WILLIAMS™

INSTALLATION INSTRUCTIONS

EXTERNAL POWER SUPPLY KIT M119015

FOR MODELS: AC2030TN / AC2030TNA / TG2030TN.

THE STANDARD POWER ADAPTER IS NOT LONG ENOUGH TO REACH AN OUTLET, THIS KIT CAN BE USED TO WIRE THE UNIT THROUGH THE WALL, TO THE POWER ADAPTER, AND INTO THE HOUSE'S POWER LINE INSTEAD.

NOTE: BE SURE TO FOLLOW NATIONAL ELECTRICAL CODE, ANSI/NFPA 70, OR CANADIAN ELECTRICAL CODE, PART I, CSA C22.1 AND ALL LOCAL CODES FOR ELECTRICAL WIRING WHEN FOLLOWING THESE INSTRUCTIONS. KEEP POWER WIRES AWAY FROM ANY HOT SURFACES ON THE FURNACE. WIRES THAT RUN FROM THE FURNACE TO THE ADAPTER MUST BE STRANDED, RATED FOR 105° C, AND NO SMALLER THAN 18 AWG. ANY CUTS, DRILLS OR NOTCHES MADE TO ANY STUDS OR JOISTS MUST BE APPROVED PER LOCAL CODES.

BASIC TOOLS NEEDED :

- PHILLIPS SCREW DRIVERS
- PLIERS
- WIRE SPLITTER
- DRILL GUN/DRIL BITS (OPTIONAL)

INTALLING EXTERNAL POWER SUPPLY:

1. SHUT OFF THE CIRCUIT FOR THE AREA OF WIRING YOU ARE GOING TO SPLICE INTO. REMEMBER TO WEAR ALL PROPER PPE FOR THIS PORTION OF THE INSTALLATION.
2. FIRST, CONSIDER WHERE TO PLACE THE POWER SUPPLY. SEE EXAMPLES LISTED BELOW FOR PLACEMENT OPTIONS (**FIGURE 1A-1D**).
   - IF THE POWER SUPPLY IS PLACED UNDER THE UNIT, IT IS STRONGLY ADVISED TO USE CSST PIPING. DO NOT ALLOW ANY WIRING TO CONTACT THE GAS LINE.
     NOTE: SEE LOCAL CODES FOR GAS LINES AND ELECTRICAL WIRING FOR MORE INFO.
3. MEASURE 18 AWG WIRE LENGTHS NEEDED FOR THE FURNACE POWER*. CUT TO LENGTH AND FASTEN TO THE APPROPRIATE ADAPTER PINS (SEE FIGURE 4 FOR WIRE DIAGRAM).
4. RUN WIRING FOR NEUTRAL, LOAD AND COMMON INTO THE AC ADAPTER PINS LABELED ACCORDINGLY. CUT THEM TO LENGTH AND SPLICE THEM INTO THE HOUSE'S MAIN LINE** (SEE FIGURE 4 FOR WIRE DIAGRAM).
5. SECURE THE WIRING ALONG THE HOUSING STUDS AS NEEDED TO KEEP FROM ANY SNAGGING DURING UNIT INSTALLATION.
   - YOU CAN RUN THE WIRE THROUGH THE HEADER PLATE GROMMET IF NEEDED. (**FIGURE 2**)
   - IF YOU ARE RUNNING WIRE BETWEEN THE FURNACE AND STUD, SECURE THE WIRE TO THE LEG AS SHOWN TO PREVENT WIRE PINCHING (**FIGURE 3**). TO PREVENT RISK OF DAMAGING FURNACE, SCREW TAPS ARE PERMISSIBLE ONLY ON THE 6 1/2" OVERHANG PORTION OF THE LEG AS SHOWN. DO NOT DRILL IN THE GRAYED OUT AREA.
6. WIRE THE POSITIVE AND NEGATIVE LEADS TO THE PIGTAIL DC PLUG WITH WIRE NUTS.
7. TEMPORARILY FREE THE CONTROL MODULE BY UNSCREWING IT FROM THE HEAT SHIELD.
8. TO REPLACE THE WIRE JACK:
   - FOR MODEL **AC2030TN**, LOCATE THE POWER PLUG IN THE BACK OF THE MODULE. UNPLUG THE OLD JACK AND USE PLIERS TO REMOVE THE STRAIN RELIEF ON THE BRACKET. REMOVE THE PLUG AND STRAIN RELIEF. PLACE THE NEW WIRE THROUGH THE BRACKET AND CLIP THE NEW STRAIN RELIEF ONTO THE WIRE. PLUG THE NEW JACK BACK INTO THE CONTROL MODULE, THEN SECURE THE STRAIN RELIEF TO THE BRACKET.
   - FOR MODELS **AC2030TNA / TG2030TN**, PLACE THE NEW WIRE THROUGH THE BRACKET AND CLIP THE NEW STRAIN RELIEF ONTO THE WIRE. PLUG THE NEW JACK BACK INTO THE CONTROL MODULE, THEN SECURE THE STRAIN RELIEF TO THE BRACKET.
9. REINSTALL THE CONTROL MODULE AND MAKE SURE ALL WIRES ARE PROPERLY SECURED AND IN PLACE.
10. TURN THE CIRCUIT POWER BACK ON. TURN CONTROL MODULE ON WHEN READY TO FIRE UP.

*MAX WIRE LENGTH IS 15 FEET FOR 12VDC OUTPUT FROM FURNACE POWER TO POWER SUPPLY ADAPTER.

**WIRE LENGTH FROM POWER SUPPLY ADAPTER TO HOUSE POWER CAN BE AS LONG AS NEEDED.

FIGURE 1A
ADAPTER IN ATTIC, 12 VDC FED THROUGH OUTSIDE
OF STUD & FURNACE LEG AT BOTTOM

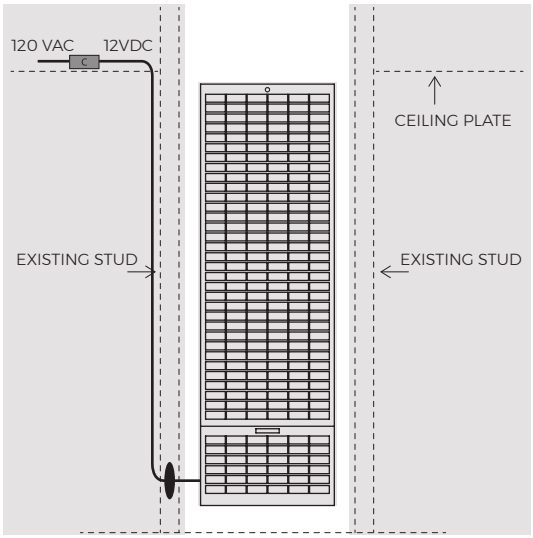


FIGURE 1B
ADAPTER IN ATTIC, 12VDC WIRE FED THROUGH INSIDE
OF STUD & DOWN NEXT TO UNIT, THROUGH LEG

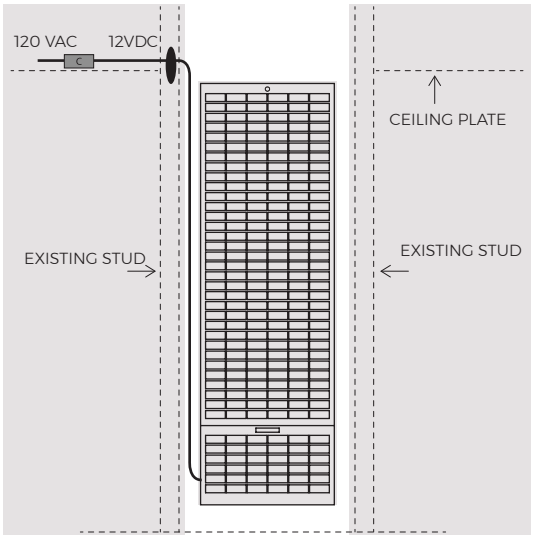


FIGURE 1C
ADAPTER ON FLOOR PLATE UNDER MODULES.
120 VAC WIRED THROUGH LEG

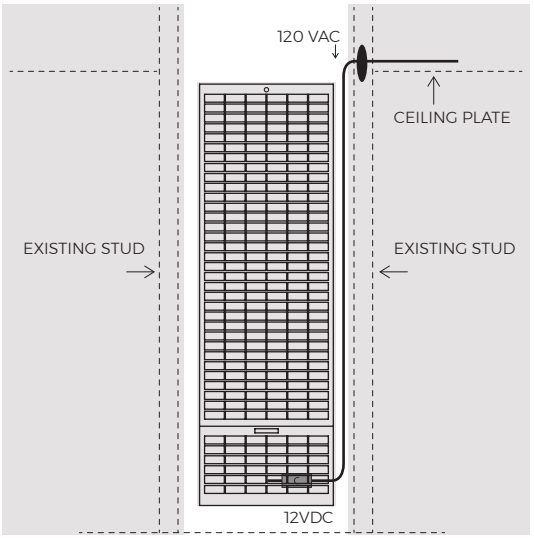


FIGURE 1D
ADAPTER OUTSIDE UNIT ON FLOOR, INSIDE THE
WALL. 12VDC POWER FED THROUGH HOLE IN STUD.

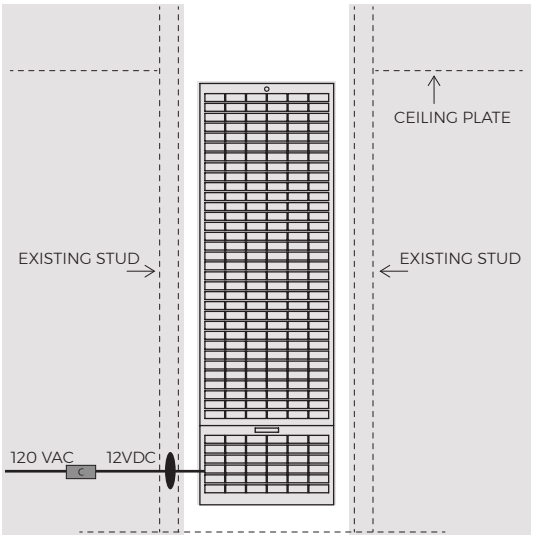


FIGURE 2
WIRING THROUGH HEADER

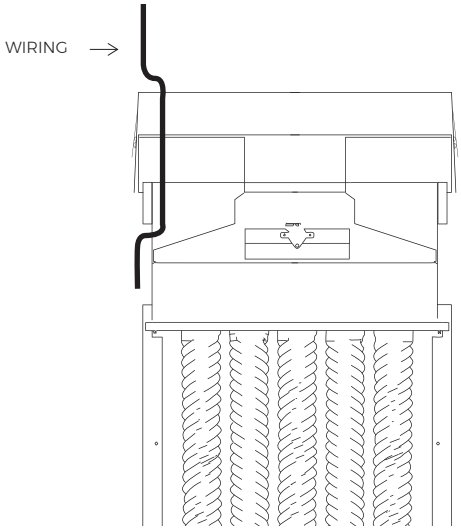


FIGURE 3
WIRING THROUGH LEG

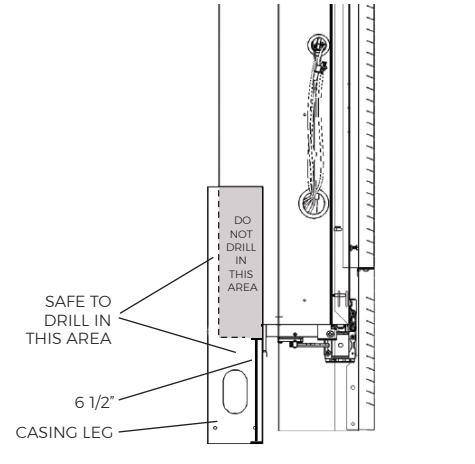
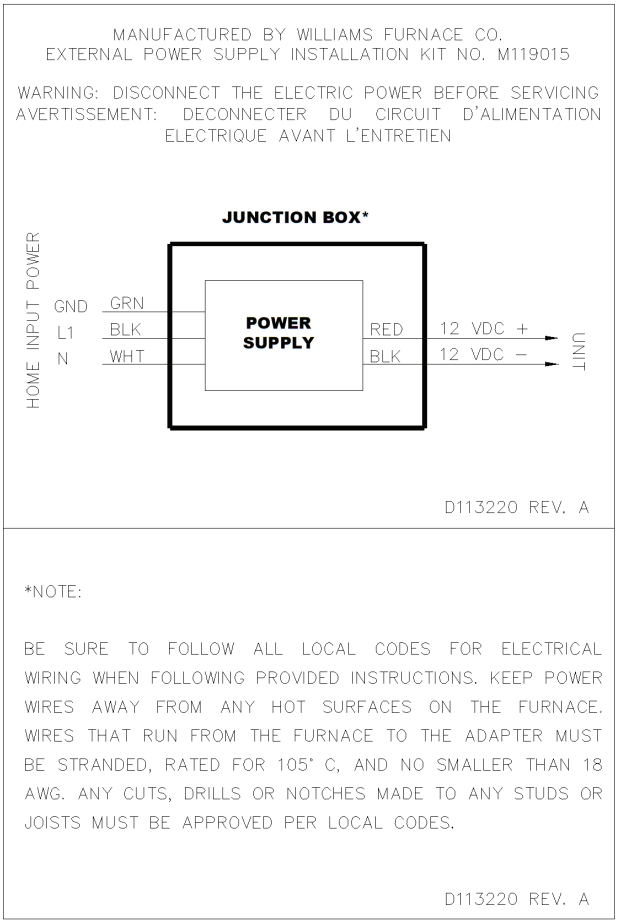
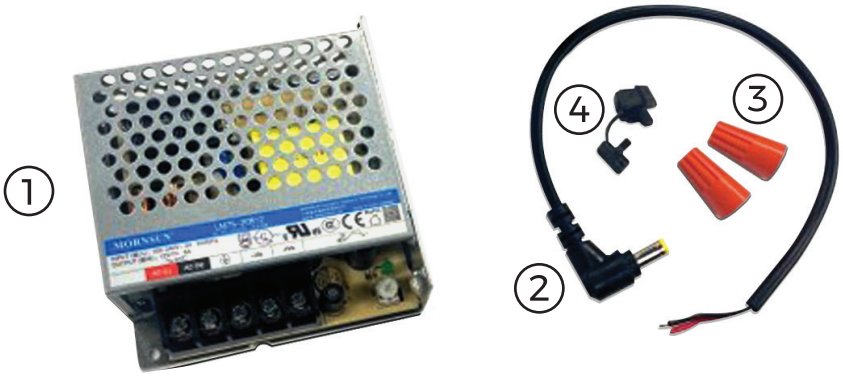


FIGURE 4
WIRING DIAGRAM



REPLACEMENT PARTS TABLE			
	ITEM NUMBER	**DESCRIPTION**	**QUANTITY**
1	P323995	EXTERNAL POWER SUPPLY ADAPTER	1
2	P323992	POWER JACK CONNECTOR ADAPTER	1
3	P045300	WIRE NUTS	2
4	D045300	1/2 " STRAIN RELIEF	1
SEE FIGURE 4	D113220	WIRE DIAGRAM LABEL	1



NOTE: Refer to your owner's manual for additional information and to be sure this accessory is of the type and design required for use with your furnace.