

Issued: 2/7/92  
Revised: 11/21/19

**W A T E R O U S**

**WATEROUS COMPANY**  
SOUTH ST. PAUL, MINNESOTA

## Pneumatic Shift

REF NO.	DESCRIPTION	REF NO.	DESCRIPTION
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### Index:

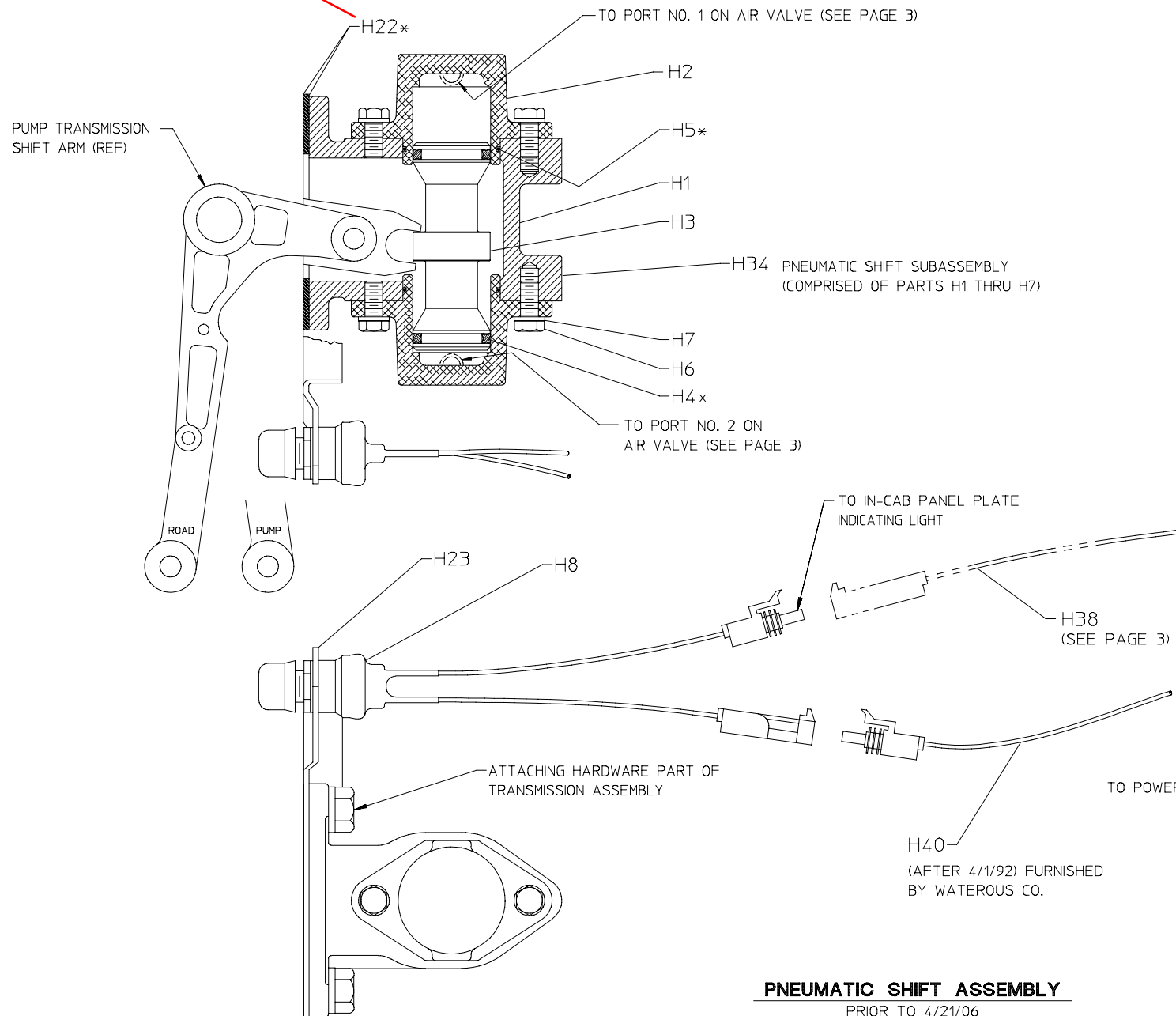
Description	Prior to 4/21/06	After 4/21/06
Shift Unit on Transmission	2	4
In-Cab and Operator's Panels	3	5

H1 Body  
H2 End cap  
H3 Piston  
H4 Quad ring, 1-1/4 x 1-1/2 in.  
H5 O-ring, 1-3/4 x 1-7/8 in.  
H6 Hex hd screw, 5/16-18 x 3/4 in. with thread sealant  
H7 Lock washer, 5/16 in.  
H8 Push button switch  
H17 Wire assembly, white, 4-1/2 in.  
H20 Indicating light, green  
H22 Gasket (Two required, one on each side of H23)  
H23 Shift switch bracket

H29 Panel plate, operators panel  
H30 Panel plate, in cab  
H31 Air control valve  
H33 Light Bulb, 12 volt (#1819), 24 volt (#313)  
H34 Pneumatic shift subassembly  
H38 Wire assembly, black, 25 ft 9 in.  
H39 Wire assembly, black, 18 ft  
H40 Wire assembly, black, 72 in.  
H41 Repair kit, air control valve  
H42 Repair kit (includes H4, H5 and H22)  
H44 In-cab panel mounting hardware  
H45 Operator's panel mounting hardware

**PLEASE NOTE**  
**WHEN ORDERING PARTS PLEASE SUPPLY PUMP SERIAL NUMBER**

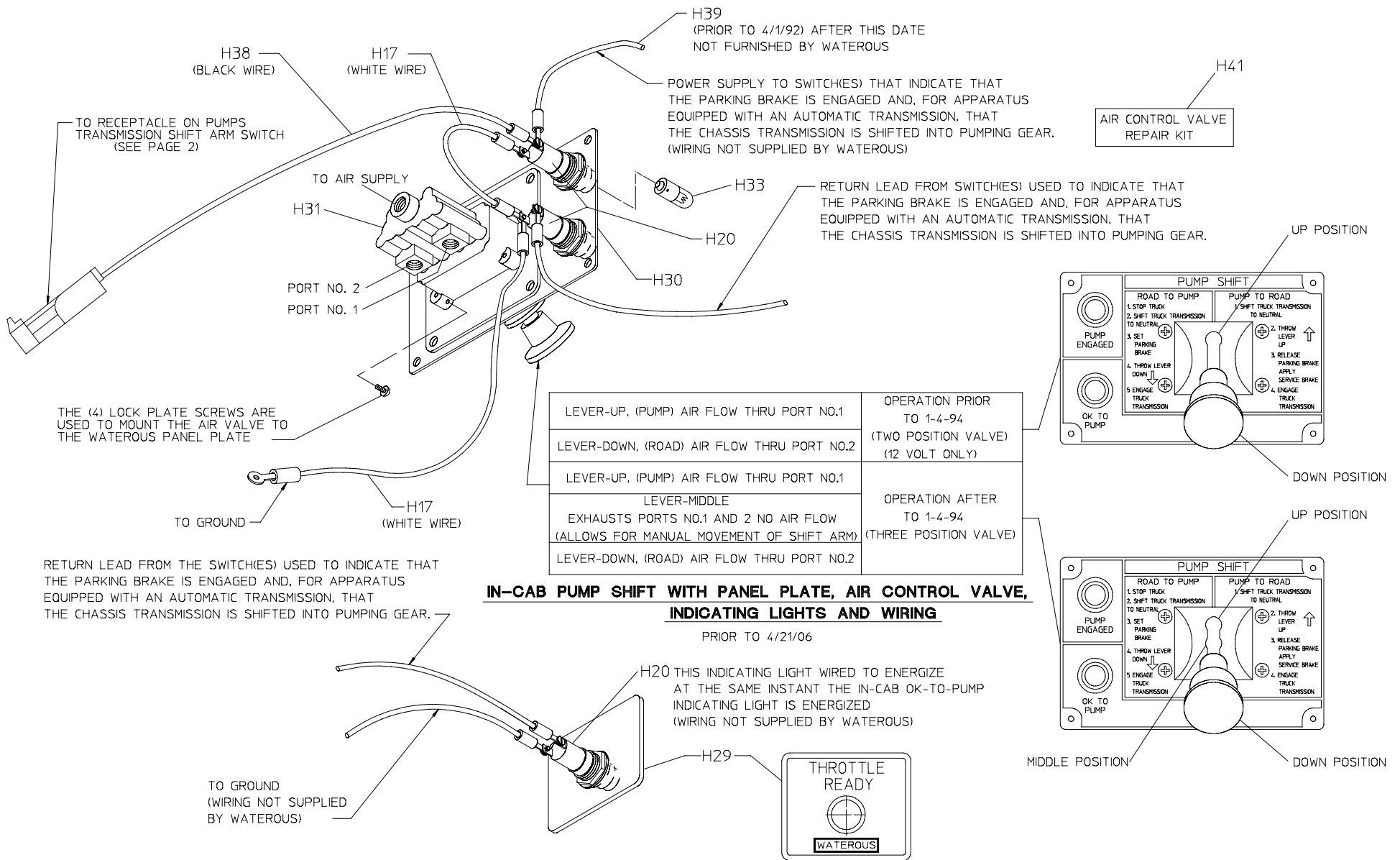
Two Required, one on each side of H23 Bracket



REPAIR KIT H42

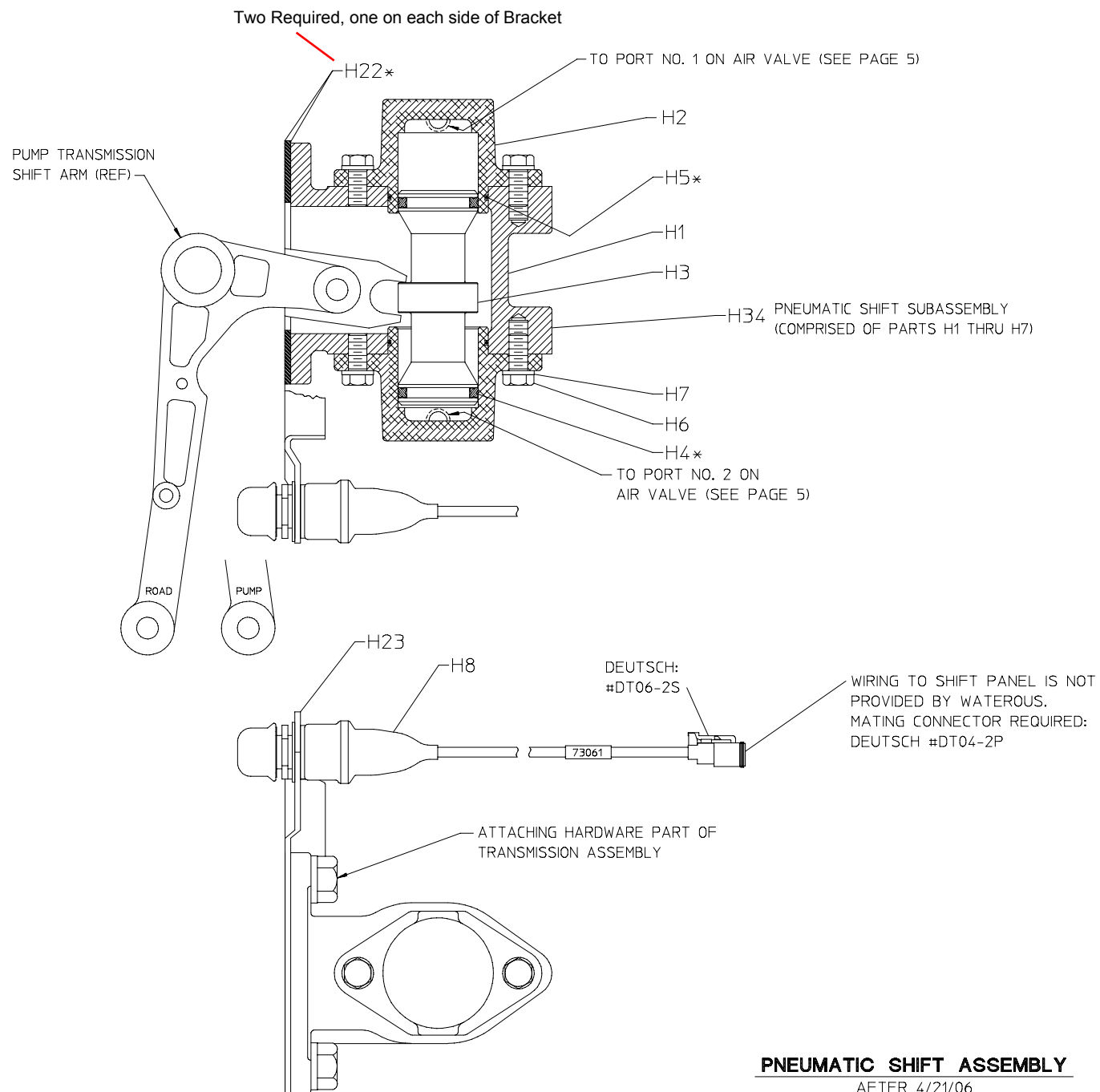
\* PART OF REPAIR KIT H42

**PNEUMATIC SHIFT ASSEMBLY**  
PRIOR TO 4/21/06



### OPERATORS PANEL MOUNTED INDICATING LIGHT AND PANEL PLATE

PRIOR TO 4/21/06



REPAIR KIT H42

\* PART OF REPAIR KIT H42

# **PNEUMATIC SHIFT ASSEMBLY**

AFTER 4/21/06

SPL 81871

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REV: 11/21/19

WIRING TO "PUMP ENGAGED" AND "OK TO PUMP" SWITCH(ES) ARE NOT PROVIDED BY WATEROUS. MATING CONNECTOR REQUIRED: DEUTSCH #DT04-4P EACH LED DRAWS 20mA, SIZE WIRE ACCORDINGLY.

DEUTSCH:  
#DT06-4S

CONTACT ARRANGEMENT  
(SHOWN FROM WIRE  
INSERTION SIDE)



DEUTSCH CONTACT #	WIRE	FUNCTION
1	BLACK	AWG 18 TO GREEN LED "PUMP ENGAGED"
2	GREEN	AWG 18 TO GREEN LED "OK TO PUMP"
3	RED	AWG 18 FROM 12 VDC/24 VDC
4	WHITE	AWG 18 FROM 12 VDC/24 VDC

CABLE TO CABLE MALE PLUG

DEUTSCH:  
#DT06-4S

H41

AIR CONTROL VALVE  
REPAIR KIT

THE (4) LOCK PLATE SCREWS ARE  
USED TO MOUNT THE AIR VALVE TO  
THE WATEROUS PANEL PLATE

TO 12 VDC  
OR 24 VDC  
(RED OR WHITE)  
AWG 18 GA

TO GROUND  
(BLACK)  
AWG 18 GA

TO AIR SUPPLY

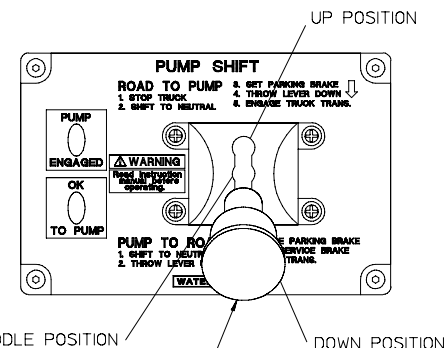
H31

PORT NO. 2

PORT NO. 1

H44  
PART OF H30

H30



LEVER-UP, (ROAD) AIR FLOW THRU PORT NO.1

LEVER-MIDDLE  
EXHAUSTS PORTS NO.1 AND 2 NO AIR FLOW  
(ALLOWS FOR MANUAL MOVEMENT OF SHIFT ARM)

LEVER-DOWN, (PUMP) AIR FLOW THRU PORT NO.2

### IN-CAB PUMP SHIFT WITH PANEL PLATE, AIR CONTROL VALVE, INDICATING LIGHTS AND WIRING

AFTER 4/21/06

"THROTTLE READY"  
CONTACT ARRANGEMENT  
(SHOWN FROM WIRE  
INSERTION SIDE)

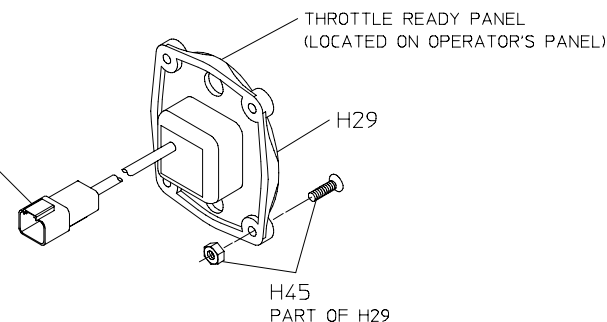


DEUTSCH CONTACT #	WIRE	FUNCTION
1	RED OR WHITE	AWG 16 FROM 12 VDC/24 VDC
2	BLACK	AWG 16 TO GROUND

CABLE TO CABLE FEMALE RECEPTACLE

DEUTSCH:  
#DT04-2P

DEUTSCH:  
#DT04-2P



### OPERATORS PANEL MOUNTED INDICATING LIGHT AND PANEL PLATE

AFTER 4/21/06