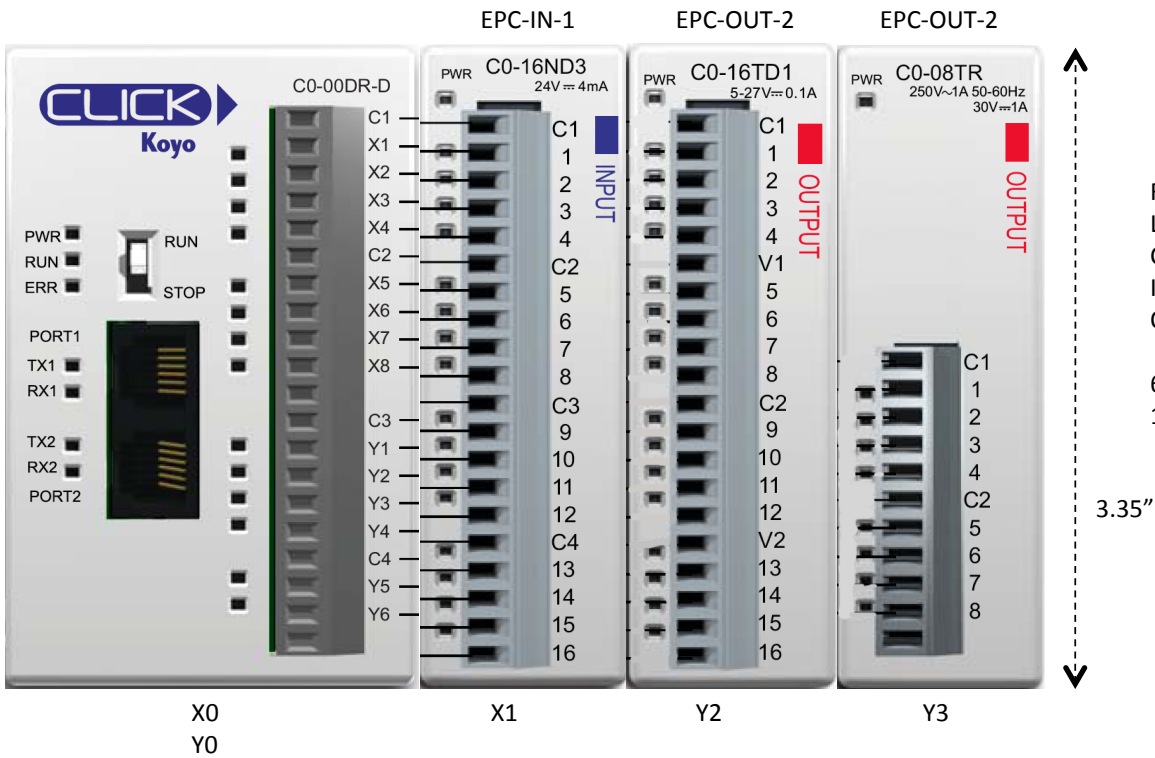




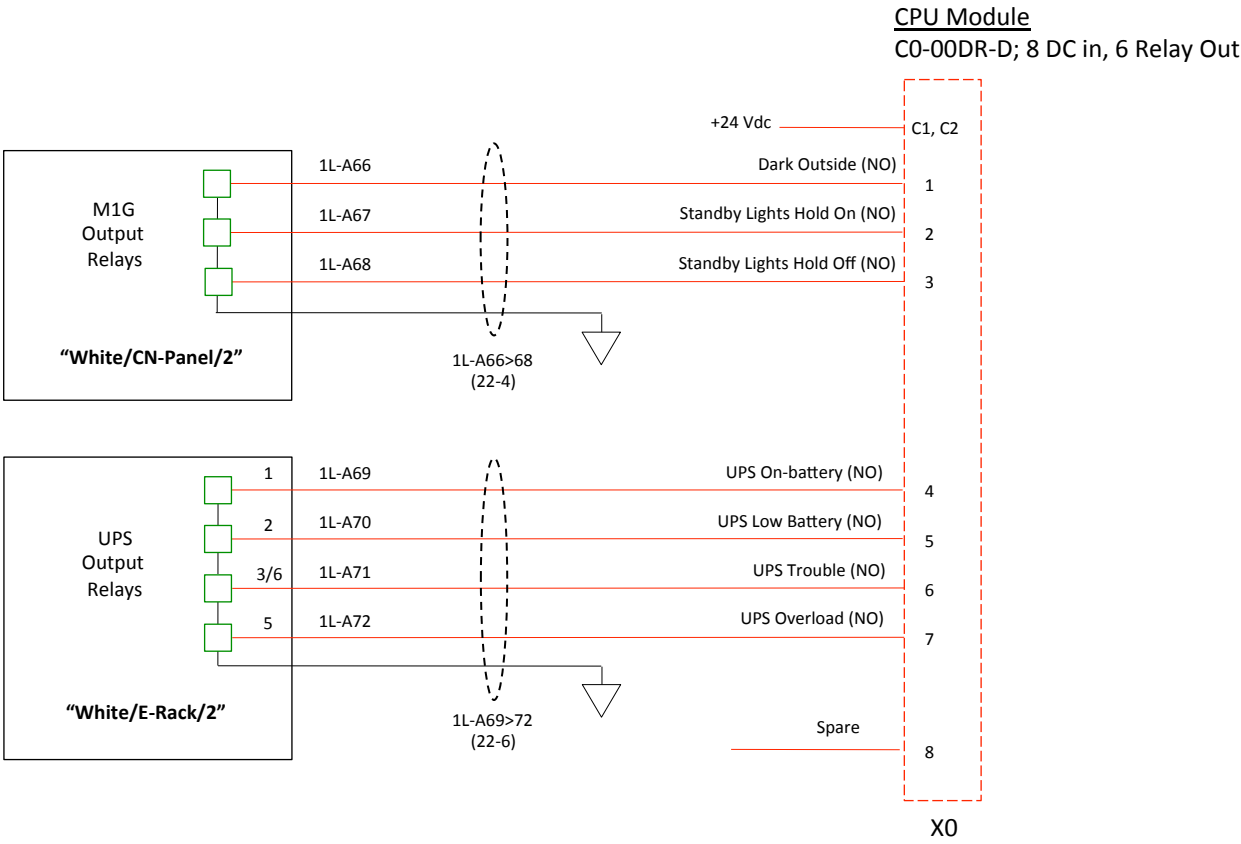
Relays: 400 ma @ 24 vdc
LEDs: 100 ma @ 12 Vdc
CPU 120 ma @ 24 Vdc
Input 40 ma @ 24 Vdc
Output 65 ma @ 24 Vdc

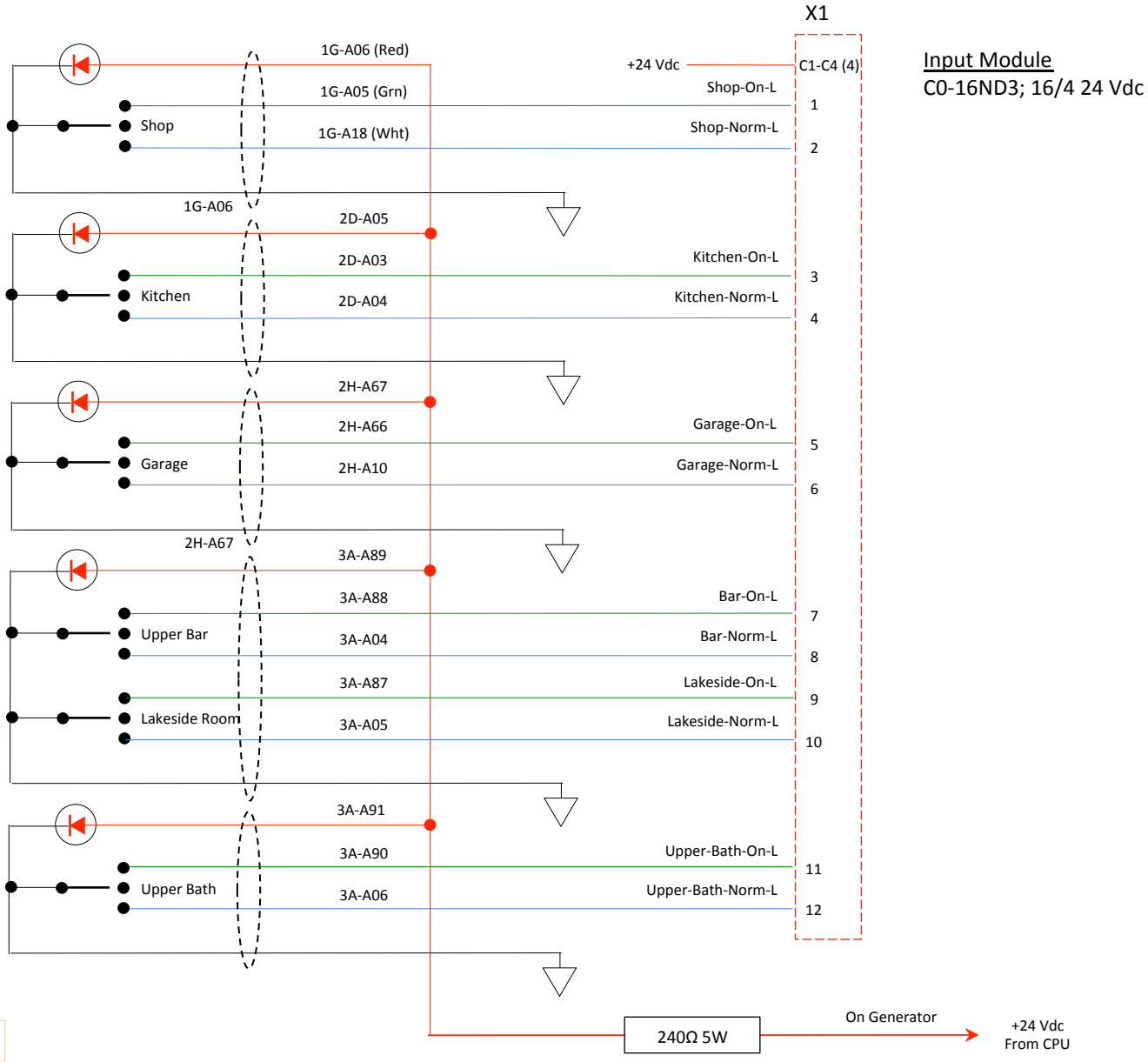
625 ma @ 24 Vdc = 15 W
100 ma @ 12 Vdc = 1.2 W

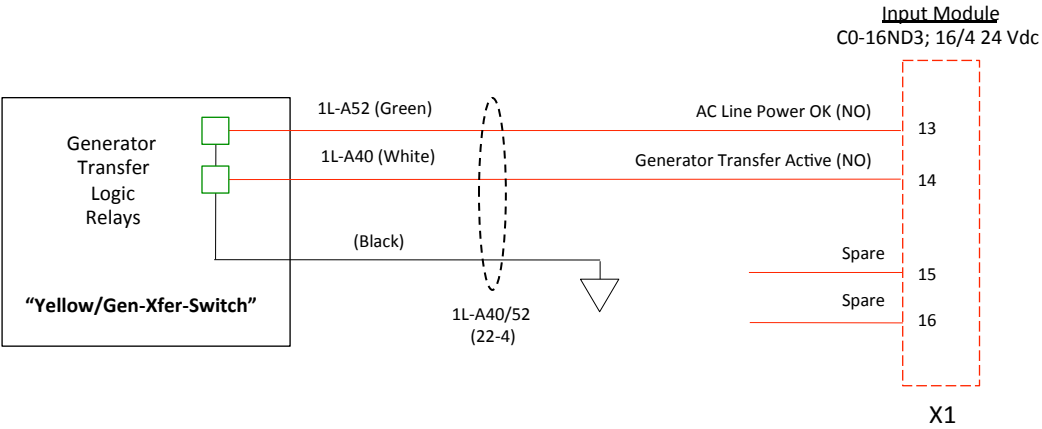
Modules	
CPU:	C0-00DR-D; 8 DC in, 6 Relay Out (120 ma)
Input:	C0-16ND3; 16/4 24 Vdc
Output:	C0-16TD1; 16/4 DC Sink, 5-27 V (65 ma)
Output:	C0-08TR; 8/2 SPST Relay (1 A)

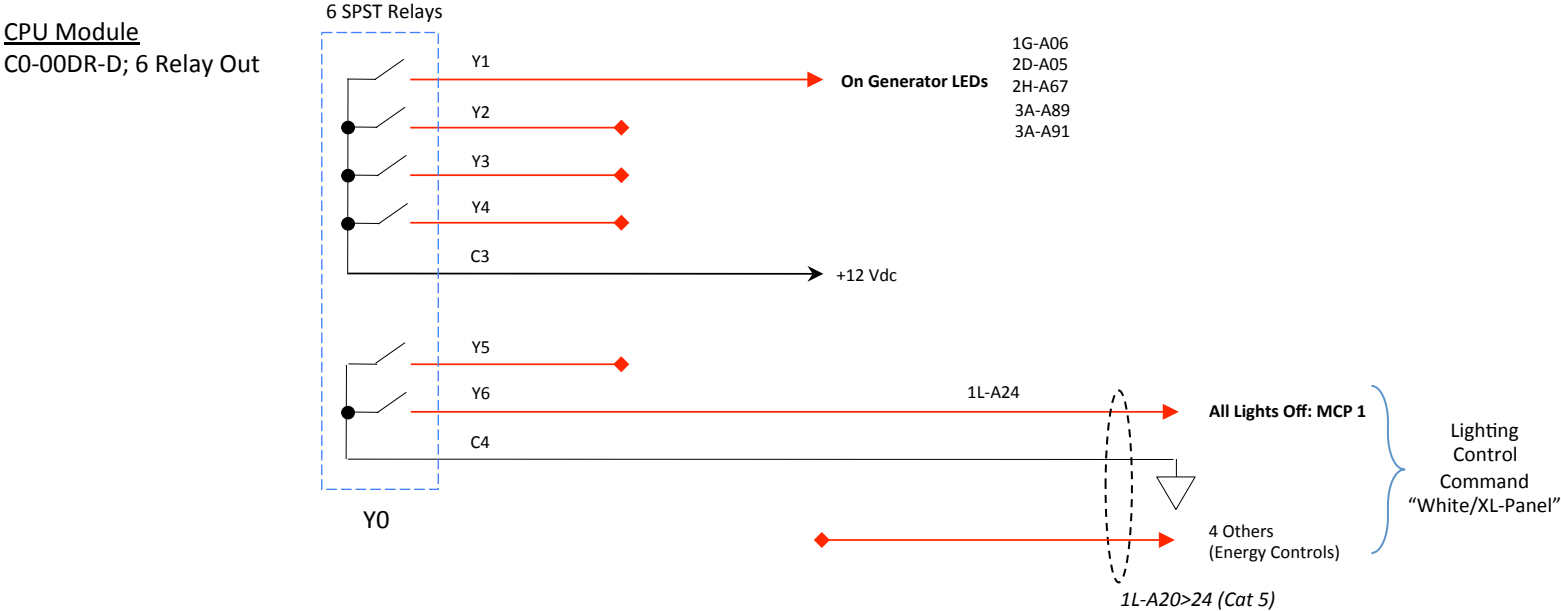
	CPU (X0)	1 (X1)
	8 DC Sink/Source	16 (by 4) 24Vdc Sink
1	Dark Outside	Shop-On
2	Standby Lights Hold On	Shop-Norm
3	Standby Lights Hold Off	Kitchen-On
4	UPS On-battery	Kitchen-Norm
5	UPS Low Battery	Garage-On
6	UPS Trouble	Garage-Norm
7	UPS Overload	Bar-On
8	- spare -	Bar-Norm
9	*	Lakeside-On
10	*	Lakeside-Norm
11	*	Upper-Bath-On
12	*	Upper-Bath-Norm
13	*	AC Line Power OK
14	*	Generator Transfer Active
15	*	- spare -
16	*	- spare -

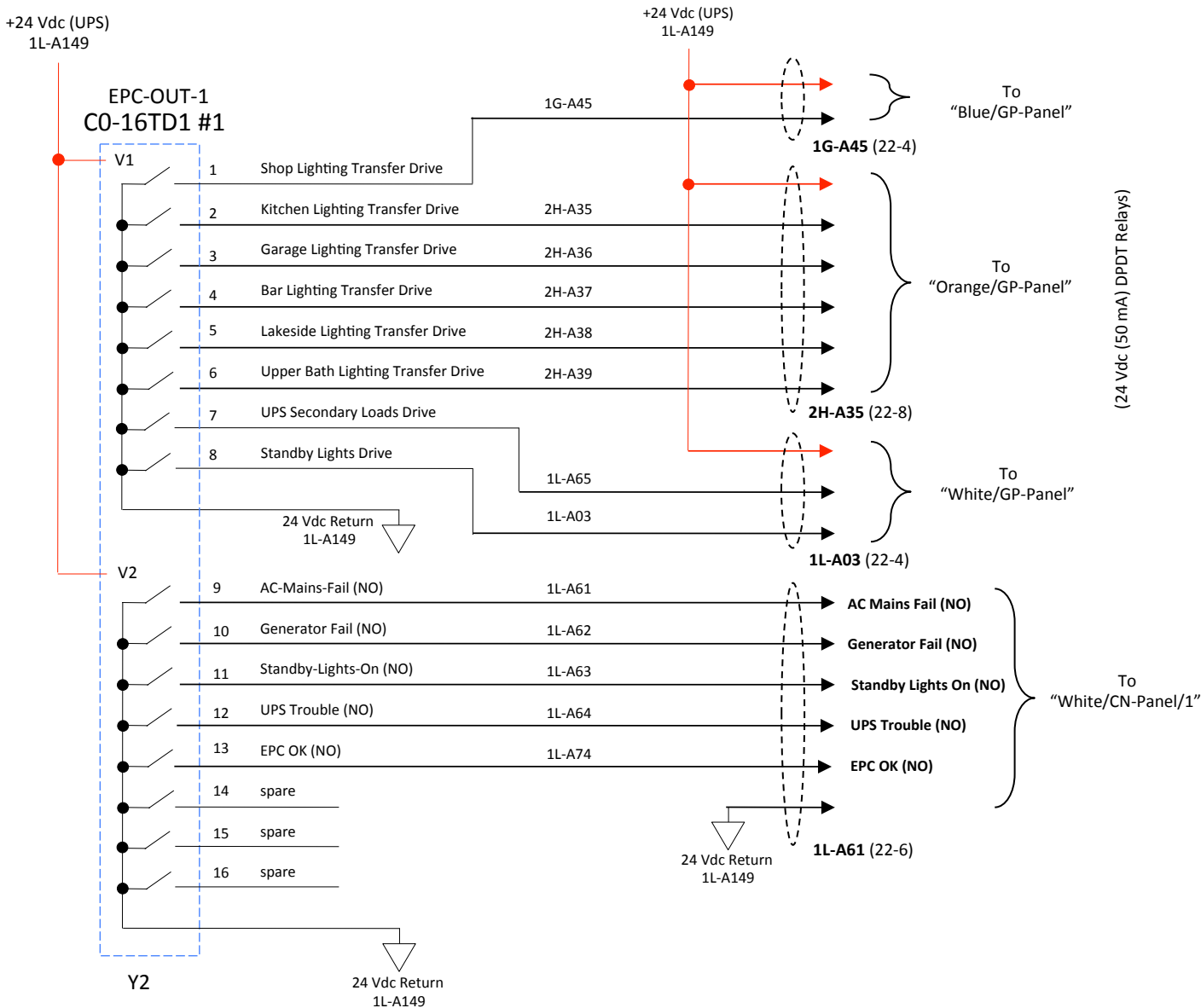
	CPU (Y0)	1 (Y2)	2 (Y3)
	6 (by 2) Relay Contacts	16 (by 4) 5-24Vdc Sink	8 (by 2) SPST Relay (1 A)
1	On Generator LEDs	Shop Lighting Transfer Drive	Shop Light; XL Command On
2	- spare -	Kitchen Lighting Transfer Drive	Kitchen Light; XL Command On
3	- spare -	Garage Lighting Transfer Drive	Garage Light; XL Command On
4	- spare -	Bar Lighting Transfer Drive	Upper Bar Light; XL Command On
5	- spare -	Lakeside Lighting Transfer Drive	Lakeside Light; XL Command On
6	All Lights Off, MCP 1	Upper Bath Lighting Transfer Drive	Upper Bath Light; XL Command On
7	*	UPS Secondary Loads Drive	All Lights Off, MCP 2
8	*	Standby Lights Drive	- spare -
9	*	AC-Mains-Fail	*
10	*	Generator Fail	*
11	*	Standby-Lights-On	*
12	*	UPS Trouble	*
13	*	EPC OK	*
14	*	- spare -	*
15	*	- spare -	*
16	*	- spare -	*



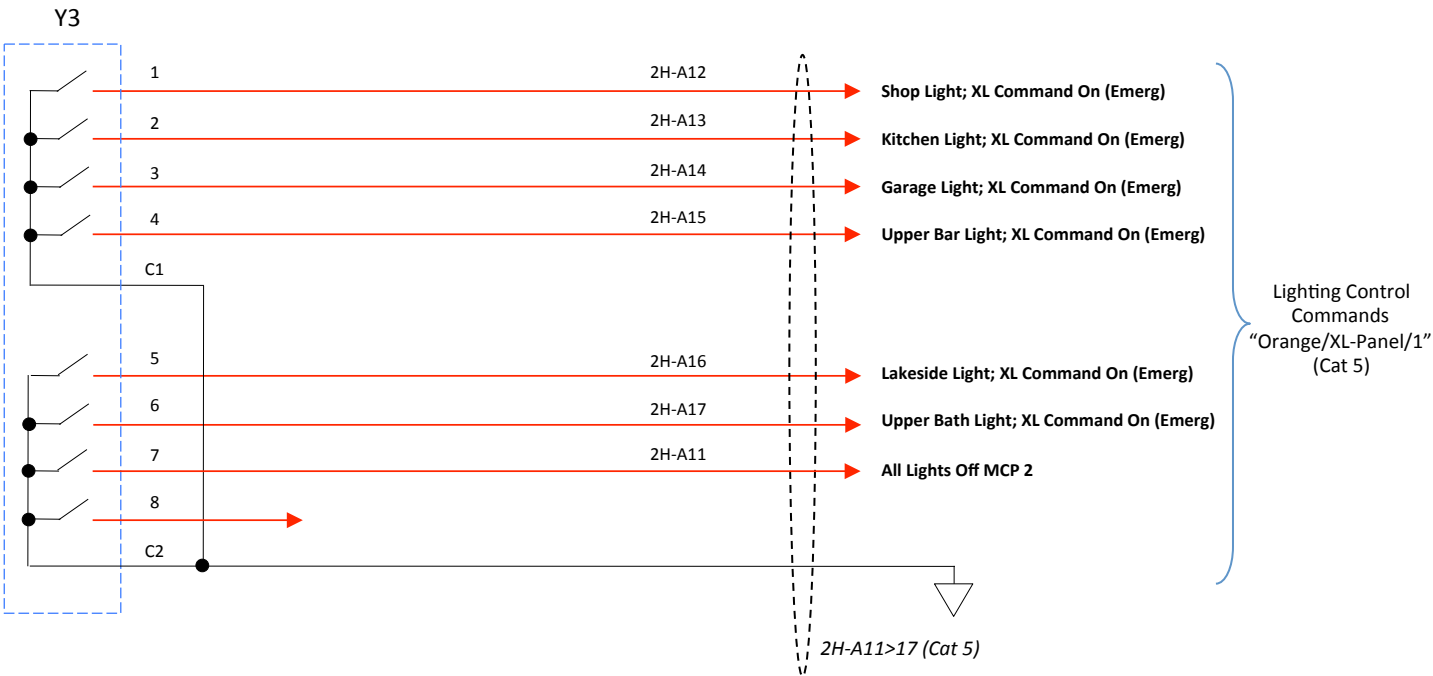








Output Module
EPC-OUT-2
C0-08TR; 8/2 SPST Relay



UPS Secondary Loads Drive (Y207) =



NOT TIMER(On Delay, 120 sec, [UPS On-battery (X004)])
AND NOT [UPS Low Battery (X005)]
AND NOT [UPS Overload (X007)]



Standby-Lights-On (Y211) =
Standby Lights Drive (Y208) =



[UPS Secondary Loads Drive (Y207)]
AND || [Standby Lights Hold On (X002)]
OR || NOT [Standby Lights Hold Off (X003)]
AND [Dark Outside (X001)]
AND NOT [AC Line Power OK (X113)]

AC-Mains-Fail (Y209) =

NOT [AC Line Power OK (X113)]

Generator Fail (Y210) =



NOT TIMER(On Delay, 120 sec, NOT [AC Line Power OK (X113)])
AND NOT [Generator Transfer Active (X114)]

UPS Trouble (Y212) =

[UPS Trouble (X006)]

OR [UPS Low Battery (X005)]

EPC OK (Y213) =

Always On

On-Generator LED (Y001) =

[Generator Transfer Active (X114)]

OR 1 Hz Flash WHEN NOT [AC Line Power OK (X113)]

Shop Light Call Flag (On) =

[Shop Light Set On (X101)]
AND [Generator Transfer Active (X114)]
AND NOT [AC Line Power OK (X113)]

Shop Light Call Flag (Off) =

[Shop Light Set Norm (X102)]
OR **TIMER**(On Delay, 60 sec, [AC Line Power OK (X113)])

Kitchen Light Call Flag (On) =

[Kitchen Light Set On (X103)]
AND [Generator Transfer Active (X114)]
AND NOT [AC Line Power OK (X113)]

Kitchen Light Call Flag (Off) =

[Kitchen Light Set Norm (X104)]
OR **TIMER**(On Delay, 60 sec, [AC Line Power OK (X113)])

Garage Light Call Flag (On) =

[Garage Light Set On (X105)]
AND [Generator Transfer Active (X114)]
AND NOT [AC Line Power OK (X113)]

Garage Light Call Flag (Off) =

[Garage Light Set Norm (X106)]
OR **TIMER**(On Delay, 60 sec, [AC Line Power OK (X113)])

Upper Bar Light Call Flag (On) =
[Upper Bar Light Set On (X107)]
AND [Generator Transfer Active (X114)]
AND NOT [AC Line Power OK (X113)]

Lakeside Room Light Call Flag (On) =
[Lakeside Room Light Set On (X109)]
AND [Generator Transfer Active (X114)]
AND NOT [AC Line Power OK (X113)]

Upper Bath Light Call Flag (On) =
[Upper Bath Light Set On (X111)]
AND [Generator Transfer Active (X114)]
AND NOT [AC Line Power OK (X113)]

Upper Bar Light Call Flag (Off) =
[Upper Bar Light Set Norm (X108)]
OR **TIMER**(On Delay, 60 sec, [AC Line Power OK (X113)])

Lakeside Room Light Call Flag (Off) =
[Lakeside Room Light Set Norm (X110)]
OR **TIMER**(On Delay, 60 sec, [AC Line Power OK (X113)])

Upper Bath Light Call Flag (Off) =
[Upper Bath Light Set Norm (X112)]
OR **TIMER**(On Delay, 60 sec, [AC Line Power OK (X113)])

Shop Light Transfer Drive (Y201) =
[Shop Light Call Flag]

Upper Bar Light Transfer Drive (Y204) =
[Upper Bar Light Call Flag]

Kitchen Light Transfer Drive (Y202) =
[Kitchen Light Call Flag]

Lakeside Room Light Transfer Drive (Y205) =
[Lakeside Room Light Call Flag]

Garage Light Transfer Drive (Y203) =
[Garage Light Call Flag]

Upper Bath Light Transfer Drive (Y206) =
[Upper Bath Light Call Flag]

Shop Light XL On Call (Y301) =
[Shop Light Call Flag]
AND TIMER(On Delay, 55 sec, [AC Line Power OK (X113)])

Kitchen Light XL On Call (Y302) =
[Kitchen Light Call Flag]
AND TIMER(On Delay, 55 sec, [AC Line Power OK (X113)])

Garage Light XL On Call (Y303) =
[Garage Light Call Flag]
AND TIMER(On Delay, 55 sec, [AC Line Power OK (X113)])

Upper Bar Light Transfer Drive (Y304) =
[Upper Bar Light Call Flag]
AND TIMER(On Delay, 55 sec, [AC Line Power OK (X113)])

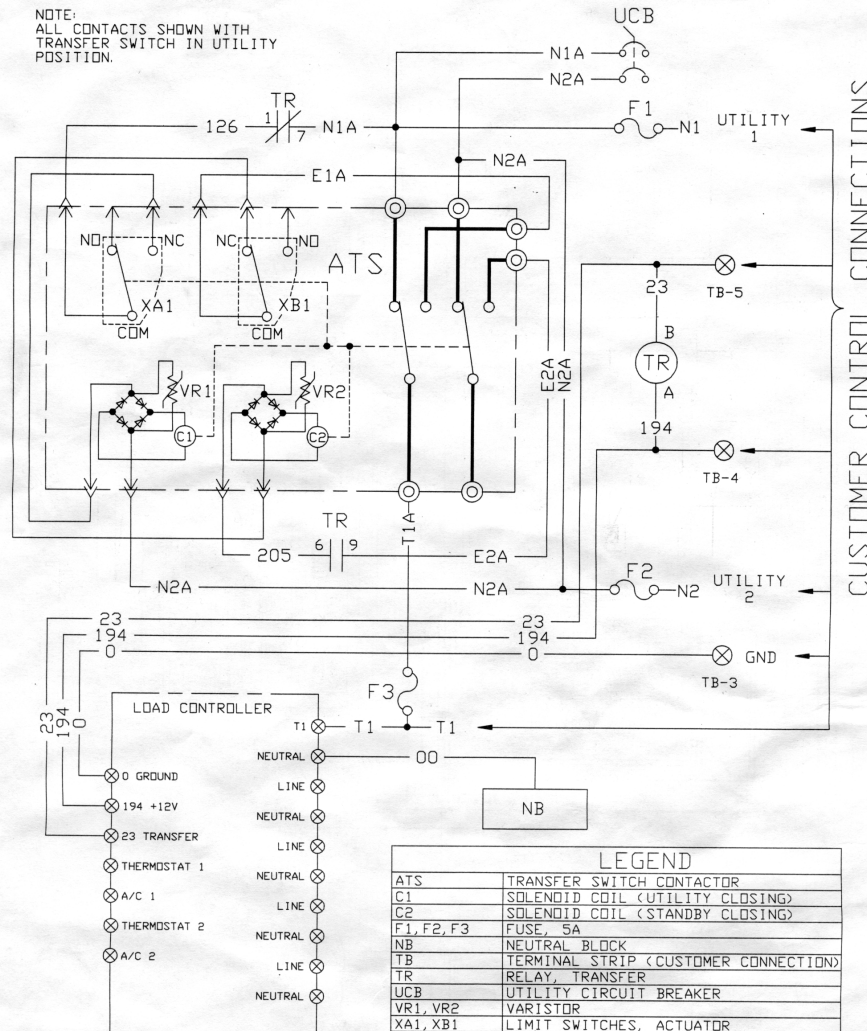
Lakeside Room Light XL On Call (Y305) =
[Lakeside Room Light Call Flag]
AND TIMER(On Delay, 55 sec, [AC Line Power OK (X113)])

Upper Bath Light XL On Call (Y306) =
[Upper Bath Light Call Flag]
AND TIMER(On Delay, 55 sec, [AC Line Power OK (X113)])

Transfer Switch

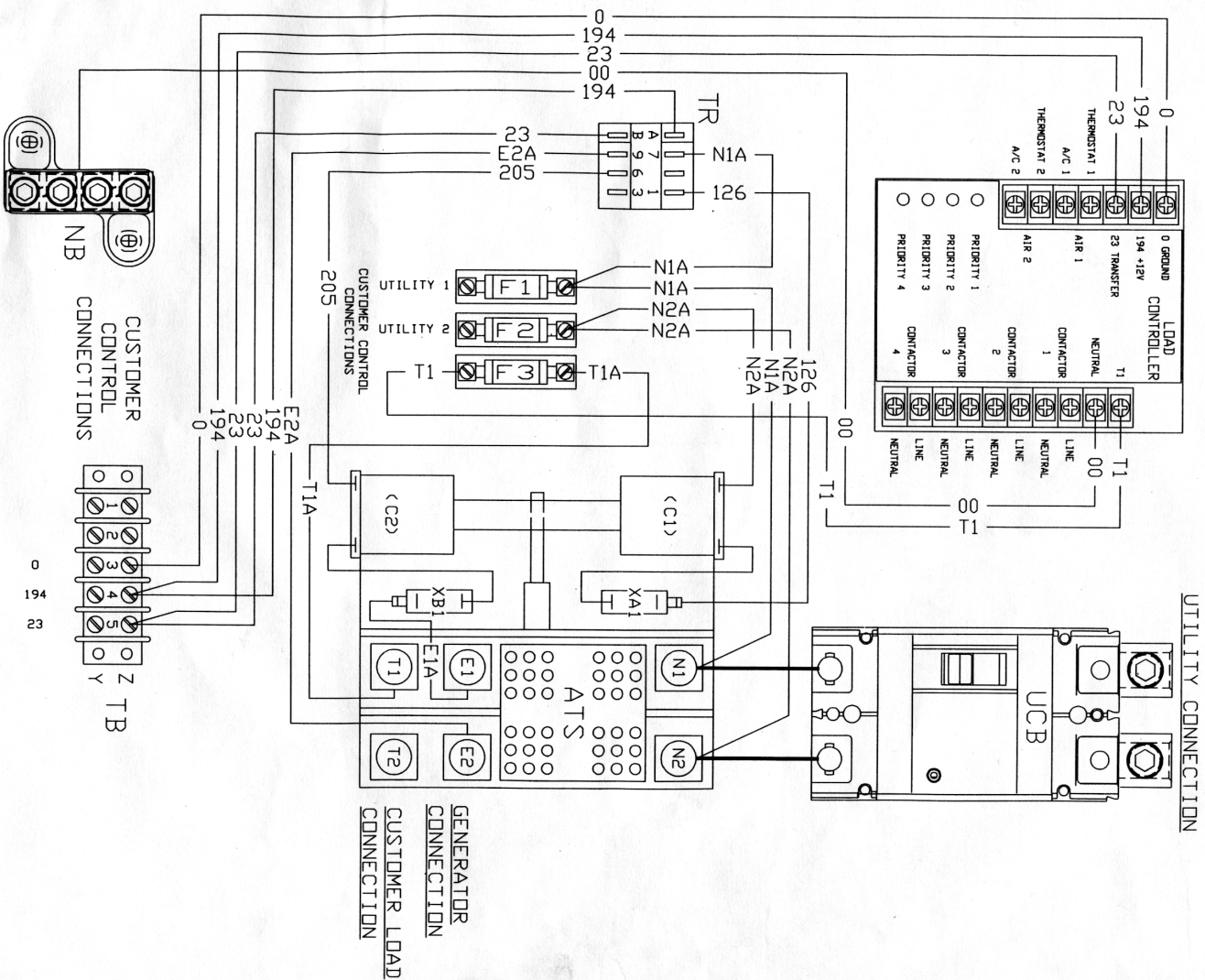
Schematic Drawing No. 0H7254-A

NOTE:
ALL CONTACTS SHOWN WITH
TRANSFER SWITCH IN UTILITY
POSITION.

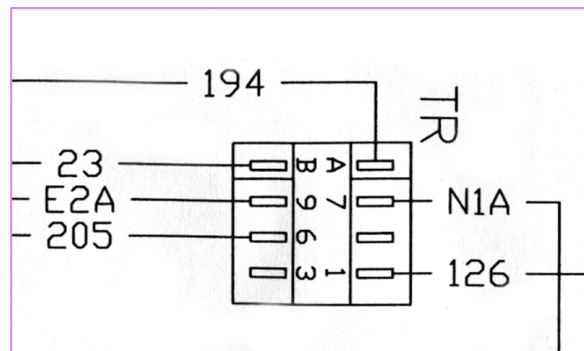


Schematic Drawing No. 0H7254-A

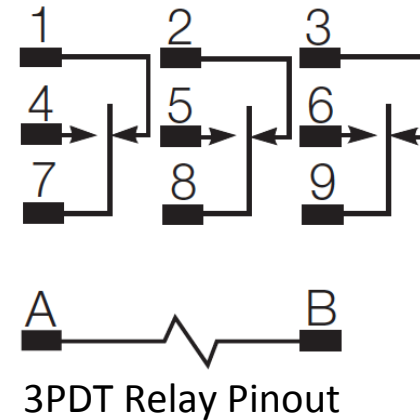
Electrical Data

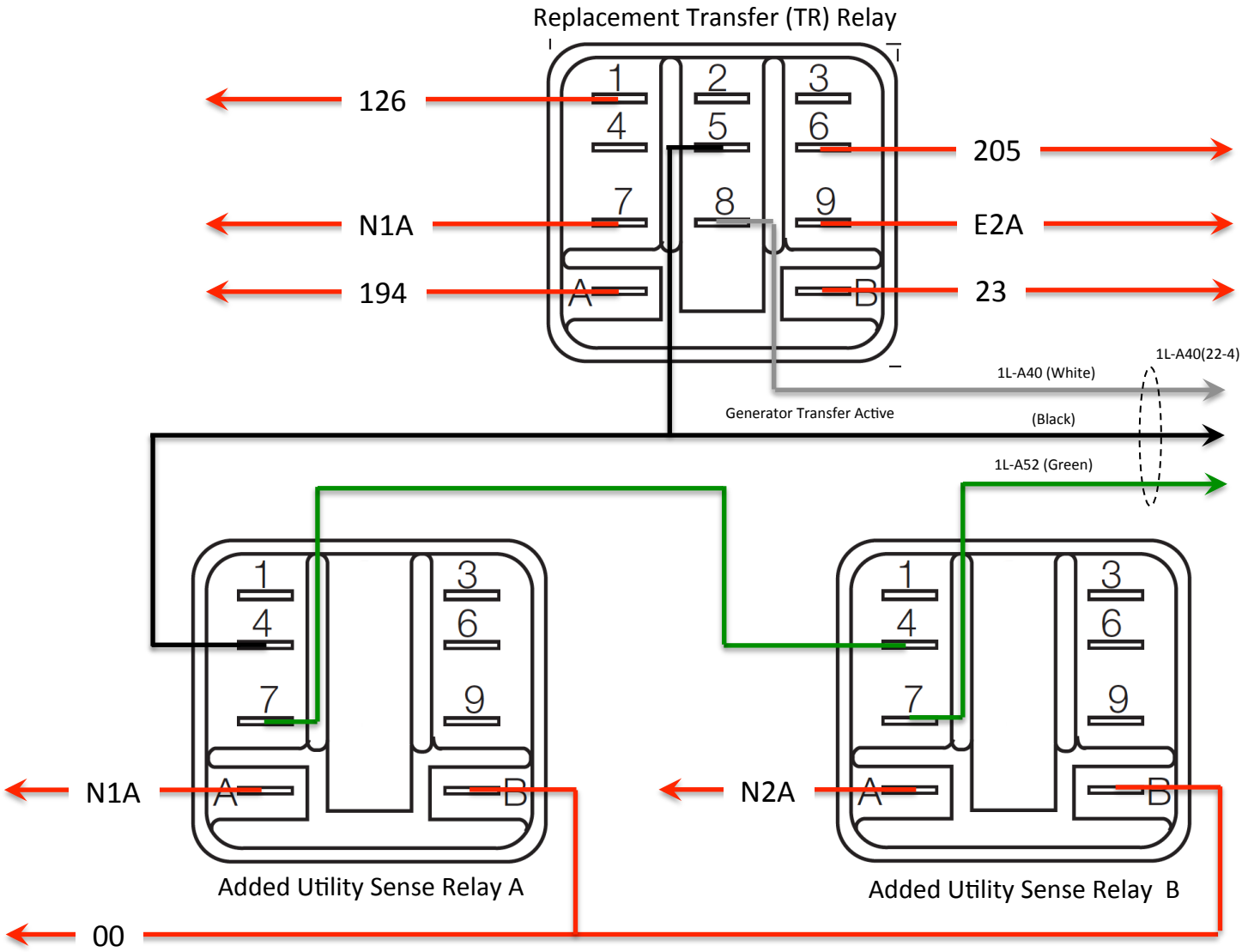


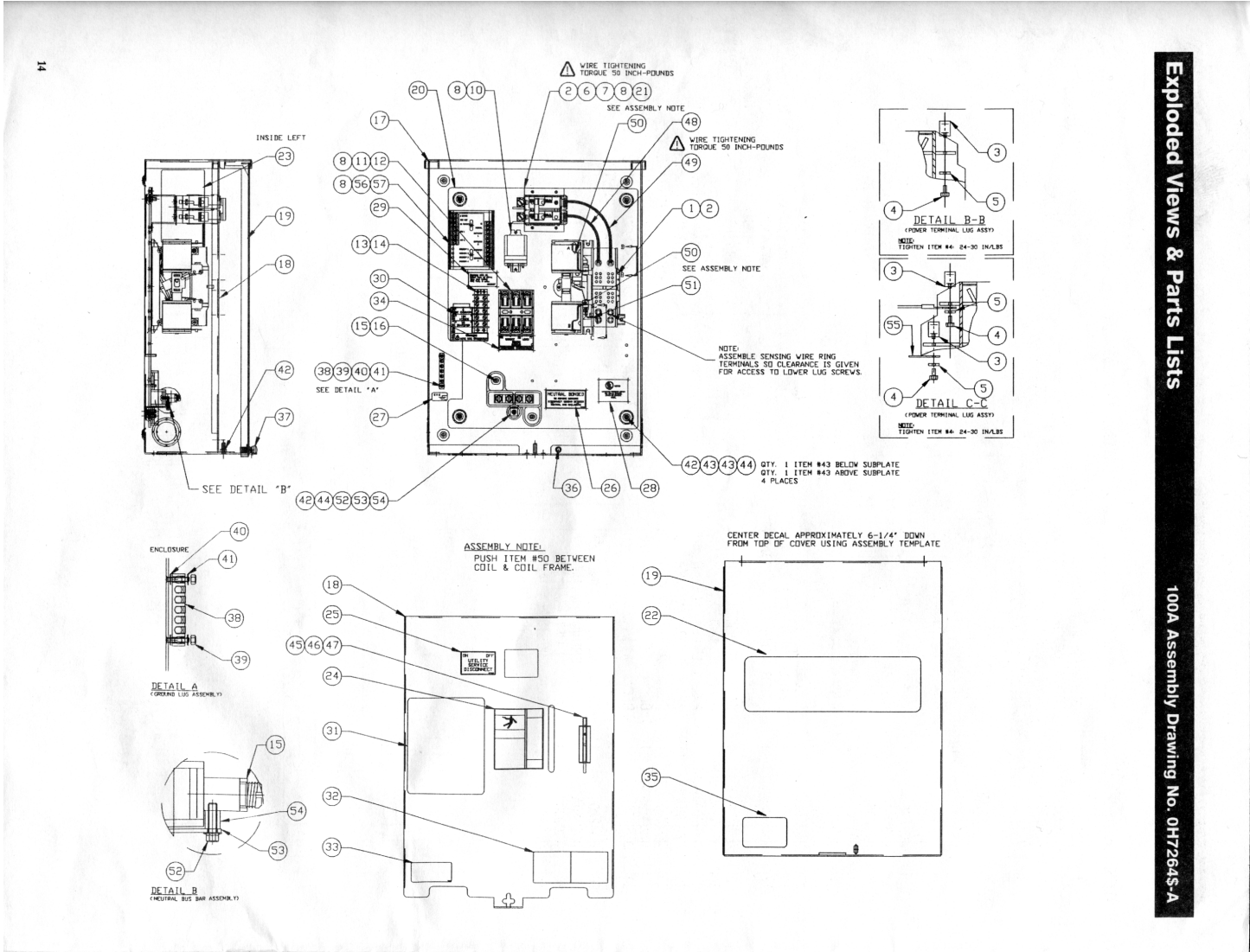
- 1) Replace Existing TR Relay (12 Vdc DPDT) With 12 Vdc 3PDT Relay
- 2) Add Utility Sense Relay A (120 Vac DPDT)
- 3) Add Utility Sense Relay B (120 Vac DPDT)
- 4) Wire as shown



Original TR Relay (DPDT) Connections
As Shown on Schematic



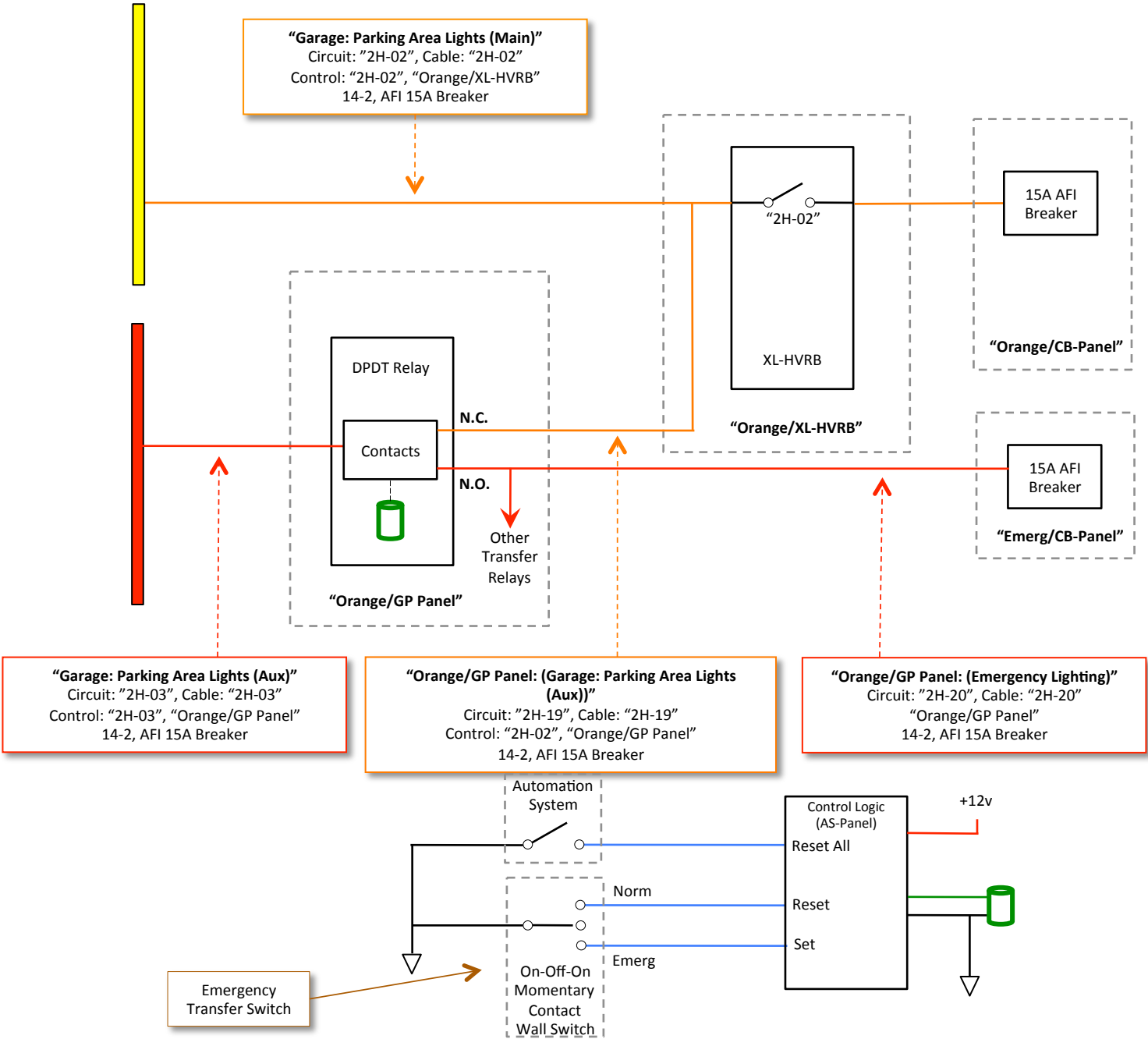


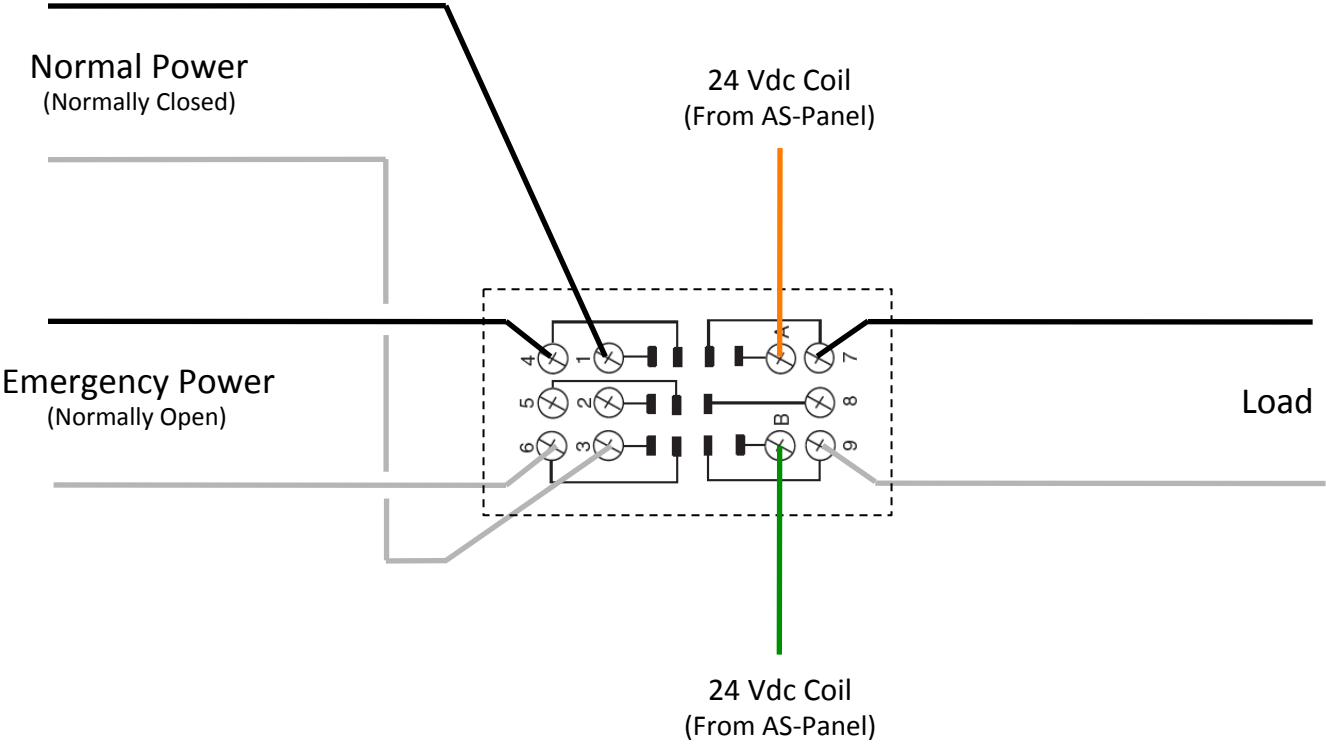


Exploded Views & Parts Lists

100A Assembly Drawing No. 0H7264S-A

Reference





Relay: P&B KUP-11D15-12
Contacts: 250 VAC, 10A, DPDT
12 VDC Coil: 120 Ω , 100 mA
24 VDC Coil: 472 Ω , 51 mA

UPS Input Discretes

Channel	Action	Controller	Circuit
1	Turn the UPS On	none	(Short)
2	Turn the UPS Off	none	(Open)
3	Start UPS Self-Test	none	(Open)
4	Shut the UPS Down	none	(Open)

UPS Output Discretes

Channel	Action	Controller	Circuit	Action
1	The UPS is on-battery	EPC		
2	The UPS has a low battery	EPC		On bat: Shed Loads
3	UPS I/O Trouble	EPC	(or with #6)	Report "UPS Trouble" to M1G
4	Replace the UPS battery	M1G		
5	The UPS is overloaded	EPC		On bat: Shed Loads Else: Report "UPS Trouble"
6	Any UPS Fault or Self-Test Failure	EPC		Report "UPS Trouble" to M1G

Module	Part	Bank	Inputs (AC)	

Modules

CPU: C0-00DR-D; 8 DC in, 6 Relay Out

Input: C0-16ND3; 16/4 24 Vdc

Output: C0-08TD1; 8/2 DC Sink

Power: C0-01AC (1.3A)

