

Morse KE-4a controls

Morse®

*(electronic control
— each lever controls
throttle AND shift)*



premium
engine control

*(accepts these cables:)
Universal 3300/33C Types*

Use KE-4a if . . .

- There are more than 2 stations.
- Throttle and Shift are actuated mechanically (KE-4a has no electronic throttle interface).
- Trolling valve control required.
- Throttle Sync only is needed.
- Electrical system is 12 or 24 volt.
- Hand-held remote desired.
- CANBus interface is not needed. (If needed, see i6000.)

NOTE: When properly installed, these engine controls will connect to outboard, stern drive and inboard engines, utilizing an electronic interface, universal 3300/33C type cables and appropriate engine connection kits.

The boat's original mechanical control and 3300/33C cables (if so equipped) can be reused for the "get home" (emergency back-up) feature. The back-up control does not have to be mounted, but be certain that the cables used with this control are long enough so that the control can be operated from the steering station.

The KE-4 set the standard for reliability in marine electronic controls. Its simplicity and proven design make it the choice for most multi-station/multi-engine control pleasure and work boats. KE-4a controls are available in either single or twin lever binnacle mount versions for single or multiple stations and up to two engines.

Applications:

Electronic stand-alone controls are ideal for larger, multi-station boats, especially those applications in which a mechanical control cannot deliver the desired feel and performance. For nearly all engine types.

Features:

- Works with most engines: outboard, stern drive or inboard.
- Single or twin engine control; dual function for each lever.
- Up to 4 control heads.
- Optional hand-held remote control: great for docking and fishing!
- Built-in Station Select switch.
- Engine Sync option available.
- Gear shift delay available.
- Neutral engine warm-up provision.
- Mechanical backup (easy to use "get home" system).
- Built-in overload protection & diagnostics.
- Visual failure alarm standard (audio alarm optional).
- Uses standard 3300/33C type control cables on throttle/shift actuator.
- Easy to install. Plug-in connectors.
- 12 and 24 volt capability.
- Meets/exceeds all applicable industry standards.

electronic control: mechanical throttle/shift, up to 4 stations

KE-4a Engine Controls Basic Ordering Guide:

ITEM DESCRIPTION	PART #	QTY.	NOTES
BASIC SYSTEM COMPONENTS:			
CONTROL HEAD - GOLD FINISH	See next pages		(SINGLE OR TWIN ENGINE)
ELECTRONIC CONTROL UNIT	See next pages		(12 or 24 VDC)
THROTTLE/SHIFT ACTUATOR	NM0165-00		
COMMUNICATION HARNESS	NM0619-05		FOR TWIN ENGINE BOATS ONLY
REMOTE CONTROL HARNESS	See next pages		CONTROL STATION 1 (IN METERS)
REMOTE CONTROL HARNESS	See next pages		CONTROL STATION 2 (IN METERS)
REMOTE CONTROL HARNESS	See next pages		CONTROL STATION 3 (IN METERS)
REMOTE CONTROL HARNESS	See next pages		CONTROL STATION 4 (IN METERS)
5 METER POWER SUPPLY HARNESS	NM0414-28	2 PER CONTROL UNIT	
OR			
10 METER POWER SUPPLY HARNESS	NM0414-33	2 PER CONTROL UNIT	
20 AMP CIRCUIT BREAKER	NJ0514-00	2 PER CONTROL UNIT	RECOMMENDED OPTION
BUZZER	See next pages		(12 or 24 VDC)
3300/33C SERIES CONTROL CABLE	CC633XX		CC633XX RECOMMENDED
OPTIONAL UPGRADES:			
HAND HELD REMOTE:			
HAND HELD CONTROL KIT	NM0906-00		TWIN ENGINE (26' WIRE)
HAND HELD CONTROL KIT	NM0907-00		SINGLE ENGINE (26' WIRE)
REMOTE CONTROL HARNESS	NM0616-XX		XX=LENGTH IN METERS
RELAY KIT (ENGINE CUT-OFF)			(12 or 24 VDC)
SUGGESTED MANUAL "GET HOME" BACKUP SYSTEM:			
3300/33C SERIES CONTROL CABLES (2 PER ENGINE - 1 FOR THROTTLE, 1 FOR SHIFT)			
MECHANICAL CONTROL (ONE SINGLE FUNCTION TWIN LEVER CONTROL PER ENGINE, ONE DUAL FUNCTION SINGLE LEVER CONTROL PER ENGINE OR ONE DUAL FUNCTION TWIN LEVER CONTROL FOR TWIN ENGINES)			
NOTES:			
Controls listed have popular gold tone finish. Several other finishes available. Contact Teleflex Marine for details.			
All Wiring harnesses are measured in meters (1 meter = 39.37 inches).			
XX = Control cable length in feet. Teleflex Control Cables are measured by the foot. For Morse, XXX = inches.			
Check with Engine Manufacturer for Engine Output information.			
QUESTIONS? CALL TECH SUPPORT AT 610-495-7011.			

KE-4a
TOP MOUNT



ACTUATOR



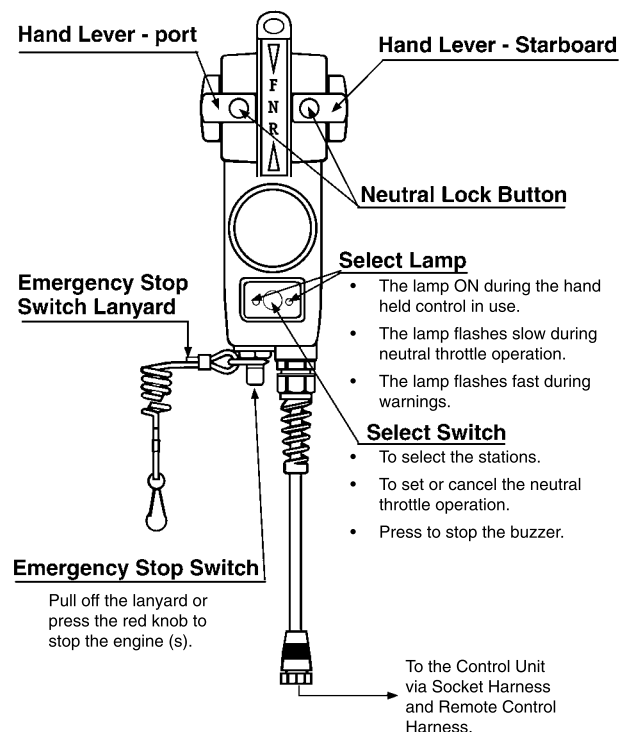
ECU
(ELECTRONIC
CONTROL
UNIT)



HAND HELD
REMOTE
CONTROL





Hand Held Remote Control Overview:

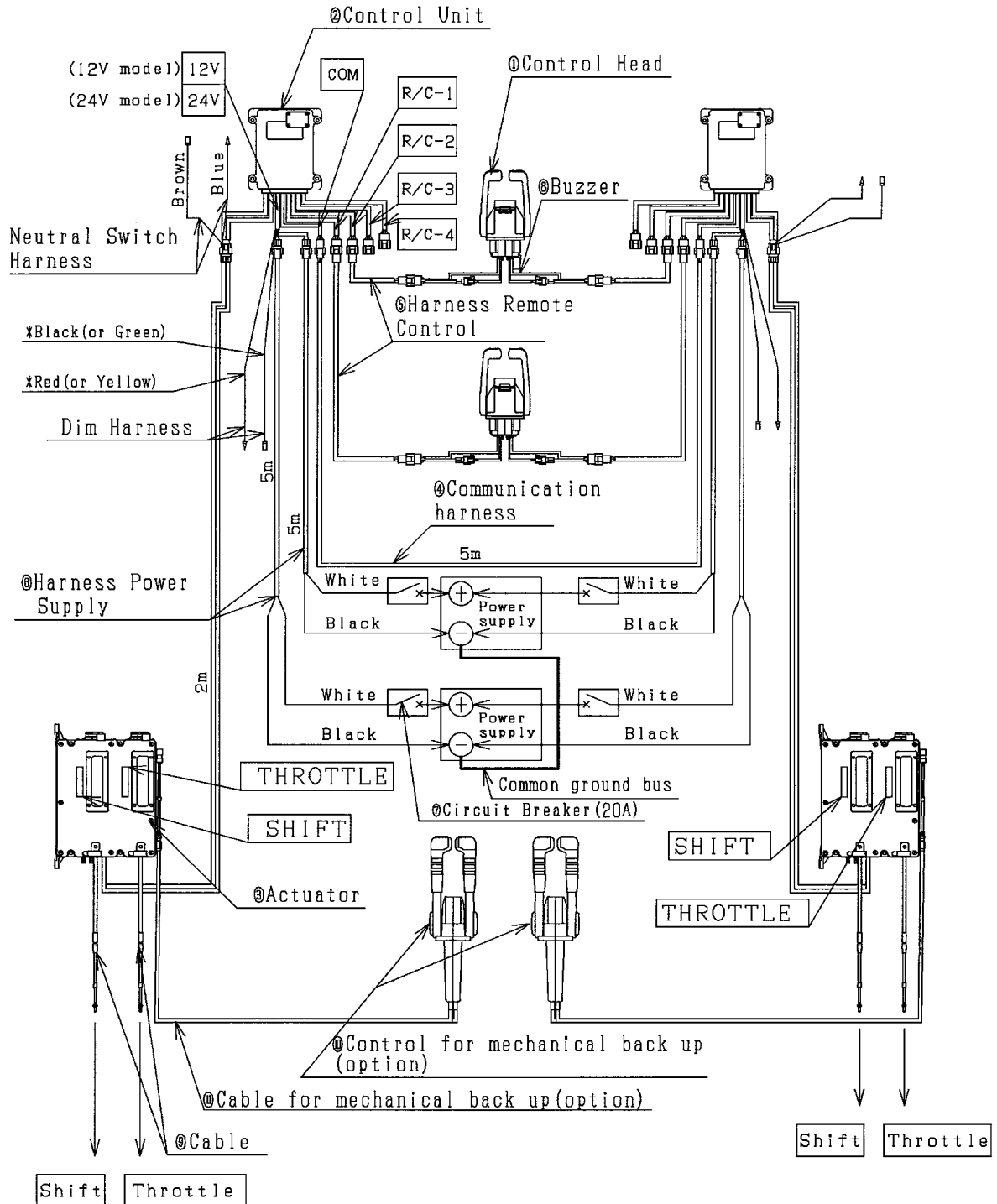


Morse KE-4a controls

Basic KE-4a System Overview:

The following schematic shows elements of the KE-4a control system in a typical twin engine/twin station application. For part numbers associated with the items depicted below, please see the page at right.

-  : Indicates identification
-  : Indicates the destination of connection



electronic control: mechanical throttle/shift, up to 4 stations

KE-4a System Components:

The following chart lists components of the KE-4a control system for each application. For an illustration of each component, please see the page at left.

No.	Name	Part No.	Required for Single engine No. of Station				Required for Two engine No. of Station				Notes	
			1st	2nd	3rd	4th	1st	2nd	3rd	4th		
1	Control Head-Single Engine	NM0511-00	1	2	3	4	-	-	-	-		
	Control Head-Twin Engine	NM0510-00	-	-	-	-	1	2	3	4		
2	Control Unit											
	24V model	NM0478-00	1	1	1	1	2	2	2	2		
	12V model	NM0477-00	1	1	1	1	2	2	2	2		
3	Throttle/Shift Actuator	NM0165-00	1	1	1	1	2	2	2	2		
4	Communication											
	Harness	5m	NM0619-05	-	-	-	-	1	1	1	1	
5	Harness - Remote Control	4m	NM0616-04									
		6m	NM0616-06									
		8m	NM0616-08									
		10m	NM0616-10									
		12m	NM0616-12									
		14m	NM0616-14									
		16m	NM0616-16									
		18m	NM0616-18									
		20m	NM0616-20									
		22m	NM0616-22	1	2	3	4	2	4	6	8	
		24m	NM0616-24									
		26m	NM0616-26									
		28m	NM0616-28									
		30m	NM0616-30									
32m	NM0616-32											
34m	NM0616-34											
36m	NM0616-36											
38m	NM0616-38											
40m	NM0616-40											
50m	NM0616-50											
6	Harness - Power	5m	NM0414-28	2	2	2	2	4	4	4	4	
		10m	NM0414-33									
7	Circuit Breaker	20A	NJ0514-00	2	2	2	2	4	4	4	4	Option
8	Buzzer	24V model	NJ0515-00	1	2	3	4	2	4	6	8	Option
		12V model	NJ0596-00 (replaces NJ0251-00)									
9	Cable (actuator)	33C										
		33C Supreme		2	2	2	2	4	4	4	4	Specify cable length
		3300CC TFXTREME										
10	Mechanical Control Head (for manual backup operation)	Use standard Morse control head	1	1	1	1	2	2	2	2	Option	
11	Cable (for manual backup operation)	33C										
		33C Supreme		2	2	2	2	4	4	4	4	Specify cable length
		3300CC TFXTREME										

NOTES:

Please refer to the NAME OF EACH PART on previous page for the item number in chart above.

All Wiring harnesses are measured in meters (1 meter = 39.37 inches).

CC633XX is recommended. Teleflex Control Cables are measured by the foot. XX = Control cable length in feet. For Morse, XXX = inches.

Using 20 amp circuit breaker NJ0514-00 is strongly recommended.