

STANLEY FLY OPEN BOX
PART NO. 972 313026

BILL OF MATERIAL

<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	972 110088	FLY OPEN BOX
1	972 313009	HARDWARE PACKAGE
1	972 411746	MOTOR CABLE
1	972 412196	CONTROL CABLE

SPECIFICATIONS

INPUT: AVAILABLE FOR 115 VAC OR 230 VAC +10%/-15%,
50/60 HZ, 100 MA. MAXIMUM @ 115 VAC
OUTPUT: 24 VDC (DURA-GLIDE MOTOR)
WAIT TIME: 1.5 TO 2.0 SECONDS (FIXED)
NOTE: WAIT TIME IS THE TIME LAPSE BETWEEN POWER
LOSS AND APPLICATION OF THE BATTERY POWER
RUN TIME: ADJUSTABLE FROM 5 TO 15 SECONDS
NOTE: RUN TIME IS THE AMOUNT OF TIME THAT THE MOTOR
IS DRIVEN BY BATTERY POWER

MOUNTING

BEFORE MOUNTING, REMOVE THE FLY OPEN BOX COVER AND CONNECT THE BATTERIES TO THE HARNESS CONNECTORS.

THE FLY OPEN BOX IS TO BE MOUNTED INSIDE THE DURA-GLIDE HEADER NEAR THE OPERATOR MOTOR END. WITH A SCREW DRIVER, CAREFULLY PRY OPEN THE NUT TRACK AND INSERT SQUARE NUTS (PROVIDED) INTO GROOVE. SECURE BOX IN PLACE WITH BOLTS AND LOCK WASHERS (PROVIDED). AFTER INSTALLATION, PEEN TRACK BACK INTO PLACE.

NOTE: BASED ON HEADER CAPACITY SOME APPLICATIONS MAY REQUIRE REMOTE MOUNTING OF THE FLY OPEN BOX.

FLY OPEN BOX CONNECTIONS (REFER TO FIGURE #1 ON PAGE 4)

- 1) MAKE CONNECTIONS FROM TERMINAL BLOCK "TB2", PINS 1 AND 2 TO DURA-GLIDE INTERFACE BOARD TERMINALS 17 AND 15.
- 2) MAKE CONNECTION FROM MOTOR OUTPUT CONNECTOR TO OPERATOR MOTOR HARNESS. BOX LOCATION MAY REQUIRE THE USE OF MOTOR EXTENSION HARNESS (PROVIDED).
- 3) MAKE CONNECTION FROM INPUT CONNECTOR TO DURA-GLIDE CONTROL BOX MOTOR OUTPUT CONNECTOR WITH CONTROL BOX HARNESS (PROVIDED).
- 4) CONNECT POWER TO TERMINAL BLOCK "TB1".

CAUTION: BEFORE CONNECTING POWER TO FLY OPEN BOX MAKE SURE THAT THE VOLTAGE SELECTOR SWITCH "SW2" ON THE P.C. BOARD IS SET IN THE 115 VAC POSITION.

NOTE: ON 230 V PRIMARY SYSTEMS (EUROPEAN APPLICATIONS), IF THE FLY OPEN BOX IS BEING REMOTELY LOCATED DUE TO SPACE CONSTRAINTS IN THE HEADER, IT MIGHT BE MORE CONVENIENT TO WIRE THE FLY OPEN BOX TO THE 230 V PRIMARY AND THEN BRING LOW VOLTAGE SIGNALS TO THE HEADER. A VOLTAGE SELECTOR SWITCH IS PROVIDED TO ACCOMMODATE THIS OCCURRENCE.

FIRE ALARM CONDITION

A DOOR OPERATE SIGNAL IS SUPPLIED TO THE DURA-GLIDE CONTROL BOX DURING A FIRE ALARM CONDITION.

FIRE ALARM CONNECTION (REFER TO FIGURE #1 ON PAGE 4)

- 1) MAKE CONNECTIONS FROM FIRE ALARM SYSTEM ISOLATED NORMALLY CLOSED DRY CONTACTS TO FLY OPEN BOX TERMINAL BLOCK "TB2", PINS 3 AND 4.
- 2) IF FIRE ALARM SYSTEM FEATURE IS NOT BEING USED, INSTALL JUMPER WIRE BETWEEN PINS 3 AND 4.

FLY OPEN BOX ADJUSTMENTS (REFER TO FIGURE #2 ON PAGE 5)

THE RUN TIME IS FACTORY SET FOR MAXIMUM TIME. IF LESS TIME IS DESIRED THE ADJUSTMENT CAN BE MADE BY DOING THE FOLLOWING:

- 1) DECREASE RUN TIME BY TURNING THE POTENTIOMETER "R11" ON THE P.C. BOARD, COUNTER CLOCKWISE. SET THE RUN TIME SO THAT THE BATTERIES ATTEMPT TO DRIVE THE DOORS BEYOND THE OPEN OR CLOSED POSITION FOR APPROXIMATELY TWO SECONDS.
- 2) TO TEST: DISCONNECT POWER TO THE FLY OPEN BOX AND DURA-GLIDE CONTROL BOX. DEPENDING UPON YOUR APPLICATION DISCONNECTION MAY BE MADE BY:
 - a) SET STANLEY STEP-DOWN POWER SUPPLY ROCKER SWITCH TO "OFF" POSITION. OR
 - b) DISCONNECT POWER TO THE DURA-GLIDE CONTROL BOX FIRST AND THEN DISCONNECT POWER TO THE FLY OPEN BOX. OR
 - c) DISCONNECT POWER TO BOTH BOXES THROUGH THE CIRCUIT BREAKER.
- 3) AFTER POWER HAS BEEN DISCONNECTED, DOORS SHOULD OPEN OR CLOSE IN A SLOW SPEED.
- 4) WHEN APPLIED TO THE MOTOR, DC VOLTAGE FROM THE BATTERY WILL EITHER "OPEN" OR "CLOSE" THE DOOR. TO CHANGE DIRECTION OF DOOR TRAVEL WHILE UNDER BATTERY POWER, SLIDE THE DIRECTION SWITCH "SW1" ON THE P.C. BOARD TO ITS ALTERNATE POSITION.
- 5) TURN POWER BACK "ON" AND REPEAT STEPS 1-2 UNTIL THE DESIRED RESULTS ARE OBTAINED.

TROUBLE SHOOTING PROCEDURES

1) **SYMPTOM:** POWER IS "ON" AND THE DOORS REMAIN IN A FIRE ALARM CONDITION.

NOTE: THE FLY OPEN BOX IS OF A FAIL SAFE DESIGN. ANY OF THE CONDITIONS LISTED BELOW WILL KEEP THE DOORS IN A FIRE ALARM CONDITION.

CHECK: THE FIRE ALARM CONNECTION (REFER TO PAGE 2).

CHECK: THE BATTERY CHARGING VOLTAGE MIGHT BE SET TOO LOW. WITH POWER TO THE FLY OPEN BOX, DISCONNECT BATTERIES FROM CONNECTORS AND MEASURE THE VOLTAGE ACROSS THE TWO PINS AT TEST POINT "TP" ON P.C. BOARD (REFER TO FIGURE #2 ON PAGE 5). THE VOLTAGE SHOULD MEASURE BETWEEN 27.0 AND 27.6 VOLTS DC. TO INCREASE VOLTAGE TURN POTENTIOMETER "R10" ON P.C. BOARD CLOCKWISE. RECONNECT BATTERY CONNECTORS AFTER OBTAINING SPECIFIED VOLTAGE.

NOTE: THE BATTERY CHARGING VOLTAGE IS FACTORY SET AND SHOULD NORMALLY NOT HAVE TO BE ADJUSTED.

CHECK: THE "BATTERY LOW" SENSING VOLTAGE MIGHT BE SET TOO HIGH. WITH POWER TO FLY OPEN BOX, MEASURE THE VOLTAGE ACROSS THE TWO PINS AT TEST POINT "TP2" ON P.C. BOARD (REFER TO FIGURE #2 ON PAGE 5). THE "BATTERY LOW" TRIGGER SIGNAL SHOULD BE SET AT APPROXIMATELY 5.3 VOLTS DC. IF THE READING IS HIGHER THAN 5.3 VOLTS DC, DECREASE VOLTAGE BY ADJUSTING POTENTIOMETER "R14" ON P.C. BOARD COUNTER CLOCKWISE UNTIL SPECIFIED VOLTAGE HAS BEEN OBTAINED.

NOTE: THE BATTERY "LOW SENSING" VOLTAGE IS FACTORY SET AND SHOULD NORMALLY NOT HAVE TO BE ADJUSTED.

CHECK: THE BATTERIES, ARE THEY MISSING? REPLACE BATTERIES - STANLEY PART NO. 914 712321.

CHECK: THE BATTERIES, THEY MIGHT HAVE TO RECHARGE THEMSELVES. IF THE DOORS DON'T RESUME TO NORMAL OPERATION SHORTLY AFTER POWER IS RESUMED, REPLACE OLD BATTERIES WITH NEW.

CHECK: THE AUTO TRANSFORMER ROCKER SWITCH, IS SET IN THE "ON" POSITION?

CHECK: THE FUSE, REPLACE BAD FUSE - STANLEY PART NO. 901 71228 2.

REMEDY: IF ALL OTHER CHECKS FAIL, REPLACE DEFECTIVE FLY OPEN BOX - STANLEY PART NO. 972 110083.

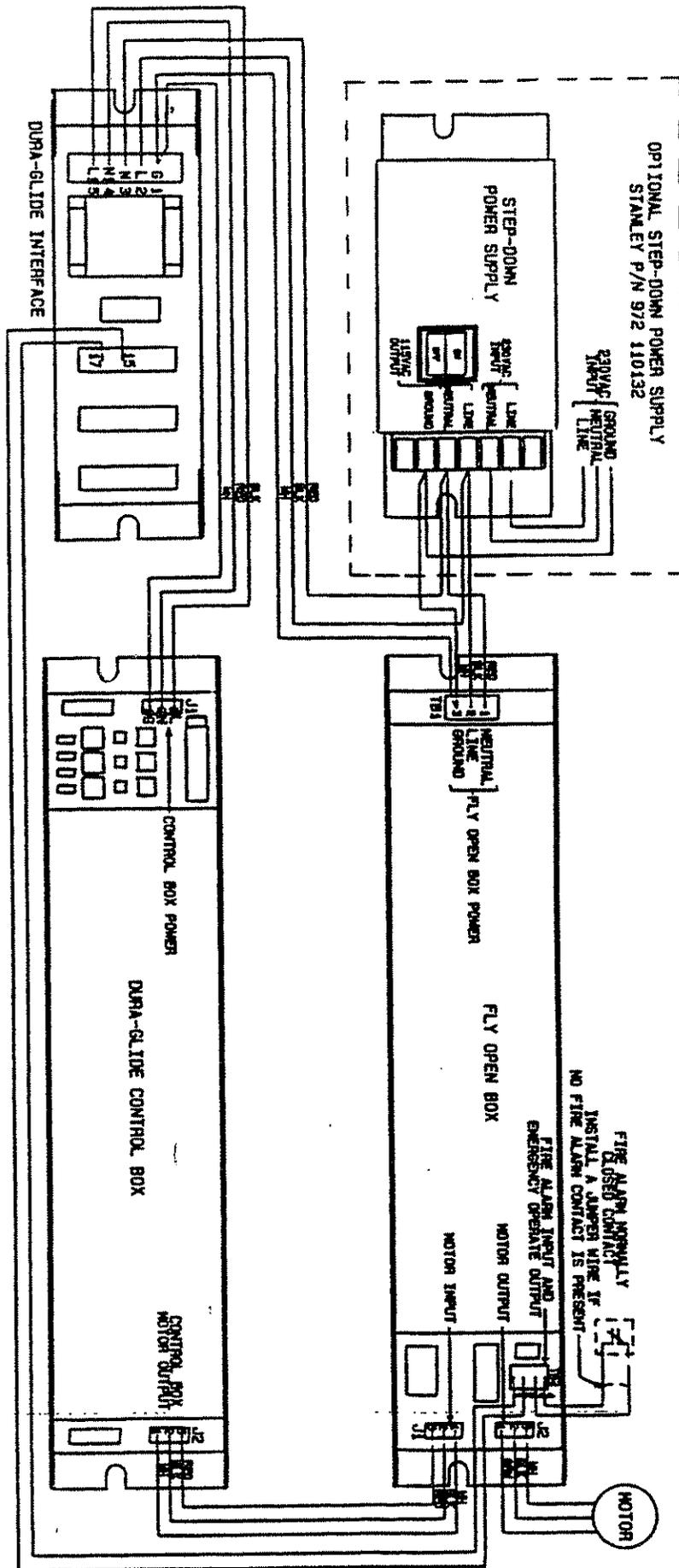


FIGURE 4: CONNECTION DIAGRAM FOR DURA-GLIDE

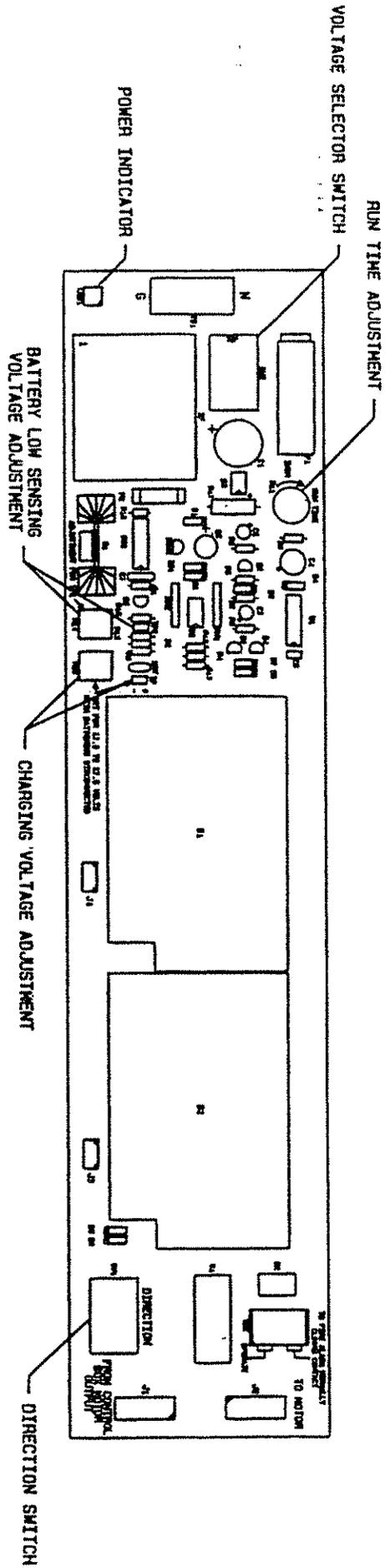


FIGURE 2: ADJUSTMENT AND SWITCH LOCATIONS