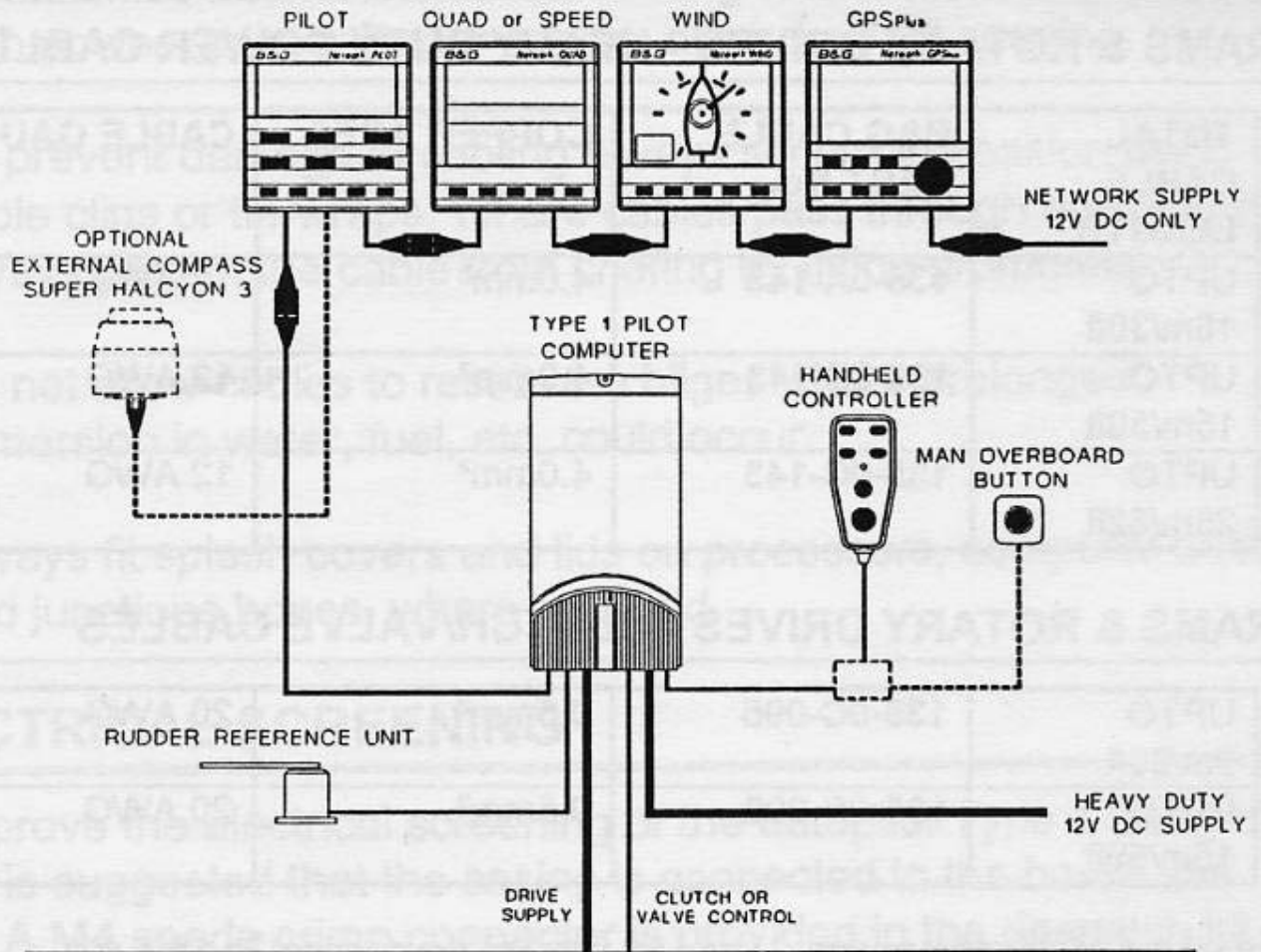
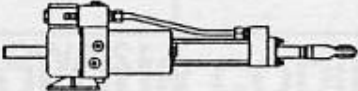
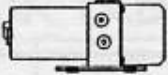
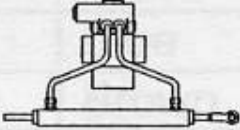
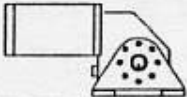



3 : TYPE 1 CONNECTION

TYPE 1 SYSTEM DIAGRAM



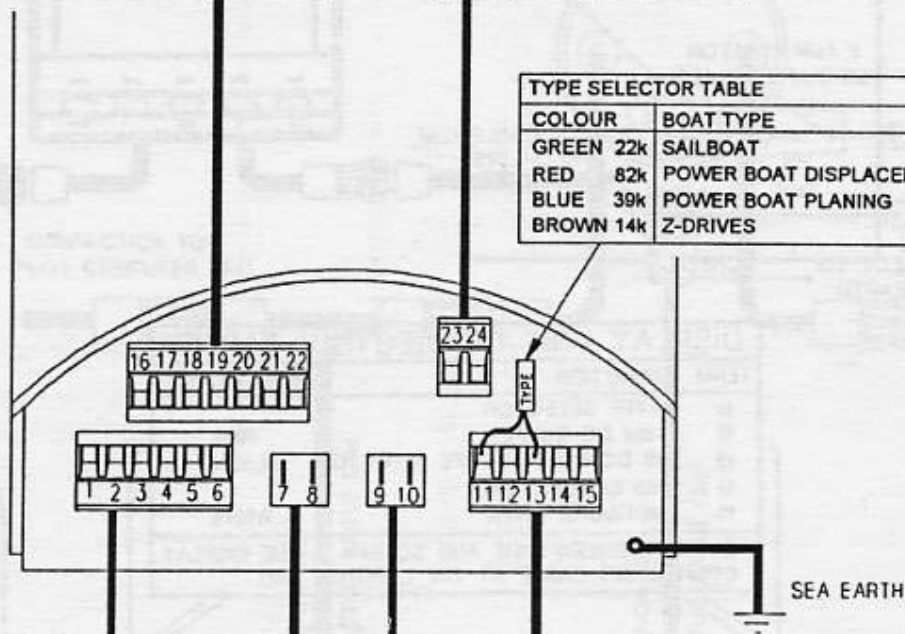
| DRIVE OPTIONS | SIZE/VOLTAGE | PART No. |
|---|---------------|------------|
| HYDRAULIC RAM DRIVE  | Size 1/12v | 445-00-061 |
| HYDRAULIC DRIVE PUMP  | Size 1/12v | 445-00-068 |
| STERNDRIVE UNIT  | One size only | 345-30-146 |
| ROTARY DRIVE  | 12v | 445-00-036 |

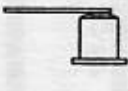
COMPUTER UNIT CONNECTIONS

| HAND-HELD CONTROLLER AND MAN OVERBOARD BUTTON | | | |
|---|-----|---------------------|----------------------|
|  | 16 | GREEN | HANDHELD ON/OFF |
| | 17 | BLUE/BLUE | HANDHELD COM1/M.O.B. |
| | 18 | YELLOW | HANDHELD COM2 |
| | 19 | BROWN | M.O.B. |
| | 20 | BLACK | HANDHELD 1' |
| | 21 | WHITE | HANDHELD 10' |
| 22 | RED | HANDHELD SUPPLY/LED | |

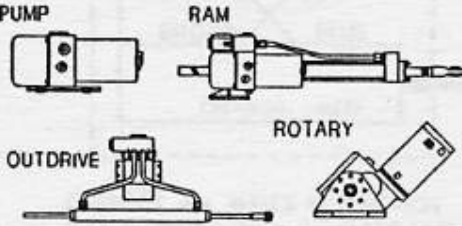
| SOLENOID VALVE (CLUTCH) | | |
|-------------------------|-----|---------------|
| 23 | N/C | SOLENOID +12V |
| 24 | N/C | SOLENOID 0V |


| TYPE SELECTOR TABLE | | |
|---------------------|-------------------------|------------|
| COLOUR | BOAT TYPE | PART No. |
| GREEN 22k | SAILBOAT | 445-10-024 |
| RED 82k | POWER BOAT DISPLACEMENT | 345-10-058 |
| BLUE 39k | POWER BOAT PLANING | 345-10-059 |
| BROWN 14k | Z-DRIVES | 612-10-028 |



| RUDDER REFERENCE UNIT | | | |
|---|---|-------|----------------|
|  | 1 | | NOT USED |
| | 2 | | NOT USED |
| | 3 | | NOT USED |
| | 4 | GREEN | RRU WIPER |
| | 5 | RED | RRU +5V SUPPLY |
| | 6 | BLUE | RRU 0V |

| LIGHT DUTY SUPPLY/NETWORK/DISPLAY | | |
|-----------------------------------|-------|-------------------------|
| 11 | | TYPE SELECTOR |
| 12 | RED | 12V SUPPLY |
| 13 | BLACK | 0V SUPPLY/TYPE SELECTOR |
| 14 | N/C | NO CONNECTION |
| 15 | WHITE | NETWORK DATA |

| HEAVY DUTY OUTPUT TO RUDDER DRIVE | | |
|---|-------|---------------|
| 7 | BLUE | DRIVE CONTROL |
| 8 | BROWN | DRIVE CONTROL |
|  | | |

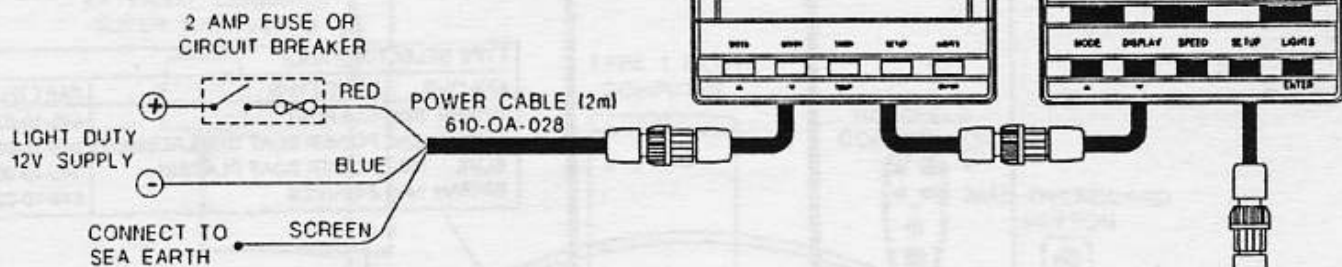
| HEAVY DUTY SUPPLY | | |
|---|-------|------------------|
| 9 | BLUE | 0V DRIVE SUPPLY |
| 10 | BROWN | 12V DRIVE SUPPLY |
|  | | |
| 12V DC ONLY | | |

3 : TYPE 1 CONNECTION

PILOT NETWORK CONNECTION

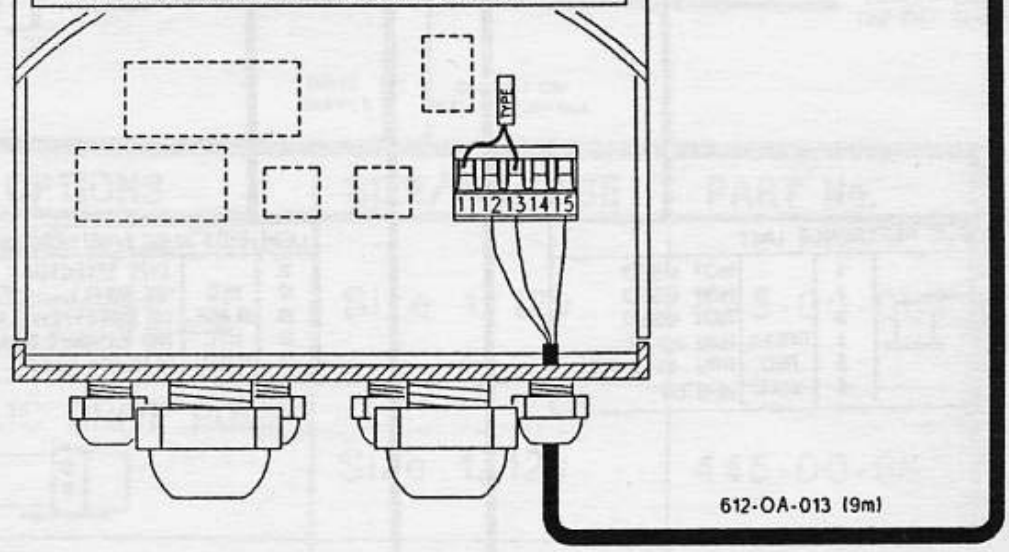
THE NETWORK INSTRUMENTS, INCLUDING THE PILOT DISPLAY UNIT, CAN BE MOUNTED IN ANY ORDER IN AN INTEGRATED NETWORK SYSTEM

POWER TO THE PILOT COMPUTER UNIT IS SUPPLIED VIA THE NETWORK INTER-CONNECTING CABLES



| DISPLAY UNIT CONNECTION TABLE | | |
|-------------------------------|----------------------------|---------------|
| TERM. | FUNCTION | DISPLAY CABLE |
| 11 | TYPE SELECTOR | RED |
| 12 | +12V DC SUPPLY | BLACK |
| 13 | 0V DC SUPPLY/TYPE SELECTOR | WHITE |
| 14 | NO CONNECTION | |
| 15 | NETWORK DATA | |

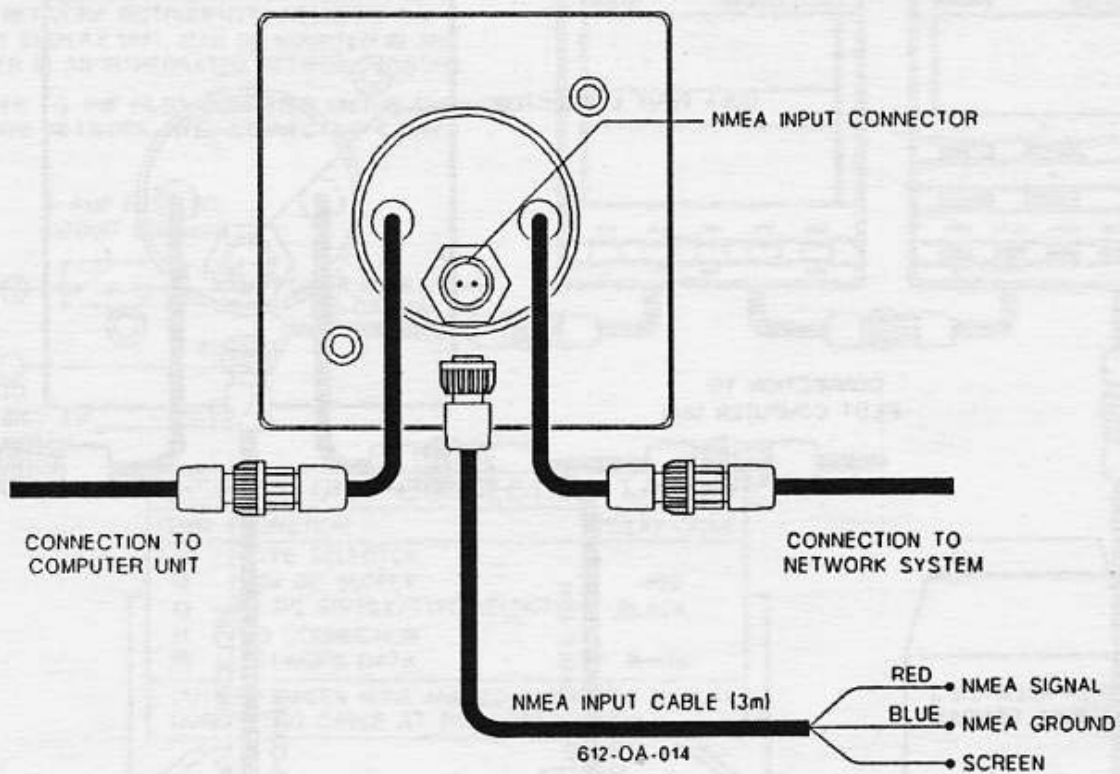
CUT OFF GREEN WIRE AND SCREEN IN THE DISPLAY CONNECTING CABLE AT THE CONTROL UNIT.



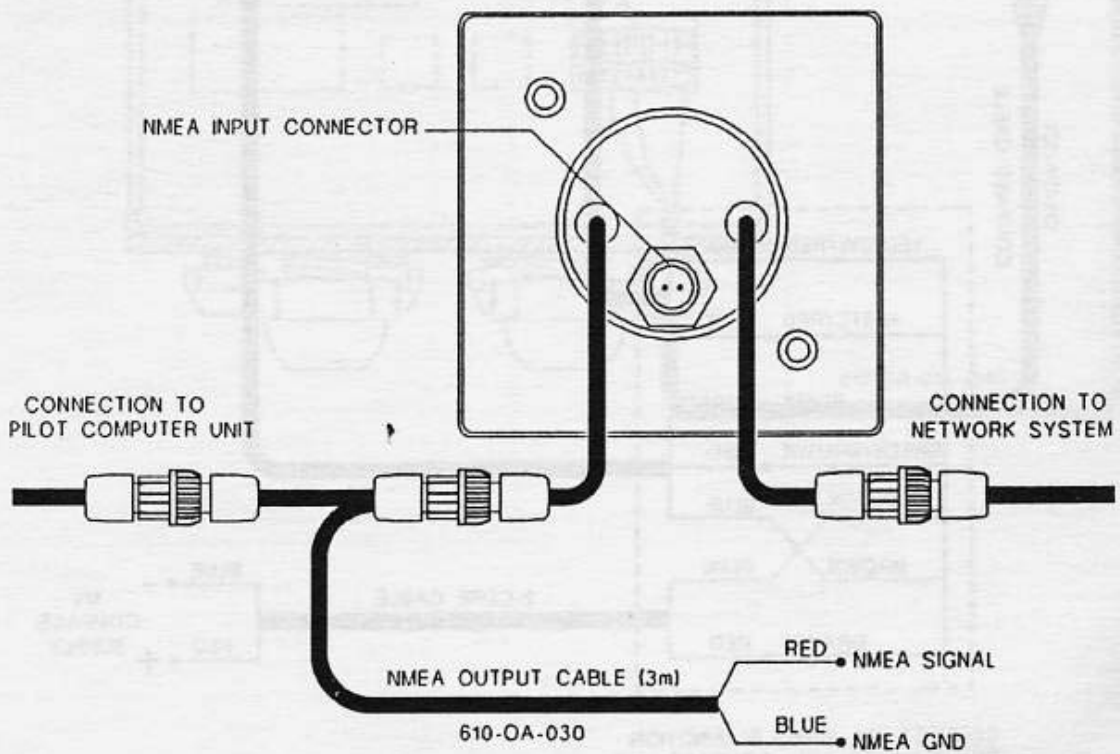
3 : TYPE 1 CONNECTION

NMEA INTERFACING

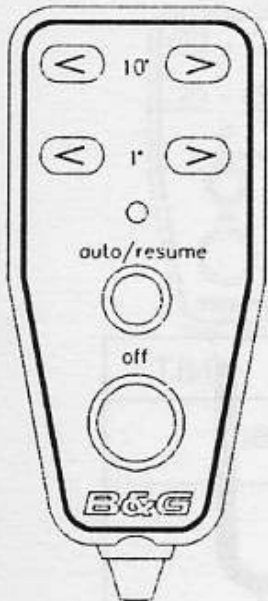
NMEA INPUT CONNECTION



NMEA OUTPUT CONNECTIONS

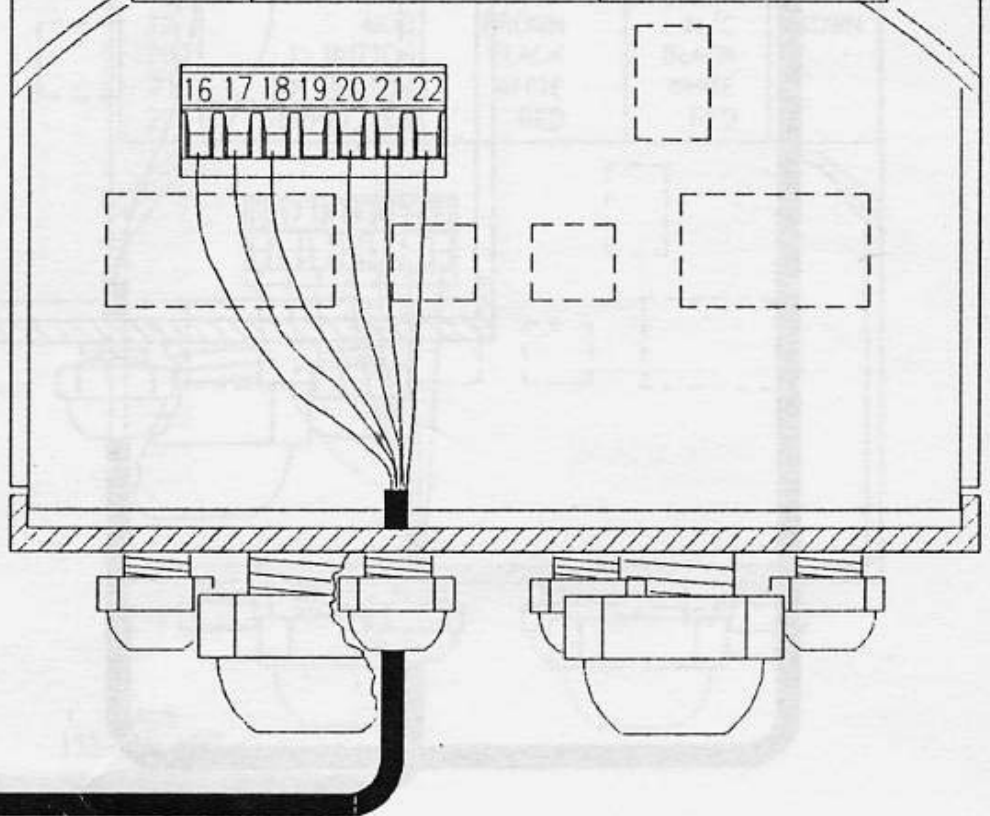


HAND-HELD CONTROLLER CONNECTION



HAND-HELD CONTROLLER

| HANDHELD TO CONTROL UNIT | | |
|--------------------------|---------------|----------------|
| TERM. | FUNCTION | HANDHELD CABLE |
| 16 | ON/OFF BUTTON | GREEN |
| 17 | COM1 | BLUE |
| 18 | COM2 | YELLOW |
| 19 | NO CONNECTION | N/C |
| 20 | 1° BUTTON | BLACK |
| 21 | 10° BUTTON | WHITE |
| 22 | SUPPLY/LED | RED |



3 : TYPE 1 CONNECTION

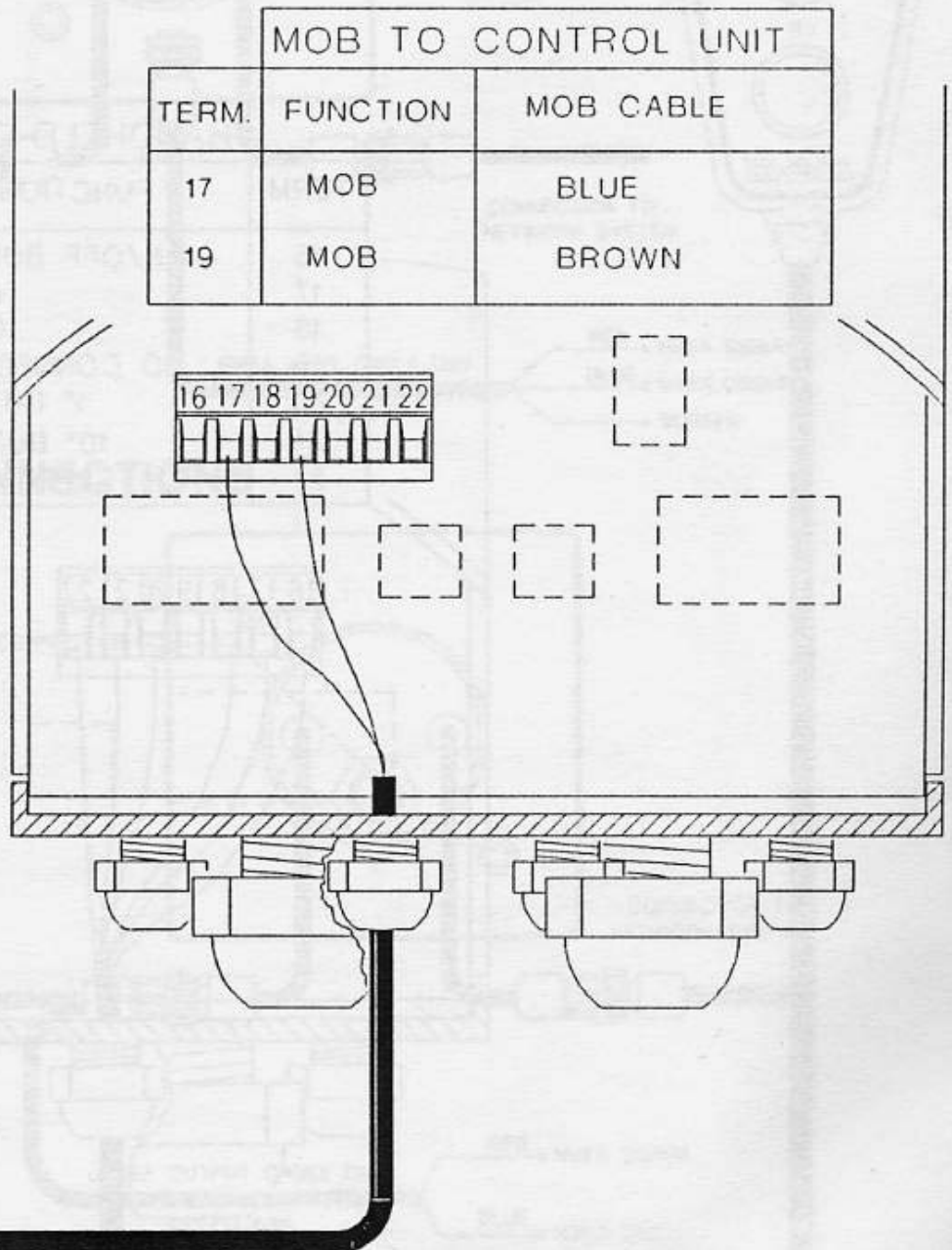
MOB CONNECTION



MAN OVERBOARD
ALARM BUTTON
(MOB)

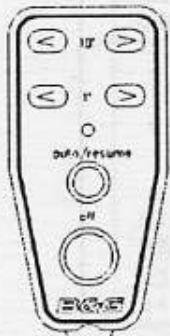
MOB TO CONTROL UNIT

| TERM. | FUNCTION | MOB CABLE |
|-------|----------|-----------|
| 17 | MOB | BLUE |
| 19 | MOB | BROWN |



HANDHELD AND MOB CONNECTION

HAND-HELD CONTROLLER

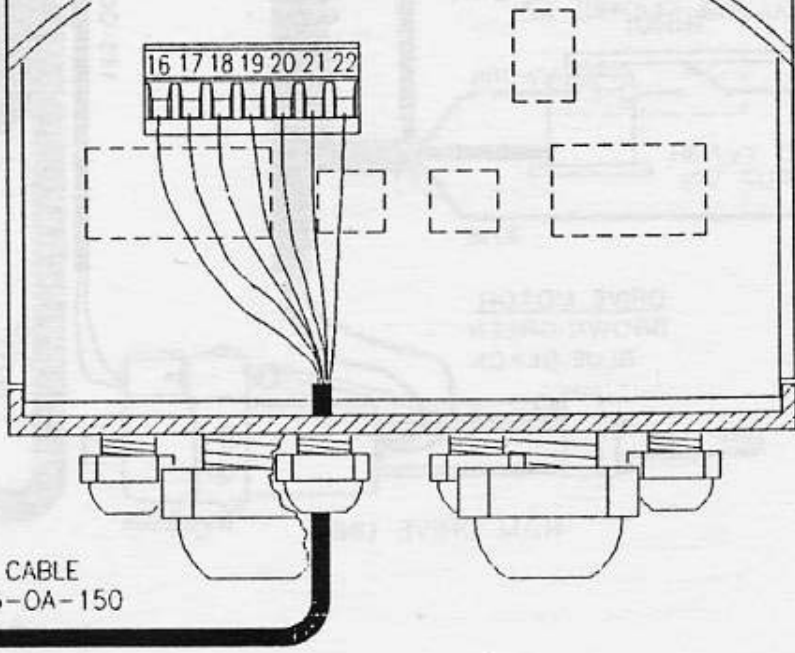


OPTIONAL (MOB)
MAN OVERBOARD
ALARM BUTTON



CONNECT
AS TABLE

| JUNCTION BOX INTERCONNECTIONS | | | | |
|-------------------------------|---------------|--------------------|----------------|-----------|
| TERM. | FUNCTION | JUNCTION BOX CABLE | HANDHELD CABLE | MOB CABLE |
| 16 | ON/OFF BUTTON | GREEN | GREEN | |
| 17 | COM1/MOB | BLUE | BLUE | BLUE |
| 18 | COM2 | YELLOW | YELLOW | |
| 19 | MOB | BROWN | N/C | BROWN |
| 20 | 1" BUTTON | BLACK | BLACK | |
| 21 | 10" BUTTON | WHITE | WHITE | |
| 22 | SUPPLY/LED | RED | RED | |

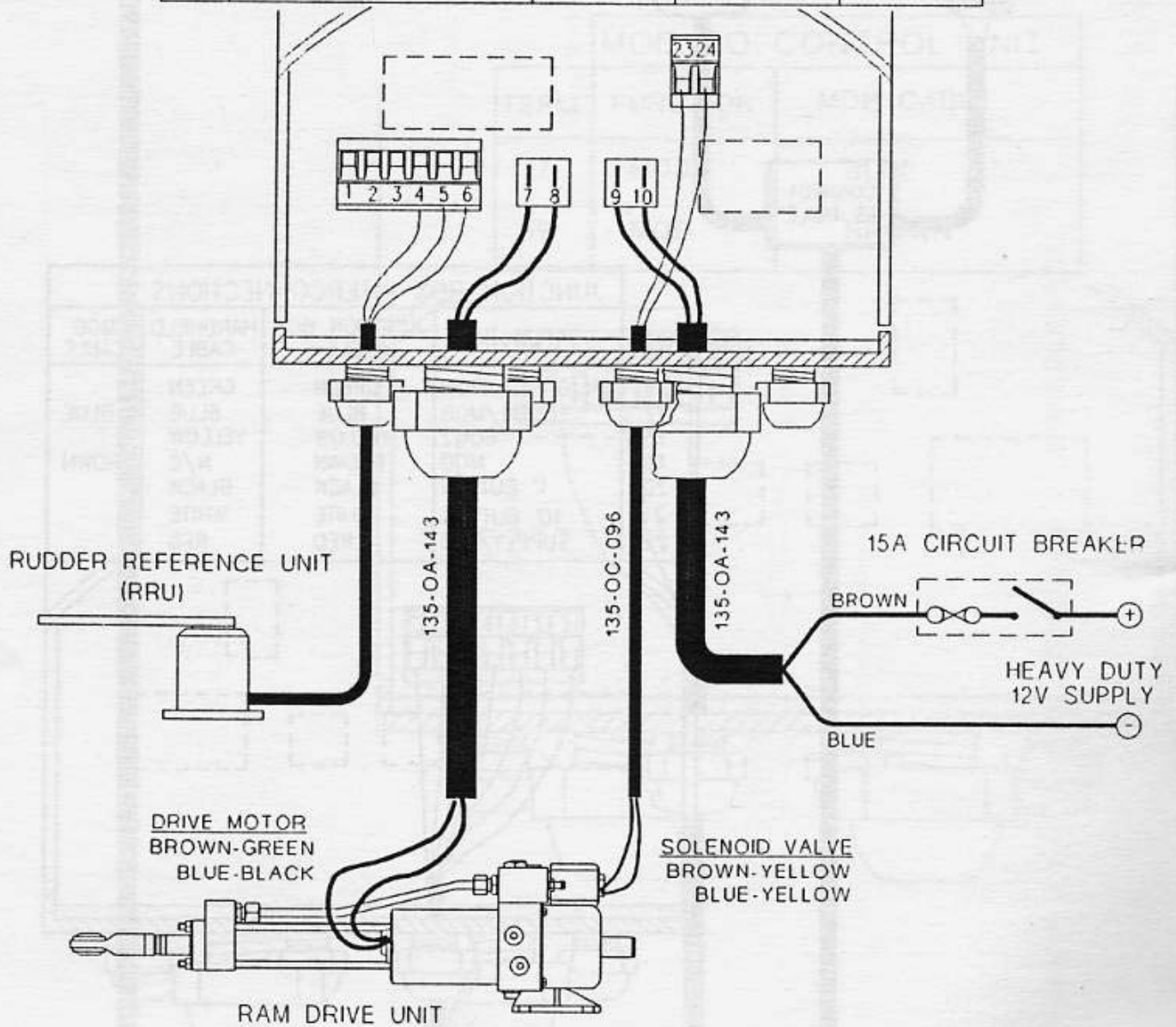


CABLE
135-OA-150

3 : TYPE 1 CONNECTION

SIZE 1/12V HYDRAULIC RAM

| CONTROL UNIT CONNECTION TABLE | | | | |
|-------------------------------|------------------------|-----------|------------------|--------------|
| TERM | FUNCTION | RRU CABLE | RAM DRIVE CABLES | SUPPLY CABLE |
| 4 | RRU WIPER INPUT | GREEN | | |
| 5 | RRU +5V OUT | RED | | |
| 6 | RRU GROUND | BLUE | | |
| 7 | MOTOR CONTROL | | BLUE | |
| 8 | MOTOR CONTROL | | BROWN | |
| 9 | MOTOR SUPPLY 0V | | | BLUE |
| 10 | MOTOR SUPPLY +12V | | | BROWN |
| 23 | SOLENOID VALVE +12V | | BLUE | |
| 24 | SOLENOID VALVE CONTROL | | BROWN | |



3 : TYPE 1 CONNECTION

SIZE 1/12V HYDRAULIC PUMP

| CONTROL UNIT CONNECTION TABLE | | | | |
|-------------------------------|------------------------|----------------------|-------------------|---------------|
| TERM. | FUNCTION | RRU CABLE | DRIVE PUMP CABLES | SUPPLY CABLE |
| 4 | RRU WIPER INPUT | GREEN RED BLUE | BLUE BROWN | BLUE BROWN |
| 5 | RRU +5V OUT | | | |
| 6 | RRU GROUND | | | |
| 7 | MOTOR CONTROL | | | |
| 8 | MOTOR CONTROL | | | |
| 9 | MOTOR SUPPLY 0V | | | |
| 10 | MOTOR SUPPLY +12V | | | |
| 23 | SOLENOID VALVE +12V | | NOT USED | |
| 24 | SOLENOID VALVE CONTROL | | NOT USED | |

