
INSTALLATION MANUAL

Electric Heat Kit

Model

ECD3, 5, 8, 10, 15, 20, 25KW Series

IMPORTANT NOTE:

Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.

INSTALLATION OF ELECTRIC AUXILIARY HEAT MODULE (ONLY FOR HEAT FUNCTION MODELS)

NOTICE

Installation must be performed by an licensed contractor. Please make necessary precaution when performing the installation operation.

Accessories

Name	Quantity	Name	Quantity
Manual	2	Silicone breaker cover	1
Foam gasket	1	Electric auxiliary heating wiring diagram	1
Screws	7	Circuit breaker label	1

Model size selection

For installations requiring supplemental heating, the optional Electric Auxiliary Heat Module is available in sizes from 3kW to 25kW to accommodate appropriate sizing given the specific heat load and electrical requirements of each installation. Please refer to the table below for selection of available sizes of each model, being sure to avoid improper matching.

MODEL (Btu/h)	3kW	5kW	8kW	10kW	15kW	20kW	25kW
18K	Y	Y	Y	Y	-	-	-
24K	-	Y	Y	Y	Y	-	-
30K	-	Y	Y	Y	Y	-	-
36K	-	Y	Y	Y	Y	Y	-
48K	-	-	Y	Y	Y	Y	-
60K	-	-	-	Y	Y	Y	Y

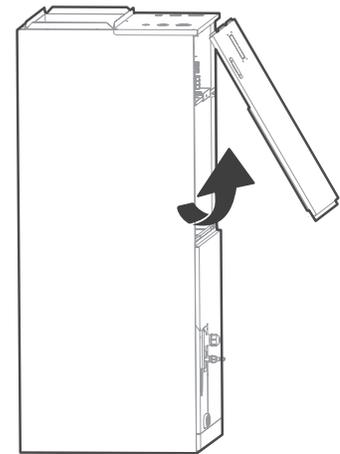
NOTICE

Only use matched modules certified for use with model. Please refer to the Electric Auxiliary Heat Model specification for additional details to ensure proper selection and installation.

Preparations for Installation

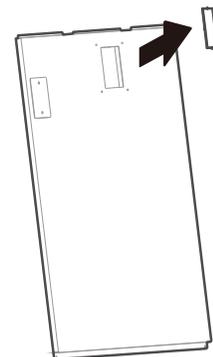
Before installation, please confirm the electric auxiliary heat module and supplied accessories are complete and free of any damage. Do not attempt to install if damage is present.

Electric Auxiliary Heat Module installation and Wiring Operation



Step 1

Open the upper cover.

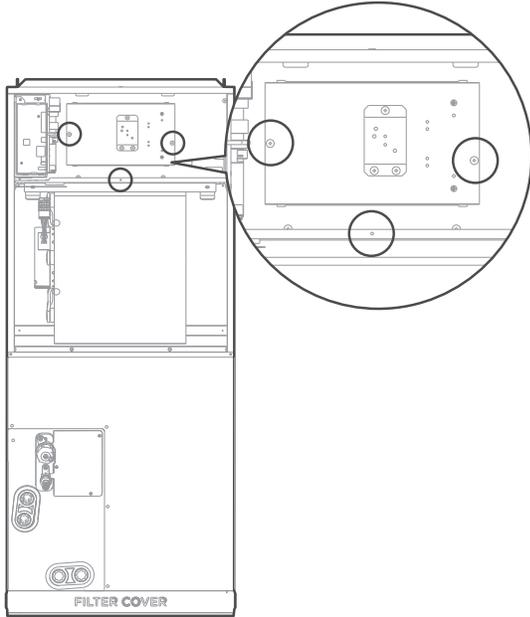


Step 2

Use tools to remove the knock-out holes of upper cover.

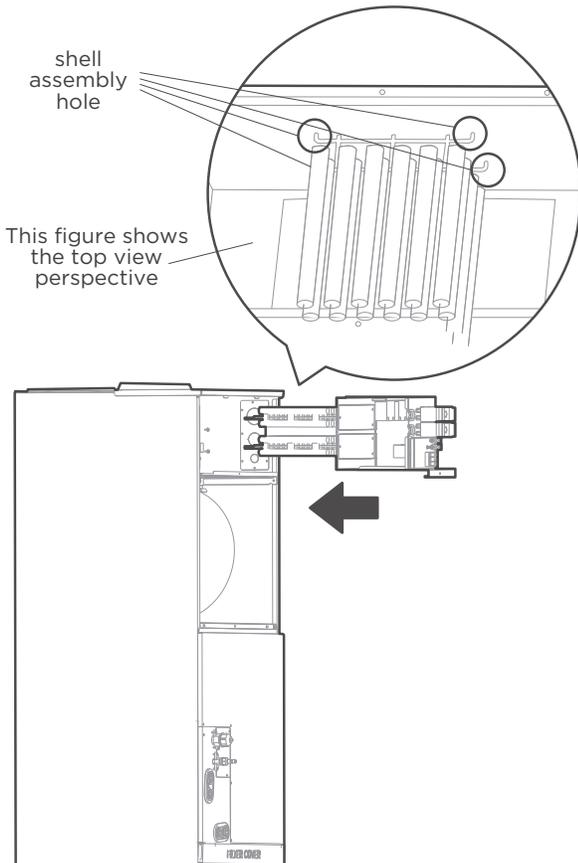
Step 3

Remove the terminal block and power wires, loosen the screws, and remove the electric auxiliary heating cover.



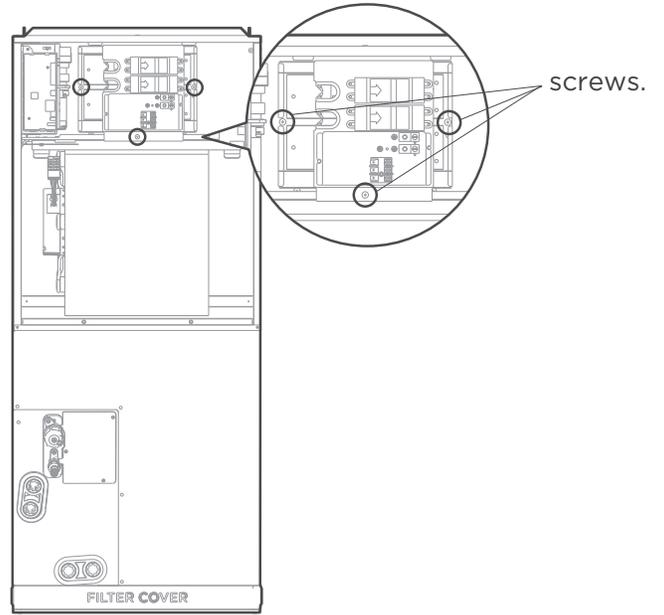
Step 4

Install the electric auxiliary heating assembly the front, and note that the support assembly must lock into the support holes in the back of the cabinet.



Step 5

Tighten the mounting screws.

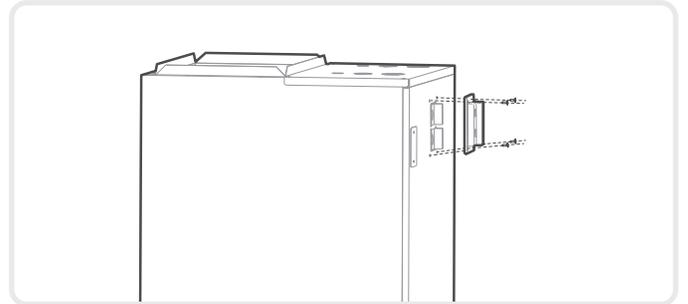


Step 6

Wire according to the wiring nameplate. Apply the wiring diagram to the inside cover wiring is completed for future reference and maintenance.

Step 7

Install the upper cover, and the silicone breaker cover.



Step 8

After installing the electric auxiliary heat module, apply the circuit breaker label near the silicone breaker cover that was just applied.

CONFIRMATION OF INDOOR UNIT

NOTICE

Electric auxiliary heating wiring diagram packed with the accessories.
 If branch circuit wire length exceeds 100 ft, consult NEC 210-19a to determine maximum wire length.
 Use 2% voltage drop.

After the electric heating wiring is connected, please confirm before power on:

- Check all wiring and ensure secure connection of all wiring.
- Ensure that wire size is properly selected per NEC or local codes.

Specifications	Number of circuit breakers	Number of relays	Number of power cord groups	Number of power cord grounding screws
3kW	1	1	2	2
5kW	1	1	2	2
8kW	1	2	2	2
10kW	1	2	2	2
15kw	2	3	3	3
20kW	2	4	3	3
25kW	3	5	4	4

Units without electrical heat

UNIT SIZE	VOITS-PHASE	Rated current(A)	MIN CKT AMPS	BRANCH CIRCUIT	
				MIN WIRE SIZE AWG*	FUSE/CKT BKR AMPS
18K	208/230-1	2.0	2.5	14#	15.0
24K	208/230-1	3.0	4.0	14#	15.0
30K	208/230-1	3.5	4.5	14#	15.0
36K	208/230-1	4.0	5.0	14#	15.0
48K	208/230-1	6.0	7.5	14#	15.0
60K	208/230-1	7.0	9.0	14#	15.0

Use copper wire only to connect unit. If other than uncoated (non-plated) 75°C copper wire (solid wire for 10 AWG and smaller, stranded wire for larger than 10 AWG) is used consult applicable tables of the National Electric Code (ANSI/NFPA 70).

NOTICE

The specification may be different between different models ,please refer to indoor unit ' s nameplate.

CONFIRMATION OF INDOOR UNIT

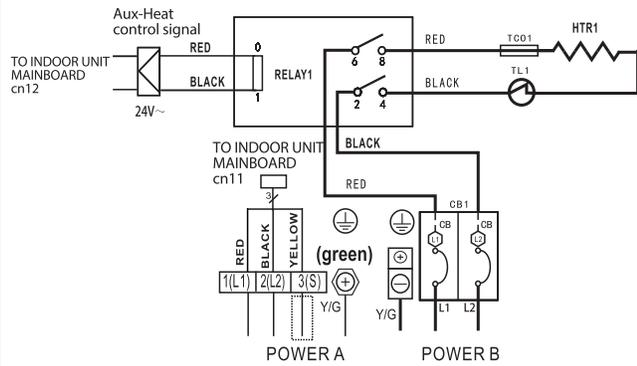
Auxiliary Heater Electrical Data

Heater Part No.	Heater KW	Internal Circuit Protection	CIRCUIT 1 208/230V			CIRCUIT 2			CIRCUIT 2		
			Heater Amps	MCA (1)	MOC (2)	Heater Amps	MCA (1)	MOC (2)	Heater Amps	MCA (1)	MOC (2)
ECD3KW	3	Ckt Bkr	10.8/12.0	14.0/16.0	15.0/20.0	/	/	/	/	/	/
ECD5KW	5	Ckt Bkr	18.0/20.0	23.0/27.0	25.0/30.0	/	/	/	/	/	/
ECD8KW	8	Ckt Bkr	28.8/32.0	37.0/42.0	40.0/45.0	/	/	/	/	/	/
ECD10KW	10	Ckt Bkr	36.0/40.0	46.0/53.0	50.0/60.0	/	/	/	/	/	/
ECD15KW	15	Ckt Bkr	18.0/20.0	23.0/27.0	25.0/30.0	36.0/40.0	46.0/53.0	50.0/60.0	/	/	/
ECD20KW	20	Ckt Bkr	36.0/40	46.0/53.0	50.0/60.0	36.0/40.0	46.0/53.0	50.0/60.0	/	/	/
ECD25KW	25	Ckt Bkr	18.0/20.0	23.0/27.0	25.0/30.0	36.0/40.0	46.0/53.0	50.0/60.0	36.0/40.0	46.0/53.0	50.0/60.0

Electric auxiliary heating wiring diagram

3KW/5KW HEAT KIT

- :thermal cut-out
- :thermal link, self-resetting



NOTE1: This symbol indicates the element is optional. The wiring type of the actual unit shall prevail.

NOTE2: Please attach the nameplate to the cover of the electric control box. All the round holes located on the plate represent numbers. Please refer to the Installation Manual for details.

NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC AND LOCAL CODES.

NOTE4: POWER A,B,C,D ARE DIFFERENT POWERS.

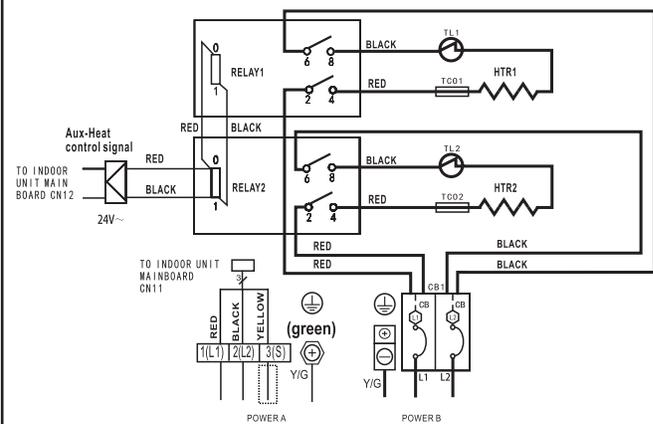
The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the outdoor S; for type B, S position shall not be connected.

Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY1	○	CB1
○ ○		○ ○	
○ ○ ○		○ ○ ○	
○ ○ ○ ○		○ ○ ○ ○	



8KW/10KW HEAT KIT

- :thermal cut-out
- :thermal link, self-resetting



NOTE1: This symbol indicates the element is optional. The wiring type of the actual unit shall prevail.

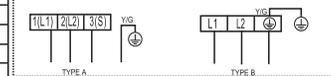
NOTE2: Please attach the nameplate to the cover of the electric control box. All the round holes located on the plate represent numbers. Please refer to the Installation Manual for details.

NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC AND LOCAL CODES.

NOTE4: POWER A,B,C,D ARE DIFFERENT POWERS.

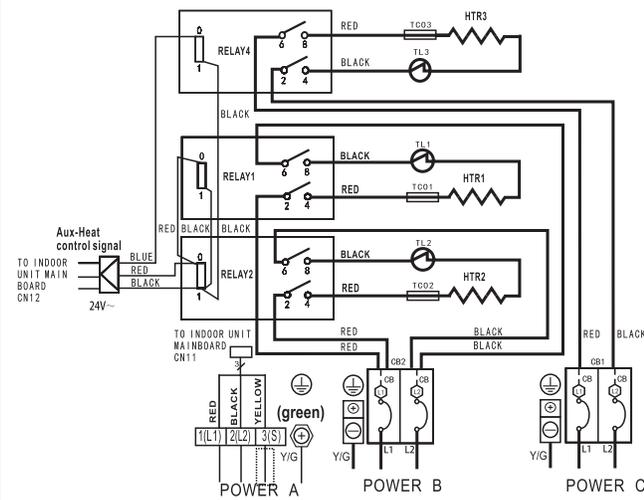
The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the outdoor S; for type B, S position shall not be connected.

Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY1	○	CB1
○ ○	RELAY2	○ ○	
○ ○ ○		○ ○ ○	
○ ○ ○ ○		○ ○ ○ ○	



15KW HEAT KIT

- :thermal cut-out
- :thermal link, self-resetting



NOTE1: This symbol indicates the element is optional. The wiring type of the actual unit shall prevail.

NOTE2: Please attach the nameplate to the cover of the electric control box. All the round holes located on the plate represent numbers. Please refer to the Installation Manual for details.

NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC AND LOCAL CODES.

NOTE4: POWER A,B,C,D ARE DIFFERENT POWERS.

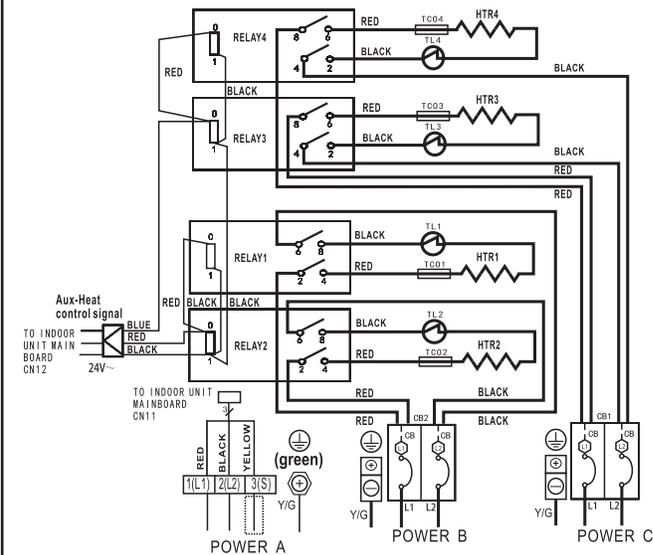
The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the outdoor S; for type B, S position shall not be connected.

Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY1	○	CB1
○ ○	RELAY2	○ ○	CB2
○ ○ ○	RELAY4		
○ ○ ○ ○		○ ○ ○ ○	



20KW HEAT KIT

- :thermal cut-out
- :thermal link, self-resetting



NOTE1: This symbol indicates the element is optional. The wiring type of the actual unit shall prevail.

NOTE2: Please attach the nameplate to the cover of the electric control box. All the round holes located on the plate represent numbers. Please refer to the Installation Manual for details.

NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC AND LOCAL CODES.

NOTE4: POWER A,B,C,D ARE DIFFERENT POWERS.

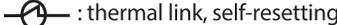
The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the outdoor S; for type B, S position shall not be connected.

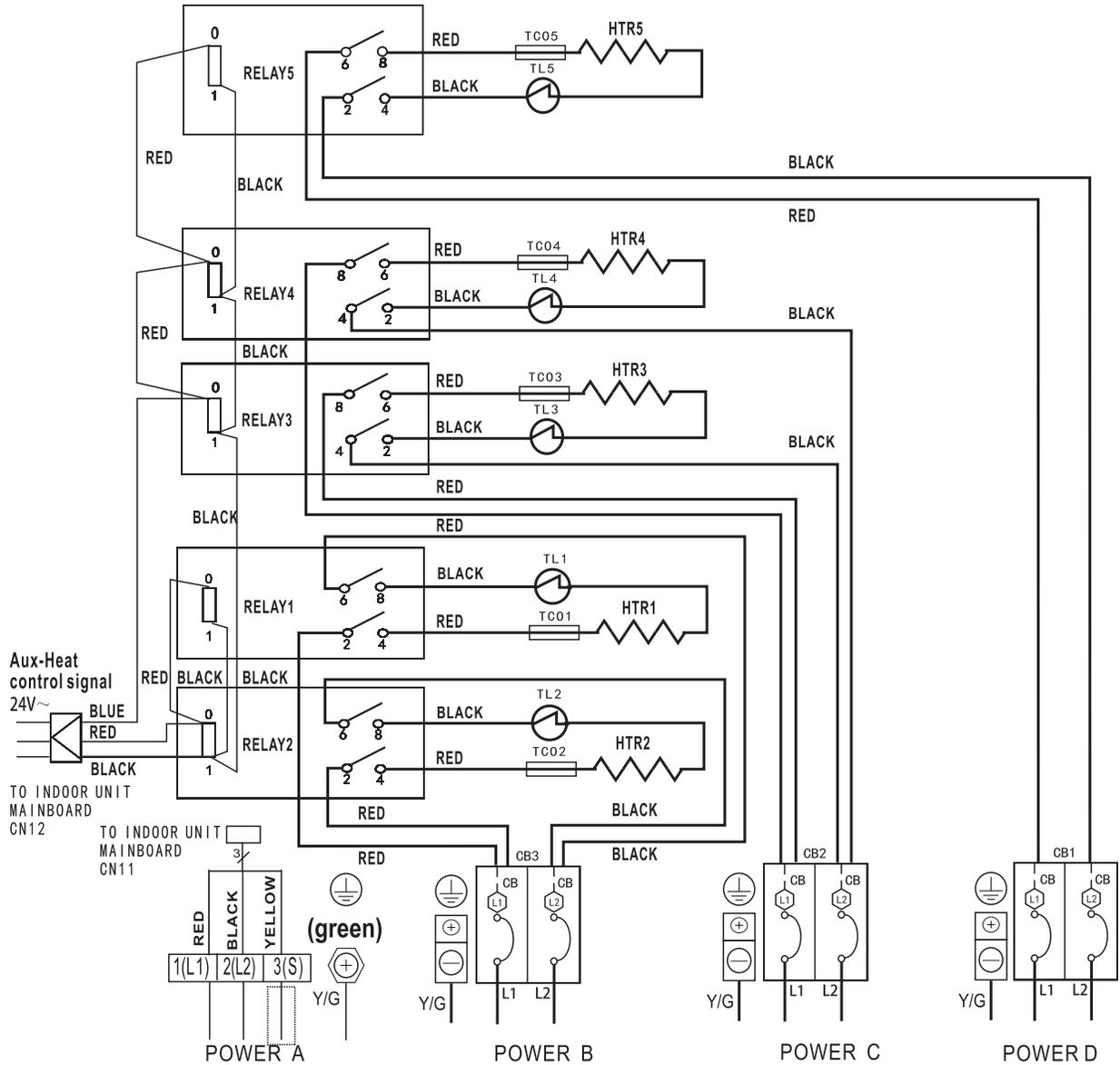
Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY1	○	CB1
○ ○	RELAY2	○ ○	CB2
○ ○ ○	RELAY3	○ ○ ○	
○ ○ ○ ○	RELAY4	○ ○ ○ ○	



Electric auxiliary heating wiring diagram

25KW HEAT KIT

-  : thermal cut-out
-  : thermal link, self-resetting



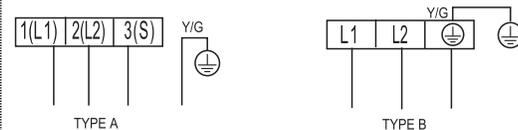
NOTE1:  This symbol indicates the element is optional, The wiring type of the actual unit shall prevail.

NOTE2: Please attach the nameplate to the cover of the electric control box. All the round holes located on the plate represent numbers. Please refer to the Installation Manual for details.

NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC AND LOCAL CODES.
NOTE4: POWER A,B,C,D ARE DIFFERENT POWERS.

Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY 1	○	CB1
○○	RELAY 2	○○	CB2
○○○	RELAY 3	○○○	CB3
○○○○	RELAY 4		
○○○○○	RELAY 5		

The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the outdoor S; for type B, S position shall not be connected.



Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.