

PROTECTION CONTROLS, INC.
Skokie, Illinois

MINI-UNIFIED
Form 76057A
(Drawing X-347)

Single Burner Supervision, Manual Pushbutton Ignition, Plug-in Type ACF Control Relays, Plug-in Type SS100A FLAME-PAK. Complete with Start Pushbutton, Stop Pushbutton, Flame On Light, and Enclosure.

OPERATING SEQUENCE

Power on PROTECTOFIER terminal 1 thru safety limit switch circuits provides power to electronic network and power to terminal 3.

- 1 - Press and hold START pilot pushbutton.
 - a - "ACF" CHECK relay "C" is energized thru N.C. contacts of "ACF" FLAME relay "F".
 - b - Ignition transformer is energized thru contact of START button to provide spark ignition to the pilot.
 - c - Pilot solenoid valve is energized to open (from PROTECTOFIER terminal 6).
 - d - Ignition transformer and pilot valve remain energized as long as the operator presses START pushbutton.
- 2 - With pilot flame established "ACF" FLAME relay "F" is energized.
 - a - FLAME relay "F" contacts transfer.
 - 1) N.C. "F" contact in safe-start checking circuit opens.
 - 2) N.O. "F" contact between terminal 3 and terminal 4 closes providing holding circuit around START pilot pushbutton contact.
 - 3) N.O. "F" contact in main valve circuit closes to energize main valve (thru N.O. CHECK relay "C" contact). Red Flame On light indicates flame is established.
- 3 - Release START button. Ignition transformer is de-energized.

Flame failure during operation shuts off fuel supply by de-energizing fuel valves.

Power interruption to PROTECTOFIER terminal 1 de-energizes relays and fuel valves.

Failure of CHECK relay "C" to prove safe-start check will prevent opening of fuel valves and also prevent ignition.

If alarm horn is connected in circuit, alarm will sound anytime terminals 1 and 2 are energized and no flame signal is present. Alarm load to be limited to 50 V.A. maximum.

Burner may be turned off by pushing STOP pushbutton.

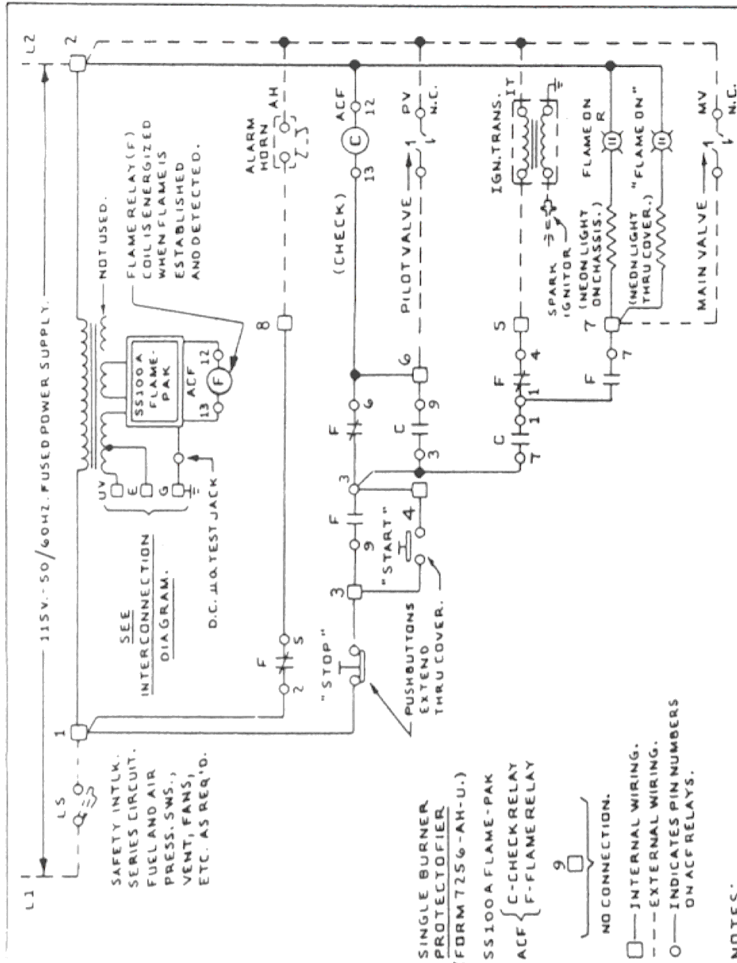
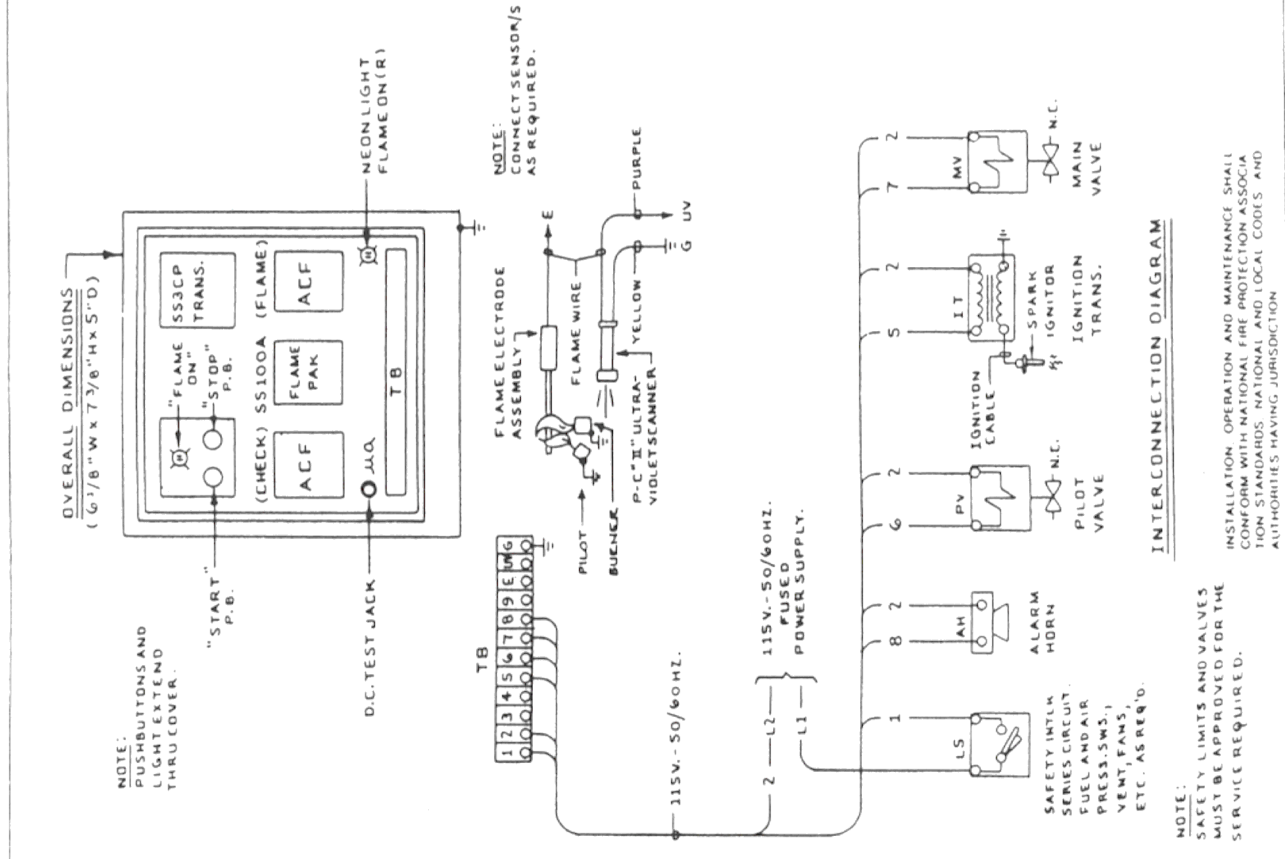
POWER EQUIPMENT CO.

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PROTECTION CONTROLS, INC.	
SKOKIE, ILLINOIS	
WIRING DIAGRAM FOR: PROTECTAL MINI-UNIFIED NO. 76057-A	
JOB NO.	DRAWN BY
DATE	DATE
5-6-76	X-347

NOTE:
SAFETY LIMITS AND VALVES MUST BE APPROVED FOR THE SERVICE REQUIRED.

INSTALLATION, OPERATION AND MAINTENANCE SHALL CONFORM WITH NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS, NATIONAL AND LOCAL CODES AND AUTHORITIES HAVING JURISDICTION.