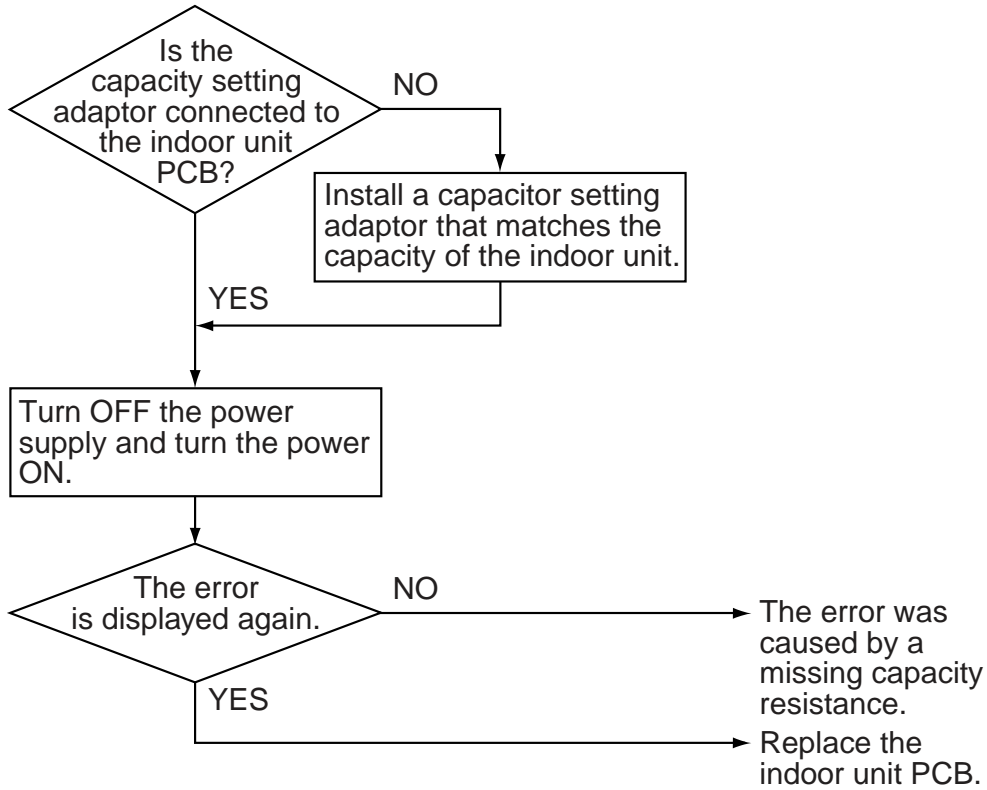
In case the indoor unit PCB installed at the factory is for some reason changed at the installation site, the capacity will not be contained in the replacement PCB. To set the correct capacity for the PCB you have to connect a capacity setting adaptor with the correct capacity setting to the PCB. The capacity setting for the PCB will become the capacity setting of the adaptor because the capacity setting adaptor has priority.

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

AL

## Application Models

FBQ

## Error Decision Conditions

Operation and:

When the capacity code is not saved to the PCB, and the capacity setting adaptor is not connected.

## Supposed Causes

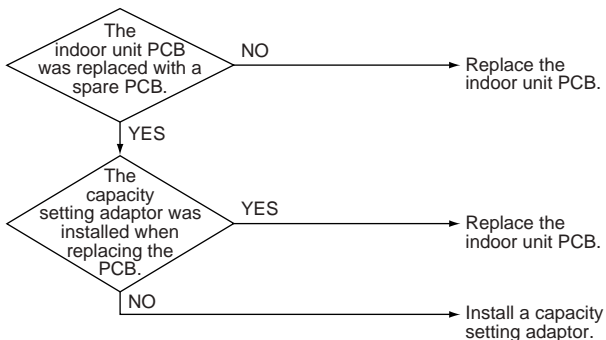
- Defective capacity setting adaptor connection
- Defective indoor unit PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## **3.11 [ ] Transmission Error (between Indoor Unit PCB and Fan PCB)**

### **Remote Controller Display**



### **Applicable Models**

FBQ

### **Method of Error Detection**

Check the condition of transmission between indoor unit PCB and fan PCB using computer.

### **Error Decision Conditions**

When normal transmission is not conducted for certain duration.

### **Supposed Causes**

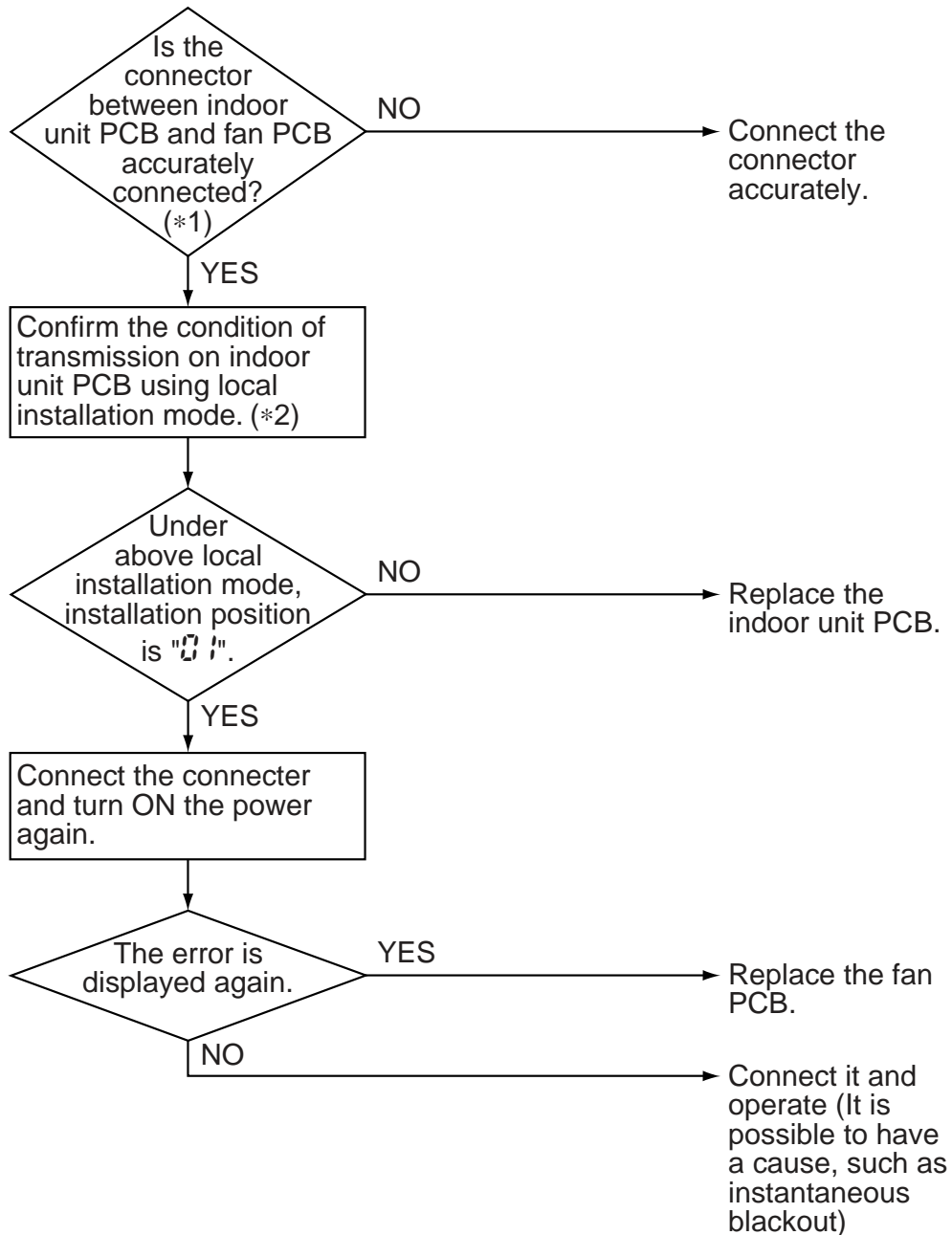
- Connection defect of the connector between indoor unit PCB and fan PCB
- Defective indoor unit PCB
- Defective fan PCB
- External factor, such as instantaneous blackout

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

- \*1. Pull out and insert the connector once and check it is absolutely connected.

\*2. Method to check transmission part of indoor unit PCB.

- ① Turn OFF the power and remove the connector X70A of indoor unit PCB.
- ② Short circuit X70A.
- ③ After turning on the power, check below numbers under local setting remote control. (Confirmation: Second code No. at the condition of setting switch No. 21 on mode No. 41)



Determination [ 01: Normal  
Other than 01: Transmission defect  
on indoor unit PCB ]

- \* After confirmation, turn OFF the power, take off the short circuit and connect X70A back to original condition.

## 3.12 E4, E9 Thermistor Abnormality

### Remote Controller Display

E4, E9

### Applicable Models

FH(Y)C, FH(Y)K, FH(Y)B, FH(Y), FAY, FV(Y), FUY, FHC, FH, FDBG, FDBT, FDMG, FCQ, FHQ, FAQ, FBQ

### Method of Error Detection

The error is detected by temperature detected by thermistor.

### Error Decision Conditions

When the thermistor becomes disconnected or shorted while the unit is running.

### Supposed Causes

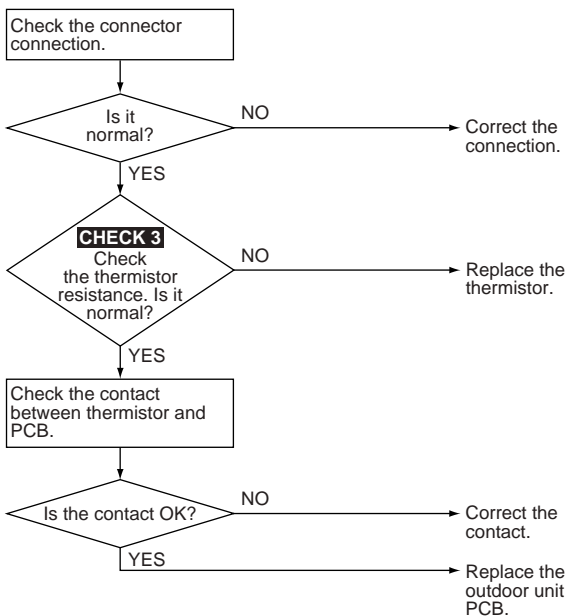
- Defective connector connection
- Defective thermistor
- Defective indoor unit PCB
- Broken or disconnected wire

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



④: Heat exchanger thermistor  
 ⑤: Suction air thermistor



**CHECK 3** Refer to P.258.

### **3.13 E8 Defective Combination (between Indoor Unit PCB and Fan PCB)**

**Remote Controller Display**

**E8**

**Applicable Models**

FBQ

**Method of Error Detection**

Conduct open line detection with fan PCB using indoor unit PCB.

**Error Decision Conditions**

When the communication data of fan PCB is determined as incorrect.

**Supposed Causes**

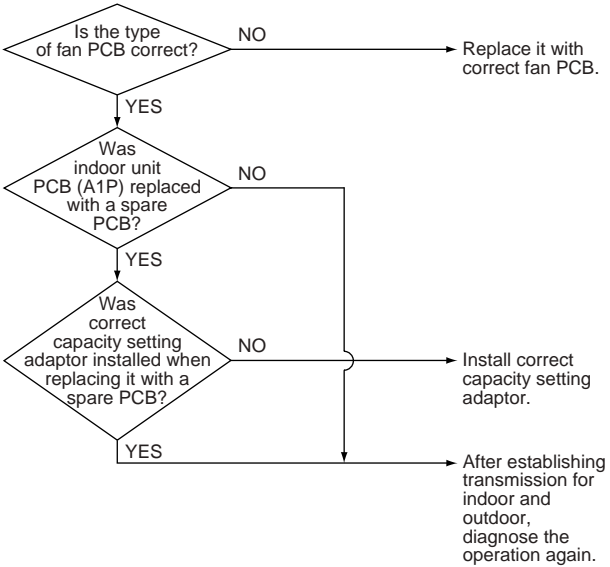
- Defective fan PCB
- Defective connection of capacity setting adaptor
- Setting mistake on site

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.14 Humidity Sensor System Abnormality

### Remote Controller Display



### Applicable Models

FCQ

### Method of Error Detection

The error is detected by humidity detected by humidity sensor.

### Error Decision Conditions

The error is generated when the humidity sensor becomes disconnected or shorted when the unit is running.

Even if the sensor is defective, the system can operate.

### Supposed Causes

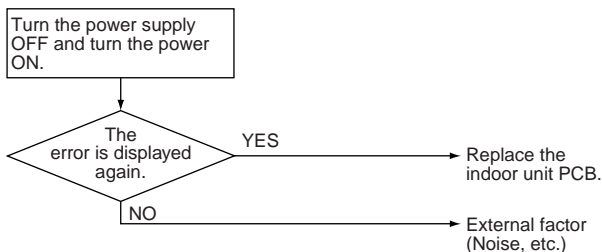
- Defective sensor
- Broken wire
- External factor (Noise, etc.)

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.15 Remote Controller Thermistor Abnormality

### Remote Controller Display



### Applicable Models

FHY, FHYC, FUY, FAY, FV(Y) (Available for 2 remote controller use.), FHC, FH, FDBG, FDBT, FDMG, FCQ, FHQ, FAQ, FBQ

### Method of Error Detection

Even if remote controller thermistor is defective, system is possible to operate by system thermistor.

The error is detected by temperature of remote controller thermistor.

### Error Decision Conditions

The error is generated when the remote controller thermistor becomes disconnected or shorted when the unit is running.

Even if the remote controller thermistor is defective, the system can operate with the system thermistor.

### Supposed Causes

- Defective thermistor
- Broken wire

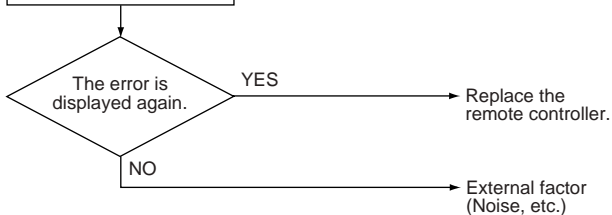
## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

Turn OFF the power supply and turn the power ON.



## 3.16 E0 Actuation of Safety Device

### Remote Controller Display

E0

### Applicable Models

RY-F/FU, R(Y)-G/GA/KU

### Method of Error Detection

Actuation of each safety device is detected by safety device input circuit.

(Safety device unified detection)

### Supposed Causes

<Causes related to PCB>

- Defective outdoor unit PCB
- Defective safety device input connection
- Safety device's harness is broken or disconnected

<Causes related to product as a whole>

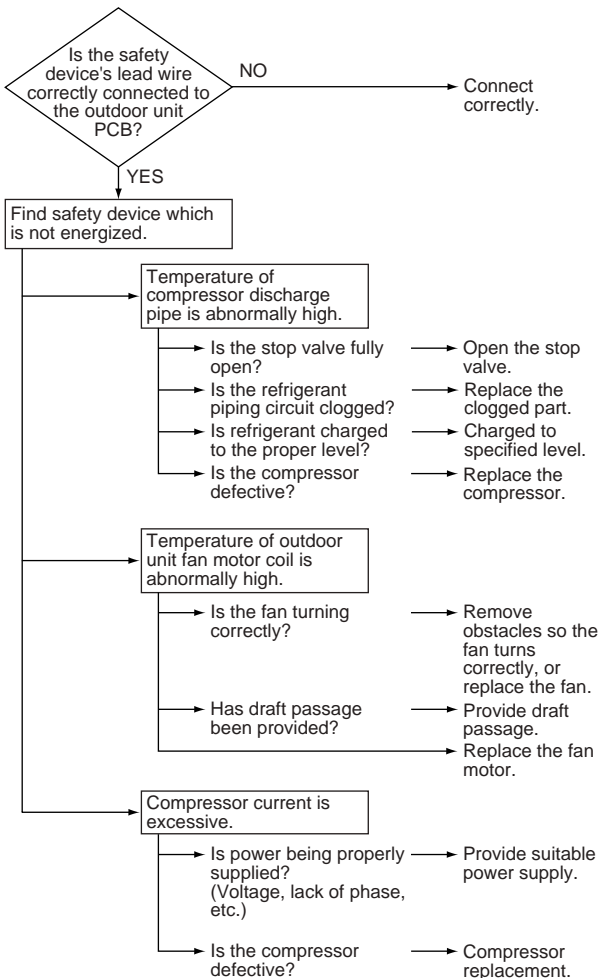
- Stop valve is set to "close"
- Refrigerant piping circuit clogging

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

**E0**

### Applicable Models

R-NU/PU

### Method of Error Detection

Actuation of each safety device is detected by safety device input circuit.

(Safety device unified detection)

### Supposed Causes

<Causes related to safety devices>

- Defective safety device input connection
- Safety device's harness is broken or disconnected

<Causes related to product as a whole>

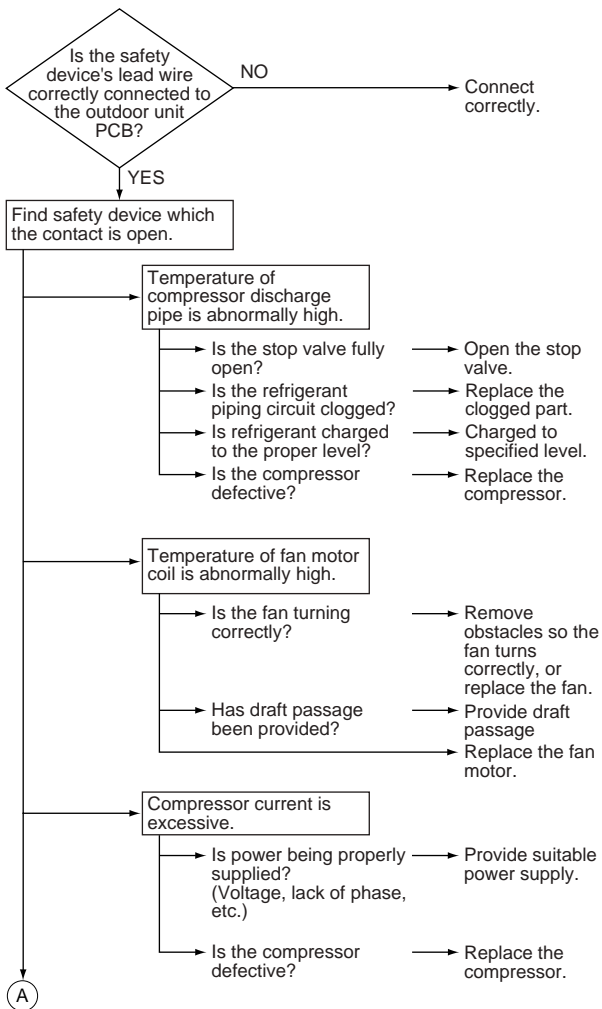
- Stop valve is set to "close"
- Refrigerant piping circuit clogging
- Refrigerant shortage
- Defective compressor

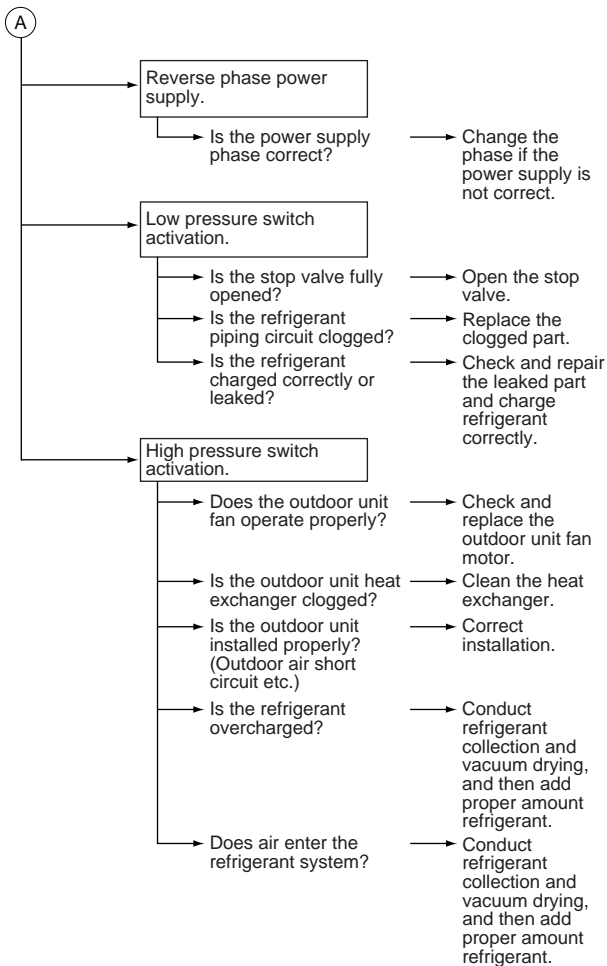
## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## Remote Controller Display



### Applicable Model

R(Y)-LU, RR-M

### Method of Error Detection

Actuation of each safety device is detected with safety device input circuit.

(Unified detection of actuation of each safety device)

### Possible Causes

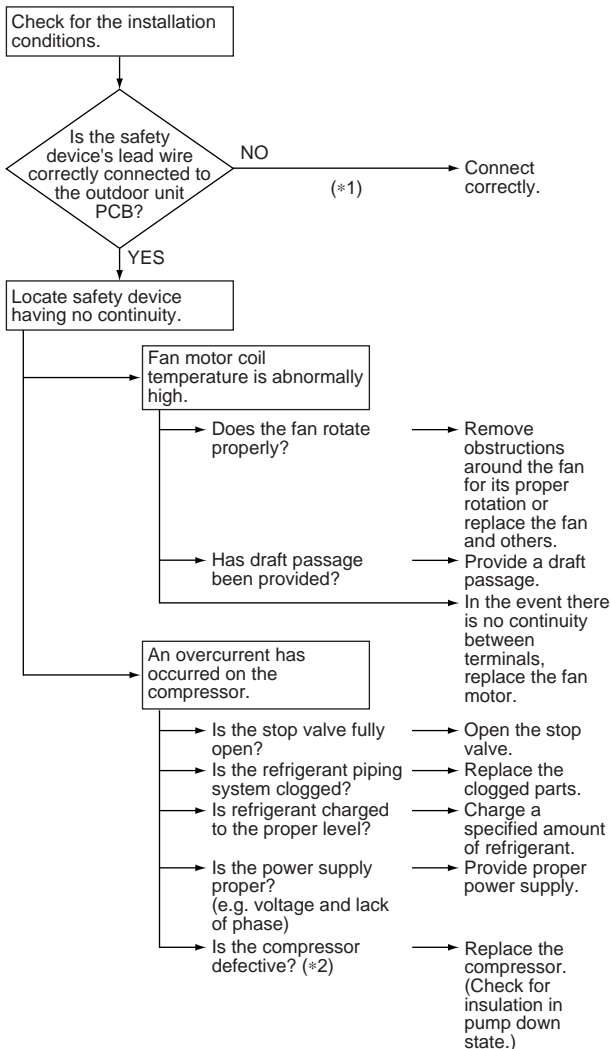
- Defective input connection of safety device
- Defective harness of safety device
- Closed stop valve
- Clogged refrigerant piping system
- Actuation of internal safety device of compressor  
(Only for R(Y) 71/100LU)
- Defective compressor (Except for R-LU)

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

- \*1. In the case of R(Y)71, or 100, make sure the short-circuiting connector is correctly mounted.
- \*2. R(Y)71, and 100LU, are provided with a safety device for errors in the compressor.

If the compressor errors due to closed stop valve or refrigerant shortage, this safety device may be actuated.

In this case, the compressor cannot restart and its terminal section has no continuity until the internal temperature of the compressor falls and the safety device is reset. (The temperature will fall in a couple of 10 minutes to a couple of hours.)

## 3.17 E0 Activation of Outdoor Unit Protection Device

### Remote Controller Display

E0

### Applicable Models

RZ(Y)

### Method of Error Detection

Motor abnormality is detected when the temperature of outdoor unit fan motor coil rises excessively due to motor seizing or other reason and the thermal switch turns OFF.

### Error Decision Conditions

When fan motor coil temperature increases abnormally

### Supposed Causes

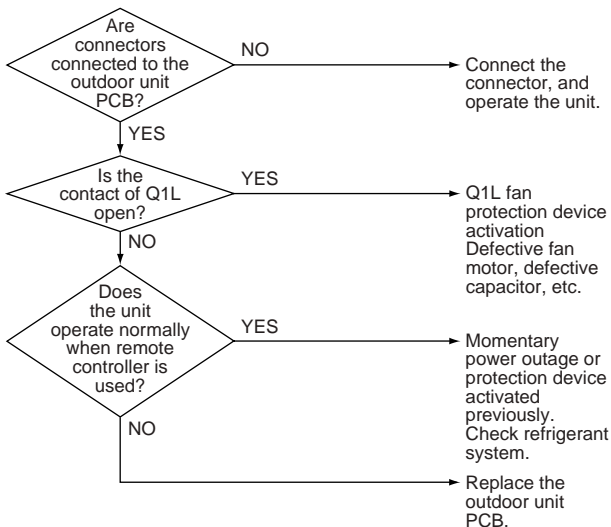
- Activation of outdoor unit protection device
- Defective outdoor unit PCB
- Momentary power outage
- Open phase in power supply

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.18 E1 Outdoor Unit PCB Abnormality

### Remote Controller Display

E1

### Applicable Model

R(Y)-LU, RR-M

### Method of Error Detection

A micro-computer checks whether or not E<sup>2</sup>PROM is normal.

### Error Decision Conditions

When E<sup>2</sup>PROM error when turning the power supply ON

### Possible Causes

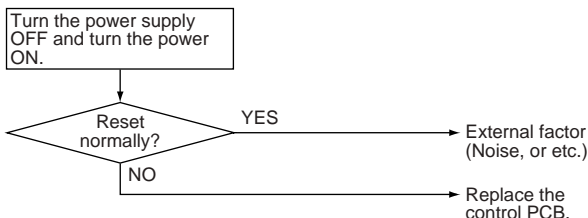
- Defective outdoor unit PCB

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

E1

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Micro-computer checks whether E<sup>2</sup>PROM is normal.

### Error Decision Conditions

When E<sup>2</sup>PROM error when turning the power supply ON

### Supposed Causes

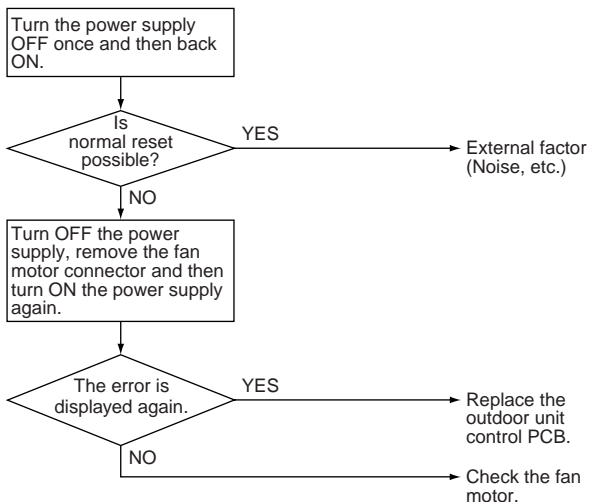
- Defective outdoor unit PCB

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.19 E3 High Pressure System Abnormality

### Remote Controller Display

E3

### Applicable Models

RY-F, R(Y)-G/GA/KU

### Method of Error Detection

Continuity of the high pressure switch is detected by the safety device circuitry.

### Error Decision Conditions

Case where high pressure switch is actuated when the compressor is operating

### Supposed Causes

<Causes related to PCB>

- Defective high pressure switch
- High pressure switch's harness is broken or disconnected
- Defective high pressure switch's connector connection
- Defective outdoor unit PCB

<Causes related to product as a whole>

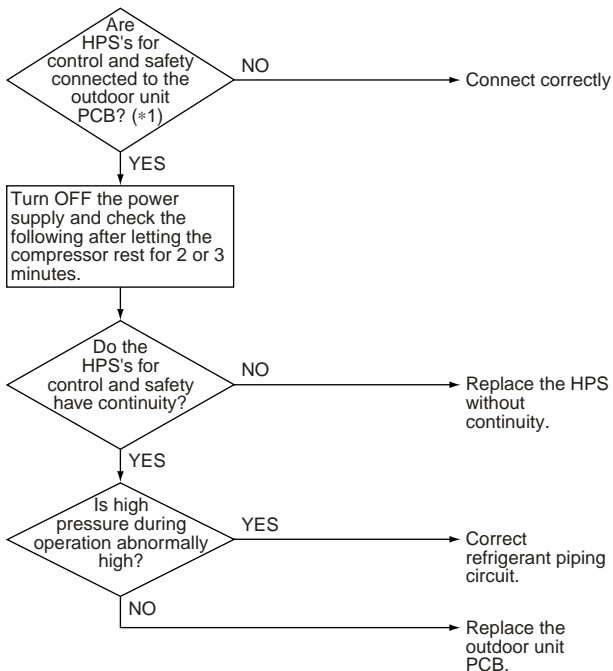
- Soiled outdoor unit's best exchanger
- Room cooling heat load is excessively high
- Short circuit of discharged air
- Contrary wing
- Defective refrigerant piping circuit

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

\*1. Some models are not equipped with an HPS for control or safety.

## Remote Controller Display



### Applicable Models

R(Y)-LU, RR-M

### Method of Error Detection

Continuity of the high pressure switch is detected by the safety device circuitry.

### Error Decision Conditions

Case where high pressure switch is actuated when the compressor is operating

### Supposed Causes

<Causes related to PCB>

- Defective high pressure switch
- High pressure switch's harness is broken or disconnected
- Defective high pressure switch's connector connection
- Defective outdoor unit PCB

<Causes related to product as a whole>

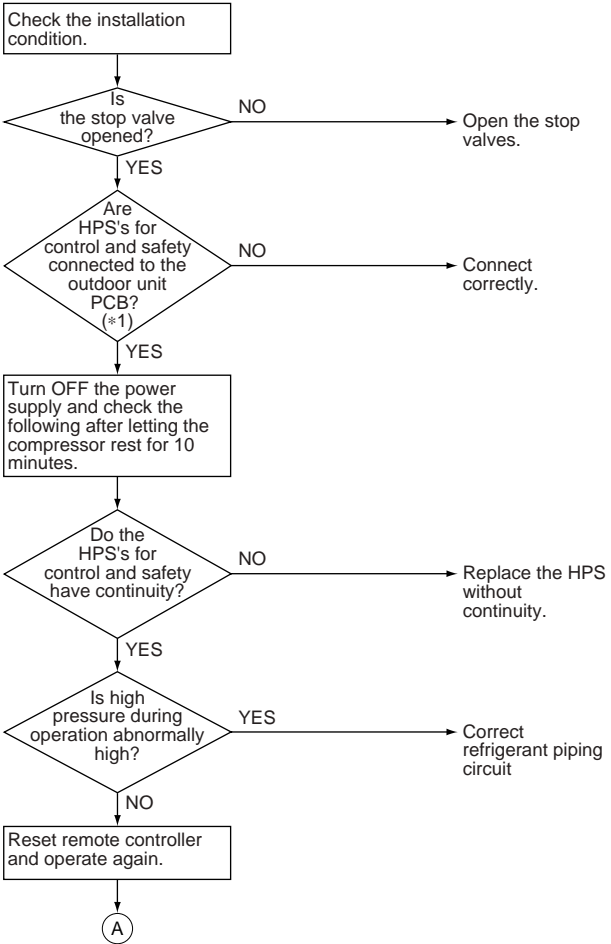
- Indoor unit air filter is clogged
- Outdoor heat exchanger dirty
- Defective outdoor unit fan
- Refrigerant overcharged
- Stop valves remained to close

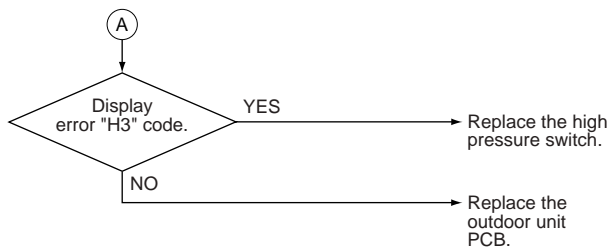
## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





**Note:**

- \*1. Some models are not equipped with an HPS for control or safety.

## 3.20 E3 Abnormally High Pressure Level (HPS)

### Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

The error is detected when the contact of the high pressure protection switch opens.

### Error Decision Conditions

The error is generated when the HPS activation count reaches the number specific to the operation mode.

### Supposed Causes

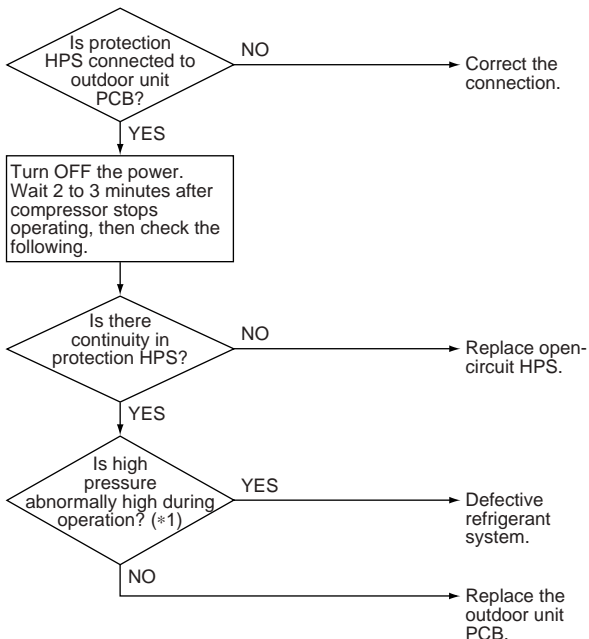
- Disconnection of connector or terminal on outdoor unit PCB
- Dirty outdoor unit heat exchanger
- Defective outdoor unit fan
- Refrigerant overcharge
- Defective high pressure switch

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

\*1. HPS activating value is approximately 3.0 MPa.

## 3.21 High Pressure Abnormality (HPS)

### Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The protection device circuit checks continuity in the high pressure switch.

### Error Decision Conditions

When the high pressure switch is actuated

### Supposed Causes

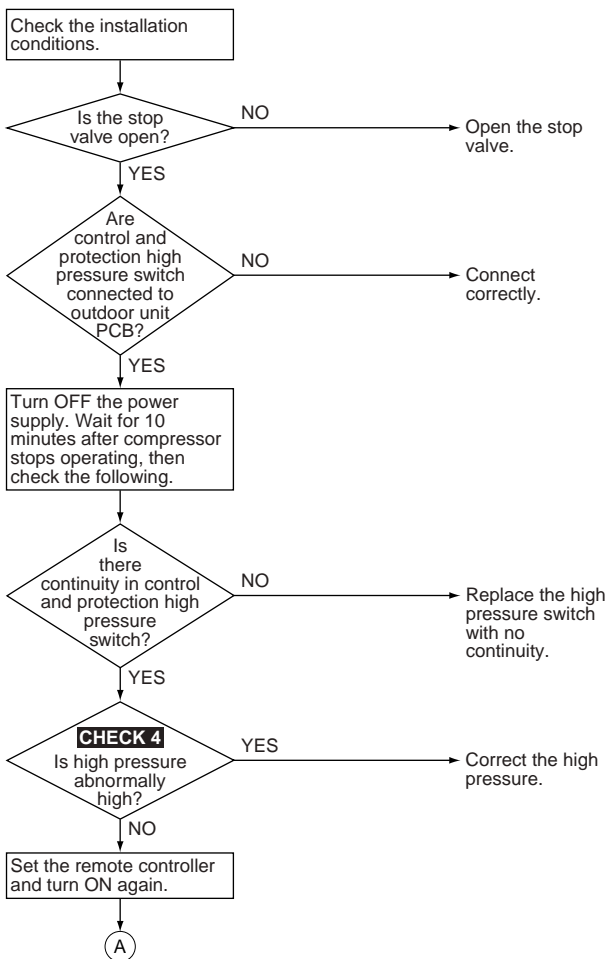
- Defective high pressure switch
- Disconnection in high pressure switch harness
- Defective connection of high pressure switch connector
- Clogged indoor unit suction filter (in heating)
- Dirty outdoor unit heat exchanger
- Defective outdoor unit fan
- Overcharge of refrigerant
- Stop valve is left in closed.

## Troubleshooting

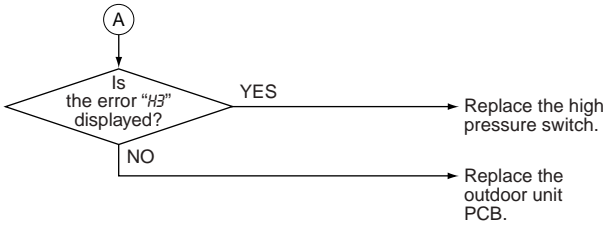


**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 4** Refer to P.262.



## 3.22 E4 Low Pressure System Abnormality

### Remote Controller Display

E4

### Applicable Models

RY-F, R(Y)-G/GA/KU/LU, RR-M

### Method of Error Detection

Continuity of the low pressure switch is detected by the safety device circuitry.

### Error Decision Conditions

Case where low pressure switch is actuated when the compressor is operating

### Supposed Causes

<Causes related to PCB>

- Defective low pressure switch
- Low pressure switch's harness is broken or disconnected
- Defective low pressure switch's connector connection
- Defective outdoor unit PCB

<Causes related to product as a whole>

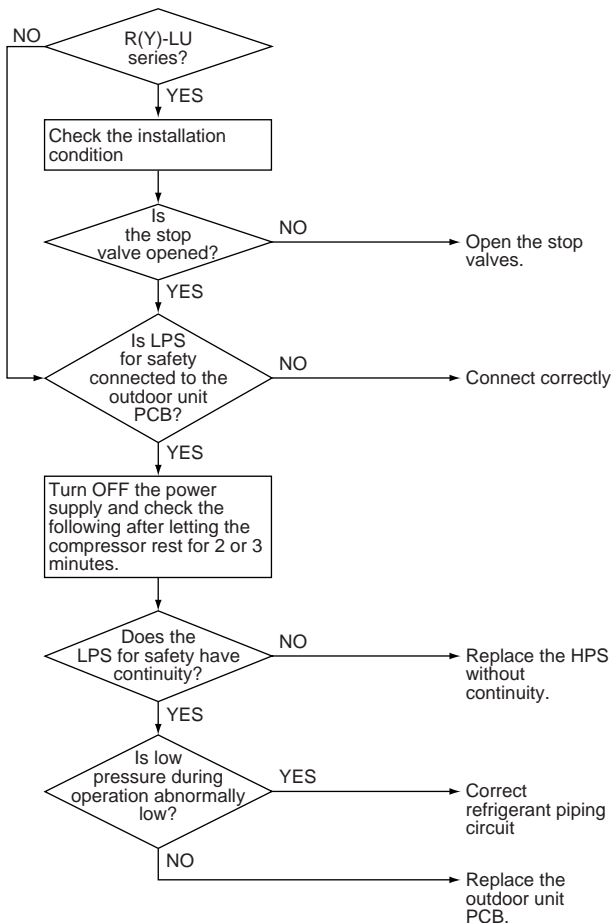
- Defective refrigerant piping circuit
- Stop valve is left in close (For R(Y)-LU)

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.23 E4 Actuation of Pressure Sensor

### Remote Controller Display

E4

### Applicable Models

RZQ-K, RZR-KU/HU

### Method of Error Detection

[In cooling]

- Detect error by the pressure sensor.

[In heating]

- Detect error by the intermediate heat exchanger thermistor.

### Error Decision Conditions

[In cooling]

- When the detection pressure is the following value  
0.12MPa or less continues for 5 minutes
- When the saturated pressure equivalent to the  
detection temperature is the following value  
0.12MPa or less continues for 5 minutes

### Supposed Causes

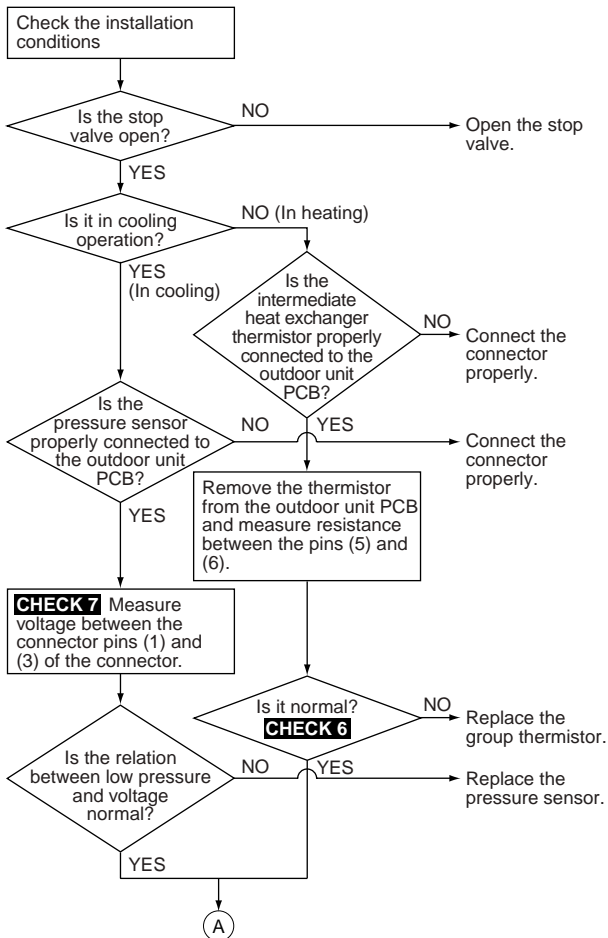
- The stop valve is left in closed.
- Defective pressure sensor and intermittent harness
- Defective outdoor unit PCB
- Abnormal drop of low pressure  
(Inadequate refrigerant)  
(Defective refrigerant piping system (liquid pipe system))  
(Defective electronic expansion valve)

## Troubleshooting



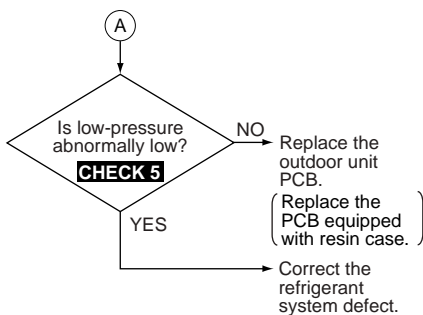
**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 6** Refer to P.266.

**CHECK 7** Refer to P.268.



**CHECK 5** Refer to P.264.

## Remote Controller Display

E4

### Applicable Models

RZQ-H

### Method of Error Detection

The protection device circuit checks continuity in the low pressure switch.

### Error Decision Conditions

When the low pressure switch is activated during compressor operating.

Operating pressure: 0.12 MPa continuous 5 minutes

### Supposed Causes

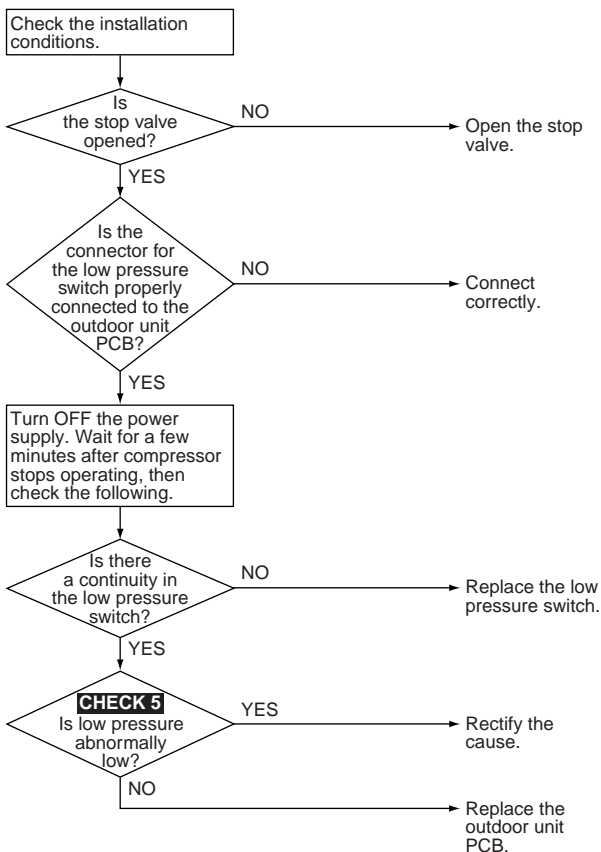
- \* Compressor is not defective
- Stop valve is left closed.
- Defective connection of low pressure switch connector
- Disconnection in low pressure switch harness
- Defective low pressure switch
- Defective refrigerant system
- Refrigerant shortage
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 5** Refer to P.264.

## 3.24 E5 Compressor Motor Lock

### Remote Controller Display

E5

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Inverter PCB takes the position signal from UVWN line connected between the inverter and compressor, and detects the position signal pattern.

### Error Decision Conditions

The position signal with 3 times cycle as imposed frequency is detected when compressor motor operates normally, but 2 times cycle when compressor motor locks. When the position signal in 2 times cycle is detected

### Supposed Causes

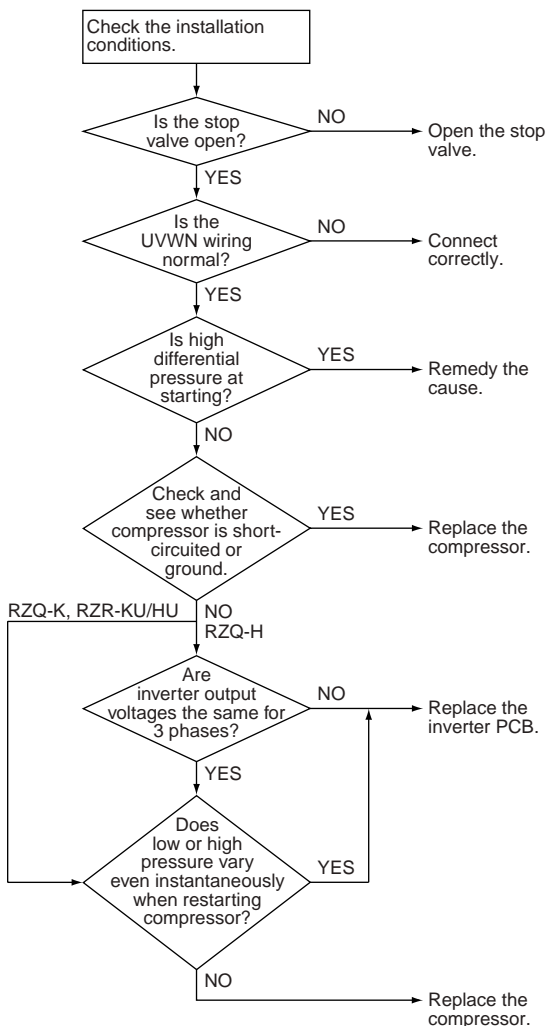
- Compressor lock
- Incorrect UVWN wiring
- Defective inverter PCB
- Stop valve is left in closed.
- High discharge pressure starting (For RZQ-K, RZR-KU/HU)

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.25 E6 Compressor Overcurrent

### Remote Controller Display

E6

### Applicable Model

R(Y)-LU, RR-M

### Method of Error Detection

The input current value is detected with a current sensor.

### Error Decision Conditions

When the compressor input current exceeds the specified input current value.

\* Refer to "Approximate Input current value" on following page.

### Possible Causes

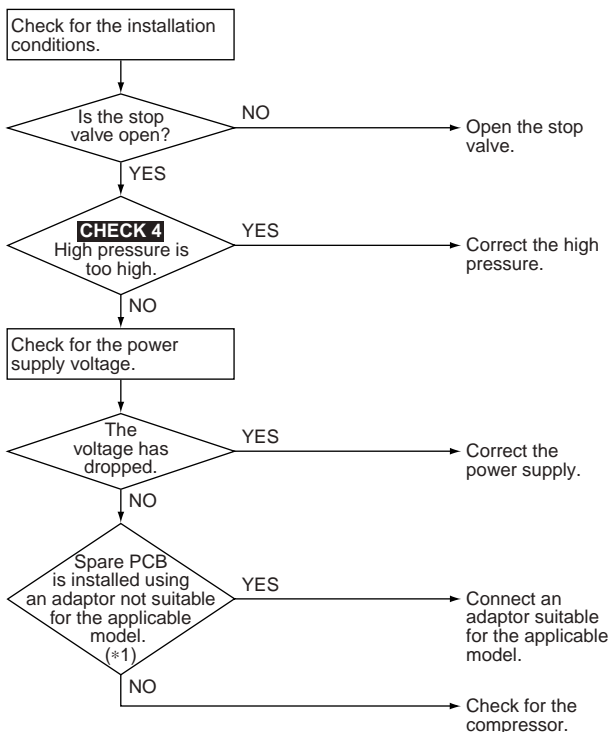
- High pressure increased too high
- Voltage drop
- Stop valve is left in closed.
- Defective compressor (compressor lock)

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

For details, refer to information in troubleshooting “P.U”.



### CHECK 4

Refer to P.262.

\*1. Approximate Input current value

Model	Input current value
R71LUVAL	25.30 A
R(Y)71LUV1	25.30 A
R(Y)71LUY1	8.63 A
R100LUVAL	29.90 A
R(Y)100LUV1	29.90 A
R(Y)100LUY1	11.50 A
R125LUTAL	25.30 A
R125LUYAL	14.95 A
R(Y)125LUY1	14.95 A
R(Y)140LUTAL	32.20 A
R(Y)140LUYAL	17.25 A
R(Y)140LUY1	17.25 A
RY160LUY1	17.25 A

Model	Input current value
RR71MV1	25.3 A
RR71MY1	11.5 A
RR100MY1	11.5 A
RR125MY1	15.0 A

## 3.26 E7 Outdoor Unit Fan Motor Abnormality

### Remote Controller Display

E7

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Abnormality of fan motor system is detected according to the fan speed detected by hall IC when the fan motor runs.

### Error Decision Conditions

- When the fan runs with speed less than a specified one for 15 seconds or more when the fan motor running conditions are met
- When connector detecting fan speed is disconnected
- When the error is generated 4 times, the system shuts down.

### Supposed Causes

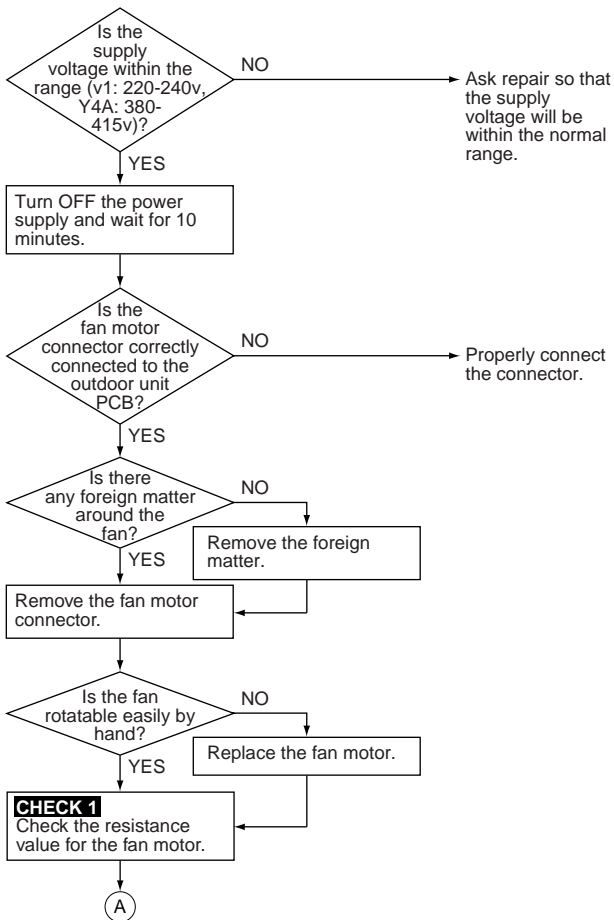
- Defective fan motor
- The harness connector between fan motor and PCB is left in disconnected, or defective connector
- Fan does not run due to foreign matters tangled
- Defective the outdoor unit PCB
- Blowout of fuse
- External factor (Noise, etc.)

## Troubleshooting

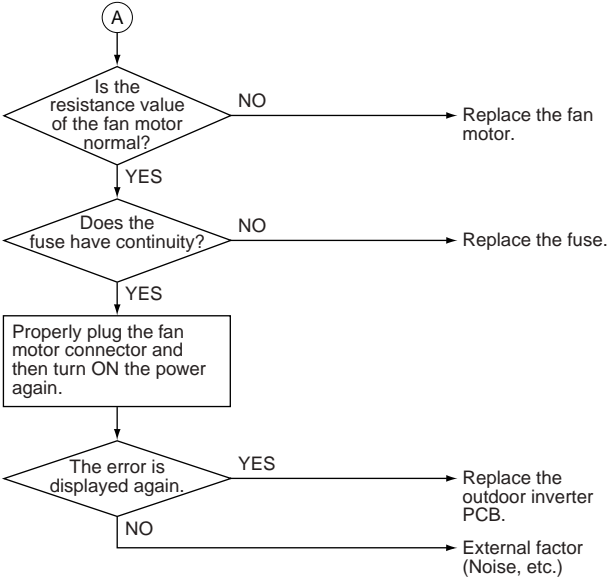


### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 1** Refer to P.257.



## 3.27 E9 Electronic Expansion Valve Abnormality

### Remote Controller Display

E9

### Applicable Models

RY-F, R(Y)-G/GA/KU/LU

### Method of Error Detection

With electronic expansion valve error detection, coil current is detected and open and short circuits are detected.

### Error Decision Conditions

The error is determined by the following condition.

[For R(Y)-LU]

There is no common power supply when the power is ON.

[For RY-F, R(Y)-G/GA/KU]

Coil current: open circuit < normal < short circuit

### Supposed Causes

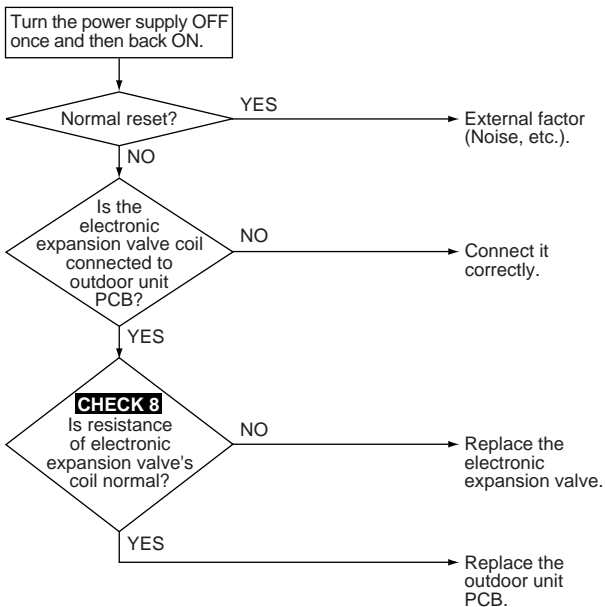
- Defective electronic expansion valve
- Electronic expansion valve's harness is broken or disconnected.
- Defective electronic expansion valve's connector connection
- Defective outdoor unit PCB
- External factor (Noise, etc.)

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 8** Refer to P.270.

## Remote Controller Display

E9

### Applicable Models

RZ(Y)

### Method of Error Detection

The error detection function detects coil current to determine open circuit and short circuit.

### Error Decision Conditions

Error is generated under the following condition.

Coil current:

Open circuit < Normal < Short circuit

### Supposed Causes

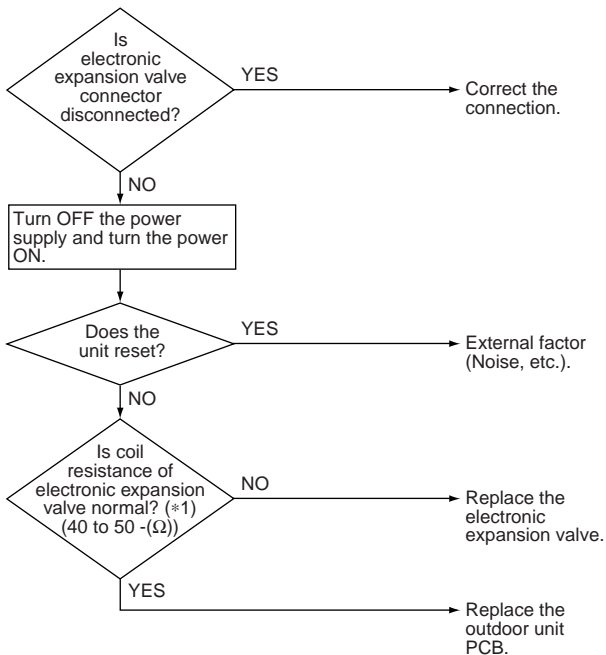
- Defective electronic expansion valve
- Open circuit in electronic expansion valve harness
- Defective connection of electronic expansion valve connector
- Defective outdoor unit PCB
- External factor (Noise, etc.)

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

- \*1. Between pins 1 and 2, between 1 and 3, between 1 and 4, or between 1 and 5

## Remote Controller Display

**E9**

### Applicable Models

RZQ-K, RZR-KU/HU

### Method of Error Detection

The error is detected by the suction pipe superheated degree and electronic expansion valve opening degree calculated by values of pressure sensor and suction pipe thermistor.

### Error Decision Conditions

When the following conditions are met for 10 minutes

- Suction pipe superheated degree < 4°C
- Minimum electronic expansion valve opening degree
- Connector of electronic expansion valve is missing when the power is ON.

### Supposed Causes

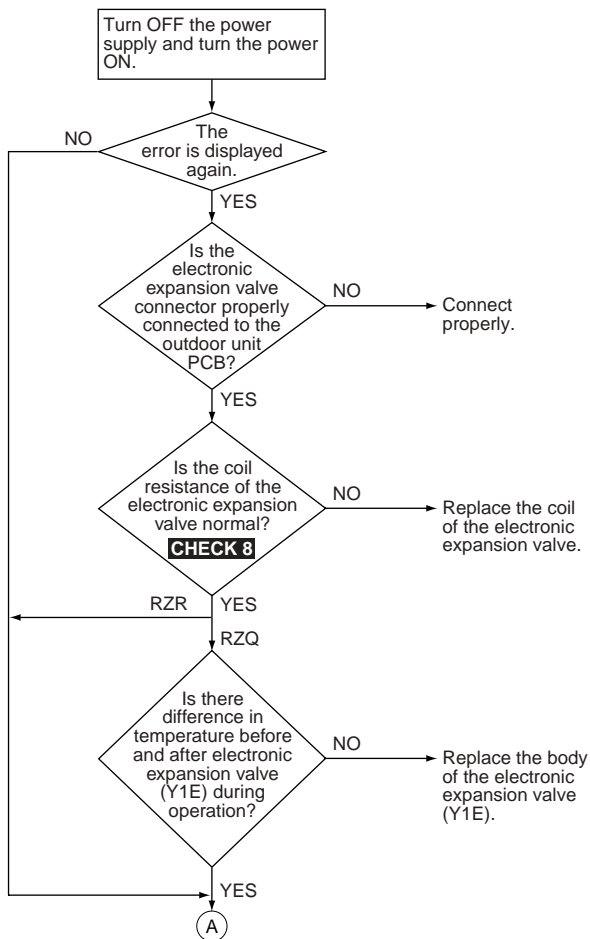
- Defective electronic expansion valve
- Defective solenoid valve
- Defective check valve
- Disconnection of electronic expansion valve harness
- Defective connection of electronic expansion valve connector
- Defective each thermistor
- Defective mounting
- Defective pressure sensor
- Defective outdoor unit control PCB

## Troubleshooting



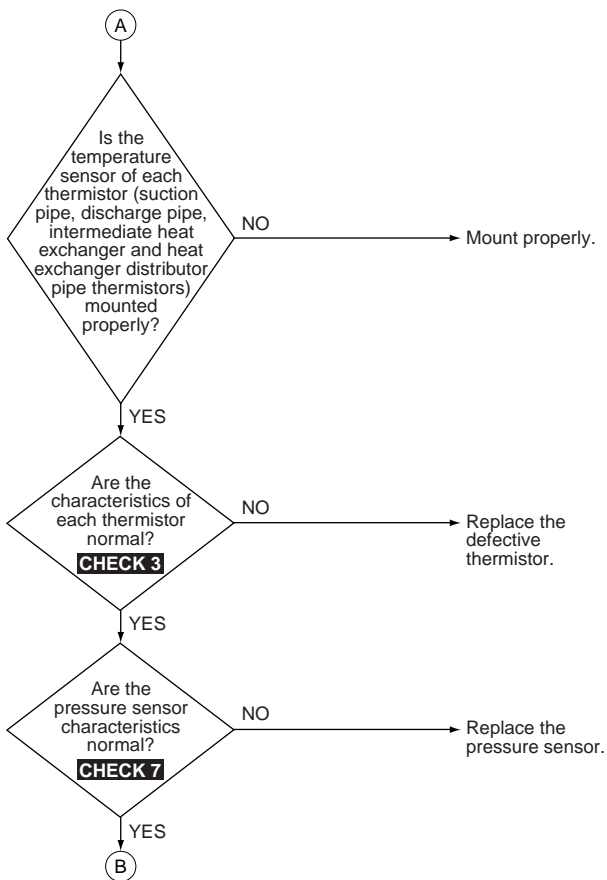
**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



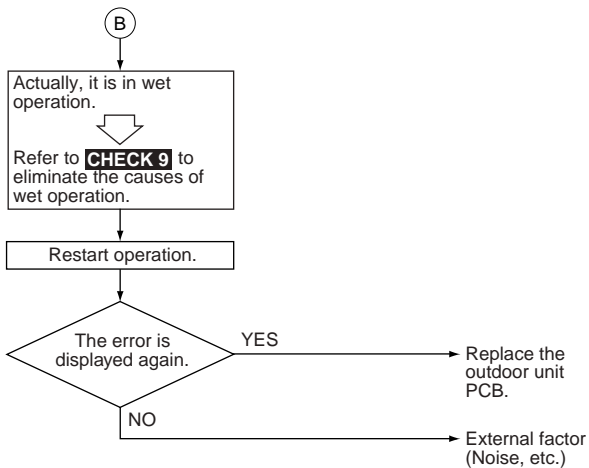
**CHECK 8**

Refer to P.270.



**CHECK 3** Refer to P.258.

**CHECK 7** Refer to P.268.



**CHECK 9** Refer to P.271.

## Remote Controller Display



### Applicable Models

RZQ-H

### Method of Error Detection

The error is detected by the suction pipe superheated degree and electronic expansion valve opening degree calculated by values of suction pipe thermistor.

### Error Decision Conditions

When the following conditions are met for 10 minutes

- Suction pipe superheated degree  $< 4^{\circ}\text{C}$
- Minimum electronic expansion valve opening degree
- Connector of electronic expansion valve is missing when the power is ON.

### Supposed Causes

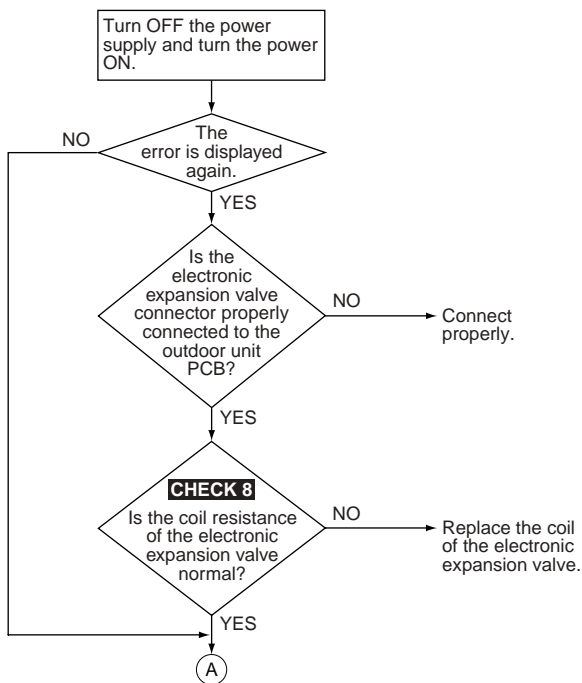
- Defective electronic expansion valve
- Defective solenoid valve
- Defective check valve
- Disconnection of electronic expansion valve harness
- Defective connection of electronic expansion valve connector
- Defective each thermistor
- Defective mounting
- Defective outdoor unit control PCB

## Troubleshooting

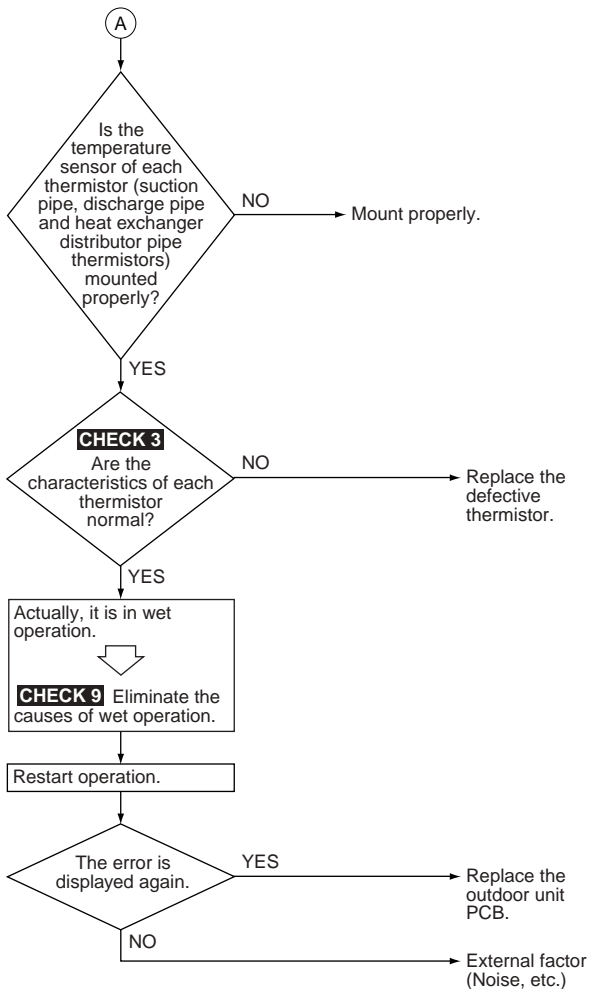


**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 8** Refer to P.270.



**CHECK 3** Refer to P.258.

**CHECK 9** Refer to P.271.

## 3.28 F3 Discharge Pipe Temperature Abnormality

### Remote Controller Display

F3

### Applicable Models

RY-F, R(Y)-G/GA/KU

### Method of Error Detection

The error is detected according to temperature detected by discharge pipe thermistor.

### Error Decision Conditions

- When discharge pipe temperature becomes abnormally high
- When discharge pipe temperature rises suddenly
- When the discharge pipe thermistor comes out of its installed position

### Supposed Causes

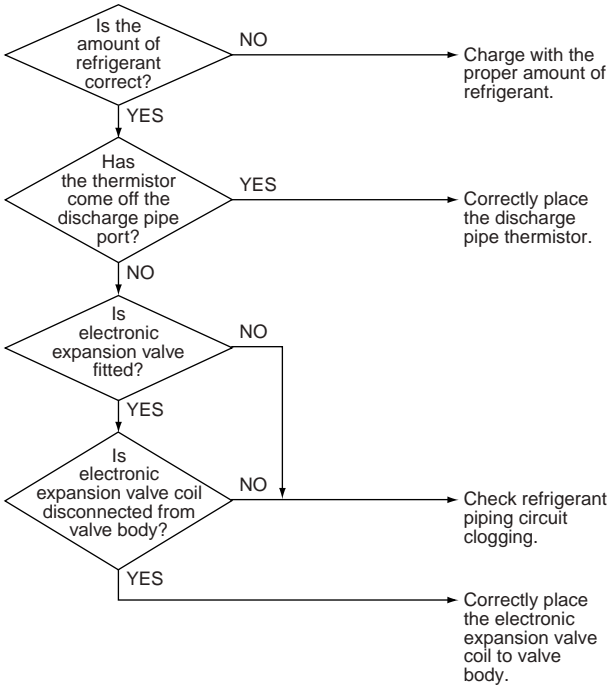
- Improper amount of refrigerant
- Refrigerant piping circuit clogging

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

**F3**

### Applicable Models

R(Y)-LU, RR-M

### Method of Error Detection

The error is detected according to temperature detected by discharge pipe thermistor.

### Error Decision Conditions

- When discharge pipe temperature becomes abnormally high
- When discharge pipe temperature rises suddenly
- When the discharge pipe thermistor comes out of its installed position

### Supposed Causes

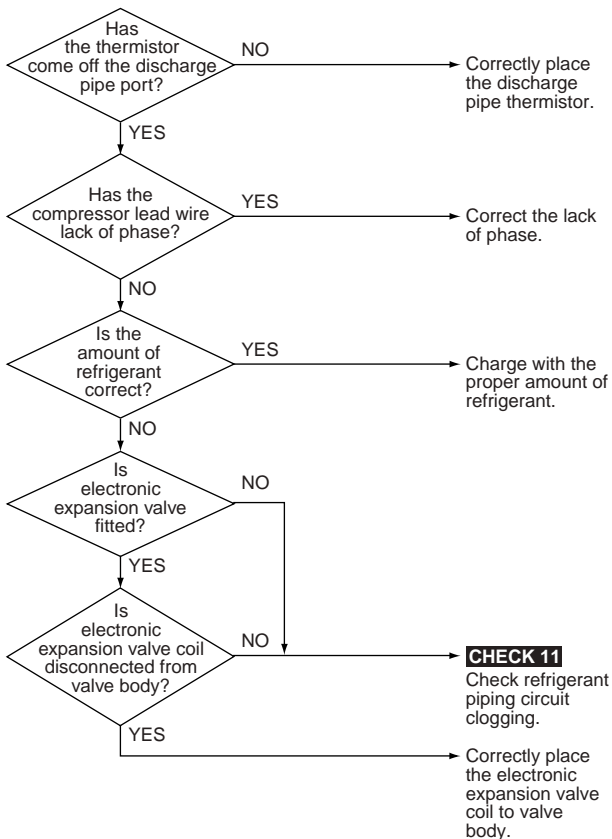
- Improper amount of refrigerant
- Refrigerant piping circuit clogging
- Discharge pipe thermistor comes off the discharge pipe port
- Electronic expansion valve coil is disconnected from valve body
- Compressor lead wire has lack of phase

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 11** Refer to P.274.

## Remote Controller Display

**F3**

### Applicable Models

RZ(Y)

### Method of Error Detection

The error is detected according to the temperature detected by the discharge pipe thermistor.

### Error Decision Conditions

- When the discharge pipe temperature rises to an abnormally high level
- When the discharge pipe temperature rises suddenly

### Supposed Causes

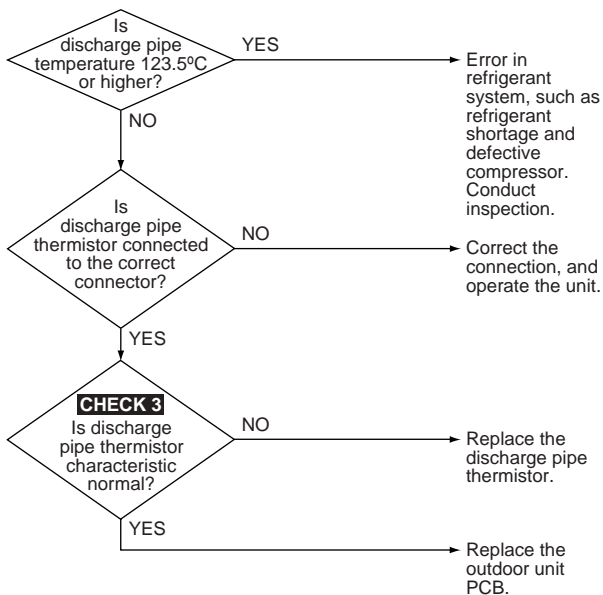
- Defective discharge pipe thermistor
- Defective connection of discharge pipe thermistor
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 3** Refer to P.258.

## 3.29 F3 Discharge Pipe Temperature Control

### Remote Controller Display

F3

### Applicable Models

RZQ-K/H, RZR-KU / HU

### Method of Error Detection

The error is detected according to the temperature detected by the discharge pipe thermistor.

### Error Decision Conditions

- When the discharge pipe temperature rises to an abnormally high level
- When the discharge pipe temperature rises suddenly
- When the discharge pipe temperature does not rise after operation start

### Supposed Causes

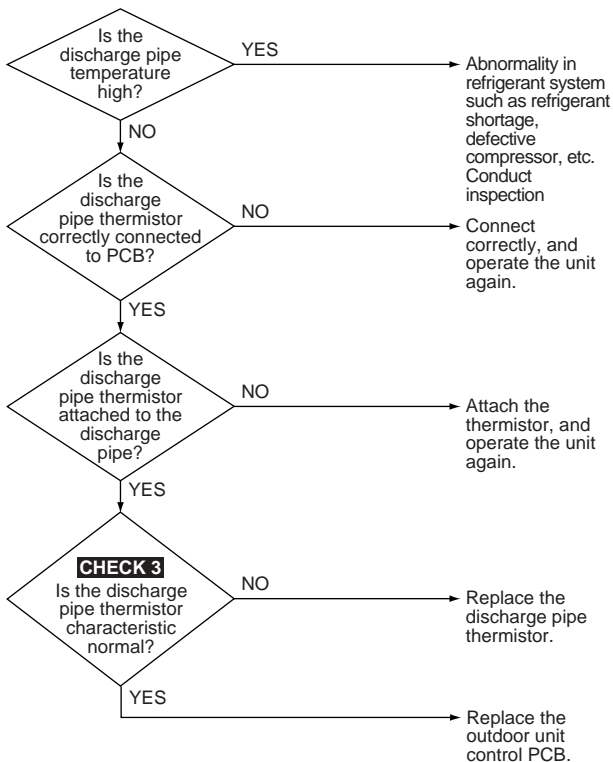
- Defective discharge pipe thermistor
- Defective connection of discharge pipe thermistor
- Refrigerant shortage
- Defective compressor
- Disconnection of discharge pipe thermistor
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 3** Refer to P.258.

## 3.30 F6 Abnormal Heat Exchanging Temperature

### Remote Controller Display

F6

### Applicable Model

R(Y)71~100LU

### Method of Error Detection

The high pressure control (stop) is made according to temperature detected with outdoor unit heat exchanging thermistor in cooling operation or indoor unit heat exchanging thermistor in heating operation.

### Error Decision Conditions

When the outdoor unit heat exchanging temperature in cooling operation or the indoor unit heat exchanging temperature in heating operation exceeds a rated value.

### Possible Causes

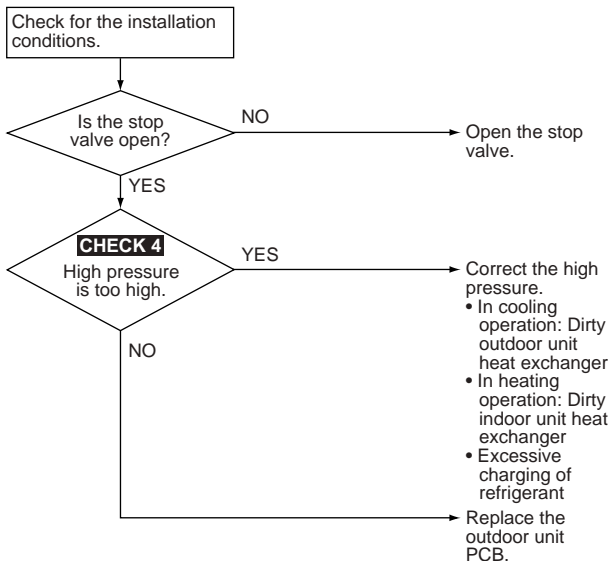
- Clogged indoor unit suction filter (in heating operation)
- Dirty outdoor unit heat exchanger
- Defective outdoor unit fan
- Excessive charging of refrigerant
- Stop valve is left in closed

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 4** Refer to P.262.

## 3.31 H3 High Pressure Switch Abnormality

### Remote Controller Display



### Applicable Models

RY-F, R(Y)-G/GA/KU

### Method of Error Detection

Continuity of the high pressure switch is detected by the safety device circuitry.

### Error Decision Conditions

When the compressor is off and the high pressure switch does not have continuity

### Supposed Causes

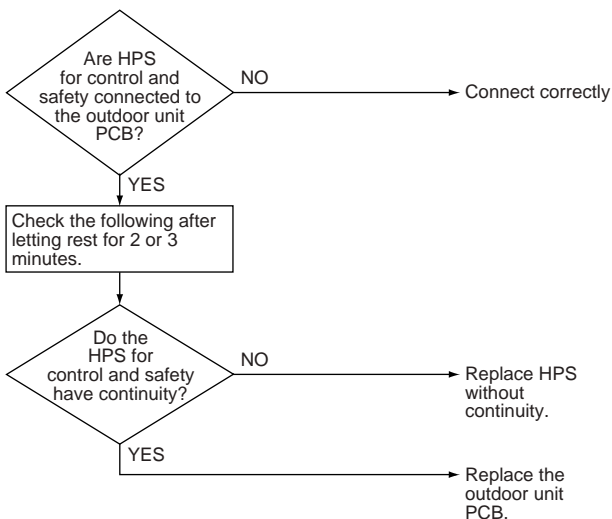
- Defective high pressure switch
- High pressure switch's harness is broken or disconnected
- Defective high pressure switch's connector connection
- Defective outdoor unit PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

H3

### Applicable Model

R(Y)125 • 140LU

### Method of Error Detection

The protection device circuit checks for the continuity in the high pressure switch.

### Error Decision Conditions

When the high pressure switch has no continuity during the compressor stops operating.

### Possible Causes

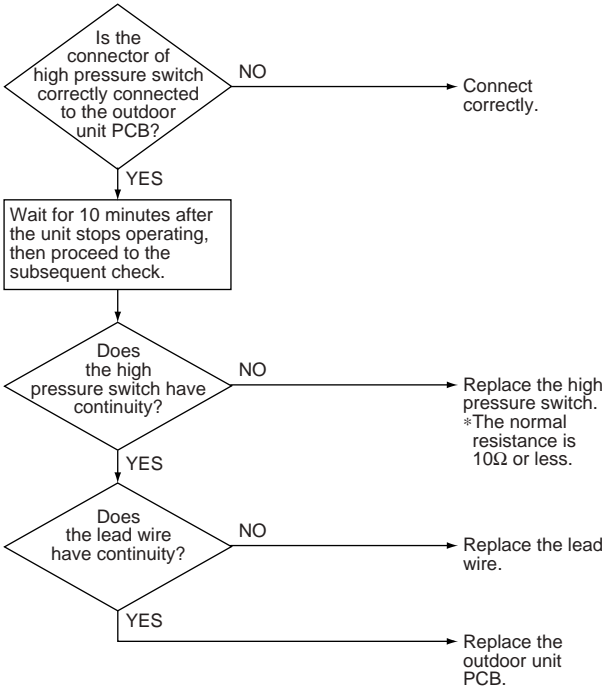
- Defective high pressure switch
- Disconnection in harness of high pressure switch
- Defective connection of high pressure switch connector
- Defective outdoor unit PCB
- Disconnection in lead wire

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

H3

### Applicable Models

RZ(Y)

### Method of Error Detection

The protection device circuit checks continuity in the high pressure switch.

### Error Decision Conditions

When there is no continuity in the high pressure switch during compressor non-operating period.

### Supposed Causes

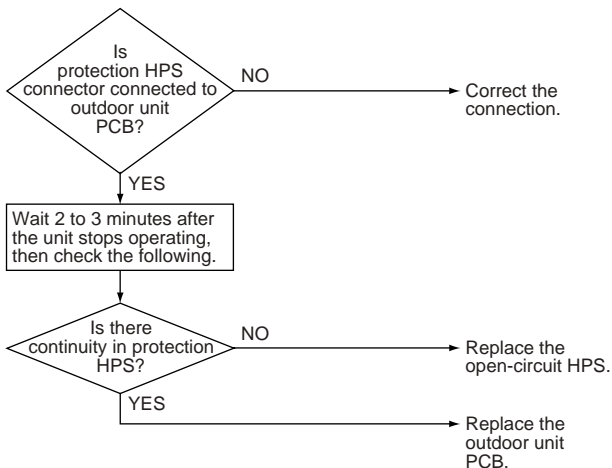
- Defective high pressure switch
- Open circuit in high pressure switch harness
- Defective connection of high pressure switch connector
- Defective outdoor unit PCB.

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.32 H3 High Pressure Switch System Abnormality

### Remote Controller Display

H3

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The protection device circuit checks continuity in the high pressure switch.

### Error Decision Conditions

When there is no continuity in the high pressure switch during compressor stops operating.

### Supposed Causes

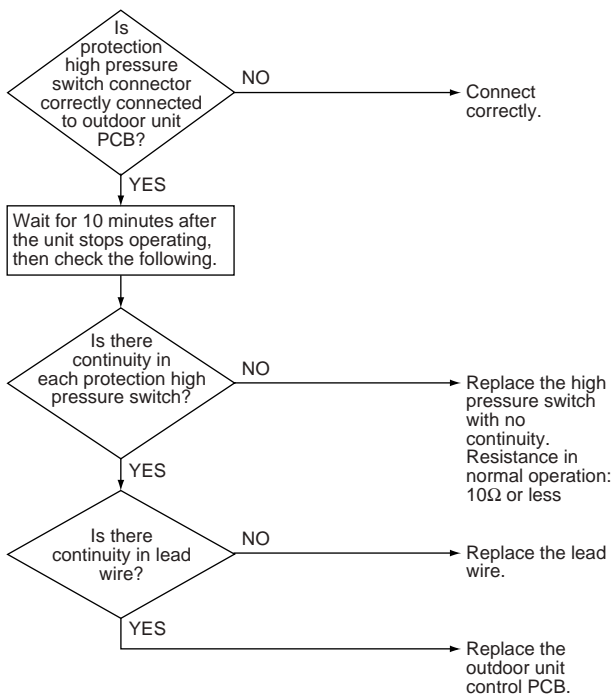
- Incomplete high pressure switch
- Disconnection in high pressure switch harness
- Defective connection of high pressure switch connector
- Defective outdoor unit PCB
- Disconnected lead wire

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.33 **H4** Low Pressure Switch System Abnormality

### Remote Controller Display



### Applicable Models

RZQ-H

### Method of Error Detection

- Check the continuity of low pressure switch
- Low pressure switch is not operated when the low pressure is dropped under specific pressure (0.12MPa).

### Error Decision Conditions

When there is no continuity in the low pressure switch during compressor start operating.

Low pressure switch is not operated when the low pressure is dropped under specific pressure (0.12MPa) during compressor operating.

### Supposed Causes

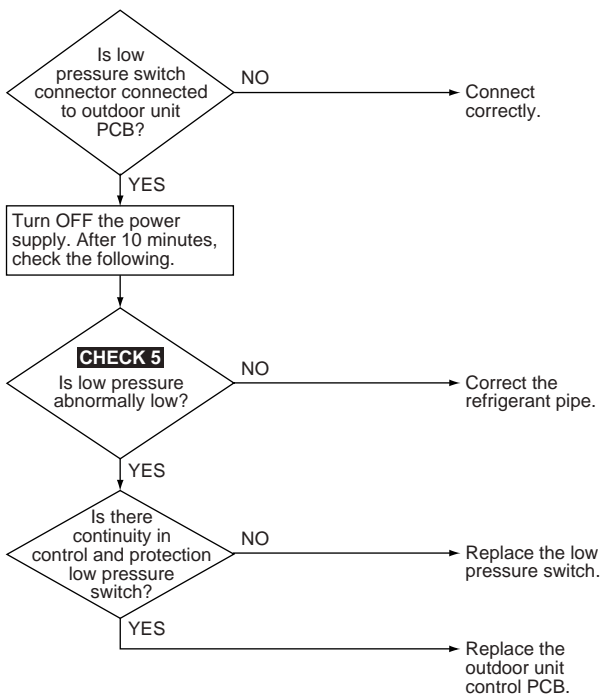
- Defective low pressure switch
- Disconnection in low pressure switch harness
- Defective connection of low pressure switch connector
- Defective outdoor unit PCB
- Refrigerant shortage
- Stop valve is not opened
- Defective electronic expansion valve
- Clogged check valve

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 5**

Refer to P.264.

## 3.34 H9, U3, U5, U6, U7, U8 Thermistor System Abnormality

### Remote Controller Display

H9, U3, U5, U6, U7, U8

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The error is detected according to the temperature detected by each individual thermistor.

### Error Decision Conditions

When thermistor is disconnected or short-circuited during operation

### Supposed Causes

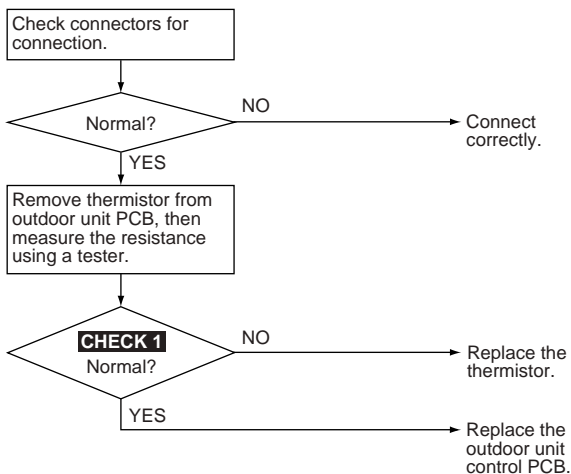
- Defective thermistor
- Defective connection of connector
- Defective outdoor unit control PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



Error Code	Defective Thermistor
H3	Outdoor air thermistor
J3	Discharge pipe thermistor
J5	Suction pipe thermistor
J6	Heat exchanger thermistor
J7	Intermediate heat exchanger thermistor
J8	Liquid pipe thermistor



**CHECK 1** Refer to P.257.

## 3.35 H9 Outdoor Air Thermistor System Abnormality

### Remote Controller Display

H9

### Applicable Models

RY-F/FU, R(Y)-G/GA/KU/LU, RR-M

### Error Decision Conditions

Case where the outdoor air thermistor has a short or open circuit

### Supposed Causes

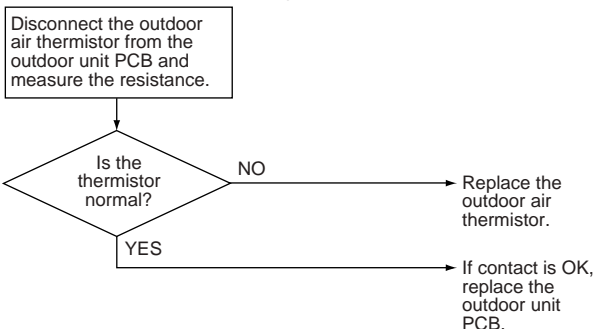
- Defective outdoor air thermistor
- Defective outdoor air thermistor connector connection
- Defective outdoor unit PCB

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

H9

## Applicable Models

RZ(Y)

## Method of Error Detection

The detection is based on abnormal resistance value of the thermistor.

## Error Decision Conditions

When the outdoor air thermistor has short circuit or open circuit.

## Supposed Causes

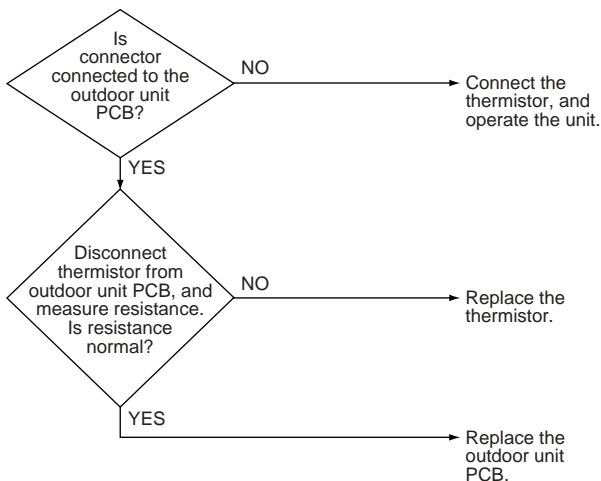
- Defective outdoor air thermistor
- Defective connection of outdoor air thermistor connector
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.36 Pressure Sensor Abnormality

### Remote Controller Display



### Applicable Models

RZQ-K, RZR-KU/HU

### Method of Error Detection

The error is detected by the pressure measured with pressure sensor

### Error Decision Conditions

When the detect pressure becomes following;

- Detected pressure  $\leq -0.05\text{MPa}$  continues 185 sec.
- Detected pressure  $\geq 4.4\text{MPa}$  continues 185 sec.

### Supposed Causes

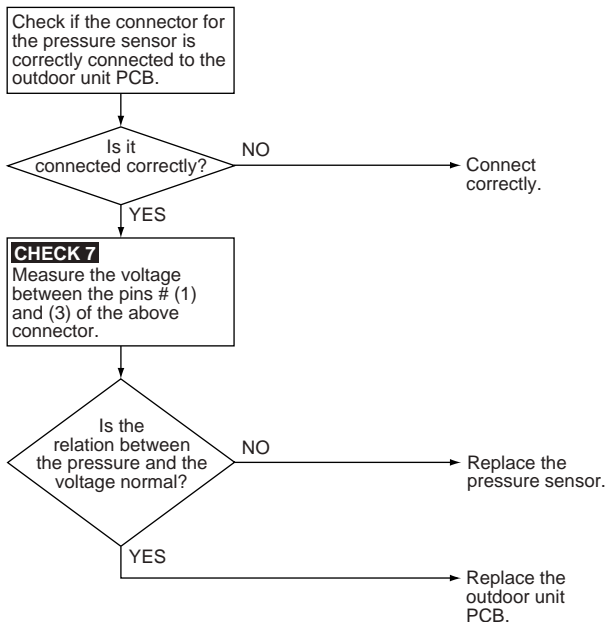
- Defective pressure sensor
- Defective outdoor unit PCB
- Incorrect connection of connector

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 7** Refer to P.268.

## 3.37 Current Sensor System Abnormality

### Remote Controller Display



### Applicable Model

R(Y)-LU, RR-M

### Method of Error Detection

The error of current sensor is detected through the current detected with the current sensor.

### Error Decision Conditions

While in operation:

When the current detected with the current sensor is not more than a constant value (1.5A).

While in stopping:

When the current detected with the current sensor is not less than a constant value (5A).

### Possible Causes

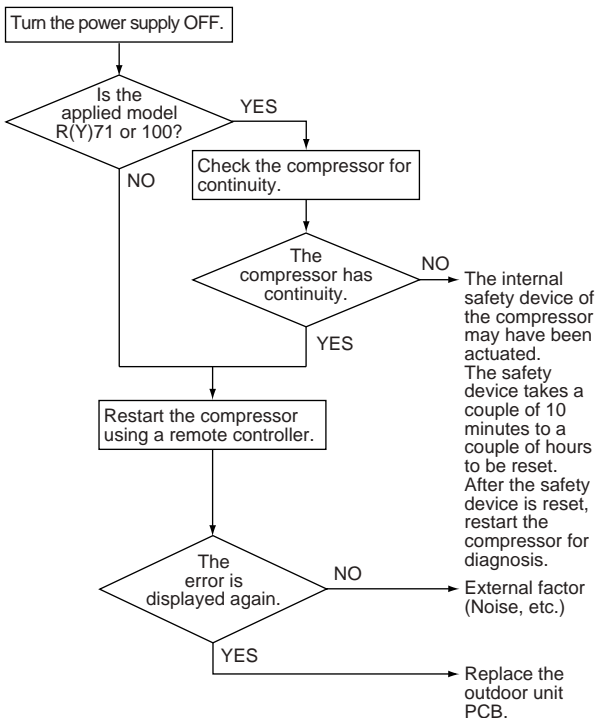
- Defective current sensor
- Defective outdoor unit PCB
- Actuation of internal safety device of compressor  
(Only on R(Y)71/100LU)

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.38 Discharge Pipe Thermistor System Abnormality

### Remote Controller Display



### Applicable Models

RY-F/FU, R(Y)-G/GA/KU/LU, RR-M

### Error Decision Conditions

Case where the discharge pipe thermistor has a short or open circuit

### Supposed Causes

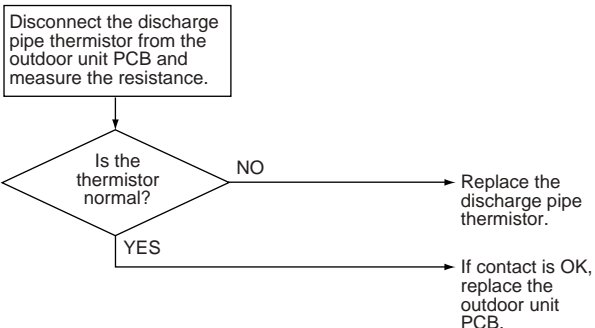
- Defective discharge pipe thermistor
- Defective discharge pipe thermistor's connector connection
- Defective outdoor unit PCB

### Troubleshooting



#### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

The error is detected whether the resistance of thermistor is abnormal or normal.

### Error Decision Conditions

When a short circuit or an open circuit in the outdoor air thermistor is detected.

### Supposed Causes

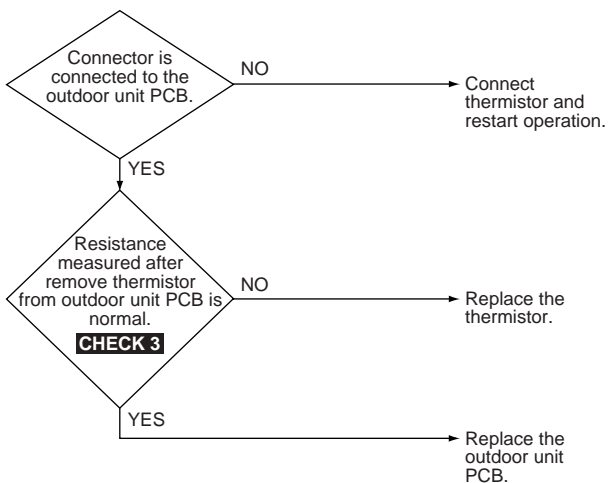
- Defective discharge pipe temperature thermistor
- Incomplete connection of discharge pipe temperature thermistor
- Defective outdoor unit PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 3** Refer to P.258.

## 3.39 Heat Exchanger Thermistor System Abnormality

### Remote Controller Display



### Applicable Models

RY-F/FU, R(Y)-G/GA/KU/LU, RR-M

### Error Decision Conditions

Case where the heat exchanger thermistor has a short or open circuit

### Supposed Causes

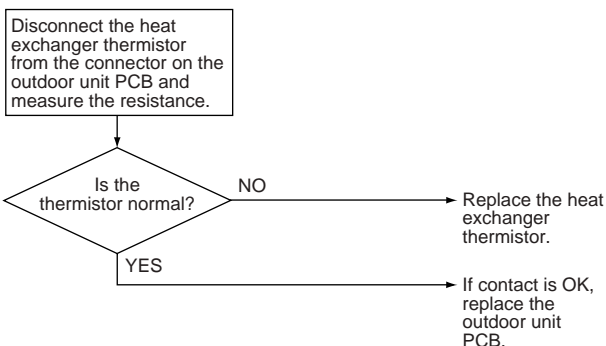
- Defective heat exchanger thermistor
- Defective heat exchanger thermistor's connector connection
- Defective outdoor unit PCB

### Troubleshooting



#### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

The error is detected whether the resistance of thermistor is abnormal or normal.

### Error Decision Conditions

When a short circuit or an open circuit in the outdoor air thermistor is detected.

### Supposed Causes

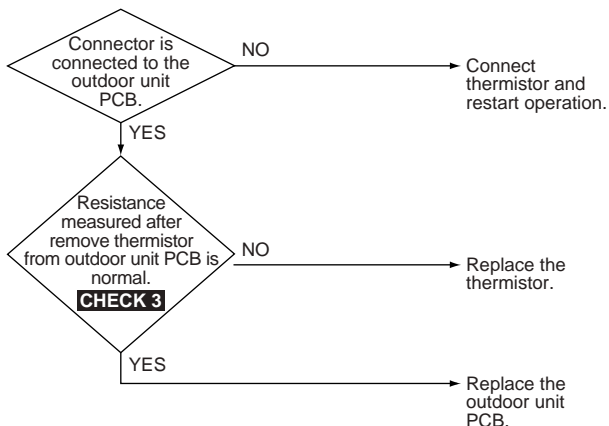
- Defective heat exchanger thermistor
- Incomplete connection of heat exchanger thermistor
- Defective outdoor unit PCB

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 3** Refer to P.258.

## 3.40 Outdoor Unit PCB Abnormality

### Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

- Detect error by current value during waveform output before compressor startup.
- Detect error by current sensor value during synchronized operation at the time of startup.
- Detect error using an MP-PAM series capacitor overvoltage sensor.

### Error Decision Conditions

- When overcurrent is detected at the time of waveform output before operating the compressor
- When the current sensor error during synchronized operation
- When overvoltage occurs in MP-PAM
- In case of IGBT error
- In case of defective jumper setting

### Supposed Causes

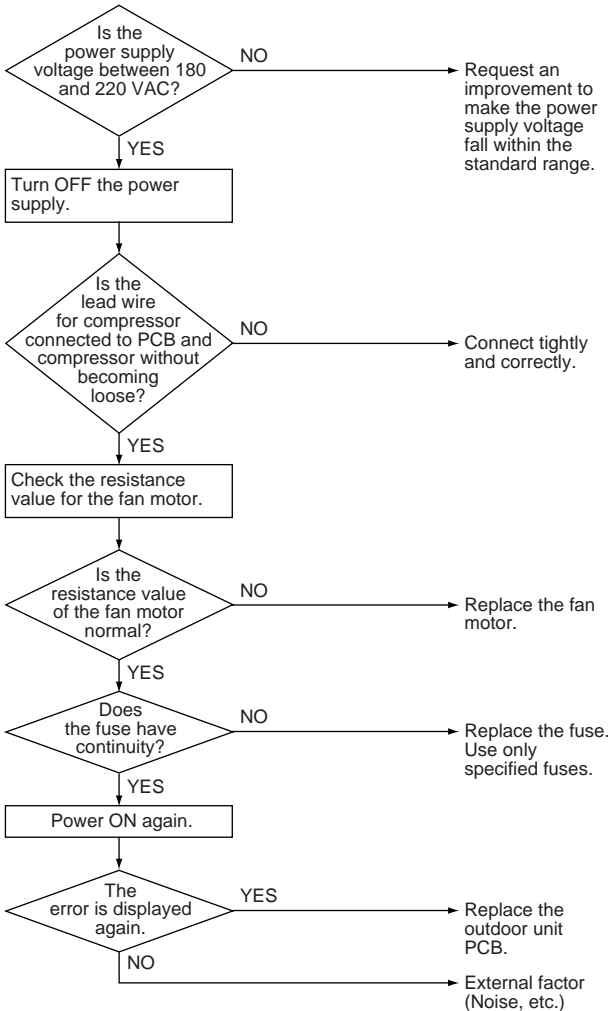
- Defective outdoor unit PCB
  - Defective IPM
  - Defective Current sensor
  - Defective MP-PAM
  - Defective IGBT or drive circuit

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.41 Overcurrent of DC Output (Instantaneous)

### Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

Fin temperature is detected by the thermistor of the radiation fin.

### Error Decision Conditions

When the temperature of the inverter radiation fin increases abnormally due to defective heat dissipation.

### Supposed Causes

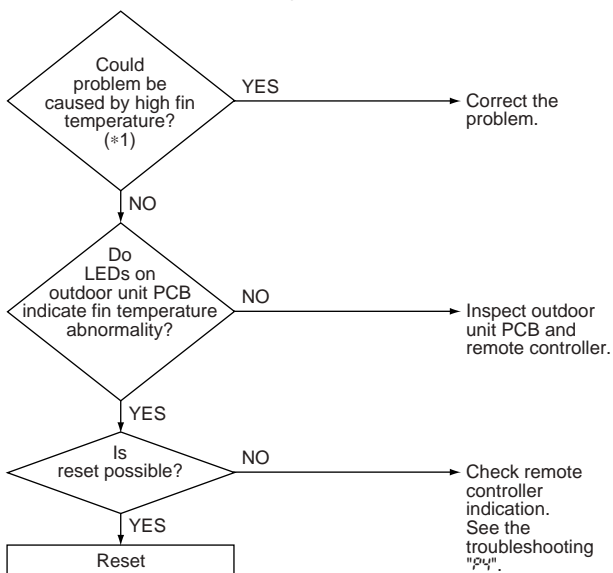
- Activation of fin thermal switch
- Defective radiation fin thermistor
- High outdoor air temperature
- Insufficient cooling of inverter radiation fin
- Blocked suction opening
- Dirty radiation fin
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

#### \*1. Fin temperature detection values

Model	Detection	Reset
RZ(Y)71L	85.5°C	80.5°C
RZY100~125L	85.0°C	80.0°C

## 3.42 **L4** Radiation Fin Temperature Rise

### Remote Controller Display

**L4**

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Radiation fin temperature is detected by the radiation fin thermistor.

### Error Decision Conditions

When the temperature of the inverter radiation fin rises abnormally due to defective heat dissipation.

### Supposed Causes

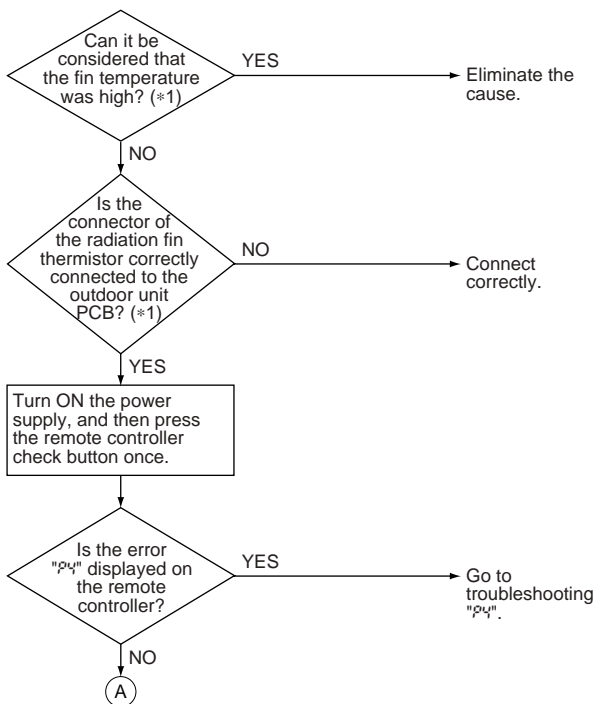
- Defective radiation fin thermistor
- High outdoor air temperature
- Blocked suction opening
- Dirty radiation fin
- Defective outdoor inverter PCB
- Activation of fin thermal switch (For RZQ-K, RZR-KU/HU)
- Insufficient cooling of inverter radiation fin (For RZQ-K, RZR-KU/HU)
- Defective propeller fan (For RZR-KUV2S)

## Troubleshooting



### Caution

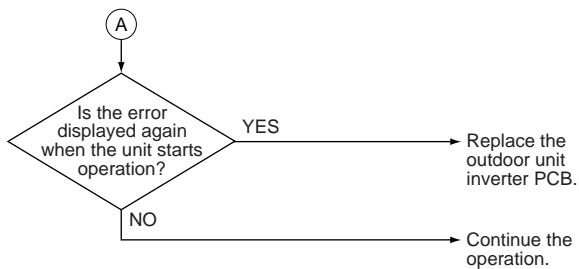
Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

\*1. Radiation fin temperature detection value

Model	Detection	Reset
RZQ	76°C	66°C
RZR71KUV1	87°C	77°C
RZR100~140KUV1 RZR100~140HUY1 RZR-KUV2S RZR-HUY2S	88°C	78°C



## 3.43 U5 Overcurrent of DC Output (Instantaneous)

### Remote Controller Display

U5

### Applicable Models

RZ(Y)

### Method of Error Detection

Current flowing in the power transistor is converted to voltage by T1C (DC current sensor) for detection.

### Error Decision Conditions

When an excessive current flows in the power transistor.  
(Instantaneous overcurrent also causes activation.)

### Supposed Causes

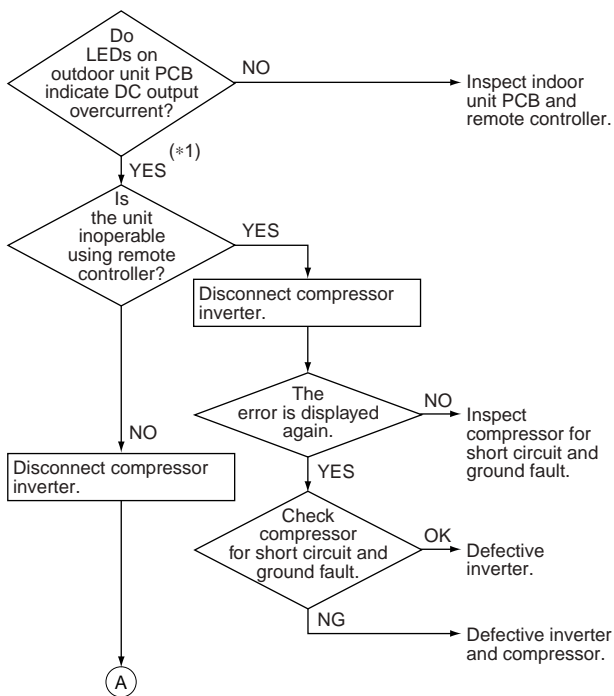
- Defective compressor coil (open circuit, defective insulation)
- Defective compressor startup (seizing)
- Defective inverter
- Defective outdoor unit PCB
- Momentary disturbance in supply voltage

## Troubleshooting



**Caution**

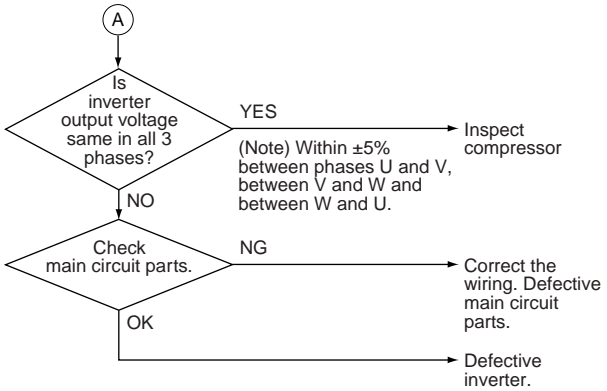
Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

\*1. Guideline values

Model	Instantaneous overcurrent detection value
RZ(Y)71~125L	65A



**Note:**

If an overcurrent results during motor pre-heating, reset by remote controller may not be possible.

## 3.44 U5 Output Overcurrent Detection

### Remote Controller Display

U5

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The error is detected by converting the current flowing to power transistor into voltage with CT1 (DC current sensor).

### Error Decision Conditions

When overcurrent has run to power transistor.  
(Actuated even by instantaneous overcurrent)

### Supposed Causes

- Defective compressor coil (disconnection, poor insulation)
- Compressor startup error (mechanical lock)
- Defective inverter PCB
- Instantaneous fluctuation of power supply voltage
- Defective compressor (if bearing is scratched)
- The stop valve is left in closed.

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

Check the installation conditions.

Is the stop valve open?

NO

Open the stop valve.

YES

Is the compressor coil disconnected or is the insulation defective?

YES

Replace the compressor.

NO

Turn OFF the power supply, and then disconnect the connection between the compressor and inverter.

**CHECK 4**  
Continuity check in the power transistor (IGBT). Is the continuity normal?

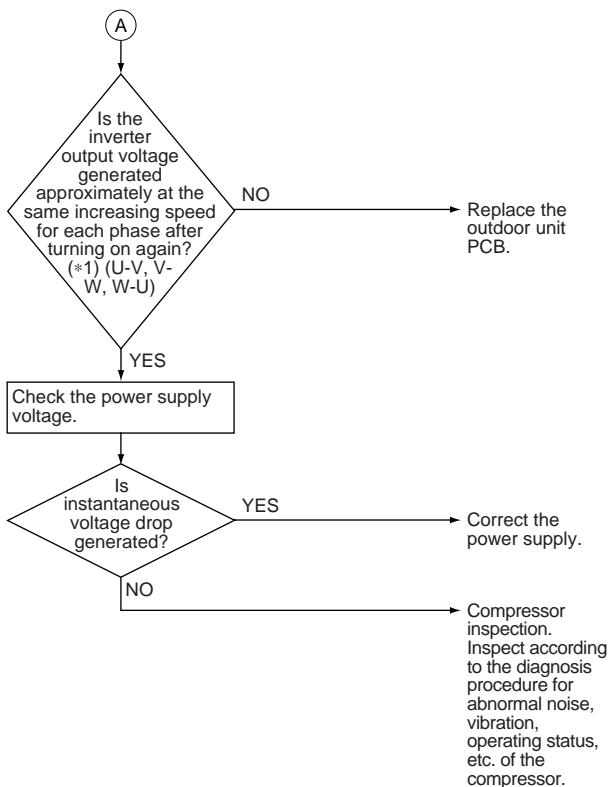
NO

Replace the outdoor unit PCB.

YES



**CHECK 4** Refer to P.262.



**Note:**

\*1. Approximate value

When operating compressor with compressor output line disconnected, the compressor stops due to error after elapsed time of 5 seconds. Therefore, check the voltage increase for 5 seconds.

Model	Instantaneous overcurrent detection value
RZQ71K, RZR71K	32.0A
RZQ100-160H	32.3A
RZR100-140HUY1 RZR-KUV2S RZR-HUY2S	51.7A

## 3.45 (L8) Electronic Thermal Switch (Time Lag)

### Remote Controller Display

(L8)

- \* No display on remote controller. See "Error decision condition" below for more detail.

### Applicable Models

RZ(Y)

### Method of Error Detection

Current flowing in the power transistor is converted to voltage by T1C (DC current sensor) for detection.

### Error Decision Conditions

When overload in the compressor is detected (exception: at startup).

- \* In RZ(Y), error is not generated by the electronic thermal switch. Instead, the unit repeats retry operations. The remote controller does not indication "L8."
- Therefore, check the LED indication in the outdoor unit for problem diagnosis.

### Supposed Causes

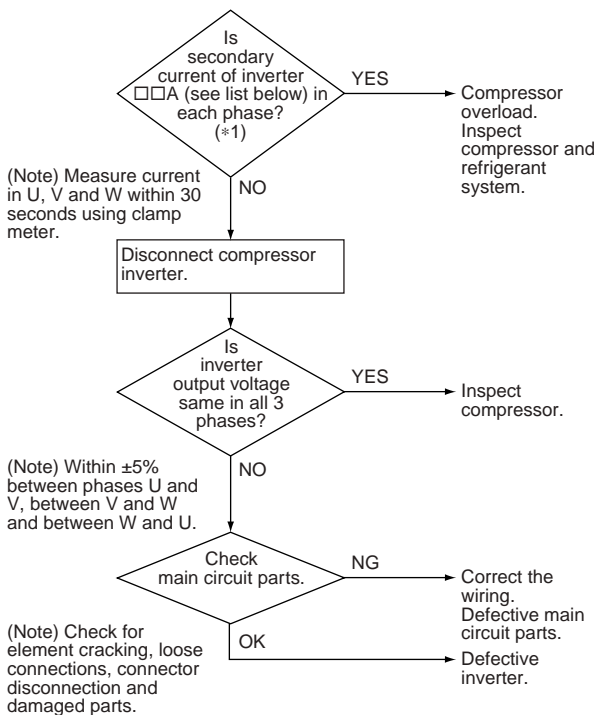
- Compressor overload (in operation)
- Open circuit in compressor coil
- Defective outdoor unit PCB
- Defective inverter

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

#### \*1. Electronic thermal switch detecting value

Model	Cool/Heat *2	Detection Value
RZY71L	Cool	20.5~22.0A
	Heat	24.0A
RZY100L	Cool	20.1~23.0A
	Heat	21.8~23.0A
RZY125L	Cool	21.0~23.7A
	Heat	21.3~23.7A



**Note:**

- \*2. • Detecting values vary according to operating frequency.
- Detecting value decrease 10% for each HPS activation.

## 3.46 **L8** Electronic Thermal (Time Lag)

### Remote Controller Display

**L8**

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The error is detected from the current flowing to power transistor into voltage with CT1 (DC current sensor). Inverter PCB detects the disorder of position signal.

### Error Decision Conditions

When compressor overload (except for when startup) is detected.

### Supposed Causes

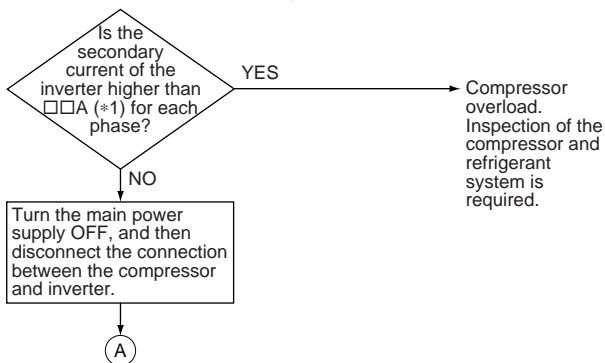
- Compressor overload (during operation)
- Disconnected compressor coil
- Defective inverter
- Defective compressor (if bearing is scratched)
- Defective outdoor unit PCB

## Troubleshooting



**Caution**

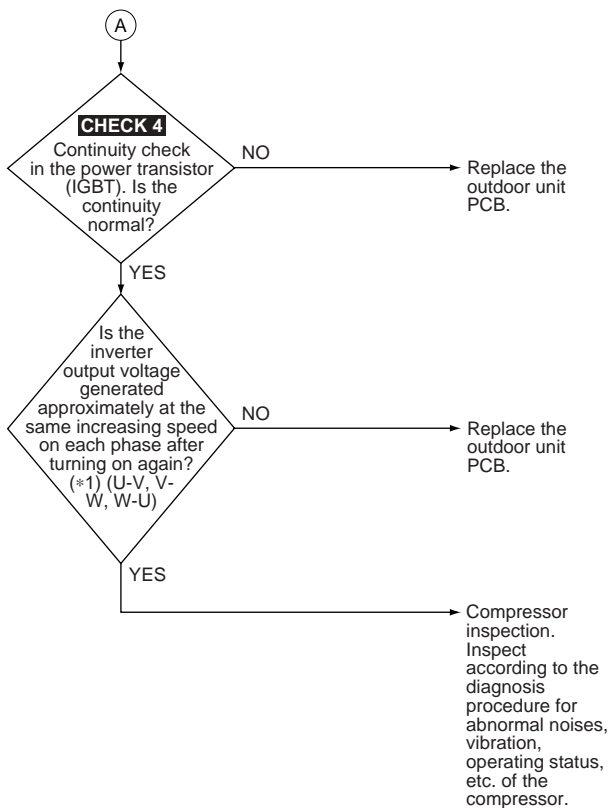
Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

\*1. Electronic thermal detection value

Model		Detection value
RZQ	Cooling	17A × 5 seconds or 12.1A × 260 seconds
	Heating	17A × 5 seconds or 14.1A × 260 seconds



**i** Note:

- \*1. When operating compressor with compressor output line disconnected, the compressor stops due to error after elapsed time of 5 seconds. Therefore, check the voltage increase for 5 seconds.

**L** **CHECK 4** Refer to P.262.

## 3.47 **L9** Stall Prevention (Time Lag)

### Remote Controller Display

**L9**

### Applicable Models

RZ(Y)

### Method of Error Detection

Current flowing in the power transistor is converted to voltage by T1C (DC current sensor) for detection.

### Error Decision Conditions

When overload in the compressor is detected during startup

### Supposed Causes

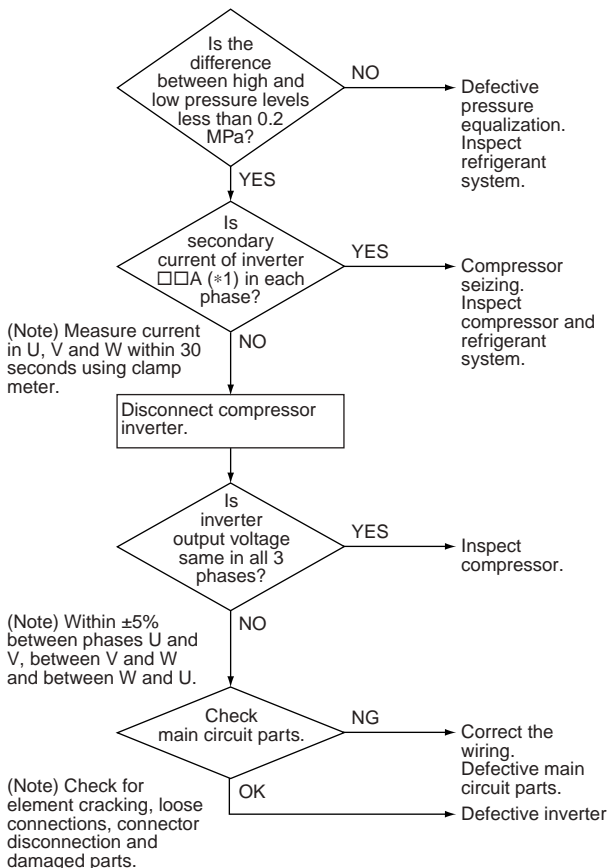
- Defective compressor (seizing)
- Pressure difference during startup
- Defective inverter
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

#### \*1. Guideline values

Model	Instantaneous overcurrent detection value
RZ(Y)71~125L	24.0A

## Remote Controller Display

L9

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The error is detected from the current flowing to power transistor into voltage with CT1 (DC current sensor). Inverter PCB detects the disorder of position signal.

### Error Decision Conditions

When compressor overload and change of load on is detected

When position signal is disordered. (For RZQ-K)

### Supposed Causes

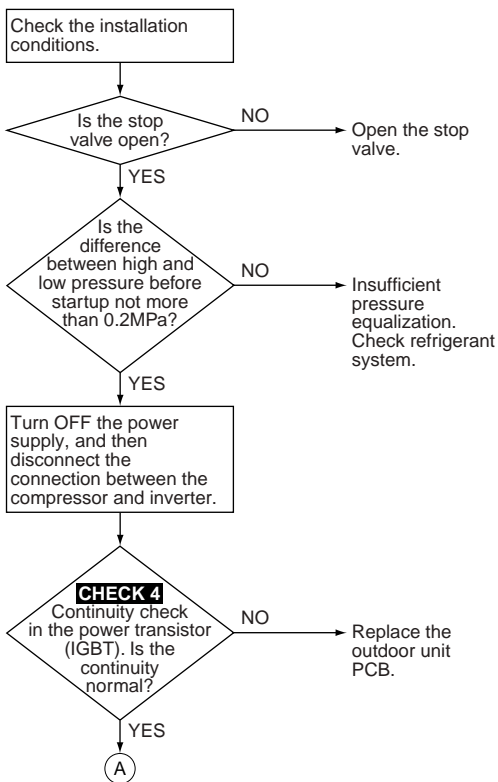
- The stop valve is left in closed.
- Pressure differential startup
- Defective inverter outdoor unit PCB
- Defective compressor (lock)

## Troubleshooting



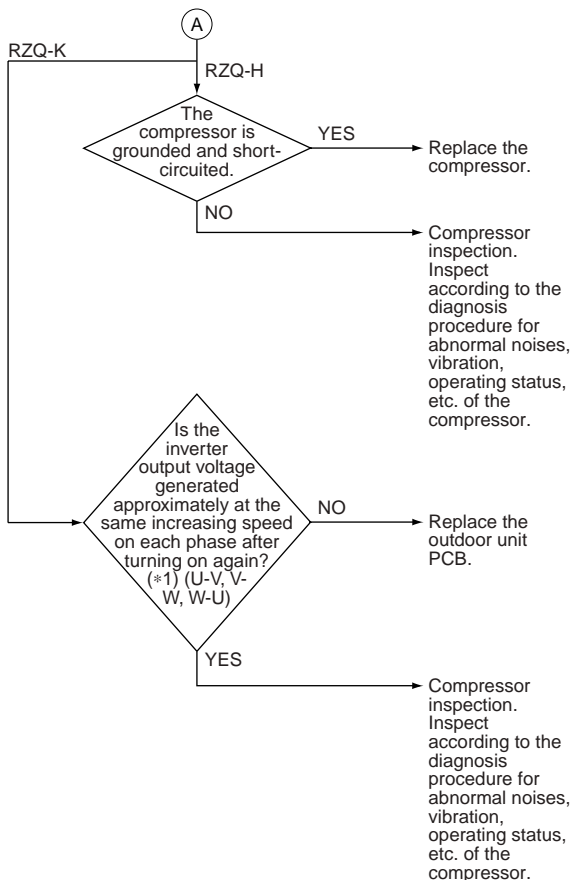
**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 4**

Refer to P.262.



**i** Note:

\*1. When operating compressor with compressor output line disconnected, the compressor stops due to error after elapsed time of 5 seconds. Therefore, check the voltage increase for 5 seconds.

## 3.48 **LL** Transmission Error (between Control PCB and Inverter PCB)

### Remote Controller Display

**LL**

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Check whether transmission between control PCB and inverter PCB is carried out normally.

### Error Decision Conditions

When the transmission is not carried out in a specified period of time or longer

### Supposed Causes

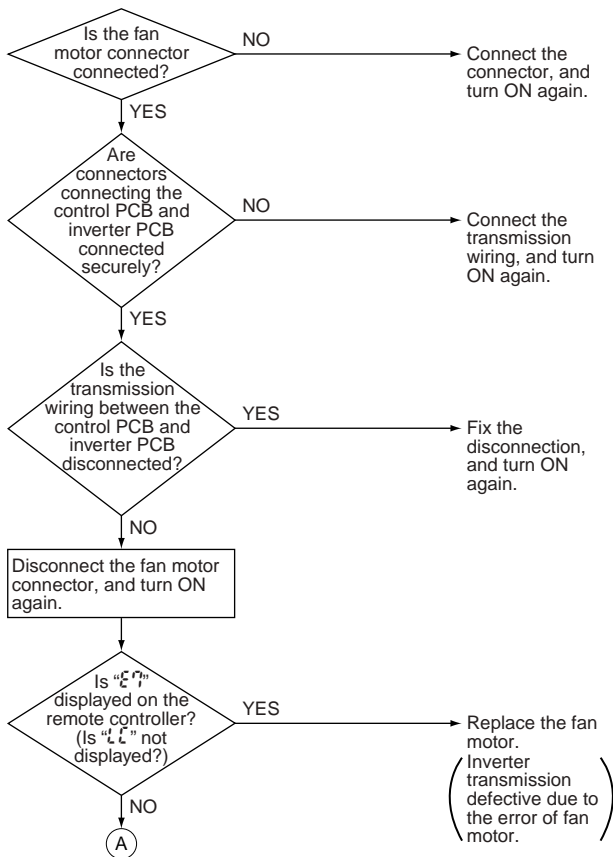
- Incorrect transmission wiring between control PCB and inverter PCB/insufficient contact in wiring
- Defective control PCB and inverter PCB
- External factor (Noise, etc.)
- Defective outdoor unit fan motor
- Defective fan motor connector contact

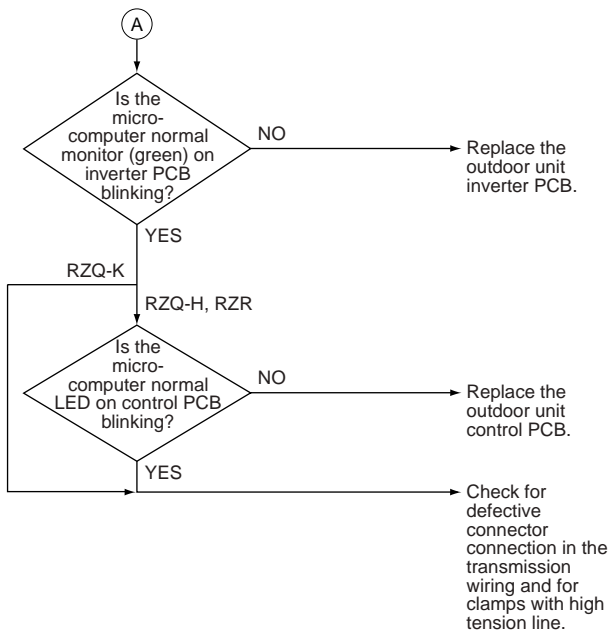
## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## 3.49 P1 Open Phase or Power Supply Voltage Imbalance

### Remote Controller Display

P1

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The error is detected according to the voltage waveform of main circuit capacitor built in inverter.

### Error Decision Conditions

When the aforementioned voltage waveform becomes identical with the waveform of the power supply open phase.

### Supposed Causes

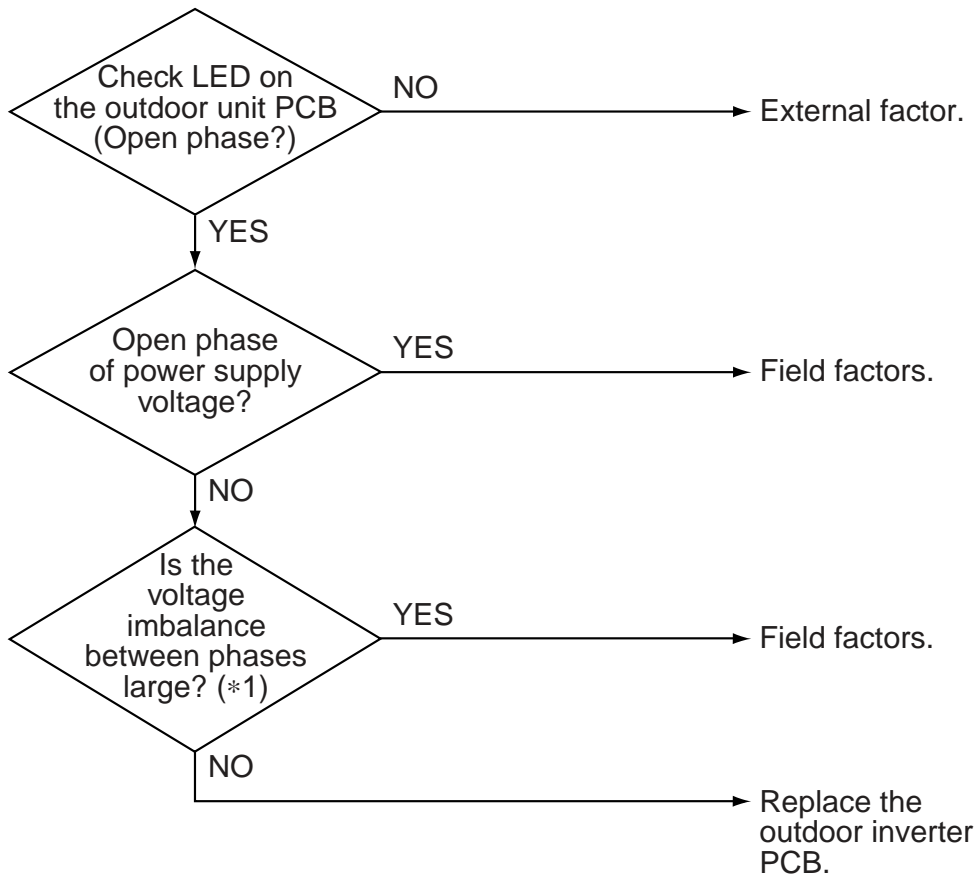
- Open phase
- Voltage imbalance between phases
- Defective outdoor inverter PCB
  - Defective main circuit capacitor
  - Power unit (Disconnection in diode module)
  - Defective magnetic relay
  - Improper main circuit wiring

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

\*1. Target :  $\pm 10V$  between phases, R-S, S-T, T-R

## 3.50 P4 Radiation Fin Thermistor Abnormality

### Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

Open circuit or short circuit in radiation fin thermistor is detected when the compressor is not operating.

### Error Decision Conditions

When open circuit or short circuit in radiation fin thermistor is detected in non-operating compressor

### Supposed Causes

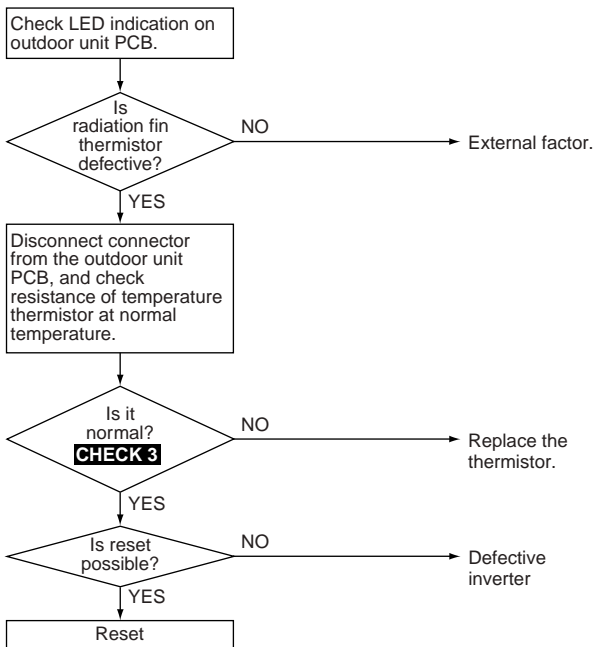
- Defective thermistor
- Defective outdoor unit PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 3**

Refer to P.258.

## 3.51 P4 Radiation Fin Thermistor or Related Abnormality

### Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Detection by open or short circuit of the radiation fin thermistor during the compressor stops operating.

### Error Decision Conditions

When open or short circuit of the radiation fin thermistor is detected during the compressor stops operating

### Supposed Causes

- Defective radiation fin thermistor
- Defective outdoor unit PCB

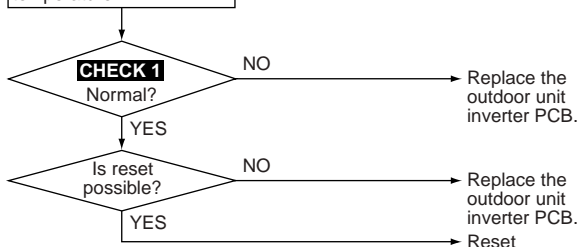
### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

Disconnect the connector on inverter PCB, then check the thermistor resistance at the ordinary temperature.



**CHECK 1** Refer to P.257.

## 3.52 PU Defective Capacity Setting

### Remote Controller Display

PU

### Applicable Model

R(Y)-LU, RR-M

### Method of Error Detection

Check whether set value (i.e., factory set value) written in E<sup>2</sup>PROM or set value with the (replaced) capacity setting adaptor (X26A) is the same as that of outdoor unit capacity.

### Error Decision Conditions

When the set value with the E<sup>2</sup>PROM differs from that of the outdoor unit capacity or any capacity setting adaptor other than that suitable for the applicable PCB is installed. (However, the error decision is made only when the power supply is turned ON.)

### Possible Causes

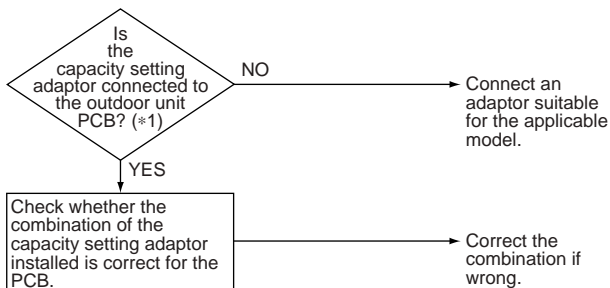
- Improper set value with E<sup>2</sup>PROM
- Improper capacity setting adaptor installed
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

- \*1. The capacity setting adaptor is not connected at the time of shipment from factory. (The capacity is written in the E<sup>2</sup>PROM.)

This capacity setting adaptor is required only when the PCB is replaced with a spare PCB.

## 3.53 PU Error in Capacity Setting

### Remote Controller Display

PU

### Applicable Models

RZ(Y)

### Method of Error Detection

Checks if the value set in the capacity setting adaptor is the same as the capacity set in the outdoor unit PCB.

### Error Decision Conditions

Error is generated when installed with the capacity setting adaptor incompatible with the PCB. (Judgement is made only when the power switch is turned ON.)

### Supposed Causes

- Inappropriate capacity setting adaptor
- Defective outdoor unit PCB

### Troubleshooting

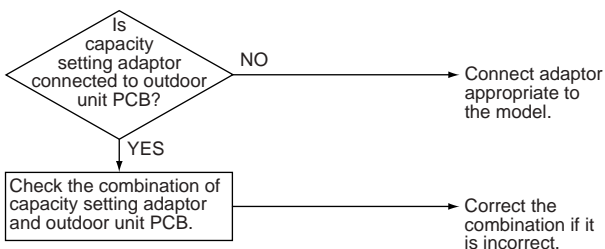


**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

Incorrect combination of capacity setting adaptor and outdoor unit PCB.  
Capacity setting adaptor is not connected to outdoor unit PCB.

Install correct adaptor.



## 3.54 PU Defective Capacity Setting

### Remote Controller Display

PU

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Check whether set value written in E<sup>2</sup>PROM (at factory) or set value of capacity setting adaptor (for replacement) is the same as outdoor unit capacity.

### Error Decision Conditions

When the set value on E<sup>2</sup>PROM differs from the outdoor unit capacity or a capacity setting adaptor except for PCB applicable models is installed. (Error decision is made only when turning the power supply ON.)

### Supposed Causes

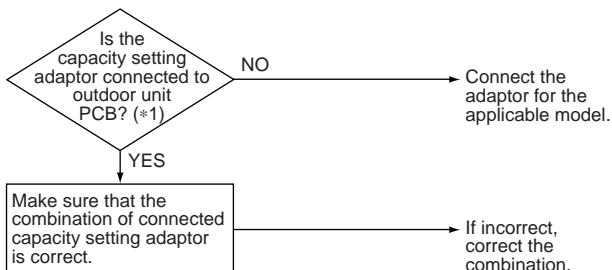
- Improper set value of E<sup>2</sup>PROM
- Improper capacity setting adaptor
- Defective outdoor unit PCB

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

- \*1. Capacity setting adaptor is not connected at factory. (Capacity is written in E<sup>2</sup>PROM.) Capacity setting adaptor is required only when the PCB was replaced with a spare PCB.

## 3.55 Refrigerant Shortage

### Remote Controller Display



### Applicable Models

RY-F, R(Y)-G/GA/KU/LU, RR-M

### Method of Error Detection

Lack of gas is detected according to discharge pipe temperature.

### Error Decision Conditions

Micro-computer decides whether there is a refrigerant shortage and detects error.

- Stop due to error does not occur even though an error is determined to have occurred.

### Supposed Causes

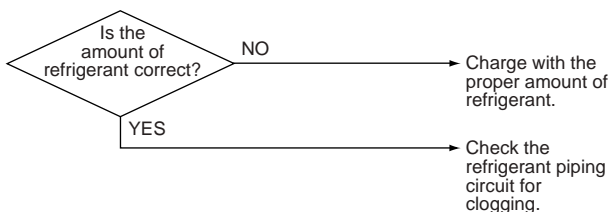
- Refrigerant shortage
- Refrigerant piping circuit clogging

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display



## Applicable Models

RZ(Y)

## Method of Error Detection

Refrigerant shortage is detected based on the discharge pipe temperature.

## Error Decision Conditions

Micro-computer judges and detects whether refrigerant shortage occurs or not.

\* The system does not decide to error and repeats retry.  
Press the check button to indication "U0"

## Supposed Causes

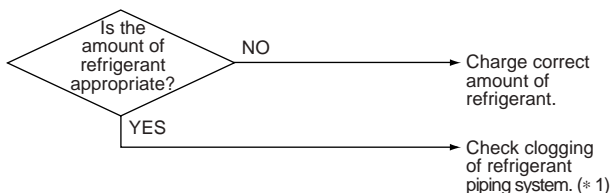
- Refrigerant shortage
- Clogged refrigerant piping system (\*1)

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

\*1. Check point:

1. Refrigerant filter clogging
2. Electronic expansion valve operation
3. Check valve operation
4. Defective thermistor

## Remote Controller Display



## Applicable Models

RZQ-K/H

## Method of Error Detection

(In normal operation)

Refrigerant shortage is detected according to the electronic expansion valve opening degree and measured temperatures and pressures.

## Error Decision Conditions

(In cooling operation)

When the electronic expansion valve opens fully and low pressure is below 0.1 MPa continuously for 30 minutes.

(In heating operation)

When the electronic expansion valve opens fully and the suction superheat is large (more than 20°C) continuously for 30 minutes.

\* Refrigerant shortage alarm is indicated but operation continues.

## Supposed Causes

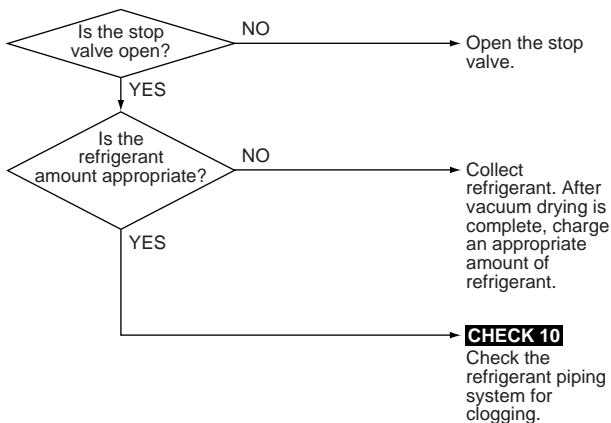
- The stop valve is left in closed.
- Insufficient refrigerant amount
- Clogged refrigerant piping system

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 10** Refer to P.272.

## Remote Controller Display



## Applicable Models

RZR71KUV1

## Method of Error Detection

(In cooling operation)

Detection based on difference in temperature between temperature preset by remote controller and indoor suction air temperature, electronic expansion valve opening degree, compressor frequency and low pressure.

## Error Decision Conditions

(In cooling operation)

When compressor frequency does not increase even though the load is heavy because the electronic expansion valve is opened to the fullest extent

[If low pressure drops when the compressor is at 41Hz, error is confirmed.]

## Supposed Causes

- Refrigerant shortage
- Clogged refrigerant piping system
- Mismatching of wiring and piping

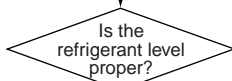
## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.

**CHECK 13** Check for inadequate refrigerant.

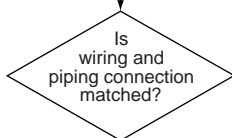


NO

Collect refrigerant and recharge a proper amount of refrigerant after vacuum drying.

YES

Check the inter-unit wiring and piping between the indoor and outdoor units.



NO

Match wiring and piping connection.

YES

Check the refrigerant piping system for clogging.

**CHECK 8**



**CHECK 8** Refer to P.270.

**CHECK 13** Refer to P.279.

## 3.56 Reverse Phase

### Remote Controller Display



### Applicable Models

RY-F, R(Y)-G/GA/KU  
(3-phase equipment only)

### Method of Error Detection

Reverse phase detection circuit detects the phase of each phase and determines whether it is normal phase, reverse phase or lack of phase.

### Supposed Causes

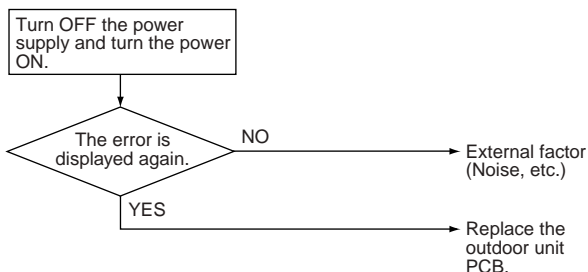
- Defective power supply wiring connection
- Power supply wiring is broken or disconnected.
- Defective outdoor unit PCB

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display



### Applicable Model

R(Y)-LU, RR-M

### Method of Error Detection

The reverse phase detection circuit detects the phase of each phase and judge whether it is normal or reverse.

### Possible Causes

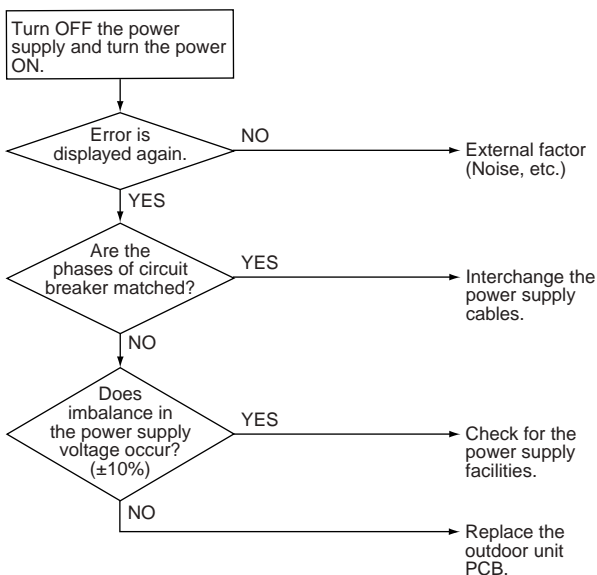
- Defective connection of power supply wiring
- Disconnection in power supply wiring

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.57 U2 Insufficient Voltage

### Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

Detection is based on the voltage in main circuit capacitor for inverter and the supply voltage.

### Error Decision Conditions

When the voltage in main circuit capacitor for inverter and the supply voltage drop (171 - 190 VAC), or when power outage of more than 20 or 30 ms occurs.

### Supposed Causes

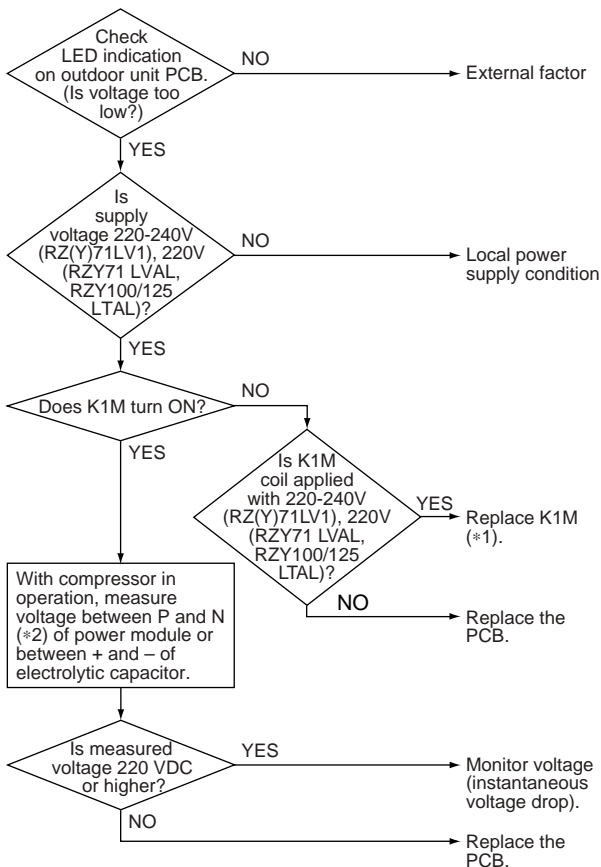
- Supply voltage drop (lower than 198 V)
- Momentary power outage
- Open phase
- Defective K1M
- Defective contact or open circuit in X51A
- Defective wiring in main circuit
- Defective outdoor unit PCB
- Damaged main circuit parts

## Troubleshooting



### Caution

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### Note:

- \*1. K1M replacement possible in RZY100/125L.
- \*2. For RZY71: Between terminals P1 and N1  
For RZY100~125L: Between terminals P2 and N1

## 3.58 Power Supply Voltage Abnormality

### Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

The error is detected according to the voltage of main circuit capacitor built in the inverter and power supply voltage.

### Error Decision Conditions

When the voltage of main circuit capacitor built in the inverter and power supply voltage drop (150-170 VAC) or when the power failure of several tens of ms or more is generated.

\* Remote controller does not decide the abnormality.

### Supposed Causes

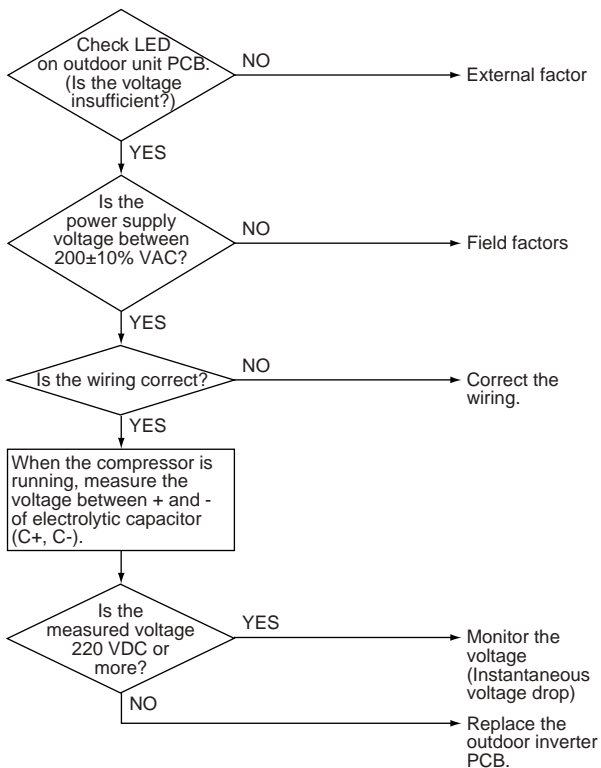
- Drop in power supply voltage (180 V or less)
- Instantaneous power failure
- Inverter open phase (Phase T)
- Defective main circuit wiring
- Defective outdoor unit inverter PCB
- Main circuit parts damaged

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



### **3.59 U4 or U5 Transmission Error (Between Indoor Unit and Outdoor Unit)**

#### **Remote Controller Display**

**U4**

#### **Applicable Models**

R(Y)-FU

#### **Method of Error Detection**

Micro-computer checks if transmission between indoor and outdoor units is normal.

#### **Error Decision Conditions**

When transmission is not carried out normally for a certain amount of time

#### **Supposed Causes**

- Wiring indoor-outdoor transmission wire is incorrect.
- Defective indoor unit PCB
- Defective outdoor unit PCB
- External factor (Noise, etc.)

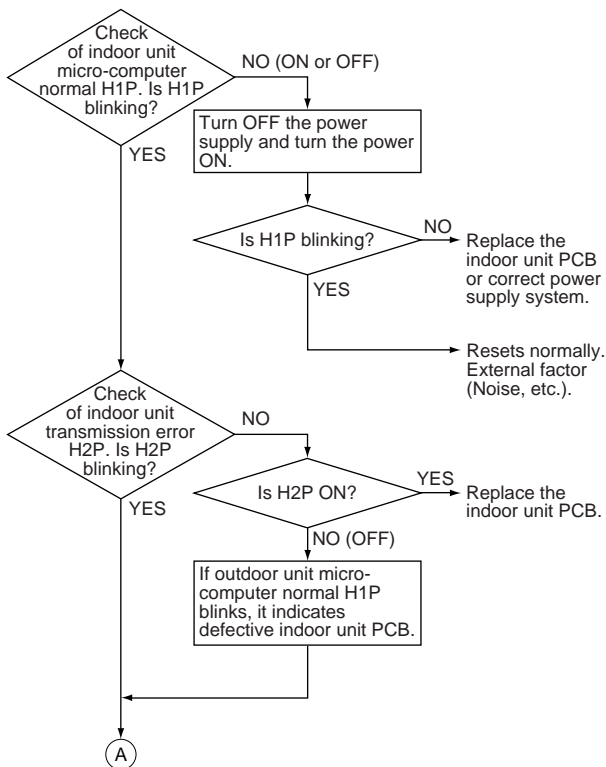
## Troubleshooting

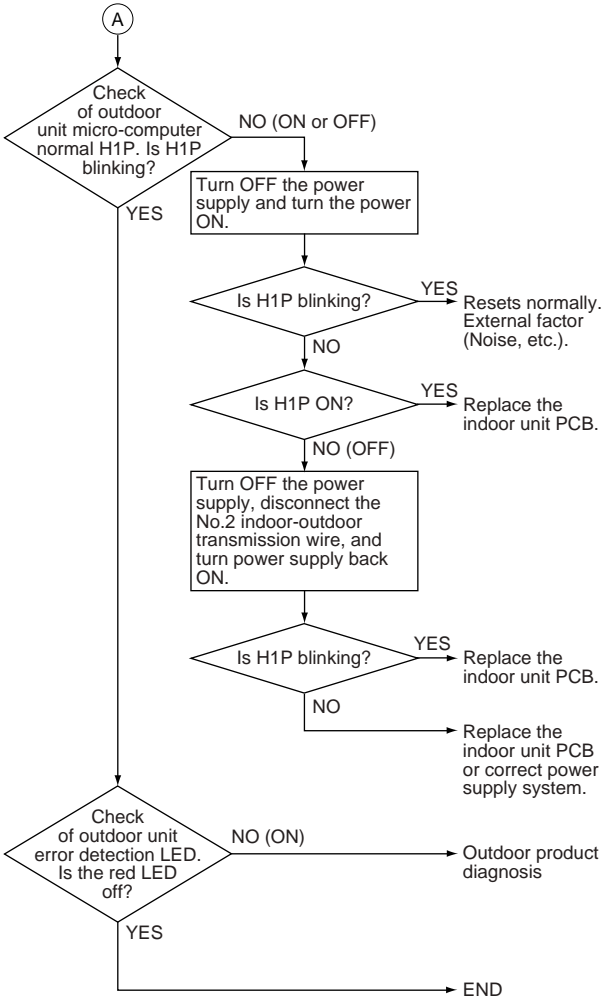
Diagnosis of incorrect or broken/disconnected wiring  
 If the LEDs on the indoor unit PCB are OFF, it indicates that the transmission wiring between indoor and outdoor units may be incorrect or broken/disconnected.



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## Remote Controller Display

U4 or U5

### Applicable Models

RY-F, R(Y)-G/GA/KU/LU/NU/PU, RR-M

### Method of Error Detection

Micro-computer checks if transmission between indoor and outdoor units is normal.

### Error Decision Conditions

When transmission is not carried out normally for a certain amount of time

### Supposed Causes

- Wiring indoor-outdoor transmission wire is incorrect.
- Defective indoor unit PCB
- Defective outdoor unit PCB
- External factor (Noise, etc.)

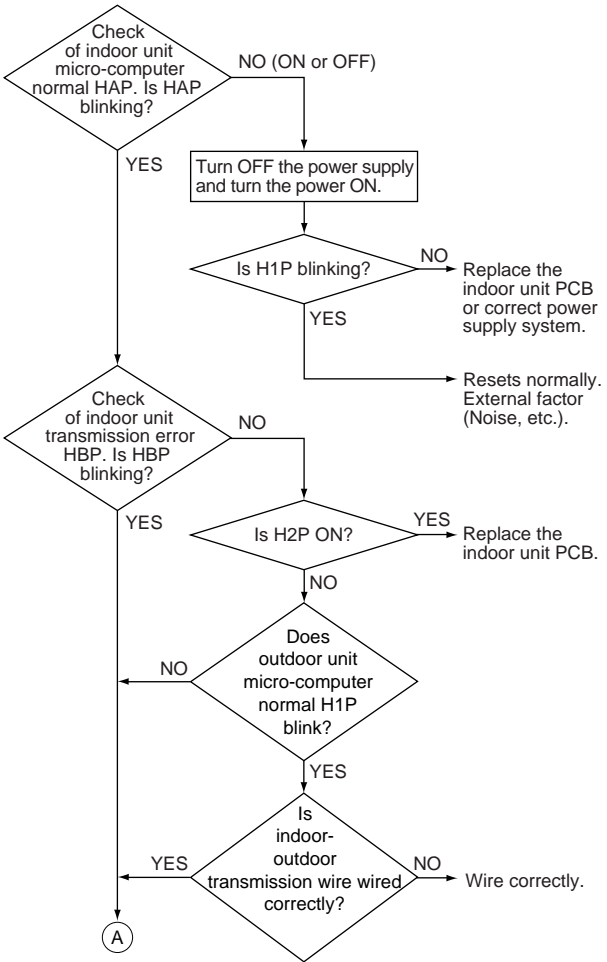
### Troubleshooting

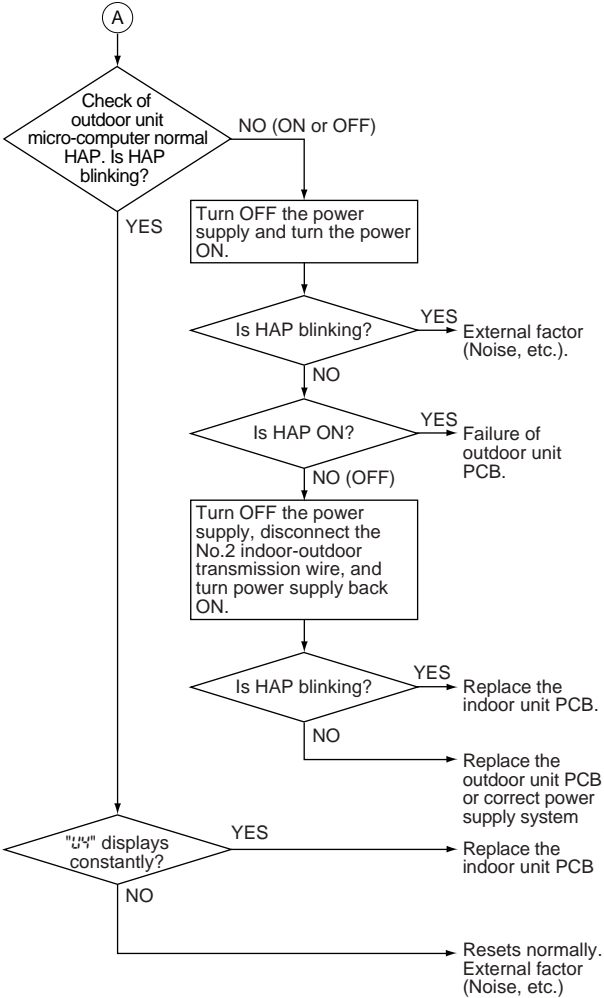
Diagnosis of incorrect or broken/disconnected wiring  
If the LEDs on the indoor unit PCB are OFF, it indicates that the transmission wiring between indoor and outdoor units may be incorrect or broken/disconnected.



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## 3.60 U4 Transmission Error between Indoor Unit and Outdoor Unit

### Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

Micro-computer checks if transmission between indoor and outdoor units is normal.

### Error Decision Conditions

When transmission is not carried out normally for a certain amount of time

### Supposed Causes

- Wiring indoor-outdoor transmission wire is incorrect.
- Defective indoor unit PCB
- Defective outdoor unit PCB
- External factor (Noise, etc.)
- Power supply -open phase

## Troubleshooting

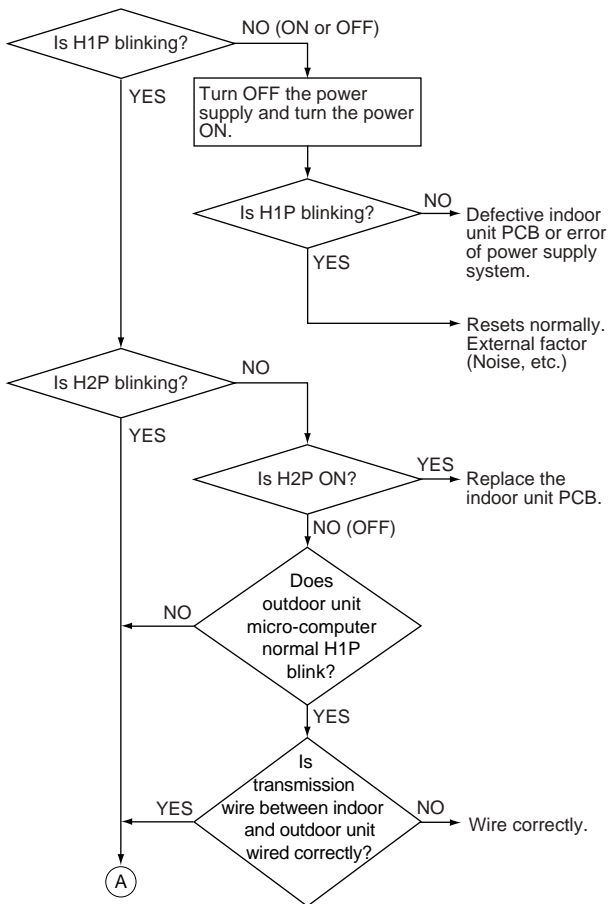
Diagnosis of incorrect or broken/disconnected wiring

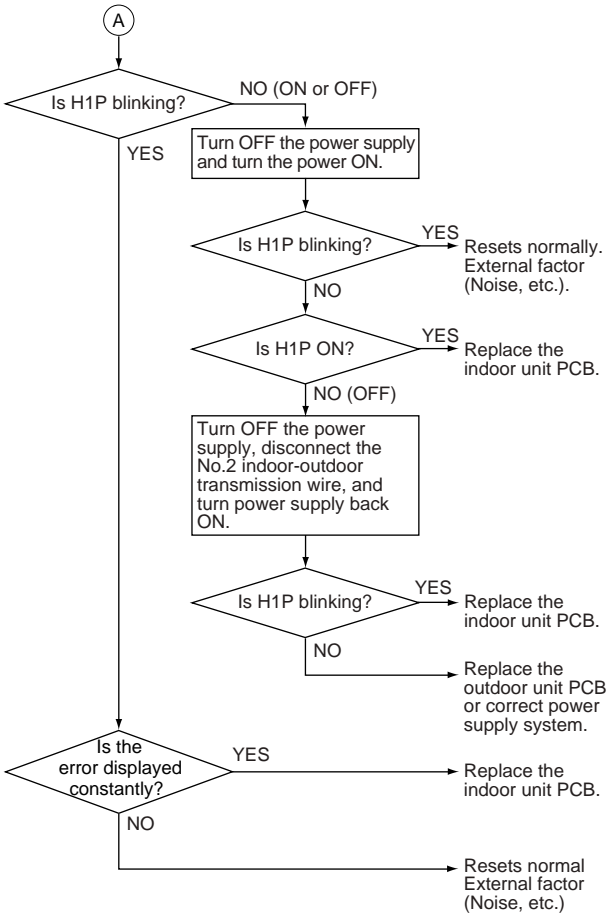
If the LEDs on the indoor unit PCB are OFF, it indicates that the transmission wiring between indoor and outdoor units may be incorrect or broken/disconnected.



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Error Decision Conditions

The error is generated when the micro-processor detects that the transmission between the indoor unit and the outdoor unit is not normal over a certain amount of time.

### Supposed Causes

- Wiring indoor-outdoor transmission wire is incorrect
- Defective indoor unit PCB
- Defective outdoor unit PCB
- Burning out fuse
- Defective fan motor
- External factor (Noise, etc.)

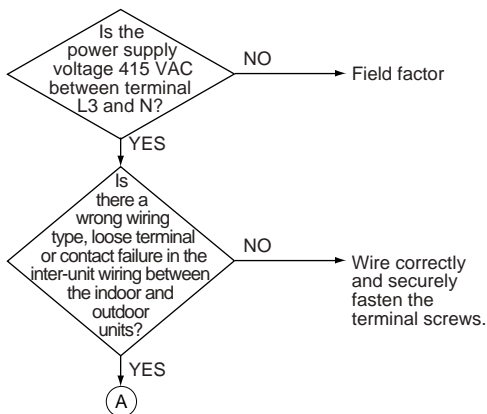
### Troubleshooting

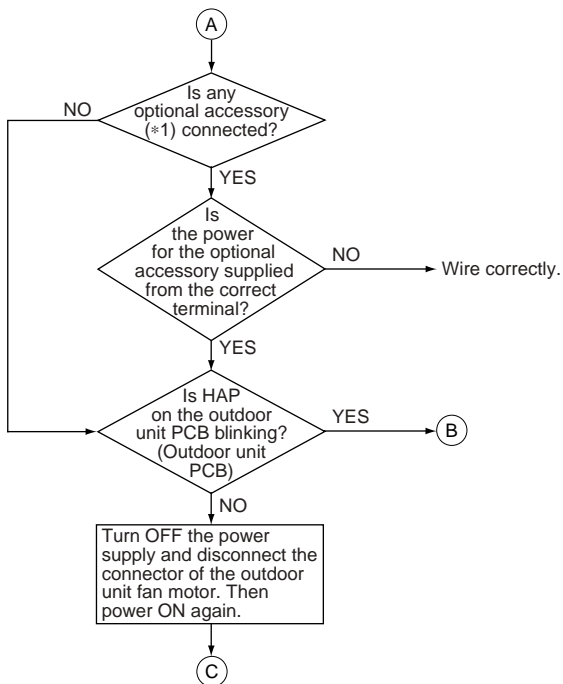
Diagnosis of incorrect or broken/disconnected wiring. If the LEDs on the indoor unit PCB are OFF, it indicates that the transmission wiring between indoor and outdoor units may be incorrect or broken/disconnected.



**Caution**

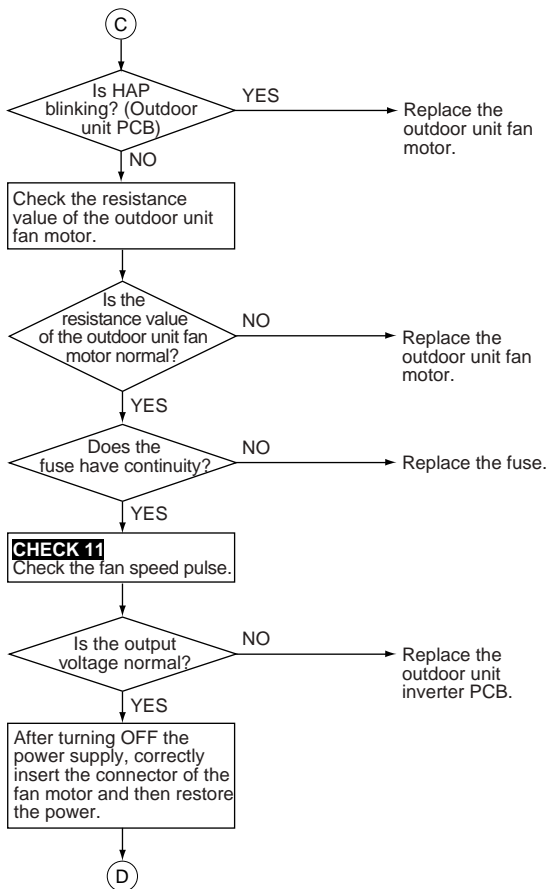
Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



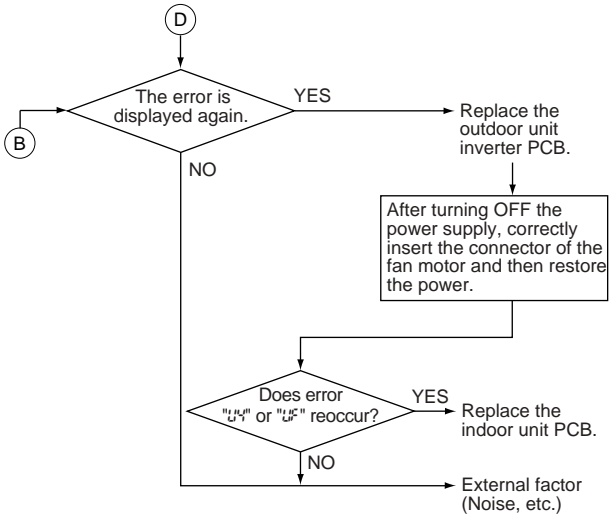


**i** Note:

\*1. Optional accessories refer to wire adaptor, auto grill and other accessories.



**CHECK 11** Refer to P.274.



## 3.61 U5 Transmission Error between Indoor Unit and Remote Controller

### Remote Controller Display

U5

### Applicable Models

RY-F, R(Y)-G/GA/FU/KU/LU/NU/PU, RR-M

### Method of Error Detection

Micro-computer checks if transmission between indoor unit and remote controller is normal.

### Error Decision Conditions

When transmission is not carried out normally for a certain amount of time

### Supposed Causes

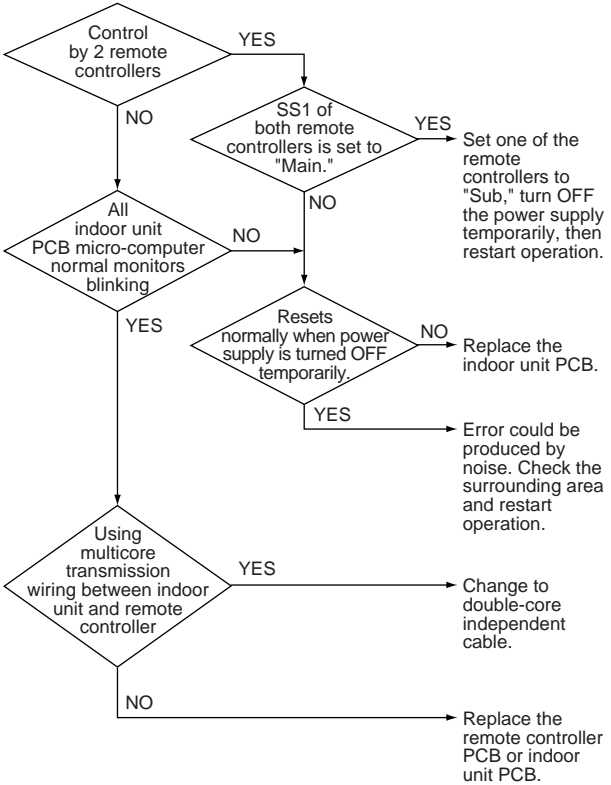
- Defective remote controller
- Defective indoor unit PCB
- External factor (Noise, etc.)
- Connection of 2 main remote controllers (When using 2 remote controllers)

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

U5

### Applicable Models

RZ(Y)

### Method of Error Detection

Micro-computer checks if transmission between indoor unit and remote controller is normal.

### Error Decision Conditions

When transmission is not carried out normally for a certain amount of time

### Supposed Causes

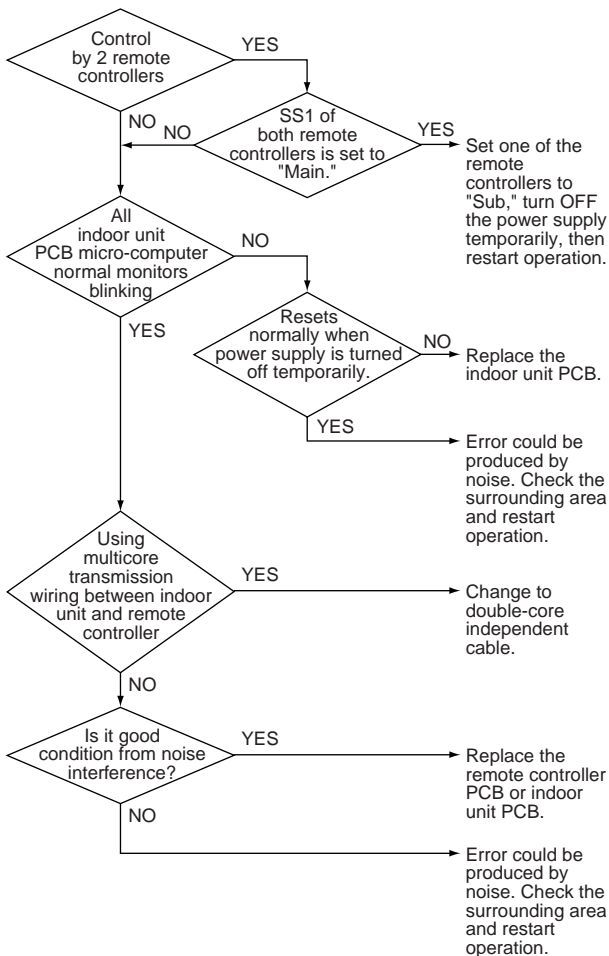
- Defective remote controller
- Defective indoor unit PCB
- External factor (Noise, etc.)
- Connection of 2 main remote controllers (When using 2 remote controllers)

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display

U5

### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Micro-computer checks if transmission between indoor unit and remote controller is normal.

### Error Decision Conditions

The error is generated when the micro-processor detects that the transmission between the indoor unit and the remote controller is not normal over a certain amount of time.

### Supposed Causes

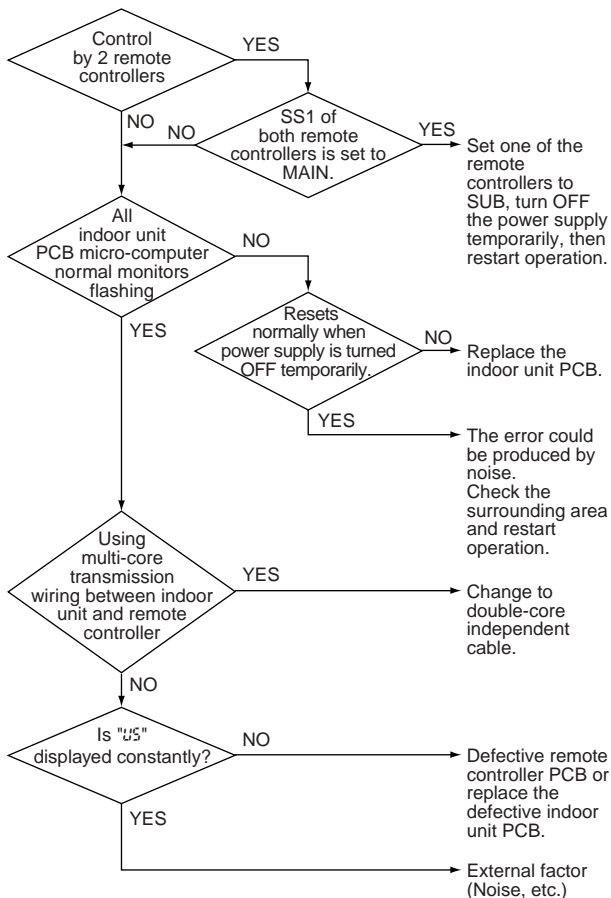
- Defective remote controller
- Defective indoor unit PCB
- External factor (Noise, etc.)
- Connection of 2 main remote controllers (when using 2 remote controllers).

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.62 Transmission Error between Main Remote Controller and Sub Remote Controller

### Remote Controller Display



### Applicable Models

RY-F, R(Y)-G/GA/KU/LU

### Method of Error Detection

In case of controlling with 2- remote controller, check the system using micro-computer if signal transmission between indoor unit and remote controller (main and sub) is normal.

### Error Decision Conditions

Normal transmission does not continue for specified period.

### Supposed Causes

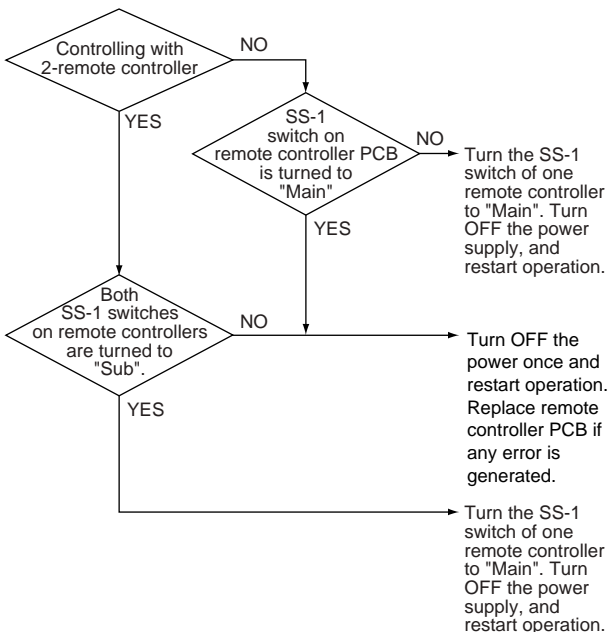
- Transmission error between main remote controller and sub remote controller
- Connection among “sub” remote controllers
- Defective remote controller PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display



### Applicable Models

RZ(Y)

### Method of Error Detection

In case of controlling with 2- remote controller, check the system using micro-computer if signal transmission between indoor unit and remote controller (main and sub) is normal.

### Error Decision Conditions

Normal transmission does not continue for specified period.

### Supposed Causes

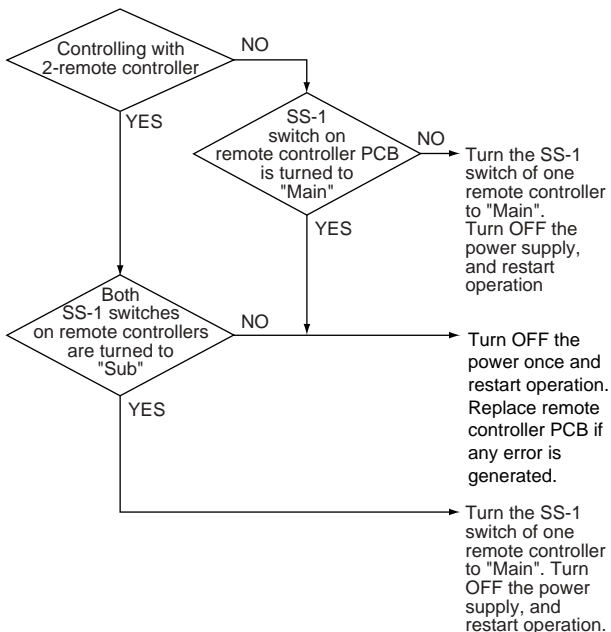
- Transmission error between main remote controller and Sub remote controller
- Connection among "sub" remote controllers
- Defective remote controller PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

In case of controlling with 2- remote controller, check the system using micro-computer if signal transmission between indoor unit and remote controller (main and sub) is normal.

### Error Decision Conditions

The error is generated when, in case of controlling with 2 remote controllers, the micro-processor detects that the transmission between the indoor unit and the remote controllers (main and sub) is not normal over a certain amount of time.

### Supposed Causes

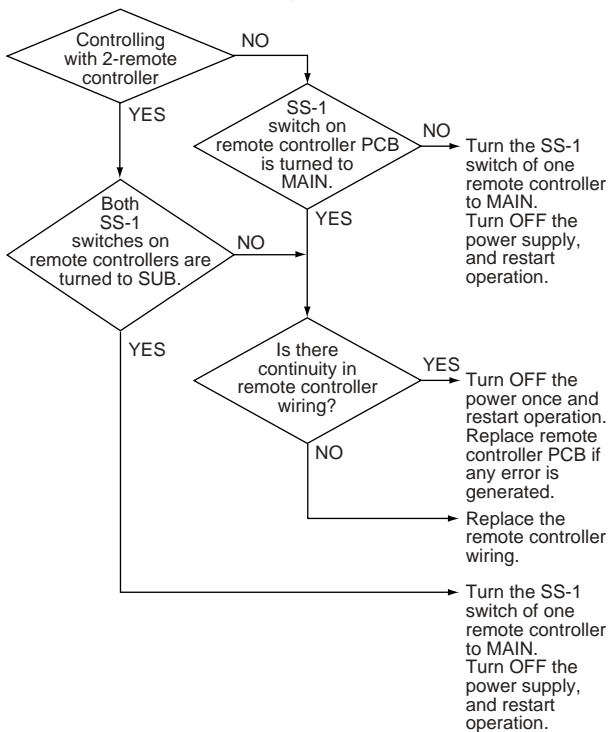
- Transmission error between main remote controller and sub remote controller
- Connection among sub remote controllers
- Defective remote controller PCB

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.63 Defective Field Setting Switch

### Remote Controller Display



### Applicable Models

RY-F, R(Y)-G/GA/KU/LU

### Supposed Causes

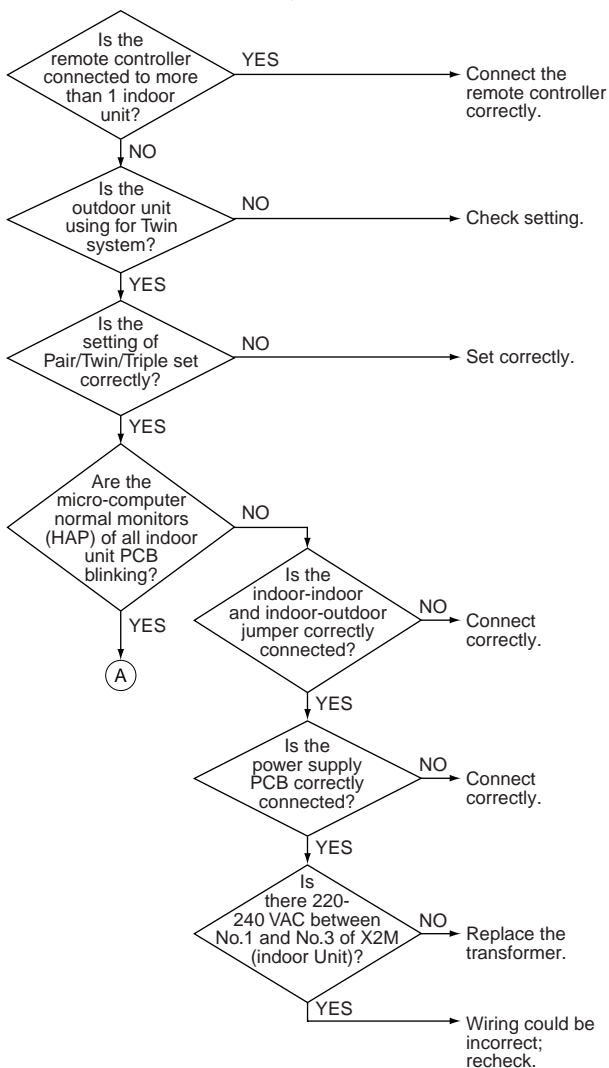
- Defective indoor unit or outdoor unit PCB
- Defective power supply PCB
- Indoor-outdoor, indoor-indoor unit transmission wiring
- Defective remote controller wiring

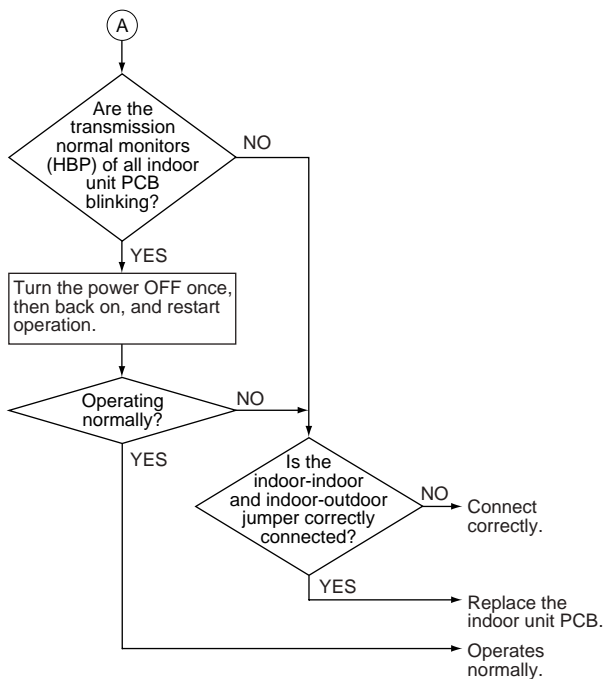
## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.





## 3.64 UR Field Setting Switch Abnormality

### Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Error Decision Conditions

The error is generated when incorrect field settings have been set for pair / twin / triple / double twin.

### Supposed Causes

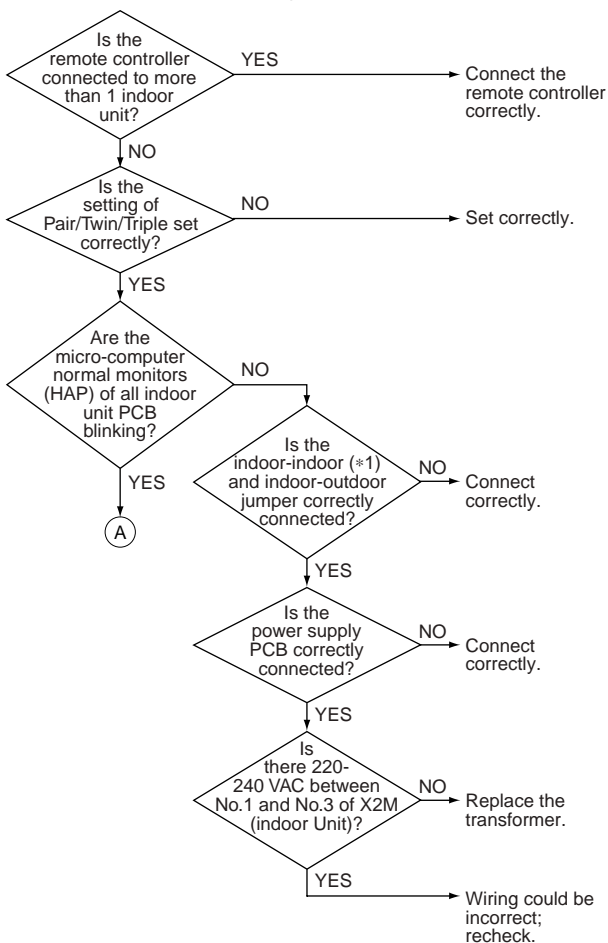
- Defective indoor unit or outdoor unit PCB
- Defective power supply PCB
- Indoor-outdoor, indoor-indoor unit transmission wiring
- Defective remote controller wiring

## Troubleshooting



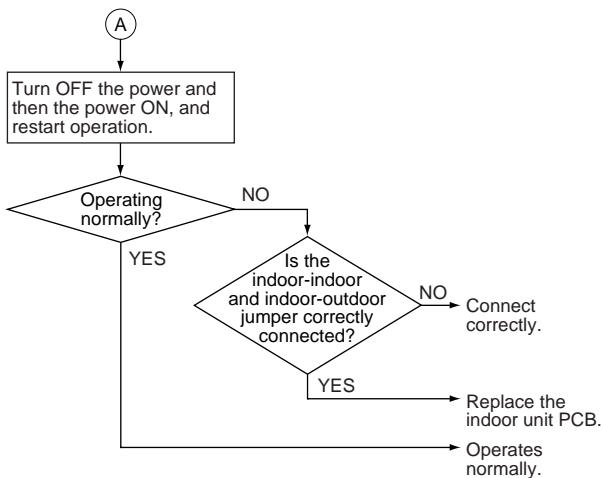
**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**Note:**

\*1. Only for pair/twin/triple/double twin



## 3.65 Centralized Address Setting Error

### Remote Controller Display



### Applicable Models

RZQ-K/H, RZR-KU/HU

### Method of Error Detection

Indoor unit micro-computer detects and judges the centralized address signal according to the transmission between indoor units.

### Error Decision Conditions

When the micro-computer judges that the centralized address signal is duplicated

### Supposed Causes

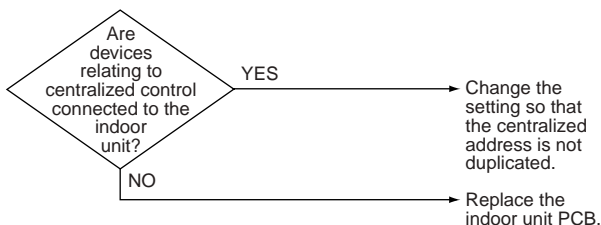
- Defective centralized address setting
- Defective indoor unit PCB

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## 3.66 Mis-connection of Field Wiring

### Remote Controller Display



### Applicable Models

Cooling Only model  
R-FU

### Method of Error Detection

Judgement by circuit of the PCB to detect mis-wiring.

### Supposed Causes

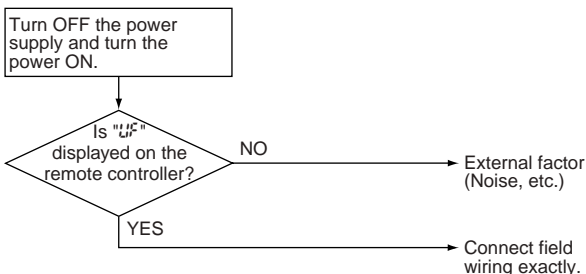
- Power supply wiring is broken or disconnected.
- Mis-connection of field wiring.

### Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



## **3.67 UF Transmission Error between Indoor and Outdoor Unit / Piping and Wiring Mismatch / Refrigerant Shortage**

### **Remote Controller Display**



### **Applicable Models**

RZQ-K/H, RZR-KU/HU

### **Method of Error Detection**

Check the transmission between the indoor and outdoor units with a micro-computer when the power turned ON. Detect by checking the following temperature differences during compressor operation.

- A: Difference in temperature detected by the indoor heat exchanger thermistor and the indoor suction air thermistor
- B: Difference in indoor suction air thermistor evaporation temperature ( $T_e$ ) (or condensation temperature ( $T_c$ ) during heating operation) detected by the indoor heat exchanger thermistor and the compressor sensor

### **Error Decision Conditions**

When the inter-unit wiring between the indoor and outdoor units is incorrect

When the following conditions continue for 20 minutes during compressor operation

- A: indoor heat exchanger thermistor – indoor suction air thermistor  $< 4^{\circ}\text{C}$ , and
- B: indoor heat exchanger thermistor –  $T_e$  (or  $T_c$  during heating operation)  $> 14^{\circ}\text{C}$  ( $24^{\circ}\text{C}$  during heating operation)

## Supposed Causes

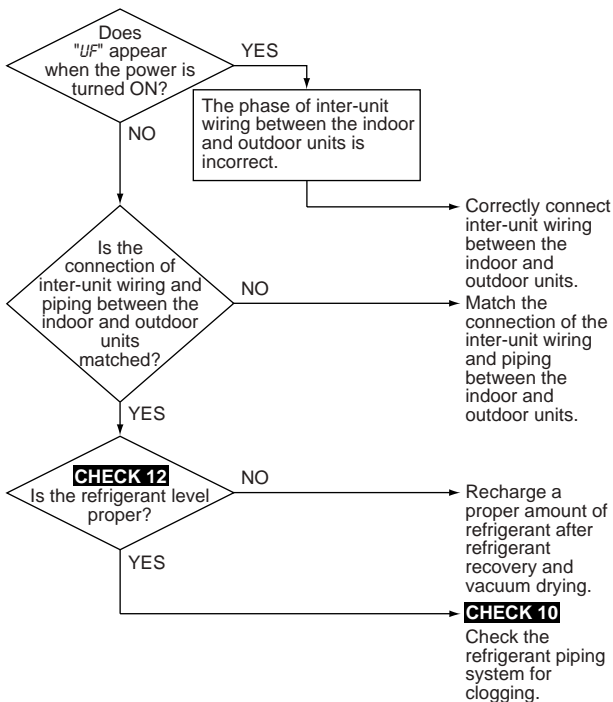
- Defective inter-unit wiring between the indoor and outdoor units
- Mismatching of wiring and piping
- Refrigerant shortage
- Clogged refrigerant piping system

## Troubleshooting



**Caution**

Be sure to turn off the power switch before connecting or disconnecting connectors, or parts may be damaged.



**CHECK 10** Refer to P.272.

**CHECK 12** Refer to P.275.

## 3.68 Check

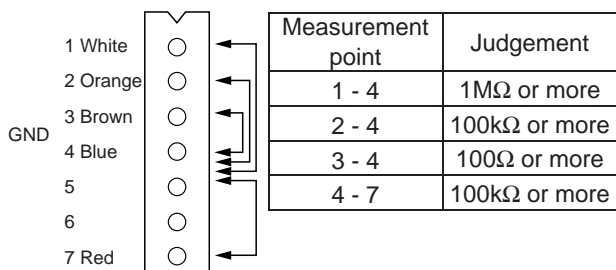
### CHECK 1

#### Check for Fan Motor Connector (Signal Line)

(1) Turn the power supply OFF.

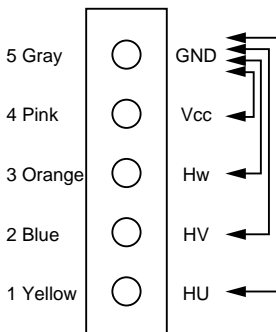
For except FBQ

(2) With the fan motor connector disconnected, measure the resistance between each pin, then make sure that the resistance is more than the value mentioned in the following table.



For FBQ

(2) With the fan motor connector disconnected, measure the resistance between each pin, then make sure that the resistance is balanced in  $\pm 30\%$ .

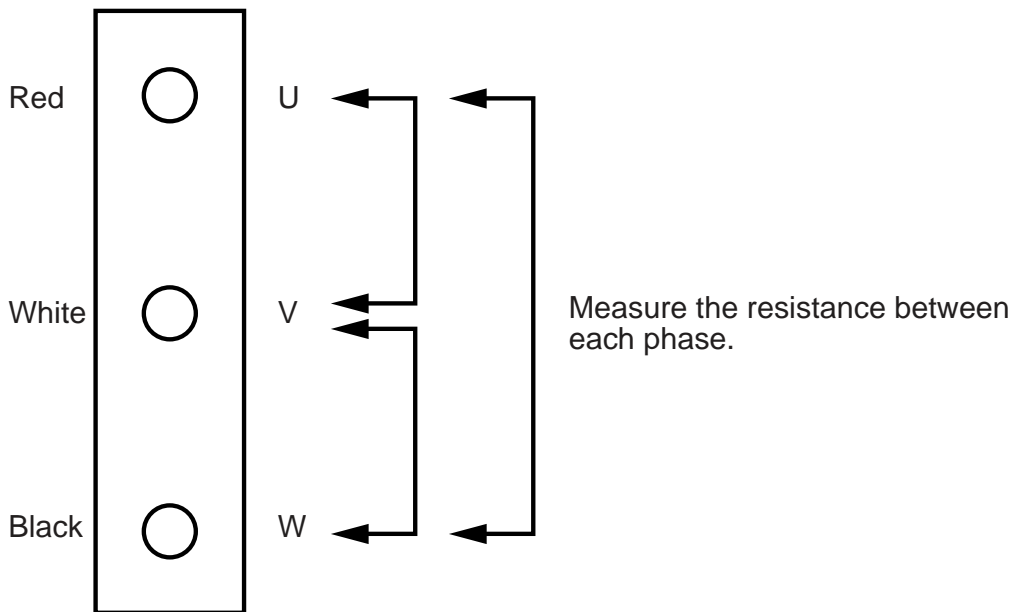


**CHECK 2**

**Check for Fan Motor Connector (Power Supply Line)**

(1) Turn the power supply OFF.

With the relay connector disconnected, measure the resistance between UVW phases of the connector (3 cores) at the motor side, then make sure that the resistance between each phase is balanced and not short-circuited.



**CHECK 3**

**Checking the Thermistors**

If the cause of the problem is related to the thermistors, then the thermistors should be checked prior to changing the PCB.

To check the thermistors, proceed as follows:

Step	Action
1	Disconnect the thermistor from the PCB.
2	Read the temperature and the resistance value.
3	Check if the measured values correspond with the values in the table on the next pages.

### Thermistor Resistance / Temperature Characteristics For radiation fin thermistor

T°C	kΩ
-30	354.1
-25	259.7
-20	192.6
-15	144.2
-10	109.1
-5	83.25
0	64.10
5	49.70
10	38.85
15	30.61
20	24.29
25	19.41
30	15.61
35	12.64
40	10.30
45	8.439
50	6.954

T°C	kΩ
55	5.761
60	4.797
65	4.014
70	3.375
75	2.851
80	2.418
85	2.060
90	1.762
95	1.513
100	1.304
105	1.128
110	0.9790
115	0.8527
120	0.7450
125	0.6530
130	0.5741

3PA61998L (AD92A057)

**For outdoor air thermistor**

**For suction pipe thermistor**

**For heat exchanger thermistor**

**For intermediate heat exchanger thermistor**

**For liquid thermistor**

**For remote controller thermistor**

T°C	kΩ
-30	361.7719
-25	265.4704
-20	196.9198
-15	147.5687
-10	111.6578
-5	85.2610
0	65.6705
5	50.9947
10	39.9149
15	31.4796
20	25.0060
25	20.0000
30	16.1008
35	13.0426

T°C	kΩ
40	10.6281
45	8.7097
50	7.1764
55	5.9407
60	4.9439
65	4.1352
70	3.4757
75	2.9349
80	2.4894
85	2.1205
90	1.8138
95	1.5575
100	1.3425
105	1.1614

3SA48001 (AD87A001J)

### For discharge pipe thermistor

T°C	kΩ
-30	3257.371
-25	2429.222
-20	1827.883
-15	1387.099
-10	1061.098
-5	817.9329
0	635.0831
5	496.5712
10	391.0070
15	309.9511
20	247.2696
25	198.4674
30	160.2244
35	130.0697
40	106.1517
45	87.0725
50	71.7703
55	59.4735
60	49.5180

T°C	kΩ
65	41.4168
70	34.7923
75	29.3499
80	24.8586
85	21.1360
90	18.0377
95	15.4487
100	13.2768
105	11.4395
110	9.8902
115	8.5788
120	7.4650
125	6.5156
130	5.7038
135	5.0073
140	4.4080
145	3.8907
150	3.4429

3SA48006 (AD87A001J)

**CHECK 4**
**Evaluation of Abnormal High Pressure**

Abnormally high pressure level is mostly caused by the condenser side.

The following contents are provided by service engineer based on their field checks.

Further, the number is listed in the order of degree of influence.

**In cooling operation**

Check items (Possible causes)	Judgement
Does the outdoor unit fan run normally?	Visual inspection
Is the outdoor unit heat exchanger clogged?	Visual inspection
Is there clogging before or after the EV (capillary)?	Check if there is a temperature difference before and after EV (capillary). Check if the main valve unit of EV operates (by noise, vibration).
Is the check valve clogged? * Heat Pump model only	Check if there is a temperature difference before and after check valve. → If YES, the check valve is caught.
Is the HPS normal?	Check continuity by using a tester.
Is the outdoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is the piping length 5 meters or less?	Visual inspection
Does air enter the refrigerant system?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.
Is the refrigerant overcharged?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

## In heating operation

Check items (Possible causes)	Judgement
Does the indoor unit fan run normally?	Visual inspection
Is the indoor unit heat exchanger clogged?	Visual inspection
Is the indoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is there clogging before or after the EV (capillary)?	Check if there is a temperature difference before and after EV (capillary). Check if the main valve unit of EV operates (by noise, vibration).
Is the check valve clogged? * Heat Pump model only	Check if there is a temperature difference before and after check valve. → If YES, the check valve is caught.
Is the HPS normal?	Check continuity using a tester.
Is the piping length 5 meters or less?	Visual inspection
Does air enter the refrigerant system?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.
Is the refrigerant overcharged?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

**CHECK 5**
**Evaluation of Abnormal Low Pressure**

Abnormally low pressure level is mostly caused by the evaporator side. The following contents are provided based on field checking of service engineer. Further, the number is listed in the order of degree of influence.

**In cooling operation**

Check items (Possible causes)	Judgement
Does the outdoor unit fan run normally?	Visual inspection
Is the indoor unit filter clogged?	Visual inspection
Is there clogging before or after the EV (capillary)?	Check if there is a temperature difference before and after EV (capillary). Check if the main valve unit of EV operates (by noise, vibration).
Is the check valve clogged? * Heat Pump model only	Check if there is a temperature difference before and after check valve. → If YES, the check valve is caught.
Is the LPS normal?	Check continuity using a tester.
Is the indoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is the refrigerant gas short?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

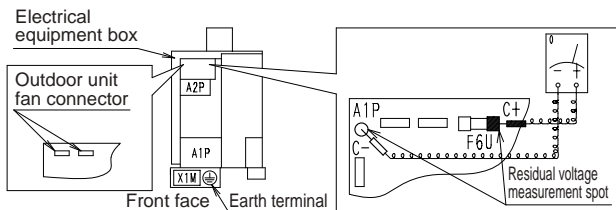
### In heating operation

Check items (Possible causes)	Judgement
Does the outdoor unit fan run normally?	Visual inspection
Is the outdoor unit heat exchanger clogged?	Visual inspection
Is the outdoor unit installed under such conditions that short circuit easily occurs?	Visual inspection
Is there clogging before or after the EV (capillary)?	Check if there is a temperature difference before and after EV (capillary). Check if the main valve unit of EV operates (by noise, vibration).
Is the check valve clogged?	Check if there is a temperature difference before and after check valve. → If YES, the check valve is caught.
Is the LPS normal?	Check continuity using a tester.
Is the refrigerant gas short?	Conduct refrigerant collection and vacuum drying, and then add proper amount refrigerant.

**CHECK 6****Check for Power Transistor**

Judgement is made through cable check with an analog tester.

- (1) Do not touch the energized part (high voltage part) for at least 10 minutes after the power is turned OFF.
- (2) Be sure to touch the earth terminal with a hand to release static electricity from the body (to prevent PCB from being damaged).
- (3) Also with a tester, take measurements at the following spots and confirm that residual electric charge of the power transistor is DC 50V or less.



- (4) After checking the residual electric charge, remove the connector of the outdoor unit fan motor. When the outdoor unit fan is rotated by strong headwind, remove the connector of the outdoor unit fan motor after confirming that the outdoor unit fan has stopped because electrical energy is stored in the capacitor and there may be a risk of electric shock.
- (5) Remove the wire connecting the power transistor and the compressor. Remove it from the compressor terminal side.  
During this work, be careful not to deform. Faston terminal at the end of the connecting wire.

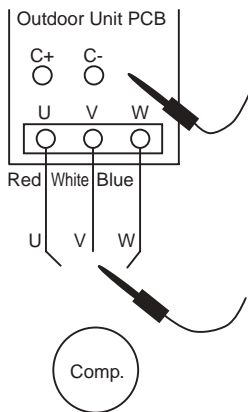
(6) Using an analog tester, measure resistance and fill in the blanks in the following table.

In case of unbalanced resistance for one of the three phases in each table (when the resistance value is equal to five times or more than the other resistance values), the power transistor is broken.

In normal cases, each phase shows a similar resistance value.

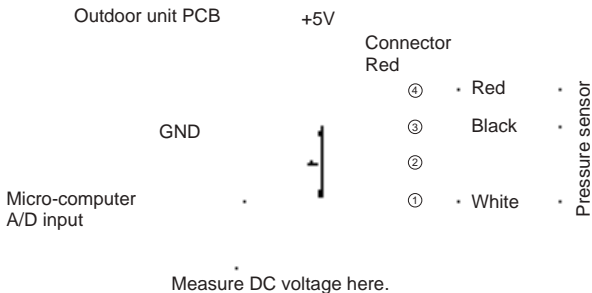
Tester		Resistance
(+)	(-)	$\Omega$
C+	U	
C+	V	
C+	W	
U	C+	$\infty$
V	C+	$\infty$
W	C+	$\infty$

Tester		Resistance
(+)	(-)	$\Omega$
C-	U	$\infty$
C-	V	$\infty$
C-	W	$\infty$
U	C-	
V	C-	
W	C-	

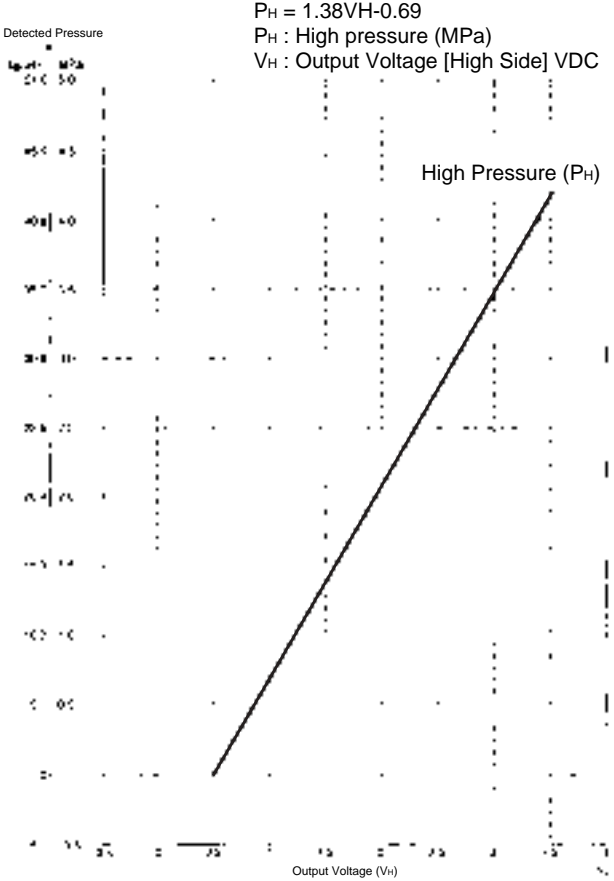


## CHECK 7

### Voltage Measuring Method



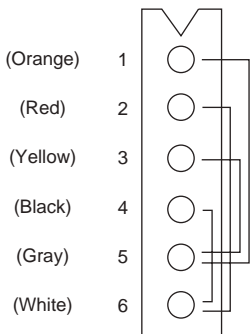
### Pressure Sensor



This graph is available for both high pressure sensor and low pressure sensor.

**CHECK 8**

**Electronic expansion valve connector and coil resistance criteria**

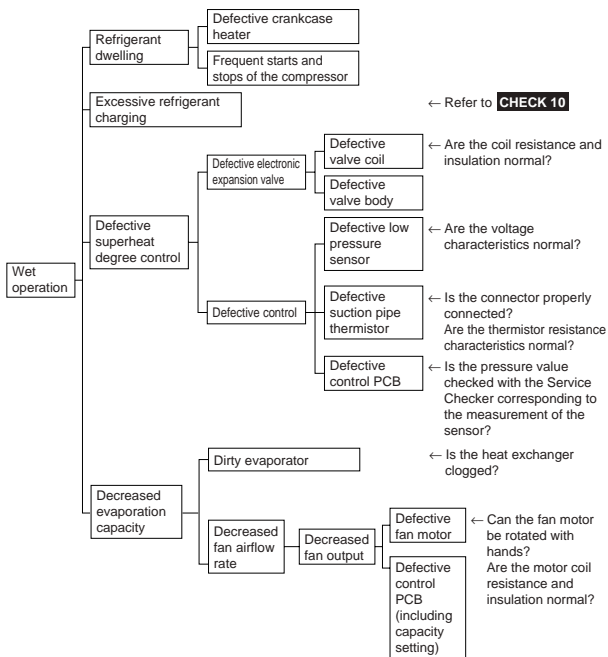


Measurement point	Criteria
1 - 5	40~50Ω
3 - 5	
2 - 6	
4 - 6	

## CHECK 9

### Check for Factors Causing Wet Operation

Referring to the Fault Tree Analysis (FTA) shown below, identify the defective points.



### **i** Note:

Reference values for superheated degree to be used in the judgement of wet operation

- (1) Suction pipe superheated degree: 4°C or more
  - (2) Discharge pipe superheated degree: 5°C or less
- (The values above must be used only for reference purposes. Even it is operated within the range above, operation may be normal in other conditions.)

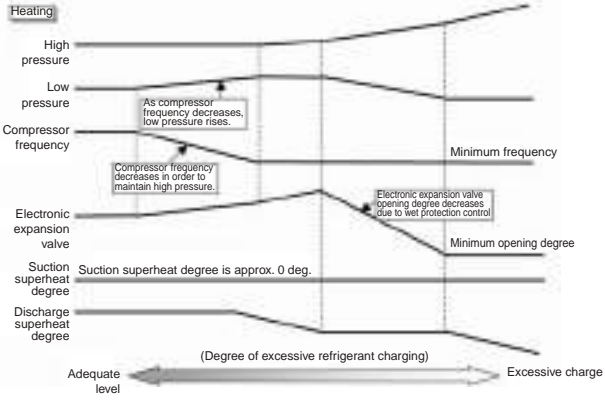
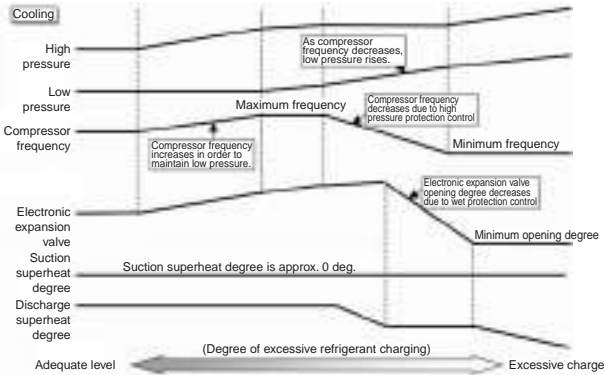
**CHECK 10****Check for Excessive Refrigerant Charging**

As criteria for judging whether refrigerant is excessively charged or not, refer to the following operating conditions.

<Diagnosis of excessive refrigerant charging>

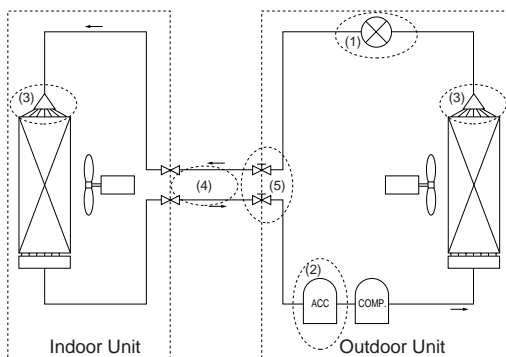
In cooling operation

- (1) Because high pressure rises due to excessive charging, overload control is carried out and capacity tends to run short.
- (2) Considering pressure load, compressor discharge pipe temperature is low.
- (3) Subcooled degree of condensate liquid becomes large. Therefore, temperature of blown air passing through subcooled part decreases in heating operation.



**CHECK 11**
**Check for Clogged Points**

Temperature differences must occur before or after the clogged points!



Check points		Check factor	Causes	Remedies
(1)	Around expansion mechanism	Temperature difference	<ul style="list-style-type: none"> <li>· Dust</li> <li>· Choked moisture</li> <li>· Reduced effective pipe diameter due to adherent contamination, etc.</li> </ul>	Replace the electronic expansion valve.
(2)	Accumulator	Frosting	<ul style="list-style-type: none"> <li>· Choked moisture</li> </ul>	Blow a nitrogen gas, and then replace the refrigerant.
(3)	Distributor	Temperature difference	<ul style="list-style-type: none"> <li>· Dust</li> <li>· Choked moisture</li> <li>· Reduced effective pipe diameter due to adherent contamination, etc.</li> </ul>	Replace the heat exchanger or distributor.
(4)	Field piping	Temperature difference	<ul style="list-style-type: none"> <li>· Collapsed pipe</li> </ul>	Replace the pipe.
(5)	Stop valve	Temperature difference	<ul style="list-style-type: none"> <li>· The stop valve is not fully open.</li> </ul>	Open the stop valve fully.

## **CHECK 12**

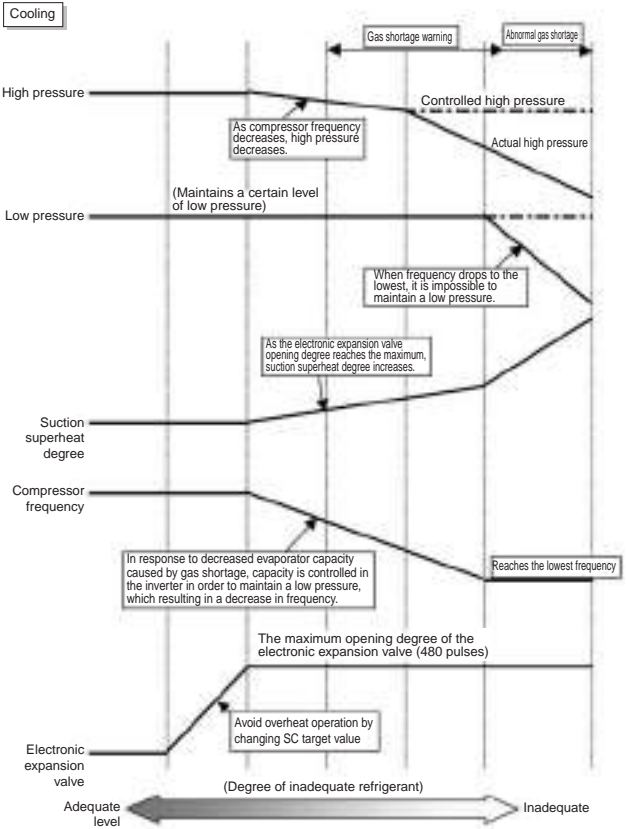
### **Check for inadequate refrigerant**

As criteria for judging whether refrigerant is inadequate or not, refer to the following operating conditions.

<Diagnosis of inadequate refrigerant>

#### In cooling operation

- (1) As suction superheated degree increases due to refrigerant shortage, the electronic expansion valve tends to open (opens fully) in order to avoid overheat operation.
- (2) In response to decreased evaporator capacity caused by refrigerant shortage, capacity is controlled in the inverter in order to maintain low pressure, which results in a decrease in frequency.
- (3) Because of (1) and (2) above, the compressor frequency decreases despite a large difference (large load) between temperature set by the remote controller and indoor suction temperature, resulting that cooling capacity becomes unavailable.
- (4) If refrigerant shortage worsens, the electronic expansion valve remains fully open and suction superheated degree further increases. In addition, as compressor frequency drops to the level of the lowest frequency (41 Hz), low pressure cannot be maintained.

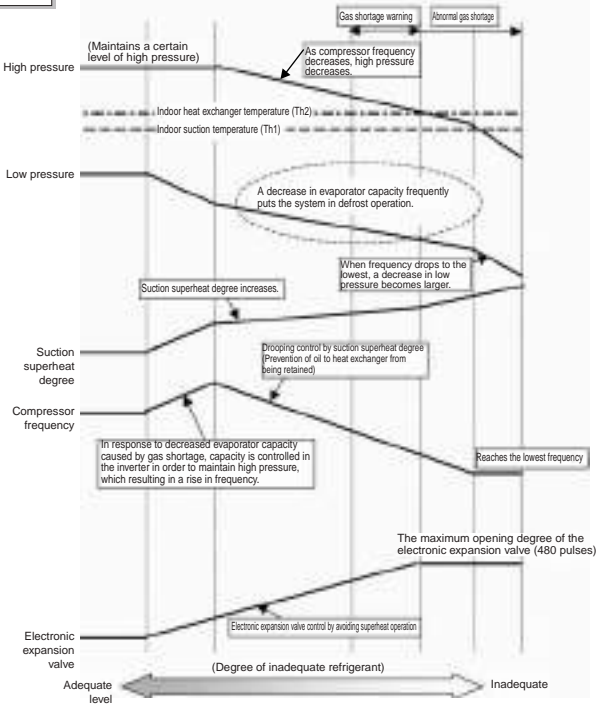


<Diagnosis of inadequate refrigerant>

In heating operation

- (1) As suction superheat degree increases due to refrigerant shortage, the electronic expansion valve tends to open (opens fully) to avoid overheat operation.
- (2) As suction superheated degree increases due to gas shortage, compressor frequency decreases because suction superheated degree is controlled in order to prevent oil to the outdoor heat exchanger from being retained.
- (3) Because of (1) and (2) above, evaporator capacity and compressor frequency decrease despite a large difference (large load) between temperature set by the remote controller and indoor suction temperature, resulting that high pressure cannot be maintained and heating capacity becomes unavailable. Also a decrease in evaporator capacity frequently puts the system in defrost operation.
- (4) If refrigerant shortage worsens, high pressure becomes smaller than saturated pressure equivalent to indoor heat exchanger temperature (or indoor suction temperature).

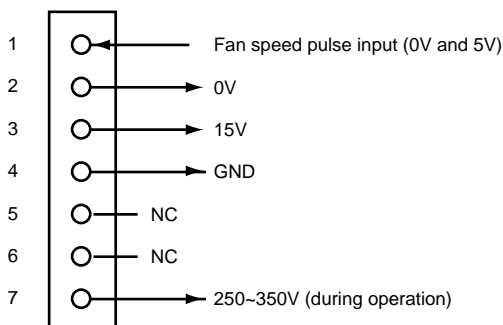
## Heating



**CHECK 13**
**Fan Motor Pulse Check**

- (1) Set operation OFF and power OFF. Disconnect the connector.
- (2) Check that the voltage between the pins 3 - 4 is about 15 VDC.
- (3) Check that the voltage between the pins 1 - 4 is about 5 VDC.
- (4) Keep operation OFF and power OFF. Connect the connector.
- (5) Check whether 2 pulses (0 and 5 VDC) are output 4 times at the pins 1 - 4 when the fan motor is rotated 1 turn by hand.

Check	Measure
If NG in steps 2 and 3	Defective PCB Replace the outdoor unit PCB.
If NG in step 5	Defective Hall IC Replace the outdoor unit fan motor.
If OK in steps 2, 3 and 5	Replace the outdoor unit PCB.



Warning



- Daikin products are manufactured for export to numerous countries throughout the world. Prior to purchase, please confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

### Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.



JMI-0107

Organization:  
DAIKIN INDUSTRIES, LTD.  
AIR CONDITIONING MANUFACTURING DIVISION

Scope of Registration:  
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF  
COMMERCIAL AIR-CONDITIONING, HEATING, COOLING,  
REFRIGERATING EQUIPMENT, HEATING EQUIPMENT,  
RESIDENTIAL AIR CONDITIONING EQUIPMENT, HEAT  
RECLAIM VENTILATION, AIR CLEANING EQUIPMENT,  
COMPRESSORS AND VALVES.



JQA-1452

Organization:  
DAIKIN INDUSTRIES  
(THAILAND) LTD.

Scope of Registration:  
THE DESIGN/DEVELOPMENT  
AND MANUFACTURE OF AIR  
CONDITIONERS AND THE  
COMPONENTS INCLUDING  
COMPRESSORS USED FOR



EC99J2044

All of the Daikin Group's business  
facilities and subsidiaries in Japan  
are certified under the ISO 14001  
international standard for  
environment management.

Dealer

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