

# FLEXBALL 4500 SERIES PRODUCT SELECTION GUIDE

FLEXBALL enables nearly any inboard or outboard powerboat to feature unsurpassed precision electronic controls capabilities with their 4500 Series systems



SINGLE AND DUAL 4500 SERIES CONTROL HEAD WITH OPTIONAL TRIM IN HANDLE FEATURE

## The FLEXBALL Single and Dual 4500 Series Control Head

- LED lighted indicator panel
- Polished Stainless Housing
- Sleek Italian Design
- Plug-n-Play Design
- Optional Trim in Handle feature
- Optional Trolling in Handle feature

[www.flexballitaliana.com](http://www.flexballitaliana.com)

## ELECTRONIC CONTROL SYSTEMS

The Flexball Control's **4500 Series Control** line is the pinnacle product offering from Flexball. The 4500 Series control provides stylish Italian design combined with unsurpassed system architecture, rugged construction and reliability. The 4500 Series provides both mechanical solutions and digital communications technology. Modular construction allows for maximum flexibility, reliability and ease of installation. The 4500 Series control provides maximum installation flexibility and can be used with electronic engines and electric shift transmissions as well as fully mechanical engines and gears or combinations of each.

**FLEXBALL**



**SINGLE ENGINE CONTROL**



**TWIN ENGINE CONTROL**

# BOAT CONFIGURATOR

Just few devices create a complete electronic control system. Control system 4500 series basically consists of 4 components which vary in quantity and type, depending on your installation's requirements:

- Control station
- Actuator
- Data transmission cables between the components of the system, available in different lengths
- Push-pull cable towards engine and gearbox (in case of mechanical engine and/or gearbox)

The system configurations are classified according to the different possible combinations of:

- Engine and gearbox types
- Number of engines
- Number of stations
- Options

The table here below lists the most common types of electronic systems:

PART NUMBER	DESCRIPTION	PAGE
• 4500-MM11	Single station, single mechanical engine and gearbox	4
• 4500-MM12	Dual station, single mechanical engine and gearbox	4
• 4500-MM21	Single station, twin mechanical engine and gearbox	5
• 4500-MM22	Dual station, twin mechanical engine and gearbox	5
• 4500-ME11	Single station, single mechanical engine and electric shift gearbox	6
• 4500-ME12	Dual station, single mechanical engine and electric shift gearbox	6
• 4500-ME21	Single station, twin mechanical engine and electric shift gearbox	7
• 4500-ME22	Dual station, twin mechanical engine and electric shift gearbox	7
• 4500-VM11	Single station, single electronic engine (0-5 Vdc) and mechanical gearbox	8
• 4500-VM12	Dual station, single electronic engine (0-5 Vdc) and mechanical gearbox	8
• 4500-VM21	Single station, twin electronic engine (0-5 Vdc) and mechanical gearbox	9
• 4500-VM22	Dual station, twin electronic engine (0-5 Vdc) and mechanical gearbox	9
• 4500-IM11	Single station, single electronic engine (4-20 mA) and mechanical gearbox	10
• 4500-IM12	Dual station, single electronic engine (4-20 mA) and mechanical gearbox	10
• 4500-IM21	Single station, twin electronic engine (4-20 mA) and mechanical gearbox	11
• 4500-IM22	Dual station, twin electronic engine (4-20 mA) and mechanical gearbox	11
• 4500-CM11	Single station, single electronic engine (CANBus) and mechanical gearbox	12
• 4500-CM12	Dual station, single electronic engine (CANBus) and mechanical gearbox	12
• 4500-CM21	Single station, twin electronic engine (CANBus) and mechanical gearbox	13
• 4500-CM22	Dual station, twin electronic engine (CANBus) and mechanical gearbox	13
• 4500-WM11	Single station, single electronic engine (PWM) and mechanical gearbox	14
• 4500-WM12	Dual station, single electronic engine (PWM) and mechanical gearbox	14
• 4500-WM21	Single station, twin electronic engine (PWM) and mechanical gearbox	15
• 4500-WM22	Dual station, twin electronic engine (PWM) and mechanical gearbox	15
• 4500-VE11	Single station, single electronic engine (0-5 Vdc) and electric shift gearbox	16
• 4500-VE12	Dual station, single electronic engine (0-5 Vdc) and electric shift gearbox	16
• 4500-VE21	Single station, twin electronic engine (0-5 Vdc) and electric shift gearbox	17
• 4500-VE22	Dual station, twin electronic engine (0-5 Vdc) and electric shift gearbox	17
• 4500-IE11	Single station, single electronic engine (4-20 mA) and electric shift gearbox	18
• 4500-IE12	Dual station, single electronic engine (4-20 mA) and electric shift gearbox	18
• 4500-IE21	Single station, twin electronic engine (4-20 mA) and electric shift gearbox	19
• 4500-IE22	Dual station, twin electronic engine (4-20 mA) and electric shift gearbox	19
• 4500-CE11	Single station, single electronic engine (CANBus) and electric shift gearbox	20
• 4500-CE12	Dual station, single electronic engine (CANBus) and electric shift gearbox	20
• 4500-CE21	Single station, twin electronic engine (CANBus) and electric shift gearbox	21
• 4500-CE22	Dual station, twin electronic engine (CANBus) and electric shift gearbox	21
• 4500-WE11	Single station, single electronic engine (PWM) and electric shift gearbox	22
• 4500-WE12	Dual station, single electronic engine (PWM) and electric shift gearbox	22
• 4500-WE21	Single station, twin electronic engine (PWM) and electric shift gearbox	23
• 4500-WE22	Dual station, twin electronic engine (PWM) and electric shift gearbox	23

# 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE MECHANICAL ENGINE AND GEARBOX



Single Station



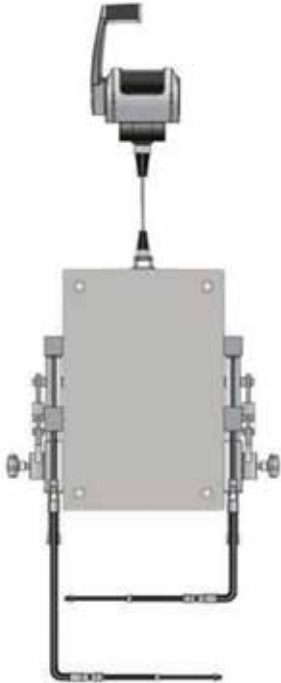
Single Mechanical Engine



Single Mechanical Shift Transmission

PART NO.	DESCRIPTION
<ul style="list-style-type: none"> <li>4500-MM11</li> </ul>	Single Engine, Single Station

**4500-MM11 Kit Includes:** 1 of Actuator Assembly (3500.A-084039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Neutral Signal Connection (3500.36-03000)



# 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE MECHANICAL ENGINE AND GEARBOX



Dual Station



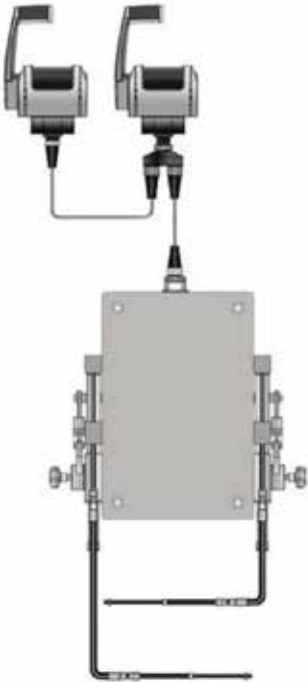
Single Mechanical Engine



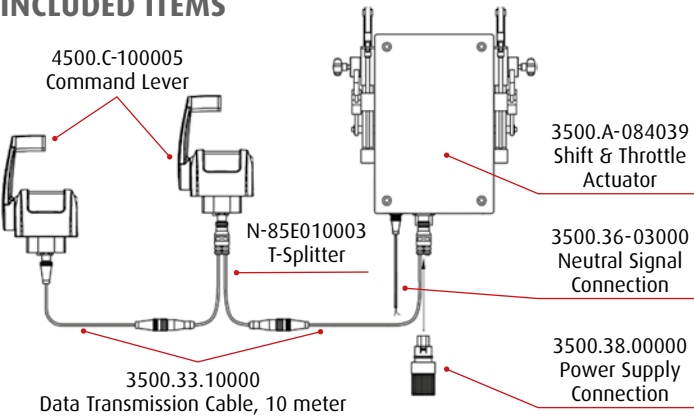
Single Mechanical Shift Transmission

PART NO.	DESCRIPTION
<ul style="list-style-type: none"> <li>4500-MM12</li> </ul>	Single Engine, Dual Station

**4500-MM12 Kit Includes:** 1 of Actuator Assembly (3500.A-084039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10m (3500.33-10000), 1 of CANBus T-splitter (N-85E010003), 1 of Neutral Signal Connection (3500.36-03000)



## INCLUDED ITEMS



## REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN MECHANICAL ENGINE AND GEARBOX



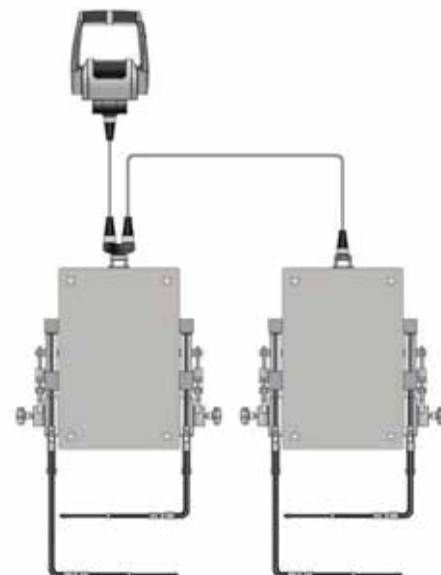
Single Station



Twin Mechanical Engine



Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-MM21	Twin Engine, Single Station

**4500-MM21 Kit Includes:** 2 of Actuator Assembly (3500.A-084039), 1 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Neutral Signal Connection (3500.36-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN MECHANICAL ENGINE AND GEARBOX



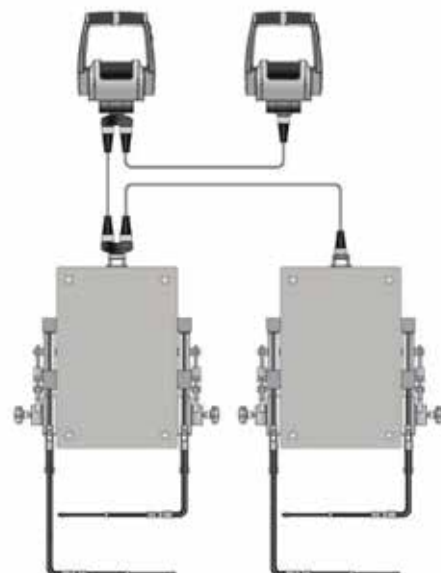
Dual Station



Twin Mechanical Engine



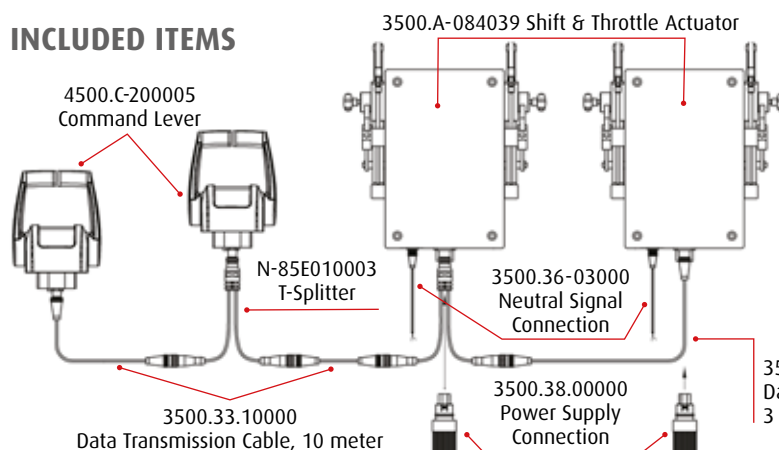
Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-MM22	Twin Engine, Dual Station

**4500-MM22 Kit Includes:** 2 of Actuator Assembly (3500.A-084039), 2 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 2 of CANBus T-splitter (N-85E010003), 2 of Neutral Signal Connection (3500.36-03000)

### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL,  
SINGLE MECHANICAL ENGINE AND ELECTRIC SHIFT GEARBOX



Single Station



Single Mechanical  
Engine



Single Electric  
Shift Transmission

PART NO.	DESCRIPTION
• 4500-ME11	Single Engine, Single Station

**4500-ME11 Kit Includes:** 1 of Actuator Assembly (3500.A-034039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Transmission Cable (3500.46-03000)



4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL,  
SINGLE MECHANICAL ENGINE AND ELECTRIC SHIFT GEARBOX



Dual Station



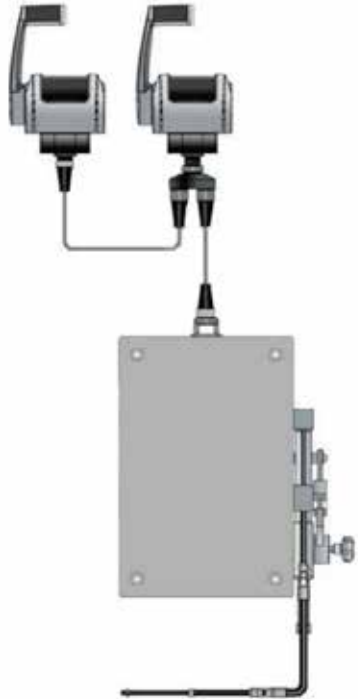
Single Mechanical  
Engine



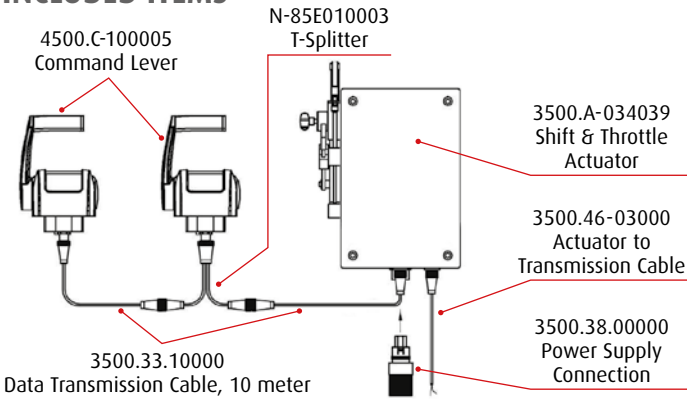
Single Electric  
Shift Transmission

PART NO.	DESCRIPTION
• 4500-ME12	Single Engine, Dual Station

**4500-ME12 Kit Includes:** 1 of Actuator Assembly (3500.A-034039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of CANBus T-splitter (N-85E010003), 1 of Actuator to Transmission Cable (3500.46-03000)



INCLUDED ITEMS



REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN MECHANICAL ENGINE AND ELECTRIC SHIFT GEARBOX



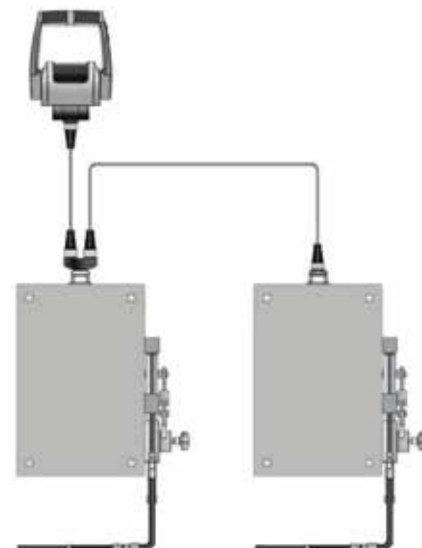
Single Station



Twin Mechanical Engine



Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-ME21	Twin Engine, Single Station

**4500-ME21 Kit Includes:** 2 of Actuator Assembly (3500.A-034039), 1 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN MECHANICAL ENGINE AND ELECTRIC SHIFT GEARBOX



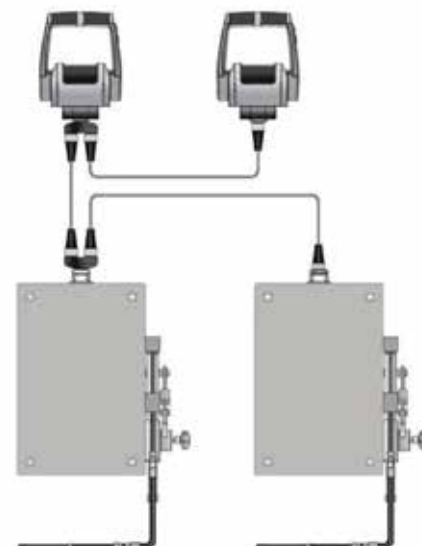
Dual Station



Twin Mechanical Engine



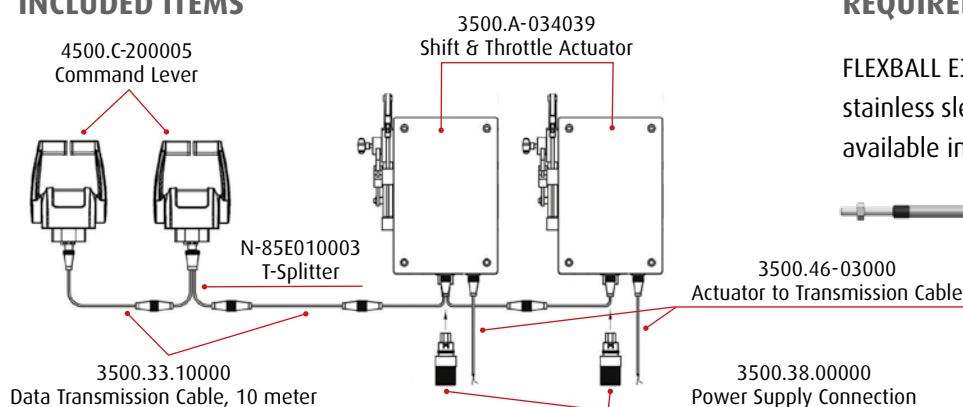
Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-ME22	Twin Engine, Dual Station

**4500-ME22 Kit Includes:** 2 of Actuator Assembly (3500.A-034039), 2 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 2 of CANBus T-splitter (N-85E010003), 2 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL,  
SINGLE ELECTRONIC ENGINE (0-5 VDC) AND MECHANICAL GEARBOX



Single Station



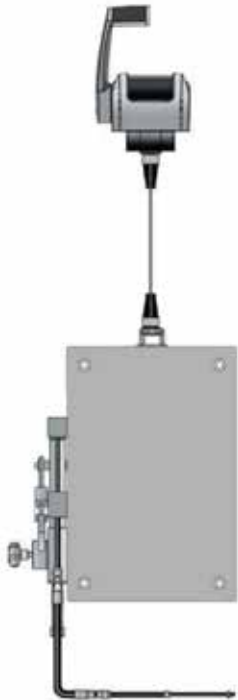
Single Electronic  
Engine (0-5 VDC)



Single Mechanical  
Shift Transmission

PART NO.	DESCRIPTION
• 4500-VM11	Single Engine, Single Station

**4500-VM11 Kit Includes:** 1 of Actuator Assembly (3500.A-184039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of Neutral Signal Connection (3500.36-03000)



4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL,  
SINGLE ELECTRONIC ENGINE (0-5 VDC) AND MECHANICAL GEARBOX



Dual Station



Single Electronic  
Engine (0-5 VDC)



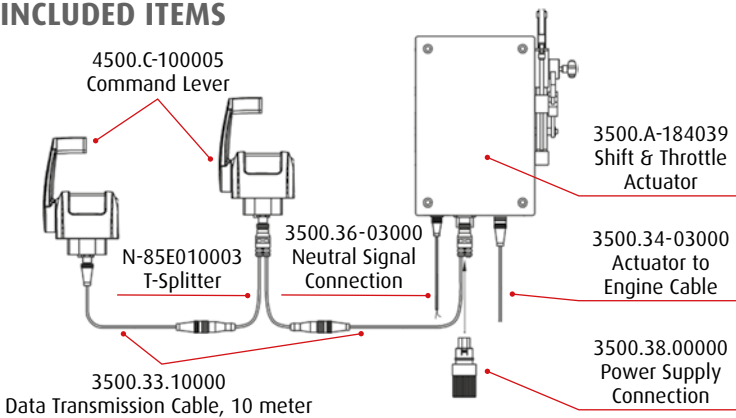
Single Mechanical  
Shift Transmission

PART NO.	DESCRIPTION
• 4500-VM12	Single Engine, Dual Station

**4500-VM12 Kit Includes:** 1 of Actuator Assembly (3500.A-184039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Neutral Signal Connection (3500.36-03000)



INCLUDED ITEMS



REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN ELECTRONIC ENGINES (0-5 VDC) AND MECHANICAL GEARBOX



Single Station



Twin Electronic Engines (0-5 VDC)



Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-VM21	Twin Engine, Single Station

**4500-VM21 Kit Includes:** 2 of Actuator Assembly (3500.A-184039), 1 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Neutral Signal Connection (3500.36-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN ELECTRONIC ENGINES (0-5 VDC) AND MECHANICAL GEARBOX



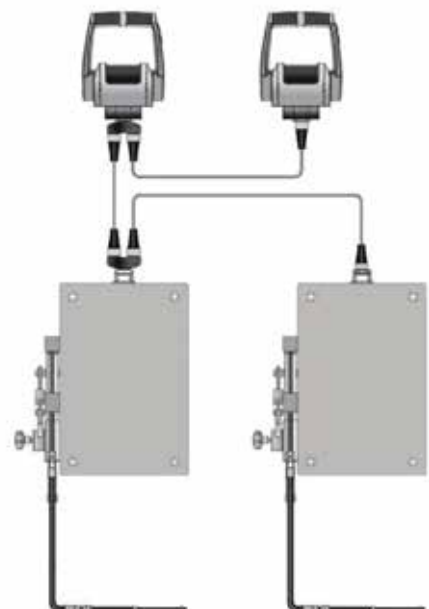
Dual Station



Twin Electronic Engines (0-5 VDC)



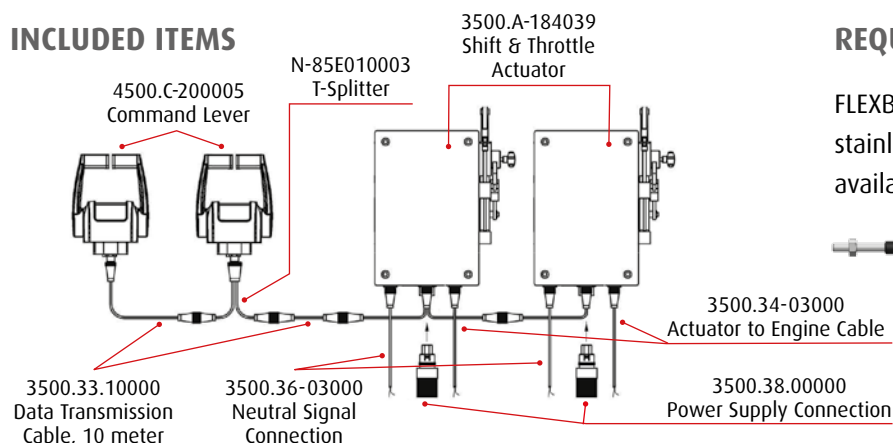
Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-VM22	Twin Engine, Dual Station

**4500-VM22 Kit Includes:** 2 of Actuator Assembly (3500.A-184039), 2 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 2 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Neutral Signal Connection (3500.36-03000)

### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE ELECTRONIC ENGINE (4-20 mA) AND MECHANICAL GEARBOX



Single Station



Single Electronic Engine (4-20 mA)



Single Mechanical Shift Transmission

PART NO.	DESCRIPTION
• 4500-IM11	Single Engine, Single Station

**4500-IM11 Kit Includes:** 1 of Actuator Assembly (3500.A-784039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of Neutral Signal Connection (3500.36-03000)



## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE ELECTRONIC ENGINE (4-20 mA) AND MECHANICAL GEARBOX



Dual Station



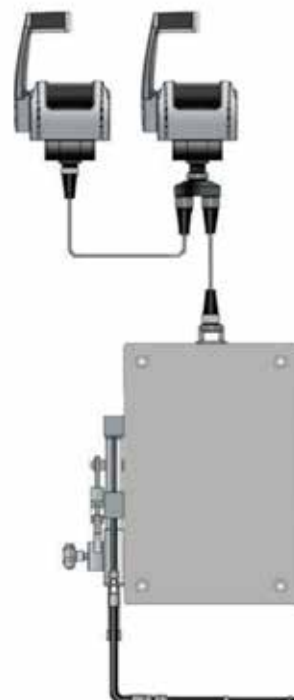
Single Electronic Engine (4-20 mA)



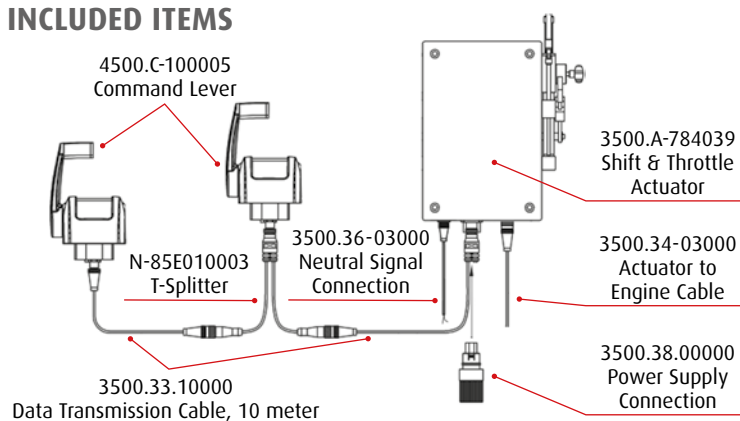
Single Mechanical Shift Transmission

PART NO.	DESCRIPTION
• 4500-IM12	Single Engine, Dual Station

**4500-IM12 Kit Includes:** 1 of Actuator Assembly (3500.A-784039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Neutral Signal Connection (3500.36-03000)



### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN ELECTRONIC ENGINES (4-20 mA) AND MECHANICAL GEARBOX



Single Station



Twin Electronic Engines (4-20 mA)



Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-IM21	Twin Engine, Single Station

**4500-IM21 Kit Includes:** 2 of Actuator Assembly (3500.A-784039), 1 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Neutral Signal Connection (3500.36-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN ELECTRONIC ENGINES (4-20 mA) AND MECHANICAL GEARBOX



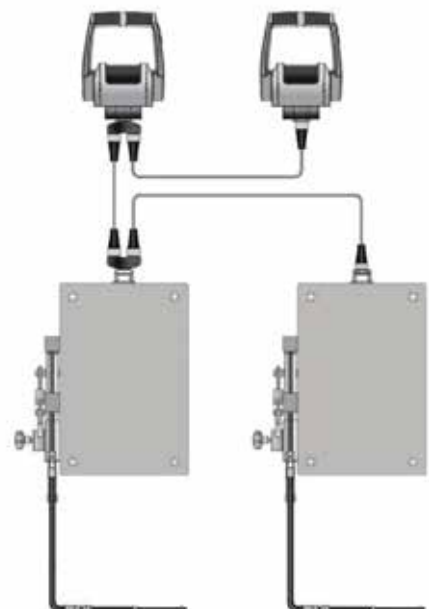
Dual Station



Twin Electronic Engines (4-20 mA)



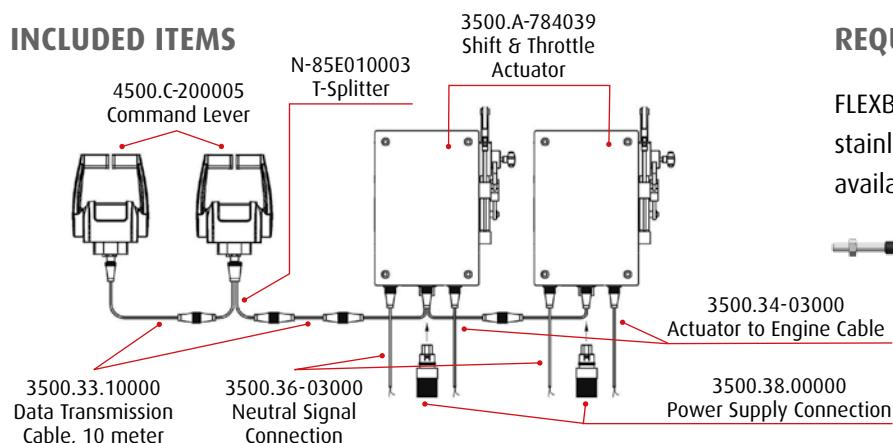
Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-IM22	Twin Engine, Dual Station

**4500-IM22 Kit Includes:** 2 of Actuator Assembly (3500.A-784039), 2 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 2 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Neutral Signal Connection (3500.36-03000)

### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE ELECTRONIC ENGINE (CANBus) AND MECHANICAL GEARBOX



Single Station



Single Electronic Engine (CANBus)



Single Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-CM11	Single Engine, Single Station

**4500-CM11 Kit Includes:** 1 of Actuator Assembly (3500.A-584039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.35-03000), 1 of Neutral Signal Connection (3500.36-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE ELECTRONIC ENGINE (CANBus) AND MECHANICAL GEARBOX



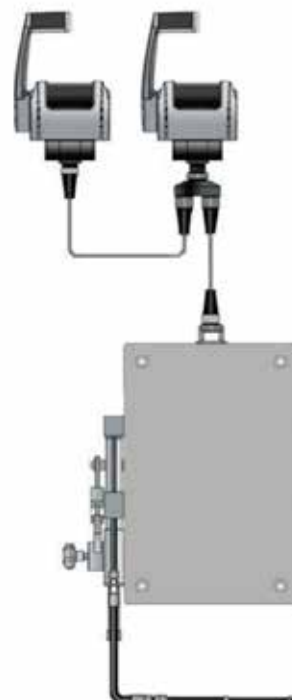
Dual Station



Single Electronic Engine (CANBus)



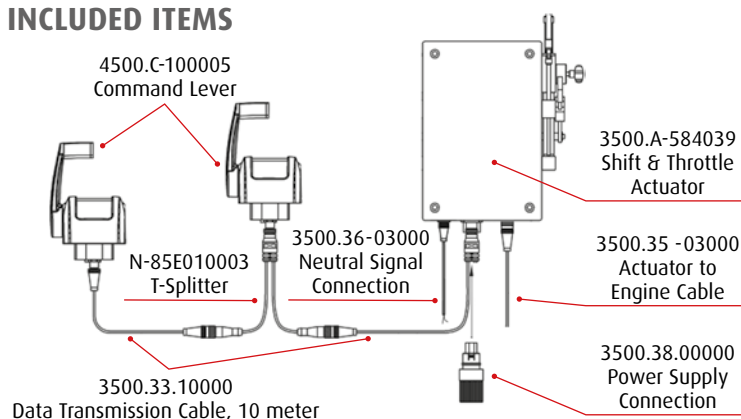
Single Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-CM12	Single Engine, Dual Station

**4500-CM12 Kit Includes:** 1 of Actuator Assembly (3500.A-584039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.35-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Neutral Signal Connection (3500.36-03000)

### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN ELECTRONIC ENGINES (CANBus) AND MECHANICAL GEARBOX



Single Station



Twin Electronic Engines (CANBus)



Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-CM21	Twin Engine, Single Station

**4500-CM21 Kit Includes:** 2 of Actuator Assembly (3500.A-584039), 1 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.35-03000), 2 of Neutral Signal Connection (3500.36-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN ELECTRONIC ENGINES (CANBus) AND MECHANICAL GEARBOX



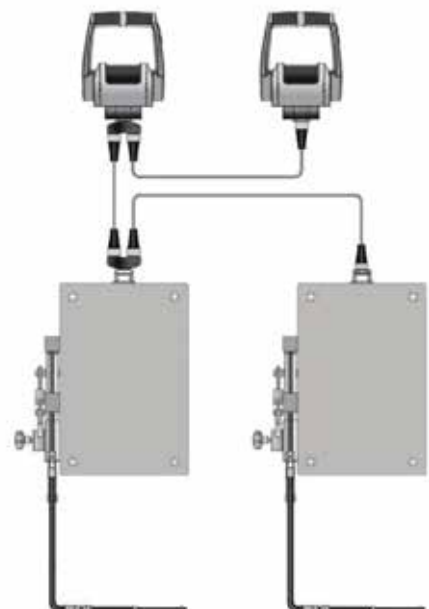
Dual Station



Twin Electronic Engines (CANBus)



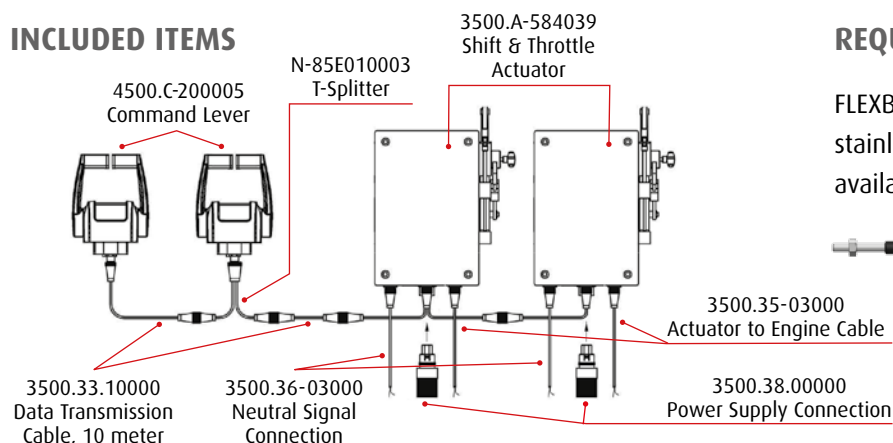
Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-CM22	Twin Engine, Dual Station

**4500-CM22 Kit Includes:** 2 of Actuator Assembly (3500.A-584039), 2 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 2 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.35-03000), 2 of Neutral Signal Connection (3500.36-03000)

### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE ELECTRONIC ENGINE (PWM) AND MECHANICAL GEARBOX



Single Station



Single Electronic Engine (PWM)



Single Mechanical Shift Transmission

PART NO.	DESCRIPTION
• 4500-WM11	Single Engine, Single Station

**4500-WM11 Kit Includes:** 1 of Actuator Assembly (3500.A-384039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of Neutral Signal Connection (3500.36-03000)



## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE ELECTRONIC ENGINE (PWM) AND MECHANICAL GEARBOX



Dual Station



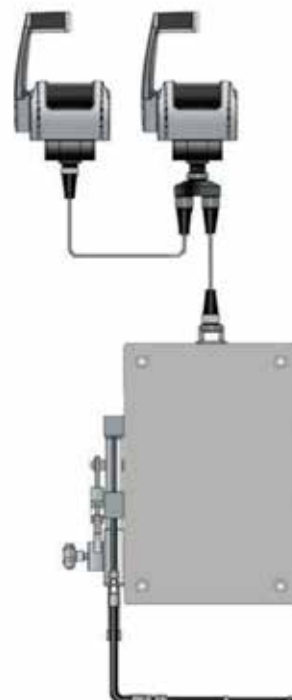
Single Electronic Engine (PWM)



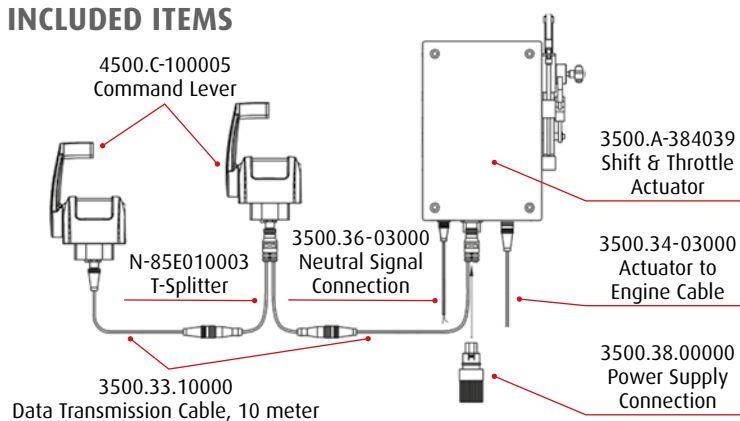
Single Mechanical Shift Transmission

PART NO.	DESCRIPTION
• 4500-WM12	Single Engine, Dual Station

**4500-WM12 Kit Includes:** 1 of Actuator Assembly (3500.A-384039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Neutral Signal Connection (3500.36-03000)



### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN ELECTRONIC ENGINES (PWM) AND MECHANICAL GEARBOX



Single Station



Twin Electronic Engines (PWM)



Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-WM21	Twin Engine, Single Station

**4500-WM21 Kit Includes:** 2 of Actuator Assembly (3500.A-384039), 1 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Neutral Signal Connection (3500.36-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN ELECTRONIC ENGINES (PWM) AND MECHANICAL GEARBOX



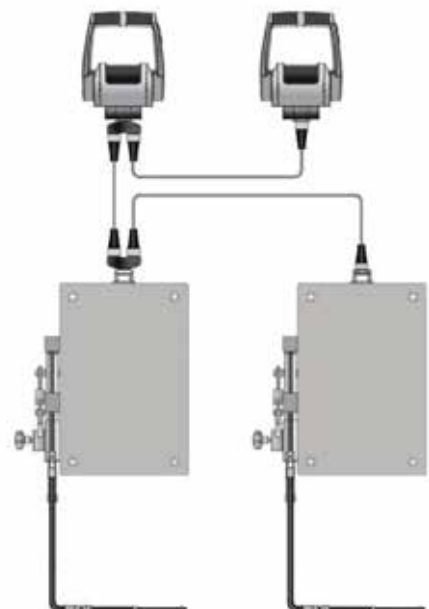
Dual Station



Twin Electronic Engines (PWM)



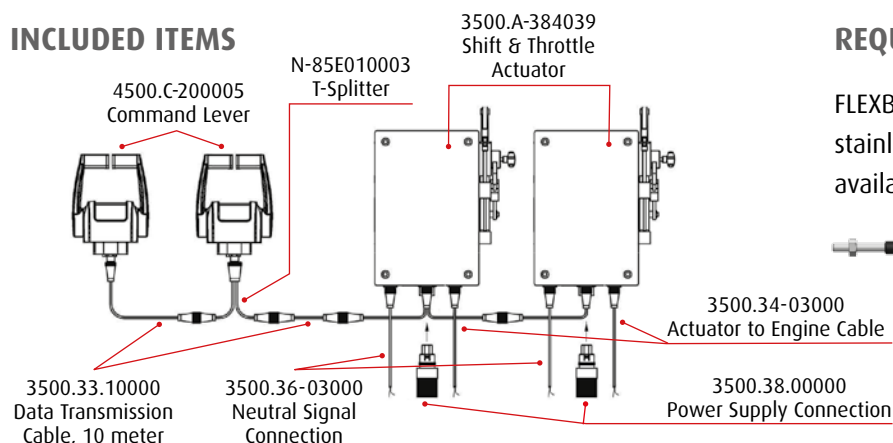
Twin Mechanical Shift Transmission



PART NO.	DESCRIPTION
• 4500-WM22	Twin Engine, Dual Station

**4500-WM22 Kit Includes:** 2 of Actuator Assembly (3500.A-384039), 2 of Command Lever (4500.C-200005), 2 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Data Transmission Cable 3 m (3500.33-03000), 2 of CANBus T-splitter (N-85E010003), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Neutral Signal Connection (3500.36-03000)

### INCLUDED ITEMS



### REQUIRED ITEMS

FLEXBALL E3 Series mechanical cables feature stainless sleeve and core with 10/32 threads, available in different lengths



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE ELECTRONIC ENGINE (0-5 VDC) AND ELECTRIC SHIFT GEARBOX



Single Station



Single Electronic  
Engine (0-5 VDC)



Single Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-VE11	Single Engine, Single Station

**4500-VE11 Kit Includes:** 1 of Actuator Assembly (3500.A-130039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE ELECTRONIC ENGINE (0-5 VDC) AND ELECTRIC SHIFT GEARBOX



Dual Station



Single Electronic  
Engine (0-5 VDC)



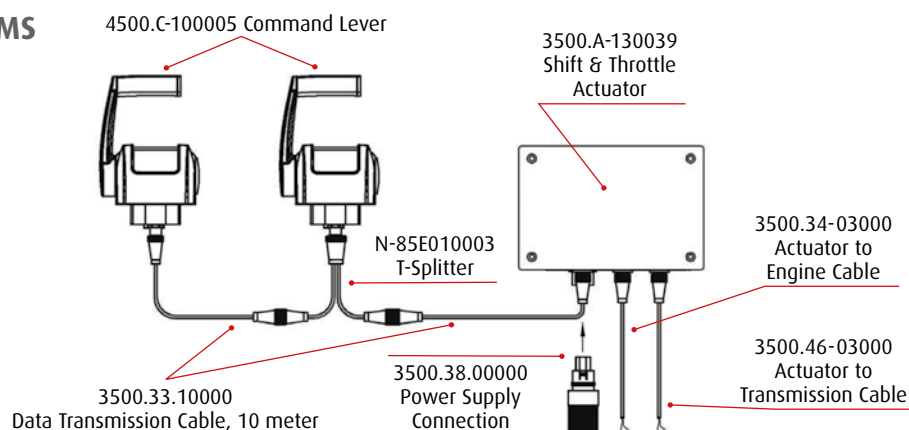
Single Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-VE12	Single Engine, Dual Station

**4500-VE12 Kit Includes:** 1 of Actuator Assembly (3500.A-130039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL,  
TWIN ELECTRONIC ENGINE (0-5 VDC) AND ELECTRIC SHIFT GEARBOX



Single Station



Twin Electronic  
Engines (0-5 VDC)



Twin Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-VE21	Twin Engine, Single Station

**4500-VE21 Kit Includes:** 1 of Actuator Assembly (3500.A-240039), 1 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Actuator to Transmission Cable (3500.46-03000)

4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL,  
TWIN ELECTRONIC ENGINE (0-5 VDC) AND ELECTRIC SHIFT GEARBOX



Dual Station



Twin Electronic  
Engines (0-5 VDC)

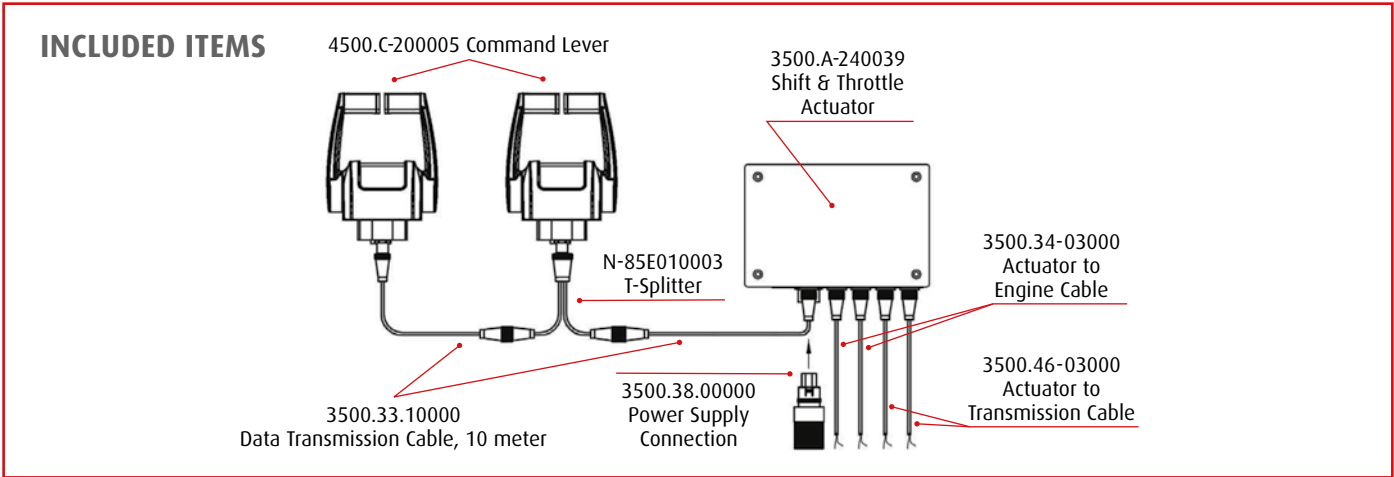


Twin Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-VE22	Twin Engine, Dual Station

**4500-VE22 Kit Includes:** 1 of Actuator Assembly (3500.A-240039), 2 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Transmission Cable (3500.46-03000)



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE ELECTRONIC ENGINE (4-20 mA) AND ELECTRIC SHIFT GEARBOX



Single Station



Single Electronic  
Engine (4-20 mA)



Single Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-IE11	Single Engine, Single Station

**4500-IE11 Kit Includes:** 1 of Actuator Assembly (3500.A-730039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE ELECTRONIC ENGINE (4-20 mA) AND ELECTRIC SHIFT GEARBOX



Dual Station



Single Electronic  
Engine (4-20 mA)



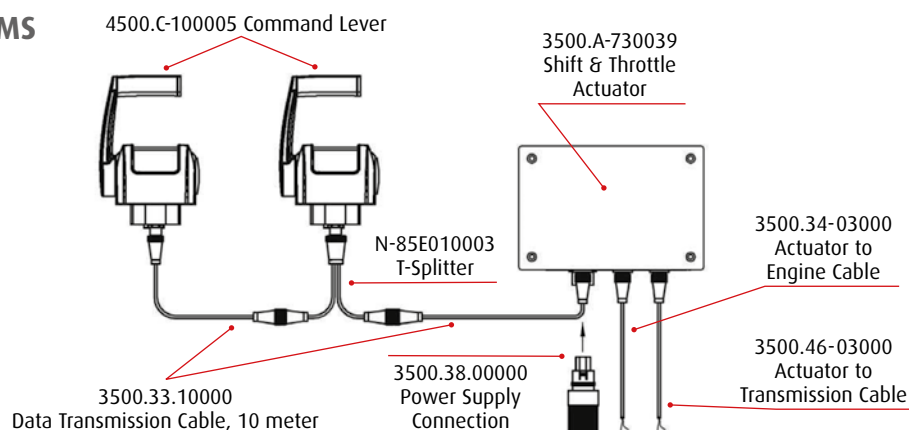
Single Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-IE12	Single Engine, Dual Station

**4500-IE12 Kit Includes:** 1 of Actuator Assembly (3500.A-730039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN ELECTRONIC ENGINE (4-20 mA) AND ELECTRIC SHIFT GEARBOX



Single Station



Twin Electronic  
Engines (4-20 mA)



Twin Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-IE21	Twin Engine, Single Station

**4500-IE21 Kit Includes:** 1 of Actuator Assembly (3500.A-840039), 1 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN ELECTRONIC ENGINE (4-20 mA) AND ELECTRIC SHIFT GEARBOX



Dual Station



Twin Electronic  
Engines (4-20 mA)



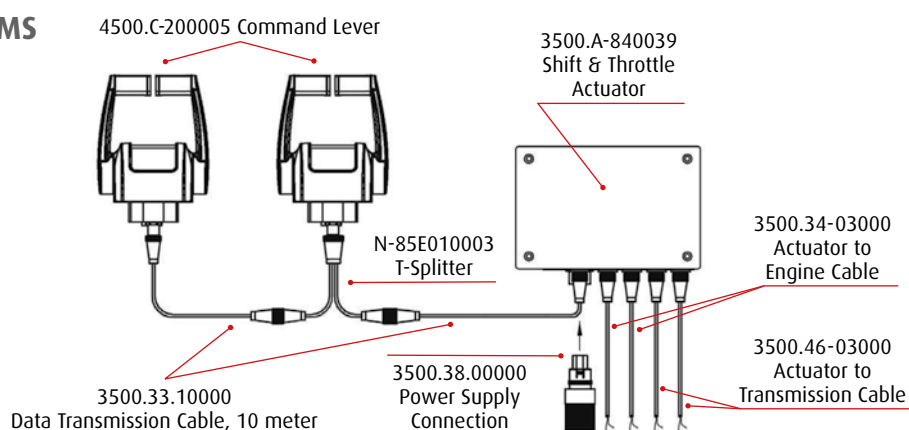
Twin Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-IE22	Twin Engine, Dual Station

**4500-IE22 Kit Includes:** 1 of Actuator Assembly (3500.A-840039), 2 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE ELECTRONIC ENGINE (CANBus) AND ELECTRIC SHIFT GEARBOX



Single Station



Single Electronic  
Engine (CANBus)



Single Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-CE11	Single Engine, Single Station

**4500-CE11 Kit Includes:** 1 of Actuator Assembly (3500.A-530039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.35-03000), 1 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE ELECTRONIC ENGINE (CANBus) AND ELECTRIC SHIFT GEARBOX



Dual Station



Single Electronic  
Engine (CANBus)



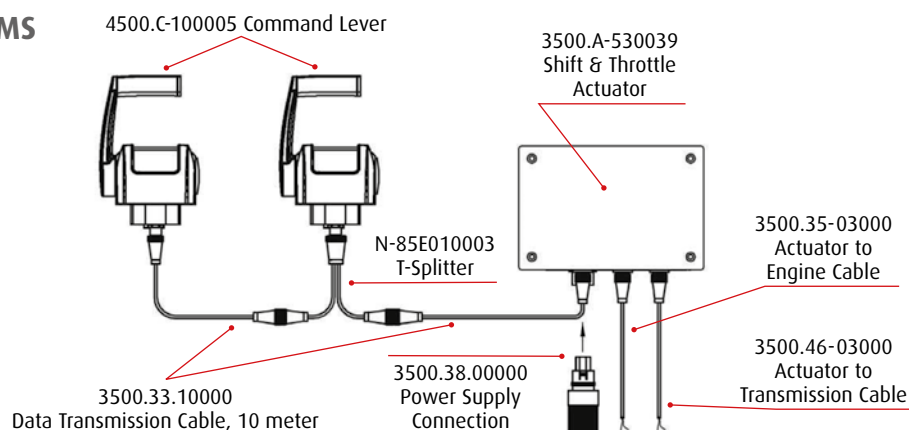
Single Electric  
Shift Transmission



PART NO.	DESCRIPTION
• 4500-CE12	Single Engine, Dual Station

**4500-CE12 Kit Includes:** 1 of Actuator Assembly (3500.A-530039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.35-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN ELECTRONIC ENGINE (CANBus) AND ELECTRIC SHIFT GEARBOX



Single Station



Twin Electronic Engines (CANBus)



Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-CE21	Twin Engine, Single Station

**4500-CE21 Kit Includes:** 1 of Actuator Assembly (3500.A-640039), 1 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.35-03000), 2 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN ELECTRONIC ENGINE (CANBus) AND ELECTRIC SHIFT GEARBOX



Dual Station



Twin Electronic Engines (CANBus)



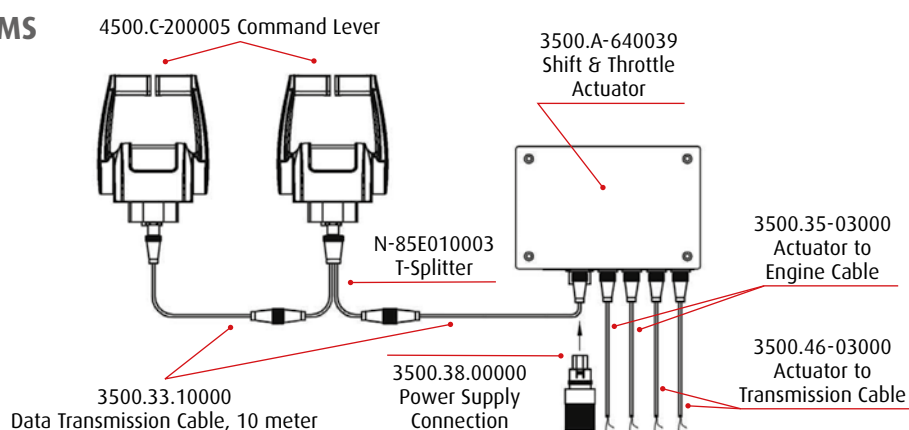
Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-CE22	Twin Engine, Dual Station

**4500-CE22 Kit Includes:** 1 of Actuator Assembly (3500.A-640039), 2 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.35-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, SINGLE ELECTRONIC ENGINE (PWM) AND ELECTRIC SHIFT GEARBOX



Single Station



Single Electronic Engine (PWM)



Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-WE11	Single Engine, Single Station

**4500-WE11 Kit Includes:** 1 of Actuator Assembly (3500.A-330039), 1 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, SINGLE ELECTRONIC ENGINE (PWM) AND ELECTRIC SHIFT GEARBOX



Dual Station



Single Electronic Engine (PWM)



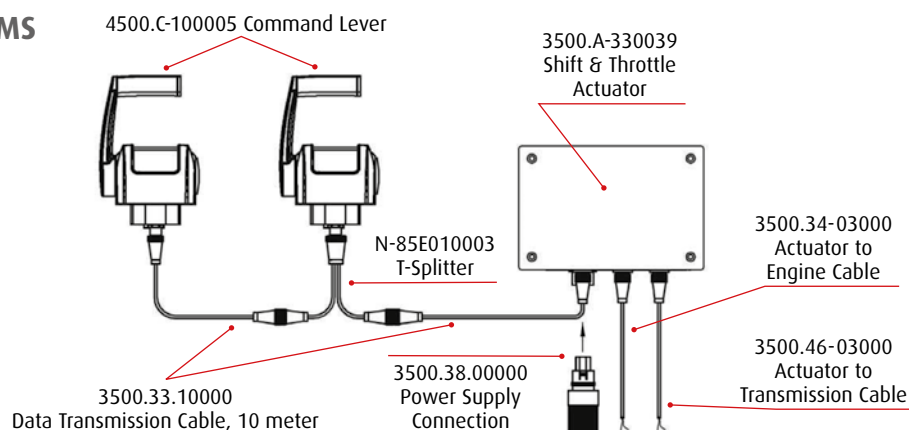
Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-WE12	Single Engine, Dual Station

**4500-WE12 Kit Includes:** 1 of Actuator Assembly (3500.A-330039), 2 of Command Lever (4500.C-100005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 1 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 1 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



## 4500 SERIES SYSTEM FOR USE WITH SINGLE STATION CONTROL, TWIN ELECTRONIC ENGINE (PWM) AND ELECTRIC SHIFT GEARBOX



Single Station



Twin Electronic Engines (PWM)



Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-WE21	Twin Engine, Single Station

**4500-WE21 Kit Includes:** 1 of Actuator Assembly (3500.A-440039), 1 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 1 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.34-03000), 2 of Actuator to Transmission Cable (3500.46-03000)

## 4500 SERIES SYSTEM FOR USE WITH DUAL STATION CONTROL, TWIN ELECTRONIC ENGINE (PWM) AND ELECTRIC SHIFT GEARBOX



Dual Station



Twin Electronic Engines (PWM)



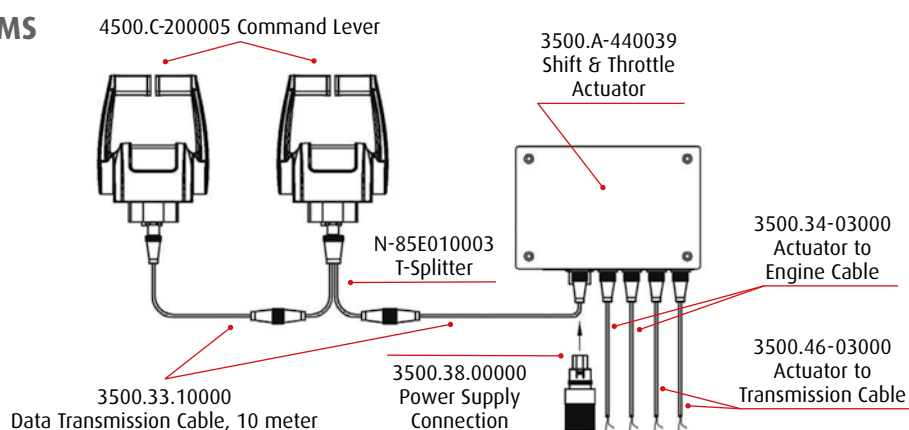
Twin Electric Shift Transmission



PART NO.	DESCRIPTION
• 4500-WE22	Twin Engine, Dual Station

**4500-WE22 Kit Includes:** 1 of Actuator Assembly (3500.A-440039), 2 of Command Lever (4500.C-200005), 1 of Supply Plug (3500.38-00000), 2 of Data Transmission Cable 10 m (3500.33-10000), 2 of Actuator to Engine Cable (3500.34-03000), 1 of CANBus T-splitter (N-85E010003), 2 of Actuator to Transmission Cable (3500.46-03000)

### INCLUDED ITEMS



**FLEXBALL**

**Flexball Italiana S.r.l.**

Via San Luigi 13/A  
10043 - Orbassano (To) Italy

Tel 0039.011.90.38.900

Fax 0039.011.90.38.747

[info@flexballitaliana.com](mailto:info@flexballitaliana.com)

[www.flexballitaliana.com](http://www.flexballitaliana.com)